

# THE CITY RECORD.

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## THE CITY RECORD.

OFFICIAL JOURNAL OF THE CITY OF NEW YORK.

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BOARD OF CITY RECORD.

GEORGE B. McCLELLAN, MAYOR.

FRANCIS K. PENDLETON, CORPORATION COUNSEL.

HERMAN A. METZ, COMPTROLLER.

PATRICK J. TRACY, SUPERVISOR.

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## TABLE OF CONTENTS.

Approved Papers—		
For the Week Ending November 30, 1907	12469	
Assessors, Board of—		
Public Notices	12479	
Bellevue and Allied Hospitals—		
Proposals	12475	
Board Meetings	12479	
Bridges, Department of—		
Proposals	12483	
Brooklyn, Borough of—		
Proposals	12474	
Public Notices	12473	
Change of Grade Damage Commission—		
Public Notice	12473	
Changes in Departments, etc.	12470	
City Record, Board of—		
Proposals	12483	
Correction, Department of—		
Proposals	12483	
Docks and Ferries, Department of—		
Public Notice	12475	
Education, Department of—		
Proposals	12482	
Estimate and Apportionment, Board of—		
Public Notices	12476	
Executive Department—		
Appointments by the Mayor	12470	
Finance, Department of—		
Corporation Sale of Buildings, etc.	12481	
Notice of Sale of Lands, etc., for Unpaid Taxes and Assessments.	12482	
Notices of Assessments for Opening Streets and Parks	12480	
Notices to Property Owners	12480	
Notice to Taxpayers	12482	
Sureties Required on Various Classes of Contracts	12482	
Fire Department—		
Auction Sale	12475	
Proposals	12475	
Health, Department of—		
Amendment of Sanitary Code	12480	
Proposals	12480	
Report for the Year Ending December 31, 1906	12259	
Municipal Civil Service Commission—		
Public Notices	12475	
Notice to Contractors	12488	
Official Borough Papers	12473	
Official Directory	12470	
Official Papers	12473	
Parks, Department of—		
Proposals	12480	
Police Department—		
Auction Sale	12482	
Owners Wanted for Lost Property	12482	
Proposals	12482	
Report of Sanitary Company (Boiler Squad) for November 20, 1907	12470	
Public Charities, Department of—		
Proposals	12483	
Report for the Week Ending November 16, 1907	12257	
Richmond, Borough of—		
Minutes of Local Board Meeting	12258	
Proposals	12482	
Street Cleaning, Department of—		
Abstract of Transactions for the Week Ending September 29, 1907	12258	
Ashes, etc., for Filling in Lands	12476	
Proposals	12475	
Public Notice	12476	
Supreme Court, First Department—		
Acquiring Title to Lands, etc.	12483	
Supreme Court, Second Department—		
Acquiring Title to Lands, etc.	12484	
Supreme Court, Third Judicial District—		
Notices of Applications for the Appointment of Commissioners of Appraisal	12485	
Water Supply, Gas and Electricity, Department of—		
Proposals	12482	

## DEPARTMENT OF PUBLIC CHARITIES.

List of Changes in the Service of the Department of Public Charities During Week Ending November 16, 1907.

November 8—Banta, Clara, appointed Hospital Helper, Randall's Island, \$240 per annum; certified November 8.

November 8—Barry, David, appointed Hospital Helper, City Training School, \$300 per annum; certified November 8.

November 9—Behan, Patrick, restored to position of Deckhand, steamboats \$500 per annum. (Temporary Pilot).

November 2—Burk, Etta G., dropped, Hospital Helper, Randall's Island, \$240 per annum; illness.

November 11—Byron, Charles, appointed Hospital Helper, General Drug Department, \$600 per annum; certified November 11.

November 13—Clay, Elizabeth L., appointed Hospital Helper, Metropolitan Training School, \$300 per annum; certified November 13.

November 13—Cole, John E., resigned, Hospital Helper, Randall's Island, \$240 per annum.

November 7—Conroy, Mary, resigned, Hospital Helper, Metropolitan Training School, \$300 per annum.

November 12—Evans, Emily, appointed Hospital Helper, New York City Training School, \$360 per annum; certified November 12.

November 13—Evans, Emily, resigned, Hospital Helper, New York City Training School.

October 31—Feeley, William, dropped, Hospital Helper, Randall's Island, \$180 per annum; illness.

November 9—Flanagan, Bernard, resigned, Hospital Helper, Randall's Island, \$240 per annum.

November 12—Foster, Edward, promoted Hospital Helper, Storehouse, \$120 to \$180 per annum; certified November 12.

November 5—Garstang, Sarah J., restored to roll and promoted, Pupil Nurse, City Training School, \$144 to \$180 per annum.

November 2—Gillespie, Florence, appointed Hospital Helper, Randall's Island, \$240 per annum; certified November 2.

November 14—Greaves, Wm., reappointed Stoker, Randall's Island, \$2 per day.

November 1—Grindrod, Nora, appointed Hospital Helper, Randall's Island, \$240 per annum; certified November 1.

November 12—Haines, Thomas, dismissed, Stoker, Randall's Island, \$2 per day; neglect of duty.

November 1—Hanrahan, Michael, promoted Hospital Helper, Randall's Island, \$300 to \$360 per annum.

November 1—Hennessy, John, promoted Hospital Helper, Storehouse, \$150 to \$180 per annum; certified November 1.

November 11—Hennessy, John, dismissed, Hospital Helper, Storehouse, \$180 per annum; overstaying pass.

November 1—Hickey, George, salary reduced, Hospital Helper, Randall's Island, \$480 to \$360 per annum.

November 6—Holahan, James, dropped one day, Hospital Helper, Randall's Island; absence without leave; \$300 per annum.

November 13—Holahan, James, dismissed, Hospital Helper, Randall's Island, \$300 per annum; disorderly conduct.

November 10—Ing, William, appointed Hospital Helper, Randall's Island, \$240 per annum; certified November 10.

November 2—Jenkinson, Lillian E., appointed Hospital Helper, Randall's Island, \$240 per annum; certified November 2.

November 2—Keane, Lena, dismissed, Hospital Helper, Randall's Island, \$240 per annum; insubordination.

November 8—Kelly, Charles, resigned, Hospital Helper, City Training School, \$300 per annum.

November 12—Krenrich, Oscar, dismissed, Hospital Helper, Mechanic, City Hospital, \$720 per annum; intoxication.

November 6—Langan, James, dropped from roll four days (November 6, 7, 8 and 9) Laborer, Randall's Island, \$720 per annum; absence without leave.

November 7—Leonard, John, dismissed, Assistant Cook, Metropolitan Hospital, \$360 per annum; intoxication.

November 8—Lyons, James, appointed Hospital Helper, Bureau Dependent Adults, \$240 per annum; certified November 8.

November 7—McKenna, Frank, resigned, Hospital Helper, Storehouse, \$240 per annum.

November 11—Mahoney, Agnes P., appointed Assistant Superintendent, New York City Training School for Nurses, Blackwell's Island, \$1,200 per annum; certified November 11.

November 13—Murphy, Timothy, resigned, Hospital Helper, Randall's Island, \$240 per annum.

November 6—Murray, John H., dropped, Hospital Helper, Randall's Island, \$240 per annum; one day; absence without leave.

November 1—Oakenfull, Edith, reappointed Hospital Helper, Randall's Island, \$240 per annum.

November 8—O'Brien, Stephen, promoted Hospital Helper, City Hospital, \$120 to \$240 per annum; certified November 8.

November 14—O'Connor, Thomas, reappointed Hospital Helper, Randall's Island, \$240 per annum.

November 11—O'Neill, Mary, appointed Hospital Helper, Metropolitan Training School, \$300 per annum; certified November 11.

November 1—O'Neill, Robert, promoted Hospital Helper, Randall's Island, \$120 to \$240 per annum; certified November 1.

November 11—Osmer, John G., reappointed Hospital Helper, Bureau Dependent Adults, \$240 per annum; certified November 11.

November 7—Pielow, Mary, promoted Assistant Cook, City Training School, \$360 to \$480 per annum.

November 5—Price, Margaret, appointed Hospital Helper, Randall's Island, \$240 per annum; certified November 5.

November 7—Sachs, Gustave, dropped, Hospital Helper, City Hospital, \$240 per annum; own request.

November 9—Shroski, Anthony, restored to position as Deckhand, from \$500 per annum, Steamboats, \$360 per annum.

November 7—Smith, Robert, dismissed Hospital Helper, Storehouse, \$180 per annum; intoxication.

November 14—Touhey, Edward, promoted Hospital Helper, Randall's Island, \$120 to \$240 per annum; certified November 14.

November 12—Wilson, Charles, promoted Hospital Helper, City Hospital, \$120 to \$240 per annum; certified November 12.

November 11—Wilson, James, appointed Hospital Helper, City Training School, \$300 per annum; certified November 11.

November 10—Wunderling, Sophia L., leave granted fourteen days without pay; Hospital Helper, Metropolitan Training School, \$300 per annum.

J. McKEE BORDEN, Secretary.

The following proposals of November 13, 1907, were accepted on November 18, 1907:

No.		
7	2,080 pounds carcasses of sheep, at 12 cents, Richmond	\$249 60
	William Horn, Stapleton, Staten Island, New York City, for—	
1	900 pounds beefsteak, at 14 cents, Richmond	\$126 00
6	2,126 pounds roast beef, at 11 cents, Richmond	233 86
14	474 pounds chickens, at 16 cents, Richmond	75 84
		\$435 70
	Aaron Buchsbaum Company, No. 165 Amsterdam avenue, New York City, for—	
3	1,920 pounds beef chucks, at 8 cents, Richmond	\$153 60
5	250 pounds corned beef, at 10 cents, Richmond	25 00
15	500 pounds turkeys, at 18 cents, Richmond	90 00
		\$268 60

J. McKEE BORDEN, Secretary.

Department of Public Charities,  
Foot of East Twenty-sixth Street,  
New York, November 12, 1907.

JAMES TREGARTHEN SON & CO., Foot of Seventh Street, East River, City:

Dear Sirs—Your proposition of November 8, 1907, to make the following additional repairs to boilers of steamer "Thos. S. Brennan" for the sum of six hundred and thirty-five dollars (\$635), as follows: Work subsequently ordered by United States Inspector:

One hard patch, 48-inch by 22-inch, on shell of one boiler.

One hard patch, 24-inch by 16-inch, on the flue head of boiler.

Re-enforce the plates accommodating the two croton cocks with two 14-bolt patches, increase the hole of valves to 3/4-inch diameter and reconnect valves.

To accomplish this work you will block up the boilers, put two straps on each saddle with holes in them, restore the saddles and put in the needed holes and put boilers back in place; also put new bedding, 9-foot by 9-foot, of fire brick under each ash pan; repair the boiler keelsons under boilers where defective, take up old wood flooring under boilers and renew same with new flooring about 10-foot by 10-foot under each boiler and furnish and put down new air cell asbestos sheets 1-inch thick on top of wood flooring; all work to be done in good workmanlike manner.

(This is accepted with the understanding that all labor and material are to be charged at regular rates and keep careful account of same.)

—is accepted, as above specified, and you are hereby directed to proceed with the work.

By direction of the Commissioner.

Respectfully yours,

J. McKEE BORDEN, Secretary.

Department of Public Charities,  
Foot of East Twenty-sixth Street,  
New York, November 12, 1907.

Mr. WM. C. MEINCH, Schweickert Building, West Sixth Street, Coney Island:

Dear Sir—Your proposition of November 8 to do extra wiring and fixtures according to specification and letter of Department of Water Supply, Gas and Electricity, dated November 1, signed by Chief Engineer of Light and Power, C. F. Lacombe, at the Coney Island Reception Hospital Building, for the sum of \$70, with the understanding that Mr. Louis Stauch is to pay half of this amount, is accepted, as above specified, and you are hereby directed to proceed with the work.

By direction of the Commissioner.

Respectfully yours,

J. McKEE BORDEN, Secretary.



The following proposal of November 13, 1907, was accepted on November 15, 1907:

The Fleischmann Company, No. 701 Washington Street, New York City, for—  
80 pounds of yeast, at \$0.25 per pound..... \$20 00

Department of Public Charities,  
Foot of East Twenty-sixth Street,  
New York, November 14, 1907.

Mr. GEORGE V. COOPER, No. 1570 Broadway, City:

Dear Sir—Your proposition of November 12, 1907, to furnish all labor and material necessary to complete repairs at the Morgue building, Twenty-sixth street, East river, as follows:

Replace damaged wiring and brackets in dissecting room.

Install new gas and electric globes with holders complete where necessary, approximately seven dozen.

Replace broken porcelain reflectors on chandeliers in dissecting room.

Remove old chandelier from dome of building.

All for the sum of sixty-eight dollars and seventy cents (\$68.70).

—is accepted, as above specified, and you are hereby directed to proceed with the work.

By direction of the Commissioner.

Respectfully yours,  
J. McKEE BORDEN, Secretary.

Morgue,  
No. 256 Willoughby Street,  
Borough of Brooklyn, November 12, 1907.

Description of unknown man from foot of Forty-fifth street—Age, about 40 years; height, 5 feet 7 inches; weight, about 160 pounds; color, white; eyes, missing; hair, brown; mustache, none; beard, none; teeth, good. Clothing: Black diagonal sack coat, no vest, gray and black striped trousers, blue negligee shirt, gray woolen underwear, blue cotton socks, black laced shoes, size 8. Condition of body, bad. P. Maguire, Superintendent.

Morgue,  
Foot of East Twenty-sixth Street,  
New York, November 17, 1907.

Description of unknown man from No. 33 Market street—Age, about 30 years; height, 5 feet 9 inches; weight, about 145 pounds; color, white; eyes, blue; hair, light brown; good teeth. Clothing: Wore a gray sack coat, black stripes, name on tag in pocket (John Sheehan); gray mixed goods vest and one figured fancy vest, black and gray striped pants, white suspenders, purple stripes; light blue shirt, halbriggan underwear, black cotton socks, black laced shoes, black derby hat, maker's name (Decker Bros., Clinton street), white striped shirt in parcel. Condition of body, good. Remarks: First joint of middle finger of left hand missing, old ulcers on right shin. No. 7526. Coroner Acritelli. Geo. W. Meeks, Superintendent.

Morgue,  
Foot of East Twenty-sixth Street,  
New York, November 15, 1907.

Description of unknown woman from No. 172 Henry street—Age, about 60 years; height, 5 feet 5 inches; weight, about 130 pounds; color, white; eyes, blue; hair, brown and gray (mixed); all upper front teeth missing. Clothing: Long brown coat, black serge jacket and blue serge jacket, white striped shirt waist, two black skirts and one gray skirt and one gray check skirt, green and white check petticoat, white chemise, blue and white check apron, black belt, black cotton stockings, black laced shoes (men's) (Blyn Bros. make), light brown round cap, white handkerchief, pair of spectacles; address found in pocket of Mr. Ray, No. 256 Madison street. Condition of body, good. Remarks: Old scar on forehead, ulcers on left shin. No. 7524. Coroner Acritelli. Geo. W. Meeks, Superintendent.

Morgue,  
Foot of East Twenty-sixth Street,  
New York, November 15, 1907.

Description of unknown man from hallway, No. 2306 Second avenue—Age, about 45 years; height, 5 feet 5 inches; weight, about 135 pounds; color, white; eyes, brown; hair, dark brown; mustache, brown and gray (mixed); beard, brown and gray (mixed); good teeth. Clothing: Wore a black cheviot double-breasted sack coat and blue serge sack coat, vest and pants and one pair of dark gray pants, white and black check shirt, no underwear, black socks, black laced shoes, black derby hat, with initials E. F. H. perforated in sweatband of hat. Remarks: Old scar on left side of forehead. No. 7523. Coroner Acritelli. Geo. W. Meeks, Superintendent.

Morgue,  
Foot of East Twenty-sixth Street,  
New York, November 11, 1907.

Description of unknown man from Central Park, opposite One Hundred and Fourth street—Age, about 65 years; height, 5 feet 8½ inches; weight, about 150 pounds; color, white; eyes, blue; hair, gray; mustache, black and gray; part of upper front teeth missing. Clothing: Wore a black cheviot sack coat, tag marked Brill Bros.; black cheviot vest and pants, white shirt, black stripes; white linen turnover collar, gray underwear, brown cotton socks, black laced shoes, black derby hat. Condition of body, good. No. 7520. Coroner Acritelli. Geo. W. Meeks, Superintendent.

## DEPARTMENT OF STREET CLEANING.

An abstract of the transactions of the Department of Street Cleaning of The City of New York for the week ending September 29, 1907. (Section 1546, Greater New York Charter.)

### BOROUGH OF MANHATTAN AND THE BRONX.

#### Removal of Incumbrances.

(Section 545, Greater New York Charter.)

Unredeemed incumbrances on hand September 22, 1907.....	962
Incumbrances seized during the week.....	74
	1,036
Incumbrances redeemed .....	122
Incumbrances released free.....	1
	123

Incumbrances remaining on hand September 28, 1907..... 913

#### Moneys Transmitted to the City Chamberlain.

For privilege of trimming scows and at dumps, week ending September 14 .....	\$200 00
For privilege of trimming scows and at dumps, week ending September 21, 1907 .....	200 00
For privilege of trimming scows and at dumps, week ending September 14, 1907 .....	2,112 79
For privilege of trimming scows and at dumps, week ending September 21, 1907 .....	2,112 79
For certain privileges at Clinton street dump, week ending September 14, 1907 .....	35 00
For certain privileges at Clinton street dump, week ending September 21, 1907 .....	35 00
For redemption of incumbrances, week ending September 14, 1907....	270 40
For redemption of incumbrances, week ending September 21, 1907....	61 00

### Bills and Payrolls Transmitted to the Comptroller.

No.	Amount.
348. Sundries .....	\$18,372 43
349. Sundries .....	4,105 77
350. Sundries .....	9,893 24
342. J. H. Timmerman, City Paymaster, wages of employees on steam dumpers, week ending September 22.....	205 24
343. J. H. Timmerman, City Paymaster, wages of employees at incinerators, week ending September 22.....	101 50
344. J. H. Timmerman, City Paymaster, salaries of clerical force....	4,998 32
345. J. H. Timmerman, City Paymaster, salaries of Auto Enginemen	900 00
346. J. H. Timmerman, City Paymaster, salary of Commissioners....	3,020 82
347. J. H. Timmerman, City Paymaster, salary of uniformed force..	17,934 35
352. J. H. Timmerman, City Paymaster, wages of Sweepers, etc., week ending September 26, 1907.....	34,591 62
353. J. H. Timmerman, City Paymaster, wages of Department Cart Drivers, week ending September 26.....	18,101 07

#### Contracts Executed.

September 26—Fiss, Doerr & Carroll Horse Company, No. 153 East Twenty-fourth street, 100 draught horses, Borough of Brooklyn, at \$325 per horse.  
September 26—The Smith-Worthington Company, No. 40 Warren street, 150 sets single cart harness, Manhattan and The Bronx, at \$20.48 per set.  
September 26—Chas. Hvass & Co., Nos. 509 and 511 East Eighteenth street, 50 sweeping machines, Manhattan, The Bronx and Brooklyn, \$287.50 each.  
September 26—W. P. Youngs & Bros., Thirty-fifth street and First avenue, lumber for Manhattan, The Bronx and Brooklyn, Classes I. and II., \$4,136.96.  
Number of loads of material collected during the week September 23 to 29, 1907, inclusive:  
Ashes ..... 28,447¾ || Rubbish ..... | 4,195¾ |
| Garbage ..... | 5,058¾ |
| Total ..... | 37,701¾ |

### BOROUGH OF BROOKLYN.

#### Moneys Transmitted to the City Chamberlain.

For privilege of trimming at incinerator, week ending September 14..	\$20 00
For privilege of trimming at incinerator, week ending September 21..	125 00

### Bills and Payrolls Transmitted to the Comptroller.

No.	Amount.
221. Sundries .....	\$2,757 15
222. Sundries .....	959 80
218. J. H. Timmerman, City Paymaster, salaries of clerical force, month of September .....	2,054 16
219. J. H. Timmerman, City Paymaster, salary of Auto Engineman, month of September .....	100 00
220. J. H. Timmerman, City Paymaster, salaries of uniformed force, month of September .....	8,525 71
223. J. H. Timmerman, City Paymaster, wages of Sweepers, etc., week ending September 26.....	13,521 71
224. J. H. Timmerman, City Paymaster, wages of Department Cart Drivers, week ending September 26.....	10,456 14

Number of loads of material collected during week of September 23 to 29, 1907, inclusive:  
Ashes ..... 6,847 || Paper and rubbish ..... | 2,276 |
| Permit material ..... | 928 |
| Total ..... | 10,051 |

W. BENSEL, Commissioner.

## BOROUGH OF RICHMOND.

### LOCAL BOARD OF THE STATEN ISLAND DISTRICT.

Meeting November 12, 1907, 10.30 a. m.  
Present—Aldermen Collins, Rendt and Cole, President Cromwell.  
The minutes of the meeting of October 29, 1907, were approved.

#### Petition No. 700.

To construct a sewer system in Concord, Ward 4. First hearing. Referred to the Commissioner of Public Works in connection with plan for Sewer District 3.

#### Petition No. 781.

To construct sanitary sewer in Richmond turnpike, from Louis street to Eddy street, Wards 1 and 2. First hearing. Referred to the Commissioner of Public Works.

#### Petition No. 782.

To construct sewer in Winant street, Ward 3. First hearing. Referred to the Commissioner of Public Works.

#### Petition No. 783.

To construct storm water sewer in Green's Field and Henry street, Ward 1. First hearing. Referred to the Commissioner of Public Works.

#### Petition No. 714.

To construct sewer in First avenue, Ward 1. First hearing. Referred to the Commissioner of Public Works.

#### Petition No. 785.

To open Highland avenue, from Amboy road to Boulevard, Ward 4. First hearing. Referred to the Commissioner of Public Works.

#### Petition No. 786.

To pave, gutter and curb Crescent avenue, from Jersey street to Low terrace, Ward 1. First hearing. Referred to the Commissioner of Public Works.  
On motion, the Board adjourned.

MAYBURY FLEMING, Secretary.



## DEPARTMENT OF HEALTH.

## REPORT FOR THE YEAR ENDING DECEMBER 31, 1906.

Report of the Board of Health to His Honor the Mayor Regarding the Operations of the Department of Health of The City of New York During the Year Ending December 31, 1906.

The Board of Health respectfully submits the following report of the various operations of the Department of Health for the year ending December 31, 1906:

There were 111,722 births reported during the year, as against 103,881 reported in 1905. An increase was also noted in the number of marriages, 48,355 being reported as against 42,675 in 1905.

The death rate has been slightly higher than during the preceding year, 76,203 deaths being reported, an increase of 2,489 over the year 1905. On the whole, however, the death rate of the old City of New York (present boroughs of Manhattan and The Bronx) has shown a decrease of 46.70, as compared with the death rate of the old City of New York in 1866, when the Board of Health was first organized.

There has been a decrease in the death rate from typhoid fever, small pox and the diarrhoeal diseases of children. Particular attention is called to this last fact, as there was an actual decrease of 126 deaths from this cause, notwithstanding the increase in the total population. The result is undoubtedly due to a great extent to the efforts of the Department of Health in the line of education of the mothers as to proper methods of infant feeding.

There has been an increase in the death rate from broncho-pneumonia. This is due undoubtedly to the fact that broncho-pneumonia is a common sequelae of measles, and 1906 was a so-called measles year, 40,000 cases being reported against 20,000 during 1905. 8,955 deaths were reported from pulmonary tuberculosis, giving a death rate of 2.16 per 1,000, against 8,335 deaths and a death rate of 2.12 for 1905. Although this increase is a small one, it shows the necessity of persistent attention to this disease by the Board of Health. Not only should the present municipal sanatorium at Otisville be enlarged, but additional sanatoria and hospitals should be erected by the City, affording a means of early diagnosis of the disease, and consequent hope of recovery for those patients unable to pay for medical care.

The death rate from epidemic cerebro-spinal meningitis has materially decreased, showing that the epidemic of the two previous winters has terminated. As a result, a decrease is shown from the diseases classified under the general term of nervous diseases.

Particular attention should be directed to the increase in the death rate from diseases of the heart and kidneys. This increase has not been confined alone to The City of New York, but is general in the large centres of population throughout the country. For the period from 1869 to 1878, the combined average death rate from these diseases in New York City was 17.13 per 10,000, while during 1906 the rate had increased to 27.34. The prevalence of influenza undoubtedly has contributed to this increase, but the most marked contributory causes are those pertaining to the over-activity of city life.

## Sanitary Bureau.

The number of inspections and reinspections of the Sanitary Bureau shows a steady increase over the preceding years, as may be seen from the following table:

1904 .....	1,595,244
1905 .....	2,011,519
1906 .....	2,074,314

Twenty-seven thousand seven hundred and seventy-nine orders were issued for the abatement of nuisances. Of the total complaints investigated, 45,911 were received from citizens, the remainder being taken up on the initiative of the Inspectors.

Complaints cared for by the Sanitary Inspectors cover a wide field, including defective drainage and ventilation, lack of water supply, overcrowding of lodging houses and workshops, noises, smoke, and various violations of the labor law. The city is divided into districts, and in addition to investigating individual complaints, the Inspectors are held responsible for the sanitary condition of their districts.

The smoke nuisance from large manufacturing plants and from locomotives entering the Borough of Manhattan has been materially reduced. The completion of the plan for the installation of electric locomotives on the New York Central and New York, New Haven and Hartford Railroads would mean a complete abatement of this nuisance. During the year the Sanitary Code was altered by amending the section relating to the discharge of smoke, making it broader in its scope, so that it may entirely cover the smoke nuisance.

During the year there were several explosions caused by the leakage of gasoline into the city sewers from garages where automobiles were stored and repaired. Immediate action was taken in this matter, with the result that since the middle of May there has been no evidence of the escape of gasoline into the public sewers, and the Department has received no complaints regarding it.

## Lodging Houses.

The Sanitary Code prescribes that for all lodging houses containing rooms in which there are more than three beds for the use of lodgers, or in which more than six persons are allowed to sleep, a permit from the Board of Health shall be required. There are about 102 lodging houses in the city, and during the past year the total number of lodgings was 17,978.

Although the Charter of The City of New York provides that inspection of lodging houses must be made at least twice a year, it has been found advisable to detail one Inspector solely to this duty, with the result that there have been 2,764 inspections made, an average of 27 to each lodging house. This has resulted in materially improving the sanitary condition of these places.

## Child Labor Law.

In the enforcement of this law, an average of 500 inspections have been made each week. Particular care has been taken in guarding against the violation of this law in the large department stores and the telegraph and messenger service, particularly in the weeks immediately preceding the midwinter holidays. Out of 36,590 inspections made of mercantile establishments, violations of this law were found only in 3½ per cent. of the cases. A new feature of this law which went into effect on October 1, 1906, included the provision that "in cities of the first class, no child under the age of sixteen years would be employed, permitted or suffered to work in or in connection with any such establishment after 7 o'clock in the evening of any day." This section of the law has met with almost universal compliance.

## Health Squad.

The Health Squad has been maintained at a high standard of efficiency, and has materially assisted in the abatement of nuisances and enforcement of Board orders. A total of 3,006 arrests were made by this squad during the year for violations of the Sanitary Code.

## Food Inspection.

During the year 18,276,385 pounds of fruit, food and fish were condemned and destroyed, a decided increase in amount over the preceding year.

In addition to the working force assigned to the inspection of meat in slaughter houses, the inspection of markets and retail butcher shops has made possible more vigorous enforcement of the law in regard to the sale of putrid and tainted meat. During the year 1906, 1,526,239 pounds of meat were condemned and destroyed, an increase of over 300,000 pounds over the amount condemned during the year 1905.

## Milk.

The inspection of creameries shipping milk to the city has been carried on even more systematically than during the previous year. Unsanitary conditions have been remedied by the proprietors, and practically all of the creameries are now in good sanitary condition. Although the Board of Health has no direct authority to compel the owners of these places to make any change in their equipment or methods of handling milk and cream, it has the power to prevent the sale of milk in the city when

there is reason to believe that it is produced or handled in unsanitary surroundings. The effect of this prohibition has been an incentive for the creameries, farms and dairies to observe the rules and regulations of the Department pertaining to this subject.

Early in 1906 it was decided to extend the inspection work of the Department to cover the sanitary supervision of farms and dairies supplying milk to the creameries. This work has been performed as thoroughly as consistent with the limited number of Inspectors assigned to this duty. At present only fifteen Inspectors are detailed to this work, and it is practically impossible for them to cover the entire territory supplying milk to New York City. This territory includes some portion of six States, and there are over forty thousand of the farms and dairies. This plan is an important advance in the work of safeguarding the milk supply, and the results so far obtained have been most satisfactory.

Although the milk supply of New York City is in a purer and cleaner condition than it has ever been before, in order to make it really effective, the staff of Inspectors should be materially increased.

During the year 708 creameries and 11,000 farms and dairies were inspected. The system of inspection includes the careful observation of the milk from the time it leaves the farm until it reaches the consumer.

In the city systematic inspection is made of all shops where milk is sold, and the rules and regulations of the Sanitary Code are strictly enforced. During the year 131,150 inspections were made, 138,729 specimens examined, 41,395 quarts of milk destroyed, and 678 arrests made for violations of the Sanitary Code in regard to milk.

## Slaughter Houses.

Persistent and continuous oversight of the slaughter houses has been maintained for the purpose of keeping these places in a sanitary condition, and preventing the sale of unfit meat. 432,540 cattle, 1,613,385 sheep, 954,141 hogs, 294,921 calves—a grand total of 3,294,987 animals—were slaughtered in the city during the year. On account of the careful inspection and watchfulness maintained by this Department, the bi-products, consisting of fat, blood and offal, were treated and disposed of on the premises without being productive of any nuisance.

## Immigration.

During the month of May, 1906, a new form of contract was executed with the United States Government, through the Commissioner of Immigration of the Port of New York, for the care and treatment of immigrants sick with contagious diseases, and removed to the hospitals of this Department. Compensation at the rate of \$2 a day for each person, and \$14 as the cost of burial of each immigrant who dies, has brought in a total revenue to the Department of \$85,266. The new feature of this contract includes the transportation by the Department of Health of all patients to and from Ellis Island and the Department hospitals. This service is paid for by the government at the rate of \$2 each way for each person transported. This has proven an additional source of revenue to the amount of \$1,314.

## Pension Fund.

The income from searches and transcripts of births, marriages and deaths has amounted to \$21,424.70. This, added to the fines and penalties and interest on money invested, has made a total addition of \$57,222.40 to the pension fund. The total disbursements for the year were \$21,205.24, making the pension fund at the close of the year, \$244,028.97. Four new pensions were granted during the year, and two pensioners who were on the roll died.

## BUILDING OPERATIONS.

## BOROUGH OF MANHATTAN.

## Willard Parker Hospital.

## New Buildings—

Cold storage building erected.  
Animal house erected.  
Temporary boiler house erected.  
Administration building completed.

## Alterations—

Main building entirely remodeled.  
Old boiler house remodeled.  
Upper part of disinfecting station remodeled into a dormitory for help.  
New stalls erected in stable of ambulance station.

## Contracts executed for:

New dormitory building.  
Refrigerating plant.

## North Brother Island.

## Completed—

Two isolation buildings.

## Alterations—

Old coal house altered into a waiting room and discharge room for patients.  
Additional boiler installed in boiler house.  
Work in progress increasing area of the island.  
Contracts executed for repainting of buildings.

## Bronx Office.

New office building provided at an annual rental of \$2,000.  
Alteration of rooms for use as tuberculosis clinic.

## Westchester Property.

Plans accepted in connection with a vaccine station.  
Laboratory building.  
Stable.  
Boiler house.  
Dwelling.

## BOROUGH OF BROOKLYN.

## Kingston Avenue Hospital.

New morgue building being erected.  
Area walls built around the storehouse and laundry building.  
Pipe gallery constructed.  
Addition to stable completed.  
Two additional boilers installed.

## Contracts executed for:

Area walls.  
Incinerator building.  
Pipe system.  
Morgue building.  
Measles pavilion.  
Extension to Nurses' Home.

## Plans received for:

Measles building.

## Plans completed for:

Extension to Nurses' Home.

## Brooklyn Office.

Site obtained and plans drawn for new office building.

## Otisville Sanatorium.

## New Buildings—

Dining pavilion.  
One-story shack.  
Two-story shack.  
Six portable houses.  
Old building renovated, painted and repaired.  
Work in progress on water supply and drainage system.



## Contracts executed for:

Cow stable.  
Dairy.

## Storehouses.

The storehouse system having proved practical, a storehouse has been established at the tuberculosis sanatorium at Otisville. Notwithstanding the isolated location of this sanatorium, and the conditions encountered in securing the services of competent help, the storehouse system has been most successful.

## Diphtheria Antitoxin.

New grades and prices in antitoxin have been instituted and a method perfected whereby antitoxin is prepared for use in syringe containers.

## Steamboat "Riverside."

The steamboat "Riverside" has been delivered to the Department, and is now in commission. This boat, which is used for the transportation of patients ill with contagious diseases, has been built with that purpose in view, and has separate wards and rooms for convalescents, doctors and nurses.

The launch "Pelham," used for conveying passengers and visitors between the Riverside Hospital and the Department dock, has also been put in commission.

## Otisville.

Title to property at Otisville, upon which it had been decided to establish a tuberculosis sanatorium, was obtained by the city early in the year. An outline and complete topographical map of the property has been made, and the installation of water supply and drainage system has been begun. Plans have been prepared for the alteration of existing buildings to render them suitable for occupancy, for shacks or dormitories for patients, and for a cow stable and dairy building. Contracts have been made for the construction of two shacks, a dining hall, cow stable and dairy building, and for the delivery of trees, lumber, cement, pipe fittings, drains, wooden tanks and horses. A storehouse has been established. The site and buildings have been generally improved, and a working force, including Physicians, Nurses, Orderlies and domestic servants has been organized. The first patients were received on July 15, 1906.

Not only is the opening of the Otisville Sanatorium thoroughly justified, but it undoubtedly will be found inadequate to accommodate the number of patients needing treatment. Extended facilities should be supplied by the City, so that all indigent cases may be seen and cared for early in the progress of their disease, making recovery possible, and the probability of spreading the disease unlikely.

## Riverside Sanatorium.

The capacity of this institution is now 116 beds, an increase of 36 beds since 1905. Even with these enlarged facilities, there is constantly a waiting list of patients ready to enter this institution.

## Stereopticon Picture Exhibition.

In order to extend the work of popular education on the subject of tuberculosis, stereopticon exhibitions were given in twenty-three of the public parks of Manhattan during the summer of 1906. Various pictures of general interest were shown, interspersed with pictures relating to tuberculosis, and short pithy sayings in regard to the prevention and care of the disease. These exhibitions have been so successful that it is hoped to extend their scope during the following year.

## Clinic.

The work of the clinic for the treatment of communicable pulmonary diseases had steadily broadened and progressed. It has served as a model for similar institutions elsewhere, and has thoroughly justified its establishment.

Similar clinics were established during the year in the Borough of The Bronx and the Borough of Brooklyn.

During the year 21,197 patients were treated, with an average daily attendance of 70.

The distribution of extra diet in the form of milk and eggs has been continued and has given satisfactory results.

Since the opening of the sanatorium for tubercular patients at Otisville, all applicants have been examined at the clinic, and a Medical Inspector has been detailed to conduct each party of patients to the sanatorium.

## Tuberculosis.

Almost 2,000 fewer cases were reported during 1906 than during 1905, a fact rendered more striking when it is realized that the reporting of these cases is adhered to by physicians more faithfully each year.

## Cerebro-Spinal Meningitis.

Less than one-half as many cases of this disease occurred during 1906 as during 1905, the death rate being reduced from 5.03 to 1.94. During the year these cases have been under strict sanitary supervision.

## Division of Contagious Diseases.

Fewer cases of small pox, scarlet fever, diphtheria, croup and varicella were reported than during the year 1905. Measles showed a decided increase, it being a so-called measles year.

## Medical Inspection and Examination of School Children.

During the year 1906 the regular routine work of excluding from school attendance children ill with contagious diseases has been carried on, with the result that 12,895 children were excluded. This number was nearly 60,000 less than during 1903. This enormous decrease in the number of children excluded is due to the fact that minor contagious ailments are now treated in the schools by the Nurses, and the contagion held in check, thereby making it perfectly safe for children to associate with their schoolmates. This system has been a great aid in the educational advancement of the child, as practically no time is lost from school work, and the personal efforts of the Nurses, in not only treating these children at school, but in visiting at their homes and seeing that the treatment is persistently carried on, has been an invariable aid in promoting hygienic conditions and personal cleanliness.

The Nurses of this division have done much of the routine of the inspection of the school children, formerly a part of the doctor's duty. Medical Inspectors have devoted this extra time to giving a complete physical examination of the children. During the year 79,203 children were examined, and it was found that 56,259 showed some mental or physical defect. When any abnormality is found to exist, a postal card is sent to the parents of the child, telling them of this fact, and advising them to take the child to a physician or dispensary for treatment. A return postal card is attached, with the request that the attending physician fill this out and mail it to the Department. It is thus possible to keep in touch with the disposition of the case, and the number of these cards received has been most gratifying, as showing a tendency on the part of the parents to care for their children and have their defects remedied as soon as the matter is brought to their attention.

## Nursing.

There are at present fifty-three Nurses assigned to duty in the work of medical inspection of school children, and caring for cases of contagious disease. The work has been pursued along the same lines instituted in 1905, and the results have been most satisfactory.

The school Nurses have made particular effort to see that all children with defective eyesight have been supplied with glasses, and this result has often been accomplished only as the result of great personal expenditure of time and effort.

Children with other physical defects have been taken by the Nurses to physicians or dispensaries when it has seemed evident that the parents were too busy to do so themselves.

The work of the Nurses assigned to duty in the care of contagious diseases has undoubtedly resulted in less fear among the more ignorant population as to the effects of having the case reported to the Department of Health. Isolation is more easily maintained, and the patient's chances for recovery heightened, in instances where the Nurses assist in the care of the case.

## Ophthalmological Work.

For the treatment of trachoma, the Department of Health has at its disposal a hospital of twenty beds, situated at One Hundred and Eighteenth street and Pleasant avenue, and a dispensary situated at Gouverneur Slip.

The medical staff assigned to this work consists of eight physicians, all of whom are qualified oculists. The number of cases of trachoma treated by operation during 1906 was 1,385, or 3,000 less than during 1903. The number of treatments given, however, were 187,717, an increase of over 40,000 over the number during 1903. These figures show that, although the number of cases of trachoma has not materially decreased, the type of case is much improved, as those requiring operation are few in number, regular treatment curing the type now encountered.

## Sanitary Bureau.

The following is a condensed summary of the amount of work performed by the Sanitary Bureau during the year 1906:

Number of inspections and reinspections.....	2,074,314
Number of complaints forwarded for orders.....	27,779
Number of inspections of mercantile establishments.....	36,590
Number of nuisances abated by personal effort by the Sanitary Squad (Police).....	31,141
Total number of pounds of milk, fruit, food, meat and fish condemned and destroyed.....	18,276,385
Total number of vaccinations performed.....	152,420
Number of infected rooms disinfected.....	86,174
Number of examinations of school children.....	5,007,244
Number of school children excluded.....	12,895
Number of physical examinations (Manhattan), school children.....	79,203
Number of bacteriological diagnoses of suspected diphtheria.....	25,416
Number of bacteriological examinations of suspected tuberculosis.....	21,779
Number of specimens of blood examined for typhoid fever reaction, Widal test.....	6,160
Number of specimens of urine examined for typhoid fever reaction, Diazo..	1,220
Number of specimens of blood examined for malarial organisms.....	1,198
Number of chemical analyses.....	13,022
Number of milk inspections (year 1905, 104,794).....	131,150
Number of specimens of milk examined.....	138,729
Number of quarts of adulterated milk destroyed.....	41,395
Number of milk inspections outside City of New York.....	11,708
Amount of fines for violations of milk ordinances.....	\$13,045 00

## Number of Contagious Diseases Reported—

Year 1905.....	50,258
Year 1906.....	70,604

## Number of Communicable Diseases Reported—

Year 1905.....	31,516
Year 1906.....	32,764

## Number of Patients Treated at—

	1905.	1906.
Reception Hospital.....	1,894	1,954
*Willard Parker Hospital.....	478	988
Riverside Hospital.....	2,048	2,231
Kingston Avenue Hospital.....	2,263	3,078

\*Hospital closed from June 17, 1905, to March 14, 1906.

Number of Milk Inspectors on January 1, 1906.....	17
Number of Milk Inspectors on January 1, 1907.....	32

The following is a report of the work performed in the office of the Secretary for the year ending December 31, 1906, as accomplished under the Chief and Auditing Clerk of the Department of Health and the Assistant Chief Clerks assigned to duty in the various boroughs of the City:

## Chief Clerk.

Report of the work performed in the office of the Chief Clerk during the year 1906, subdivided into classes established so that proper supervision can be at all times maintained, and thus controlling the organization of this branch of the service:

## Finances of the Department.

The following appropriations were approved by the Board of Estimate and Apportionment for the support and maintenance of the Department of Health during the year 1906, as follows:

## Statement of Appropriations.

Title.	Amount.
Salaries—	
Board of Health and Executive Officers.....	\$53,557 00
Officers, Clerks, Inspectors and other employees.....	590,815 00
Supplies and Contingencies.....	44,073 00
Hospital Fund (excluding payments to private hospitals).....	170,871 66
Disinfection.....	68,050 00
Bacteriological Laboratory.....	63,850 00
Salaries—Medical School Inspection.....	159,000 00
Abatement of Nuisances.....	1,600 00
Support of Ambulance Service.....	28,100 00
Removal of Night Soil, Offal and Dead Animals.....	69,880 00
Sanitary Police.....	94,600 00
Total.....	\$1,344,396 66

Statement of Revenue Bond Funds and Corporate Stock issued during the year 1906, for the purposes specified, and to also provide for lack of funds, caused by the insufficiency of appropriations:

## Revenue Bond Funds Issued.

Jan. 12, 1906.	Supplies, etc., Tuberculosis Sanatorium.....	\$70,000 00
Feb. 2, 1906.	Salaries for Nurses.....	10,000 00
Mar. 16, 1906.	Salaries for Nurses.....	45,000 00
July 6, 1906.	Salaries for Nurses.....	2,437 50
Feb. 2, 1906.	Antitoxin.....	22,000 00
Feb. 2, 1906.	Drug Laboratory.....	10,000 00
Feb. 2, 1906.	Tuberculosis Clinic.....	10,000 00
Feb. 2, 1906.	Medical Commission (pneumonia).....	10,000 00
Feb. 2, 1906.	Medical Commission (meningitis).....	5,000 00
Mar. 16, 1906.	Trachoma Hospital.....	25,000 00
May 11, 1906.	Salary, Bacteriological Laboratory.....	20,000 00
May 11, 1906.	Salary, Officers, Clerks, Inspectors, etc.....	165,000 00
July 6, 1906.	Salary, Officers, Clerks, Inspectors, etc.....	18,900 00
July 6, 1906.	Salary, Officers, Clerks, Inspectors, etc.....	7,200 00
May 11, 1906.	Hospital Fund.....	20,000 00
May 11, 1906.	Supplies and Contingencies.....	40,000 00
May 11, 1906.	Disinfection.....	10,000 00
May 11, 1906.	Summer Corps.....	31,000 00
July 6, 1906.	Reindexing, etc.....	5,000 00
July 6, 1906.	Salary, Medical School Inspectors.....	11,000 00
Nov. 23, 1906.	Salaries.....	38,720 00
Total.....		\$576,257 50



## Corporate Stock.

Sept. 14, 1906. Sites and Buildings, Tuberculosis Sanatorium..... \$225,000 00

The annual estimate of the amounts required for the maintenance of the Department during 1907 was prepared during July and August, and presented to the Board of Estimate and Apportionment on August 15, 1906, the date requested.

After strict examination by representatives of the Comptroller, and by a Committee of the Citizen's Union, who each made an exhaustive investigation into, and a report upon, the records of this office, the sum of \$1,847,819.66 was allowed and included in the Budget for 1907, as against \$1,344,396.66 allowed in the Budget for 1906, an increase of \$503,423.

The methods of accounting and the condition of the accounts were pronounced to be excellent by the investigators.

Comparative Statement of the Moneys Received Through the Various Financial Resources of the Department of Health During the Period from 1902 to 1906, Inclusive.

Year.	Appropriation.	Bond Issue.	Sales of Laboratory Products.	Care and Maintenance of Immigrants.	Total.
1902.....	\$984,391 48	\$242,662 50	\$32,048 13	\$35,272 00	\$1,294,374 11
1903.....	1,034,391 48	230,600 00	21,432 91	33,726 00	1,320,150 39
1904.....	1,109,391 48	429,458 00	28,353 61	24,256 00	1,591,459 09
1905.....	1,259,391 48	424,397 88	32,368 32	47,546 00	1,761,703 68
1906.....	1,344,396 66	576,257 50	25,638 08	86,580 00	2,032,872 24

Comparative Statement of All Moneys Expended for Salaries by the Department of Health in All Its Branches.

Year.	Expended.	Number of Employees.	Number of Physicians.
1902.....	\$1,294,374 11	1,120	325
1903.....	1,320,150 39	1,196	340
1904.....	1,591,459 09	1,270	368
1905.....	1,761,703 68	1,474	380
1906.....	2,032,872 24	1,710	447

In connection with the payment of carfare bills, telephone calls, and other incidental expenses contracted by the various employees of the Department in the transaction of official business, it was the previous custom of the Chief Clerk of the Department to deposit checks received from the Department of Finance for vouchers submitted with claims, to the credit of his personal bank account, and to draw checks to individuals in payment against same so that a permanent receipt could be filed in this office. For the purpose of eliminating any opportunity for adverse criticism and the necessity for the drawing of personal checks in the official financial transactions of this office, a bank account was established with the Van Norden Trust Company, corner Fifth avenue and Sixtieth street, New York City, in the name of the Department of Health, City of New York, by James McC. Miller, Chief Clerk, on December 16, 1905, which has proved a more practical way of maintaining a proper official record of such transactions.

During the month of May, 1906, a new form of contract was executed with the United States Government through the Commissioner of Immigration at the Port of New York, for the care and treatment of immigrants sick with contagious diseases, for one year, from July 1, 1906, to June 30, 1907, in the hospitals of the Department, with compensation at the rate of \$2 per day for each patient, and for the burial of such immigrants as may die and are buried by the Department, the sum of \$14 for each and every burial, which was a source of revenue to the amount of \$85,266.

A new feature of this contract was the agreement of this Department to furnish comfortable and suitable ambulance transportation for such immigrants at the rate of \$2 each way for every person transported to and from the locations designated, which proved an additional source of revenue to the amount of \$1,314, making a grand total of the sum of \$86,580 received for this purpose, which was applied to the Hospital Fund for the year 1906.

During the year 1906 the Board of Health, pursuant to section 1197 of the Greater New York Charter, ordered the Chief Clerk of the Department of Health to execute a contract for work necessary to be done to abate nuisances existing on certain premises, making the charges therefor a lien upon said property, for the reason that the terms of the orders remained uncomplied with, and no responsible representative could be found in the City from whom to obtain the proper enforcement of said orders. The premises were:

Nos. 212 and 248 East One Hundred and First street, Manhattan.

Southwest corner of One Hundred and Thirty-fourth street and Park avenue, Manhattan.

Northeast corner of One Hundred and Forty-ninth street and Broadway, Manhattan.

Bay and Clinton street, Second Ward, Richmond.

No. 245 East One Hundred and Twenty-seventh street, Manhattan.

A personal inspection was made of each of the above-named premises and the existing nuisances thereat abated without any cost whatsoever to the Department of Health, inasmuch as responsible persons were found who remedied the existing unsanitary condition. Had it been found necessary to enforce the orders of the Board it would have been necessary to expend in the neighborhood of \$1,100 of the appropriation for the abatement of nuisances for the year 1906. This, of course, under the circumstances, can be regarded as a saving to the Department of the amount stated.

Tabulated statement of cash received in the transaction of the business of the Department during 1906, deposited in banks and transmitted to the City Chamberlain or to the Trustees of the Health Department Pension Fund, as follows:

1906.	Care of Immigrants.	Antitoxin.	Virus.	To City Chamberlain	Pension Moneys.	To Trustees of Pension Fund.
January .....	\$5,844 00	\$1,228 91	\$462 39	\$7,535 30	\$8,891 70	\$8,891 70
February .....	5,750 00	1,833 07	440 05	8,023 12	3,967 00	3,967 00
March .....	3,622 00	1,363 25	652 26	5,637 51	3,214 70	3,214 70
April .....	.....	1,223 35	843 90	2,067 25	3,244 75	3,244 75
May .....	6,606 00	1,444 27	1,129 54	9,179 81	4,668 91	4,668 91
June .....	13,478 00	1,457 55	765 29	15,700 84	3,521 50	3,521 50
July .....	28,520 00	971 63	511 51	30,003 14	5,228 30	5,228 30
August .....	.....	514 62	462 72	977 34	5,538 24	5,538 24
September .....	6,206 00	453 82	896 29	7,556 11	2,317 40	2,317 40
October .....	8,548 00	1,181 29	1,065 74	10,795 03	2,295 00	2,295 00
November .....	4,526 00	3,896 68	712 46	9,135 14	5,963 20	5,963 20
December .....	3,480 00	1,817 93	309 56	5,607 49	8,371 70	8,371 70
Total .....	\$86,580 00	\$17,386 37	\$8,251 71	\$112,218 08	\$57,222 40	\$57,222 40

## Summary.

Received.		Disbursed.	
Care of immigrants.....	\$86,580 00	To Chamberlain .....	\$112,218 08
Antitoxin.....	17,386 37	To Trustees of Pension Fund.....	57,222 40
Virus .....	8,251 71		
Pension .....	57,222 40		
Total received.....	\$169,440 48	Total disbursed .....	\$169,440 48

All moneys collected by the Department are received in this office. These moneys are derived from the following sources, viz.: The sale of laboratory products; the care, maintenance and transportation of immigrants; and fines and penalties for violations of the Sanitary Code, and transcripts of the records of the Department. The money received for laboratory products and that for the care and maintenance of immigrants is paid over to the City Chamberlain each month, and added to the Department appropriations. The money received for fines and penalties and that from transcripts is added to the Health Department Pension Fund.

## Accounts of the Department.

The system of accounting established includes principally the keeping of the following books:

Appropriation Ledger—Showing the various appropriations allowed by the Board of Estimate and Apportionment in the Annual Budget, and such additional sums as may be obtained from the sale of Revenue Bonds and Corporate Stock for the maintenance of the Department; also, liabilities incurred and forwarded to the Department of Finance for payment.

Liability Books—Showing the estimated and actual expense incurred in each transaction, so that the condition of each account may be determined at any time.

Monthly Balance Book—Showing at the termination of each month the financial condition of all appropriations, Revenue Bond and Corporate Stock accounts.

Payroll Ledgers—One for each borough, recording the name, compensation and time employed of each employee, as indicated by the monthly payroll.

Segregation Ledger—For statistical information, showing amount expended for any class of material or purpose, and the branch of the service incurring the same.

Record of Burial of Deceased Soldiers—Forwarding to Department of Finance claims for the burial of deceased honorably discharged veterans.

The above books are not the only accounts kept in this office, but are specified as those containing a record of the financial transactions of this Department.

Trial balances are made monthly showing the liabilities and assets of the Department, a copy of which is forwarded each month to his Honor the Mayor for his information.

Systems have been devised and successfully installed in the Stationery Office, the Drug Laboratory and the Storehouse at Otisville, N. Y., which govern the receipt and distribution of supplies in these divisions, and which are now working smoothly and satisfactorily.

A new method of accounting governing the distribution of hydrophobia treatment and laboratory products was put into effect, and many changes in the system controlling the sale of diphtheria antitoxins were made, owing to a change in the style and price of the containers.

The Clerk in charge of the accounting of the distribution of laboratory products, Mr. J. W. Stagg, resigned on May 31, his place being taken by Mr. D. A. Mulholland of the general auditing force.

## Horse Register.

A horse register was installed, containing a full description of each horse, giving the number, color, age, special marks, where stabled, and work performed, which shows that the Department owns the following horses, distributed as follows:

Antitoxin Stable, Borough of Manhattan.....	18
Other places, Borough of Manhattan.....	15
Borough of The Bronx.....	13
Borough of Brooklyn.....	24
Borough of Queens.....	7
Borough of Richmond.....	2
Tuberculosis Sanatorium, Otisville.....	25
Total .....	104

## Typewriter Register.

An inventory was taken of all typewriting machines used in this Department, in the various boroughs, and hereafter a full and complete record of each machine purchased will be kept in this office.

	Oliver.	Remington.	Underwood.	Smith Premier.	Royal.	Monarch.	Elliott Hatch.
Borough of Manhattan.....	34	10	15	2	1	1	2
Borough of The Bronx.....	3	4	1	..	3	1	..
Borough of Brooklyn.....	12	4	1	..	1	1	..
Borough of Queens.....	1	2	..	..	..	..	..
Borough of Richmond.....	1	1	1	..	1	..	..
Otisville .....	1	1	..	..	..	..	..
Total.....	52	22	18	2	6	3	2

Total number of machines used in the Department of Health, 105.

## Department Telephones.

The Department telephones are installed in private residences of certain officials and employees to facilitate the transaction of official business of the Department. Those desiring to use the same for personal business are required to pay to the Department the usual rates charged by the telephone company, an account of which is rendered to them each month. It has been found necessary to establish in the various boroughs of the City the following telephones for the transaction of the official telephonic business of the Department:

Borough of Manhattan.....	45
Borough of Brooklyn.....	28
Borough of The Bronx.....	15
Borough of Queens.....	6
Borough of Richmond.....	5

Total telephones installed..... 99

The bills of the telephone company are rendered monthly, making a charge of the local and foreign calls against each separate telephone. To all persons employed by the Department entitled by reason of the duties of their respective positions to the use of a Department telephone, the following blank is forwarded at the end of each month, and they are required to promptly remit to this office the cost of such bills as were



for personal business and to execute the duplicate affidavits on the reverse side of the blank, enumerating the number of personal calls used during the previous month.

55 B-1906

1707, '06, 5,000 (P)

## DEPARTMENT OF HEALTH

CITY OF NEW YORK

OFFICE OF THE CHIEF CLERK

S. W. Corner Fifty-fifth Street and Sixth Avenue

Borough of Manhattan

New York,.....190.....

DEAR SIR:

The telephone company charges the following foreign calls for the month of .....190..., against the Department telephone..... located at your residence:

TELEPHONE CALLS	AMOUNT	REMARKS
-----------------	--------	---------

You are requested to promptly remit to this office the cost of such calls as were used for personal business, and to return this letter and the enclosed affidavits properly executed in duplicate, stating the number of personal and official calls used during that period.

Very respectfully,

Chief Clerk.

STATE OF NEW YORK, }  
CITY OF NEW YORK, } ss.:  
COUNTY OF..... }

.....being duly sworn deposes and says:

THAT he holds the position of..... in the Department of Health of the City of New York, and that for the purpose of facilitating the business of the Department, the said Department has had installed at his residence located at.....a telephone, call No.....to be used for the official business of the Department of Health.

THAT during the month of.....190... he used said telephone for his own personal business, and that of the total number of calls originating from said telephone.....were for personal business, and that the remaining number of calls were for official business of the Department of Health.

THAT he has paid the Department of Health the sum of \$.....cost of the personal calls used by him during the said month of.....190...

Subscribed and sworn to before me

this.....day of.....A. D., 190...

Notary Public.....County,  
or Commissioner of Deeds, New York City.

STATE OF NEW YORK, }  
CITY OF NEW YORK, } ss.:  
COUNTY OF..... }

.....being duly sworn deposes and says:

THAT he holds the position of..... in the Department of Health of the City of New York, and that for the purpose of facilitating the business of the Department, the said Department has had installed at his residence located at.....a telephone, call No.....to be used for the official business of the Department of Health.

THAT during the month of.....190... he used said telephone for his own personal business, and that of the total number of calls originating from said telephone.....were for personal business, and that the remaining number of calls were for official business of the Department of Health.

THAT he has paid the Department of Health the sum of \$.....cost of the personal calls used by him during the said month of.....190...

Subscribed and sworn to before me

this.....day of.....A. D., 190...

Notary Public.....County,  
or Commissioner of Deeds, New York City.

A new record in book form has been installed in which is recorded the name, address, telephone number and a record of the local and foreign personal calls paid for monthly by each person using a Department telephone, thus improving the former method of keeping information of this character on sheets of paper which might easily be destroyed or mislaid.

The total amount received from employees for the use of official telephones for private business during the year 1906, was as follows:

	Foreign Calls.	Local Calls.	Total.
Borough of Manhattan .....	\$191 75	\$475 57	\$667 32
Borough of The Bronx.....	47 80	70 28	118 08
Borough of Brooklyn .....	116 25	72 86	189 11
Borough of Queens .....	18 60	1 27	19 87
Borough of Richmond .....	15 80	5 92	21 72
Total .....	\$390 20	\$625 90	\$1,016 10

Which is periodically deducted from the bills of the telephone company before they are certified to the Comptroller for payment by The City of New York. It will thus be observed that a saving to the Department was effected through this method of the amount above stated.

## Auditing of Bills.

All bills contracted by this Department are rendered in triplicate, stamped with date of receipt by the Division incurring the expense, and certified to the effect that the articles or services enumerated have been received, examined and found correct, and for the exclusive use of this Department, one bill being retained in that office for filing, and two returned to the office of the Chief Clerk, where they are charged against the proper appropriations, one being filed with the requisition, the other forwarded to the Department of Finance for payment, after having been approved by the Board of Health.

Considerable delay in auditing still continues, due to the failure of business concerns to promptly forward the necessary bills which should accompany the delivery of the merchandise. It was the intention to establish during 1906 a new system for the purpose of tracing all bills received and placing the responsibility for any delay which might occur, but owing to the great increase in the work of the office it was not deemed advisable to adopt the system until an additional clerical force is provided.

The number of bills received, audited and forwarded to the Department of Finance for payment during the year 1906 was approximately 35,000.

The duty of auditing claims for the interment of deceased honorably discharged soldiers, sailors and marines, and their wives, finally devolved upon this Department through an opinion of the Corporation Counsel, rendered in February, 1906.

The following claims have been audited and forwarded to the Department of Finance for payment during 1906:

Place of Death.	Year of Death.	Number	Amount of Claims.	Total.
New York County.....	1901	1	\$35 00	
	1903	1	35 00	
	1904	2	70 00	
	1905	39	1,365 00	
	1906	83	2,905 00	
		126		\$4,410 00
Kings County .....	1902	1	\$35 00	
	1904	1	35 00	
	1905	20	700 00	
	1906	31	1,085 00	
		53		1,855 00
Queens County .....	1904	2	\$70 00	
	1905	5	175 00	
	1906	4	140 00	
		11		385 00
Richmond County .....	1905	1	\$35 00	
	1906	4	140 00	
		5		175 00
Total.....		195		\$6,825 00

## Department Payrolls.

The payrolls of the various boroughs and hospitals of the Department are prepared monthly, recording the name, residence, designation, compensation and time employed, certified by the proper officials, approved by the Board, charged against the appropriate accounts, certified by the Civil Service Commission, and forwarded to the Department of Finance for payment.

Schedule of Total Number of Employees in the Service of the Department of Health in the Various Boroughs on December 31, 1906, with a Statement of Their Aggregate Annual Compensation.

	Number.	Amount.
Borough of Manhattan.		
Officers, Clerks and other employees.....	599	\$671,835 00
Hospital service .....	209	114,521 00
Total.....	808	\$786,356 00
Borough of The Bronx.		
Officers, Clerks and other employees.....	64	\$67,830 00
Hospital service .....	212	95,114 00
Total.....	276	\$162,944 00
Borough of Brooklyn.		
Officers, Clerks and other employees.....	192	\$213,197 00
Hospital service .....	194	96,984 00
Total.....	386	\$310,181 00



	Number.	Amount.
Borough of Queens.		
Officers, Clerks and other employees.....	43	\$49,482 00
Total.....	43	\$49,482 00
Borough of Richmond.		
Officers, Clerks and other employees.....	37	\$44,660 00
Total.....	37	\$44,660 00
Otisville Sanatorium.		
Hospital service .....	160	\$63,955 00
Total.....	160	\$63,955 00
Summary.		
	Number.	Amount.
Total, Officers, Clerks, employees, etc.....	935	\$1,047,004 00
Total, Hospital service .....	775	370,574 00
Grand total .....	1,710	\$1,417,578 00

## Pension Fund.

The Board of Trustees of the Health Department Pension Fund consists of the members of the Board of Health, one of whom is chosen to be Chairman, and one elected as Secretary, annually. Said Board of Trustees is charged with the duty of receiving, investing and administering all funds derived from fees for searches and transcripts of Department records, and fines and penalties for violations of the Sanitary Code and Health Laws.

Pensions are granted to employees disabled by reason of performance of duty and to widows or minors of employees who die from disease or injury suffered in the discharge of duties, and for service of a period of twenty years, upon application of such employee.

A report in detail of the condition of said fund is submitted to his Honor the Mayor annually, in the month of January.

Report of the Condition of the Health Department Pension Fund for the Year 1906, Showing Receipts and Disbursements During that Period.

## Receipts.

Month.	Attorneys' Cost.	Searches and Transcripts of Births, Marriages and Deaths.	Fines and Penalties.	Interest.	Total.
1906.					
January .....	\$21 50	\$1,931 20	\$6,939 00	.....	\$8,891 70
February .....	51 00	1,707 00	2,209 00	.....	3,967 00
March .....	16 00	2,041 70	1,157 00	.....	3,214 70
April .....	57 00	1,915 20	1,272 55	.....	3,244 75
May .....	47 00	1,720 90	2,901 01	.....	4,668 91
June .....	51 00	1,862 50	1,608 00	\$3,856 09	7,377 59
July .....	108 00	1,672 30	3,448 00	.....	5,228 30
August .....	70 00	1,441 40	570 75	.....	2,082 15
September .....	28 00	1,686 90	602 50	.....	2,317 40
October .....	64 00	1,845 00	386 00	.....	2,295 00
November .....	.....	1,734 20	4,229 00	.....	5,963 20
December .....	34 00	1,866 40	1,776 00	4,295 30	7,971 70
Total.....	\$547 50	\$21,424 70	\$27,098 81	\$8,151 39	\$57,222 40

Cash on deposit with Knickerbocker Trust Company, December 31, 1906, drawing interest at 4 per cent., as shown by preceding annual report, \$186,806.57.

## Disbursements.

Name.	Date of Retirement.	Pension Period.	Amount.
1906.			
John T. Nagle.....	July, 1895	Jan. 1 to Dec. 31	\$1,200 00
Sarah Terhune .....	May, 1897	Jan. 1 to Dec. 31	300 00
Jacob A. Weil.....	Mar., 1898	Jan. 1 to Dec. 31	850 00
Edward J. Gallagher.....	Sept., 1898	Jan. 1 to Dec. 31	750 00
Charles A. Koerber .....	Oct., 1898	Jan. 1 to Dec. 12*	569 35
Frank W. Lester, M. D.....	July, 1899	Jan. 1 to Dec. 31	750 00
Helen B. Drain.....	Aug., 1900	Jan. 1 to Dec. 31	300 00
William H. Vermilye.....	Jan., 1901	Jan. 1 to Dec. 31	600 00
George F. Morris, M. D.....	Mar., 1901	Jan. 1 to Dec. 31	900 00
Roger S. Tracy, M. D.....	May, 1901	Jan. 1 to Dec. 31	1,200 00
Belle F. Steinsieck.....	Dec., 1901	Jan. 1 to Dec. 31	300 00
John Schnell .....	July, 1902	Jan. 1 to Dec. 31	600 00
Bartholomew McGowan .....	July, 1902	Jan. 1 to Dec. 31	525 00
Caspar Golderman .....	April, 1903	Jan. 1 to Dec. 15*	1,148 39
F. H. Dillingham, M. D.....	May, 1903	Jan. 1 to Dec. 31	1,200 00

\*Died.

Name.	Date of Retirement.	Pension Period.	Amount.
1906.			
Robert Hixon .....	Sept., 1903	Jan. 1 to Dec. 31	240 00
William B. Fernhead.....	Dec., 1903	Jan. 1 to Dec. 31	1,050 00
John A. Jennings.....	Mar., 1904	Jan. 1 to Dec. 31	1,200 00
Sarah A. Clarke.....	July, 1904	Jan. 1 to Dec. 31	300 00
Asa R. Dimock, M. D.....	Oct., 1904	Jan. 1 to Dec. 31	900 00
Frank Wickham .....	May, 1905	Jan. 1 to Dec. 31	1,200 00
Celia Brown McLaughlin.....	July, 1905	Jan. 1 to Dec. 31	360 00
Thomas F. Fay.....	Oct., 1905	Jan. 1 to Dec. 31	1,200 00
Magdalena Walker .....	Oct., 1905	Jan. 1 to Dec. 31	300 00
George F. Shrady, Jr.....	Dec., 1905	Jan. 1 to Dec. 31	900 00
Julia L. Mahoney.....	Dec., 1905	Jan. 1 to Dec. 31	300 00
Harry E. Bramley.....	Nov., 1905	Jan. 1 to Dec. 31	1,200 00
Pensions Granted, 1906.			
Margaret Gately .....	July, 1906	July 1 to Dec. 31	150 00
Frederick A. Jewett.....	Aug., 1906	Aug. 1 to Dec. 31	500 00
Thomas Clacher .....	Aug., 1906	Aug. 1 to Dec. 31	187 50
John Finnegan .....	Dec., 1906	Dec. 1 to Dec. 31	25 00
Total paid to pensioners, 1906.....			\$21,205 24
On deposit with Knickerbocker Trust Company, at 4 per cent.....			158,786 39
On deposit with Windsor Trust Company, at 4 per cent.....			64,037 34
Total.....			\$244,028 97

It was the custom of the Board of Trustees of the Health Department Pension Fund, until July 14, 1906, to forward quarterly to each pensioner, a typewritten letter enclosing check for the period mentioned and requesting the acknowledgment in writing of the amount forwarded; the receipts were returned written in many ways and on various kinds and sizes of note and letter paper presenting anything but a neat and businesslike appearance. To systematize this particular transaction and to facilitate the proper filing of receipts, the following form was prepared and adopted and the files are now kept in a methodical manner.

59 B-1906

1896, '06, 2,500 (P)

## DEPARTMENT OF HEALTH.

CITY OF NEW YORK.

S. W. Cor. 55th Street and Sixth Avenue.

BOROUGH OF MANHATTAN.

BOARD OF TRUSTEES  
HEALTH DEPARTMENT  
PENSION FUND

New York,.....19....

Mr.....

Dear Sir:

Enclosed you will please find check drawn to your order by the Chairman and Secretary of the Board of Trustees of the Health Department Pension Fund to the amount of \$.....in full payment for the quarter ending.....19...., on account of the annual pension granted you by said Board of Trustees.

You are requested to properly execute the printed acknowledgment on the reverse side of this communication and to promptly return same to this office.

Yours respectfully,

Secretary, Department of Health.

A report of the Commissioners of Accounts covering an examination and audit of the Pension Fund between January 1, 1902, and May 31, 1905, was received on August 29, 1905, in which attention was called to the fact that the sum of \$6,145.00 was being retained by the Sinking Fund Commissioners, having been erroneously remitted to the Comptroller and applied to the payment of interest on the City's debt, instead of having been paid into the Health Department Pension Fund.

Measures were taken to secure a refund of this amount from the Sinking Fund Commissioners, \$6,045 of which was paid to the Trustees of the Health Department Pension Fund on January 25, 1906, and deposited to the credit of said Fund.

## Contracts.

Pursuant to the provisions of Section 419 of the Charter, contracts by public letting are made for work to be performed and supplies to be furnished for the use of this Department, where the supplies and work are of a similar character, and the amount involved exceeds the sum of \$1,000.

Contracts were executed for furnishing the following supplies to the various offices, buildings, hospitals, and tuberculosis clinics of the Department during the year 1906:

Supplies.	Amount.
Butter, cheese, eggs.....	\$ 12,814 01
Milk (clinics).....	2,117 50
Bread .....	4,282 30
Ice .....	3,554 65
Vegetables and fruits.....	2,589 30
Forage .....	7,443 95
Milk (hospitals).....	28,734 75
Meats .....	63,286 71
Fish .....	1,670 06
Mineral waters .....	1,540 00
Groceries .....	15,975 43
Drugs and chemicals.....	20,088 84
Chemical apparatus .....	6,115 04
Pipe and fittings.....	4,730 07
Lumber .....	8,239 28
Enameled ware.....	1,621 22
Cribs .....	640 00
Hospital furniture.....	9,866 25
Cement .....	940 00
Horses .....	8,100 00
Crockery .....	2,705 53
Wooden tanks, etc.....	1,227 10
Total.....	\$177,229 84



The above schedule does not include a number of awards, each of which amounted to less than \$500, therefore not requiring a formal contract. Standards are constantly being improved and deliveries of better grades received due to close inspection.

Wherever the present close system of inspection has developed the necessity for a more specific description of the supplies to be contracted for, the change has been incorporated in the contract form for the succeeding year, and samples of a higher grade purchased to be used as standards when required; thus the quality of the supplies delivered continues to improve annually.

The following contract forms for furnishing supplies during 1907, were prepared and printed for advertisement and award:

Milk and eggs (clinics).	Groceries.
Bread.	Coal (steamboats).
Fish.	Food supplies, Otisville Sanatorium.
Ice.	Drugs.
Mineral waters.	Chemicals.
Vegetables.	Chemical apparatus.
Fruits.	Pipe and fittings.
Milk (hospitals).	Butter.
Cheese.	Eggs.
Meats.	Forage.

Of the above the following supplies are to be purchased through public letting for the first time, having been heretofore procured in the open market through departmental orders:

Eggs (clinics).	Food supplies (Otisville).
Pipe and fittings.	Lumber.

Contracts were approved for the removal of night soil, offal and dead animals, etc., for the year 1906, for a period of five years ending with 1909. These contracts were advertised and let in 1905; as follows:

Contractor.	Covering Boroughs of	Annual Cost.
McKeever & Co.....	Brooklyn and Queens.....	\$31,200 00
M. J. & J. F. White.....	Manhattan, The Bronx, Richmond.....	38,680 00

The following contracts for the construction of new buildings, alterations, improvements, etc., were entered into during 1906:

Construction of and Location.	Contractor.	Cost.
Dormitory building, Willard Parker Hospital.....	John Spence, Jr.....	\$3,994 00
Area walls, Kingston Avenue Hospital.....	Christ. Dooley.....	4,934 00
Incinerator building, Kingston Avenue Hospital.....	Jas. MacArthur.....	3,018 00
Pipe system, Kingston Avenue Hospital.....	E. Rutzler Company....	26,881 00
Dining hall, Otisville.....	H. H. Vought & Co....	9,668 00
One-story shack, Otisville.....	H. H. Vought & Co....	5,380 00
Two-story shack, Otisville.....	H. H. Vought & Co....	9,678 00
Morgue building, Kingston Avenue Hospital.....	Jas. MacArthur.....	12,880 00
Alterations, Bronx Office building.....	J. M. Knopp.....	2,795 00
Repainting buildings, Riverside Hospital.....	J. P. Hansen.....	2,460 00
Refrigerating plant, Willard Parker Hospital.....	Wm. Horne Company..	3,775 00
Measles Pavilion, Kingston Avenue Hospital.....	P. J. Brennan & Son...	183,000 00
Extension to Nurses' Home, Kingston Avenue Hospital....	Dan. J. Ryan.....	34,600 00
Cow stable and dairy, Otisville.....	Kelly & Kelley.....	20,124 00
Total .....		\$323,187 00

Contracts were entered into with the following architects for their services in preparing plans and specifications for the construction of the improvements indicated below:

Improvement of and Location.	Architect.	Fees.
Sundry, various .....	N. Wheeler Smith.....	\$23,000 00
Extension to Nurses' Home, Kingston Avenue Hospital.....	Westervelt & Austin....	2,000 00
Morgue building, etc., Kingston Avenue Hospital.....	John H. Duncan.....	1,250 00
*Vaccine laboratory plant, The Bronx.....	Snelling & Potter.....	4,000 00
One- and two-story shacks, Otisville.....	Scopes & Feustman....	1,000 00
Measles Pavilion, Kingston Avenue Hospital.....	Chas. Volz.....	9,000 00
Six isolation ward buildings, Kingston Avenue Hospital....	Percy Griffin.....	5,000 00
Cow stable and dairy, Otisville.....	Edward Burnett .....	1,250 00
	(Not yet executed.)	
Total.....		\$46,500 00

Contract forms were also prepared and printed for the construction of the following improvements, not as yet advertised nor awarded:

Vaccine Laboratory plant, Borough of The Bronx.  
Helps' dormitory, Otisville.  
Electric wiring, Willard Parker Hospital.  
Six isolation buildings, Kingston Avenue Hospital.

#### Purchase of Supplies.

The increase in the work of this office can be readily seen by the number of requisitions received for the purchase of supplies, etc., for use in the various branches of this department during the year 1906, which amounted to 5,650, involving an expenditure of \$716,599.89, compared with 4,534 for the year 1905 at a cost of \$452,176.85, shows a clear gain of 1,116 requisitions over the previous year.

In purchasing supplies for the use of this department requisitions properly certified by the executive officers of the different boroughs as to the necessity therefor are received in the office of the Chief Clerk, examined and presented to the President of the Board of Health for approval and authority to incur the expense. Estimates are then obtained from reputable business concerns or manufacturers, if possible, and the order given to the lowest bidder. Should the amount exceed the sum of \$1,000 the supplies are purchased by contract, the result of public bidding.

Proposals for supplying coal to the steamboats and institutions of the department during the year 1906 were advertised for, but on opening the bids the prices were found to be excessively high and the bids were rejected.

The proposals were again readvertised and prices again found excessive and the bids rejected.

Authority was then procured from the Board of Aldermen to purchase 12,115 tons of coal in the open market, with the result shown below:

	No. 1 Buckwheat.		Stove.		Egg.	
	Tons.	Amount.	Tons.	Amount.	Tons.	Amount.
Lowest price bid, public letting.....	10,250	\$40,070 00	500	\$3,399 50	115	\$778 35
Price paid, open market	10,250	34,276 69	500	3,012 50	115	735 75
Saving.....		\$5,793 31		\$387 00		\$42 60

This effected a total saving of \$6,222.91 on 10,685 tons of coal purchased. Sufficient quantity was ordered to last until the spring of 1907, and provision was made for the awarding of coal contracts during the month of April, 1907, when the summer prices for coal are established, instead of advertising for bids during the winter season, when coal is scarce and the prices at the maximum figure.

#### Schedule of Coal Purchased During the Year 1906.

	Buckwheat No. 1.		Pea.		Stove.		Egg.		Broken.	
	Tons.	Amount.	Tons.	Amount.	Tons.	Amount.	Tons.	Amount.	Tons.	Amount.
Fifty-fifth street and Sixth avenue.....	281	\$956 81	....	.....	....	.....	....	.....	....	.....
Willard Parker and Reception.....	4,173	12,523 13	....	.....	221	\$1,318 07	....	.....	....	.....
Trachoma .....	....	.....	....	.....	20	132 50	20	\$132 50	....	.....
Drug Laboratory.....	....	.....	....	.....	2	12 00	....	.....	....	.....
The Bronx office.....	....	.....	....	.....	....	.....	45	291 15	....	.....
Disinfecting stable, The Bronx.....	....	.....	....	.....	....	.....	....	.....	86	\$514 25
The Bronx stable.....	....	.....	....	.....	8	53 25	....	.....	....	.....
Riverside Hospital.....	3,389	10,277 85	....	.....	150	872 22	....	.....	....	.....
Brooklyn office.....	....	.....	....	.....	39	230 75	20	118 50	....	.....
Kingston Avenue Hospital.....	2,540	8,116 99	1,176	\$4,608 78	177	1,116 31	....	.....	....	.....
Trachoma Dispensary.....	....	.....	....	.....	15	92 00	....	.....	....	.....
Borough of Queens.....	....	.....	....	.....	....	.....	40	246 00	....	.....
Borough of Richmond.....	....	.....	....	.....	35	239 40	....	.....	....	.....
Otisville, N. Y.....	....	.....	....	.....	117	608 51	....	.....	....	.....
Total.....	10,383	\$31,874 78	1,176	\$4,608 78	784	\$4,675 01	125	\$788 15	86	\$514 25

For the first time in the history of this department horses used at the department stables, as well as those used by officials entitled to same by reason of the duties of their respective positions, were purchased under contract. The previous custom was to buy horses in the open market, which proved unsatisfactory in many ways.

To improve the condition of the ambulance service in the various boroughs, and with a view to improving the carriage and wagon service, an inspection was

made by the Veterinarian of all horses used by the department, with the result that fourteen horses were found to be in a condition which practically made them unfit for the purposes of the department in this city, and instead of being condemned and sold they were shipped to the Tuberculosis Sanatorium at Otisville, New York, where they were found most useful, the work there being of a character that has proved beneficial to them, as well as being a great economy to the department, for the reason that it was the intention to purchase additional horses for use at that institution.



The following horses were purchased under contract for use in the various boroughs of the city, as follows:

Borough of Manhattan .....	13
Borough of Brooklyn .....	5
Borough of The Bronx .....	1
Borough of Queens .....	4
Borough of Richmond .....	2
Total .....	25

—at a total cost of \$8,100, which has placed this branch of the service on a high standard of efficiency.

#### Inspection of Supplies.

During the year 1906 there were 5,071 of the total number of 5,650 requisitions received on which inspections were made.

Upon receipt of goods at the various institutions they are held until the same have been inspected and passed by the Inspector before being placed in stock, note being made on tissue copy of the order for recording in the office of the Chief Clerk, for the purpose of checking the bills. Perishable supplies, such as fruits, vegetables, etc., which are furnished on monthly bills on an open requisition, are subject to the same inspection, and are rejected when found necessary.

The departmental divisions from which requisitions were received, include the following: Hospitals, laboratories and offices in the various boroughs. Requisitions were forwarded as follows:

Department building, Fifty-fifth street and Sixth avenue.....	1,632
Borough of The Bronx.....	210
Borough of Brooklyn.....	240
Borough of Queens.....	132
Borough of Richmond.....	123
Research Laboratory.....	608
Chemical Laboratory.....	190
Vaccine Laboratory.....	45
Drug Laboratory.....	150
Riverside Hospital.....	670
Willard Parker Hospital.....	320
Reception Hospital.....	96
Trachoma Hospital.....	140
Kingston Avenue Hospital.....	445
Department stable, foot of East Sixteenth street.....	70
Total .....	5,071

The average number of items on each of the above-mentioned requisitions (5,071) were approximately fifty (50), and the number of orders issued were about five (5) on each requisition, making a total of 25,355 orders issued and 253,550 items to be inspected.

The Inspector visits each of the hospitals, laboratories, offices, etc., at least once a week, making thorough inspection of the goods received and rejecting those which do not conform to the department standards and the specifications set forth when the estimate is requested.

The matter of having empty oil barrels returned to the Standard Oil Company, the department receiving a credit allowance on their bills at the rate of \$1.15 per barrel for each one returned, proved a step in the interest of economy. This item alone at Riverside Hospital amounted to approximately \$175.

At the beginning of the year several contractors endeavored to deliver a very poor quality of grocery supplies, canned fruits and merchandise, to the hospitals and laboratories. Measures were promptly taken to compel them to fulfill their respective contracts in accordance with the specifications and the standard samples, after which the goods delivered were of a satisfactory character.

Furniture, such as desks, chairs, wardrobes, etc., instead of being immediately condemned and destroyed when broken or defective, as heretofore, are now collected and stored in the department building, and those that can be fixed are repaired and upholstered and returned to the division where they belong. A saving of at least \$600 has been effected in this manner during the past year in the purchase of furniture.

All packing cases received at the Kingston Avenue Hospital that are made of heavy lumber are taken apart and the lumber used by the carpenter at that institution. It would be advisable to have this done at the other hospitals. A further saving could be effected if the Drug, Chemical and Research laboratories were to assort and store their empty acid bottles, demijohns and various containers in which drugs and chemicals are delivered, and return them to the various firms, so that the department could receive credit for them. A considerable saving in the purchase of glass bottles could be effected at the Drug Laboratory if the empty medicine bottles were returned from the various hospitals, carefully sterilized and again used.

The glass tumblers used as receptacles in the delivery of jelly to the various hospitals instead of being thrown away after the contents were used, as had been the previous custom, were utilized as glasses for drinking purposes by the domestics in the employ of the institution. This effected quite a saving in the purchase of glassware.

There are numerous other instances which cannot be recalled at the present time where considerable saving was effected during the year.

The above statements are made simply to emphasize the fact that the inspection of supplies has proved a great economy in many ways, and the force, consisting of one man at the present time, is totally inadequate to cover the entire ground. This branch of the service should be extended and two additional Inspectors appointed to perfect this particular branch.

#### Inspectors of Construction and Repairs.

During the year 1906 an additional Inspector was appointed to this corps, making a total force of four Sanitary Inspectors, who are assigned to supervise the construction of new buildings and repairs and alterations to old buildings. The work performed was as follows:

##### Willard Parker Hospital.

The upper part of the disinfecting station has been remodeled into a dormitory for help.

New stalls were erected in stable of ambulance station.

New coal storage building erected.

New animal house erected.

New temporary boiler house with six boilers has been completed.

Work was completed in the Willard Parker Hospital and the building was entirely remodeled.

Administration Building was completed.

Old boiler house remodeled into a kitchen building for the scarlet fever pavilion.

Considerable painting and repairing was done.

##### Kingston Avenue Hospital.

Pipe gallery has been constructed.

Addition to stable was built.

New Morgue Building now being erected.

Area walls have been built around the storehouse and laundry building, and considerable filling in done.

Plans for a measles pavilion were completed and bids received.

Plans for extension of Nurses' home were completed.

Two additional boilers were installed.

##### North Brother Island.

Work is now in progress increasing the area of the island.

Two isolation buildings have been completed.

Considerable painting and repairing has been done.  
Old coal house being altered into a waiting room and discharge room for patients.  
An additional boiler was installed in boiler house.

##### Otisville, N. Y.

Dining pavilion has been erected.

One-story shack has been erected.

Two-story shack has been erected.

Six portable houses have been erected.

Old buildings have been generally improved, and much painting and repairing has been done.

Considerable work has been done on a water supply and drainage system.

Plans for a laboratory building, stable, boiler house and dwelling were completed for a vaccine station at Westchester.

The following improvements were effected during the year:

A new office building was provided for the branch office in the Borough of The Bronx, at No. 3731 Third avenue, at an annual rental of \$2,000, and many alterations in the nature of improvements were made for the purpose of installing rooms for a clinic; also, electric light apparatus, skylights and other necessary additions.

A site was obtained and plans drawn for a new office building in the Borough of Brooklyn bounded by Willoughby street and Fleet place. This structure, when completed, will be the first office building owned by the City used by this Department.

##### Books, Blanks and Stationery.

All printed books, blanks and stationery supplies that were ordered on the annual requisition were delivered promptly and in good order, and the only difficulty experienced was in the storing of the printed blanks.

Increased activities in all branches of the service made additional demand for books, blanks and stationery supplies. The number of special requisitions sent to the City Record office continued to be very large and resulted in much additional work for this branch of the office.

The annual requisition on the Board of City Record covering printed blanks, books and lithographed letter-heads and envelopes estimated to be required for use during the year 1907 was the largest requisition of this character ever submitted by this Department. It consisted of 1,310 forms, requiring the printing of almost 7,000,000 blanks, as per the following schedule:

##### Stationery.

Boroughs.	Forms.	Books.	Lithographed Blanks.	Printed Blanks.	Book Pages.	Grand Totals for 1907.	Ordered in 1906.
Manhattan .....	485	897	610,500	3,852,202	243,280	4,686,982	3,046,036
The Bronx.....	229	49	47,000	410,970	12,250	470,220	213,883
Brooklyn .....	242	600	123,500	921,412	150,000	1,194,912	801,089
Queens .....	165	8	19,500	144,620	2,000	166,120	81,136
Richmond .....	189	7	13,500	96,859	1,750	112,109	84,425
Total.....	1,310	1,561	814,000	5,426,063	390,280	6,630,343	4,226,569

The care of these articles has been the subject of much consideration during the past year. The stock rooms were filled to their utmost capacity, and the additional small room provided was not sufficiently large to store all the blanks ordered. The result was that blanks had to be piled on the floors in different parts of the building, where they were exposed to dust, and in moving about the strings in some instances were broken and the paper covering torn, and some of the blanks thus became scattered.

In view of the above facts it therefore becomes absolutely necessary that immediate steps be taken to provide one large storeroom with a capacity large enough to store the entire amount of blanks in compartments arranged according to form number.

On February 1, 1906, the new system recommended in last year's report was put into operation, which consists of vertical filing cabinets, in which samples of all printed forms used throughout the Department are kept in alphabetical order between folders and supplemented by a card index showing on the cards the receipt and distribution of each printed form, books and of all stationery supplies. This new system is a great success, and the records are now kept in a proper and systematic manner.

In making up the annual requisition the new system was of great value, and one could tell at a glance at the card how many blanks were used during the past year and how many it would be necessary to order for the following year.

In previous years new forms were ordered printed to replace old ones for such of the boroughs as deemed it necessary to change these printed forms and the result was that each borough had different blanks in use for the same purpose.

This has been remedied by referring all new blanks ordered to the Sanitary Superintendent, who will hereafter take the matter up with the Assistant Sanitary Superintendent of each borough and decide upon a uniform blank for use in all boroughs.

##### Department Drug Store.

The cost of maintaining the Department drug storeroom for 1906 was \$20,869.45, \$14,034.45 of which was expended for supplies and \$6,835 for labor.

The custom of mixing tea and shipping same to the store houses of the various hospitals was discontinued and the formula sent direct to the store house where the tea could be mixed in the same manner that had been used heretofore, thus eliminating considerable unnecessary labor.

The crowded condition of the cellar used by the drug store room in the basement of the Clinic Building being totally inadequate for the purpose, new quarters were provided at No. 116 East Forty-first street, Borough of Manhattan, the two upper floors and cellar being used for the accommodation of the drug store room, while a garage was established on the first floor for storing Department automobiles, at an annual rental of \$3,000.

##### Storehouses.

The following table shows the work performed at the Storehouse established at the Riverside Hospital, North Brother Island, during the year ending December 31, 1906:

Requisitions filled by storekeeper.....	4,295
Average number of items on each requisition.....	9
Average total number of items for year.....	38,655
Number of requisitions drawn on headquarters.....	503
Number of condemned articles.....	3,255

Estimated value of supplies distributed.....\$25,192 13

The storehouse system having proved practical, it was the intention during the year 1906, to install a storekeeper, under the supervision of this office, at the Willard Parker Hospital after the completion of the storehouse at that institution. On completion of the storehouse, however, it was found to be entirely too small and inadequate for the needs of the hospitals located at the foot of East Sixteenth street, consequently, the receipt and distribution of supplies still continues under the supervision of the matron of the hospital. It was also the intention to erect a storehouse at the Kingston Avenue Hospital, and plans were prepared but have not as yet been approved by the Board of Health.



A storehouse system was established at the Tuberculosis Sanatorium, Otisville, New York,—this being a new institution, great difficulty was experienced in the purchase and distribution of supplies, the Sanatorium being located a distance of about 75 miles from the City, the nearest place where supplies could be obtained being either Middletown or Port Jervis, both a distance of about 8 miles from the institution, and it was almost impossible to secure the services of competent help. However, notwithstanding these difficulties, the storehouse system was installed. The following table shows the work performed during the year 1906:

Requisitions filled by storekeeper.....	1,300
Average number of items on each requisition.....	7
Total number of items averaged.....	9,100
Estimated value of supplies distributed.....	\$20,000
Requisitions drawn on headquarters.....	100
Number of articles condemned.....	

#### Sale and Distribution of Department Products, Vaccine, Virus, Antitoxin, Etc.

There are in operation at this time, 318 antitoxin stations in the Greater New York, divided as follows:

Borough of Manhattan.....	177
Borough of The Bronx.....	38
Borough of Brooklyn.....	68
Borough of Queens.....	27
Borough of Richmond.....	8

#### Antitoxin.

Value of antitoxin received from laboratory.....	\$140,634 65
Less antitoxin to replace old stock.....	15,080 70
	<hr/> \$125,553 95
Free distribution.....	\$104,069 00
Cash.....	17,386 37
Discount to agents.....	1,114 34
On sale with agents.....	2,170 24
Stock on hand.....	814 00
	<hr/> \$125,553 95

#### Virus.

Value of vaccine virus from laboratory.....	\$31,346 70
Less virus to replace old stock.....	4,518 65
	<hr/> \$26,828 05
Free distribution.....	\$14,969 50
Cash.....	8,251 71
Discount to agents.....	3,143 34
On sale with agents.....	141 05
Stock on hand.....	322 45
	<hr/> \$26,828 05

To more thoroughly systematize the establishment of antitoxin stations, and to ensure the fact that proper facilities for the storage, sale, and distribution of the laboratory products of the Department, will be maintained at the various stations, applicants are required to properly fill out the following form or statement which is referred to the inspector attached to this office for the purpose of investigation and report, and a verification of the facts stated in the application before the usual antitoxin agreement is executed.

45 B—1906

775, '06, 1,500 (P)

#### DEPARTMENT OF HEALTH.

##### OFFICE OF THE CHIEF CLERK.

New York.....190

To the Chief Clerk,

Department of Health.

Dear Sir—Request is hereby made for the establishment of a station for the sale and free distribution of the laboratory products of the Department of Health, said products to be received on consignment, subject to the stipulations contained in a written agreement to be hereafter duly signed and executed, upon the approval of this application.

#### Statement.

Name of firm.....  
Location of drug store.....  
Hours of Business: Open.....a. m.; Close.....p. m., daily. Exceptions.....  
Facilities for storing products at a low temperature.....  
Will provide, if necessary, metal receptacle (approved by Inspector) to store products.....  
Facilities for disbursing products.....  
Proximity of nearest station.....  
Has station ever been established before.....  
When discontinued.....  
Do you also desire to establish a Culture Station.....  
Remarks.....

Respectfully submitted,

(Name).....

(Address).....

About May 1, 1906, the Research Laboratory instituted new grades and prices and a method whereby antitoxin was prepared for use in syringe containers. This required the installation of a new bookkeeping and accounting system which has doubled the work of the office, without any increase whatever in the clerical force, which was promised when the system was installed, the clerks being required daily to exceed the official office hours of the Department to complete the work of the day.

The change in the various grades of antitoxin made it necessary to notify each of the 318 antitoxin stations established in all boroughs of the Greater City; accordingly, the following circular letter was forwarded for their information.

"Sir—Your attention is directed to the following scale of grades of, and prices to be charged for antitoxin, approved by the Board of Health at a meeting held April 18, 1906:

Grade No. 1—1,000 units (500 to c. c.) in vials, \$1; in syringe containers, \$1.25.  
Grade No. 1—2,000 units (500 to c. c.) in vials, \$1.75; in syringe containers, \$2.  
Grade No. 2—3,000 units (800 to c. c.) in vials, \$2.50; in syringe containers, \$2.75.  
Grade No. 2—5,000 units (800 to c. c.) in vials, \$3.50; in syringe containers, \$3.75.  
Grade No. 2—10,000 units (800 to c. c.) in vials only, \$6; (not sold in syringe containers)."

You are therefore notified, in pursuance to sections "B" and "D" of your antitoxin agreement with this Department, wherein the right is reserved to establish new grades and prices, that the grades and prices referred to above are so hereby established, and you are requested to return to our collector, who will visit your station within the next ten days, all stock of grades previously manufactured, and cash or free-slips to the amount required to balance your account.

Upon settlement of your account the collector will supply you with a sufficient supply of the stock of the new grades, and you are requested under no circumstances to issue any of the old grades hereafter.

You will observe that the new antitoxin is to be put up in vials and in syringe containers.

No charge whatsoever will be made for antitoxin in vials when issued on the certificate of a physician to the effect that the same is intended for the treatment of a poor patient to whom the payment for the same would be a hardship.

When antitoxin in syringe containers is issued on a "free certificate" the sum of 25 cents shall be collected before delivery by the druggist to cover the extra cost of the syringe.

New forms, blanks, etc., will be forwarded as soon as printed.

Respectfully,

Chief Clerk.

The Inspector attached to this office personally visited each station, collected the old stock, settled the account and furnished each firm with an adequate supply of stock of the new established grades within a period of thirty days.

On December 1, 1906, a new system of keeping the hydrophobia treatment accounts was installed in this office whereby the Research Laboratory furnishes a written list of all treatments sent on the day the treatments are forwarded. A bill is also mailed to the purchaser from the laboratory with the first portion of the treatment together with a notification that unless payment is made or acknowledgment of indebtedness is received by the Chief Clerk within four days treatment will be discontinued. At the expiration of the time specified the Chief Clerk notifies the laboratory to continue treatment in cases where payment has been made or indebtedness acknowledged and to discontinue it in all cases where no reply has been received.

The laboratory also reports each individual treatment to the Sanitary Superintendent. These reports are forwarded and passed upon by the Board of Health, and are then filed in this office, thus completing the record.

Previous to the date above mentioned the accounts were kept at the Research Laboratory and returns of money received for the treatment were made semi-monthly to this office.

#### Steamboat "Riverside."

The contractors completed and delivered to the Department the new Steamboat "Riverside," which was put into commission.

This model hospital boat, which is used for the transportation of contagious diseases, is 126 feet long, 30 feet wide and 9 feet 6 inches deep, with a steel hull and two decks, the wards for patients being on the main deck, and the rooms for convalescents, nurses and quarters for the Commissioner and other officials being built on the upper deck. The boat is of the twin-screw type, having two compound propelling engines and a water-tube boiler.

Bids for building the boat were opened on March 1, 1905, and the contract was awarded to the Burlee Dry Dock Company for the sum of \$62,475 on March 20, 1905.

#### Launch "Pelham."

The new Steam Launch "Pelham," to be used for conveying passengers and visitors to and from Riverside Hospital and the Department dock, foot of East One Hundred and Thirty-second street, was completed and put into commission at a cost of \$9,990.

#### Tuberculosis Sanatorium at Otisville.

Title to this property was obtained early in the year by the City at a total cost of \$95,750, payable from the proceeds from the sale of an issue of Corporate Stock of \$250,000 authorized in 1905.

Great effort was made by the administration toward the perfection of arrangements for the accommodation of patients at the earliest possible moment, and to this end a clerk attached to this office was detailed who devoted the greater portion of his time between April 1 and August 23, 1906, to that purpose until the appointment of a resident superintendent on the latter date.

During this period a civil engineer was employed, who completed an outline and a complete topographical map of the property; a firm of landscape architects, who prepared a tentative plan for its improvement, laying out roads, planting trees, etc., and a firm of sanitary experts engaged, who proceeded with the installation of water supply and drainage systems.

An architect was appointed who prepared plans for the alteration of existing buildings to render them suitable for occupancy by patients and help, and who subsequently prepared plans and specifications for the construction of a dining hall, an administration building and a dormitory.

A second architect prepared plans for the construction of two shacks or dormitories for patients, while a third completed plans for the erection of a cow stable and a dairy building.

Contracts were advertised and let for the construction of two shacks, a dining hall, a cow stable and dairy building; for the delivery of trees, lumber, cement, pipe fittings, drains, wooden tanks and horses; a storehouse was established, and a storekeeper engaged and a system of accounting installed.

A field force was organized who cut fire lines, made roads, built walls, constructed reservoirs, repaired existing buildings, laid water and drain pipes, planted and pruned trees, planted, cultivated and harvested corn, hay and potatoes, and generally improved the site and buildings.

A domestic force was organized to domicile such employees as required maintenance, and to care for the patients, while a physician, nurses and orderlies were appointed on the medical staff of the institution.

Direct telephonic communication was established between the sanatorium and Middletown and New York, necessitating the construction of nine miles of line.

Great difficulty was experienced in securing domestic help and in procuring supplies, the nearest base being Middletown, eight miles away, but ultimately satisfactory arrangements were made for the daily delivery of food supplies, for which contracts have been prepared for 1907.

Difficulty was also experienced in furnishing and equipping the buildings for occupancy, the great bulk of furniture having been purchased according to law from the State prisons, whose deliveries were long delayed.

All obstacles were eventually overcome and the sanatorium prepared to receive patients by July 1, 1906, the first patients actually arriving on July 15, 1906.

The cost of improvements amounted to \$93,473.79, and included the erection of six portable buildings, three permanent buildings, and improvements and repairs to present buildings, cutting of fire lines, improvement on roadways and work in connection with the proposed establishment of a water supply system and the purchase of 396 1-10 acres of additional ground at a cost of \$26,500.

#### Department Hospitals.

The following contracts were executed for the construction of new buildings, alterations to old buildings and permanent improvements effected in the various hospitals of the Department during the year 1906, as hereafter enumerated:

Construction of, and Location.	Contractor.	Cost.
Dormitory building, Willard Parker Hospital.....	John Spence, Jr.....	\$3,994 00
Refrigerating plant, Willard Parker Hospital.....	Wm. Horne Company...	3,775 00
Area walls, Kingston Avenue Hospital.....	Christ. Dooley.....	4,934 00
Incinerator building, Kingston Avenue Hospital.....	Jas. MacArthur.....	3,018 00
Pipe system, Kingston Avenue Hospital.....	E. Rutzler & Co.....	26,881 00
Morgue building, Kingston Avenue Hospital.....	Jas. MacArthur.....	12,880 00
Measles Pavilion, Kingston Avenue Hospital.....	P. J. Brennan & Son...	183,000 00
Extension to Nurses' Home, Kingston Avenue Hospital.....	Dan J. Ryan.....	34,600 00
Repainting buildings, Riverside Hospital.....	J. P. Hansen.....	2,460 00
Alterations, Bronx Office building, The Bronx.....	J. M. Knopp.....	2,795 00
Dining hall, Otisville.....	H. H. Vought & Co....	9,668 00
One-story shack, Otisville.....	H. H. Vought & Co....	5,380 00
Two-story shack, Otisville.....	H. H. Vought & Co....	9,678 00
Cow stable and dairy, Otisville.....	Kelly & Kelley.....	20,124 00
Total.....		\$323,187 00



Statement of expenditure of the various hospitals controlled by this Department during 1906, showing total cost of operation and maintenance and average per capita cost for each hospital:

	Total.	Willard Parker and Reception.	Trachoma.	Riverside.	Kingston Avenue.
Foods and food supplies.....	\$125,041 23	\$26,868 16	\$2,488 38	\$54,294 31	\$41,390 38
Drugs, instruments and pharmaceu- tical supplies.....	20,265 97	4,637 92	806 32	6,878 05	7,943 68
Furniture and supplies, including fuel, Engineers' supplies, tele- phone charges, Carpenters' and Gardeners' supplies, etc.....	83,290 32	25,642 93	914 84	35,731 21	21,001 34
Clothing, boots and shoes, bedding, etc.....	47,603 60	18,180 25	7,991 18	15,526 33	13,097 84
Repairs and improvements to build- ings and grounds.....	8,677 20	1,241 86	124 45	6,546 31	764 58
Salaries .....	285,259 10	84,117 59	23,128 86	92,000 78	86,011 87
Total .....	\$570,137 42	\$160,688 71	\$28,262 03	\$210,976 99	\$170,209 69

	Willard Parker and Reception.	Trachoma.	Riverside.	Kingston Avenue.
Average daily census of patients for 1906.....	72.59	19.	210.29	219.48
Daily cost per capita for patients.....	\$6 06	*\$4 07	\$2 75	\$2 12

\*This cost includes the treatment of 14,550 patients at the two trachoma clinics.

I desire to state that the excessive cost per capita at the Willard Parker Hospital is due to the fact that this institution was closed to patients from January 1 to March 15, 1906, while alterations were being made. The help, however, were retained during the said period, which explains the vast difference per capita cost between this and the other institutions.

The individual reports of the Assistant Chief Clerks of each borough, are respectfully presented as follows:

Assistant Chief Clerk, Borough of Manhattan.

Report of the work performed in the office of the Assistant Chief Clerk, Bor-  
ough of Manhattan, for the year ending December 31, 1906:

The following official reports, communications, and applications, summarized and  
classified as to the subject matter, were received in the office of the Assistant Chief  
Clerk and submitted to the Board, through the Secretary, for consideration and final  
action:

Special reports and communications submitted to the Board of Health for action .....	715
Premises declared a public nuisance.....	234
Premises ordered vacated.....	100
Lodging house permits granted.....	144
Cow permits granted.....	162
Mercantile permits granted.....	14
Miscellaneous permits granted.....	2,606
Permits denied .....	2,202
Permits revoked .....	5,886
Board orders extended or modified.....	472
Extension or modification of Board orders denied.....	583
Board orders rescinded.....	1,195
Delayed and imperfect certificates of births, marriages and deaths approved and ordered filed.....	2,914
Corrected certificates of births, marriages and deaths approved and ordered filed .....	1,334
Certificates of registration issued to master plumbers.....	793

Orders Issued by the Board of Health.

Orders of the Board for the abatement of nuisances are issued under the super-  
vision of the Assistant Sanitary Superintendents in the various boroughs, upon the  
facts and evidence contained in the written reports of the Sanitary Inspectors, the  
result of personal inspection of premises complained of. These orders call the atten-  
tion of owners, lessees and agents to the violations of the Sanitary Code and Health  
Laws in each case, and require the necessary alteration, repairs, cleaning and im-  
provement of the premises named within three days from the receipt of the order. If,  
upon reinspection, it is found that the requirements of the order have not been com-  
plied with, a suit for penalty is commenced against the delinquents under sections  
1172 and 1222, chapter 466, Laws of 1901.

Summary of clerical work performed in the various boroughs in connection with  
the issuance of Board orders, negative reports filed, and fees paid and certificates issued,  
the result of searching for sanitary violations against premises; also written references  
forwarded to other city departments, as follows:

Borough.	Board Orders Issued.	Negative Reports Filed.	References to Other Depart- ments.	Searches Made and Certificates Issued.	Communi- cations Re- ceived and Answered.	Fees Received.
Manhattan .....	14,411	7,427	2,218	2,799	2,468	\$1,426 10
Brooklyn .....	5,340	8,246	2,416	246	70	123 00
The Bronx .....	2,454	1,824	478	460	266	230 00
Queens .....	1,560	543	257	....	....	....
Richmond .....	1,043	252	202	1	....	50
Total.....	24,808	18,310	5,571	3,506	2,804	\$1,779 60

Searches and Transcripts of Births, Marriages and Deaths.

Certified copies of the records of vital statistics as may be found to be on file  
in the Bureau of Records are furnished to applicants authorized to receive same,  
namely, interested parties, next of kin, legal representatives, etc., upon payment of  
the fee in such cases prescribed by the Board of Health. Written orders are signed  
by the Assistant Chief Clerk in the various boroughs and issued to the Assistant  
Registrar of Records authorizing the search and issuance of a transcript of the record,  
which, in accordance with the regulations of the Board is authenticated by affixing  
the seal of the Department of Health, and attested by the signature of the Assistant  
Chief Clerk of the borough. When search is made and the record is not found to  
be on file, an official certificate is issued to that effect.

Summary of applications for searches made to the Assistant Chief Clerks in the  
various boroughs, showing fees received and work performed in connection with  
searches and transcripts of the records of births, marriages, and deaths on file in the  
Bureau of Records in the Department:

Borough.	Applications for Searches.	Transcripts Signed and Authenticated.			Not Found. Certificates Issued.	Communi- cations Re- ceived and Answered.	Fees Received.
		Births.	Marriages.	Deaths.			
Manhattan .....	23,832	2,230	2,367	18,020	2,727	5,960	\$11,849 30
Brooklyn .....	11,435	516	1,144	9,921	1,109	771	5,889 30
The Bronx .....	2,379	52	107	2,734	113	163	1,190 60
Queens .....	995	38	56	1,127	76	220	535 00
Richmond .....	340	31	14	329	35	295	181 70
Total.....	38,981	2,867	3,688	32,131	4,062	7,409	\$19,645 90

Written Acknowledgment of Complaints Received.

All mail matters addressed to the Department of Health are carefully scrutinized,  
and those in which complaints are made relative to matters within the jurisdiction  
of the Department, and giving the names and addresses of the authors, are promptly  
acknowledged. Those requiring the attention of other city departments are acknowl-  
edged and immediately forwarded for such action as may be found necessary.

Statement of the number of written complaints received and answered in the  
various boroughs:

Manhattan .....	5,437
Brooklyn .....	2,492
The Bronx .....	540
Queens .....	1,106
Richmond .....	684
Total.....	10,259

Money Disbursed.

Statement of the disbursements of moneys in the various boroughs by the As-  
sistant Chief Clerks, showing the total and the amounts in detail; also the purposes  
for which the disbursements were made, as follows:

Boroughs.	Department Payrolls.	Hospital Payrolls.	Postage Stamps and Incidental Expenses.
Manhattan .....	\$677,997 96	\$101,211 07	\$24,000 00
Brooklyn .....	199,736 97	93,175 99	4,550 00
The Bronx .....	67,496 58	92,757 58	1,250 00
Queens .....	47,459 76	.....	750 00
Richmond .....	42,141 36	.....	300 00
Total.....	\$1,034,832 63	\$287,144 64	\$30,850 00

Assistant Chief Clerk, Borough of Brooklyn.

Report of the work performed in the office of the Assistant Chief Clerk during the  
year ending December 31, 1906:

The following table will show the amount of vaccine virus, antitoxin, mallein, and  
tetanus serum which has been sold, and given away free to Inspectors, Physicians and  
institutions for the year ending December 31, 1906:

	Antitoxin.	Virus.	Mallein.	Tetanus.	Tuberculin.
Cash sales.....	\$116 25	\$118 84	\$102 55	\$16 00	.....
Free .....	23,077 75	3,244 50	4 20	332 00	.....
Stock on hand.....	892 00	143 25	7 70	16 00	.....
Total.....	\$24,086 00	\$3,507 09	\$114 45	\$364 00	.....

The money received from all cash sales of vaccine virus, antitoxin, etc., also for  
searches of births, marriages, deaths and violations, is forwarded to the Manhattan  
office weekly. The following shows the exact amount forwarded from January 1,  
1906, to December 31, 1906:

	1905.	1906.
Account of searches and transcripts.....	\$5,522 40	\$5,889 30
Account of violations.....	75 00	141 50
Account of antitoxin.....	93 34	116 25
Account of virus.....	116 08	118 94
Account of mallein.....	59 15	103 60
Account of tetanus.....	11 00	16 00
Account of tuberculin.....	2 50	.....
Total.....	\$5,879 47	\$6,385 59

	1905.	1906.
Number of orders issued for transcripts.....	10,690	11,437
Number of orders issued for searches for sanitary violations.....	150	283

Assistant Chief Clerk, Borough of The Bronx.

Report of the work performed in the Assistant Chief Clerk's office, in the Bor-  
ough of The Bronx, during the year ending December 31, 1906.

During the past year many structural improvements and alterations have been  
made in and about the buildings occupied by this Department in The Bronx, at a  
considerable outlay of expense.

The interior of the building as now arranged is entirely different to-day than it  
was upon our first occupancy of it. The several offices and divisions are properly



separated and partitioned off to meet the demands and requirements of the working force and general public, and to-day we have one of the most complete public offices in this City.

The entire front half of the cellar has been arranged into separate rooms for the storing of the records, one assigned to each office and division. In the rear half of the cellar has been fitted up a sterilizing room in connection with the Tuberculosis Clinic.

The rear part of the first floor has been arranged as a clinic for the free treatment of people suffering from tuberculosis.

This room has been subdivided into a complete series of rooms properly supplied with running water and furnished throughout with the regulation hospital furniture.

During this year we have instituted a system by which the sale and free distribution of laboratory products is carried on during the hours of 4 p. m. and 9 a. m., in conjunction with the day hours. Heretofore we experienced some inconvenience in not being able to supply the public and our Inspectors with these products after the office hours of 9 a. m. and 4 p. m. This innovation we find has proved very beneficial to practicing physicians and the general public at large.

Another new arrangement which I have instituted in this office is a general certification of telephone calls made in this building. A record is kept by our Telephone Switchboard Operator of every call made and who makes the call. At the end of each month he forwards a list of the calls made during the month, and by a series of certifications we are able to account for all the telephone calls made. The result of this arrangement has been that quite a sum has been collected throughout the building for calls made for personal business. This will, of course, have a tendency to minimize the reckless use of the telephone for business other than official.

Herewith is shown in detail the amount of laboratory products sold and given away during the year 1906, as compared with the year 1905:

## Antitoxin.

	1906.	1905.
Amount sold for cash.....	\$33 17	\$21 45
Amount given away.....	5,759 75	3,845 50

## Virus.

	1906.	1905.
Amount sold for cash.....	\$28 09	\$19 77
Amount given away.....	421 85	360 15

## Tetanus.

	1906.	1905.
Amount sold for cash.....	\$10 00	.....
Amount given away.....	125 00	\$14 00

## Tuberculin.

	1906.	1905.
Amount sold for cash.....	\$1 00	.....
Amount given away.....	.....	\$0 50

## Mallein.

	1906.	1905.
Amount sold for cash.....	\$1 75	.....
Amount given away.....	6 30	\$0 35

There has been a decided increase in the number of applications for and receipts for searching of the records of vital statistics, and also for sanitary violations pending against real property. The following comparative table shows the amount received for these two items from time this information was available in this borough. Prior to the year 1902 searches of the records of births, marriages and deaths were conducted in the Manhattan office.

## Receipts for Searches of Vital Statistics.

1902 .....	\$293 20
1903 .....	689 90
1904 .....	1,000 20
1905 .....	881 40
1906 .....	1,190 60

## Receipts for Searches of Sanitary Violations.

1904 .....	\$171 00
1905 .....	259 50
1906 .....	205 50

The item of receipts for searches of vital statistics for the year 1904, \$1,000.20, and the decided decrease in the receipts for 1905, is accounted for by the reason of the destruction of the steamer "General Slocum," off North Brother Island, on June 15 of that year, in which a great loss of life occurred, and from that one accident alone 918 certificates of death were filed in this office. From most all of these deaths at least one transcript of the certificate was issued.

## Assistant Chief Clerk, Borough of Queens.

Report of work performed in the office of the Assistant Chief Clerk during the year 1906:

## Complaints.

Citizens' complaints received .....	1,760
Citizens' complaints acknowledged.....	1,044
Citizens' complaints, anonymous or personally made.....	716

## Orders and References.

Board's orders issued .....	1,600
Negative reports filed .....	497
Communications in relation to orders received and acknowledged.....	196
References to other departments.....	269

## Searches for Violations.

Searches made and certificates issued.....	..
Communications received and answered.....	..
Fees received .....	..

## Searches and Transcripts.

Applications for searches .....	996
Transcripts signed and authenticated.....	1,100
Not found certificates issued.....	81
Communications received and answered.....	275
Fees received .....	\$509 20

## Requisitions and Bills.

Number of requisitions forwarded to Chief Clerk.....	147
Number of bills checked, certified and forwarded.....	476

## Assistant Chief Clerk, Borough of Richmond.

Report of the work performed in the office of the Assistant Chief Clerk during the year 1906:

The report must necessarily be brief, by reason of the fact that the Board of Health, at a meeting held on March 1, 1906, passed resolutions relieving the office of the Assistant Chief Clerk of many of its responsibilities and duties.

No doubt the items heretofore contained in the reports of the Assistant Chief Clerk have been embodied in the annual report forwarded by the Assistant Sanitary Superintendent.

During the year three hundred and seventy-four (374) transcripts have been authenticated, subdivided as follows:

Deaths .....	329
Marriages .....	14
Births .....	31

Collected in fees .....

Affidavits of four hundred parents of applicants for employment certificates have been taken, the payrolls for the year amounting to \$38,393.88 have been certified and bills, forwarded to the Chief Clerk, amounting to \$4,077.18, have been authenticated.

During the year just closed the care and disposition of laboratory products was placed in charge of one of the Clerks in the Sanitary Bureau.

In addition to his regular duties the Assistant Chief Clerk has been frequently called upon to issue burial permits and grant removals of bodies from hospitals, both at the office and after office hours and at night and Sundays and holidays at his residence.

There is at present no office force.

## OFFICE OF THE ASSISTANT CORPORATION COUNSEL FOR THE BOROUGHS OF MANHATTAN, BROOKLYN, THE BRONX, QUEENS AND RICHMOND, YEAR ENDING DECEMBER 31, 1906.

## BOROUGH OF MANHATTAN.

Orders received from the Board of Health for issuance of notice of intention to commence action .....	6,845
Notices of intention to commence action issued and served.....	6,845
Other notices issued.....	825
Orders complied with after issuance and service of notice.....	5,845
Orders complied with after suit .....	443
Orders received for suit.....	464
Civil actions commenced to recover penalties on orders and for violation of Sanitary Code .....	464
Additional actions commenced on orders after failure to make personal service of summons on defendants.....	8
Other civil actions commenced.....	30
Civil actions pending, December 31, 1905.....	73
Judgments recovered in civil actions in favor of the Department of Health..	97
Judgments vacated and set aside by order of the Court.....	72
Civil actions discontinued upon request of the Board of Health.....	508
Civil actions now pending (December 31, 1906).....	21
Judgments docketed .....	34
Executions issued .....	59
Amount of costs, penalties and judgments collected in civil actions and paid to Secretary of Board.....	\$329 00
Amount of claims collected before and after suit for antitoxine and virus furnished by the Department to various parties and paid to the Secretary of Board .....	\$35 66
Criminal actions pending last year in Court of Special Sessions.....	15
Criminal actions commenced.....	3,488
Defendants held for trial in Court of Special Sessions.....	959
Defendants discharged by Magistrates.....	329
Defendants convicted by Magistrates.....	2,200
Judgments of conviction in Court of Special Sessions*.....	877
Complaints dismissed in Court of Special Sessions.....	10
Judgments of acquittal in Court of Special Sessions.....	33
Criminal actions now pending in Court of Special Sessions (December 31, 1906) .....	54
Fines imposed by Court of Special Sessions.....	\$11,333 00
Fines imposed by Magistrates.....	\$4,163 84
Appeals by defendants.....	3
Appeals withdrawn by the defendant.....	1
Appeals pending (December 31, 1906).....	2

## BOROUGH OF BROOKLYN.

Orders received from the Board of Health for issuance of notice of intention to commence action.....	3,478
Notices of intention to commence action issued and served.....	3,478
Orders complied with before and after suit.....	3,407
Orders received for suit.....	492
Civil actions commenced to recover penalties on orders and for violation of Sanitary Code .....	492
Civil actions pending December 31, 1905.....	274
Judgments recovered in civil actions in favor of the Department of Health..	136
Judgments vacated and set aside by order of the Court.....	45
Civil actions discontinued upon request of the Board of Health.....	567
Civil actions now pending (December 31, 1906).....	108
Judgments docketed .....	65
Executions issued .....	115
Amount of costs, penalties and judgments collected in civil actions and paid to Secretary of Board.....	\$180 00
Criminal actions pending last year in Court of Special Sessions.....	47
Criminal actions commenced.....	404
Defendants held for trial in Court of Special Sessions.....	404

\* The above judgments of conviction include four of ten days each in the City Prison, one of which was afterward changed to a fine of \$100, and also six of a fine of \$100 each and one of \$150.



Judgments of conviction in Court of Special Sessions.....	338
Complaints dismissed in Court of Special Sessions.....	34
Judgments of acquittal in Court of Special Sessions.....	26
Criminal actions now pending in Court of Special Sessions (December 31, 1906).....	53
Fines imposed by Court of Special Sessions.....	\$4,365 00
Appeals by defendant.....	2
Appeals now pending.....	2

## BOROUGH OF THE BRONX.

Orders received from the Board of Health for issuance of notice of intention to commence action.....	1,037
Notices of intention to commence action issued and served.....	1,037
Other notices issued.....	285
Orders complied with after issuance and service of notice.....	662
Orders complied with after suit.....	154
Orders received for suit.....	175
Civil actions commenced to recover penalties on orders and for violation of Sanitary Code.....	175
Civil actions pending (December 31, 1906).....	9
Judgments recovered in civil actions in favor of the Department of Health.....	21
Judgments vacated and set aside by order of the Court.....	13
Civil actions discontinued upon request of the Board of Health.....	103
Civil actions now pending (December 31, 1906).....	13
Judgments docketed.....	12
Executions issued.....	15
Amount of costs, penalties and judgments collected in civil actions and paid to Secretary of Board.....	\$54 00
Criminal actions pending December 31, 1905.....	79
Criminal actions commenced.....	54
Defendants held for trial in Court of Special Sessions.....	8
Defendants discharged by Magistrates.....	17
Defendants convicted by Magistrates.....	50
Judgments of conviction in Court of Special Sessions.....	2
Complaints dismissed in Court of Special Sessions.....	1
Judgments of acquittal in Court of Special Sessions.....	1
Criminal actions now pending in Court of Special Sessions (December 31, 1906).....	1
Fines imposed by Court of Special Sessions.....	\$805 00
Fines imposed by Magistrates.....	\$22 00

## BOROUGH OF QUEENS.

Orders received from the Board of Health for issuance of notice of intention to commence action.....	264
Notices of intention to commence action issued and served.....	264
Orders complied with after issuance and service of notice.....	193
Orders complied with after suit.....	86
Orders received for suit.....	88
Civil actions commenced to recover penalties on orders and for violation of Sanitary Code.....	88
Civil actions pending December 31, 1905.....	21
Judgments recovered in civil actions in favor of the Department of Health.....	16
Judgments vacated and set aside by order of the Court.....	2
Civil actions discontinued upon request of the Board of Health.....	66
Civil actions now pending (December 31, 1906).....	29
Judgments docketed.....	2
Executions issued.....	5
Criminal actions pending last year in Court of Special Sessions.....	3
Criminal actions commenced.....	58
Defendants held for trial in Court of Special Sessions.....	58
Judgments of conviction in Court of Special Sessions.....	19
Complaints dismissed in Court of Special Sessions.....	33
Judgments of acquittal in Court of Special Sessions.....	4
Criminal actions now pending in Court of Special Sessions (December 31, 1906).....	5
Fines imposed by Court of Special Sessions.....	\$510 00

## BOROUGH OF MANHATTAN.

No.	Date.	Premises.	Cause.	Result.
1	April 4	No. 238 East Fifty-first street.....	Defective plumbing and defective drainage.....	Complied May 4, 1906.
2	April 4	No. 357 East One Hundred and Twenty-fourth street.....	Defective plumbing and defective drainage.....	Complied May 11, 1906.
3	May 9	No. 310 West Thirty-fifth street.....	Defective plumbing.....	Complied August 29, 1906.
4	May 9	No. 106 East Eleventh street.....	Defective plumbing.....	Complied May 18, 1906.
5	May 23	No. 201 West Twenty-third street.....	Defective plumbing.....	Complied August 29, 1906.
6	May 23	No. 203 West Twenty-third street.....	Defective plumbing.....	Complied August 29, 1906.
7	May 23	No. 515½ East One Hundred and Eighteenth street.....	Defective plumbing.....	Complied June 26, 1906.
8	May 23	No. 649 West Fifty-second street.....	Defective plumbing.....	Complied September 14, 1906.
9	May 23	No. 651 West Fifty-second street.....	Defective plumbing.....	Complied September 14, 1906.
10	June 6	Southwest corner of One Hundred and Thirty-fourth street and Park avenue....	Public nuisance.....	Complied November 23, 1906.
11	June 6	No. 143 West street.....	Nuisance.....	Complied July 9, 1906.
12	June 13	No. 49 Willett street.....	Public nuisance.....	Complied July 5, 1906.
13	June 13	No. 75 Goerck street.....	Public nuisance.....	Complied July 5, 1906.
14	June 13	No. 102 East One Hundred and Fourth street.....	Defective plumbing.....	Complied July 18, 1906.
15	June 13	No. 104 East One Hundred and Fourth street.....	Defective plumbing.....	Complied July 18, 1906.
16	June 13	No. 106 East One Hundred and Fourth street.....	Defective plumbing.....	Complied July 18, 1906.
17	June 13	No. 108 East One Hundred and Fourth street.....	Defective plumbing.....	Complied July 18, 1906.
18	June 27	Nos. 616 to 636 West Fortieth street.....	Public nuisance.....	Work progressing.
19	July 11	No. 105 Bowery.....	Defective drainage.....	Complied July 16, 1906.
20	July 11	No. 175 East Houston street.....	Public nuisance.....	Complied July 23, 1906.
21	July 18	Nos. 828 and 830 Seventh avenue.....	Public nuisance.....	Complied August 16, 1906.
22	Aug. 1	No. 159 Third avenue.....	Defective plumbing and defective drainage.....	Complied October 18, 1906.
23	Aug. 1	No. 502 Canal street.....	Defective plumbing and defective drainage.....	Complied October 10, 1906.
24	Aug. 1	No. 82 Park row.....	Defective plumbing and defective drainage.....	Work progressing.
25	Aug. 1	No. 144 West street.....	Public nuisance.....	Complied October 2, 1906.
26	Aug. 22	No. 342 East Fiftieth street.....	Defective plumbing.....	Complied October 10, 1906.
27	Aug. 22	No. 465 Lexington avenue.....	Defective plumbing.....	Complied October 12, 1906.
28	Sept. 5	Northwest corner of Broadway and Hawthorne street.....	Defective plumbing.....	Work progressing.
29	Sept. 5	Nos. 102 and 104 West Forty-seventh street.....	Nuisance.....	Complied October 4, 1906.
30	Sept. 5	No. 15 West Forty-second street.....	Nuisance.....	Complied September 27, 1906.
31	Sept. 5	No. 206 Forsyth street.....	Defective plumbing.....	Work progressing.

## BOROUGH OF RICHMOND.

Orders received from the Board of Health for issuance of notice of intention to commence action.....	265
Notices of intention to commence action issued and served.....	265
Orders complied with after issuance and service of notice.....	165
Orders complied with after suit.....	104
Orders received for suit.....	114
Civil actions commenced to recover penalties on orders and for violation of Sanitary Code.....	114
Civil actions pending December 31, 1905.....	41
Judgments recovered in civil actions in favor of the Department of Health.....	25
Judgments vacated and set aside by order of the Court.....	17
Civil actions discontinued upon request of the Board of Health.....	119
Civil actions now pending (December 31, 1906).....	28
Judgments docketed.....	33
Executions issued.....	25
Amount of costs, penalties and judgments collected in civil actions and paid to Secretary of Board.....	\$67 00
Criminal actions pending last quarter in Court of Special Sessions.....	16
Criminal actions commenced.....	14
Defendants held for trial in Court of Special Sessions.....	2
Defendants discharged by Magistrates.....	11
Judgments of conviction in Court of Special Sessions.....	2
Complaints dismissed in Court of Special Sessions.....	1
Judgments of acquittal in Court of Special Sessions.....	1
Criminal actions now pending in Court of Special Sessions (December 31, 1906).....	1
Fines imposed by Court of Special Sessions.....	\$165 00

## SANITARY BUREAU.

The Sanitary Bureau of the Department of Health is under the charge of the Sanitary Superintendent, assisted by five Assistant Sanitary Superintendents, one in charge of each borough.

The following is a summary of the operations of the Sanitary Bureau, which is charged with the duty of inspecting and reporting, in proper form, all nuisances or causes of danger to the public health; with the execution of the orders of the Board; with the care of contagious and communicable diseases; with the inspection of foods and offensive trades; with the inspection of mercantile establishments and issuance of employment certificates; with the pathological, bacteriological and chemical research and investigations, and with the inspection of scholars attending the public, parochial and private schools.

The number of inspections and reinspections made was 2,074,314, classified as follows:

By the Division of Inspection.....	1,472,204
By the Division of Contagious Diseases.....	516,916
By the Division of Communicable Diseases.....	82,744
By the Division of Laboratories.....	2,450
Total.....	2,074,314

The number of complaints forwarded for Board's orders was 27,779, classified as follows:

By the Division of Inspection.....	26,092
By the Division of Contagious Diseases.....	142
By the Division of Communicable Diseases.....	1,545
Total.....	27,779

The number of complaints received from citizens was 45,911, all of which were referred to the Inspectors and Sanitary Police for investigation and report.

The Sanitary Superintendent during the same period, under instructions and authority of the Board, granted 4,160 permits to discharge cargoes, under proper vouchers from the Health Officer of the Port, and 12,783 miscellaneous permits under the Sanitary Code.

The following tabulated statement and summary shows the date, location, cause of action and the result of vacation of premises by the Board of Health, in compliance with the requirements of sections 1176 and 1299 of chapter 466, Laws of 1901:



No.	Date.	Premises.	Cause.	Result.
32	Sept. 5	No. 213 East Fifteenth street.....	Defective plumbing.....	Complied September 22, 1906.
33	Sept. 5	No. 142 Monroe street.....	Nuisance.....	Complied October 8, 1906.
34	Sept. 5	No. 802 East Fifth street.....	Public nuisance.....	Complied October 8, 1906.
35	Sept. 12	Nos. 320 and 322 West Thirty-fourth street.....	Defective plumbing.....	Complied November 9, 1906.
36	Sept. 12	No. 51 East Ninth street.....	Public nuisance.....	Complied December 1, 1906.
37	Sept. 12	No. 239 West Sixtieth street.....	Public nuisance.....	Complied September 19, 1906.
38	Sept. 12	No. 79 White street.....	Nuisance.....	Complied October 11, 1906.
39	Sept. 12	Nos. 310 to 320 East Seventy-fifth street.....	Defective plumbing and defective drainage.....	Complied October 2, 1906.
40	Sept. 12	Nos. 418 to 422 Broadway and No. 277 Canal street.....	Nuisance.....	Complied October 24, 1906.
41	Sept. 19	No. 57 West Tenth street.....	Defective plumbing.....	Complied September 26, 1906.
42	Sept. 19	No. 476 Ninth avenue (front).....	Defective drainage.....	Complied October 31, 1906.
43	Sept. 19	No. 747 East Eleventh street.....	Public nuisance.....	Complied October 6, 1906.
44	Oct. 3	Nos. 570 to 576 West Broadway.....	Defective plumbing.....	Complied October 16, 1906.
45	Oct. 3	No. 55 West Third street.....	Defective plumbing.....	Complied October 23, 1906.
46	Oct. 3	No. 359 West Fifty-fifth street.....	Defective plumbing.....	Complied November 9, 1906.
47	Oct. 3	No. 9 Rutgers street.....	Defective plumbing.....	Complied October 10, 1906.
48	Oct. 3	Nos. 51 to 55 West Ninety-third street.....	Public nuisance.....	Work progressing.
49	Oct. 24	No. 35 East Broadway (rear).....	Lack of water supply.....	Complied October 30, 1906.
50	Oct. 24	No. 227 West Sixty-second street.....	Public nuisance.....	Complied December 1, 1906.
51	Oct. 24	No. 84 Bowery.....	Defective plumbing.....	Complied November 26, 1906.
52	Nov. 7	No. 143 West Thirty-second street.....	Defective plumbing.....	Complied December 7, 1906.
53	Nov. 7	No. 167 East One Hundred and Twenty-seventh street.....	Defective plumbing.....	Complied November 28, 1906.
54	Nov. 7	No. 32 West One Hundred and Thirty-eighth street.....	Public nuisance.....	Work progressing.
55	Nov. 7	No. 169 West End avenue.....	Public nuisance.....	Complied December 1, 1906.
56	Nov. 21	South of Reade street, north of Duane street, west of West street and east of Washington street.....	Defective plumbing.....	Work progressing.
57	Nov. 28	No. 211 West Eighty-seventh street.....	Public nuisance.....	Work progressing.
58	Nov. 28	No. 504 East Thirteenth street.....	Public nuisance.....	Complied December 14, 1906.
59	Nov. 28	No. 196 Avenue C.....	Public nuisance.....	Complied December 21, 1906.
60	Nov. 28	No. 517 East Thirteenth street.....	Public nuisance.....	Complied December 7, 1906.
61	Nov. 28	No. 129 Canal street.....	Defective plumbing.....	Complied December 28, 1906.
62	Nov. 28	No. 243 Division street.....	Defective plumbing.....	Complied December 31, 1906.
63	Nov. 28	No. 620 East Thirteenth street.....	Public nuisance.....	Complied December 28, 1906.
64	Nov. 28	No. 207 West Sixty-fourth street.....	Public nuisance.....	Complied December 24, 1906.
65	Dec. 5	No. 204 Avenue C.....	Public nuisance.....	Work progressing.
66	Dec. 5	No. 438 East Thirteenth street.....	Public nuisance.....	Work progressing.
67	Dec. 12	No. 29 Cooper square.....	Public nuisance.....	Complied December 24, 1906.
68	Dec. 12	No. 442 East Thirteenth street.....	Public nuisance.....	Work progressing.
69	Dec. 12	No. 155 First avenue.....	Public nuisance.....	Complied December 24, 1906.
70	Dec. 12	No. 216 First avenue.....	Public nuisance.....	Work progressing.
71	Dec. 12	No. 357 East Seventy-sixth street.....	Public nuisance.....	Complied December 21, 1906.
72	Dec. 12	No. 712 Eleventh avenue (front).....	Defective drainage.....	Work progressing.
73	Dec. 12	No. 712 Eleventh avenue (rear).....	Public nuisance.....	Work progressing.
74	Dec. 19	No. 413 East Twelfth street (rear).....	Public nuisance.....	Work progressing.
75	Dec. 19	No. 362 Seventh avenue.....	Defective plumbing.....	Work progressing.

## BOROUGH OF BROOKLYN.

No.	Date.	Premises.	Cause.	Result.
1	Feb. 21	Northwest corner of Kingston avenue and Rutland road.....	Public nuisance.....	Complied November 29, 1906.
2	Mar. 7	Third house west of Third avenue, on Cedar lane.....	Defective drainage.....	Complied May 31, 1906.
3	April 11	No. 274 Twentieth street.....	Nuisance.....	Complied April 19, 1906.
4	April 25	North side of Bay Ridge avenue, second house west of Ninth avenue.....	Defective drainage.....	Complied June 27, 1906.
5	April 25	No. 17 McKibben street.....	Public nuisance.....	Work progressing.
6	May 9	No. 2421 Eighty-third street.....	Public nuisance.....	Complied December 31, 1906.
7	May 23	No. 520 Eighth street.....	Public nuisance.....	Complied December 1, 1906.
8	May 23	No. 522 Eighth street.....	Public nuisance.....	Complied December 1, 1906.
9	May 23	No. 524 Eighth street.....	Public nuisance.....	Complied December 1, 1906.
10	June 6	North side of Thirteenth street, between Wythe avenue and Berry street, Kings County Iron Foundry.....	Public nuisance.....	Extension of time granted by Board.
11	July 11	North Eighth, Ninth and Roebling streets and No. 235 North Eighth street.....	Public nuisance.....	Work progressing.
12	Aug. 29	No. 2345 Eighty-third street.....	Public nuisance.....	Vacated August 31, 1906; work progressing.
13	Sept. 26	No. 57 Bay Thirty-fifth street.....	Defective drainage.....	Vacated October 5, 1906; work progressing.
14	Oct. 3	No. 12 Gratten street.....	Public nuisance.....	Vacated December 26, 1906.
15	Oct. 10	No. 599 Manhattan avenue.....	Defective drainage.....	Vacated November 10, 1906; work progressing.
16	Oct. 10	No. 327 Blake avenue.....	Defective drainage.....	Vacated October 19, 1906; work progressing.
17	Oct. 10	No. 92 Meserole avenue.....	Defective plumbing.....	Work progressing.
18	Oct. 10	East Eighteenth street, between Avenues Y and Z.....	Public nuisance.....	Work progressing.
19	Oct. 31	No. 60 Moore street, second floor.....	Defective plumbing.....	Vacated November 24, 1906; work progressing.
20	Oct. 31	No. 60 Moore street, first floor.....	Public nuisance.....	Vacated November 24, 1906; work progressing.
21	Nov. 7	No. 31 Humboldt street.....	Defective drainage.....	Complied December 31, 1906.
22	Nov. 21	Nos. 1549 and 1551 Bushwick avenue.....	Public nuisance.....	Vacated December 13, 1906.
23	Nov. 21	No. 552 Fourth avenue.....	Defective plumbing.....	Complied December 3, 1906.
24	Nov. 21	No. 260 Flushing avenue.....	Public nuisance.....	Vacated November 28, 1906.
25	Nov. 21	No. 262 Flushing avenue.....	Public nuisance.....	Vacated November 28, 1906.
26	Nov. 21	No. 264 Flushing avenue.....	Public nuisance.....	Vacated November 28, 1906.
27	Nov. 21	No. 266 Flushing avenue.....	Public nuisance.....	Vacated November 28, 1906.
28	Nov. 21	No. 268 Flushing avenue.....	Public nuisance.....	Vacated November 28, 1906.
29	Dec. 5	No. 18 Fleet place.....	Defective plumbing and defective drainage.....	Vacated December 27, 1906.
30	Dec. 19	No. 62 Congress street.....	Defective plumbing.....	Work progressing.



## BOROUGH OF THE BRONX.

No.	Date.	Premises.	Cause.	Result.
1	Jan. 24	No. 3083 Third avenue.....	Defective drainage.....	Complied March 14, 1906.
2	Feb. 14	No. 2075 Arthur avenue.....	Public nuisance.....	Complied July 18, 1906.
3	Feb. 14	Avenue St. John and Southern boulevard.....	Public nuisance.....	Work progressing.
4	Feb. 28	North side of Jackson street, near Railroad avenue.....	Public nuisance.....	Complied July 12, 1906.
5	Mar. 21	East side of Second street, between Avenues B and C, Unionport.....	Public nuisance.....	Work progressing.
6	April 4	East One Hundred and Seventieth street, from Ogden to Plimpton avenue.....	Public nuisance.....	Vacated July 5, 1906; work progressing.
7	April 11	No. 1242 Fulton avenue.....	Defective drainage.....	Complied October 5, 1906.
8	April 11	West side of Bronx terrace, third house north of Two Hundred and Twenty-sixth street.....	Public nuisance.....	Complied July 21, 1906.
9	April 11	West side of Elliott avenue, first stable north of Two Hundred and Fifth street.....	Public nuisance.....	Complied May 2, 1906.
10	April 11	Two Hundred and Twenty-eighth street and Sixth avenue, Williamsbridge.....	Public nuisance.....	Complied November 26, 1906.
11	April 18	Southeast corner of One Hundred and Seventy-sixth street and Crotona avenue..	Defective drainage.....	Complied July 14, 1906.
12	May 2	Tiffany street and Spofford avenue, Springhurst.....	Public nuisance.....	Complied July 18, 1906.
13	May 2	Van Courtland street, one-quarter of a mile east of Eastchester road.....	Public nuisance.....	Vacated July 24, 1906; work progressing.
14	May 2	East side of Ninth street, first stable north of Avenue D, Unionport.....	Public nuisance.....	Vacated July 7, 1906.
15	May 2	Longwood avenue and Mohawk street.....	Public nuisance.....	Work progressing.
16	May 2	Barretto Point.....	Public nuisance.....	Cows ordered to public pound.
17	May 16	No. 2010 Quarry road.....	Defective drainage.....	Complied July 10, 1906.
18	June 6	Ferris lane, Throggs Neck.....	Public nuisance.....	Complied November 28, 1906.
19	June 6	Spuyten Duyvil parkway, opposite Seton Hospital.....	Public nuisance.....	Work progressing.
20	June 13	Findlay avenue and One Hundred and Seventieth street.....	Public nuisance.....	Complied December 11, 1906.
21	June 13	Avenue E and Thirteenth street, Unionport.....	Public nuisance.....	Complied September 10, 1906.
22	July 11	South side of One Hundred and Sixty-second street, first stable west of Grant avenue .....	Public nuisance.....	Complied July 11, 1906.
23	July 11	Southwest corner of Waterloo place and One Hundred and Seventy-sixth street..	Defective plumbing and defective drainage.....	Complied July 18, 1906.
24	Aug. 1	Albany Post road, fourth house north of Two Hundred and Thirty-fourth street.	Public nuisance.....	Complied December 31, 1906.
25	Aug. 1	South side of Clarke place, second house east of Jerome avenue.....	Public nuisance.....	Vacated September 21, 1906; work progressing.
26	Aug. 1	West side of Albany Post road, fourth house south of Two Hundred and Thirty-sixth street.....	Public nuisance.....	Work progressing.
27	Aug. 1	East side of Eastchester road, 400 feet north of Pelham parkway.....	Public nuisance.....	Complied November 28, 1906.
28	Aug. 22	Jessup place and Claremont avenue.....	Public nuisance.....	Complied October 2, 1906.
29	Aug. 22	West side of Concourse, first house south of One Hundred and Eighty-third street	Public nuisance.....	Work in abeyance, pending construction of street sewer.
30	Aug. 22	Sacred Heart Academy, Clason's Point.....	Public nuisance.....	Complied November 30, 1906.
31	Sept. 12	Reed's Mill lane, Eastchester.....	Public nuisance.....	Work progressing.
32	Sept. 19	North side of Lafayette avenue, first house south of Westchester avenue.....	Public nuisance.....	Work progressing.
33	Sept. 19	South side of Ferry lane, first house east of Eastern boulevard.....	Public nuisance.....	Complied November 26, 1906.
34	Sept. 19	North side of Two Hundred and Tenth street, second house west of Elliott avenue	Defective drainage.....	Complied December 1, 1906.
35	Sept. 19	North side of Two Hundred and Tenth street, third house west of Elliott avenue.	Defective drainage.....	Complied December 1, 1906.
36	Sept. 19	North side of Two Hundred and Tenth street, fourth house west of Elliott avenue	Defective drainage.....	Complied December 1, 1906.
37	Oct. 31	East side of Blondale avenue, third house south of Eastchester road.....	Public nuisance.....	Complied November 28, 1906.
38	Nov. 21	East side of Boston Post road, north of Fifth avenue, Eastchester.....	Public nuisance.....	Work progressing.
39	Nov. 21	Prospect Park Hill, Pelham Bay Park.....	Public nuisance.....	Work progressing.
40	Dec. 12	South side of Rock street and Albany Post road.....	Public nuisance.....	Work progressing.
41	Dec. 19	South side of One Hundred and Forty-fifth street, first house west of Wales avenue .....	Defective plumbing.....	Work progressing.

## BOROUGH OF QUEENS.

No.	Date.	Premises.	Cause.	Result.
1	Jan. 10	No. 6 Central avenue, Corona.....	Public nuisance.....	Complied March 14, 1906.
2	Jan. 10	No. 151 Smith street, Corona.....	Public nuisance.....	Complied October 6, 1906.
3	Jan. 10	No. 147 Buena Vista street, Corona.....	Public nuisance.....	Complied October 16, 1906.
4	Jan. 10	No. 91 Twelfth street, College Point.....	Public nuisance.....	Complied October 1, 1906.
5	Feb. 7	East side of Old Flushing road, 200 feet south of Grand street.....	Public nuisance.....	Complied April 26, 1906.
6	Feb. 7	No. 7 Emma street, Metropolitan.....	Public nuisance.....	Complied August 4, 1906.
7	Mar. 14	No. 22 Jacob place, Jamaica.....	Defective drainage.....	Complied May 31, 1906.
8	April 11	No. 61 West Amity street, Flushing.....	Public nuisance.....	Complied May 10, 1906.
9	April 11	Corner of Seventh street and Howland avenue.....	Public nuisance.....	Complied May 17, 1906.
10	April 11	North side of Eleventh street, 200 feet east of Ninth avenue, Whitestone.....	Public nuisance.....	Complied October 15, 1906.
11	April 11	No. 73 West Grove street, Flushing.....	Public nuisance.....	Complied June 22, 1906.
12	April 11	North side of Fulton street, 500 feet west of Maiden lane.....	Public nuisance.....	Work progressing.
13	April 11	Twentieth street, near Fifth avenue, College Point.....	Public nuisance.....	Complied June 6, 1906.
14	April 18	North side of Flushing avenue, 150 feet west of Old Flushing road, Maspeth....	Public nuisance.....	Complied May 29, 1906.
15	April 25	East side of Astoria road, 500 feet north of Maurice avenue, Maspeth.....	Public nuisance.....	Complied July 2, 1906.
16	April 25	East side of Old Town Landing, 200 feet north of Betts avenue, Maspeth.....	Public nuisance.....	Complied December 5, 1906.
17	April 25	East side of Old Town Landing, 250 feet north of Betts avenue, Maspeth.....	Public nuisance.....	Complied May 29, 1906.
18	April 25	East side of Old Town Landing, 350 feet north of Betts avenue, Maspeth.....	Public nuisance.....	Complied May 29, 1906.
19	May 2	No. 5 Cedar place, Long Island City.....	Defective drainage.....	Complied December 13, 1906.
20	May 2	South side of Metropolitan avenue, between Newtown Creek Bridge and Woodward avenue, 400 feet west of bridge.....	Public nuisance.....	Complied May 21, 1906.
21	May 9	No. 418 Greene street, Evergreen.....	Public nuisance.....	Complied July 5, 1906.
22	May 9	No. 320 Fairmount street, Evergreen.....	Public nuisance.....	Complied June 1, 1906.
23	May 9	South side of Cooper avenue, adjoining Liberty Park, Evergreen.....	Public nuisance.....	Complied December 12, 1906.
24	May 16	Northeast corner of Harmon street and Covert avenue, Evergreen.....	Public nuisance.....	Complied June 21, 1906.
25	May 16	East side of Ocean View avenue, adjoining Forest Park, Glendale Park.....	Public nuisance.....	Complied June 13, 1906.
26	May 16	North side of Rose street, 100 feet east of Jamaica avenue, Flushing.....	Public nuisance.....	Complied October 1, 1906.
27	May 16	East side of Whitestone avenue, 300 feet west of Bayside avenue, Flushing.....	Public nuisance.....	Complied June 29, 1906.
28	May 16	West side of Astoria road, 400 feet north of Maurice avenue, Maspeth.....	Public nuisance.....	Complied July 3, 1906.
29	May 16	East side of Webster avenue, 650 feet north of Cooper avenue, Glendale.....	Public nuisance.....	Complied September 27, 1906.
30	May 23	West side of Fifteenth street, 100 feet north of Fifth avenue, College Point....	Public nuisance.....	Complied June 29, 1906.
31	May 23	Seventeenth street and High street, College Point.....	Public nuisance.....	Complied June 29, 1906.
32	May 23	No. 76 West Amity street, Flushing.....	Defective drainage.....	Complied August 3, 1906.



No.	Date.	Premises.	Cause.	Result.
33	June 6	Between Walling and Walnut streets, 1,000 feet east of Woodhaven avenue, Glendale Park.....	Public nuisance.....	Work progressing.
34	June 6	Between Walling and Walnut streets, 1,000 feet east of Woodhaven avenue, Glendale Park.....	Public nuisance.....	Work progressing.
35	June 6	Between Walling and Walnut streets, 1,000 feet east of Woodhaven avenue, Glendale Park.....	Public nuisance.....	Work progressing.
36	June 6	No. 106 South street, Jamaica.....	Public nuisance.....	Complied October 8, 1906.
37	June 6	Bayview avenue, near Willet's Point road, Little Bayside.....	Public nuisance.....	Complied October 29, 1906.
38	June 6	Alley road, near Broadway, Little Neck.....	Public nuisance.....	Complied July 19, 1906.
39	June 6	Corner of Eighth street and Fourth avenue, Whitestone.....	Public nuisance.....	Complied October 5, 1906.
40	June 6	Eighth street and Fourteenth avenue, Whitestone.....	Public nuisance.....	Complied December 18, 1906.
41	June 6	West side of Chestnut street, 150 feet north of Chichester avenue, Richmond Hill.....	Public nuisance.....	Complied November 3, 1906.
42	June 6	West side of Elm street, first house south of Chichester avenue, Richmond Hill.....	Public nuisance.....	Complied October 25, 1906.
43	June 6	West side of Greenwood avenue, 200 feet north of Liberty avenue, Richmond Hill.....	Public nuisance.....	Complied October 12, 1906.
44	June 6	Corner of Dry Harbor and Juniper Swamp roads, Middle Village.....	Public nuisance.....	Work progressing.
45	June 6	East side of Ward street, 300 feet north of Liberty avenue, Richmond Hill.....	Public nuisance.....	Complied July 13, 1906.
46	June 6	North side of Union Turnpike road, one-quarter of a mile west of railroad, Richmond Hill.....	Public nuisance.....	Complied September 7, 1906.
47	June 13	No. 74 Cherry street, Brooklyn Hills.....	Public nuisance.....	Complied October 1, 1906.
48	June 13	West side of Drew avenue, 200 feet south of Rockaway road, Union Course.....	Public nuisance.....	Work progressing.
49	June 13	East side of Fosdick avenue, 300 feet south of Central avenue, Glendale.....	Public nuisance.....	Complied December 27, 1906.
50	June 13	Metropolitan avenue, opposite Helen street, East Williamsburg.....	Public nuisance.....	Work progressing.
51	June 13	Centre street, near Rockaway road, Union Course.....	Public nuisance.....	Complied July 3, 1906.
52	June 13	Northwest corner of Maurice and Elmenier avenues, Maspeth.....	Public nuisance.....	Complied November 5, 1906.
53	June 13	East side of Martin avenue, first house south of Myrtle avenue, Glendale Park.....	Public nuisance.....	Complied October 25, 1906.
54	June 13	No. 3 Railroad avenue, Rockaway Beach.....	Defective drainage.....	Complied August 13, 1906.
55	June 13	No. 5 Railroad avenue, Rockaway Beach.....	Defective drainage.....	Complied August 22, 1906.
56	June 13	No. 7 Railroad avenue, Rockaway Beach.....	Defective drainage.....	Complied August 22, 1906.
57	June 27	Corner of Jackson avenue and Rawson street, Long Island City.....	Public nuisance.....	Complied December 3, 1906.
58	June 27	West side of Columbia avenue, north of railroad crossing, Maspeth.....	Public nuisance.....	Complied August 7, 1906.
59	June 27	North side of Jackson avenue, 500 feet west of Newtown road, Long Island City.....	Public nuisance.....	Complied October 24, 1906.
60	June 27	West side of Bowery Bay road, 125 feet north of Vandeventer avenue, Long Island City.....	Public nuisance.....	Complied December 10, 1906.
61	July 11	No. 71 Newtown avenue, Long Island City.....	Defective drainage.....	Complied December 3, 1906.
62	July 11	Rear of No. 249 William street, Long Island City.....	Public nuisance.....	Work progressing.
63	July 11	No. 69 Frankfort street, Long Island City.....	Public nuisance.....	Complied December 17, 1906.
64	July 11	No. 217 Elm street, Long Island City.....	Public nuisance.....	Complied November 19, 1906.
65	July 11	No. 41 Purvies street, Long Island City.....	Public nuisance.....	Complied September 17, 1906.
66	July 11	Opposite No. 69 Frankfort street, Long Island City.....	Public nuisance.....	Complied October 10, 1906.
67	July 11	No. 44 Dutch Kills street, Long Island City.....	Public nuisance.....	Complied September 17, 1906.
68	July 11	No. 207 Newtown road, Long Island City.....	Public nuisance.....	Complied November 12, 1906.
69	July 11	No. 26 School street, near Skillman avenue, Long Island City.....	Public nuisance.....	Complied September 18, 1906.
70	July 11	No. 85 Sherman street, Long Island City.....	Public nuisance.....	Complied September 18, 1906.
71	July 11	No. 86 Marion street, Long Island City.....	Public nuisance.....	Complied September 18, 1906.
72	July 11	No. 133 Newtown road, Long Island City.....	Public nuisance.....	Complied September 17, 1906.
73	July 11	No. 217 Park place, Long Island City.....	Public nuisance.....	Work progressing.
74	July 11	Potter avenue and Crescent street, Long Island City.....	Public nuisance.....	Complied October 11, 1906.
75	Aug. 22	West side of Hall street, 400 feet north of Flushing road, Corona.....	Public nuisance.....	Complied December 5, 1906.
76	Aug. 22	No. 433 Honeywell street.....	Public nuisance.....	Complied November 1, 1906.
77	Aug. 22	Corner of Seventeenth street and Eighth avenue, College Point.....	Public nuisance.....	Work progressing.
78	Aug. 22	Southwest corner of New York avenue and Fulton street, Jamaica.....	Public nuisance.....	Complied September 6, 1906.
79	Aug. 22	No. 26 Fifth street, North Woodside.....	Public nuisance.....	Complied December 10, 1906.
80	Aug. 22	No. 80 Henry street, Winfield.....	Public nuisance.....	Complied September 25, 1906.
81	Aug. 22	No. 49 Junction avenue, Corona.....	Public nuisance.....	Complied November 28, 1906.
82	Aug. 22	No. 13 Grove street, Flushing.....	Public nuisance.....	Complied November 14, 1906.
83	Aug. 22	No. 103 Lake street, Corona.....	Public nuisance.....	Complied November 12, 1906.
84	Aug. 22	No. 103 Grove street, Corona.....	Public nuisance.....	Complied November 12, 1906.
85	Aug. 22	Stone street and Middleburg avenue, Woodside.....	Public nuisance.....	Complied November 12, 1906.
86	Sept. 19	South side of Elm avenue, opposite Forest avenue, Evergreen.....	Public nuisance.....	Complied December 12, 1906.
87	Sept. 19	No. 1740 Green avenue, Ridgewood.....	Public nuisance.....	Complied December 20, 1906.
88	Sept. 19	South side of Elm street, opposite Forest avenue, Evergreen.....	Public nuisance.....	Complied September 25, 1906.
89	Sept. 19	East side of Woodhaven avenue, 1,000 feet south of pine line.....	Public nuisance.....	Complied October 10, 1906.
90	Sept. 19	No. 1484 Metropolitan avenue, opposite Helen street, Metropolitan.....	Public nuisance.....	Work progressing.
91	Sept. 19	Court street, opposite Toledo avenue, Newtown.....	Public nuisance.....	Complied December 29, 1906.
92	Sept. 19	Metropolitan avenue, opposite Helen street, Metropolitan.....	Public nuisance.....	Complied October 23, 1906.
93	Sept. 19	South side of Court street, 200 feet west of Toledo avenue, Newtown.....	Public nuisance.....	Complied December 29, 1906.
94	Sept. 19	Calamus road, 700 feet east of Jefferson avenue, Newtown.....	Public nuisance.....	Work progressing.
95	Sept. 19	West side of Betts avenue, 1,200 feet north of Maspeth avenue, Maspeth.....	Public nuisance.....	Complied November 21, 1906.
96	Sept. 19	No. 24 Butler street, Metropolitan.....	Public nuisance.....	Complied December 12, 1906.
97	Oct. 3	Woodside, near Kelly avenue, Woodside.....	Public nuisance.....	Work progressing.
98	Oct. 3	Southwest corner of Old Brook School road and Debevoise avenue, Laurel Hill.....	Public nuisance.....	Work progressing.
99	Oct. 3	Court street, opposite Prospect street, Newtown.....	Public nuisance.....	Work progressing.
100	Oct. 3	Old Brook School road, near Debevoise avenue, Laurel Hill.....	Public nuisance.....	Complied December 10, 1906.
101	Oct. 10	Twenty-seventh street, north of Third avenue, College Point.....	Public nuisance.....	Work progressing.
102	Oct. 10	Ireland Mill road, south of Flushing avenue, Flushing.....	Public nuisance.....	Complied November 14, 1906.
103	Oct. 10	No. 220 Colden avenue, Flushing.....	Public nuisance.....	Complied October 29, 1906.
104	Oct. 17	No. 346 Second street, Woodside.....	Defective drainage.....	Complied October 27, 1906.
105	Oct. 17	West side of Blackstump road, one-half mile north of Hillside avenue, Jamaica.....	Public nuisance.....	Complied October 24, 1906.
106	Oct. 24	No. 606 Seventh avenue, College Point.....	Public nuisance.....	Work progressing.
107	Nov. 21	East side of Blackstump road, about one-quarter of a mile north of Hillside avenue, Jamaica.....	Public nuisance.....	Complied December 3, 1906.
108	Dec. 5	No. 168 Sixteenth avenue, Long Island City.....	Public nuisance.....	Work progressing.
109	Dec. 5	No. 1065 Fourth avenue, Long Island City.....	Public nuisance.....	Work progressing.
110	Dec. 5	Corner of Carroll avenue and Hempstead Turnpike, Hollis.....	Public nuisance.....	Work progressing.
111	Dec. 5	Anderson avenue, near Second street, Woodside.....	Public nuisance.....	Work progressing.
112	Dec. 19	North side of Old South road, about 200 feet west of Centreville avenue, Aqueduct.....	Public nuisance.....	Work progressing.
113	Dec. 26	Fulton street, near Palatina avenue, Hollis.....	Public nuisance.....	Work progressing.



## BOROUGH OF RICHMOND.

No.	Date.	Premises.	Cause.	Result.
1	Jan. 17	North side of Richmond road, near Vanderbilt avenue.....	Public nuisance.....	Work progressing.
2	Jan. 17	Neckar avenue, Fourth Ward.....	Public nuisance.....	Complied November 15, 1906.
3	Jan. 17	West side of Manor road, between Richmond turnpike and New York avenue....	Public nuisance.....	Work progressing.
4	Jan. 17	First place, Second Ward.....	Public nuisance.....	Complied March 30, 1906.
5	Jan. 17	South side of Richmond avenue, Second Ward.....	Public nuisance.....	Complied March 30, 1906.
6	Jan. 17	Virginia and St. Mary's avenues, Rosebank.....	Public nuisance.....	Complied December 1, 1906.
7	Jan. 17	East side of Richmond street, West New Brighton.....	Public nuisance.....	Complied May 14, 1906.
8	Jan. 24	Watchogue road, near Willowbrook road, Third Ward.....	Public nuisance.....	Complied August 9, 1906.
9	Jan. 24	Barker street, near Castleton avenue, First Ward.....	Public nuisance.....	Work progressing.
10	Jan. 24	East side of Carey avenue, Chelsea, Third Ward.....	Public nuisance.....	Complied December 15, 1906.
11	Jan. 24	West side of Manor road, near Todt Hill road, First Ward.....	Public nuisance.....	Complied April 4, 1906.
12	Jan. 24	Richmond turnpike, east of Bulls Head.....	Public nuisance.....	Complied December 5, 1906.
13	Jan. 24	Richmond turnpike, between Willowbrook road and Jewett avenue.....	Public nuisance.....	Complied May 29, 1906.
14	Jan. 24	West side of Manor road, First Ward.....	Public nuisance.....	Complied April 2, 1906.
15	Jan. 24	South side of Watchogue road, near Westerleigh, First Ward.....	Public nuisance.....	Complied December 5, 1906.
16	Jan. 24	Corner of Carey avenue and Richmond turnpike.....	Public nuisance.....	Complied April 9, 1906.
17	Feb. 7	East side of Richmond avenue, Springfield.....	Public nuisance.....	Work progressing.
18	Feb. 7	South side of Washington avenue, Third Ward.....	Public nuisance.....	Complied November 30, 1906.
19	Feb. 7	Amboy road, near Annadale road, Fifth Ward.....	Public nuisance.....	Complied February 23, 1906.
20	Feb. 7	South side of Washington avenue, Third Ward.....	Public nuisance.....	Complied November 13, 1906.
21	Feb. 7	Sprague avenue, Fifth Ward.....	Public nuisance.....	Work progressing.
22	Feb. 7	South side of Washington avenue, Third Ward.....	Public nuisance.....	Complied April 17, 1906.
23	Feb. 7	Kreischer street, Kreischerville.....	Public nuisance.....	Complied February 23, 1906.
24	Feb. 7	Sharrott's lane, Fifth Ward.....	Public nuisance.....	Complied February 23, 1906.
25	Feb. 7	Corner of Manor and Todt Hill roads, Second Ward.....	Public nuisance.....	Complied February 23, 1906.
26	Feb. 7	South side of Virginia avenue, Fourth Ward.....	Public nuisance.....	Complied May 15, 1906.
27	Feb. 28	Twelfth street, First Ward.....	Public nuisance.....	Complied May 14, 1906.
28	Feb. 28	Sea View avenue, Garretson.....	Public nuisance.....	Work progressing.
29	Feb. 28	Lyman avenue, Fourth Ward.....	Public nuisance.....	Complied March 30, 1906.
30	Feb. 28	Richmond avenue, Fourth Ward.....	Public nuisance.....	Complied May 15, 1906.
31	Feb. 28	Corner of Fingerboard and Richmond roads.....	Public nuisance.....	Complied July 3, 1906.
32	Feb. 28	Richmond avenue, near Egbertville, Fourth Ward.....	Public nuisance.....	Complied May 15, 1906.
33	Feb. 28	Amboy road, near New Dorp, Fourth Ward.....	Public nuisance.....	Complied November 7, 1906.
34	Feb. 28	Corner of St. John's avenue and Third street, Fourth Ward.....	Public nuisance.....	Complied November 20, 1906.
35	Feb. 28	Riverside avenue, Kreischerville.....	Public nuisance.....	Complied October 3, 1906.
36	April 11	Richmond road, near Fresh Kill road.....	Public nuisance.....	Complied May 31, 1906.
37	April 25	Sharrott's road, Fifth Ward.....	Public nuisance.....	Work progressing.
38	April 25	West side of Richmond turnpike, Third Ward.....	Public nuisance.....	Complied November 7, 1906.
39	April 25	No. 4 Sherman street, Third Ward.....	Defective drainage.....	Complied May 7, 1906.
40	May 2	Clark avenue, near Amboy road, Oakwood.....	Public nuisance.....	Work progressing.
41	May 2	No. 342 Bay street, Second Ward.....	Defective drainage.....	Complied July 5, 1906.
42	May 16	West side of Davis avenue, near Richmond terrace, First Ward.....	Public nuisance.....	Complied November 8, 1906.
43	June 13	No. 250 Jersey street, First Ward.....	Public nuisance.....	Work progressing.
44	June 13	No. 256 Jersey street, First Ward.....	Public nuisance.....	Work progressing.
45	July 11	Britton avenue, Fourth Ward.....	Public nuisance.....	Complied November 27, 1906.
46	July 18	No. 25 Tyson street, First Ward.....	Defective drainage.....	Complied August 1, 1906.
47	July 18	No. 15 Brighton avenue, First Ward.....	Defective drainage.....	Complied October 16, 1906.
48	July 18	No. 31 Franklin street, First Ward.....	Defective drainage.....	Complied October 3, 1906.
49	July 18	North side of Fresh Kill road, Fourth Ward.....	Public nuisance.....	Complied November 17, 1906.
50	July 18	Foot of Seguins lane, Fifth Ward.....	Public nuisance.....	Work progressing.
51	Aug. 1	West side of Carey avenue, Chelsea, Third Ward.....	Public nuisance.....	Complied December 15, 1906.
52	Aug. 1	No. 6 Pine street, First Ward.....	Defective drainage.....	Complied November 22, 1906.
53	Aug. 1	No. 28 Canal street, Second Ward.....	Defective drainage.....	Work progressing.
54	Aug. 1	No. 235 Bay street, Second Ward.....	Defective drainage.....	Work progressing.
55	Aug. 1	No. 8 Pine street, First Ward.....	Defective drainage.....	Complied November 22, 1906.
56	Aug. 8	Foot of Androvette avenue, Fifth Ward.....	Public nuisance.....	Work progressing.
57	Aug. 8	No. 194 Broadway, First Ward.....	Defective drainage.....	Vacated October 18, 1906; work progressing.
58	Sept. 12	Foley's Grove, Fourth Ward.....	Public nuisance.....	Work progressing.
59	Sept. 19	Danube avenue, Fourth Ward.....	Public nuisance.....	Work progressing.
60	Sept. 19	Belmont place and Vine street, First Ward.....	Defective drainage.....	Complied October 2, 1906.
61	Oct. 24	Richmond avenue, near Butcherville road, Third Ward.....	Public nuisance.....	Complied November 22, 1906.
62	Oct. 24	North side of Manor road, First Ward.....	Public nuisance.....	Complied December 18, 1906.
63	Oct. 24	Signs road, Third Ward.....	Public nuisance.....	Complied December 8, 1906.
64	Oct. 31	South side of Richmond turnpike, near Castleton Corners.....	Public nuisance.....	Complied November 22, 1906.
65	Oct. 31	Catherine street, near Richmond avenue, Third Ward.....	Public nuisance.....	Complied November 8, 1906.
66	Oct. 31	Pleasant Valley avenue, Second Ward.....	Public nuisance.....	Work progressing.
67	Oct. 31	Elm street, near Castleton avenue, First Ward.....	Public nuisance.....	Work progressing.
68	Oct. 31	West side of Holland avenue, Third Ward.....	Defective drainage.....	Work progressing.
69	Oct. 31	No. 2 Holland avenue, Third Ward.....	Defective drainage.....	Work progressing.
70	Oct. 31	No. 3 Holland avenue, Third Ward.....	Defective drainage.....	Work progressing.
71	Oct. 31	No. 4 Holland avenue, Third Ward.....	Defective drainage.....	Work progressing.
72	Oct. 31	No. 5 Holland avenue, Third Ward.....	Defective drainage.....	Work progressing.
73	Oct. 31	No. 6 Holland avenue, Third Ward.....	Defective drainage.....	Work progressing.
74	Oct. 31	North side of Washington avenue, Third Ward.....	Public nuisance.....	Work progressing.
75	Oct. 31	West side of Holland avenue, Third Ward.....	Defective drainage.....	Work progressing.
76	Nov. 7	West side of Holland avenue, south of Richmond terrace, Third Ward.....	Defective drainage.....	Work progressing.
77	Nov. 7	West side of Holland avenue, 178 feet south of Richmond terrace, Third Ward..	Defective drainage.....	Work progressing.
78	Nov. 7	West side of Holland avenue, 550 feet south of Richmond terrace, Third Ward..	Defective drainage.....	Work progressing.
79	Nov. 7	West side of Holland avenue, 650 feet south of Richmond terrace, Third Ward..	Defective drainage.....	Work progressing.



No.	Date.	Premises.	Cause.	Result.
80	Nov. 7	West side of Holland avenue, 675 feet south of Richmond terrace, Third Ward..	Defective drainage.....	Work progressing.
81	Nov. 7	West side of Holland avenue, 700 feet south of Richmond terrace, Third Ward..	Defective drainage.....	Work progressing.
82	Nov. 7	West side of Davis avenue, First Ward.....	Public nuisance.....	Complied November 21, 1906.
83	Nov. 7	North side of Washington avenue, Third Ward.....	Public nuisance.....	Complied November 30, 1906.
84	Nov. 7	Gordon street, near Pine street, Second Ward.....	Public nuisance.....	Work progressing.
85	Nov. 7	North side of Washington avenue, Third Ward.....	Public nuisance.....	Complied December 19, 1906.
86	Dec. 26	No. 192 Vanderbilt avenue, Second Ward.....	Defective drainage.....	Work progressing.
87	Dec. 26	No. 194 Vanderbilt avenue, Second Ward.....	Defective drainage.....	Work progressing.

## Summary of Premises Ordered Vacated During the Year 1906.

Number of premises ordered vacated after giving notice.....	346
Number of premises—work complied with.....	234
Number of premises—work not complied with.....	112

## Of Those Not Complied With—

Work in progress.....	100
Time for compliance extended by Board.....	1

## Work Not in Progress—

Premises vacant.....	9
Work in abeyance pending construction of sewer.....	1
Cows ordered to public pound.....	1

Number of stables.....	23,719
Number of manure dumps.....	8,731
Number of sunken and vacant lots.....	11,096
Number of miscellaneous.....	158,438
Total.....	322,546

## WORK PERFORMED BY THE DIVISION OF INSPECTION.

## Work Performed by the Inspectors.

Number of inspections.....	1,090,262
Number of reinspections.....	59,396
Total number of inspections and reinspections.....	1,149,658

## Classified as to Character of Premises.

Number of tenement houses.....	13,347
Number of shore inspections.....	3,029
Number of lodging houses.....	1,302
Number of private dwellings.....	27,435
Number of mercantile establishments.....	32,865
Number of manufactories and workshops.....	13,729
Number of stables.....	13,077
Number of sunken and vacant lots.....	4,075
Number of miscellaneous (including milk and food inspections).....	1,040,799
Total.....	1,149,658

Number of complaints forwarded for Board's orders.....	16,610
Number of negative reports forwarded.....	13,499

Number of specimens of milk examined.....	138,729
Number of specimens of milk collected for analysis.....	9,540
Number of quarts of adulterated milk destroyed.....	41,395
Number of permits issued.....	14,961
Number of arrests made.....	987
Number of persons held on bail.....	963
Number of persons discharged.....	17
Number of pounds of milk, fruit, meat and fish condemned and destroyed..	18,276,385

## Mercantile Establishments.

Number of children interviewed applying for certificates.....	44,777
Number of employment certificates granted.....	21,220
Number of duplicate certificates issued.....	702

Number refused by reason of insufficient education.....	479
Number refused by reason of insufficient tuition.....	1,637
Number refused by reason of insufficient evidence as to date of birth.....	1,113
Number refused by reason of physical incapacity.....	5
Number of applicants under age.....	864
Number of applicants over age.....	699

Total number refused.....4,797

Number of complaints received.....	148
Number of complaints returned for orders.....	1,032

The number of dead animals and the quantity of offal, garbage, etc., removed from the shore front by the Shore Inspectors was:

Dogs.....	769
Cats.....	370
Rats.....	295
Goats.....	33
Sheep.....	80
Hogs.....	18
Calves.....	4
Horses.....	14
Fowls.....	450

Total number of animals.....2,033

Fish, number of.....	274
Offal, pieces of.....	267
Meats, pieces of.....	1,081
Bedding, pieces of.....	335
Clothing, pieces of.....	428
Mattresses, number of.....	447
Human bodies, number of.....	3

## Work Performed by the Sanitary Police.

Number of inspections.....	285,201
Number of reinspections.....	37,345

Total number of inspections and reinspections.....322,546

## Classified as to Character of Premises.

Number of tenement houses.....	61,290
Number of lodging houses.....	2,061
Number of private dwellings.....	40,925
Number of mercantile establishments.....	3,725
Number of manufactories and workshops.....	12,561

## WORK PERFORMED BY THE DIVISION OF CONTAGIOUS DISEASES.

Number of visits to cases of contagious diseases.....	198,173
Number of cases visited for special diagnosis.....	8,553
Number of complaints forwarded for Board's orders.....	142

Number of visits to tenement houses.....	261,451
Number of visits to hotels.....	636
Number of visits to schools.....	116,126
Number of visits to private houses.....	44,793
Number of visits, miscellaneous.....	28,663

Total number of visits.....451,669

Number of primary vaccinations.....	36,455
Number of revaccinations.....	88,448
Number of vaccinations in schools.....	27,517

Total number of vaccinations.....152,420

Number of certificates of vaccination issued.....37,541

Number of inspections of stables by Veterinarians.....	7,631
Number of animals examined.....	46,343
Number of post-mortems on animals.....	135
Number of glandered horses condemned and destroyed.....	1,128
Number of persons removed to Contagious Disease Hospital.....	6,220
Number of dead bodies removed to Morgue.....	260
Number of houses visited for disinfection.....	57,616
Number of infected rooms disinfected.....	86,174
Number of times ambulances, vehicles, etc., disinfected.....	3,820
Number of pieces infected goods disinfected.....	101,718
Number of pieces infected goods destroyed.....	31,194
Total number of visits.....	516,916

## Number of Diseases Reported, Year Ending December 31, 1906.

Boroughs.	Diphtheria and Croup.	Scarlet Fever.	Measles.	Parotiditis.	Chicken-pox.	Whooping Cough.	Smallpox.	German Measles.	Glanders.	Total.
Manhattan.....	7,444	4,068	18,265	1,181	2,398	894	48	360	6	34,664
Brooklyn.....	5,211	2,760	13,827	649	1,483	747	52	18	..	24,747
The Bronx.....	1,251	566	3,005	90	396	128	..	26	..	5,462
Queens.....	627	342	1,766	11	171	63	..	3	..	2,983
Richmond.....	224	145	1,790	11	219	345	..	14	..	2,748
City of New York.....	14,757	7,881	38,653	1,942	4,667	2,177	100	421	6	70,604
Quarantine.....	20	124	1,093	..	61	..	11	..	..	1,309

## Work Performed by the Medical School Inspectors.

Schools.	Number of Visits to Schools.	Number of Children Examined.	Number of Children Excluded.
Public schools.....	65,979	4,380,543	11,662
Parochial schools.....	13,006	544,415	906
Industrial schools, American Female Guardian Society.....	1,436	16,471	74
Industrial schools, Children's Aid Society.....	2,775	31,702	154
Private schools.....	269	5,039	14
Kindergarten schools.....	5,348	29,074	85
Total.....	88,813	5,007,244	12,895



Table Showing Diseases for Which Children Were Excluded.

Schools.	Measles.	Diphtheria.	Scarlet Fever.	Whooping Cough.	Mumps.	Contagious Eye Diseases.	Pediculosis.	Chicken-pox.	Skin Diseases.	Miscellaneous.	Total Excluded.
Public schools.....	*307 343	*60 74	*27 40	.... 295	.... 1,221	.... 5,150	.... 1,963	*583 626	.... 1,475	.... 475	.... 11,662
Parochial schools.....	*3 3	*2 2	*2 2	.... 6	.... 24	.... 584	.... 168	*11 11	.... 96	.... 10	.... 906
Industrial schools, American Female Guardian Society.....	*10 10	.... 1	.... ....	.... 3	.... 9	.... 21	.... 10	*8 8	.... 11	.... 1	.... 74
Industrial schools, Children's Aid Society.....	*9 9	.... ....	.... ....	.... 11	.... 22	.... 67	.... 8	*6 6	.... 22	.... 9	.... 154
Private schools.....	.... ....	.... ....	.... ....	.... ....	.... 3	.... 3	.... ....	*1 1	.... ....	.... 7	.... 14
Kindergarten schools.....	*12 12	.... ....	*1 1	.... 4	.... 7	.... 20	.... 6	*17 17	.... 12	.... 6	.... 85
Total.....	*341 377	*62 77	*30 43	.... 319	.... 1,286	.... 5,845	.... 2,155	*626 669	.... 1,616	.... 508	.... 12,895

Cases of true measles, diphtheria, scarlet fever and chicken-pox marked thus (\*).

## Work Performed by the School Nurses.

Number of visits to tenement houses.....	41,504
Number of visits to schools.....	27,097
Number of miscellaneous visits.....	1,597
Total number of visits.....	70,198

## Number of Cases of Diseases Cared For.

Pediculosis .....	706,600
Trachoma .....	180,401
Contagious eyes diseases.....	185,474
Scabies .....	5,757
Ringworm .....	18,235
Impetigo .....	32,595
Favus .....	2,342
Measles .....	2,578
Diphtheria .....	610
Scarlet Fever .....	1,525
Miscellaneous .....	61,624

Total number of cases treated..... 1,197,741

Number of new children treated.....	88,002
Number of examinations of children.....	3,119,815
Number of exclusions of children.....	117

## Work Performed by the Summer Corps.

Number of visits to tenements.....	49,532
Number of miscellaneous visits.....	9,469
Number of families visited.....	350,618
Number of children examined at pier for St. John's Guild.....	39,181
Number of sick treated.....	3,331
Number of revisits.....	1,655
Number of primary vaccinations.....	2,403
Number of revaccinations.....	7,096
Number of certificates of vaccination issued.....	1,193
Number of circulars and hangers distributed.....	156,449
Number of ice tickets distributed.....	1,021
Number of milk tickets distributed.....	2,627
Number of St. John's Guild tickets distributed.....	9,476
Number of sunstroke circulars distributed.....	24,363
Number of miscellaneous circulars distributed.....	10,747

## Number of Visits to Cases of—

Scarlet fever .....	93
Diphtheria .....	63
Measles .....	90

## Manner of Feeding 56,697 Children, Under Two Years, Visited—

Breast fed .....	40,610
Condensed milk .....	1,266
Loose milk .....	1,720
Modified milk .....	5,338
Patent food .....	430
Other feeding .....	7,333

## WORK PERFORMED BY THE DIVISION OF COMMUNICABLE DISEASES

Number of new cases treated with diphtheria antitoxin.....	4,716
Number of curative injections given.....	5,195
Number of cases immunized with diphtheria antitoxin.....	9,784
Number of cases of diphtheria intubated.....	288
Number of diphtheria inspections.....	12,014
Number of living cases of tuberculosis investigated.....	10,335
Number of dead cases of tuberculosis investigated.....	7,322
Number of typhoid fever inspections.....	4,382
Number of cerebro spinal meningitis inspections.....	3,135
Number of miscellaneous inspections.....	45,556

Total number of inspections..... 82,744

Number of original complaints forwarded for Board's orders.....	1,545
Number of fumigations performed.....	9,302

## Number of Diseases Reported, Year Ending December 31, 1906.

Borough.	Tuber- culosis.	Typhoid Fever.	Pneu- monia.	Malarial Fever.	Cerebro- spinal Meningi- tis.	Puer- peral Septi- cæmia.	Abor- tion.	Ery- sipelas.	Total.
Manhattan.....	12,693	1,713	1,456	221	679	25	56	626	17,469
Brooklyn.....	5,324	1,215	3,761	76	241	28	6	85	10,736
The Bronx.....	1,198	301	747	26	72	21	5	22	2,392
Queens.....	603	166	534	23	21	24	1	20	1,392
Richmond.....	267	72	286	78	19	18	..	35	775
City of New York.	20,085	3,467	6,784	424	1,032	116	68	788	32,764

## Tuberculosis Nurses.

Number of visits to new living cases of tuberculosis.....	11,605
Number of visits to dead cases of tuberculosis.....	137
Number of reinspections made.....	18,611
Number of visits to old cases of tuberculosis.....	6,105
Number of inspections of culture stations.....	1,866
Total inspections made.....	38,324

Number of bacteriological diagnosis of suspected diphtheria.....	25,416
Number of cases found to be true diphtheria.....	9,303
Number of cases found not to be true diphtheria.....	14,637
Number of bacteriological diagnosis indecisive.....	1,476
Number of bacteriological examinations of healthy throats in infected fam- ilies .....	476
Number of later bacteriological examinations of diphtheria (convalescent). Number of cultures taken by Medical School Inspectors.....	24,143 410
Number of bacteriological examinations of sputum from cases of suspected tuberculosis .....	21,779
Number of tubercle bacilli found.....	6,782
Number of tubercle bacilli not found.....	14,997
Number of specimens of blood examined for typhoid fever reaction (Widal test) .....	6,160
Number of specimens showing positive reaction.....	1,493
Number of specimens showing negative reaction.....	4,082
Number of specimens showing doubtful reaction.....	585
Number of specimens of urine examined for typhoid fever reaction (Diazo) Number of specimens showing positive reaction.....	1,220 401
Number of specimens showing negative reaction.....	762
Number of specimens showing doubtful reaction.....	57
Number of specimens of blood examined for malarial organisms.....	1,198
Number of malarial organisms found.....	122
Number of malarial organisms not found.....	1,076
Number of specimens of cerebro-spinal fluid examined.....	6
Number of positive .....	2
Number of negative .....	4
Number of visits to collect diphtheria culture tubes, samples of sputum, etc. Number of laboratory preparations made.....	31,451 80,750
Number of culture tubes prepared.....	97,848
Number of swabs made .....	99,000
Number of sputum jars prepared.....	18,663
Number of Widal outfits prepared.....	5,597
Number of Diazo outfits prepared.....	1,370
Number of malaria outfits prepared.....	2,230
Number of cerebro-spinal meningitis outfits prepared.....	250
Number of new cases treated at Tuberculosis Clinics.....	4,187
Number of old cases treated at Tuberculosis Clinics.....	17,353
Number of prescriptions filled .....	36,820
Number of cases receiving extra diet.....	1,081
Number of new extra diet orders.....	56
Number of renewals .....	1,025
Number of patients under observation at home.....	1,503

## WORK PERFORMED BY THE DIVISION OF LABORATORIES.

## Work Performed at the Vaccine Laboratory.

Number of visits to tenement houses.....	2,061
Number of miscellaneous visits .....	389
Total number of visits.....	2,450

Total primary vaccinations.....	1,831
Number of vaccination certificates issued.....	1,730
Number of specimens of vaccine virus tested bacteriologically.....	892
Number of animals vaccinated .....	77
Number of animals collected from.....	77
Number of grammes of vaccine virus collected.....	2,087.23
Number of cubic centimeters of liquid vaccine virus prepared.....	10,771
Number of spades charged with humanized virus.....	4,660
Number of capillary tubes of vaccine virus prepared.....	94,660
Number of small vials of vaccine virus prepared.....	2,437
Number of large vials of vaccine virus prepared.....	7,030
Number of mailing blocks prepared .....	124,761
Number of autopsies on animals .....	77
Number of guinea pigs injected with vaccine virus.....	187
Number of other animals experimented upon.....	10

## Work Performed at the Research Laboratory.

Number of bacteriological examinations of old cultures of diphtheria bacilli. Number of inoculations of animals with toxins for development of antitoxic substances .....	431 461
Number of animals bled for antitoxic serum.....	178
Number of cubic centimeters of diphtheria antitoxic serum produced.....	1,090,385
Number of cubic centimeters of diphtheria antitoxic serum bottled for dis- tribution .....	260,775
Number of cubic centimeters of tetanus antitoxic serum produced.....	4,490
Number of cubic centimeters of tetanus antitoxic serum bottled for dis- tribution .....	11,710
Number of cubic centimeters of mallein produced.....	7,400
Number of cubic centimeters of mallein bottled for distribution.....	2,603
Number of cubic centimeters of tuberculin produced.....	200



Number of cubic centimeters of tuberculin bottled for distribution.....	336
Number of samples of toxins tested.....	484
Number of samples of antitoxic serums tested.....	1,212
Number of disinfection tests.....	8,337

## Pasteur Treatment.

Number of cases receiving Pasteur treatment.....	323
Number of injections made in patients.....	6,290
Number of inoculations of fixed virus.....	359
Number of cards sent to Rhode Island Hospital for Pasteur treatment....	10

## Diagnosis of Hydrophobia.

Number of animals inoculated for diagnosis.....	92
Number of animals received for diagnosis.....	92

## Diagnosis of Glanders.

Number of serums tested.....	274
Number of animals inoculated.....	88
Number of specimens examined.....	56

Number of bacteriological examinations of water.....	87
Number of bacteriological examinations of milk.....	3,830
Number of bacteriological examinations of feces.....	2
Number of bacteriological examinations of urine.....	1

## Number of miscellaneous examinations—

Pneumonia.....	98
Hydrophobia.....	260
Rabies.....	26
Diphtheria cultures for virulence.....	14
Carcum oris.....	1
Dust (school room).....	1
Varicella.....	6
Varicella.....	5
Bactericidal test.....	1
Otitis.....	27
Meningitis.....	3
Scarlet fever tests.....	24
Measles.....	11
Vaginal smears.....	190
Pleurisy.....	1
Scurvy.....	1
Bottles of antitoxin serum tested.....	3
Carcinomata.....	6
Bread.....	1
Abscesses.....	3
Malaria.....	3
Tuberculin.....	1
Typhoid fever.....	1
Agglutinations.....	17
Hydrophobias tested for virulence.....	4
Anthrax cultures.....	87
Sera tests.....	39
Experimental rabies.....	4
Tuberculosis sera.....	34
Normal sera.....	14

## Work Performed at the Chemical Laboratory.

Number of reports forwarded and filed.....	13,521
Total number of analyses.....	13,022

## Classified as to Character of Analysis.

Number of acacia (gran.).....	1
Number of acetanilid powder.....	1
Number of aconite (tr.).....	4
Number of aconite (fl. ext.).....	3
Number of aconite root.....	4
Number of apple butter.....	1
Number of alcohol (absolute).....	1
Number of alcoholic liquors.....	17
Number of Aloes.....	7
Number of ammonol tablets.....	1
Number of atropine tablets.....	1
Number of avisol.....	1
Number of bacon.....	1
Number of baking powder.....	4
Number of bauren wurst.....	1
Number of barley (patent).....	1
Number of beading oil.....	1
Number of beef (spiced).....	3
Number of beef pickles.....	5
Number of beer.....	10
Number of belladonna (powd.).....	16
Number of belladonna root.....	1
Number of beans.....	2
Number of beets (canned).....	1
Number of blood pudding.....	37
Number of blood wurst.....	13
Number of blood colors.....	6
Number of bologna.....	302
Number of blue ointment.....	1
Number of bismuth subnitrate.....	1
Number of borax.....	10
Number of boric acid.....	1
Number of bovine.....	1
Number of bread.....	2
Number of brandy, cognac.....	1
Number of breast fat.....	1
Number of buchu leaves.....	5
Number of buchu (fl. ext.).....	2
Number of buchu tincture.....	5
Number of butter.....	8
Number of bull meat flour.....	1
Number of calcium chloride.....	1
Number of calcium hypophosphite.....	1
Number of calomel.....	2
Number of candy.....	341
Number of candy coloring.....	15
Number of candy flavor.....	1
Number of cannabis indica (powd. ext.).....	6
Number of cannabis indica (fl. ext.).....	1
Number of camphor liniment.....	1
Number of carbolic acid (crude).....	1
Number of carbolic wash.....	4
Number of cascara quinine bro. tab.....	1
Number of cascara sagrada (fl. ex.).....	1
Number of cascara sagrada (tr.).....	5
Number of catsup.....	10
Number of celery.....	1
Number of cerium oxalate.....	4
Number of cervelat wurst.....	2
Number of cherries, preserved.....	1
Number of chicken, potted.....	1

Number of chloral hydrate.....	5
Number of chewing gum.....	1
Number of chicken feed.....	1
Number of chloroform.....	3
Number of chocolate.....	3
Number of chocolate syrup.....	1
Number of chow-chow.....	2
Number of cider.....	6
Number of cigars.....	2
Number of cinnamon.....	2
Number of citrate of magnesia.....	3
Number of coal.....	53
Number of coat (for oil of vitriol).....	1
Number of cocaine.....	3
Number of cocoa.....	1
Number of coca leaves.....	2
Number of codeine.....	5
Number of cod liver oil.....	2
Number of coffee.....	2
Number of coffee, liquid.....	1
Number of Congo brown.....	1
Number of corn, canned.....	10
Number of colchicum seeds (powdered).....	7
Number of colchicum seeds (tincture).....	3
Number of colchicum seeds (fluid extract).....	6
Number of conium (powdered).....	1
Number of conium maculatum.....	1
Number of coloring matter.....	3
Number of coumarin.....	3
Number of corned beef.....	5
Number of corn starch.....	1
Number of creme de menthe ess.....	1
Number of cream (evaporated).....	16
Number of creams.....	163
Number of cream thickener.....	1
Number of cremolin paste.....	3
Number of cylinder oils.....	4
Number of dagger (presence of blood).....	1
Number of deposit from grave urn.....	1
Number of digitalis (tincture).....	4
Number of digitalis (fluid extract).....	3
Number of diuitalis (pulverized).....	3
Number of digitalis (infusion).....	3
Number of drawer containing a dry residue.....	1
Number of egg (Korno).....	1
Number of egg substitute (Korno).....	1
Number of engine oil.....	2
Number of ergot (powdered extract).....	2
Number of ergot (crushed).....	1
Number of ergot (fluid extract).....	9
Number of ergot, secale cornatum.....	2
Number of essence of peppermint.....	1
Number of ether.....	2
Number of Eureka paste.....	1
Number of experimental analyses.....	118
Number of extract pure almond.....	1
Number of extract bitter almond.....	5
Number of extract clove.....	1
Number of extract cinnamon.....	1
Number of extract coffee.....	1
Number of extract Jamaica ginger.....	5
Number of extract lemon peel.....	2
Number of extract lemon.....	34
Number of extract orange.....	8
Number of extract pineapple.....	7
Number of extract pistache.....	6
Number of extract maraschino.....	1
Number of extract strawberry.....	13
Number of extract peach.....	2
Number of extract raspberry.....	11
Number of extract rose.....	5
Number of extract sarsaparilla.....	4
Number of extract vanilla.....	28
Number of extract tutti frutti.....	1
Number of fat.....	1
Number of fertilizer (fresh).....	1
Number of fertilizer (screened).....	1
Number of filler.....	1
Number of fish (dried).....	5
Number of formaldehyde.....	4
Number of fox glove (crushed).....	1
Number of frankfurters.....	244
Number of Freeze 'Em pickle.....	1
Number of fruit, whole, cherry.....	1
Number of fruit, crushed.....	4
Number of fruit, stock.....	4
Number of gelsium (fluid extract).....	8
Number of gelsium (tincture).....	3
Number of gherkins (pickled).....	3
Number of gelatin.....	3
Number of gallic acid.....	2
Number of glycerin.....	3
Number of ginger ale.....	3
Number of ginger ale, fruit essence.....	1
Number of ginggr fruit syrup.....	1
Number of ginger tincture.....	2
Number of glucose, new process.....	1
Number of grape juice.....	2
Number of Gum Kino.....	4
Number of ham (pressed).....	3
Number of ham (potted).....	1
Number of head cheese.....	71
Number of health extract.....	1
Number of hemlock (ground).....	2
Number of henbane leaves (ground).....	4
Number of henbane (fluid extract).....	1
Number of henbane (powdered extract).....	2
Number of honey.....	3
Number of hyoscyamus herb.....	1
Number of hyoscyamus tincture.....	4
Number of hyoscyamus fluid extract.....	4
Number of hyoscyamus powdered extract.....	5
Number of hyoscyamus leaves.....	2
Number of hydrastis root.....	1
Number of horse ball.....	3
Number of horse radish.....	1
Number of hydrogen peroxide.....	2
Number of ice.....	1
Number of ice cream.....	1
Number of iodine tincture.....	6
Number of iodine of iron pills.....	4
Number of ipecac (powdered).....	11
Number of ipecac root (ground).....	5
Number of jalap.....	4
Number of Jamaica rum.....	1
Number of jam.....	9



Number of jelly.....	8	Number of sewage.....	5
Number of knack wurst.....	14	Number of shellac.....	2
Number of konservirng saltze.....	2	Number of spirits of camphor.....	7
Number of kummell.....	1	Number of snuff.....	1
Number of landyaeger.....	1	Number of steak.....	1
Number of lard and tallow purifier.....	1	Number of strawberry, fruit essence.....	1
Number of lemon paste.....	1	Number of strawberries (canned).....	2
Number of lemon syrup.....	2	Number of sugar (granulated).....	1
Number of lemon juice.....	2	Number of sugar color.....	1
Number of lime juice.....	4	Number of sugar and glucose mixture.....	1
Number of lima beans (canned).....	1	Number of soap liniment.....	3
Number of liquid from wash basin.....	1	Number of smoked beef.....	2
Number of liquids.....	20	Number of soup.....	1
Number of liquids used on meat.....	2	Number of soda water.....	1
Number of liquors (alcoholic).....	8	Number of sodium salicylate.....	3
Number of liniment saponis.....	1	Number of sodium sulphate.....	1
Number of liverwurst.....	111	Number of stomach contents.....	3
Number of liver pudding.....	4	Number of stone (bladder).....	1
Number of liver.....	1	Number of stramonium leaves (fluid extract).....	6
Number of lobelia (fluid extract).....	8	Number of stramonium (tincture).....	2
Number of lobelia (tincture).....	5	Number of stramonium (sem. tincture).....	1
Number of lobelia (ground).....	3	Number of stramonium (powdered).....	5
Number of lozenges.....	2	Number of sodium phosphate.....	1
Number of malted milk.....	1	Number of sodium hyphosphphite.....	3
Number of maple syrup.....	15	Number of sol. glonoin.....	1
Number of meat.....	24	Number of string beans.....	1
Number of meat (specked).....	1	Number of strychnine capsules.....	3
Number of metal polish.....	1	Number of spinach (canned).....	1
Number of medicine.....	1	Number of squash (canned).....	1
Number of magnesium citrate.....	5	Number of tablets.....	2
Number of magnesium aperient.....	1	Number of tablets (Chase's).....	1
Number of milks (adulterated).....	2,984	Number of tablets (hypodermic).....	1
Number of milks (unadulterated).....	6,455	Number of tannic acid.....	1
Number of milks (condensed).....	141	Number of tea (herb).....	1
Number of milks (human).....	5	Number of tomatoes (canned).....	63
Number of milks (special).....	44	Number of tonic.....	1
Number of milks (Korno).....	1	Number of tongue (potted).....	2
Number of milks (powder).....	7	Number of tin pan said to contain blood.....	1
Number of milks (sugar).....	4	Number of tripe.....	5
Number of milks (White Cross).....	1	Number of turpentine.....	1
Number of molasses (canned).....	3	Number of urine.....	5
Number of morphine.....	5	Number of vanilla bean.....	1
Number of mustard.....	2	Number of vanilla (tincture).....	1
Number of mustard oil.....	1	Number of vinegar.....	5
Number of nitroglycerin tablets.....	13	Number of valerian (tincture).....	10
Number of nux vomica (fluid extract).....	3	Number of valerian (fluid extract).....	6
Number of nux vomica (tincture).....	1	Number of van lodeur.....	1
Number of nux vomica (ground).....	6	Number of vomit.....	1
Number of oil (vegetable Korno).....	1	Number of waters (colored).....	1
Number of oils (for machinery).....	14	Number of waters (sanitary analysis).....	566
Number of oils (olive).....	4	Number of waters (cellar).....	34
Number of oil of anise.....	2	Number of whiskey.....	18
Number of oil of gaultharie.....	2	Number of wine.....	6
Number of oil of pineapple.....	1	Number of white lead.....	1
Number of oil of orange.....	2	Number of Worcestershire sauce.....	1
Number of oil of lemon.....	3	Number of yellow (coal tar derivative).....	1
Number of oil of raspberry.....	1	Number of zarzerine.....	1
Number of oil of strawberry.....	1	Number of zinc oxide.....	1
Number of oil of wintergreen.....	1		
Number of opium.....	29	Total number of analyses.....	13,022
Number of opium (pulverized).....	2		
Number of orange paste.....	1	Number of lactometers tested.....	217
Number of orange color.....	2	Number of thermometers tested.....	140
Number of organs, human (in jar).....	1	Number of Babcock flasks tested.....	142
Number of oxalic acid.....	1		
Number of oxo wash powder.....	1		
Number of paint.....	1		
Number of paprika fat.....	1		
Number of paprika.....	1		
Number of paraform.....	2		
Number of paraffin.....	1		
Number of pastrama.....	3		
Number of pepsin (powdered).....	10		
Number of peas (canned).....	12		
Number of peaches (canned).....	3		
Number of pessaries.....	1		
Number of pepper.....	6		
Number of phenalgen.....	1		
Number of pile oil.....	1		
Number of pills.....	4		
Number of pickles.....	5		
Number of plum pudding.....	1		
Number of potato flour (Korno).....	1		
Number of peach fruit essence.....	1		
Number of pineapple essence.....	1		
Number of plaster from wall (for blood).....	1		
Number of powder (white).....	3		
Number of preservatives.....	10		
Number of preservaline.....	3		
Number of pork trimmings.....	1		
Number of potassium bitartrate.....	1		
Number of potassium iodide.....	3		
Number of potassium nitrate.....	1		
Number of potassium hypophosphite.....	1		
Number of poultry wash.....	3		
Number of rhubarb (fluid extract).....	5		
Number of rhubarb (powdered).....	2		
Number of rhubarb (tincture).....	1		
Number of rhubarb (canned).....	1		
Number of Rochelle salts.....	8		
Number of red fruit color.....	5		
Number of raspberry fruit essence.....	1		
Number of raspberry vinegar.....	1		
Number of salt.....	2		
Number of salt petre.....	2		
Number of salt solution.....	3		
Number of sandwich.....	1		
Number of salami.....	11		
Number of salad oil.....	1		
Number of salmon (canned).....	9		
Number of sardines.....	7		
Number of senna (tincture).....	6		
Number of senna (fluid extract).....	7		
Number of sausages.....	72		
Number of sausage filler.....	1		
Number of scraping from finger nails.....	1		
Number of semen colchici.....	1		
Number of shortening compound (Korno).....	1		
Number of silver nitrate.....	13		
Number of soap.....	6		
Number of soda.....	0		
Number of sheeting (hospital).....	1		
Number of soys.....	6		
Number of sarsaparilla, fruit essence.....	1		

## Total number of analyses

13,022

Number of lactometers tested.....	217
Number of thermometers tested.....	140
Number of Babcock flasks tested.....	142

## Work Performed by the Pathologist.

Number of autopsies (human).....	8
Number of autopsies (animal).....	2
Number of bleedings for antitoxic serum.....	319
Number of cubic centimeters of serum prepared.....	1,704,975
Number of injections of animals.....	662

The number of dead animals removed from the streets and the quantity of offal, etc., removed from the markets and slaughter-houses by the contractors was as follows:

Horses.....	21,640
Mules.....	42
Donkeys.....	5
Colts.....	64
Ponies.....	24
Bull.....	1
Cows.....	324
Calves.....	970
Sheep.....	315
Goats.....	102
Hogs.....	126
Pigs.....	2
Ass.....	1
Bear.....	1
Deer.....	1
Cats and dogs from the streets.....	101,329
Cats and dogs from public pounds.....	98,064

Total number of animals..... 223,011

Offal, barrels of.....	19,157
Fish, barrels of.....	10,740
Poultry, barrels of.....	1,896
Beef, quarters of.....	311
Veal, quarters of.....	1,371
Squab pigeons, boxes of.....	200
Meats, boxes of.....	133
Game, boxes of.....	75
Pork, boxes of.....	1
Meats, assorted, boxes of.....	186

## REPORT OF PATIENTS TREATED AT RECEPTION HOSPITAL.

## BOROUGH OF MANHATTAN.

## General Statement.

1906.	Male.	Female.	Total.	Native.	Foreign.	Total.	Accompanying.
Remaining in hospital December 31, 1905.....	6	6	12	12	....	12	1
Admitted.....	1,023	919	1,942	1,338	604	1,942	51
Total.....	1,029	925	1,954	1,350	604	1,954	52



1906.	Male.	Female.	Total.	Native.	Foreign.	Total.	Accompanying.
Discharged .....	141	116	257	153	104	257	28
Transferred .....	796	735	1,531	1,088	443	1,531	23
Died .....	82	68	150	106	44	150	....
Total.....	1,019	919	1,938	1,347	591	1,938	51
Remaining in hospital December 31, 1906.....	10	6	16	3	13	16	1

## Remaining in Hospital December 31, 1905.

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	Five to 16 Years.	Over 16 Years.	Male.	Female.	Total.	Male.	Female.	Total.	
Diphtheria .....	3	1	..	2	2	4	..	..	..	4
Scarlet fever.....	2	3	..	3	2	5	..	..	..	5
Measles .....	2	..	..	1	1	2	..	..	..	2
Total.....	7	4	..	6	5	11	..	..	..	11
For observation .....	1	..	..	1	1	..	..	..	..	1
Accompanying .....	..	..	1	..	1	1	..	..	..	1

## Admitted.

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	Five to 16 Years.	Over 16 Years.	Male.	Female.	Total.	Male.	Female.	Total.	
Diphtheria .....	235	61	62	150	131	281	37	40	77	358
Scarlet fever .....	143	237	109	159	173	332	72	85	157	489
Measles .....	331	97	179	199	212	411	114	82	196	607
Small-pox .....	5	2	37	20	10	30	8	6	14	44
Mumps .....	..	..	1	..	..	..	..	1	1	1
Varicella .....	12	3	6	5	8	13	4	4	8	21
Pertussis .....	10	1	1	2	8	10	2	..	2	12
German measles .....	1	..	3	..	2	2	1	1	2	4
Diphtheria and scarlet fever .....	13	4	3	8	9	17	1	2	3	20
Diphtheria and measles..	75	12	..	48	30	78	6	3	9	87
Diphtheria and varicella.	3	..	..	1	2	3	..	..	..	3
Diphtheria and pertussis.	1	..	..	1	1	..	..	..	..	1
Scarlet fever and measles	2	1	..	2	..	2	..	1	1	3
Scarlet fever and varicella	2	..	..	1	..	1	..	1	1	2
Measles and pertussis....	6	2	1	3	4	7	2	..	2	9
Measles and varicella....	1	1	..	2	..	2	..	..	..	2
Diphtheria, scarlet fever and measles .....	3	2	..	2	3	5	..	..	..	5
Diphtheria, scarlet fever and pertussis .....	1	..	..	..	..	..	1	..	1	1
Glanders .....	..	..	1	..	..	..	1	..	1	1
Hydrophobia .....	1	..	..	1	1	..	..	..	..	1
Cerebro-spinal meningitis.	1	3	12	..	1	14	1	1	15	16
Tuberculosis .....	..	2	104	41	15	56	31	19	50	106
Total.....	846	428	519	643	610	1,253	294	246	540	1,793
For observation .....	48	34	67	47	38	85	39	25	64	149
Accompanying .....	9	2	40	3	14	17	4	30	34	51

## Discharged.

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	Five to 16 Years.	Over 16 Years.	Male.	Female.	Total.	Male.	Female.	Total.	
Diphtheria .....	24	7	13	16	14	30	7	7	14	44
Scarlet fever .....	16	27	20	21	18	39	15	9	24	63
Measles .....	7	1	4	2	5	7	..	5	5	12
Small-pox .....	2	2	..	1	2	3	1	..	1	4
Varicella .....	11	2	2	4	4	8	3	4	7	15
Pertussis .....	6	1	1	1	5	6	2	..	2	8
German measles .....	1	..	2	..	1	1	1	1	2	3
Diphtheria and scarlet fever .....	1	..	..	1	1	..	..	..	..	1
Diphtheria and measles...	2	..	..	2	..	2	..	..	..	2
Scarlet fever and measles.	2	..	..	2	..	2	..	..	..	2
Measles and pertussis....	1	..	..	..	..	..	1	..	1	1
Measles and varicella....	..	1	..	1	..	1	..	..	..	1

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	Five to 16 Years.	Over 16 Years.	Male.	Female.	Total.	Male.	Female.	Total.	
Diphtheria, scarlet fever and pertussis .....	1	..	..	..	..	..	1	..	1	1
Cerebro-spinal meningitis..	1	1	5	..	1	1	6	..	6	7
Total.....	75	42	47	50	51	101	37	26	63	164
For observation .....	28	23	42	29	23	52	25	16	41	93
Accompanying .....	6	..	22	2	5	7	3	18	21	28

## Transferred.

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	Five to 16 Years.	Over 16 Years.	Male.	Female.	Total.	Male.	Female.	Total.	
Diphtheria .....	188	45	47	114	108	222	28	30	58	280
Scarlet fever .....	102	204	80	130	145	275	45	66	111	386
Measles .....	302	95	174	191	195	386	110	75	185	571
Small-pox .....	3	..	37	19	8	27	7	6	13	40
Mumps .....	..	..	1	..	..	..	..	1	1	1
Varicella .....	1	1	4	1	4	5	1	..	1	6
Pertussis .....	1	..	..	1	..	1	..	..	..	1
Diphtheria and scarlet fever .....	6	3	3	3	7	10	1	1	2	12
Diphtheria and measles...	59	7	..	38	24	62	2	2	4	66
Diphtheria and varicella..	3	..	..	1	2	3	..	..	..	3
Diphtheria and pertussis..	1	..	..	..	1	1	..	..	..	1
Scarlet fever and measles.	..	1	..	..	..	..	..	1	1	1
Scarlet fever and varicella	2	..	..	1	..	1	..	1	1	2
Measles and pertussis....	4	2	1	2	4	6	1	..	1	7
Measles and varicella....	1	..	..	1	..	1	..	..	..	1
Diphtheria, scarlet fever and measles .....	1	1	..	2	..	2	..	..	..	2
Tuberculosis .....	..	2	103	41	15	56	31	18	49	105
Total.....	674	361	450	545	513	1,058	226	201	427	1,485
For observation .....	14	10	22	16	14	30	9	7	16	46
Accompanying .....	3	2	18	1	10	11	1	11	12	23

## Died.

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	Five to 16 Years.	Over 16 Years.	Male.	Female.	Total.	Male.	Female.	Total.	
Diphtheria .....	25	9	2	21	11	32	2	2	4	36
Scarlet fever .....	24	9	4	11	12	23	7	7	14	37
Measles .....	24	1	1	7	13	20	4	2	6	26
Pertussis .....	3	..	..	..	3	3	..	..	..	3
Diphtheria and scarlet fever .....	6	1	..	5	1	6	..	1	1	7
Diphtheria and measles...	13	5	..	8	5	13	4	1	5	18
Measles and pertussis....	1	..	..	1	..	1	..	..	..	1
Diphtheria, scarlet fever and measles .....	2	1	..	..	3	3	..	..	..	3
Glanders .....	..	..	1	..	..	..	1	..	1	1
Hydrophobia .....	1	..	..	..	1	1	..	..	..	1
Cerebro-spinal meningitis..	..	1	7	..	..	..	7	1	8	8
Tuberculosis .....	..	..	1	..	..	..	..	1	1	1
Total.....	99	27	16	53	49	102	25	15	40	142
For observation .....	6	1	1	2	2	4	2	2	4	8

## Remaining in Hospital December 31, 1906.

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	Five to 16 Years.	Over 16 Years.	Male.	Female.	Total.	Male.	Female.	Total.	
Diphtheria .....	1	1	..	1	..	1	..	1	1	2
Scarlet fever .....	3	..	5	..	..	..	5	3	8	8
German measles .....	..	..	1	..	1	1	..	..	..	1
Diphtheria and measles...	1	..	..	..	1	1	..	..	..	1
Cerebro-spinal meningitis..	..	1	..	..	..	..	1	..	1	1
Total.....	5	2	6	1	2	3	6	4	10	13
For observation .....	1	..	2	..	..	..	3	..	3	3
Accompanying .....	..	..	1	..	..	..	..	1	1	1



## Recapitulation.

	Remaining December 31, 1905.		Admitted.		Discharged.		Transferred.		Died.		Remaining December 31, 1906.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Diphtheria .....	2	2	187	171	23	21	142	138	23	13	1	1
Scarlet fever.....	3	2	231	258	36	27	175	211	18	19	5	3
Measles .....	1	1	313	294	2	10	301	270	11	15	..	..
Smallpox .....	..	..	28	16	2	2	26	14	..	..	..	..
Mumps .....	..	..	..	1	..	..	..	1	..	..	..	..
Varicella .....	..	..	9	12	7	8	2	4	..	..	..	..
Pertussis .....	..	..	4	8	3	5	1	..	..	3	..	..
German measles .....	..	..	1	3	1	2	..	..	..	..	..	1
Diphtheria and scarlet fever.....	..	..	9	11	..	1	4	8	5	2	..	..
Diphtheria and measles.....	..	..	54	33	2	..	40	26	12	6	..	1
Diphtheria and varicella .....	..	..	1	2	..	..	1	2	..	..	..	..
Diphtheria and pertussis.....	..	..	..	1	..	..	..	1	..	..	..	..
Scarlet fever and measles.....	..	..	2	1	2	..	..	1	..	..	..	..
Scarlet fever and varicella .....	..	..	1	1	..	..	1	1	..	..	..	..
Measles and pertussis.....	..	..	5	4	1	..	3	4	1	..	..	..
Measles and varicella.....	..	..	2	..	1	..	1	..	..	..	..	..
Diphtheria, scarlet fever and measles.....	..	..	2	3	..	..	2	..	..	3	..	..
Diphtheria, scarlet fever and pertussis.....	..	..	1	..	1	..	..	..	..	..	..	..
Glanders .....	..	..	1	..	..	..	..	..	1	..	..	..
Hydrophobia .....	..	..	..	1	..	..	..	..	..	1	..	..
Tuberculosis .....	..	..	72	34	..	..	72	33	..	1	..	..
Cerebro-spinal meningitis.....	..	..	14	2	6	1	..	..	7	1	1	..
Total .....	6	5	937	856	87	77	771	714	78	64	7	6
For observation .....	..	1	86	63	54	39	25	21	4	4	3	..
Accompanying .....	..	1	7	44	5	23	2	21	..	..	..	1

## REPORT OF PATIENTS TREATED AT WILLARD PARKER HOSPITAL.\*

## BOROUGH OF MANHATTAN.

## General Statement.

1906.	Male.	Female.	Total.	Native.	Foreign.	Total.	Accompanying.
Admitted .....	490	498	988	790	198	988	6
Discharged .....	289	329	618	468	150	618	6
Transferred .....	9	10	19	17	2	19	..
Died .....	143	92	235	211	24	235	..
Total.....	441	431	872	696	176	872	6
Remaining in Hospital December 31, 1906....	49	67	116	94	22	116	..

\* Hospital closed from June 17, 1905, to March 14, 1906.

## Admitted.

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	Five to 16 Years.	Over 16 Years.	Male.	Female.	Total.	Male.	Female.	Total.	
Diphtheria .....	573	210	152	378	372	750	86	99	185	935
Scarlet Fever .....	18	29	6	23	17	40	3	10	13	53
Total.....	591	239	158	401	389	790	89	109	198	988
Accompanying .....	2	..	4	..	3	3	..	3	3	6

## Discharged.

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	Five to 16 Years.	Over 16 Years.	Male.	Female.	Total.	Male.	Female.	Total.	
Diphtheria .....	311	169	138	221	247	468	68	82	150	618
Accompanying .....	2	..	4	..	3	3	..	3	3	6

## Transferred.

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	Five to 16 Years.	Over 16 Years.	Male.	Female.	Total.	Male.	Female.	Total.	
Diphtheria .....	15	3	1	7	10	17	2	..	2	19

## Died.

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	Five to 16 Years.	Over 16 Years.	Male.	Female.	Total.	Male.	Female.	Total.	
Diphtheria .....	207	20	6	130	79	209	11	13	24	233
Scarlet fever .....	2	..	..	2	..	2	..	..	..	2
Total.....	209	20	6	132	79	211	11	13	24	235

## Remaining in Hospital December 31, 1906.

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	Five to 16 Years.	Over 16 Years.	Male.	Female.	Total.	Male.	Female.	Total.	
Diphtheria .....	40	18	7	20	36	56	5	4	9	65
Scarlet fever .....	16	29	6	21	17	38	3	10	13	51
Total.....	56	47	13	41	53	94	8	14	22	116

## Recapitulation.

	Remaining December 31, 1905.		Admitted.		Discharged.		Transferred.		Died.		Remaining December 31, 1906.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Diphtheria .....	..	..	464	471	289	329	9	10	141	92	25	40
Scarlet fever .....	..	..	26	27	..	..	..	..	2	..	24	27
Total.....	..	..	490	498	289	329	9	10	143	92	49	67
Accompanying .....	..	..	..	6	..	6	..	..	..	..	..	..



## REPORT OF THE PATIENTS TREATED AT RIVERSIDE HOSPITAL.

## BOROUGH OF THE BRONX.

## General Statement.

1906.	Male.	Female.	Total.	Native.	Foreign.	Total.	Accompanying.
Remaining in Hospital December 31, 1905.....	139	68	207	118	89	207	4
Admitted .....	1,068	956	2,024	1,455	569	2,024	34
Total.....	1,207	1,024	2,231	1,573	658	2,231	38
Discharged .....	825	750	1,575	1,125	450	1,575	31
Died .....	259	198	457	379	78	457	2
Total.....	1,084	948	2,032	1,504	528	2,032	33
Remaining in Hospital December 31, 1906.....	123	76	199	69	130	199	5

## Remaining in Hospital December 31, 1905.

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	Five to 16 Years.	Over 16 Years.	Male.	Female.	Total.	Male.	Female.	Total.	
Diphtheria .....	49	11	6	31	19	50	10	6	16	66
Scarlet fever .....	6	20	4	9	8	17	11	2	13	30
Measles .....	10	6	14	10	11	21	7	2	9	30
Diphtheria and scarlet fever .....	1	..	..	1	1	2	..	..	..	2
Diphtheria and measles....	3	..	..	1	1	2	..	1	1	3
Tuberculosis .....	..	1	76	27	..	27	33	17	50	77
Total.....	69	38	100	78	40	118	61	28	89	207
Accompanying .....	1	3	..	2	..	2	..	2	2	4

## Admitted.

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	Five to 16 Years.	Over 16 Years.	Male.	Female.	Total.	Male.	Female.	Total.	
Diphtheria .....	228	85	61	155	146	301	32	41	73	374
Scarlet fever .....	114	230	77	164	172	336	34	51	85	421
Measles .....	431	175	219	272	284	556	158	111	269	825
Diphtheria and scarlet fever .....	12	6	2	3	13	16	2	2	4	20
Diphtheria and measles....	106	17	..	63	48	111	8	4	12	123
Scarlet fever and measles....	11	3	1	7	5	12	..	3	3	15
Measles and varicella....	..	1	..	..	..	..	1	..	1	1
Tuberculosis .....	..	9	236	86	37	123	83	39	122	245
Total.....	902	526	596	750	705	1,455	318	251	569	2,024
Accompanying .....	2	5	27	2	12	14	..	20	20	34

## Discharged.

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	Five to 16 Years.	Over 16 Years.	Male.	Female.	Total.	Male.	Female.	Total.	
Diphtheria .....	175	84	59	125	121	246	30	42	72	318
Scarlet fever .....	110	227	68	159	165	324	31	50	81	405
Measles .....	268	167	207	211	207	418	132	92	224	642
Diphtheria and scarlet fever .....	5	4	2	1	8	9	..	2	2	11
Diphtheria and measles....	37	11	..	23	19	42	3	3	6	48
Scarlet fever and measles....	6	3	1	3	5	8	..	2	2	10
Measles and varicella....	..	1	..	..	..	..	1	..	1	1
Tuberculosis .....	..	7	133	65	13	78	41	21	62	140
Total.....	601	504	470	587	538	1,125	238	212	450	1,575
Accompanying .....	3	6	22	3	11	14	..	17	17	31

## Died.

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	Five to 16 Years.	Over 16 Years.	Male.	Female.	Total.	Male.	Female.	Total.	
Diphtheria .....	102	7	3	60	40	100	9	3	12	112
Scarlet fever .....	6	11	3	10	7	17	1	2	3	20
Measles .....	150	7	9	68	77	145	11	10	21	166
Diphtheria and scarlet fever .....	8	2	..	2	6	8	2	..	2	10
Diphtheria and measles....	65	3	..	36	25	61	5	2	7	68
Scarlet fever and measles....	4	..	..	4	..	4	..	..	..	4
Tuberculosis .....	..	1	76	31	13	44	20	13	33	77
Total.....	335	31	91	211	168	379	48	30	78	457
Accompanying .....	..	2	..	1	1	2	..	..	..	2

## Remaining in Hospital, December 31, 1906.

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	Five to 16 Years.	Over 16 Years.	Male.	Female.	Total.	Male.	Female.	Total.	
Diphtheria .....	..	5	5	1	4	5	3	2	5	10
Scarlet fever .....	4	12	10	4	8	12	13	1	14	26
Measles .....	23	7	17	3	11	14	22	11	33	47
Diphtheria and measles....	7	3	..	5	5	10	..	..	..	10
Scarlet fever and measles....	1	..	..	..	..	..	..	1	1	1
Tuberculosis .....	..	2	103	17	11	28	55	22	77	105
Total.....	35	29	135	30	39	69	93	37	130	199
Accompanying .....	..	..	5	..	..	..	..	5	5	5

## Recapitulation.

	Remaining December 31, 1905.		Admitted.		Discharged.		Transferred.		Died.		Remaining December 31, 1906.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Diphtheria .....	41	25	187	187	155	163	..	..	69	43	4	6
Scarlet fever .....	20	10	198	223	190	215	..	..	11	9	17	9
Measles .....	17	13	430	395	343	299	..	..	79	87	25	22
Diphtheria and scarlet fever.....	..	1	5	15	1	10	..	..	4	6	..	..
Diphtheria and measles .....	1	2	71	52	26	22	..	..	41	27	5	5
Scarlet fever and measles.....	..	..	7	8	3	7	..	..	4	..	..	1
Measles and varicella.....	..	..	1	..	1	..	..	..	..	..	..	..
Tuberculosis .....	60	17	169	76	106	34	..	..	51	26	72	33
Total .....	139	68	1,068	956	825	750	..	..	259	198	123	76
Accompanying .....	2	2	2	32	3	28	..	..	1	1	..	5



## REPORT OF PATIENTS TREATED AT KINGSTON AVENUE HOSPITAL.

BOROUGH OF BROOKLYN.

## General Statement.

1906.	Male.	Female.	Total.	Native.	Foreign.	Total.	Accompanying.
Remaining in hospital December 31, 1905.....	75	90	165	77	88	165	12
Admitted .....	1,495	1,418	2,913	1,121	1,792	2,913	360
Total.....	1,570	1,508	3,078	1,198	1,880	3,078	372
Discharged .....	1,128	990	2,118	853	1,265	2,118	341
Transferred .....	127	173	300	81	219	300	9
Died .....	219	248	467	190	277	467	1
Total.....	1,474	1,411	2,885	1,124	1,761	2,885	351
Remaining in hospital December 31, 1906.....	96	97	193	74	119	193	21

## Remaining in Hospital, December 31, 1905.

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	Five to 16 Years.	Over 16 Years.	Male.	Female.	Total.	Male.	Female.	Total.	
Diphtheria .....	6	6	..	7	4	11	1	..	1	12
Scarlet fever .....	20	25	11	23	19	42	5	9	14	56
Measles .....	35	20	7	3	4	7	22	33	55	62
Varicella .....	6	5	..	5	3	8	1	2	3	11
Pertussis .....	5	1	..	1	5	6	..	..	..	6
Scarlet fever and measles.	9	3	..	..	1	1	5	6	11	12
Measles and pertussis....	2	2	..	1	1	2	..	2	2	4
Measles and varicella....	2	..	..	..	..	..	1	1	2	2
Total.....	85	62	18	40	37	77	35	53	88	165
Accompanying .....	1	..	11	..	1	1	..	11	11	12

## Admitted.

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	Five to 16 Years.	Over 16 Years.	Male.	Female.	Total.	Male.	Female.	Total.	
Diphtheria .....	216	132	51	170	155	325	25	49	74	399
Scarlet fever .....	183	315	111	190	194	384	99	126	225	609
Measles .....	899	337	108	103	85	188	619	537	1,156	1,344
Small-pox .....	9	6	93	55	22	77	19	12	31	108
Varicella .....	53	14	11	8	5	13	32	33	65	78
Pertussis .....	8	3	..	5	4	9	2	..	2	11
German measles.....	..	2	1	2	..	2	..	1	1	3
Diphtheria and scarlet fever	29	16	5	23	19	42	2	6	8	50
Diphtheria and measles...	54	12	3	9	5	14	31	24	55	69
Diphtheria and varicella..	1	..	..	..	1	1	..	..	..	1
Diphtheria and pertussis..	6	..	..	2	4	6	..	..	..	6
Scarlet fever and measles.	95	30	4	4	8	12	55	62	117	129
Scarlet fever and varicella	8	3	..	5	2	7	1	3	4	11
Scarlet fever and pertussis	7	1	..	1	4	5	2	1	3	8
Measles and pertussis....	21	9	..	7	8	15	6	9	15	30
Measles and varicella....	22	5	..	3	8	11	6	10	16	27
Varicella and pertussis....	1	..	..	..	..	..	..	1	1	1
Mumps and measles.....	2	..	..	..	..	..	..	2	2	2
Measles, scarlet fever and varicella	1	..	..	..	..	..	..	1	1	1
Measles, scarlet fever and pertussis .....	5	..	..	..	..	..	1	4	5	5
Measles, varicella and pertussis .....	1	..	..	..	1	1	..	..	..	1
Mumps .....	..	..	2	..	..	..	1	1	2	2
Measles, scarlet fever and diphtheria .....	1	1	..	1	1	2	..	..	..	2
Scarlet fever, pertussis and diphtheria .....	1	..	..	1	..	1	..	..	..	1
Typhoid fever .....	..	..	2	..	..	..	1	1	2	2
Total.....	1,623	886	390	589	526	1,115	901	883	1,784	2,899
For observation .....	6	3	5	3	3	6	2	6	8	14
Accompanying .....	13	10	337	1	12	13	9	338	347	360

## Discharged.

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	Five to 16 Years.	Over 16 Years.	Male.	Female.	Total.	Male.	Female.	Total.	
Diphtheria .....	94	107	45	106	92	198	15	33	48	246
Scarlet fever .....	109	280	102	176	167	343	65	83	148	491
Measles .....	587	296	105	92	63	155	451	382	833	988
Small-pox .....	7	6	78	47	18	65	16	10	26	91
Varicella .....	50	16	11	13	7	20	31	26	57	77
Pertussis .....	12	4	..	5	9	14	2	..	2	16
German measles .....	..	2	1	2	..	2	..	1	1	3
Diphtheria and scarlet fever	10	7	4	12	7	19	1	1	2	21
Diphtheria and measles...	24	7	1	6	2	8	20	4	24	32
Diphtheria and varicella..	1	..	..	..	1	1	..	..	..	1
Scarlet fever and measles	67	21	4	3	6	9	43	40	83	92
Scarlet fever and varicella	..	1	..	..	..	..	1	..	1	1
Scarlet fever and pertussis	4	..	..	..	1	1	2	1	3	4
Measles and pertussis....	12	7	..	4	3	7	2	10	12	19
Measles and varicella....	18	4	..	3	5	8	6	8	14	22
Varicella and pertussis...	1	..	..	..	..	..	..	1	1	1
Scarlet fever, diphtheria and pertussis .....	1	..	..	1	..	1	..	..	..	1
Scarlet fever, measles and pertussis .....	3	..	..	..	..	..	3	3	3	3
Measles, scarlet fever and varicella .....	1	..	..	..	..	..	1	1	1	1
Mumps .....	..	..	2	..	..	..	1	1	2	2
Total.....	1,001	758	353	470	381	851	656	605	1,261	2,112
For observation.....	2	2	2	1	1	2	1	3	4	6
Accompanying .....	7	9	325	1	12	13	5	323	328	341

## Transferred.

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	Five to 16 Years.	Over 16 Years.	Male.	Female.	Total.	Male.	Female.	Total.	
Diphtheria .....	13	6	..	9	6	15	2	2	4	19
Scarlet fever .....	26	10	2	5	11	16	6	16	22	38
Measles .....	129	34	6	6	10	16	76	77	153	169
Varicella .....	3	3	..	..	..	..	6	6	6	6
Diphtheria and scarlet fever	5	5	..	2	5	7	..	3	3	10
Diphtheria and measles...	4	2	2	..	2	2	4	2	6	8
Diphtheria and pertussis..	1	..	..	1	..	1	..	..	..	1
Scarlet fever and measles.	8	1	..	..	..	..	9	9	9	9
Scarlet fever and pertussis	2	1	..	1	2	3	..	..	..	3
Scarlet fever and varicella	8	2	..	5	2	7	..	3	3	10
Measles and varicella....	5	1	..	..	3	3	1	2	3	6
Measles and pertussis....	7	2	..	2	3	5	3	1	4	9
Mumps and measles.....	1	..	..	..	..	..	1	1	1	1
Measles, scarlet fever and diphtheria .....	1	1	..	1	1	2	..	..	..	2
Scarlet fever, measles and pertussis .....	1	..	..	..	..	..	1	1	1	1
Total.....	214	68	10	32	45	77	92	123	215	292
For observation .....	4	1	3	2	2	4	1	3	4	8
Accompanying .....	6	1	2	..	1	1	3	5	8	9

## Died.

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	Five to 16 Years.	Over 16 Years.	Male.	Female.	Total.	Male.	Female.	Total.	
Diphtheria .....	107	19	3	55	52	107	8	14	22	129
Scarlet fever .....	51	18	12	15	17	32	23	26	49	81
Measles .....	168	8	2	6	16	22	81	75	156	178
Small-pox .....	2	..	4	1	1	2	3	1	4	6
Varicella .....	5	..	..	..	1	1	1	3	4	5
Pertussis .....	1	..	..	1	..	1	..	..	..	1
Typhoid fever .....	..	..	1	..	..	..	..	1	1	1
Diphtheria and scarlet fever	8	3	..	3	7	10	..	1	1	11
Diphtheria and measles....	15	..	..	3	1	4	3	8	11	15
Diphtheria and pertussis..	4	..	..	1	3	4	..	..	..	4
Scarlet fever and measles	19	9	..	..	1	1	12	15	27	28
Measles and pertussis....	4	2	..	2	3	5	1	..	1	6
Measles and varicella....	1	..	..	..	..	..	..	1	1	1
Measles, varicella and pertussis .....	1	..	..	..	1	1	..	..	..	1
Total.....	386	59	22	87	103	190	132	145	277	467
Accompanying .....	1	..	..	..	..	..	1	..	1	1



## Remaining in Hospital, December 31, 1906.

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	Five to 16 Years.	Over 16 Years.	Male.	Female.	Total.	Male.	Female.	Total.	
Diphtheria .....	8	6	3	7	9	16	1	..	1	17
Scarlet fever .....	17	32	6	17	18	35	10	10	20	55
Measles .....	50	19	2	2	..	2	33	36	69	71
Small-pox .....	..	..	11	7	3	10	..	1	1	11
Varicella .....	1	..	..	..	..	..	1	..	1	1
Diphtheria and scarlet fever .....	6	1	1	6	..	6	1	1	2	8
Diphtheria and measles....	11	3	..	..	..	..	4	10	14	14

	Age.			Native.			Foreign.			Total.
	Under 5 Years.	Five to 16 Years.	Over 16 Years.	Male.	Female.	Total.	Male.	Female.	Total.	
Diphtheria and pertussis..	1	..	..	..	1	1	..	..	..	1
Scarlet fever and measles	10	2	..	1	2	3	5	4	9	12
Scarlet fever and pertussis	1	..	..	..	1	1	..	..	..	1
Scarlet fever, measles and pertussis .....	2	..	..	..	..	..	1	1	2	2
Total.....	107	63	23	40	34	74	56	63	119	193
Accompanying .....	..	..	21	..	..	..	..	21	21	21

## Recapitulation.

	Remaining December 31, 1905.		Admitted.		Discharged.		Transferred.		Died.		Remaining December 31, 1906.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Diphtheria .....	8	4	195	204	121	125	11	8	63	66	8	9
Scarlet fever.....	28	28	289	320	241	250	11	27	38	43	27	28
Measles .....	25	37	722	622	543	445	82	87	87	91	35	36
Smallpox .....	..	..	74	34	63	28	..	..	4	2	7	4
Varicella .....	6	5	40	38	44	33	..	6	1	4	1	..
Pertussis .....	1	5	7	4	7	9	..	..	1	..	..	..
Typhoid fever .....	..	..	..	1	..	..	..	..	..	1	..	..
German measles .....	..	..	2	1	2	1	..	..	..	..	..	..
Mumps .....	..	..	1	1	1	1	..	..	..	..	..	..
Diphtheria and scarlet fever.....	..	..	25	25	13	8	2	8	3	8	7	1
Diphtheria and measles.....	..	..	40	29	26	6	4	4	6	9	4	10
Diphtheria and varicella.....	..	..	..	1	..	1	..	..	..	..	..	..
Diphtheria and pertussis.....	..	..	2	4	..	..	1	..	1	3	..	1
Scarlet fever and measles.....	5	7	59	70	46	46	..	9	12	16	6	6
Scarlet fever and varicella .....	..	..	6	5	1	..	5	5	..	..	..	..
Scarlet fever and pertussis.....	..	..	3	5	2	2	1	2	..	..	..	1
Measles and pertussis .....	1	3	13	17	6	13	5	4	3	3	..	..
Measles and varicella .....	1	1	9	18	9	13	1	5	..	1	..	..
Varicella and pertussis.....	..	..	..	1	..	1	..	..	..	..	..	..
Mumps and measles .....	..	..	..	2	..	..	..	2	..	..	..	..
Scarlet fever, diphtheria and pertussis.....	..	..	1	..	1	..	..	..	..	..	..	..
Scarlet fever, measles and pertussis.....	..	..	1	4	..	3	..	..	..	..	1	1
Measles, scarlet fever and diphtheria.....	..	4	1	1	..	..	1	1	..	..	..	..
Measles, scarlet fever and varicella.....	..	..	..	1	..	1	..	..	..	..	..	..
Measles, varicella and pertussis.....	..	..	..	1	..	..	..	..	1	..	..	..
Total .....	75	90	1,490	1,409	1,126	986	124	168	219	248	96	97
For observation .....	..	..	5	9	2	4	3	5	..	..	..	..
Accompanying .....	..	12	10	350	6	335	3	6	1	..	..	21

## DIVISION OF INSPECTIONS.

## BOROUGH OF MANHATTAN.

There are two classes of employees in the Division of Inspections—the clerical force, and those who perform the work in the field. This corps is composed of Sanitary Inspectors, the Patrolmen forming the Health Squad, and Inspectors of Foods assigned to milk, meat, fruits and fish. Their duties and their relation, one to another, are shown in the accompanying table. The clerical force is subdivided, as shown in the table, and assigned to duty in keeping the divisional records, and performing the necessary clerical duties, as indicated.

The Sanitary Inspectors have cognisance of, and are responsible for, the enforcement of all health laws and regulations in the districts to which they have been assigned, in all premises or places other than those, jurisdiction over which is given by law to the Tenement House Department.

The duties of the Health Squad are, to a certain extent, the same, except that they do not make investigations which require a technical knowledge.

The Inspectors of Foods perform the duties appropriate to their titles.

For convenience in administration, the City is divided into districts of reasonable size. Each class of Inspector has a district to which he is assigned, but it naturally results from the varied character of the work that the district boundaries are not the same for men in different classes.

## Sanitary Inspection.

The complaints which are assigned to the Sanitary Inspectors for investigation are of the widest range; they include such matters as defective drainage and ventilation, lack of water supply, overcrowding in lodging houses and workshops, nuisances of all kinds arising from the operation of factories and machinery, the ringing of church bells, various noises caused by the operation of public conveyances, complaints of violations of such portions of the Labor Law as the Department of Health is enjoined to enforce, and the many other causes of complaint which must necessarily exist in a large City.

It is the Inspector's duty to immediately investigate all complaints which are referred to him from the office of the Chief Sanitary Inspector, and to submit a report of the conditions found, with his recommendation for the necessary notice or order to be issued, compliance with which would render the premises complained of sanitary, or would cause the existing conditions to comply with the law. After the elapse of the requisite number of days, the office copies of the orders and notices which have been issued as a result of these recommendations are referred to the Inspector for reinspection, to ascertain whether they have been complied with or no. In addition to this work, the Inspectors are required to make original inspections throughout their districts during their unoccupied time, reporting any improper conditions which they may observe, and submitting recommendations for their improvement. The Inspectors are required to so cover and examine their districts as to keep them in as good condition as could reasonably be required. The District Inspectors also investigate and report upon all applications for permits which are issued by the Board of Health, other than permits for the sale of milk, and submit reports, either recommending that the permits asked for be denied or granted. Applications for modification of an

order or notice, or relief from, complying with said order or notice are referred to an Inspector other than he who made the original recommendation, to examine into the conditions existing and report as to the propriety of granting the application.

In those instances where the conditions are dangerous to life or detrimental to the health of either the occupants of the premises or of neighboring ones, unless work to comply with the orders or notices issued by the Department of Health is begun within a reasonable time, the premises are examined by the Chief Sanitary Inspector, who, upon verification of the reported conditions, reports the facts to the Assistant Sanitary Superintendent, who, in turn, certifies to the Board of Health that the conditions are dangerous to life or detrimental to health, and recommends that the premises be ordered vacated, or that the conditions existing be declared to be a public nuisance. During the past year this action was taken in the following instances, with the results indicated.

## Premises Ordered Vacated.

Date of Issuance of Order.	Premises.	Date Complied With.
April 4, 1906	No. 357 East One Hundred and Twenty-fourth street.....	May 14, 1906
April 4, 1906	No. 238 East Fifty-first street.....	May 9, 1906
May 9, 1906	No. 106 East Eleventh street.....	May 14, 1906
May 9, 1906	No. 310 West Thirty-fifth street.....	Aug. 30, 1906
May 23, 1906	Nos. 201 and 203 West Twenty-third street.....	Sept. 1, 1906
May 23, 1906	Nos. 649 and 651 West Forty-second street.....	Sept. 18, 1906
May 23, 1906	No. 515½ East One Hundred and Eighteenth street.....	June 26, 1906
June 6, 1906	No. 143 West street.....	July 9, 1906
June 13, 1906	No. 102 East One Hundred and Fourth street.....	July 23, 1906
June 13, 1906	No. 104 East One Hundred and Fourth street.....	July 23, 1906
June 13, 1906	No. 106 East One Hundred and Fourth street.....	July 23, 1906
June 13, 1906	No. 108 East One Hundred and Fourth street.....	July 23, 1906
July 11, 1906	No. 105 Bowery .....	July 16, 1906
Aug. 1, 1906	No. 502 Canal street.....	Oct. 12, 1906
Aug. 1, 1906	No. 82 Park row .....	Jan. 8, 1907
Aug. 1, 1906	No. 159 Third avenue.....	Oct. 19, 1906
Aug. 22, 1906	No. 465 Lexington avenue.....	Oct. 19, 1906



Date of Issuance of Order.	Premises.	Date Complied With.
Aug. 22, 1906	No. 342 East Fiftieth street.....	Oct. 12, 1906
Sept. 5, 1906	Northwest corner of Broadway and Hawthorne street.....	Not complied with; vacant
Sept. 5, 1906	No. 206 Forsyth street.....	Dec. 29, 1906
Sept. 5, 1906	No. 142 Monroe street.....	Oct. 12, 1906
Sept. 5, 1906	No. 213 East Fifteenth street.....	Sept. 26, 1906
Sept. 5, 1906	No. 15 West Forty-second street.....	Oct. 5, 1906
Sept. 5, 1906	Nos. 102 and 104 West Forty-seventh street.....	Oct. 5, 1906
Sept. 5, 1906	No. 802 East Fifth street.....	Oct. 9, 1906
Sept. 12, 1906	Nos. 418 to 422 Broadway and No. 277 Canal street.....	Oct. 29, 1906
Sept. 12, 1906	No. 79 White street.....	Oct. 12, 1906
Sept. 12, 1906	Nos. 320 and 322 West Thirty-fourth street.....	Order rescinded Oct. 12, 1906
Sept. 12, 1906	Nos. 310 to 320 East Seventy-fifth street.....	Oct. 3, 1906
Sept. 12, 1906	No. 51 East Ninth street.....	Sept. 3, 1906
Sept. 19, 1906	No. 476 Ninth avenue.....	Nov. 1, 1906
Sept. 19, 1906	No. 57 West Tenth street.....	Oct. 5, 1906
Oct. 3, 1906	Nos. 570 to 576 West Broadway.....	Oct. 19, 1906
Oct. 3, 1906	No. 9 Rutgers street.....	Oct. 12, 1906
Oct. 3, 1906	No. 55 West Third street.....	Oct. 27, 1906
Oct. 3, 1906	No. 359 West Fifty-fifth street.....	Nov. 12, 1906
Oct. 24, 1906	No. 35 East Broadway (rear).....	Oct. 31, 1906
Oct. 24, 1906	No. 84 Bowery.....	Nov. 27, 1906
Nov. 7, 1906	No. 143 West Thirty-second street.....	Dec. 12, 1906
Nov. 7, 1906	No. 167 East One Hundred and Twenty-seventh street.....	Dec. 12, 1906
Nov. 21, 1906	South by Reade street, north by Duane street, west by West street and east by Washington street.....	Not complied with; work in progress
Nov. 28, 1906	No. 243 Division street.....	Dec. 31, 1906
Nov. 28, 1906	No. 129 Canal street.....	Dec. 31, 1906
Dec. 12, 1906	No. 712 Eleventh avenue (front).....	Jan. 14, 1907
Dec. 19, 1906	No. 362 Seevnth avenue.....	Not complied with; vacant

Number complied with.....	44
Number not complied with.....	1
Total.....	45

## Premises Declared to be a Public Nuisance.

Date of Issuance of Order.	Premises.	Date Complied With.
June 6, 1906	Southwest corner of One Hundred and Thirty-fourth street and Park avenue.....	Dec. 1, 1906
June 13, 1906	No. 75 Goerck street.....	July 25, 1906
June 13, 1906	No. 49 Willett street.....	July 25, 1906
June 27, 1906	Nos. 616 to 636 West Fortieth street.....	Dec. 31, 1906
July 11, 1906	No. 175 East Houston street.....	July 21, 1906
July 18, 1906	Nos. 828 and 830 Seventh avenue.....	Aug. 17, 1906
Aug. 1, 1906	No. 144 West street.....	Oct. 4, 1906
Sept. 12, 1906	No. 239 West Sixtieth street.....	Sept. 25, 1906
Sept. 19, 1906	No. 747 East Eleventh street.....	Oct. 8, 1906
Oct. 3, 1906	Nos. 51 to 55 West Ninety-third street.....	Oct. 12, 1906
Oct. 24, 1906	No. 227 West Sixty-second street.....	Dec. 3, 1906
Nov. 7, 1906	No. 169 West End avenue.....	Dec. 3, 1906
Nov. 7, 1906	No. 32 West One Hundred and Thirty-eighth street.....	Not complied with
Nov. 28, 1906	No. 196 Avenue C.....	Dec. 24, 1906
Nov. 28, 1906	No. 504 East Thirteenth street.....	Dec. 15, 1906
Nov. 28, 1906	No. 517 East Thirteenth street.....	Dec. 11, 1906
Nov. 28, 1906	No. 620 East Thirteenth street.....	Not complied with
Nov. 28, 1906	No. 211 West Eighty-seventh street.....	Not complied with; work in progress
Dec. 5, 1906	No. 204 Avenue C.....	Jan. 14, 1907
Dec. 5, 1906	No. 438 East Thirteenth street.....	Not complied with
Dec. 5, 1906	No. 207 West Sixty-fourth street.....	Dec. 27, 1906
Dec. 12, 1906	No. 29 Cooper square.....	Dec. 27, 1906
Dec. 12, 1906	No. 712 Eleventh avenue (rear).....	Jan. 14, 1907
Dec. 12, 1906	No. 155 First avenue.....	Dec. 27, 1906
Dec. 12, 1906	No. 216 First avenue.....	Jan. 11, 1907
Dec. 12, 1906	No. 442 East Thirteenth street.....	Jan. 2, 1907
Dec. 12, 1906	No. 357 East Seventy-sixth street.....	Dec. 24, 1906
Dec. 19, 1906	No. 413 East Twelfth street.....	Not complied with

Number complied with.....	23
Number not complied with.....	5
Total.....	28

At one time it was customary to have two or three Inspectors especially detailed to handle complaints and investigations relating to "offensive trades," in the past few years, however, it has seemed more advisable to have this work done by the District Inspectors, with the result that at present every member of the corps is now able to properly attend to these complaints, and they consequently receive quicker and, it is to be hoped, better attention. Included in this category are noises and odors from manufactories, nuisances from the operation of machinery, and fumes, cinders and smoke from the operation of furnaces.

The smoke nuisance is in about the same condition as reported in previous years. Many arrests have been made and convictions secured in the Court of Special Sessions, with the result that at present there are very few serious nuisances in existence, and

in these cases proceedings are now pending in Court, looking to the abatement of these nuisances.

There are six large power houses consuming an enormous quantity of coal every twenty-four hours and producing a great amount of electric power. This power is utilized in lighting hotels, theatres, public buildings, the public streets and in operating the three great systems of transportation, the subway, the surface railways and the elevated roads. All of these plants have been conducted, through the co-operation of the managing officials, with very little, if any, discharge of smoke, with one exception. The problem presented by this plant has been very thoroughly inquired into by experts employed by the Board of Health and by the owners of the plant in question, and drastic improvements have been recommended, which, when fully completed, will do away entirely with the nuisance existing in this plant. The discharge of smoke, coal gases and cinders from the locomotives entering the Borough of Manhattan is being materially reduced daily. The long expected installation of electric locomotives on the New York Central and the New York, New Haven and Hartford Railroads is now partially accomplished. A number of trains are leaving the Grand Central station each day propelled by electric power, and as the engineers and firemen are becoming properly instructed in this method of traction, more and more steam locomotives are being taken off the lines. The probability is that early in the coming year steam locomotives in the Borough of Manhattan will have become a thing of the past. The same system of controlling the smoke nuisance on these railroads by employees of the company has existed in 1906 as in former years. The main line of the New York Central, from Harlem river to One Hundred and Thirty-eighth street, to Forty-second street, is kept under constant supervision by inspectors employed by the railroad company, whose duty it is to note the number of locomotives detected in discharging smoke, together with the time of the occurrence. A similar state of affairs exists on the Hudson River Division, Thirtieth street and Ninth avenue to Spuyten Duyvil creek. The engineer and the fireman of the offending locomotive are immediately disciplined severely by the railroad company. Consequently, there is no smoke of any amount discharged from the locomotives of railroads in this borough.

On the 19th of December the Sanitary Code was altered by the Board of Health by removing from section 96 any provision which it may have contained in relation to smoke, and introducing a new section known as section 181, intended to entirely cover the smoke nuisance. This section is as follows:

"No person shall cause, suffer or allow dense smoke to be discharged from any building, vessel, stationary or locomotive engine, place or premises within the city of New York, or upon the waters adjacent thereto, within the jurisdiction of said city; all persons participating in any violation of this provision, either as proprietors, owners, tenants, managers, superintendents, captains, engineers, firemen or otherwise, shall be severally liable therefor."

It has been in force such a comparatively short length of time that it is impossible at the time of this report to make any definite statement as to whether it is more or less effective than the old section of the code.

## Arrests for Smoke Nuisance, 1906.

Number held on bail in Police Court.....	211
Number discharged.....	10
Total.....	221
Number fined in Special Sessions Court.....	5
Number discharged in Special Sessions Court.....	29
Number of sentences suspended in Special Sessions Court.....	160
Number of cases pending in Special Sessions Court.....	17
Total.....	211

Amount of fines.....	\$240 00
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## Gasoline Explosions.

Early in the month of April a number of serious explosions took place in cellars and in the sewers of the streets on the west side of this borough, in that section of the city bounded by West Forty-ninth and West Fifty-sixth streets, Broadway and the North river. This matter was first called to the attention of the Department of Health in the last week of April. Explosions became so frequent and the conditions were apparently so grave that two Inspectors of the division were assigned to make a thorough and careful investigation of the causes of the explosions and of the circumstances surrounding the causes of the explosions. They reported that the explosions were the result of an admixture of the proper proportions of gasoline vapors and air in the public sewers. This mixture of vapors found its way into the cellars and basements of numerous buildings by means of defects in the plumbing and drainage system of said premises. It was found that all of these explosions took place along the sewerage system, the trunk of which extended from Fifty-sixth street west to Eighth avenue, south of Eighth avenue to Fifty-fifth street, thence west to Ninth avenue; thence south to Fifty-first street, and thence west to the North river. Upon ascertaining this fact, the garages situated in the district drained by this system were all carefully examined. The following is an extract from the Inspectors' report of their findings:

"We found that in some of these garages no gasoline was stored on the premises, and that in others various systems of storage tanks were installed.

"In the premises No. 235 West Fifty-sixth street, occupied by the Hol-Tan Company, and in the premises Nos. 237 to 241 West Fifty-sixth street, occupied by Smith and Mabley, the storage system is that installed by the Snell Hydraulic Oil Storage Company. This system operates on the principle that a column of water 12 inches high will counterbalance a column of gasoline 17 inches high. This system consists of a series of tanks connected together, and to which are attached suitable pipes for conveying the gasoline, and others for supplying the water pressure necessary to force the gasoline from the tanks. This system has been imperfectly installed. Consequently, the persons who were charged with filling the tanks were not able to or at any rate did not ascertain whether any gasoline found its way into the water leg of the system, and thence into the public sewer or not. As a matter of fact, we found that on most occasions when the tanks of these two concerns were being filled that the odors of gasoline in the adjacent sewer became very strong, in some cases almost unbearable, showing that at times a very large amount of gasoline was carelessly allowed to find its way into the public sewer. An apparatus is now being placed on the feed pipes of the storage tanks in these two garages, which, it is claimed, will absolutely prevent the improper discharge of gasoline. In addition to this obvious source of the entrance of gasoline into the public sewer, we examined the drainage system separately of each garage and found strong odors of gasoline arising from the house trap of the main iron house drain near the front wall. Samples were taken from the public sewer in the street and from each of the house traps of the following five garages:

"Ford Motor Company, No. 1723 Broadway.

"DeCauville Motor Company, Nos. 235 to 241 West Fifty-fifth street.

"Pope Manufacturing Company, Nos. 1733 to 1737 Broadway.

"Rainier Auto Company, Nos. 1627 and 1629 Broadway.

"Majestic Motor Company, Nos. 1713 and 1715 Broadway.

"All of these samples contained gasoline in varying quantities, showing that these five places, in addition to the two first mentioned, discharge gasoline into the public sewer in sufficient quantities to produce an explosive mixture of gasoline and air, which, if brought in contact with a flame or spark under the proper conditions, might produce most serious results. Separate reports covering the conditions in each one of the above mentioned premises were forwarded with the recommendation that an order be issued requiring the discontinuance of the nuisance caused by the discharge of gasoline into the public sewer."

It may thus be seen that there were two means by which gasoline might find its way into a public sewer from a garage. First, defects in the storage system, and second, carelessness in the use of gasoline around the premises, either in filling automobile tanks or in using excessive quantities of gasoline for cleansing and washing purposes. As indicated in the report quoted above, orders were issued on all of the premises in question. The careless handling of gasoline in filling the tanks on the machines and for washing purposes was discontinued at once. The use of the storage



tanks in the garage at No. 235 West Fifty-sixth street and Nos. 237 to 241 West Fifty-sixth street, was discontinued until such time as a safety device could be placed on these tanks, which would prevent the escape of gasoline through the water leg of the system into the public sewer. This work was completed in the middle of May, and the restriction upon the use of the tanks was removed. Since that time there has been no evidences of the escape of gasoline into public sewers, and the Department has received no complaint to that effect.

#### Lodging Houses.

There are probably no buildings occupied for living purposes which are in more need of constant supervision by Sanitary Inspectors than those occupied as lodging houses and so-called "furnished room" houses. These houses are tenanted by persons who are of a more or less roving disposition, who have no particular personal ties with the premises, and are, therefore, extremely careless in their usage of the property. The Sanitary Code prescribes that for all lodging houses containing rooms in which there are more than three beds for the use of lodgers, or in which more than six persons are allowed to sleep, a permit from the Board of Health shall be required.

#### Table of Occupancy.

Number of lodging houses for men	95	Total number of lodgings.....	17,129
Number of lodging houses for women	3	Total number of lodgings.....	319
Number of lodging houses for children	4	Total number of lodgings.....	530
Total	102	Total	17,978

As in former years, one Sanitary Inspector has been assigned to duty in the supervision of lodging houses. The Charter of The City of New York provides that the Department of Health shall make an inspection of each lodging house in The City of New York at least once in six months. Experience has taught that inspections of this sort are not adequate and are not satisfactory, and therefore it has been deemed better to have one Inspector on duty in connection with the lodging houses at all times, in order that lapses on the part of lodging house proprietors shall be corrected almost immediately, with the result that the lodging houses are kept in as good condition as places of this character might be reasonably expected. There have been 2,764 inspection of lodging houses made during the year, an average of 27 apiece, instead of two apiece, as required by law.

#### Enforcement of the Child Labor Law.

The inspections which this Department is required to make in the enforcement of the Child Labor Law are, in the majority of cases, made by the District Sanitary Inspectors. They are required to make a minimum of 20 inspections a week in this particular line of work, but the majority make many more than this, so that the average number of inspections a week is something more than 500. In addition to the inspections made by the District Inspectors, there is an Inspector assigned especially to watch the large department stores, the telegraph and messenger service, and such complaints of violation of the Child Labor Law as may be referred to him. During the month preceding the Christmas holidays there were temporarily assigned to assist him in this work five other Inspectors. During the past year there were 25,725 inspections of mercantile establishments. As an indication of the apparently universal compliance with the law, so far as the Department of Health is required to take cognizance, it would be proper to state that during the year 1906 there were but 145 complaints received of violations. Of these, 85 were verified on inspection, and 60 were found to be groundless. In addition to this there were 875 recommendations for notices made by the Inspectors as a result of their original investigations, making a total of 960 notices which were issued for violation of the Mercantile Law. In other words, out of the 25,725 inspections made, there were but 3½ per cent. of the cases in which the Inspectors found violations of that part of the Mercantile Law, the enforcement of which this Department is charged with.

Criminal prosecutions were made in a few instances of flagrant violations of the Mercantile Law. In the table will be found the number of cases and their disposition.

Section 161 of the Mercantile Law was amended at the last session of the Legislature and went into effect on October 1, 1906. The essential feature of this amendment is the following sentence:

"But in cities of the first class no child under the age of sixteen years shall be employed, permitted or suffered to work in or in connection with any such establishment after 7 o'clock in the evening of any day."

This amendment was very generally complied with by the employers of children, except during the few weeks preceding the Christmas holidays, and after the assignment of the additional Inspectors to the special mercantile work and the arrest of a comparatively few employers the provision of this amendment in regard to the employment of children was very generally respected throughout the Borough. While it is undoubtedly true that there are many isolated cases of violations of the Mercantile Law, it would seem that the provisions of the Law are very generally lived up to, and it does not seem possible to more thoroughly enforce these provisions unless an additional corps of Inspectors were employed who could be assigned to this duty and none other, and even then it would be a question whether the conditions would show sufficient improvement to warrant the expenditure of the additional sum of money.

The work which the Department of Health is required to perform in compliance with the Mercantile Law is of two kinds, inspection of field work and the issuance of mercantile certificates to children between the ages of fourteen and sixteen years, who may desire to work in a mercantile establishment or a factory. The requirements of the Law which must be complied with before a mercantile certificate can be issued are most specific. The parent or guardian of the child must furnish a passport or duly attested transcript of the certificate of birth or baptism, or other religious record, showing the date and place of birth of such child, and a school record properly filled out and signed, as provided by law. This school record must show that the child has received at least 130 days' tuition since its thirteenth birthday, and that during that time it has been instructed in reading, spelling, writing, English grammar and geography, and is familiar with the fundamental operations of arithmetic, up to and including fractions. In addition to stating that this documentary evidence has been placed on file the officer of the department issuing the mercantile certificate must certify that the child is able to read and write simple sentences in the English language, and that it has reached the normal development of a child of its age, is sound in health and is physically able to do the work which it is to perform.

Unfortunately, there are many children who are unable to furnish evidence of age such as is admissible under the provisions of this law. A comparatively small number who have received certificates of graduation are enabled to present these in lieu of other evidence of age, but even this concession does not reach all of the children who are physically and mentally capable of doing work.

In 1904 the Legislature amended the law so as to permit the Board of Health at a regular meeting to accept other documentary evidences than the ones above mentioned, provided, in its opinion, such evidences were bona-fide proofs of age, and that the child in fact was over the age of fourteen years. The issuing of certificates under this law has been conducted in 1906 as it was in 1905, and has undoubtedly resulted in allowing many children to secure employment who otherwise, through the apparently harsh provisions of the law, would have been prevented from obtaining mercantile certificates. Among the different evidences of age presented are certificates from the Commissioner of Immigration that a child entered the Port of New York at a given date, at which time it was known to be of a certain age. Family bible, vaccination certificates issued shortly after the birth of the child and certificates of the physicians who attended the child at a very early age. There have also been presented six or eight insurance policies, which were accepted as legal proof. During the year there were 739 certificates of this character issued by direction of the Board of Health.

The work performed by the Inspectors of this division in enforcing the Mercantile Law will be shown in this table:

Number of inspections of mercantile establishments.....	25,725
Number of complaints received .....	145
Number of complaints returned for orders.....	85

Number of complaints returned negative.....	60
Number of originals.....	875
Number of children interviewed.....	30,976
Number of certificates granted.....	11,387

Number refused, insufficient education.....	158
Number refused, insufficient tuition .....	1,215
Number refused, insufficient evidence of birth.....	880
Number refused, under age.....	259
Number refused, over age .....	348
Number refused, physical incapacity.....	5

Total refused .....

2,865

#### Violations of the Mercantile Law.

Total number of arrests.....	14
Total number of fines.....	2
Total number discharged.....	4
Total number of cases pending.....	8

Amount of fines.....

\$40 00

#### Health Squad.

The Commissioner of Police, by direction of the Charter, details officers and men to this squad. It is at present commanded by a Sergeant of Police, and is composed of three Roundsmen and sixty Patrolmen. The Health Squad investigates complaints relating more especially to cleanliness and the removal of refuse, including the removal of manure from horse stables throughout the city, shaking of carpets and rugs, filthy garbage and refuse cans, dirty lots, yards and cellars, and noisy dogs and other animals. They are also used in the enforcement of the provisions of the Sanitary Code, more especially those relating to the improper exposure of food stuffs, the keeping and killing of live poultry in tenement houses, making arrests for violation of the smoke ordinance and provisions of the Sanitary Code against allowing dust and dirt to escape from premises, more or less caused by the beating and shaking of carpets, and the dust arising from the destruction of buildings by house wreckers, the transportation of manure and other refuse without permits, and finally the enforcement of section 178 in relation to spitting in cars, ferryboats, in or on stations and platforms and other public places. The Sanitary Police are likewise used to carry out the directions of the Board in relation to the vacating of houses which are in uninhabitable conditions, and in relation to buildings or other places which have been declared public nuisances. The members of the squad are frequently of much assistance to the Inspectors of the division in gaining admission to premises and in the inspection of milk at the ferries and other terminals. They perform a very considerable amount of duty in connection with the work of the Division of Contagious Diseases, which will be treated of in connection with the report of that division.

The following table is a statement of the arrests other than those for the sale of adulterated milk made by the Sanitary Squad during the year 1906, together with the disposition of each case, either in the Police Magistrate's Court or in the Court of Special Sessions:

Section Violated.	Number Fined.	Number Discharged.	Number Sentence Suspended.	Number Pending.	Amount of Fines.
10 .....	..	2	1	..	.....
12 .....	..	1	..	..	.....
41 .....	1	..	..	..	\$10 00
42 .....	9	1	..	..	20 00
45 .....	291	14	..	..	726 00
46 .....	690	44	..	..	1,572 78
56 .....	3	5	2	..	30 00
59 .....	2	1	..	..	15 00
73 .....	6	..	..	2	75 00
74 .....	..	..	1	..	.....
79 .....	76	23	11	5	497 00
81 .....	4	..	1	1	20 00
82 .....	1	..	..	..	5 00
87 .....	1	..	1	..	10 00
88 .....	2	..	..	..	20 00
96 (Manhattan) .....	4	33	133	20	190 00
97 .....	5	1	2	..	25 00
109 .....	28	3	..	..	64 00
116 .....	2	3	..	1	50 00
118 .....	76	5	2	1	1,053 60
119 .....	72	3	7	..	341 00
133 .....	..	..	1	..	.....
162 (Mercantile Law).....	1	3	1	3	20 00
178 .....	1,156	199	..	..	1,651 08
385 (Penal Code).....	1	..	..	..	1 00
1262 (Greater New York Charter)....	..	..	1	..	.....
1265 .....	1	..	..	..	10 00
96 (Queens) .....	..	..	31	..	.....
Violation Corporation Ordinance.	2	..	..	*3	15 00

\* City Prison.

Total fined .....	2,434
Total discharged .....	341
Total sentences suspended.....	195
Total pending .....	33
Total, City Prison.....	3

Total .....

3,006

Total amount of fines imposed.....

\$6,420 86

#### Refuse Removal.

In a City of the size of New York there is naturally an enormous amount of refuse which must be promptly and properly removed. The Department of Street Cleaning removes and disposes of all household waste (ashes, garbage and paper waste). Everything else must be removed by the persons who are responsible for its creation.

In the Sanitary Code are sections which prohibit the transportation of such material without a permit. By resolution of the Board of Health such permits are issued by the Chief Sanitary Inspector, under the direction of the Sanitary



Superintendent and his Assistants. These permits expire with the year. On the face of the permit appears the name and address of the holder and a statement of the character of material he is authorized to transport, and a designation of the place at which it must be deposited. These places are kept under observation by Inspectors of the department to insure that the various materials will be disposed of expeditiously and without offense.

Besides these precautions Patrolmen furnished with bicycles are more or less constantly patrolling the streets to enforce the conditions of the different classes of permits.

## Permits Issued During 1906.

(Transportation.)	
To transport manure .....	958
To transport fat and bones (butchers' refuse) .....	202
To transport swill (refuse from hotels, restaurants and clubs) .....	49
To transport garbage (private cartmen) .....	33
Scavenger permits .....	9

Number of arrests for illegal transportation .....	272
Number discharged .....	21
Number fined .....	251

Amount of fines .....	\$845 00
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The work performed by the sanitary part of the division is herewith summarized:

Number of primary inspections .....	269,133
Number of reinspections .....	54,480

Total .....	323,613
Tenements .....	58,473
Lodging houses .....	2,764
Private dwellings .....	22,228
Mercantile establishments .....	25,725
Manufactories and workshops .....	21,779
Stables .....	18,944
Manure dumps .....	5,723
Sunken and vacant lots .....	5,934
Miscellaneous .....	162,038
	323,613

Number of complaints received .....	13,047
Number of complaints returned for orders .....	16,196
Number of complaints returned negative .....	13,186
Number of mercantile certificates issued .....	11,387
Number of mercantile certificates refused .....	2,865
Number of arrests .....	3,006
Number of trials .....	2,980

Amount of fines .....	\$6,420 86
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## Food Inspection.

An important subdivision of this division is that of the inspection of foods. This includes fruit and vegetables, fish, meat and milk. The Chief Sanitary Inspector of the Borough of Manhattan is charged with the inspection of fruit and vegetables (wholesale markets) in all boroughs, fish and meat in the borough over which he has charge in the Division of Inspections, and finally everything which relates to the milk supply of the city, other than the issuing of permits to sell milk and to keep cows in the boroughs of The Bronx, Brooklyn, Queens and Richmond. To assist him in this work there has been assigned an Inspector of Foods, with the office title of Supervising Inspector of Foods.

This Inspector has supervision over the inspection of fruits, vegetables and fish in the Borough of Manhattan, and of imported fruit which is landed in the Borough of Brooklyn.

Fruits are divided into two classes—deciduous and citrus. Deciduous fruits embrace every kind, other than berries, that grow at certain seasons and but once a year. The second class comprises the orange, lemon and grape fruit family, which bear throughout the year. The leaves from such trees do not perceptibly fall, and are always green. Fruits shipped to this market are grown as far south as the tenth degree north latitude. This parallel runs through Cartagena, United States of Columbia. The western boundary of the fruit producing area is the Pacific Coast, although the bulk is not obtained farther west than eighty-five degrees east of Greenwich. This meridian runs through the centre of the State of Michigan. Fruit is also obtained from the Mediterranean ports of Sicily, Italy and Spain. Dried fruits are obtained very largely from Turkey and Persia, and at times apples have been shipped from New Zealand, so that fruit is shipped at times from nearly all parts of the civilized world. The introduction of irrigation in the western states has caused the fruit raising industry to grow with great rapidity, and especially in the territory of Arizona. It may be interesting to note that the same merchants are identified with both the sale of dairy products and of fruit. This combined interest is the third largest industry in the world. Fruits and vegetables from nearby sources of supply are transported in very much the same manner as any other class of freight, that coming from great distances, either on steamers from the tropics, or in cars from the far west is more carefully handled and protected, so as to reduce the loss to a minimum. The western fruit is transported in properly ventilated refrigerator cars, and those vessels bringing fruits from the tropics are especially constructed and provided with a modern ventilating system. The only instance of the transportation of fruit in which speed is lacking is in the shipment of pines in bulk from Key West and the Bahamas. This is done in schooners, the average length of passage being about twelve days. The principal points of arrival of fruit are as follows:

Delaware, Lackawanna and Western Railroad, Pier 13, North river.  
American Line, Pier 14, North river.  
New York Central Railroad, Pier 16, North river.  
Erie Railroad, Pier 20, North river.  
Baltimore and Ohio Railroad, Pier 22, North river.  
Pennsylvania Railroad, Pier 29, North river.  
Old Dominion Line, Pier 36, North river.  
Clyde Line, Pier 45, North river.  
Ward Line, Piers 16 and 17, East river.

The bulk of the Mediterranean fruit lands in Brooklyn, between Fulton and Forty-second streets. In addition to these principal points of arrival, all of the steamship companies and all of the express companies and river boats transport a considerable amount of produce in small quantities throughout the year.

The Savannah, Pennsylvania, and Old Dominion Companies open their docks for business at 3 o'clock a. m. These places are our great markets, where 70 per cent. of the product is sold. From these points, as a rule, the entire community is supplied. All of this is done at private sale.

All jobbers and retail grocers go there to make their daily purchases. The heaviest days are Mondays, Wednesdays and Fridays.

The next important method of distribution is by public auction; the principal places being Pier 20, North river, and the Erie Railroad, known as the "California Dock." All far western fruit arrives there and is lined up from midnight to 8 o'clock a. m., when samples are opened and exposed to the buyers. (No retailing.) At 8 o'clock a. m. the fruit is sold upstairs in a large room especially constructed for the purpose. There are two auction companies, who alternate as to whom shall be the first in selling.

All Mediterranean fruits are sold by auction. The goods are lined up, as on the California Dock, at the Brooklyn and Jersey City wharves. The buyers examine the lines which they wish to purchase, mark their catalogues, then return to New York, where the goods are sold by Brown & Seccomb, and the Fruit Auction Company. The only other fruit sold at auction is about 80 per cent. of the "pines," and 20 per cent. of the bananas.

Railroad and express fruit, other than the above described, goes direct to the Commission Merchant's stores, and from there it is sold to the retailers and peddlers.

With few exceptions, vegetables arrive at the same places as fruit, but are shipped from nearby points. The season begins about March 15 with Floridian products, as the season advances the supply gradually works north, until October, at which time the northern part of this State ends the season with fresh shipments, potatoes, cabbages, turnips and carrots excepted, which are shipped all winter, and until the beginning of the following season. Large quantities of cabbage are obtained from Germany, while from Ireland, Scotland, Belgium and Germany, at times, when the native crops are short and prices high, are imported potatoes. The duty of twenty-five cents per bushel on potatoes and onions is sufficient to be prohibitive, except at times of great scarcity in this country. Large quantities of onions are obtained from Spain, and at times many are imported from Egypt. Occasionally there is such an influx of vegetables from the South that the outgoing steamers of the Savannah and Old Dominion Lines carry much of the product which they had brought north to sea and dump it. As many as 12,000 crates have been known to be disposed of in this way in one day. The chief places for the distribution of vegetables in bulk, that is, loose in car lots, are the

New York Central Railroad, foot of West Thirty-third street.

Erie yards, foot of West Twenty-seventh street.

Palmer's Dock, Williamsburg.

As in the other classes of inspection already described, the fruit and fish Inspectors are assigned to districts in which they are expected to be familiar with the quality of the food stuffs offered for sale. They rotate periodically, so that each Inspector, in time, becomes familiar with the conditions existing throughout the borough. From the nature of the work, it is also necessary to assign Inspectors to a special kind of work, consequently, there is one man, who, eight months in the year, is kept at the wholesale market along the river front. This supervision is maintained during the night time. There is another detailed to make frequent examinations of the food stuffs offered for sale in the large department stores, and also to keep in touch with the sale of canned condensed milk, mineral waters, syrup extracts and kindred food products. There is still another, whose duty it is to keep in touch with the wholesale grocers, confectionery supply houses, canned goods brokers, and the importers of dry groceries, and, lastly, a man of long experience has been assigned to take charge of the railroad yards and the river front, thus forming a system of inspection as perfect as may be devised with the limited number of men employed. (Twelve, of which number one is lately deceased, and two have been ill for a long period of time, thus making a net working force of nine.)

The Borough of Brooklyn has but one Inspector, who looks after imported food stuffs, and whose territory is limited to the shore front. His work is considered extremely important and delicate, for it deals largely with a foreign element, and the United States Government. This branch of the Department work was inaugurated June 4, 1906, and to give an idea of its volume from that time to date, the results are here appended:

## Pineapples Seized and Destroyed.

Date.	Steamer and Location.	Crates.	Pounds.
1906.			
June 4,	steamship Vigilancia, Pier 17, East river, Brooklyn.....	350	24,500
June 6,	steamship Bayamo, Pier 18, East river, Brooklyn.....	585	40,950
June 8,	steamship Morro Castle, Pier 19, East river, Brooklyn.....	747	52,480
June 12,	steamship Monterey, Pier 17, East river, Brooklyn.....	749	52,480
June 14,	steamship Matanza, Pier 18, East river, Brooklyn.....	870	60,900
June 19,	steamship Segurancia, Pier 17, East river, Brooklyn.....	417	29,190
June 21,	steamship Seneca, Pier 18, East river, Brooklyn.....	909	63,630
June 16,	steamship Merida, Pier 19, East river, Brooklyn.....	584	40,880
June 25,	steamship Morro Castle, Pier 19, East river, Brooklyn.....	832	58,240
June 27,	steamship Esperanza, Pier 17, East river, Brooklyn.....	1,181	82,670
June 29,	steamship Matanza, Pier 18, East river, Brooklyn.....	1,811	126,770
July 2,	steamship Mexico, Pier 19, East river, Brooklyn.....	1,475	103,250
July 5,	steamship Vigilancia, Pier 17, East river, Brooklyn.....	467	32,690
July 7,	steamship Morro Castle, Pier 18, East river, Brooklyn.....	1,041	72,870
July 11,	steamship Monterey, Pier 17, East river, Brooklyn.....	248	17,360
July 13,	steamship Mexico, Pier 18, East river, Brooklyn.....	577	40,390
July 13,	steamship Philadelphia, Pier 11, East river, Brooklyn.....	145	10,150
July 17,	steamship Caracas, Pier 11, East river, Brooklyn.....	35	2,450
July 17,	steamship Merida, Pier 17, East river, Brooklyn.....	183	12,810
July 24,	steamship Esperanza, Pier 18, East river, Brooklyn.....	124	8,680
July 26,	steamship Mexico, Pier 17, East river, Brooklyn.....	143	10,010
August 1,	steamship Segurancia, Pier 18, East river, Brooklyn.....	215	15,050
August 3,	steamship Morro Castle, Pier 17, East river, Brooklyn.....	290	20,300
August 6,	steamship Monterey, Pier 17, East river, Brooklyn.....	27	1,890
August 9,	steamship Mexico, Pier 17, East river, Brooklyn.....	228	15,960
August 16,	steamship Morro Castle, Pier 18, East river, Brooklyn.....	17	1,190
August 21,	steamship Esperanza, Pier 17, East river, Brooklyn.....	104	7,280
August 23,	steamship Mexico, Pier 18, East river, Brooklyn.....	134	9,380
August 30,	steamship Morro Castle, Pier 18, East river, Brooklyn.....	286	20,020
September 7,	steamship Mexico, Pier 18, East river, Brooklyn.....	202	14,140
September 12,	steamship Morro Castle, Pier 18, East river, Brooklyn.....	300	21,000
September 15,	steamship Esperanza, Pier 17, East river, Brooklyn.....	201	14,070
September 20,	steamship Mexico, Pier 17, East river, Brooklyn.....	143	10,010
		15,620	1,093,400

## Mangoes.

Date.	Steamer and Location.	Crates.	Pounds.
1906.			
July 24,	steamship Esperanza, Pier 18, East river, Brooklyn.....	47	1,645

## Preserved Cherries.

Date.	Steamer and Location.	Casks.	Pounds.
1906.			
July 13,	steamship Indiana, Pier 6, Bush Docks, Brooklyn.....	2	700



## Garlic (Storage Warehouse).

Date.	Location.	Hampers.	Pounds.
1906.			
July 19, Union Stores, foot of Sedgwick street, Brooklyn.....		614	18,420
August 21, Masters Stores, foot of Brown street, Brooklyn.....		783	23,490
September 6, Union Stores, foot of Sedgwick street, Brooklyn.....		738	22,140
		2,135	64,050

## Record of Lemons Seized and Destroyed (Brooklyn).

Date.	Steamer and Location.	Boxes.	Pounds.
1906.			
June 11, steamship Principessa Latetia, Pier 5, Bush Docks.....		278	22,240
June 11, steamship Napolitan Prince, Pier 4, Bush Docks.....		164	13,120
June 16, steamship Irene, Pier 5, Bush Docks.....		307	24,560
June 18, steamship Francesca, Pier 5, Bush Docks.....		52	4,160
June 19, steamship Carpathia, Pier 52, North river, Manhattan.....		191	15,280
June 21, steamship Sicilia, Pier 5, Bush Docks.....		273	21,840
June 25, steamship Cera, Pier 4, Bush Docks.....		733	58,640
June 28, steamship Citta Di Messina, Pier 6, Bush Docks.....		1,432	114,560
July 2, steamship Sicilian Prince, Pier 4, Bush Docks.....		260	20,800
July 2, steamship Maria, Pier 5, Bush Docks.....		872	69,760
July 5, steamship Sofia Hohenberg, Pier 5, Bush Docks.....		349	27,920
July 7, steamship Cretic, Pier 29, North river, Manhattan.....		1,146	91,680
July 10, steamship Italia, Pier 6, Bush Docks.....		102	8,160
July 12, steamship Teresa, Pier 6, Bush Docks.....		464	37,120
July 16, steamship Gerty, Pier 4, Bush Docks.....		692	55,360
July 17, steamship Erny, Pier 5, Bush Docks.....		138	11,040
July 21, steamship Indiana, Pier 6, Bush Docks.....		11	880
July 23, steamship Guilia, Pier 5, Bush Docks.....		86	6,880
July 23, steamship Slavonia, Pier 52, North river, Manhattan.....		121	9,680
July 24, steamship Lucia, Pier 5, Bush Docks.....		1,230	98,400
July 23, steamship Vincenzo Bonnano, Pier 6, Bush Docks.....		7,417	556,275
July 28, steamship Emelia, Pier 5, Bush Docks.....		698	55,840
July 30, steamship Napolitan Prince, Pier 4, Bush Docks.....		17	1,360
August 2, steamship Hermine, Pier 5, Bush Docks.....		144	11,520
August 3, steamship Clara, Pier 5, Bush Docks.....		102	8,160
August 4, steamship Francesca, Pier 5, Bush Docks.....		47	3,760
August 13, steamship Luisiana, Pier 4, Bush Docks.....		23	1,840
August 15, steamship Regina Elna, Pier 5, Bush Docks.....		403	32,240
August 16, steamship Cretic, Pier 52, North river, Manhattan.....		20	1,600
		17,772	1,384,675

7,417 boxes, each at..... Pounds. 75  
10,355 boxes, each at..... 85

## Prickly Pears.

Date.	Steamer and Location.	Cases.	Pounds.
1906.			
September 24, steamship Francesca, Pier 5, Bush Docks.....		54	4,320
September 25, steamship Cretic, Pier 49, North river, Manhattan.....		52	4,160
November 12, steamship Francesca, Pier 5, Bush Docks.....		14	1,120
		120	9,600

120 cases, each at..... Pounds. 80

## Record of Grapes Seized and Destroyed.

Date.	Steamer and Location.	Barrels.	Pounds.
1906.			
August 4, steamship Francesca, Pier 5, Bush Docks.....		81½	1,620
September 25, steamship Cretic, Pier 49, North river, Manhattan.....		9	495
October 5, steamship Germania, Pier 34, Atlantic Docks.....		32	1,760
October 8, steamship Algeria, Pier 29, Union Stores.....		43	2,365
October 16, steamship Gallia, Pier 37, Atlantic Docks.....		46	2,530
October 24, steamship Madonna, Pier 38, Atlantic Docks.....		18	990
October 25, steamship Dora, Pier 5, Bush Docks.....		17	935
October 29, steamship Carolina, Pier 3, Bush Docks.....		14	770
October 31, steamship Italia, Pier 29, Union Stores.....		74	4,070
November 3, steamship Roma, Pier 34, Atlantic Docks.....		38	2,090
November 8, steamship Virginia, Pier 6, Bush Docks.....		23	1,265
November 10, steamship Guilia, Pier 5, Bush Docks.....		161	8,855
November 12, steamship Athalie, Pier 7, Bush Docks.....		283	15,563
November 14, steamship Francesca, Pier 5, Bush Docks.....		11	605
November 17, steamship Neustria, Pier 38, Atlantic Docks.....		141	7,755

Date.	Steamer and Location.	Barrels.	Pounds.
November 19, steamship Perugia, Pier 29, Union Stores.....		98	5,350
November 24, steamship Monviso, Pier 6, Bush Docks.....		103	5,665
November 30, steamship Massilia, Pier 38, Atlantic Docks.....		115	6,325
November 30, steamship Emilia, Pier 4, Bush Docks.....		24	1,320
December 1, steamship Germania, Pier 38, Atlantic Docks.....		93	5,115
December 3, steamship Sofia Hohenberg, Pier 5, Bush Docks.....		52	2,860
December 4, steamship Erny, Pier 5, Bush Docks.....		163	8,965
December 5, steamship Provincia, Pier 38, Atlantic Docks.....		1,470	80,850
December 5, steamship Cretic, Pier 49, North river, Manhattan.....		47	2,585
December 7, steamship Carpathia, Pier 52, North river, Manhattan.....		1,181	64,955
December 8, steamship Ultonia, Pier 51, North river, Manhattan.....		767	42,185
December 8, steamship Oceanic, Pier 48, North river, Manhattan.....		226	12,430
December 10, steamship Minnetonka, Pier 39, North river, Manhattan....		14	770
December 11, steamship Madonna, Pier 34, Atlantic Docks.....		272	14,960
December 12, steamship Gallia, Pier 38, Atlantic Docks.....		626	34,430
December 14, steamship Celtic, Pier 48, North river, Manhattan.....		21	1,155
December 31, steamship Dora, Pier 5, Bush Docks.....		1,163	63,965
Various dates, auction houses, No. 14 Jay street, Manhattan, and No. 235 West street, Manhattan .....		286	15,730
		7,712	421,325

Pounds.  
7,631 barrels, at 55 pounds each..... 419,705  
81½ barrels, at 20 pounds each..... 1,620  
421,325

## Macaroni.

Date.	Steamer and Location.	Packages.	Pounds.
1906.			
August 15, steamship Sicilian Prince, Pier 4, Bush Docks.....		21	462
September 5, steamship Indiana, Pier 6, Bush Docks.....		72	1,728
December 26, steamship Calabria, Pier 29, Union Stores.....		67	1,474
		160	3,664

## Canned Tomatoes.

Date.	Location.	Cases.	Pounds.
1906.			
December 10, from A. Musica, No. 25 Water street, Manhattan.....		143	6,864

## Pomegranates.

Date.	Steamer and Location.	Cases.	Pounds.
1906.			
August 15, steamship Monviso, Pier 6, Bush Docks.....		183	13,725

## Italian Melons.

Date.	Steamer and Location.	Cases.	Pounds.
1906.			
October 8, steamship Algeria, Pier 29, Union Stores.....		11	880
November 12, steamship Athale, Pier 7, Bush Docks.....		25	2,000
		36	2,880

## Oranges.

Date.	Steamer and Location.	Boxes.	Pounds.
1906.			
November 2, steamship Porto Rico, Pier 35, East river, Brooklyn.....		19	1,520
November 27, steamship Ponce, Pier 35, East river, Brooklyn.....		56	4,480
December 18, steamship Caracus, Pier 11, East river, Brooklyn.....		37	2,960
December 26, steamship Zulu, Pier 35, East river, Brooklyn.....		91	7,280
December 26, steamship Zulu, Pier 35, East river, Brooklyn.....		91	7,280
		263	21,040

## Vegetables.

Date.	Steamer and Location.	Cases.	Pounds.
1906.			
December 14, steamship Algeria, Pier 24, Union Stores.....		48	1,840



Recapitulation.

	Pounds.
Lemons .....	1,384,675
Grapes .....	421,325
Pineapples .....	1,093,400
Prickly pears .....	9,600
Mangoes .....	1,645
Preserved cherries .....	700
Garlic .....	64,050
Macaroni .....	3,664
Canned tomatoes .....	6,864
Pomegranates .....	13,725
Italian melons .....	2,880
Vegetables .....	1,840
Oranges .....	21,040
Total .....	3,025,408

During the past year all of the retail confectionery stores and cellars where candy is manufactured have been inspected. In many instances the utensils used and the conditions surrounding the manufacture of candy were far from sanitary. The utensils were old, rusty and dirty. In many cases the floors were found to be broken and saturated with offensive liquids, so that it was impossible for them to be kept clean.

People lived and slept in close proximity to their work. There were about 3,500 places of this character inspected, as a result of which nearly 400 notices or orders were issued. Most of these have been complied with. In one or two instances the manufacture of candy under such circumstances was declared to be a public nuisance by the Board of Health and the places closed. In many other cases the business was discontinued by the proprietor rather than go to the expense of making the improvements and alterations required. A similar inspection has been made of the bake shops, the Italian macaroni manufacturers and the retail grocery stores; especially has the practice of drying macaroni on the sidewalks in front of the stores been discouraged.

The national agitation caused by the passage of the Pure Food and Drug Law, June 30, 1906, has not increased the activity of that part of the Department service dealing with foods, for at all times section 68 of the Sanitary Code, adopted many years ago, has been strictly enforced. It has, however, helped to bring into close relationship all of the food manufacturers with the health authorities, thus making the Department one of vast importance in connection with all food producers. Close association with the various manufacturers of food has developed the unquestionable truth that fully 95 per cent. of the dealers desire to observe and not to evade the law. Usually infractions are caused by ignorance rather than intent.

During the year 1906 1,365 samples of various foods and drugs have been obtained and delivered to the chemical laboratory for analysis. Included in this number are articles which are usually supposed to be adulterated, among which may be mentioned spices, flavoring extracts, fruit syrups, maple syrup, jams, jellies, confectionery, confectionery coloring, dried fish and dried fruit, canned foods, condensed milk, gelatin, liquid eggs, teas, coffees, butter, catsups, sauces, baking powders, sausages, drugs and physicians' prescriptions to determine cases of substitution.

Inspectors, in conjunction with their routine work, obtain samples of the articles mentioned in the list above and deliver them personally to the Chemist at the laboratory who is to be assigned to make the analysis, so that in the event of prosecution the chain of evidence from the vendor to the Chemist will not be broken.

During the agitation early in the year in relation to the meat packing industry all places in this borough where sausages were sold and made were inspected, and samples obtained to ascertain whether they contained preservatives and coloring. Many were found to contain borates and coal tar dyes. In such cases the makers and vendors were summoned to the office of the Assistant Sanitary Superintendent and their attention called to the fact that the use of these materials in sausage was a violation of the provisions of the Sanitary Code, and they were warned that a second offense would lead to the case being brought before the Criminal Court.

Re-examinations were made of all these places subsequently and samples were obtained for reanalysis. With but very few exceptions upon reinspection no preservatives or artificial coloring were found, and in those few cases arrests were made and fines imposed by the Court of Special Sessions.

There have also been made a few arrests for other adulterations and for false labeling and misbranding, in all of which cases the offenders were convicted and fined in the Court of Special Sessions.

The territory known as the East Side comprises that part of Manhattan Island bounded by Houston street, Chatham square and Bowery to East river. The population there is the heaviest and is composed chiefly of foreigners, mostly Hebrews. They deal in every known kind of food, having their places of business on the sidewalk, on push carts, and, in fact, anywhere space is available. They do not understand English, nor do they care to when approached by the Department's Inspectors, who are ever alert to see if their wares are fit to sell. One Inspector is on duty constantly, assisted by two others Tuesdays and Fridays (their great market days). He is furnished with a wagon by the Department of Health in order that he may remove for destruction the food stuffs seized by him.

Nearly all foreign fruits pay duty to the Government, and when it arrives in poor condition great care must be exercised in order that the two powers may work in harmony.

The Government do not object to condemnation proceedings, but wish to be assured that the fruit will reach the dump. Heretofore the Government sold lemons at auction that were abandoned by the importers as not worth freight and duty. That was an evil to overcome, for nearly all of it was purchased by the East Side dealers. Finally arrangements were made with the Federal authorities that all abandoned goods were to be sold the same as usual, but only sound deliveries made. Importations of food stuffs are increasing in such proportions that inspections and condemnations have assumed a magnitude that make it absolutely essential for additional assistance in order that the present efficiency may be obtained.

Fish.

An evil with which the Department has been contending for years is the Fulton Fish Market, and streets adjacent thereto, by reason of the incessant complaints made by citizens having their wearing apparel ruined by coming in contact with fish and fish slime. There was some slight excuse for this, owing to the limited space and narrow streets.

By constant vigilance, care, threats and diplomacy practically a normal condition now prevails, and not a complaint in seven months has been made. This state of tranquillity and efficiency has not at any time heretofore existed.

The retail markets for fish are fewer than in previous years owing to the fact that the stringent Department rules require the dealers who occupy stalls and stands to live up to high sanitary conditions, which many had previously refused to do, as it involved the expenditure of too much money. All of the ice houses and cold storage buildings are regularly visited by an Inspector familiar with the fish trade, and in the summer months he looks after the fish while being stored to see that only the best goes to the freezer. During his subsequent visits to these places he carefully notes the temperature to see that it is not intermittent above 32 degrees F. Fish, in many instances, before being offered for sale is assorted into different sizes and kinds.

Most of the different wholesale fish dealers outside of New York and also the owners of the retail fish markets of this and neighboring cities arrive at the market about 5 a. m. A certain few make it a practice to get to the market any time between the hours of 7 a. m. and 9 a. m.

Then there is what is commonly called the basket trade, which is principally composed of Sicilians. They arrive early with zinc-lined baskets, which hold about 100 pounds of fish. They purchase as much as they can conveniently carry, and dispose of same to the different families in the five boroughs of Greater New York, also Jersey City and Hoboken, going even as far as Newark, N. J.

There is another class which only traffic in fish on Fridays and other days on which the eating of meat is prohibited by religious laws. These are the owners of meat markets in different parts of New York City and elsewhere.

Last, but not least, are the Jewish vendors and storekeepers who purchase about nine-tenths of all the fresh water fish received at this market. The most of this fish is consumed by the numerous Hebrew families living in the territory bounded by Houston street, East river, Catherine street and the Bowery. A large amount is consumed in the Borough of Brooklyn, in the section known as Brownsville; also in Newark, New Jersey. Very few vendors from push carts and other vehicles are at present in the fish business owing to the enforcement of section 45 of the Sanitary Code.

The ingenuity of the human mind in conceiving improper ways and means of making a livelihood has been exemplified by the discovery of a few people, of whom it is alleged that they paint by hand certain fish in order to give a brilliant hue, which finds it a ready market, and in addition use coal tar to give a smoky taste; this kind of sea food is usually sold by delicatessen stores, and the subtlety covers a great deception, for it affords opportunity to sell a very low grade fish for a high priced one. This traffic and abuse is now being carefully investigated, and when the chemical analyses will have been finished the offenders will be summarily dealt with.

A synopsis of the labor of the Inspectors working in this part of the Division is given in the following table:

Total number of inspections .....	361,878
Total number of pounds of fruit and food condemned .....	15,282,383
Total number of pounds of fish condemned .....	330,916
Total number of orders resulting from citizens' and original complaints .....	282
Total number of citizens' complaints .....	308
Total number of complaints returned negative .....	234
Total number of samples obtained and delivered to the Chemical Laboratory for analysis .....	1,635
Total number of arrests .....	11
Amount of fines .....	\$130 00

Meat.

There has been but little change in the methods of handling meat for the New York market commercially. There have been no new abattoirs erected and very few, if any, changes have been made in the abattoirs already in existence. As a result of the investigation of the food question, and more especially that of the preparation of meat for food by the United States Government early in the year, the number of men assigned to the inspection of meat was increased by five new Inspectors, appointed on the 4th of June, 1906. This addition to the working force is enabling the Department to keep a closer watch upon the slaughter houses and upon the markets and retail stores in which meat is sold. In consequence of this increased force, the Inspectors of this Department condemned 1,526,239 pounds of meat during the year 1906, against 342,269 pounds during the year 1905.

Slaughter Houses.

The districts in which slaughter houses (other than poultry slaughter houses) may be conducted are defined in section 84 of the Sanitary Code. In each district a sufficient number of Inspectors of Foods (meat) are assigned to control the slaughtering of animals and the quality of the meat produced. They are required to examine the stock on the hoof and after killing, and to seize and destroy all such as is unfit for human food. The meat which is condemned is immediately destroyed in the tanks which are used for the destruction of the offal from the slaughter house. These Inspectors are also required to see that the slaughter houses and their appurtenances are at all times kept sanitary.

In addition, from time to time, a Sanitary Inspector makes a thorough examination of the slaughter houses and disposal plants, and submits written reports as to their condition. Early in the summer one of the oldest disposal plants on the west side was declared to be a public nuisance, as a result of which very extensive alterations and improvements have been made and the plant is now in as good condition as such a plant may be placed.

It may seem strange that the most poignant reason for the existence of slaughter houses in the heart of a large city is a religious one, but such is the fact. The Jewish population of New York is greater than that of any city of the world, and as the orthodox Jew is not allowed by his religion to eat food which is not "kosher," the necessity is explained.

The Rabbinical definitions of "kosher" meat are such that animals cannot be slaughtered at any distance from the point at which the meat is to be consumed. In all of the local slaughter houses are Jewish religious officials, who examine each carcass and mark it either "kosher" or trefir.

The disposal of the blood and offal from these slaughter houses is a most serious one, and one over which the Department of Health keeps constant supervision, in order that no offensive odors may arise or that no nuisance may be created. As a result of this control, there have been few, if any, complaints received which, upon investigation, were found to be justifiable. The following tables will show the number of animals slaughtered for food in the Borough of Manhattan during the year 1906:

Animals Slaughtered at East Side Abattoirs.

	Cattle.	Sheep.	Hogs.	Calves.	Total.
January .....	25,966	73,756	....	8,243	107,965
February .....	27,328	70,391	....	8,680	106,399
March .....	25,734	69,134	....	11,051	105,919
April .....	22,879	76,589	....	23,514	122,982
May .....	29,925	123,021	....	35,867	188,813
June .....	26,197	100,455	....	22,898	149,550
July .....	21,215	90,990	....	16,996	129,201
August .....	28,602	78,187	....	27,188	133,977
September .....	23,814	72,128	....	9,931	105,873
October .....	28,236	90,026	....	14,067	132,329
November .....	25,714	77,501	....	10,096	113,311
December .....	25,651	71,039	....	9,364	106,054
Total .....	311,261	993,217	....	197,895	1,502,373

Animals Slaughtered at West Side Abattoirs.

	Cattle.	Sheep.	Hogs.	Calves.	Total.
January .....	11,053	45,415	100,555	3,554	160,577
February .....	11,372	45,580	116,220	4,423	177,595
March .....	9,855	28,885	74,486	5,855	129,081
April .....	10,231	46,045	99,015	8,064	163,355
May .....	10,054	41,568	74,561	13,019	139,202
June .....	5,687	89,779	59,706	13,528	168,700



	Cattle.	Sheep.	Hogs.	Calves.	Total.
July .....	10,090	60,387	61,026	11,196	142,699
August .....	11,115	51,659	54,080	9,671	126,525
September .....	9,442	52,626	64,730	7,054	133,852
October .....	11,762	58,017	88,480	8,878	167,145
November .....	10,337	48,626	81,615	7,103	147,681
December .....	10,281	41,581	79,659	4,681	136,202
Total .....	121,279	620,168	954,141	97,026	1,792,614

## Summary.

	Cattle.	Sheep.	Hogs.	Calves.	Total.
East Side .....	311,261	993,217	....	197,895	....
West Side .....	121,279	620,168	915,141	97,026	....
Grand total .....	432,540	1,613,385	954,141	294,921	....

From these animals there was obtained fat, blood and offal, which was treated and disposed of on the premises without offense, to amount shown in this table.

BY-PRODUCTS.  
East Side Slaughter Houses.

	Offal. Tons.	Blood. Tons.	Fat Rendered. Pounds.
January .....	563	95	5,648,450
February .....	476	93	5,814,670
March .....	515	82	6,973,328
April .....	605	90	8,698,980
May .....	330	72	4,881,750
June .....	417	91	6,005,322
July .....	272	75	5,069,983
August .....	354	83	7,231,420
September .....	245	74	5,357,381
October .....	364	59	2,528,763
November .....	412	84	2,029,094
December .....	390	79	2,537,168
Total (East Side) .....	4,943	977	62,777,309

## West Side Slaughter Houses.

	Offal. Tons.	Blood. Tons.	Fat Rendered. Pounds.
January .....	157	85	1,378,680
February .....	159	87	2,458,055
March .....	138	69	3,882,190
April .....	137	76	2,392,380
May .....	138	70	2,867,150
June .....	210	119	3,409,982
July .....	230	97	2,852,000
August .....	176	64	2,520,350
September .....	260	79	2,750,295
October .....	257	67	3,444,246
November .....	232	61	3,215,481
December .....	244	53	2,897,751
Total (West Side) .....	2,338	927	34,068,560

## Summary.

	Offal. Tons.	Blood. Tons.	Fat Rendered. Pounds.
West Side .....	2,338	927	34,068,560
East Side .....	4,943	977	62,777,309
Grand total .....	7,281	1,904	96,845,869

## Poultry Slaughter Houses.

The only excuse for the existence of slaughter houses of this character in the built up portion of a city is the reason given for the maintenance of slaughter houses for cattle and small stock.

From the natural characteristics of poultry it is a question whether places of this sort can be conducted at all times without offense.

In order to meet these conditions Meat Inspectors have also had these establishments under constant supervision, and at times Sanitary Inspectors and Patrolmen have been instructed to visit them and enforce all necessary precautions. In addition, copies of the following regulations adopted by the Board of Health are posted in one or more conspicuous places in each poultry slaughter house.

## Rules and Regulations to be Observed in Conducting Poultry Slaughter-Houses in The City of New York.

1. The floors of these premises must be swept, flushed and deodorized at the close of each day's business.
2. All parts of the walls and ceilings, which are not sheathed with metal, must be cleaned, painted or whitewashed as often as required by the Department of Health.
3. All parts of cages (other than the floor) and gutters must be cleaned and painted as frequently as may be required. The floors of all cages must be scraped and cleaned immediately after emptying.
4. No cage shall be used for the storage of fowl for a longer period than three days, without emptying and cleaning.

5. The sheathed sides of the killing room, the absorption-box, and the gutter beneath the same, must be thoroughly cleaned with a strong solution of soda, and flushed at the close of each day's work.

6. Sawdust which has been used and all other refuse of any kind whatsoever must be deodorized and removed from the premises daily.

7. The storage of crates containing poultry is forbidden in or about the premises.

8. No empty crates may be stored on the premises except in such places as may be approved by the Department of Health.

9. The accumulation of disused barrels, boxes or other offensive material will not be allowed upon the premises.

10. No poultry are to be allowed at liberty on the premises.

Any violation of these regulations will be deemed sufficient cause for the revocation of the permit to slaughter poultry.

By order of the Board of Health.

THOMAS DARLINGTON, M. D., Commissioner of Health.

Eugene W. Scheffer, Secretary.

On the 31st of December, 1905, there were 30 permits for the maintenance of a poultry slaughter-house, and on December 31, 1906, there were 38, an increase of 8 in the total number.

Five million nine hundred and seventeen thousand three hundred and sixty-five head of poultry were slaughtered for food in the Borough of Manhattan in the year 1906.

## The Milk Supply.

Milk, as known in commerce, is the secretion of the mammary glands of cows. The milk from other domestic animals, while wholesome, and in some cases more nearly like human milk chemically than cow's milk, is not met with, and is not to be considered as part of New York City's supply.

Normal cows' milk contains on the average as follows:

	Per Cent.
Water .....	84 to 87
Carbohydrates (lactose) .....	4 to 5
Proteids or albuminoids (casein, albumen, etc.) .....	4 to 5
Fats .....	3 to 4.50
Salts or ash .....	.70

The composition of milk varies considerably in different breeds, and to quite an extent in different cows of the same breed. The Jersey, Alderney and Guernsey breeds produce the milk which is richest in fat, while the Ayrshire and Holstein milk is lowest in fats and solids. The solids, other than fat, do not vary in as great proportion as the fat.

Milk as sold in the city is to a very great extent vatted, that is, the product of the various dairies selling milk to one shipper is mixed so that the output from each creamery is of nearly uniform quality.

Milk in itself is a complete food, and contains all of the elements necessary to sustain life. It is one of the most universal of foods, and especially is it a food for invalids, children and infants. It is of the utmost importance that it should be in a wholesome condition when it reaches the consumer, and that it should be delivered to the consumer as it is normally secreted by a healthy cow.

The most common adulterations of milk are the removal of cream or the addition of water, both of which reduce its nutritive value, and the use of preservatives to prevent souring, thus extending the life of milk in the market. All these are injurious to the consumer, more especially to children whose food so largely consists of milk. Variation in the quality of milk is very apt to derange the digestive organs of a child and preservatives seriously interfere with digestion.

Bacteria are among the smallest and simplest of all living things. They can only be seen when magnified by the microscope many thousand times. They much resemble the cells of which plants are composed, and, like plants, require moisture, warmth and food to grow. When these conditions are present they multiply very rapidly, so that from one germ 200 may be produced in three hours, 10,000 in six hours, 10,000,000 in nine hours and 2,000,000,000 in eighteen hours.

As bacteria increase in numbers, they gather nourishment from the milk or other substances in which they develop, and, like other higher forms of life, transform what they take into their bodies into useless or poisonous products. They thus both rob the food of its nutritious substances and add others to it which are more or less poisonous. When bacteria grow in living things, whether they be men, animals or plants, they excite changes in them which we know as disease. The bacteria which grow in dead things cause them to ferment, rot or putrefy. Thus milk becomes sour through the change of its milk sugar into acid, produced by bacteria. But long before milk becomes sour to the taste, it may contain enormous numbers of bacteria and has already become unwholesome and perhaps dangerous when employed for food, especially for young children.

The bacteria or germs which cause the various infectious diseases, such as typhoid fever, scarlet fever, diphtheria, consumption, etc., readily live and multiply in milk, and outbreaks of these diseases have been frequently traced to contamination of milk by ignorant or careless milkmen who have infected the milk with diseased germs from their hands, from polluted water or other sources, either while themselves sick or recovering from some one of these diseases, or while nursing others who were suffering from them. Many thousands of cases of illness and death have thus been produced. This is, of course, entirely unnecessary and can be prevented. It is most important, therefore, for all persons who handle milk to know from what portion of the body these minute germs are given off so that they may adopt the necessary precautions to prevent infection of the milk. The germs which cause scarlet fever are thrown off in the discharges from the nose and throat and in the scaling from the skin. Those which cause typhoid fever are voided in the urine and feces, and thus often reach the spring or well water with drainage which has leaked into it. Those which cause consumption and diphtheria are contained in the expectoration. The germs from cows which are diseased, especially when affected with consumption or disease of the udder, may also infect the milk and produce sickness in those who drink it. The bacteria which cause milk to sour and ferment and so become unwholesome are derived from manure and dirt, which drop into the milk pail from the cow's belly or udder or tail, or from the dust in the air, or from the dirt off the milker's hands, or they are contained in the pails and cans which have not been thoroughly cleaned after having been previously used for milk.

When milk is collected under cleanly conditions, not more than one-twentieth as many bacteria fall into it as when the conditions are dirty. A very little sour milk contains millions of bacteria.

Milk affords one of the best foods for the growth of bacteria. When fresh, however, it contains substances which retard somewhat the development of bacteria for a few hours, if they are not too numerous, but we depend upon low temperatures to further limit changes in it. Just as large forms of plant life cannot grow in cold weather, so also these minute germ plants are prevented from multiplication by cold.

Bacteria found in milk generally multiply most rapidly at a temperature of 95 degrees Fahrenheit, and cease to multiply at all at the freezing temperature. Any reduction of the temperature below 95 degrees Fahrenheit limits the rapidity of growth, but it is not until the temperature is 45 degrees Fahrenheit that the growth is nearly arrested. At 40 degrees Fahrenheit there is no increase for twenty-four hours in the number of bacteria present in milk, and at 32 degrees Fahrenheit milk remains unchanged for an indefinite period. In fresh milk, properly collected and quickly cooled to 45 degrees Fahrenheit and kept at this temperature during the first twenty-four hours, there is no increase in the number of bacteria; after twenty-four hours the peculiar properties of fresh milk to resist the growth of bacteria become exhausted, and the bacteria also become gradually accustomed to the cold, so that even at this temperature they may rapidly increase, and in a few days cause the milk to become sour.

For example, a sample of milk taken under good conditions contained, immediately after milking, 300 bacteria in each drop. It was cooled to 45 degrees Fahrenheit and the temperature maintained at this point. After twenty-four hours it contained in each drop only 200 bacteria; after forty-eight hours, 900, and after seventy-two hours, 150,000. The milk curdled on the sixth day. Another specimen taken in a dirty barn, cooled and kept at 52 degrees Fahrenheit, contained at first 2,000 bacteria in each drop; in twenty-four hours, 6,000; in forty-eight hours, 345,000, and in seventy-two hours, 16,500,000. The milk curdled on the fourth day.



The following interesting table prepared from data obtained by the Research Laboratory of this Department sets forth these facts very appropriately:

Temperature.	Time Which Elapsed Before Making Test.			
	24 Hours.	48 Hours.	96 Hours.	168 Hours.
32 degrees F. ( 0 degrees C.)..	2,400	2,100	1,850	1,400
	30,000	27,000	24,000	19,000
39 degrees F. ( 4 degrees C.)..	2,500	36,600	218,000	4,200,000
	38,000	56,000	4,300,000	33,000,000
42 degrees F. (5.5 degrees C.)..	2,600	3,600	500,000	
	43,000	210,000	5,760,000	
46 degrees F. ( 6 degrees C.)..	3,100	12,000	1,480,000	
	42,000	360,000	12,200,000	
50 degrees F. (10 degrees C.)..	11,600	540,000		
	89,000	1,940,000		
55 degrees F. (13 degrees C.)..	18,800	3,400,000		
	187,000	38,000,000		
60 degrees F. (16 degrees C.)..	180,000	28,000,000		
	900,000	168,000,000		
68 degrees F. (20 degrees C.)..	450,000	25,000,000,000		
	4,000,000	25,000,000,000		
88 degrees F. (30 degrees C.)..	1,400,000,000			
	14,000,000,000			
94 degrees F. (35 degrees C.)..	25,000,000,000			
	25,000,000,000			

It must be admitted that it is impossible to obtain cow's milk under the ordinary conditions without allowing some bacteria (which always abound in the dirt and dust of the barn and on the cattle) to drop into it, but the number may be limited, and it is wholly unnecessary and inexcusable to permit the germs of the diseases of human beings or cattle to enter. A moderate number of germs obtained from dirt do render the milk distinctly unwholesome, even for young infants, but the fewer bacteria in it, the more wholesome it is, and when the number becomes very large the milk becomes not only unwholesome but dangerous, and the use of such milk is the commonest cause of the diarrhoeal diseases of children, particularly prevalent in summer. The importance of this may be appreciated when it is known that 6,000 deaths occurred from the diarrhoeal diseases in New York City among children under five during the year 1906. It must be remembered that, under all conditions, considerable time must elapse before milk reaches the consumer and before it is used, and that if it is not carefully handled the number of germs contained in it when used becomes very large and sometimes almost incredible; there may be at the end of the third day two or three thousand million germs in a teaspoonful of milk not properly collected and cooled. As the milk must often be kept in the house for twelve hours or more after it is delivered and before it is consumed, it naturally becomes still more unwholesome before being used, and it therefore becomes more important that milk should reach the consumer in good condition.

The number of bacteria in milk should be as low as is possible under the conditions under which practical dairy farming must at present be carried on. The cattle, stables and milkmen should be kept clean, and the pails and cans should be always scrupulously clean. The milk should be immediately cooled after being collected and transported to the cars and to the City with the least possible delay. So far as is practicable, each day's milk supply should reach the City on the following morning, and the temperature of the milk should be continuously maintained at 45 degrees or less.

These facts being accepted, the Department of Health has determined to safeguard New York City's milk supply at all points. To attain this end it has organized the milk inspection corps along the broadest lines.

The complete and proper supervision of the milk supply of The City of New York is a subject to which the Department from year to year has devoted more and more attention.

It has long been recognized that there are two conditions which influence and control very materially the keeping qualities of milk, and which may cause it to become most unwholesome.

One of these conditions is absolute cleanliness from the moment the milk is drawn from the cow until such time as it is delivered into the hands of the consumer. The other is the temperature at which the milk is kept during this period.

For over ten years, under the provisions of section 56 of the Sanitary Code, the Department of Health has been issuing permits to various persons within The City of New York to receive, hold, keep and offer for sale fresh or condensed milk. During all this time the applications for these permits have been most carefully investigated as to the conditions with which it is expected to surround the milk while on sale.

It has been more and more realized within the past few years that this was but a small step towards the purification of the milk supply as a whole, and it was deemed necessary to reach out and attempt to control and correct the conditions which, if allowed to exist, could not be overcome by the most careful sanitary supervision after the milk reached the dealers in the City.

On the theory that a person making an application for a permit to sell milk, by the mere fact of his application, consenting to a thorough investigation of his supply from beginning to end, investigations into the transportation of milk and the cooling of the same while on the railroads in transit were begun in 1900. Numerous consultations were held during that and the ensuing year with the officials of the railroads directly concerned in this transportation; these gentlemen, understanding most fully that this work, while it might work a temporary hardship on the railroads in question, in that they were not fully supplied with the proper cars and a sufficient quantity of ice, also realized that anything which might tend to increase the keeping qualities of the milk, prevented souring, and prevented its becoming unwholesome, would ultimately redound very much to the advantage of the various railroads which they represented, and consequently they met the suggestions of the Department most cordially and did everything that was in their power at that time to see that these suggestions were promptly and properly carried out. Since that time until the present writing, a gradual improvement in the transportation of milk has resulted; larger and better cars of the refrigerator type are being constantly built and placed in service. All of the railroads are erecting or have erected additional icehouses of great capacity in order that they might supply their shippers with a sufficient quantity of ice to carry them through the warm and critical months of the year.

During the year 1902 an Inspector was first sent into the country to make examinations of the milk shed. He made investigations as a result of complaints and when the results of the chemical or bacteriological examinations of milk in the City showed it to be unwholesome, either on account of an excessively high count of bacteria or because of adulteration by the addition of water or preservatives, or the removal of cream. During this year inspections were made at creameries and dairies at several points on each of the milk-carrying roads with the object of finding out conditions and the changes which needed to be made both in the production and transportation of milk. The same line of work was continued during the following year, while in 1904 little was done until near the end of the year.

In the year 1905 the first completely systematic investigation of the creameries was inaugurated. Through the hearty co-operation of the railroads concerned, the Chief Sanitary Inspector and two Milk Inspectors made tours over each one of the large milk-carrying railroads and made a thorough examination of each creamery

situated on the line of the road. In this way over five-hundred creameries were inspected, and in almost every instance conditions were found which were not up to the standard required. In some few places the surroundings were so unsanitary that the handling of milk was discontinued. In almost every instance something was found to criticize and correct. Of course, in a few cases the corrections were of a minor nature, but the drainage was found almost universally defective, the milk improperly protected from contamination by dust and dirt, and in some instances the milk cans and other utensils used for the handling of milk not properly cleaned. During the year 1906 this inspection has been carried on even more systematically than it was in the previous year. The Chief Sanitary Inspector, accompanied by two Milk Inspectors, again made tours over the milk-shipping railroads, and in many instances it was found that the creamery owners or managers had fully complied with the recommendations resulting from the previous inspections.

The average creamery was far better equipped in 1906 to handle milk properly than it had been in the previous year. This work will be continued until all the creameries have been placed in a satisfactory condition.

Early in 1906 it was realized that, having devoted much time and attention to the creameries, it would be necessary to reach out further into the country and to investigate the milk at its very sources. With this idea in view, the two Inspectors who were inspecting the creameries were instructed to examine a limited number of farms within their districts in order that the Department might have an idea of the conditions requiring correction at the farms. On many farms conditions were found which required immediate attention and which rendered the milk produced thereon extremely unwholesome.

In the latter part of May additional Inspectors were appointed for the very important work of investigating the milk supply at the point of its production, and beginning on June 4, 1906, the corps was augmented by the addition of fifteen Inspectors. These men, as fast as they could be instructed in the details of their duties, were assigned to work in the inspection of farms. These men have been employed continuously since the commencement of this work and have made a large number of inspections. In but few instances have farms been found that could be passed without some criticism or some recommendation for improvement, thus fully justifying the expenditure of additional money to carry on this work.

The men who are assigned to country work live in their districts and devote all of their time to the Department's work, except during the last two or three days of each month, when they report at the office of the Department of Health in New York City for the purpose of submitting their expense vouchers, drawing their salaries and receiving any instructions which it may be deemed necessary to issue.

This country inspection is conducted in as systematic a manner as possible, the men going from creamery to creamery along the railroad and remaining at each creamery until all of the farms supplying that particular place have been investigated and reported upon. These reports are mailed to the Department, where letters to the operators of the farms are prepared embracing all of the necessary recommendations to make the farms sanitary and to safeguard the production of milk at that particular place. These letters of instruction are forwarded to the creamery operator for distribution among his dairymen. The Inspector submits his report on a filing card which is illustrated below. From the nature of his report on the various numbered items the requisite letter of instruction is prepared. All reports relating to any particular creamery are filed together.

DEPARTMENT OF HEALTH.		DAIRY BLANK.		CITY OF NEW YORK.	
File No.....	Date.....	Time.....	A. P. M., Dist.....	Inspection No.....	
Tenant, Owner.....		Milk delivered at.....			
Township .....		On.....	R. R. Miles to N. Y.....		
P. O. Address.....		Operated by.....			
County.....	State.....	N. Y. Address.....			
Occupied farm since.....		Distance from creamery.....			
1. Dairy rules.....posted.	No. of cows.....	19. Long hairs on belly, flanks, udder and tail			
2. Size of cow barn. Width.....	Length.....	are.....clipped.....			
	Height.....	20. Date and nature of the last infectious disease			
	Cu. ft. for each cow.....	on the farm or in the families of the			
3. Floors and gutters constructed of.....		dairymen.....			
Are.....	watertight.....				
4. Ceilings constructed of.....					
Are.....	tight.....	21. Milking with wet hands is.....			
5. Side walls, ceilings and ledges are clean,		22. Fore-milk is.....			
dirty, cobwebs.....		23. ....Qts. of milk produced. Does.....			
6. Barn whitewashed on.....		comply with paragraphs 4, 5, 6, 7, 8,			
7. Window space.....square feet is....sufficient.		Sec. 53 of the Sanitary Code.....			
8. Live stock in same room with cows.....		24. Milk is strained in.....			
9. Floors and cow beds.....clean.....		25. Milk is cooled at.....to.....° Fahr.			
10. Cows are bedded with.....		26. Milk house.....			
11. Method of ventilating cow barn.....					
.....		27. Milk pails and utensils are.....clean.			
.....		28. Water supply.....			
Which is.....	sufficient.....	Located.....and.....ft. deep			
12. Liquid matter from cow barn drains to.....		.....ft. from privy.....ft. from			
13. Manure in summer removed to.....		manure pile and barn.....			
In winter to.....		Any apparent contamination of water sup-			
Manure pile is.....ft. from cow barn.		ply.....			
14. Condition of cow yard.....		Special recommendations and remarks.....			
.....					
15. Well or spring in cow yard. Yes.... No....					
Used for.....					
16. Cows inspected by Veterinarian on.....					
Whose report was.....					
17. Cows sick or at calving time have.....sepa-					
rate quarters.....					
18. Cows are.....cleaned before milking.		Signed			
Have.....dirt or manure on flanks, tails,					
sides or udders.....					
		Inspector of Foods.			
		Diagram.			



In addition to the letter of instruction the Department has sent out rules and regulations printed on linen in large numbers for distribution among the farmers and creamery operators. This distribution has undoubtedly had very excellent results. It has produced discussion among the farmers, and, in a way, prepared them for the visit of the Inspector, as they have been able to anticipate to a certain extent the nature of his inspection. The more intelligent and progressive have endeavored to improve their farms in accordance with these regulations. The following is a copy of the Department of Health rules and regulations in relation to the production of milk.

#### TO BE POSTED IN ALL DAIRIES.

DEPARTMENT OF HEALTH, THE CITY OF NEW YORK.

Rules and Regulations to Be Observed by Farmers and Dairywomen in the Care of Cows and Handling of Milk Shipped to The City of New York.

##### The Cows.

1. The cows must be kept clean.
2. Manure must not be permitted to collect upon the tail, sides, udder and belly of any milch cow.

##### Stables.

1. Cow stables must be well lighted and ventilated.
2. Floors must be tight and well drained.
3. Manure must be removed from the stalls and gutters before the morning milking, and also before the afternoon milking, where the cows remain in the stable all day.
4. Walls and ceilings must be kept clean.
5. The ceilings must be so constructed that dust and dirt therefrom shall not readily fall to the floor or into the milk.
6. Stables must be whitewashed at least once a year.

##### The Water Supply.

1. The water used in the barn and for washing milk utensils must be free from contamination.

##### The Milk House.

1. A milk house must be provided which is separated from the stable and dwelling house.
2. It must be kept clean, and must not be used for any purpose except the handling of milk.

##### The Milkers.

1. No person having any communicable disease, or one caring for persons having such disease, must be allowed to handle the milk or milk utensils.
2. The hands of the milkers must be carefully washed immediately before milking.

##### The Utensils.

1. All milk utensils, including pails, cans, strainers and dippers, must be kept thoroughly clean and must be washed and scalded after each using.

##### The Milk.

1. Milk from diseased cows must not be shipped.
2. The milk must not be in any way adulterated.
3. The straining of milk must be done in the milk house only.
4. All milk must be cooled to a temperature not above 55 degrees within two hours after being drawn, and kept thereafter below that point, and must be cooled to 50 degrees or less if not delivered to the creamery twice daily.
5. The use of any preservative or coloring matter is an adulteration, and its use by a producer or shipper will be a sufficient cause for the exclusion of his product from The City of New York.

##### Recommendations.

In addition to the preceding rules the Department makes the following recommendations:

##### The Barnyard.

1. It should be well drained and dry, and should be as much sheltered as possible from the cold and wind.
2. Manure should not be allowed to collect in the barnyard, and should not be at any time in contact with the stable or milk house.

##### The Stables.

1. The cow stable should have an abundance of light and ventilation. The ventilation should preferably be from the top.
2. There should be at least 600 cubic feet of air space for each cow.
3. It is desirable that the place where the cows are kept be used for no other purpose. A cow barn should not be used as a storage place for straw, hay or other feeds, or as a wagon or tool house, as the dust and dirt which accumulates in a place of this character is liable to drop into the milk while being drawn.
4. The stable floor should be made tight, and of some non-absorbent material.
5. Cement or brick floors are the best, as they can more easily be kept clean than wood or earth.
6. If the place over the cow is used for storage of hay the ceiling should be made tight to prevent chaff and dust falling through. The practice, somewhat common among the farmers, of packing hay, etc., on loose poles over the cows is exceedingly bad, since it invites the collection of dust and cobwebs, and the difficulty of keeping the stable clean is increased.
7. The stable should be whitewashed twice a year.
8. The manure gutter should be from six to eight inches deep, and should be kept free from manure.
9. The use of land plaster or lime is recommended upon the floors and gutters.
10. The flooring where the cows stand should be short enough so that all manure will be dropped into the gutter and not upon the floor itself.
11. The floor should be swept at least an hour before milking in order that the dust may have a chance to settle before the milking is begun.
12. If individual drinking basins are used for the cows they should be frequently drained and cleaned.

##### The Cows.

1. The cows should be kept at all times in a healthy condition, and an examination by a veterinary surgeon should be made twice a year.
2. The cows should be groomed daily, and all collection of manure, mud or other filth should not be allowed to remain upon their flanks, sides, udders or bellies during milking.
3. The clipping of long hairs from the udder and right side of the cow is of assistance in preventing the collection of filth, which may drop into the milk.
4. The tails should be cut so that the brush should be well above the ground.
5. In winter the tail may be clipped.
6. The cows should be bedded with sawdust, shavings, dried leaves, straw or some equally clean material.
7. The use of horse manure for bedding is to be condemned.
8. To prevent the cows from lying down and getting dirty between cleaning and milking a throat latch of rope or chain should be fastened across the stanchions under the cow's neck.

##### The Milking and Milkers.

1. The milkers should be clean.
2. Their hands should be thoroughly washed with soap and water and carefully dried on clean towels before milking.
3. Clean overalls and jumpers should be worn during the milking of the cows; should be used for no other purpose, and when not in use should be kept in a clean place protected from dust.
4. The hands and teats should be kept dry during milking.
5. The practice of moistening the hands with milk is to be condemned.

6. The first few streams from each teat should be rejected, as this contains more bacteria than the rest of the milk.
7. All milk drawn from cows thirty days before and ten days after calving should be rejected, and also milk from diseased cows.
8. The pails in which the milk is drawn should have as small an opening at the top as can be used in milking. This renders the collection of dirt less likely.
9. The milking should be done rapidly and quietly, and the cows should be treated kindly.
10. Dry fodder should not be fed to the cows during or just before milking, as dust therefrom will fall into the milk.

##### The Milk.

1. The milk should be removed as soon as drawn to the milk house and strained and cooled to the proper temperature at once.
2. A good plan is to strain the milk into cans which are standing in ice water which reaches the neck of the can.
3. The more rapidly the milk is cooled the safer it is, and the longer it will keep sweet.
4. Ice should be used in cooling as very few springs are cold enough for the purpose.
5. If aerators are used they should stand where the air is free from dust or odor, and on no account should they be used in a stable.
6. Milk strainers should be kept thoroughly clean and scalded a second time just before using, and if cloth strainers are used several of them should be provided in order that they may be frequently changed during the straining of the milk.

By order of the Board of Health.

THOMAS DARLINGTON, M. D., President.

Eugene W. Scheffer, Secretary.

It has been estimated that there are somewhere between thirty and forty thousand dairy farms producing milk which is shipped to The City of New York. This, of course, is exclusive of those farms on which milk is produced to be made into butter, cheese or condensed for preservation in sealed cans. With the present force of Inspectors it will be impossible to visit these farms oftener than once in twelve or fifteen months. Of course, any proper supervision is better than none at all, but this rate of progress is ridiculously small. With a force of between eighty and one hundred Inspectors the Department could reinspect each creamery and dairy every sixty days, and it is to be hoped that these additional Inspectors will be provided in the near future.

#### CREAMERIES.

##### TO BE POSTED IN ALL CREAMERIES.

Department of Health, The City of New York.

As a condition to the issuance of permits for the sale of milk in The City of New York all places where such milk is produced or handled must be open to inspection by employees of the Department of Health of The City of New York.

Rules and Regulations Which Must Be Observed by Those Operating Creameries and Stations Shipping Milk for Use in New York City.

##### The Buildings.

1. The floors of these buildings must be constructed of some material which will render them water-tight, and must be graded and drained toward one or more points from which water must be carried away by suitable drains. Floors of cement or stone are the best for this purpose.
2. The floors must be drained by water-tight gutters, either into cesspools so situated as not to be offensive, or conducted to such a distance as not to cause a nuisance.
3. The water used for cleaning pails, cans and other utensils must be from a public water supply, or, if drawn from a well or spring, must be approved by this Department.
4. The milk room must be used for no other purpose than the handling of milk, and must be clean and well ventilated.
5. Premises must at all times be free from a collection of water, rubbish or any offensive material.
6. Cooling tanks for milk must be tightly constructed of non-absorbing material and frequently cleaned. The water must be changed so frequently as not to become offensive.
7. Walls and ceilings must be kept clean.
8. Aerators and coolers must be protected from dust and dirt and from impure air.

##### The Employees.

1. No person suffering from a contagious disease or one in attendance upon such patient shall be employed in the handling of milk or milk utensils.
2. All employees who handle milk and milk utensils must be cleanly in their habits. The garments worn by such employees must be kept in a clean condition.
3. Spitting in or upon any part of the building must be absolutely prohibited.

##### The Milk.

1. Milk of a temperature above 60 degrees must not be received at the creamery or shipping station.
2. Milk must be handled as little as possible and all unnecessary exposure to the air must be avoided.
3. Milk must be rapidly cooled to a temperature of 50 degrees or less and so kept until shipped.
4. All pipes through which milk is allowed to flow must be so arranged as to be easily and thoroughly cleaned.
5. All milk utensils, including cans and bottles, must be kept clean and sterile.
6. Managers of creameries and receiving stations will be expected to refuse to receive milk from farmers who do not observe the rules of this department.

##### Recommendations.

1. In addition to the foregoing rules, the observance of which the Department of Health demands, the following recommendations in the construction of creameries and the handling of milk are presented:

- A. Creameries should be well lighted. Ventilation should be ample, preferably through the roof.
- B. Milk should be handled in rooms supplied with natural light.
- C. Creameries should be so arranged that the milk may flow by gravity from the point where it is received to its final point of handling. Pumps, which are always difficult to keep clean, should never be used.
- D. Outside dust should be prevented from entering the room where milk is handled, and flies should be excluded.
- E. The rooms should be plastered or ceiled to avoid places where dust may gather.
- F. Frequent painting or whitewashing is strongly urged.
- G. The receiving tanks, mixing vats and tanks upon the bottling tables should be provided with covers.

In the time which elapsed between tours of inspection in 1905 and the tours of inspection in 1906 a number of the dilapidated and old creamery buildings were torn down and modern ones erected in their stead. In all instances the new creameries have been provided with asphalt or concrete floors. Improved methods of storing the milk at the proper temperature have been introduced, and the mixing vat, receiving vat and other apparatus have been so enclosed as to properly protect the milk from dust and dirt.

Incidentally very many of the old creamery buildings which were not replaced by new ones have been most thoroughly overhauled, new water-tight and waterproof floors provided, improved milk vats and milk storage tanks installed, and the buildings placed in as good condition as could be expected.

It may be assumed very justly that if the Department of Health had not been carrying on this active supervision of the milk supply, these new creameries would not have been constructed, and the milk intended for consumption in the City would still be handled in the antiquated way.



In almost every instance before the creameries mentioned were constructed the builders presented their plans and ideas to the department for discussion. The time undoubtedly will arrive, and probably within a comparatively few years, when all of the creameries will be repaired or reconstructed, and the handling of milk conducted according to the best and most modern methods.

The proper icing of the milk containers while in transit has also received the careful attention of the department, with the result that milk has arrived at the terminals at a much lower temperature and in much better condition than in any previous year. Of course in the latter part of the year, when the ice in storage became gradually used up, there were instances of not putting enough ice on the cans, but as a rule there was very little cause for criticism.

Dairies inspected ..... 11,000  
 Creameries inspected ..... 708

Total ..... 11,708

One of the weakest links at present in the chain of supply is the custom, upon the arrival of the milk trains at the various terminals, that exists among the employees of the railroad companies to immediately open the cars and roll the cans and boxes containing milk out upon the platform, where frequently on hot nights during the summer they are exposed to a temperature of 75 degrees or 80 degrees for a number of hours. This is a matter which will require most careful consideration, and which it is hoped may be, to a very large extent, corrected before the coming summer. Unfortunately there is a commercial side to this question that appears to be very difficult of solution. The practice is for the milk dealers during the day to collect the empty cans from their customers and load them on trucks which are sent to the terminals, where the empty cans are placed upon the platforms, and the full cans of milk are loaded on the trucks and immediately taken to the city for distribution. The empty cans are then loaded into the trains as expeditiously as possible, and in the early morning hours these trains are started back over their routes to distribute the cans to the various creameries in order that they may be properly washed and filled for return to the city on the following night. In order to keep the cans in the cars until the trucks called for them it would probably involve the purchase of at least one additional set of cans on the part of the milk dealers, and the providing of at least half as many cars again as are now in service by the railroad companies. The expense involved in this is necessarily very large, and one in which the people interested are not over-anxious to enter without giving the matter very serious consideration.

A number of large dealers of milk in the City of New York have had, within the past year, built milk trucks of great capacity, constructed somewhat on the order of a furniture van, with tight sides and provided either with roofs or canvas covers, the object of this being to hold the temperature of the milk down to the lowest possible point in its transit from the railroad platforms to the stores of their customers. In addition, many of them remove the ice from the cars in which their milk is transported and place it on and around the cans in the wagons, to assist in the cooling process.

Railroad.	Number of Creameries Inspected.	Number of Cans of Milk, Cream and Condensed Milk Shipped.
Erie .....	114	5,586
Harlem .....	25	816
Ontario and Western.....	80	5,172
New York, Susquehanna and Western.....	30	2,200
West Shore .....	23	2,339
New York, New Haven and Hartford.....	24	1,652
Delaware, Lackawanna and Western.....	78	6,058
New York Central.....	73	6,307
Central Railroad of New Jersey.....	14	226
Hudson River Transportation Company.....	15	796
Lehigh Valley .....	67	2,797
Other sources .....	..	600
Total.....	543	34,576

In the City of New York there are approximately 14,107 dealers holding permits for the sale of milk, distributed as follows:

	Store Permits.	Wagon Permits.
Manhattan .....	5,832	1,305
Brooklyn .....	3,656	1,000
The Bronx .....	872	245
Queens .....	449	464
Richmond .....	172	112
Total.....	10,981	3,126

The larger portion of the stores offering milk for sale receive no financial return from the milk. The conditions surrounding the business of conducting a grocery store, especially in the so-called "tenement house" district, are such that a store which does not sell milk receives very little of the neighborhood custom for their groceries. The habit of the people in these districts in living what might be called a "hand-to-mouth" existence, and going to the grocery store a short time previous to each meal and buying such provisions as may be necessary for that meal, naturally draws the would-be customer to the place where he or she may buy most of the requisites for the meal. Therefore the grocery stores in these localities have acquired the custom of selling milk without profit, as what might be considered a "leader." It has been noticed that during the past two or three years the selling of milk in bottles is greatly increasing, indicating that the consumers realize the necessity of a pure milk supply, and prefer to buy their milk in a manner which precludes, as much as possible, the danger of contamination either by germ life or dishonest vendors.

When an application for a permit for the sale of milk is made a copy of the following rules and regulations are handed to the applicant, and he is instructed that unless the conditions under which he proposes to sell milk comply with these rules and regulations his permit will be denied.

Rules and Regulations for the Care and Storage of Milk.

1. Milk must not be kept for sale or stored in any room used for sleeping or domestic purposes, or opening into same.
2. Milk must not be transferred from cans to bottles or other vessels on streets or on ferries or at depots, except when transferred to vessel of purchaser at time of delivery.

3. Milk must not be sold in bottles except under the following rules:

Bottles must be washed clean with a hot water solution of soap or soda, or some other alkali, and then with hot water before filling with milk.

Bottles must not be filled, except at the dairy or creamery, and in the city only in rooms so situated as to prevent the contamination of the milk by dust or other impurities.

Bottles must not be washed or filled in any rooms used for sleeping or domestic purposes, or opening into same.

4. The vessels in which milk is kept for sale must be protected by means of a suitable covered receptacle and so placed in the store to prevent dust from the street or other impurities falling into it.

5. Store permits must be posted in stores so that they can be easily seen at all times.

6. Wagon permits must be carried on the wagon at all times when engaged in the sale, transportation or delivery of milk.

7. The number of wagons and the number of permit, the latter to be preceded by the words "Department of Health Permit," must be painted on both sides of the wagon in letters two (2) inches in length and one-half (1/2) inch in width, and in some contrasting color to that of the wagon.

8. After the day's sales are over, the cans, bottles measures, and other utensils used in the sale of milk must be thoroughly cleaned with lukewarm water, to which a small amount of soda has been added in proportion of one teaspoonful of washing soda to a gallon of water.

9. The overflow pipe from the ice box in which the milk is kept must not be connected directly with the drain pipe or sewer, but must discharge into an open water supplied, properly trapped, sewer connected sink. (See section 38 of the Sanitary Code.)

10. The ice box in which milk is kept must be cleaned by scrubbing out with a hot soda solution, as in Rule 3, at least twice a week.

11. In selling milk, the contents of the can should be thoroughly mixed before measuring out the amount desired. This will prevent unintentional skimming, and the last quart of milk sold from the can will contain as much cream as the first quart sold.

12. It sometimes happens that in cold weather the milk may be delivered to the dealer more or less frozen. If such is the case, the ice from the sides of the can should be detached and the contents gently heated until the ice is all melted. If there is much ice in the can it is absolutely necessary to do this before the milk is sold, otherwise the liquid part dipped out and sold at first will contain more of the solid parts of the milk and cream, while the ice remaining and consisting principally of water will, after a time, melt and will result in the milk containing more water than pure milk should have, and may appear as if it had been adulterated with water.

13. Do not place ice in milk if it is desired to cool it or keep it cold, as the ice will melt, and the milk then appears to have been adulterated with water.

On the day following the receipt of the application, an inspection is made of the premises by an Inspector, who examines them carefully. If he finds that the conditions are proper for the care and handling of milk, he notifies the dealer that a recommendation will be made to the Board of Health to grant him a permit for the sale of milk, and a small card is left with him, stating that the proprietor of the store has applied for a permit, which, if granted by the Board of Health, will be delivered on a certain date. This is intended as an indication to the Milk Inspector of the district, or to any other person authorized to ask the question that the proprietor has complied with the law forbidding the sale of milk without a permit, so far as lies in his power. If, on the other hand, the conditions are such that a permit cannot be recommended, the Inspector informs the applicant wherein his premises do not conform to the regulations, and a reasonable length of time is given him in which to overcome these objections. The Inspector, in the course of a few days, makes a reinspection, and if the premises are found then to be sanitary, he does as first indicated. If, on the other hand, they are still unsanitary the Inspector submits his report, stating the facts, and recommending that the application for a permit for the sale of milk be denied. After a permit has been denied by the Board of Health, a written notice to that effect is served upon the proprietor of the store, and if he is subsequently detected in the sale of milk without a permit, the case is presented to the Criminal Courts, which usually results in the imposition of a substantial fine.

The inspection of milk within the City is carried on according to an old and well established system. The various boroughs are divided into districts so that each Inspector will have approximately the same number of places where milk is sold under his charge. He is expected to have a full knowledge of the character of the stores and of the wholesale dealers supplying milk within his district, and to use his judgment within certain limits in making his inspection, the object being for him, so far as lies in his power, to be assured that the milk offered for sale within his district is pure, and is kept under proper conditions. He is expected to do his work at such times during the day or night as will best accomplish this result. The Inspectors are required to wear the badge which is furnished by the Department of Health where it may be readily seen. Upon entering a store they introduce themselves as Inspectors from the Department of Health, and ask if milk is offered for sale. If answered in the affirmative they then inform the proprietor that they desire to inspect his milk, and proceed along the following lines.

They examine the permit and ascertain whether it was issued in the name of the present proprietor of the store, or no. They then go to the milk container, first asking the storekeeper if this is the milk which he is offering for sale. They then stir the milk very thoroughly, and dip out a sufficient quantity to make the necessary examination with lactometer and thermometer. If there are other cans containing milk to be sold in the store, they then examine these in the same manner. If, in their judgment, the milk is adulterated, they empty the contents of the testing cylinder back into the can, and again stir the milk. This is done to insure the obtaining of a uniform sample, and to prevent injustice to the dealer. The cylinder is filled the second time, the lactometer and thermometer reading are checked with the previous one, and then the actual taking of the samples commences. For this purpose the Inspectors are provided with bottles of two kinds, one a four ounce bottle with perforations in the neck, and one a four ounce bottle with a plain neck. Milk is poured from the cylinder into each of these bottles until they are filled. They are then corked, and through the cork of the bottle with the perforated neck a wire is passed, which is then wound about the neck of the bottle, and the ends passed through a lead seal. This seal is pressed by means of a punch, on one die of which appear the words "Department of Health, City of New York," and on the other a letter by which the Inspector is designated.

Each Inspector has supplied to him a number of tags, used for the labeling of the bottles; a tag is sealed onto the bottle with the wire, and contains the number of the sample, and the Inspector's designating letter, the name and address of the place from which the sample was taken, the name of the Inspector taking the same, and his reasons for taking the same.

On the other bottle is secured a stub, removed from the original, on which is a place for the number of the sample, and the Inspector's designating letter.

DEPT. OF HEALTH. CITY OF NEW YORK.  
 Div. of Inspections. Sixth Ave. and 55th Street.  
 Date..... Borough of .....  
 Sample No. .... Inspection No. ....  
 Inspector .....  
 Name .....  
 Address .....  
 Reason for Sampling .....

Sample No.

Inspection No.

165 F. 1906-2194-10,000 (P)

This system has been adopted in order to prevent any possible chance of mixing or substituting samples. The sealed sample is delivered to the proprietor or person in charge of the store, and the other sample is delivered to the Assistant Chemist at the Laboratory of the Department of Health, who is to make the analysis.



In all cases where samples are taken for analysis, in addition to the report which the Inspector makes, he submits a report on a filing card, giving all of the essential facts of the inspection.

On the obverse of the card are blanks provided for the Chemist, on which he may report the result of the analysis. These cards, upon the completion of the analysis, are filed under the name of the dealers, so that at any time a complete history of the samples taken from any particular dealer in the City may be obtained. After the receipt of the result of the analysis of the sample from the Chemist, the cards are submitted to the Chief Sanitary Inspector, who endorses on those found to be below the legal standard the word "Arrest." These tickets are then delivered to the Inspector, who, accompanied by a Patrolman of the Health Squad, goes to the Police Magistrate's Court in whose district the offense was committed, and obtains a warrant for the arrest of the dealer. The warrant is delivered by the Magistrate to this Patrolman, who makes the arrest, and produces the defendant in Court. The usual practice is for these defendants to be immediately held for trial in the Court of Special Sessions. The Inspector places on the ticket the result of this arraignment, and the tickets are then returned to the office, and held until such time as the case may be called for trial. For convenience in the various divisions of the Court of Special Sessions, a certain day of each week is set aside for Department of Health cases. A calendar is prepared, and this calendar, together with all of the milk tickets which bear upon the cases in question, and any other items of evidence which it is necessary to produce in Court are taken there by an Inspector especially detailed for this purpose. After the trial, the result of same is then placed upon the ticket, and the ticket returned to the office of the Chief Sanitary Inspector for filing.

If an Inspector, on his rounds, discovers milk which is manifestly adulterated by the addition of water or by the removal of cream, or milk which is not of the temperature (50 degrees) required by the Sanitary Code, this milk is immediately destroyed, and a special report of the fact is made to the office of the Chief Sanitary Inspector.

During the summer months the Inspectors frequently are combined into corps, and make thorough examinations of the milk at the ferries and receiving points for the purpose of destroying all milk which is not of the proper temperature. At other times during the year, especially on Sundays and holidays, similar examinations by corps of Inspectors are made of districts in which it is suspected that quantities of adulterated milk are being sold, with the usual result that many samples of adulterated milk are collected, and an exceptionally large number of convictions are obtained in the Court of Special Sessions.

The Inspectors making inspections throughout the country districts frequently discover evidences of adulteration of milk, either at the point of production or at the creamery. They are all supplied with a cypher code, by means of which they can telegraph adequate information promptly to the main office.

During 1906, in numerous instances this was done, with the result that a corps of City Inspectors were detailed to examine the suspected milk. This resulted in the obtaining of an exceptionally large number of samples of adulterated milk in a short space of time and has prevented, to a great degree, the wholesale adulteration of milk.

Total number of inspections and reinspections.....	130,871
Total number of specimens examined.....	138,505
Total number of samples.....	9,540
Number of quarts of milk destroyed.....	41,395
Number of arrests.....	678
Number held on bail.....	666
Number discharged.....	11
Number of trials.....	644

Amount of fines.....\$13,045 00

#### DIVISION OF CONTAGIOUS DISEASES.

##### BOROUGH OF MANHATTAN.

The Division of Contagious Diseases was organized in September, 1887, and its functions in the Borough of Manhattan are:

1. The diagnosis of suspected contagious diseases and of all cases of contagious disease removed to the Department and Minturn hospitals.
2. The examination of contagious disease patients at Riverside Hospital and at the Scarlet Fever Hospital in this borough, reported ready for discharge, to ascertain that such patients are fully recovered and in a non-contagious condition.
3. The maintenance of isolation of patients ill with contagious diseases at their homes.
4. The removal to a Department of Health hospital of patients who develop contagious disease in a general hospital, in an institution, home or asylum, and those who cannot be or refuse to remain properly isolated at their homes, until the disease is terminated.
5. The fumigation of infected rooms and the disinfection of infected materials.
6. The removal of infected goods to Department Station to be destroyed or sterilized and returned.
7. The removal to the Department Morgue, for burial by the City authorities, of bodies of persons who have died of contagious diseases and cannot be buried by the relatives or friends.
8. The free vaccination, at proper intervals, of all teachers and children in the public schools.
9. The free vaccination of all who apply at the Central Office for vaccination.
10. The free vaccination of all employees of the Department of Health and all other City Departments, upon request, or when considered necessary to prevent the spread of small-pox.
11. The free vaccination of all persons exposed to, living in the house with, or in the immediate neighborhood of a person found to have small-pox.
12. The free vaccination of City lodging house inmates and inmates of the City prisons.
13. The free vaccination of all who are not "protected" at their homes, in large department stores or other places employing a large number of persons.
14. The medical inspection of school children, excluding those found to have contagious diseases, and mailing postals to parents of those children found to have physical defects.
15. "Summer Corps" work, consisting of visits to tenement houses, treatment of sick children under two years of age and instructions to mothers in the care of infants.
16. The treatment of school children having trachoma in the Department Trachoma Hospital and dispensaries.
17. The diagnosis of suspected glanders in horses and the destruction of all cases and the disinfection of stables where cases occur.
18. The diagnosis of suspected rabies in dogs and the destruction of all cases.
19. The disinfection of books exposed to infection and belonging to public libraries, public schools, etc.
20. Mailing to public and parochial schools, hospitals, institutions, etc., a daily printed list, giving name, age, address and disease of every case of contagious disease reported during the previous twenty-four hours, and also the same facts in relation to rooms fumigated during the previous twenty-four hours.

The staff of the Division of Contagious Diseases consists of:

1. Chief Medical Inspector.
2. Assistant Chief Medical Inspector.
3. Medical Inspector (ophthalmologist).
4. Medical Inspectors (diagnosticians).
5. Medical Inspector in charge of institutions and day nurseries.
6. District Medical Inspectors.
7. Medical Inspectors (oculists).
8. Medical Inspectors of Schools.
9. Medical Inspectors (vaccinators).
10. Medical Inspectors (summer corps).
11. Supervising Nurse.
12. Trained Nurses for district work, school work, Trachoma Hospital, Trachoma dispensaries.

13. Veterinarians.
14. Disinfectors.
15. Ambulance Drivers.
16. Drivers and Helpers on "goods wagons."
17. Clerks.
18. Stenographers and Typewriters.
19. Telephone Operators.
20. Office Boys.

Section 133 of the Sanitary Code, as adopted 1903, is as follows:

"It shall be the duty of every physician to report to the Department of Health, in writing, the full name, age and address of every person suffering from any one of the infectious diseases included in the list appended, with the name of disease, within twenty-four hours of the time when the case is first seen:

- A. Contagious (very readily communicable)—Measles, rubella (rotheln), scarlet fever, small-pox, varicella (chicken pox), typhus fever, relapsing fever.
- B. Communicable—Diphtheria (croup), typhoid fever, Asiatic cholera, tuberculosis (of any organ), plague, tetanus, anthrax, glanders, epidemic cerebro-spinal meningitis, leprosy, infectious diseases of the eye (trachoma, suppurative conjunctivitis), puerperal septicaemia, erysipelas, whooping cough.
- C. Indirectly Communicable (through intermediary host)—Yellow fever, malarial fever.

The following contagious diseases are referred to this Division: Diphtheria (croup), scarlet fever, measles (rubeola), German measles (rotheln), small-pox, varicella, typhus fever, relapsing fever, Asiatic cholera, plague, yellow fever, tetanus, anthrax, glanders, infectious diseases of the eye (trachoma, suppurative conjunctivitis), whooping cough.

These diseases may be reported by the attending physician in one of the following methods:

- (a) By the official postal cards of the Department, which are furnished gratuitously on request.

5 J—1906

21A-160, '06, 20,000 (P)

#### REPORT OF CONTAGIOUS DISEASE

PHYSICIANS WILL greatly facilitate the work of this department by filling in one of these cards by the bedside of the patient and dropping it at once in the nearest P. O. Box.

New York, ..... 190

Name of Patient ..... Age .....  
 Residence ..... Floor .....  
 Disease ..... Duration of Sickness .....  
 How Contracted ..... No. of Families in house .....  
 Location of School attended by Children in Family.....  
 In case of Diphtheria do you wish a Bacterial Culture made? Answer Yes or No.  
 ..... M. D.  
 Residence .....

NOTE—Whenever the immediate attention of this Department is required, either for the removal of a patient to the Contagious Disease Hospital, or for the injection of antitoxin, please telephone from the nearest Police Station House or Public Telephone Station, directly to this office, which is always open.

TELEPHONE, 4900 COLUMBUS.

In case of Diphtheria, do you wish other members of family immunized by the Department of Health? Answer Yes or No.

(b) By telephone, when the administration of diphtheria antitoxin by the Department is requested, or the removal of a contagious disease patient to the Department Hospital is desired. Such report must be followed by one on an official postal.

11 J—1906

21A-163, '06, 7,500

#### REPORT OF CONTAGIOUS DISEASE

BY TELEPHONE .....A. M.  
 New York, .....190

Name of Patient ..... Age .....  
 Residence, ..... Floor, ..... Room No. ....  
 Disease, ..... Duration, .....  
 No. of Families in House, .....Croup Case? Yes or No.  
 Inject, ..... Immunize, ..... Culture? Yes or No.  
 Reported by ..... Address, .....  
 .....A. M.

Referred to ..... Date ..... 190  
 Received by .....P. M.

(c) In diphtheria, when a culture taken by the attending physician and forwarded to the Department of Health shows upon examination diphtheria bacilli, the slip accompanying the culture will be accepted as a report of the case.

Cases of contagious disease are brought to the attention of the Department in various ways besides the reports of attending physicians, viz:

(a) "Walked in" cases. (Patients that go direct to the hospital without being first seen by a diagnostician.) These cases are reported by the hospital.

(b) Those excluded from schools by the Medical School Inspectors, who telephone to Central Office the full name, age and address and the disease of each child excluded, and note same on their daily reports, which are mailed to Central Office.

(c) Cases of contagious disease found by Medical School Inspectors on "absentee" visits. Children absent from school three days without known excuse are referred to the Medical School Inspectors and visited by them. If they find a school child or some member of the family ill with a contagious disease and not previously reported, they send a telephonic and written report to Central Office, giving full name, age and address, disease, duration of illness, and, if there is an attending physician, his name and address.

(d) Complaints of citizens which may be mailed to Central Office or made personally to District Medical Inspectors.

(e) Secondary cases reported by District Medical Inspectors in families where there is no attending physician, or where the attending physician has failed to report them.

(f) Where first report is the death certificate.

Each morning (except Sundays and holidays) at nine o'clock, all cases of contagious disease reported during the previous twenty-four hours are referred to the District Medical Inspectors (by telephone or personally at Central Office), who visit these cases that day.

#### Duties of District Medical Inspectors.

The Borough of Manhattan is divided into districts and a Medical Inspector assigned to each. When a case of contagious disease is referred to him, he must visit it that day, and keep it under surveillance until terminated, and the infected rooms fumigated.

Diphtheria—The District Medical Inspector is required to see each case of diphtheria the day it is referred to him, and upon his first visit he is required to take a culture from the patient's throat (or nose) unless this has already been done by the attending physician or Antitoxin Inspector (or the patient found intubated), or unless the attending physician has requested that no culture be taken by the Medical Inspector.



21 L—1905

DEPARTMENT OF HEALTH

BOROUGH OF MANHATTAN

Division of Bacteriology

DIRECTIONS FOR MAKING CULTURES

The patient should be placed in a good light, and, if a child, properly held. In cases where it is possible to get a good view of the throat, depress the tongue and rub the cotton swab gently, but freely, against any visible exudate, revolving the wire between the fingers, so as to bring all portions of the swab in contact with the mucous membrane or exudate. In other cases, including those in which the exudate is confined to the larynx, pass the swab back as far as possible, avoiding the tongue, and rub it freely as described above against the mucous membrane of the pharynx and tonsils. Withdraw the cotton plug from the culture tube, holding it so that the portion withdrawn from the tube does not come in contact with the fingers or with any other substance. Insert the swab and rub it gently BUT THOROUGHLY back and forth over the entire surface of the blood serum. At least half a minute should be given to this operation, the wire being revolved so as to bring all portions of the swab in contact with the surface of the blood serum. Do not allow the swab to touch anything except the throat of the patient and the surface of the serum. Do not push the swab into the serum, nor break the surface in any way. Do not use tubes in which the serum is contaminated, is liquefied, or is dried up. Then replace the swab in its own tube, plug both tubes, mark the culture tube with name of patient for identification with accompanying blank, which should be fully filled out, and return both tubes and blank promptly to a culture station. Unsatisfactory cultures, exhibiting insufficient growth or contamination by foreign bacteria, usually result from failure to follow carefully the above directions. A report will be forwarded the following day by mail, before 1 p. m., or will be telephoned by 10 a. m., where the attending physician's telephone call can be ascertained. Communications should be addressed to J. S. BILLINGS, JR., M. D., Assistant Director, Diagnosis Laboratory, Sixth Avenue and 55th Street, New York City.

RETURN SWAB AND BOTH TUBES.

SEE DIRECTIONS FOR MAKING CULTURES ON OTHER SIDE.

DIPHTHERIA.—Culture for Diagnosis.

Name of Maker of Culture	Time	Age
Date		
Name of Patient		
Address		
Att. Phys.	Telephone	Result to
Address		
Duration of Disease	Location of Membrane	
How Contracted?		
Was Specimen satisfactorily obtained?		
Was an Antiseptic applied to the throat within two hours?		
Clinical Diagnosis		
Has Antitoxin been used?		
Have others in family been immunized?		
If Culture negative do you still wish case to be considered as one of diphtheria?		
Remarks		
This Blank to be filled out to this Point by Attending Physician.		
Examined and Reported.....	Examiners.....	
Assigned to Inspector.....		
Result of Examination.....		
Lab. No.....	Day No.....	

The primary culture slip, properly filled out and accompanied by the culture tube and swab, must be left at a culture station before 3 p. m., in order that it may be collected that day, and a report sent from the laboratory the following morning to the attending physician, District Medical Inspector and Division of Contagious Diseases office. If the patient is intubated, the District Medical Inspector must notify Central Office in writing.

He must see that the patient is isolated, ascertain whether or not there are school teachers or children in the family, and if so, mail an official postal to the school or schools attended by them, excluding them from school attendance.

12K—1905

DEPARTMENT OF HEALTH.

BOROUGH OF MANHATTAN.

DIVISION OF CONTAGIOUS DISEASES.

New York,.....190

The following named children, pupils of your school, are exposed to the contagion of.....at

Sec. 145. No principal or superintendent of any school, and no parent, master or custodian of any child or minor (having the power and authority to prevent) shall permit any child or minor having scarlet fever, diphtheria (croup), small-pox or any dangerous, infectious or contagious disease, or any child in any family in which any such disease exists or has recently existed, to attend any public or private school until the Board of Health shall have given its permission therefor nor in any manner to be unnecessarily exposed, or to needlessly expose any other person to the taking or to the infection of any contagious disease.

Respectfully,

Reported by.....Chief Medical Inspector.  
.....Medical Inspector.

He must leave a "circular of information regarding diphtheria" with the nurse or attendant.

142 J—1906

DEPARTMENT OF HEALTH

OF THE

CITY OF NEW YORK,

Sixth Avenue and Fifty-fifth Street.

CIRCULAR OF INFORMATION REGARDING DIPHTHERIA.

Diphtheria is an acute, infectious and very readily communicable disease, caused by the presence of the diphtheria or "Klebs-Loeffler" bacillus. The disease varies in severity from the mild catarrhal type, where there is only slight inflammation of the tonsils, pharynx, larynx or nose, with no accompanying constitutional symptoms, to the most severe type, where extensive membrane is present in the throat or nose and the patient is completely prostrated.

The disease is communicable as long as the diphtheria bacilli are present and is generally transmitted directly by the discharges from the nose and throat of the sick person, and also by means of clothing, books, toys and other articles which have been in close contact with the sick person.

2294, '05, 75,000 (P)

Your attention is respectfully called to the contents of this circular, with reference to the duties of the Inspectors of the Department of Health and the obligations of parents and nurses in every case of diphtheria.

1. Within 24 hours after a case of diphtheria is reported an Inspector from the Department of Health will visit the premises (when the notification is received by the Department on Saturday afternoon or Sunday the case will be visited the following Monday) and will see that the case is properly isolated. He will not examine the patient. If the case is to be sent to the hospital a diagnostician from the Department must examine the case.

2. In apartment and tenement houses and also in furnished-room and boarding-houses the Inspector will placard the door of the apartment containing the patient. This placard must not be removed except by an employee of the Department. Unauthorized removal of the placard is a direct violation of the Sanitary Code and may be followed by the arrest of the offender and removal of the patient to the Department Hospital.

3. The Inspector will exclude from school attendance all teachers and children living in the quarantined apartment and notify all other families in the house of the existence of the case, and will take such other precautions as may be necessary to prevent the spread of the disease. He will visit the case thereafter as often as necessary to maintain isolation, or until a culture from the throat is free from diphtheria bacilli. Isolation must be maintained until a culture has shown that the diphtheria bacilli are no longer present, but under no circumstances (when diphtheria bacilli have been found) will a case be discharged in less than ten days from the beginning of the illness, even if succeeding cultures should prove to be free from diphtheria bacilli before the expiration of the ten days. Then the Inspector will give permission for the patient, after a proper bath, to leave the sick room and will order proper and necessary disinfection of the infected room and its contents. Failure to maintain isolation may be followed by the removal of the patient to the hospital.

4. A special corps of Inspectors is provided by the Department for the administration of antitoxin to the sick person and to others in the family (for the purpose of immunization), provided that such administration is requested by the attending physician. This request should always be made by telephone or messenger to the Department.

5. During the illness no work of any kind, such as tailoring, laundering, manufacturing of cigars or other merchandise will be permitted in the rooms or apartments occupied by the family. Cases occurring in rooms connected with stores will either be removed to the hospital or the store will be closed and kept under police surveillance until disinfection has been performed.

6. In case of death, burial within twenty-four hours is required. No persons except those belonging to the immediate family will be allowed at the funeral services.

7. In many instances landlords apply to the Department for an order for the removal to the hospital of a tenant ill with a contagious disease. This action is desired either because the tenant does not pay his rent or for the protection of the landlord. In other instances tenants ill with contagious diseases refuse to pay rent, relying upon the Department of Health to keep them in their apartments. The Department wishes it distinctly understood that it will not interfere in the differences between landlord and tenant until they have been settled in Court. If a dispossess warrant is granted by the Court the Department will provide for the removal of the patient to the hospital.

8. After the disinfection has been performed the Inspector will again visit the premises, and if conditions are satisfactory, will issue permits for the children to return to school.

9. DISINFECTION.—When careful isolation has been maintained during the illness, disinfection will be limited to the sick room. Much labor and annoyance will be saved where the infection of other rooms has been avoided by careful isolation. After disinfection of the room, rugs, carpets, pillows, mattresses and unwashable bed and other clothing will be removed for steam disinfection. The goods so removed will be returned the following day. Upon request bedding and other goods indicated for destruction will be removed and destroyed and must never be sent from the house or thrown into the street by the owner.

DUTIES OF PARENTS AND NURSES.

1. Complete isolation of every case of diphtheria as ordered by the Medical Inspector of the Department of Health must be maintained until the disease is at an end and disinfection has been performed.

2. Children in the family must not be allowed to attend school until they have received a certificate from the Department of Health.

3. The room used for the case should be as nearly bare of furniture as possible. Carpets and hangings should be removed before the patient is placed in the room. Toys or books used by the sick person should be thoroughly disinfected or destroyed after recovery or death. The sick room should be well aired several times daily, the floor mopped and woodwork frequently wiped with damp cloths. Under no circumstances must the floor be swept when it is dry. It should be sprinkled with sawdust, bits of newspaper or tea leaves, all thoroughly moistened, and then carefully swept so that no dust may arise.

4. When practicable, one attendant should take entire care of the patient and no one else besides the physician should be allowed in the room. The attendant should have no communication with the rest of the family. Visitors must not be admitted to the apartment as long as the placard remains on the door.

5. Plates, cups, glasses, knives, forks, spoons, etc., used by the patient should be kept for his especial use and under no circumstances removed from the room or mixed with similar utensils used by others. They should be washed in the room in hot soap-suds and then rinsed in boiling water. After use, the soap-suds should be thrown into the water closet.

6. All cloths, bed linens and personal clothing which have come in contact in any way with the sick person should be immediately immersed in a 2 per cent. carbolic solution before removal from the room. They should be soaked for one hour and may then be removed from the room and boiled in water or soap-suds for five minutes.

7. Surfaces of any kind soiled with the discharges should be immediately washed with the carbolic solution.

8. After making applications to the throat or nose of the patient and before eating, the hands of the attendant should be disinfected by thorough scrubbing in hot soap-suds and then in the carbolic solution.

9. After the Inspector of the Department of Health has ordered disinfection, the entire body of the patient should be bathed and the hair washed with hot soap-suds. The patient should then be dressed in clean clothes (which have not been in the sick room during the illness) and removed from the room. The attendant should also take a bath and put on clean clothes before mingling with the family or other people. The clothes worn in the sick room should be left there to be disinfected with the room and its contents. Under no circumstances should the sick room be again entered or occupied or anything removed from it until disinfection has been performed.

THOMAS DARLINGTON, M. D.,

Commissioner of Health.

HERMANN M. BIGGS, M. D.,

General Medical Officer.

If the family resides in a tenement (apartment) house, or in a furnished-room or boarding-house, he must place a diphtheria placard (paster) on the door leading from the hall to the apartment or room (if this has not already been done by the Antitoxin Inspector, Diagnostician or Officer of the Health Squad), and this placard must not be removed, except by an employee of the Department. The unauthorized removal of the placard is a violation of section 137 of the Sanitary Code, and may be followed by the arrest of the offender and removal of the patient to the hospital.

759, '06, 12,000 (P)



47 J—1904

2200, '04, 20,000 (P)

## DEPARTMENT OF HEALTH, THE CITY OF NEW YORK.

## DIPHTHERIA.

All persons, not occupants of this apartment, are advised of the presence of Diphtheria in it, and are warned not to enter.

The person having Diphtheria must not leave the apartment until the removal of this notice by the Department of Health.

By order of the Board of Health.

Alle Personen, welche nicht in diesen Räumen wohnen, werden hierdurch benachrichtigt, das Diphtherie hier ausgebrochen ist, und werden gewarnt, diese Wohnung zu betreten.

Die mit Diphtherie kranken Personen dürfen die Wohnung nicht eher verlassen, bis dieses Plakat von der Gesundheitsbehörde wieder entfernt ist.

Im Auftrage des Rathes.

Tutte le persone che non sono occupanti di quest' appartamento sono avisati della presenza del Diffetterita e sono avisati di non entrarci.

La persona avendo il Diffetterita non deve lasciare l'appartamento finchè quest' avviso è portato via dal Dipartimento di Salute.

Per ordine del' Autorità di Salute.

THOMAS DARLINGTON, M. D., President.

EUGENE W. SCHEFFER, Secretary.

Date .....

The District Medical Inspector must notify all other tenants or occupants of the house (personally, or by a card provided for the purpose) that there is a case of diphtheria in the house.

92 J—1904

20-235, '04, 50,000 (P)

## DEPARTMENT OF HEALTH.

## BOROUGH OF MANHATTAN.

Sixth Avenue and Fifty-fifth Street.

## DIVISION OF CONTAGIOUS DISEASES.

New York,.....190

## To the Occupant of this Apartment:

You are hereby notified that there is.....  
in the family of.....  
on the.....floor of these premises No.....

By order of the Board of Health.

THOMAS DARLINGTON, M. D.,

President.

Medical Inspector.

A. BLAUVELT, M. D.,

Chief Medical Inspector.

If there is a janitor or manager for the tenement or apartment house, he is notified that if there is an elevator, members of the family are not permitted to use it to go down from their apartment, but may use it when coming up from the street.

In hotels, the manager must be informed of the rules of the Department relating to the isolation of the patient.

The Medical Inspector will visit patient as often as necessary (at least once a week) to maintain isolation, until a culture shows no diphtheria bacilli.

Should isolation not be maintained, the Inspector notifies the Central Office by 'phone and in writing, and the family or attendants are warned by a Policeman of the Health Squad to comply with the rules of the Department. Continued failure to isolate patient may be followed by removal to hospital. Secondary cultures must be taken at least once a week, and oftener at the later periods of the illness. If the Attending Physician takes the first culture, it is assumed that he wishes to take the secondary cultures, and they will not be taken by the District Medical Inspector unless the Attending Physician requests it, or has discontinued his visits to the patient.

26 L—1906

212-227, '06, 63,000 (P)

## DEPARTMENT OF HEALTH

## DIAGNOSIS LABORATORY

Division of Communicable Diseases

Sixth Avenue and Fifty-fifth Street

## DIRECTIONS FOR MAKING CULTURES

The patient should be placed in a good light, and, if a child, properly held. In cases where it is possible to get a good view of the throat, depress the tongue and rub the cotton swab gently, but freely, against any visible exudate, revolving the wire between the fingers, so as to bring all portions of the swab in contact with the mucous membrane or exudate. In other cases, including those in which the exudate is confined to the larynx, pass the swab back as far as possible, avoiding the tongue, and rub it freely as described above against the mucous membrane of the pharynx and tonsils. Withdraw the cotton plug from the culture tube, holding it so that the portion withdrawn from the tube does not come in contact with the fingers, or any other substance. Insert the swab and rub it gently BUT THOROUGHLY back and forth over the entire surface of the blood serum. At least half a minute should be given to this operation, the wire being revolved so as to bring all portions of the swab in contact with the surface of the blood serum. Do not allow the swab to touch anything except the throat of the patient and the surface of the serum. Do not push the swab into the serum, nor break the surface in any way. Do not use tubes in which the serum is contaminated, liquefied or dried up. Then replace the swab in its own tube, plug both tubes, mark the culture tube with name of patient for identification with accompanying blank, which should be fully filled out, put the tubes and blank in the box, and return promptly to a culture station. Unsatisfactory cultures, exhibiting insufficient growth or contamination by foreign bacteria, usually result from failure to follow carefully the above directions. Report of later cultures will be mailed the following day by 1 P. M., or can be obtained by telephone after 11 A. M.

For further information address Dr. J. S. Billings, Jr., Division of Communicable Diseases, Department of Health, New York City.

## RETURN SWAB AND BOTH TUBES.

SEE DIRECTIONS FOR MAKING CULTURES ON OTHER SIDE.

## DIPHTHERIA.—Later Culture.

Number of Culture, 2d, 3d, 4th, 5th, 6th, 7th, 8th.

Date

Inspector or Physician

Name of Patient

Age

Address

Att. Phys.

Address

Duration of Disease

This Blank to be filled out to this Point by Attending Physician.

Examined and Reported.....Examiner.....

Assigned to Inspector.....

Result of Examination.....

Lab. No. ....Day No.....

Should a patient be found in rooms at rear of, or connecting with, a store, it will be necessary either to have store closed at once, and to remain closed until the case is terminated and the rooms fumigated, or to have the patient removed to the hospital. If the family elect to have the store closed, it is placed under police surveillance (precinct and Health Department) until the rooms have been fumigated. If found open at any time, patient may be removed (by force, if necessary) to the hospital. If, during the illness, it is found that tailoring, laundering, or the manufacturing of any merchandise is being carried on in any of the rooms occupied by the family, the District Medical Inspector must notify Central Office by 'phone and in writing, and a Health Squad Policeman is sent to stop all work and warn the family not to resume the same until after fumigation, under penalty of having patient removed to hospital.

When the Inspector receives a report from the Laboratory of the Department of Health that a secondary culture is free from bacilli, he orders disinfection of the infected rooms with contents, and the removal (after fumigation in rooms) of infected mattresses, carpets, rugs, pillows, etc., to the Department station for sterilization. These goods are removed the day after rooms are fumigated, and returned the day following their removal.

After fumigation District Medical Inspector issues school certificates (if required), and mails to Central Office a diphtheria history card, properly filled out and signed.

## DIPHTHERIA

Name ..... Age ..... Address ..... Floor .....

P. H. Ten. Families ..... Reported by .....

Date of Report ..... Report of Culture ..... Cultures Taken.....

..... Culture Negative .....

Dates of Inspection .....

Onset of Disease ..... Dr. .... Address .....

Called on ..... Day of Disease Antitoxin used on ..... Day of Disease

Given by Private Physician Inspector. Subsequent injections.....

Amount Given 1 2 3. Other Cases in Family.....

1 2 3 4 5 6

Complaints Received ..... F. and D. Ordered.....

Complaints Returned ..... F. and D. Performed.....

School Children in Family.....School Certificates Issued.....

..... M. D.

Medical Inspector.

130 J—1905 18a-238, 20,000 (P)

When a patient is reported ill with diphtheria, and a prompt primary culture shows no diphtheria bacilli, a letter is sent by the Chief Medical Inspector to the Attending Physician, and he is requested to note on an enclosed postal whether or not he wishes the case dropped or held as one of diphtheria. If an answer from the Attending Physician is not received when three days have elapsed, the case is dropped as "no case." If the Attending Physician wishes the case dropped, the District Medical Inspector is notified to remove diphtheria placard, inform the family and tenants that it was not a case of true diphtheria, and issue school certificates if required. He then forwards to Central Office a diphtheria history card, properly filled out and signed.

140 J—1905

1491, '05, 3,000 (P)

## DEPARTMENT OF HEALTH

## THE CITY OF NEW YORK

## BOROUGH OF MANHATTAN

SIXTH AVENUE AND FIFTY-FIFTH STREET

OFFICE OF THE CHIEF MEDICAL INSPECTOR,

DIVISION OF CONTAGIOUS DISEASES

New York, ..... 190

Dear Sir:

On ..... you reported

..... of  
..... ill with  
diphtheria.

The bacteriological examination of culture from this case did not show the presence of Klebs-Loeffler bacilli. Do you wish the case dropped as "no case" and fumigation omitted? Kindly answer on enclosed postal.

Yours respectfully,

Chief Medical Inspector.

If answer is not received  
within four days, case  
will be dropped.

141 J—1905

1491 '05, 3,000 (P)

## DEPARTMENT OF HEALTH,

Sirs:

I hereby direct that .....

of ..... be { dropped

and fumigation of premises { omitted

{ performed

Respectfully,

(Name) .....

(Address) .....

Scarlet Fever—Each scarlet fever patient must be visited by the District Medical Inspector on the day he receives the case, and on his first visit he pursues the same course as in diphtheria, in regard to the isolation of the patient, exclusion of school teachers or children of the family from school, leaving a "circular of information regarding scarlet fever."

If in an apartment or tenement house, or in a boarding or furnished-room house, he must place a scarlet fever placard on the door leading from the hall to the apartment or room.







New York, ..... 190

*Medical Inspector.*

Work Performed .....	100
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Total

970, '06, 13,000 (P)

Cases are referred to them by telephone from Central Office, and their reports on cases are received at Central Office in the same manner. When a Diagnostician orders a patient to a department hospital he fills out a removal blank, which is left for the ambulance surgeon, and fills out a fumigation card, which is left for the disinfector.



10 J-1906 212-162, '06, 5,000 (P)

DEPARTMENT OF HEALTH,  
BOROUGH OF MANHATTAN  
New York, ..... 190

Name .....  
Removed from .....

AGE		
Years	Months	Days

Reported at ..... M.  
Examined at ..... M.

Color.....Sex.....Single Mar. Wid. Occupation.....  
Diagnosis.....Place of Business.....  
(If Diph., note in regard to antitoxin.)  
Has been ill.....Days.....Religion.....  
Exposed to .....

Remove to ..... Hospital.....  
Medical Inspector.

Name of person accompanying .....

(To be filled out by the Inspector.)  
PATIENT'S HISTORY.

Residence .....  
Class of Dwelling .....  
Birthplace .....  
Time in U. S. .... Time in City.....  
Father's Name .....  
Father's Birthplace .....  
Mother's Maiden Name .....  
Mother's Birthplace .....  
Name of Relative }  
or Friend }  
Address .....  
Removed on ..... at ..... M.  
by .....  
Ambulance Driver.  
Received at Willard Parker, Scarlet Fever or Reception Hospital  
Received at ..... at ..... M.  
on ..... at ..... M.  
by .....  
Received at Riverside or Kingston Avenue Hospital  
on ..... at ..... M.  
by .....  
Hospital No. .... Disease No. ....

When it is reported that a diphtheria patient needs immediate hospital treatment an ambulance or coupe is at once sent and patient removed as an "emergency" case, without being seen by a Diagnostician. During 1906 the Diagnosticians examined 5,057 persons, found 4,721 had contagious disease, visited 2,731 tenements, 65 hotels, 30 schools, 144 private houses and 1,988 miscellaneous dwellings.

The Veterinarians of this division are required to diagnose all reported and suspected cases of glanders in horses and other contagious diseases in animals. In glanders the animals affected are destroyed, and all infected stalls, harness, stable furniture, etc., are disinfected.

Each glandered horse is destroyed (shot) by a Patrolman of the Health Squad, upon an order signed by the Chief Medical Inspector and the Veterinarian, and the body is promptly removed to the offal dock.

70 J-1906

Page No. ....

## DEPARTMENT OF HEALTH

BOROUGH OF MANHATTAN

Sixth Avenue and 55th Street

New York, ..... 190

In accordance with Section 125 of the Sanitary Code of The City of New York ..... Patrolman, Health Squad, is hereby directed to kill the ..... belonging to ..... residence for the reason that said animal is suffering from glanders.

WALTER BENSEL, M. D.,  
Assistant Sanitary Superintendent.

Chief Medical Inspector

D. V. S.  
Veterinarian

The above order has been complied with.

Where killed .....  
Date ..... Hour .....

Patrolman, Health Squad

DESTROY: Halter. Blanket. Feed Bag.

212-175, '06, 1,000 (P)

The Veterinarian leaves at the stable, in an envelope, for the Disinfector a disinfection card, on which he has noted full instructions in relation to the disinfection of all infected materials.

71 J-1906

212-176, '06, 1,000 (P)

Page No. ....

THIS SLIP TO BE RETURNED TO THE OFFICE BY THE DISINFECTOR.

No. 3. .... 190.

Disinfection of Stable.

At .....

STALL:

Flooring.....Manger.....  
Feed box.....Sides.....

ADJOINING STALLS:

Harness, Halter, Blankets, Sheets, Brooms, Sponges, Brushes.

Common Watering Trough

DESTROY: Blanket. Halter. Feed bag.

REMARKS:

Disinfector.....Veterinarian.....  
Description of Animal .....

When a glandered horse is found in a stable all the other horses must be carefully examined by the Veterinarian, and should any suspected cases be found they must be tested with mallein. A full report in writing must be filed at Central Office for every case visited.

Every complaint received of a person having been bitten by a dog is referred to a Veterinarian, who is given the name and address of the person bitten and the name and address of the owner of the dog, and a description of the animal. If the Veterinarian is positive that the dog has not rabies, he notifies the person bitten. If the dog has rabies it is destroyed and the body sent to the Laboratory in East Sixteenth street, and the person bitten is advised to report at the Laboratory for Pasteur treatment.

If it is suspected that the dog has rabies it is sent to the Laboratory to be kept under observation.

During the year many cases of contagious skin disease of animals were reported and referred to the Veterinarians. A full report in writing of every case visited is sent to Central Office by the Veterinarian and filed in an envelope.

A Veterinarian of this division makes a careful physical examination of each calf sent to the Vaccine Virus Laboratory, and after the vaccine virus has been collected from the calf the Veterinarian holds a post-mortem. A written report of each examination is forwarded to the Director of the Vaccine Laboratory.

During 1906 the three Veterinarians

Examined, horses .....	24,482
Condemned, horses .....	530
Tested with mallein, horses.....	356
Held post-mortems on, horses.....	121
Inspected, stables .....	3,476
Examined for suspected rabies, dogs.....	132
Found cases of rabies.....	3

During the past year a great number of specimens of blood have been taken from horses suffering from different diseases (and especially horses in different stages of glanders) to determine the value of the agglutination test for glanders. The work was largely experimental but is proving a valuable aid in detecting the disease before any clinical symptoms develop. It has been necessary to take specimens from horses suffering from other diseases to determine what organisms have a specific agglutinin which may be common agglutinin for glanders, and if they have a common agglutinin for glanders, to what degree. Horses whose agglutination reaction has been 1-1000 and over occasionally give a good mallein reaction, and on post-mortem lesions of glanders are found.

## General Office Work.

The Borough of Manhattan is divided into east and west side districts, the dividing line being Fifth avenue, from Harlem river to Fourteenth street, to Broadway, to Battery place, the district numbers beginning at the upper end of the borough on the west side, running down the west or North river side to the Battery and up the East river side of the Borough to the Harlem river.

Maps at Central Office are marked to show the boundaries of the districts. Each district is properly numbered, and the name, address and telephone number of the Medical Inspector in charge is noted on it.

A typewritten list is furnished the Chief Medical Inspector, the Telephone Operators and each of the Clerks of the division, showing the number of each district, its boundaries and the name, address and telephone number of the Medical Inspector in charge. A copy of this list is also kept in the Laboratory to facilitate mailing of culture reports to the District Medical Inspectors.

If districts are made larger or smaller (depending on the marked increase or decrease in number of cases reported), or the Medical Inspectors in charge are changed, new lists showing date of change are substituted.

Each morning, at 9 o'clock, the reports of all cases of contagious diseases received in the first mail, together with those received during the previous twenty-four hours, are sorted and grouped according to the districts in which they are located, each report having its district number marked upon it and the date and hour received at Central Office stamped on it. Five Clerks then telephone the cases to the District Medical Inspectors from the original reports, giving name, age and address of patient, disease and such necessary information as may be required; as, for instance, in diphtheria cases, if attending physician does not wish cultures taken by District Medical Inspectors. The Stenographers then prepare (from the original reports) the first part of the daily typewritten list for the printer, showing all the new cases for that day, each under its proper district number, giving family name of patient, age, address and disease. This typewritten list is finished by adding under the proper district numbers all fumigations performed during the previous twenty-four hours, each showing name of family, address and disease. Corrections of previous lists and cases dropped as "no cases" during the previous twenty-four hours are also noted on the report.

This typewritten daily list when completed is given to a messenger from the printer's office, together with the envelopes in which the printed copies are to be mailed, and which have been properly addressed and stamped at Central Office.

The envelopes for the public schools of the borough (properly addressed and stamped) are received from the Board of Education office.

The daily mailing list of this division averages 375 addresses, and a weekly mailing list of about sixteen is sent each Friday to Sunday schools. The daily lists are printed, placed in the envelopes and mailed each afternoon from the printer's before 6 o'clock, and are delivered with the first mail the following morning. The printer's messenger brings to the Central Office each morning extra copies of the list printed the previous day, and these are compared with the typewritten copy kept at the office, in order to detect errors. A copy of this daily printed list of contagious diseases is mailed to the Chief Medical Inspector, each Diagnostician and District Medical Inspector, every hospital and institution in the borough, every Principal in the public schools, every parochial school, many private schools and kindergartens, to all branch public libraries, Tenement House Department, etc. This list has been issued daily since March 31, 1902.

When the attending physician reports a case of contagious disease on an ordinary postal or by letter it is assumed that he has no official postals for reporting cases, and a dozen are mailed to him at once, and the fact noted on his report. Every request for official postals is promptly complied with.

Every report of a case of diphtheria, scarlet fever or measles received from the attending physician (by culture, telephone or mail) is promptly acknowledged, and should he not receive such acknowledgment he may know that his report has not been received by the Department.

143 J-1906

759, '06, 12,000 (P)

## DEPARTMENT OF HEALTH

OF THE

CITY OF NEW YORK.

Sixth Avenue and 55th Street.

.....19

.....M. D.,

DEAR DOCTOR:

Your report to the Department of Health that.....

....., of.....  
is ill with diphtheria and under your professional care is hereby acknowledged. Your attention is respectfully called to the following regulations of the Department of Health regarding diphtheria and to the "Circular of Information Regarding Diphtheria." A copy of this circular will be sent to the family of the sick person.



## REGULATIONS OF THE DEPARTMENT OF HEALTH RELATING TO THE ATTENDING PHYSICIAN IN CASES OF DIPHTHERIA.

1. A prompt report of each case of diphtheria must be made to the Department of Health as soon as the case is discovered. This report may be made in one of the three following methods:

(a) By the official postal cards of the Department. These cards can be obtained on application to the Division of Contagious Diseases.

(b) By telephone, when the administration of antitoxin or the removal of a patient to the Department hospital is desired. Such reports must be supplemented by a regular report on the official postal card.

(c) By a culture taken by the Attending Physician and forwarded to the Department of Health. If, upon examination, diphtheria bacilli are found, the slip accompanying the culture will be accepted as a report of the case.

The Department will promptly acknowledge all reports and should the attending physician not receive such acknowledgement, he may know that his report has not been received by the Department. Upon receipt of the report of a case an inspector from the Department of Health will visit the premises.

2. The clinical diagnosis of diphtheria must in all cases be supplemented by a culture from the throat or nose or both, and when the examination of such cultures confirms the diagnosis, quarantine of the cases must be maintained until subsequent cultures indicate the disappearance of all diphtheria bacilli. Cultures should be taken at least once a week and even more frequently at the latter period of the disease, in order that the hardships of isolation and school exclusion may be decreased. When, however, diphtheria bacilli have been found in the cultures examined by the Department, quarantine of the case will be required for at least ten days from the beginning of the illness, even though later cultures are reported free from diphtheria bacilli within a shorter time. In general, after a culture showing no diphtheria bacilli has been received, disinfection will be promptly performed.

3. When the attending physician sends the initial culture to the Department for examination in a case of diphtheria, it is assumed by the Department that he has indicated his desire and intention to take all secondary cultures. If the physician does not take the cultures and does not state his intentions in regard to the same to the Department of Health, the inspector will take all necessary cultures. If for any reason a physician discontinues treatment of a case in which he has been taking cultures, he must notify the Department of Health, so that further cultures may be taken, if necessary.

4. The diagnosis and supervision of cases reported to the Department as diphtheria, and in which a negative culture has been returned, will be adjusted by the Chief Medical Inspector through written communication to the attending physician.

5. Antitoxin will be administered by the Department inspectors either to the sick person or to other members of the family, upon telephonic request to the Department (4900 Columbus). Free antitoxin may be secured at the Department of Health office or at any of the stations throughout the City, upon signing a statement that payment for it by the family would be a hardship. The physician is then required to furnish on a blank supplied for the purpose the facts with reference to the history of the case, after recovery or death.

6. All children in the family should receive immunizing doses of antitoxin.

7. Upon request of the physician, intubation will be performed by the Department inspectors at the home, in the presence of the attending physician, and the case then left in his care or removed to the hospital for future attention (the latter course is strongly advised).

8. Whenever a case of diphtheria is found in rooms in the rear of, or communicating with, a store, the inspector is required to have the store closed at once, or to report the case for immediate removal to the hospital.

9. Careful and continued isolation of the sick person must be enforced until disinfection has been performed.

10. All children living in the quarantined premises must be promptly excluded from school attendance.

11. All secondary cases must be reported, even if the first case is still under surveillance of the Department of Health.

12. Suspected cases must be treated as true cases until sufficient observation has shown that the patient has a non-communicable disease. All cases will be considered as diphtheria, if so reported. Any change in the original diagnosis must be made in writing to the Department of Health, and must be confirmed by a diagnostician of the Department.

13. Physicians must not order the removal of patients to the contagious disease hospital or elsewhere in cabs or other vehicles, but should notify the Department of Health and the removal will be effected by a coupe or ambulance of the Department.

14. A case of diphtheria must not be removed from one house to another, or even to another apartment in the same house, without the permission of the Department. Such removal is in direct violation of the provisions of the Sanitary Code.

15. When a secondary culture from the throat of a patient has been examined by the Department of Health and is free of diphtheria bacilli, an inspector will visit the house and order disinfection. The patient must not be discharged from observation until disinfection has been performed.

16. In private houses only disinfection may be performed under the supervision of the attending physician, provided he follow accurately the directions given in the following rules and regulations. Upon request a blank will be provided upon which he must state the manner and extent of the work performed under his supervision. If satisfactory to the Department, this will be accepted in place of disinfection by the Department.

In every case of disinfection under the supervision of the attending physician, the following regulations must be complied with:

All cracks and crevices in rooms to be disinfected must be sealed or calked, to prevent the escape of gas, and one of the following disinfectants used for room disinfection, in the quantities named:

Sulphur, 4 lbs. for every 1,000 cubic feet of air space, 8 hours exposure.  
Formalin, 6 oz. for every 1,000 cubic feet of air space, 4 hours exposure.  
Paraform, 1,000 grains for every 1,000 cubic feet of air space, 6 hours exposure.

The following disinfecting solutions may be used for goods which are afterwards to be washed:

Carbolic acid, 2 to 5 per cent.  
Bichloride of mercury, 1-1,000.

After disinfection of rooms, carpets, rugs, mattresses, pillows, etc., must be sent away for disinfection by steam, and the rooms should then be thoroughly aired and cleaned with soap and water.

The Department of Health will remove any goods that may require further disinfection and return them without charge.

The office of the Division of Contagious Diseases of the Department of Health is always open, and a telephone message to 4900 Columbus will secure prompt attention, but a telephone report will not be accepted in place of a written report; the latter must always be sent.

THOMAS DARLINGTON, M. D.,  
Commissioner of Health.

HERMANN M. BIGGS, M. D.,  
General Medical Officer.

## BOROUGH OFFICES, DEPARTMENT OF HEALTH.

MANHATTAN: S. W. Corner 55th St. & 6th Ave. .... Tel. 4900 Columbus  
THE BRONX: S. W. Corner St. Paul's Place and Third Avenue ..... Tel. 975 Melrose.  
BROOKLYN: 38-40 Clinton Street ..... Tel. 4720 Main  
QUEENS: 374 Fulton St., Jamaica ..... Tel. 361 Jamaica  
RICHMOND: 54-56 Water St., Stapleton, S. I. .... Tel. 440 Tompkinsville

132 J-1906

218-191, '06, 30,000 (P)

## DEPARTMENT OF HEALTH

OF THE  
CITY OF NEW YORK.

Sixth Avenue and 55th Street.

.....19  
.....M. D.,  
.....

DEAR DOCTOR:

Your report to the Department of Health that.....  
....., of.....  
is ill with measles and under your professional care is hereby acknowledged.

Your attention is respectfully called to the following regulations of the Department of Health regarding measles, and to the enclosed "Circular of Information" with reference to the duties of the inspectors of the Department of Health, parents and nurses in this disease. A copy of this circular will be sent to the family.

## REGULATIONS OF THE DEPARTMENT OF HEALTH IN REGARD TO MEASLES.

1. A prompt report of each case of measles, with all necessary data, on an official postal card, must be made to the Department of Health (Sanitary Code, Section 133), as soon as the case is discovered or diagnosed. This report will be promptly acknowledged by the Department of Health, and if such acknowledgement is not received by the physician he may know that his report has not been received by the Department. Upon receipt of this report an inspector from the Department of Health will visit the family.

2. All children in the family must be promptly excluded from school attendance.

3. Careful and continued isolation of the patient must be enforced until the case is terminated and disinfection has been ordered by the medical inspector of the Department.

4. All secondary cases must be reported even if the first case is still under surveillance of the Department of Health.

5. Suspected cases must be treated as contagious cases until a sufficient observation has shown that the patient has a non-contagious disease. All cases will be considered as measles, if so reported. Any change in the original diagnosis must be made in writing to the Department of Health and must be confirmed by the diagnostician of the Department.

6. Physicians must not order the removal of patients to the contagious disease hospital, or elsewhere, in cabs or other vehicles, but must notify the Department of Health and the removal will be effected by a coupe or ambulance of the Department.

7. Whenever there is a case of measles in rooms in the rear of, or communicating with, a store, the inspector is required to have the store closed at once, or to report the case for immediate removal to the hospital.

8. A case of measles must not be removed from one house to another, or even to a different apartment in the same house, without the permission of the Department. Such removal is in direct violation of the provisions of the Sanitary Code.

9. No case of measles shall be discharged from observation until the Department has been notified, the case examined by an inspector to see if desquamation is entirely completed and the premises properly disinfected. This examination by the inspector is necessary because the Department of Health must have official information as to the completion of desquamation before a child is dismissed from observation; other people with children demand this protection. At no other time is the inspector allowed to examine the patient. In any case, however, where isolation has not been maintained and it becomes necessary to remove the patient to the hospital, a diagnostician will make an examination.

10. It is recommended that physicians provide a special washable gown for each case of measles. This gown should be put on before entering the sick-room and taken off outside the sick-room as soon as the visit is completed. The gown should be kept in a closet or suitable place, separate from all other clothing, and the gown and the closet should be disinfected after the termination of the case.

11. In private houses only, disinfection may be performed under the supervision of the attending physician, provided he follow accurately the directions given in the following rules and regulations. Upon request a blank will be provided upon which he must state the manner and extent of the work performed under his orders and supervision. If satisfactory to the Department, this will be accepted in place of disinfection by the Department.

In every case of disinfection the following regulations must be complied with:

All cracks and crevices in rooms to be disinfected must be sealed or calked, to prevent the escape of the disinfectant, and one of the following disinfectants used in the quantities named:

a. Sulphur, 4 lbs. for every 1,000 cubic feet of air space, 8 hours exposure.

b. Formalin, 6 oz. for every 1,000 cubic feet of air space, 4 hours exposure.

c. Paraform, 1,000 grains for every 1,000 cubic feet of air space, 6 hours exposure.

The following disinfecting solutions may be used for goods which are afterwards to be washed:

a. Carbolic acid, 2 to 5 per cent.  
b. Bi-chloride of Mercury, 1-1,000.

After fumigation of the rooms, any rugs, mattresses, etc., may be removed by the Department at the request of the attending physician for disinfecting by steam and the rooms should then be thoroughly aired and cleaned with soap and water.

12. The Office of the Division of Contagious Diseases of the Department of Health is always open and telephone messages to 1204 Columbus will secure prompt attention, but a telephone report of a case of contagious disease will not be accepted in place of a written report; the latter must always be sent.

THOMAS DARLINGTON, M. D.,  
Commissioner of Health.

HERMANN M. BIGGS, M. D.,  
General Medical Officer.

## Borough Offices, Department of Health.

MANHATTAN: S. W. Corner 55th St. & 6th Ave. .... Tel. 4900 Columbus  
THE BRONX: 3731 Third Avenue ..... Tel. 975 Melrose  
BROOKLYN: 38-40 Clinton Street ..... Tel. 4720 Main  
QUEENS: 374 Fulton St., Jamaica ..... Tel. 361 Jamaica  
RICHMOND: 54-56 Water St., Stapleton, S. I. .... Tel. 440 Tompkinsville

Should the attending physician not give "full particulars" when reporting a case, a notice of the fact is mailed to him (and carbon copy filed in envelope of case), with the request that in future he will comply with section 133 of the Sanitary Code. When he has failed to give either full name or age of patient, the omitted part is obtained from the District Medical Inspector's daily report card the following morning and noted in the record of the case; or if the case has been referred to a Diagnostician, his report will supply the omission.



112 J—1905

DEPARTMENT OF HEALTH,  
DIVISION OF CONTAGIOUS DISEASES.BOROUGH OF MANHATTAN,  
Sixth Avenue and 55th Street.

NEW YORK,....., 19....

18a-246, '05, 3,000 (P)

DEAR DOCTOR:

We are in receipt of your report by.....  
of.....in the person....  
of.....aged.....  
of.....  
not being given.

In future, when reporting a case of contagious disease, kindly give full name, age, address, etc., in order that there may be a complete record in this Division, and oblige,

Yours respectfully,

Chief Medical Inspector.

When a complaint is received at Central Office that a physician has failed to report a case of contagious disease, has delayed reporting a case until patient was found by a Medical Inspector, or has ordered the removal of a patient ill with contagious disease to a hospital or elsewhere in a cab or other vehicle, a communication is mailed to him from Central Office (and carbon copy filed in envelope) calling attention to the violation and requesting an explanation.

When a District Medical Inspector telephones Central Office that a case cannot be found at the address given, if the person reporting the case cannot be promptly communicated with by telephone, a Department policeman is sent to obtain the correct address. When a complaint is received at Central Office that a store previously ordered closed has been found open, a Department policeman is sent to warn the family or attendants that if a second complaint is received patient may be removed to the hospital. The policeman's written report is filed in envelope.

When complaint is received that a placard has been removed, a Department policeman is sent to replace the apartment and warn the family that a repetition of the offense will be followed by the removal of the patient to the hospital. The policeman's report is filed in envelope.

When a complaint is received that "work" of any kind is being done in any room of an apartment where there is a case of contagious disease, a Department policeman warns the family that a continuance of this violation will cause the removal of the patient to the hospital, and the policeman's report is filed in the envelope.

Should a complaint be received that an undertaker has, in a case of death from a contagious disease, allowed a public funeral, used an icebox, failed to bury the body within twenty-four hours after death, or placed draperies about the room, a Department policeman is sent to enforce compliance with the sections of the Code relating to these violations, and, if draperies have been used, they are fumigated by the Department before being returned to the undertaker. He is also requested, by mail, to call at Central Office and explain why he violated Section 141 of the Sanitary Code, and informed that a second offence will be followed by summary action. A carbon copy of this letter is filed in the envelope of the case.

All complaints (written or telephonic) relating to cases of contagious diseases are noted in a book kept for the purpose, and referred to the proper District Medical Inspector for prompt investigation and report in writing. A record is kept of the date on which complaint is received, sent to Inspector, and returned by him.

Since 1902 the records of contagious disease have been kept in envelopes, which are filed under an alphabetical street list. These envelopes, 8¼x4½ inches, are made of heavy, light brown manilla paper, and open at one end. The printing upon the face is yellow for measles, red for scarlet fever, brown for diphtheria, black for smallpox, etc.

Each day, after the cases have been referred to the Medical Inspectors, and the daily printed list has been completed, each report of a case is filed in the proper disease envelope, and on the outside is noted the address of patient, name, age, date of report, duration of illness, how reported, and name of Medical Inspector. In diphtheria, if patient is intubated, that fact is noted, and whether "Loeffler" was present or absent in the first culture, and the date of same. Dates of secondary cultures are noted, and also date when a secondary culture is negative. Secondary cases reported in the family before the first case is terminated, and the rooms fumigated, are recorded in the same envelope, and names, etc., noted on the outside. When other cases in a family are reported after the first is terminated and fumigation performed, another envelope is used. Every record relating to the case is filed in the envelope, from the postal reporting it, to the fumigation and history cards.

An important duty of the clerk in charge of the filing case is to see that fumigation of rooms after diphtheria, scarlet fever and measles is promptly ordered by the District Medical Inspector. When it is noted on a diphtheria envelope that a secondary culture was negative, and no fumigation is ordered in a few days, and no cause of delay found filed in the envelope, he must ask the District Medical Inspector for an explanation. In scarlet fever cases, after five weeks have elapsed, and in measles, after two weeks, if no fumigation is ordered, and no reason for delay found filed in the envelope, an explanation is due from the District Medical Inspector.

When fumigation has been performed, the date is stamped on the envelope, and the "fumigation" card is held by the clerk two days. If the history card has not then been received, he requests the District Medical Inspector to bring it at once to Central Office. When received, the date is stamped on it, it is filed in the envelope, a check is put on the face of the envelope, and it is filed in another case, where it remains until March of the following year.

When an envelope, with its contents, is taken from the filing case, a blank provided for the purpose, dated and properly filled out, must be left in its place. On this substitute is noted when and by whom envelope was taken, and also the principal data from face of envelope. When the envelope is returned, this blank is destroyed.

136 J—1905

DEPARTMENT OF HEALTH  
THE CITY OF NEW YORK

1089, '05, 5,000 (P)

Disease .....  
Address .....  
Name ..... Age .....  
Date of Report .....  
Envelope Taken .....  
By .....

107 J—1907.

## DIPHTHERIA

104-'07, 5,000. (P)

## DIPHTHERIA

Address

Name ..... Age ..... Yrs. .... Mo. ....  
Date of Report ..... Removed to ..... Hospital .....  
Duration of Disease ..... Days .....  
Reported by Card, Telephone, Inspector "Dead List," Complaint, Culture.  
Result of Culture—L. P.—L. A. ....  
Fumigated ..... Dead List .....  
..... Diagnostician.  
..... Med. Insp't.

106 J—1907.

## SCARLET

104-'07, 10,000. (P)

## SCARLET

Address

Name ..... Age ..... Yrs. .... Mo. ....  
Date of Report ..... Removed to ..... Hospital .....  
Duration of Disease ..... Days .....  
Reported by Card, Telephone, Inspector "Dead List," Complaint.

Fumigated ..... Dead List .....  
..... M. D.  
..... Med. Insp't.

105 J—1907.

## MEASLES

104-'07, 20,000. (P)

## MEASLES

Address

Name ..... Age ..... Yrs. .... Mo. ....  
Date of Report ..... Removed to ..... Hospital .....  
Duration of Disease ..... Days .....  
Reported by Card, Telephone, Inspector "Dead List," Complaint.

Fumigated ..... Dead List .....  
..... Diagnostician.  
..... Med. Insp't.

108 J—1905

## SMALL POX

18a-243, '05, 2,000 (P)

## SMALL POX

Address

Name ..... Age ..... Yrs. .... Mo. ....  
Date of Report ..... Removed to ..... Hospital .....  
Duration of Disease ..... Days .....  
Reported by Card, Telephone, Inspector "Dead List," Complaint.

Fumigated ..... Dead List .....  
..... M. D.  
..... Med. Insp't.

111 J—1907.

104-'07, 10,000. (P)

Address

Name ..... Age ..... Yrs. .... Mo. ....  
Date of Report ..... Removed to ..... Hospital .....  
Duration of Disease ..... Days .....  
Reported by Card, Telephone, Inspector "Dead List," Complaint.

Fumigated ..... Dead List .....  
..... M. D.  
..... Med. Insp't.

Since 1902 a card index file has been kept at Central Office, giving the name and address of every physician who has failed to give "full particulars" in any case reported by him, who has failed to report any case attended by him, who has sent in a "delayed" report, or who has ordered the removal of a patient ill with contagious disease, to a hospital or elsewhere, in a cab or other vehicle.

Each entry on the filing card shows the name and address of patient, disease, and date when case was listed, so that by referring to the envelope of the case a full record of the facts can be obtained.

Should these violations of the Sanitary Code by any physician be too often repeated, the matter is referred to the Board. A card index file is also kept, giving the name and business address of every undertaker who has failed to comply with the sections of the Code relating to the care and burial of bodies that have died of contagious disease.

When a case of contagious disease is removed from an institution or asylum for children to a Department hospital, written notice of quarantine of institution or asylum, preventing admission or discharge of patients, is mailed from Central Office to the institution, and also to the office of the Society for the Prevention of Cruelty to Children, and the office of the Charity Organization Society.

Should no secondary case develop, a written notice that quarantine has been raised is mailed to the same addresses, in diphtheria seven days, in scarlet fever ten days, and in measles fourteen days later. Carbon copies of each notice are filed at the Central Office.

When it is learned that a patient ill with contagious disease in the borough has, while ill, come from an out-of-town address, the health officer of the locality is notified by mail, and a carbon copy of the notice is filed in the envelope for the case, and also a cross file under "Health Officers." Should a patient abscond to an out-of-town address, the same action is taken.

Whenever an employee of the Division is absent, notice must at once be sent to Central Office by telephone or telegraph, and followed within three hours by written notification of absence on an official blank. On returning to duty, the employee must report to Central Office, and make out on a special blank an application for leave of absence for the dates of absence, and, if absence is due to illness, a physician's certificate must be attached.

A report is forwarded each day giving a list of employees (with their titles) that are reported absent that day, with the cause, a list of those that have returned to duty that day, with date of first absence, and cause, and a list of those still absent, with date of first absence, and cause.

An "absentee" list is kept in the office of the Chief Medical Inspector, showing name and title of every employee absent, date of notification, date of return, date of application and cause of absence.

A daily report is forwarded to the Commissioner, General Medical Officer, Superintendent, Academy of Medicine, etc., showing total number of cases (by diseases) reported during previous twenty-four hours, and compared with similar report of same date the previous year, also number of cases of each disease removed to Department or Minton hospitals. A list is forwarded to the Assistant Sanitary Superintendent on the twentieth day of each month, giving name and title of each employee of the Division, and noting any changes that have occurred during the previous month.

A weekly report is forwarded to the Assistant Sanitary Superintendent every Monday, compiled from the daily report cards of the District Medical Inspectors, the weekly reports of the Diagnosticians, Medical Inspector in charge of the Trachoma Hospital and Dispensaries, Medical School Inspectors, Vaccinators, Nurses, Veterinarians, Disinfectors, Ambulance Drivers, and the Disinfecter in charge of the Disinfecting Station. From these weekly reports, monthly, quarterly, semi-annual and yearly reports are compiled and forwarded.

An employee of the Tenement House Department visits the Department each day, and obtains a list of the cases of contagious diseases in tenement houses that have been terminated during the previous twenty-four hours.



A supply of the following laboratory products: Vaccine virus, diphtheria and tetanus antitoxin, and mallein, is kept in an icebox, to supply the immediate wants of inspectors, physicians, hospitals and institutions, when the other offices of the Department are closed, viz: nights, Sundays and holidays.

On Sundays and holidays, all "new" cases of diphtheria, scarlet fever and measles in tenement houses are placarded by policemen of the Health Squad.

A "dead" list is received twice each day from the Bureau of Records, compiled from the death certificates for cases that have died from contagious disease. On it is noted full name, age and address of patient, disease, date of death, number of death certificate, and name and address of attending physician. If a case on this list is found to have been reported, the date of death and number of death certificate is noted on the filing envelope, and District Medical Inspector notified to order fumigation. If a case is not found in the filing case, an envelope is made out for it as one reported from the "dead list" and the District Medical Inspector notified to visit premises, obtain full history and mail written report to Central Office. He also orders fumigation of infected rooms.

A "culture" list is received daily from the Laboratory, giving results of each diphtheria culture examination that morning, whether showing diphtheria bacilli or no diphtheria bacilli, and listed under primary cultures, secondary cultures, and trial cultures. Primary cultures showing Klebs-Loeffler bacilli, and not previously reported, are listed as new cases of diphtheria the following morning. Dates of secondary cultures, and of primary cultures of previously reported cases, are noted on the envelopes, and if negative, that fact is noted to show termination of case.

A "hospital record" book is kept at Central Office, giving full data of each case seen by a Diagnostician, and of every "walked in" case.

All records of reported and suspected cases of glanders in horses are kept at Central Office by means of the envelope filing system (as in contagious diseases), under an alphabetical street list of the stable locations.

Each envelope is given a number, corresponding to the page of the book in which all the facts relating to the case are entered, and a carbon copy of this page is filed in the envelope. A written report of the Veterinarian to whom the case was referred is filed in the envelope, also his order for the destruction of the horse, and the disinfection of the stable, when returned by the policeman, and the disinfectant. Should there have been a mallein test, a record of that is also placed in the envelope.

69 J—1906

2682-06 (P)

## GLANDERS

## GLANDERS

No. ....

Location of Stable ..... No. of Horses .....

Character of Stable .....

Name of Owner ..... Address .....

Date of Report ..... Description of Animal .....

Reported by Card ..... Telephone ..... Inspector ..... Test .....

Disposition of Animal .....

Fumigated .....

..... Veterinarian.

All records of suspected rabies in dogs are kept at Central Office by the envelope system, and in each envelope is filed the complaint, and a full written report of the Veterinarian detailed on the case. The envelopes are filed under the address of the owner of the dog, and a cross file (card index) is kept under address of complainant.

Telephone operators, five in number, are assigned to duty in this Division. There are two on duty from 9 a. m. to 4 p. m. daily, and one from 4 p. m. to 9 p. m. each night and on Sundays, holidays and half-holidays. They receive all requests for removal of contagious disease patients, telephone all "hospital" and "special diagnosis" cases to the Diagnosticians. The reports of Diagnosticians are received and noted on a special blank.

125 J—1906

1748, '06, 5,000 (P)

## DEPARTMENT OF HEALTH,

## BOROUGH OF MANHATTAN.

## Division of Contagious Diseases.

## Message Received.

Date ..... 190... Time..... A. M. .... P. M.

Name ..... Age ..... Years ..... Mos.

Address ..... Floor ..... Room No. ....

Disease..... How Reported { Inspector ..... Postal

Telephone ..... Letter

Reported by .....

Residence .....

Remarks .....

Received by .....

## DIAGNOSTICIAN'S REPORT.

Diagnostician..... Time { Referred ..... A. M. .... P. M.

Reported ..... A. M. .... P. M.

Name ..... Age ..... Years ..... Mos.

Remove from ..... Floor ..... Room No. ....

Residence ..... Floor ..... Room No. ....

Diagnosis ..... No. of days ill .....

Married or single ..... No. in family .....

Occupation .....

Place of business .....

Source of contagion .....

Character of house .....

How removed ..... Driver .....

FUMIGATE..... Rooms ..... { Lbs. of Sulphur

Gr. of Formalin } DATE.....

Lbs. Lime and

Oz. Form. Sol. }

DISINFECT .....

Disinfectant ..... Vaccinator .....

Remarks .....

Telephone Clerk.

They telephone to the proper hospital all orders for the removal of patients, they send all cases reported as suspected glanders to the veterinarians, and receive their reports. All telephone communications relating to the work of the Division are received and answered by them. They are required to note in the telephone blotter all

messages received and sent. Nights, Sundays and holidays, they receive all requests for injection of patients with antitoxin, and requests for intubation, attend to the sale of virus and antitoxin, and receive complaints and communications of every description, referring the same to the Division having jurisdiction over the matter.

## Duties of Disinfectors.

The disinfectors of the Division carry out the orders for the fumigation of rooms and disinfection of materials, as requested by the Diagnosticians and District Medical Inspectors. Since 1904, fumigations have been performed with formaldehyde gas; eight ounces of a formaldehyde mixture, composed of six parts 40 per cent. formalin and two parts solution of aluminum, are poured over a pound of fresh, unslacked finishing lime, for every 1,000 cubic feet of air space or fraction thereof. This liberates all the formaldehyde gas in about fifteen to twenty minutes, and is entirely safe. The formaldehyde mixture is put up at the Department Station in half-gallon bottles, and the lime in pound cans, tightly covered, ready for use by the disinfectors. Supplies are kept at Central Office, and at the various precinct police stations.

Fumigations ordered by the Diagnosticians are received by telephone at Central Office and noted on "disinfection" cards, and the fumigation cards left in the envelopes at the culture stations by the District Medical Inspectors are collected each afternoon and brought to Central Office that evening.

Each day, at 5.30 a. m., the Disinfectant in charge at Central Office opens these envelopes, checks off the cases to see that the cards correspond with the lists of fumigations ordered by the District Medical Inspectors, arranges them according to location, and distributes the cards to the Disinfectors at 7.30 a. m. These cards are signed by the Disinfectors, and returned at once to the Disinfectant in charge. They are then filed in a card index kept for that purpose. All the fumigations ordered by the Diagnosticians are copied on a separate sheet, and checked off in the same manner as the others. Each Disinfectant supplies himself with sufficient materials to disinfect and fumigate the cases assigned to him, and is ready for his work at 8 a. m. If, for any reason, a Disinfectant cannot fumigate a case as ordered, he must immediately get his instructions by telephone from headquarters, and be guided thereby as to what he shall do. In this way, the man in charge is informed as to what his men are doing, and he knows even before the Disinfectors arrive the next morning just how the work of the previous day stands. A daily report is submitted by each Disinfectant, upon his arrival at headquarters. This report gives in detail the work performed on the day previous. In every case where bedding, carpet, etc., are to be removed for sterilization, the Disinfectant leaves a list of such articles in the room disinfected, together with the "test cards." These are taken by the driver of the "goods" wagon. Another list is mailed to the Disinfecting Station, at the foot of East Sixteenth street, and the collection made accordingly. When the daily reports are received at Central Office, the slips containing the cases are checked off, and the cards signed by the Disinfectors are referred to a Clerk to file in the case envelopes. Where a fumigation has not been performed because sickness has developed since the Inspector's visit, the card is returned to the Inspector, and a memorandum filed, stating why the case was not terminated. Weekly reports are submitted by the Disinfectors and a detailed daily record of the cases fumigated and carried over is kept by the Disinfectant in charge, so that the Chief Medical Inspector may be informed of the work each man is doing. The Disinfectant in charge of the sterilizing plant at the foot of East Sixteenth street submits a daily list of the goods collected. He also notes where they are refused. These reports are checked, and, if necessary, an Officer of the Health Squad is sent to enforce the removal of the goods, in accordance with the rules and regulations of the Department. When the Disinfectors' daily reports are received in the morning, each case is marked with its district number, to insure its proper entry on the daily printed list. A duplicate "bedding list" is made out every morning, and sent to the Disinfecting Station so that it may be compared with the lists sent in by the Disinfectors, and mistakes in address noted. All fumigation orders from the Division of Communicable Diseases for cases of tuberculosis, typhoid fever, cerebro spinal meningitis, etc., are given to the Disinfectant in charge at Central Office, and sent out in the usual way. The disinfection of all stables from which glandered horses have been removed, is ordered on a special card by a Department Veterinarian, the card being left in an envelope at the stable. Disinfectors are detailed for this work. The disinfection is in all cases performed according to the written instructions of the Veterinarian. Flooring and other contaminated woodwork is torn out, and thoroughly disinfected by spraying with a 1-1000 solution of bichloric of mercury. Later, all of this infected material is removed and burned. There are two Disinfectors on duty at night, and three on Sundays and holidays. Their names are posted on the bulletin board, and they are called upon when necessary. In all cases where disinfection or fumigation is refused without adequate reason, a member of the Health Squad is sent to enforce the order.

Before infected rooms are fumigated, all cracks, crevices and openings must be thoroughly sealed with the strips of paper provided by the Department, all infected materials spread about so as to expose the greatest possible surface, and all closet doors and bureau drawers opened. The proper amount of lime is then placed in a pail or suitable vessel, and sufficient formaldehyde solution poured over it; the outer door is then sealed on the outside, and the paster placed upon it, showing when fumigation began, and when rooms can be opened and aired.

115 J—1906

218-184, '06, 18,000 (P)

## DEPARTMENT OF HEALTH.

## THE CITY OF NEW YORK.

## DIVISION OF CONTAGIOUS DISEASES,

Sixth Avenue and Fifty-fifth Street.

New York,.....190..

This apartment was placed under fumigation at.....m., and must remain sealed until.....m., after which hour it may be opened.

THOMAS DARLINGTON, M. D., Commissioner.

EUGENE W. SCHEFFER, Secretary.

Diese Zimmer wurden zum Ausrauchern geschlossen um.....Uhr morgens (Nachmittags) und müssen geschlossen bleiben bis.....Uhr nachmittags (abends). Nach dieser Stunde dürfen die Zimmer geöffnet werden.

Im Auftrage des Sanitäts Rathes.

THOMAS DARLINGTON, M. D., Commissioner.

EUGENE W. SCHEFFER, Secretary.

Questo appartamento e' stato messo sotto fumigazione al.....e deve rimanere serrato sino.....dopo la quale ora potra' venir aperto.

Per ordine del Dipartimento.

THOMAS DARLINGTON, M. D., Commissario.

EUGENE W. SCHEFFER, Segretario.

The Disinfectors, when on duty, wear a uniform, indicating that they are employees of the Department of Health.

Only in private houses may fumigation be performed under the supervision of the Attending Physician. Upon request, an official blank will be furnished, upon which he must note what has been done under his orders, and, if satisfactory to the Department, this will be accepted. After fumigation, mattresses, carpets, etc., will be removed by the Department for sterilization at the Department plant.



117 J—1904

1194, '04, 5,000 (P)

DEPARTMENT OF HEALTH.  
BOROUGH OF MANHATTAN.  
DIVISION OF CONTAGIOUS DISEASES,  
Sixth Avenue and Fifty-fifth Street.

REPORT OF DISINFECTION  
IN A PRIVATE HOUSE.

This certifies that the premises named herein have been disinfected, as noted, and in compliance with the regulations mentioned below.

New York, ..... 190...  
Name of Patient..... Age.....  
Disease..... Duration of Sickness.....  
Residence.....  
No. of rooms disinfected..... No. cubic feet.....  
Disinfectant used: Formalin..... oz.; Sulphur..... lbs.;  
Paraform..... grs. Time room left exposed to disin-  
fectant..... hrs. Disinfecting solution employed.....  
Name..... M. D.  
Residence.....

In every case of disinfection the following regulations must be complied with:

All cracks or crevices in rooms to be disinfected must be sealed or calked, to prevent the escape of the disinfectant.  
The following disinfectants may be used in the quantities named:  
Sulphur, 4 pounds for every 1,000 cubic feet, eight hours' exposure.  
Formalin, 6 ounces for every 1,000 cubic feet, four hours' exposure.  
Paraform, 1 grain to every cubic foot, six hours' exposure.  
Carbolic acid, 2 per cent. to 5 per cent. solution, and Bichloride of Mercury, 1-1000, may be used for disinfecting solutions.  
The Department of Health will remove any goods that may require further disinfection.

Fumigations for	1905.	1906.
Diphtheria .....	24,605	20,861
Scarlet fever .....	25,363	19,663
Measles .....	28,956	45,516

Each day Department wagons remove infected goods (fumigated the previous day in the rooms) to the Department disinfecting plant in East Sixteenth street, where they are sterilized and returned the following day in another set of wagons.

During 1906, 45,436 pieces of goods were sterilized and returned and 18,941 pieces destroyed.

When the Department ambulance or coupe delivers a contagious disease patient to the hospital, it is immediately fumigated by being placed in a tightly closed chamber and exposed to formaldehyde gas for an hour. When a carriage or coupe (not owned by the Department) brings a contagious disease patient to the hospital it is fumigated in the same manner before leaving.

During 1906, 1,844 such fumigations were performed.

The institutional work as carried out under the direction of the Chief Medical Inspector consists of medical and sanitary inspection and systematic collection and compilation of records of contagious diseases. There are at the present time in the Borough of Manhattan nineteen institutions which come under the Public Health Law.

EXTRACTS FROM PUBLIC HEALTH LAW.

Chapter 661, Laws of 1893, as Amended by Section 2, Chapter 667, Laws of 1900.

§ 213. Examination and quarantine of children admitted to institutions for orphans, destitute or vagrant children or juvenile delinquents—Every institution in this State, incorporated for the express purpose of receiving or caring for orphan, vagrant or destitute children or juvenile delinquents, except hospitals, shall have attached thereto a regular physician of its selection, duly licensed under the laws of the State and in good professional standing, whose name and address shall be kept posted conspicuously within such institution near its main entrance. The words "juvenile delinquents" here used shall include all children whose commitment to an institution is authorized by the penal code. The officer of every such institution upon receiving a child therein, by commitment or otherwise, shall, before admitting it to contact with the other inmates, cause it to be examined by such physician, and a written certificate to be given by him, stating whether the child has diphtheria, scarlet fever, measles, whooping cough or any other contagious or infectious disease, especially of the eyes and skin, which might be communicated to other inmates, and specifying the physical and mental condition of the child, the presence of any indication of hereditary or constitutional disease, and any deformity or abnormal condition found upon the examination to exist. No child shall be so admitted until such certificate shall have been furnished, which shall be filed with the commitment or other papers on record in the case by the officers of the institution, who shall, on receiving such child, place it in strict quarantine thereafter from the other inmates until discharged from such quarantine by such physician, who shall thereupon indorse upon the certificate the length of quarantine and the date of discharge therefrom.

§ 214. Monthly examination of inmates and reports—Such physician shall, at least once a month, thoroughly examine and inspect the entire institution, and report in writing, in such form as may be approved by the State Board of Health, to the board of managers or directors of the institution and to the local board of the district or place where the institution is situated, its condition, especially as to its plumbing, sinks, water closets, urinals, privies, dormitories, the physical condition of the children, the existence of any contagious or infectious disease, particularly of the eyes or skin, their food, clothing and cleanliness, and whether the officers of the institution have provided proper and sufficient nurses, orderlies and other attendants of proper capacity to attend to such children to secure to them due and proper care and attention as to their personal cleanliness and health, with such recommendations for the improvement thereof as he may deem proper. Such boards of health shall immediately investigate any complaint against the management of the institution or of the existence of anything therein dangerous to life or health, and, if proven to be well founded, shall cause the evil to be remedied without delay.

§ 215. Beds; ventilation—The beds in every dormitory in such institution shall be separated by a passageway of not less than two feet in width, and so arranged that under each the air shall freely circulate and there shall be adequate ventilation of each bed, and such dormitory shall be furnished with such means of ventilation as the local board of health shall prescribe. In every dormitory six hundred cubic feet of air space shall be provided and allowed for each bed or occupant, and no more beds or occupants shall be permitted than are thus provided for, unless free and adequate means of ventilation exist, approved by the local board of health, and a special permit in writing therefor be granted by such board, specifying the number of beds or cubic air space which shall, under special circumstances, be allowed, which permit shall be kept conspicuously posted in such dormitory. The physician of the institution shall immediately notify in writing the local board of health and the board of managers or directors of the institution of any violation of any provision of this section.

In addition to this number, there are many private or semi-public institutions. The former are incorporated for the purpose of receiving and caring for orphan, vagrant or destitute children, or juvenile delinquents. They send monthly reports to this Department, which reports are referred to the Medical Inspector having charge of the institutional work. This Inspector visits each institution regularly, and if sections 213, 214 and 215 of the Public Health Law are found complied with, the report is indorsed by him and returned to the Chief Medical Inspector. When violations of the Public Health Law or the regulations of this Department are found a report to that effect, with proper recommendation, is appended to the indorsement made upon the monthly report of the institution.

The private or semi-public institutions are visited whenever contagious diseases occur, or when, for some good and sufficient reason, it is thought necessary to inspect them.

When an application for a permit is received from an institution, or when an application for a new permit is made the application is referred to the Inspector of Institutions for inspection and report. The premises are visited by the Inspector, a thorough inspection made and the dormitories measured to determine the number of beds permitted in each, the number being regulated largely by the location of the dormitories and character of the ventilation, the minimum basis being twenty-two and one-half square feet of floor space for each bed or crib or occupant thereof. The measurements of the dormitories in detail with the number of beds allowed in each, are noted on a form provided for that purpose. This is appended to the application, and, with proper indorsement by the Inspector, is then returned to the Chief Medical Inspector, who forwards it to the Assistant Sanitary Superintendent of this borough.

In the case of an old institution making an application for a new permit in consequence of changes in dormitories or removal of institution, the same form is complied with and a special report to the Chief Medical Inspector follows. This report notes the changes in or removal of the institution, and recommends that a new permit be issued in accordance with the specifications contained in the detailed memorandum previously returned.

When an institution removes from this borough, or for any reason is discontinued, a report to that effect, with a recommendation for the revocation of the permit, is made to the Chief Medical Inspector.

The inspection of an institution is made with special reference to sections 213, 214 and 215 of the Public Health Law, particular attention being paid to quarantine and isolation of children admitted to the institution, the regulations of this Department requiring that such children be kept in strict quarantine for a period of not less than fourteen days, the proper isolation of contagious cases such as chicken-pox, mumps, whooping-cough and contagious eye and skin diseases.

The sanitary inspection includes such details as general cleanliness, ventilation, arrangement of beds in dormitories, condition of beds and bedding, particularly mattresses.

Several large institutions have done away with mattresses entirely, and others are considering the advisability of doing so. From a sanitary viewpoint, it would be a good thing if all dormitory mattresses were done away with, particularly those used by small children, as it is next to impossible to keep them in a sanitary condition. When pads and folded blankets are used, it is a very simple matter to wash, fumigate and disinfect them. This, of course, is not easily done in the case of a hair mattress. When wool and other substances are used, the difficulty is increased.

The toilet, bathing and washing facilities are also included in routine inspection. When the toilets, sinks, etc., appear in any way unsatisfactory, a report to that effect recommending a thorough sanitary inspection of the premises is made to the Chief Medical Inspector.

In the washrooms, all sinks, basins, towels, wash-rags, hair brushes, combs and tooth brushes are carefully examined. When the Inspector finds an unusually large number of children in an institution suffering with diseased eyes, he makes a report to the Chief Medical Inspector requesting that an oculist be sent to examine them.

The contagious diseases reported by each institution are referred daily to the Inspector of Institutions and noted on filing cards, with the name and location of the institution, name and age of the patient, disease and disposition of the patient, that is, whether removed to the Department hospital or left at the institution. (Cases of scarlet fever and diphtheria are regularly removed from institutions, unless there are proper facilities for complete isolation.) These cards are filed in a card index, which is kept at the Central Office. At the end of the year all cards are removed and a chart made up showing in detail the cases of contagious diseases reported by institutions for each month of the year. When the monthly medical report of an institution is received, the contagious diseases reported thereon are compared with the particulars on file in this office, and, when a discrepancy is found, as sometimes occurs, the institution is notified immediately, and the necessary correction made. This insures absolute accuracy of these records.

St. John's Orphan Asylum, Forty-third Street and Avenue M.

January 24, 1907: John Williams, 4 years.

Scarlet fever. To W. P. Hospital.

In Asylum 3 days; came from No. 14 Ninth avenue, Hoboken, N. J.

Day Nurseries.

A day nursery is an institution where children from six months to two years of age, sometimes even older, are cared for during the day time while their mothers are employed. The children are usually received between the hours of seven and nine a. m., and kept until evening, when the mothers call for them and take them to their homes. The nursery is in charge of a matron or "house-mother," who is assisted by one or more trained nurses and various other helpers. There are fifty-two day nurseries in this borough, all conducted in accordance with section 25 of the Sanitary Code. When application for a permit to conduct a day nursery is received, it is referred to the Inspector of Institutions, who visits the premises and makes a thorough inspection, paying particular attention to ventilation, toilet, bathing and washing facilities, the arrangement of cribs and beds in sleeping rooms (the floor space of dormitories is limited as in other institutions, minimum twenty-two and one-half square feet).

When everything is found in a satisfactory condition, the application is returned, with an indorsement to that effect and a recommendation that a permit be issued.

All day nurseries applying for permits since January 1, 1905, have been obliged to conform to the following rules and regulations:

"The beds or cribs in all day nurseries in every room in which cribs or beds are used shall be separated by a passageway of not less than two feet, and all the cribs or beds shall be so arranged that under each of them the air shall freely circulate and give adequate ventilation. No more than one occupant shall be allowed for each crib or bed, except that two children of the same family under the age of four years may occupy one crib or bed. All cribs or beds shall be of iron, covered with white enamel paint (or brass, if preferred), and shall be provided with a wire spring mattress, over which may be placed a woolen blanket and such other coverings as may be necessary. No hair, husk or feather mattresses shall be allowed. No less than 22½ square feet of floor space shall be provided and allowed for each bed or crib or occupant thereof.

Before permitting any infant or child to come in contact with the other children who may be present in the nursery, it shall be the duty of the officers to cause a careful physical examination to be made of such infant or child, and if it is found suffering, or has very recently suffered with any contagious or infectious disease, such as diphtheria, scarlet fever, measles, whooping-cough, chicken-pox, small-pox or any other contagious disease, especially of the eyes, skin or scalp, or tubercular disease, which might be communicated to the other inmates thereof, it shall not be admitted. In the cases of diphtheria, scarlet fever, measles, whooping-cough or chicken-pox, it shall be at once isolated and the Division of Contagious Diseases of the Board of Health notified.

For every child admitted, a suitable suit of clothing, the property of the nursery, shall replace that belonging to the child (unless the clothing in which the child is brought in is in a thoroughly clean condition when admitted), to be worn during the day, and the clothing removed from the child shall be disinfected in some efficient manner and thereafter exposed to free air circulation.

No child shall be admitted to the community of others already in the nursery until it has been thoroughly washed and bathed and its head cleaned of all vermin. All underclothing or napkins that may become soiled through the day shall be immediately removed and placed in a tub or proper vessel and washed



and laundered upon the premises. No soiled underclothing shall be allowed to be removed from the nursery in an unclean condition.

All day nurseries existing previous to January 1, 1905, are also required to observe these rules and regulations, with one exception; that is, several of the best nurseries in this borough have always used hair mattresses. These they have been permitted to retain, but only so long as they are in perfect sanitary condition.

All cases of contagious disease reported by hospitals are recorded on filing cards, giving name and location of hospital, name and address of patient, age, disease, duration of illness, disposition of case, length of time in hospital. These cards are referred daily to the Inspector of Institutions and filed in a card index similar to that containing the institution records. They also are removed at the end of the year and all data transferred to a chart, giving the detail for each month of the year.

Bellevue Hospital, foot E. 26th st. Jan. 24, 1907: John Doe, 3 yrs.

Diphtheria. To Reception Hosp. In hosp. 3 weeks. Res., 17 Ave. X.

The following table shows the number of cases of contagious diseases reported during 1900 to 1906:

#### BOROUGH OF MANHATTAN.

	1900.	1901.	1902.	1903.	1904.	1905.	1906.
Smallpox .....	132	1,198	755	30	42	12	48
Scarlet fever .....	3,927	10,113	6,895	6,705	7,747	4,233	4,068
Diphtheria and croup.....	7,230	6,774	9,679	10,568	11,016	7,553	7,444
Measles .....	10,690	7,592	11,645	7,283	17,838	9,495	18,265
Varicella .....	.....	2,036	2,165	2,548	2,124	2,699	2,398

The following table shows (by months) the number of cases of contagious diseases reported to this division during 1906:

Month Ending.	Measles.	Diphtheria.	Scarlet Fever.	Smallpox.	Varicella.	Pertussis.	Mumps.	Glanders.	German Measles.	Total.
1906.										
January 31.....	2,147	806	517	3	435	42	89	..	27	4,066
February 28.....	2,551	852	437	1	388	80	143	..	20	4,472
March 31.....	4,350	970	552	5	368	69	210	..	47	6,571
First quarter.....	9,048	2,628	1,506	9	1,191	191	442	..	94	10,509
April 30.....	3,572	796	546	11	255	59	165	1	52	5,457
May 31.....	2,528	917	625	15	199	70	155	..	113	4,622
June 30.....	1,436	661	337	9	175	107	167	..	65	2,956
Second quarter.....	7,536	2,374	1,508	35	629	236	487	1	230	13,035
July 31.....	623	462	159	2	57	94	3	..	4	1,404
August 31.....	208	298	83	..	23	99	6	..	2	719
September 29.....	136	307	105	..	24	48	9	..	..	629
Third quarter.....	967	1,067	347	2	104	241	18	..	6	2,752
October 31.....	134	404	156	2	58	58	45	1	5	863
November 30.....	207	466	174	..	137	67	58	1	6	1,116
December 31.....	373	505	377	..	279	101	131	1	19	1,786
Fourth quarter.....	714	1,375	707	2	474	226	234	3	30	3,765
Grand total.....	18,265	7,444	4,068	48	2,398	894	1,181	6	360	34,664

#### DIVISION OF CONTAGIOUS DISEASES.

Report of the work of this division for the year ending December 29, 1906.

Number of visits to cases of contagious diseases.....	91,957
Number of cases visited for special diagnosis.....	5,057
Number of visits to tenement houses.....	144,556
Number of visits to hotels.....	460
Number of visits to schools.....	63,050
Number of visits to private houses.....	4,009
Number of visits to not found cases.....	1,144
Number of visits to miscellaneous.....	10,984
Number of visits .....	224,203
Number of primary vaccinations.....	19,621
Number of revaccinations .....	103,117
Total number of vaccinations.....	122,738
Number of certificates of vaccination issued.....	23,974
Number of persons removed to Contagious Disease Hospital....	2,281
Number of dead bodies removed to Morgue.....	50
Number of houses visited for disinfection.....	29,290
Number of rooms disinfected.....	48,301
Number of times ambulances, etc., disinfected.....	1,844
Number of pieces goods disinfected.....	45,436
Number of pieces goods destroyed.....	18,941
Number of animals examined.....	24,482
Number of cases of rabies found.....	3
Number of post-mortems on animals.....	121
Number of horses tested with mallein.....	356
Number of glandered horses condemned and destroyed.....	530
Number of animals examined by agglutination test.....	118
Number of inspections of stables.....	3,476
Total number of visits.....	256,969

Number of houses visited (disinfection performed).....	26,457
Number of houses visited (disinfection postponed).....	2,833
Number of rooms disinfected.....	48,301

#### Number Disinfections for—

Diphtheria .....	5,209
Scarlet fever .....	3,155
Measles .....	13,115
Smallpox .....	43
Tuberculosis .....	3,859
Glanders .....	547
Miscellaneous .....	529
Total .....	26,457

Disinfections under supervision of attending physicians.....	144
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#### Work Performed by Veterinarians.

Number of animals examined.....	24,482
Number of cases rabies found .....	3
Number of post-mortems on animals.....	121
Number of horses tested with mallein.....	356
Number of glandered horses condemned and destroyed.....	530
Number of inspections of stables.....	3,476
Number of animals examined by agglutination test.....	118

#### Work Performed at Disinfecting Station.

Number of times ambulances and other vehicles disinfected.....	1,844
Number of pieces of goods disinfected.....	45,436
Number of pieces of goods destroyed.....	18,941

#### Work Performed by Ambulance Drivers.

Number of persons removed to hospital.....	2,281
Number of bodies removed to Morgue.....	50

	Cases.	Cases for Special Diagnosis.	Tenement Houses.	Hotels.	Schools.	Private Houses.	Not Found.	Miscellaneous.	Total.
Diagnosticians .....	4,721	5,057	2,731	65	30	144	76	1,988	5,034
Medical Inspectors.....	87,236	..	69,488	395	186	3,865	1,068	4,346	79,348
Total Diagnosticians..	4,721	5,057	2,731	65	30	144	76	1,988	5,034
Total Medical Inspectors .....	87,236	..	69,488	395	186	3,865	1,068	4,346	79,348
Grand Total.....	91,957	5,057	72,219	460	216	4,009	1,144	6,334	84,381

#### The Medical Inspection and Examination of School Children.

##### HISTORY.

March, 1897: Appointment of one hundred and fifty Medical Inspectors, at a salary of \$30.00 per month. Morning inspection only required.

September, 1902: System elaborated to include morning inspection, routine weekly inspection of children in the classrooms and visiting of absentees at their homes. Salary of Inspectors increased to \$100.00 per month.

December 1st, 1902: Appointment of a corps of Trained Nurses, at a salary of \$75.00 per month.

December 16th, 1902: Establishment of a Hospital and Dispensary for the exclusive treatment of cases of Trachoma.

March 27th, 1905: Inception of complete physical examination of each school child.

##### OBJECTS.

1. Repeated and systematic inspection and examination of school children to determine the presence of infectious or contagious disease.
2. Exclusion from school attendance of all children affected with acute contagious disease.
3. Subsequent control of the case, with isolation of the patient and disinfection of the living apartments after termination of the illness.
4. Control and treatment of minor contagious affections, permitting the child to remain in attendance at school.
5. Information of unreported cases of contagious disease occurring in school children at their homes.
6. Exclusion from school attendance of those children in whose families there exists a contagious disease.
7. Complete physical examination of each school child for the purpose of determining the existence of non-contagious affections and advising treatment of same.

##### SCHOOLS VISITED.

Public Schools, Parochial Schools, American Female Guardian Society Schools, Children's Aid Society Schools and Kindergartens.

##### FORCE.

1. Assistant Chief Medical Inspector, in charge of work.
2. Corps of Medical Inspectors, all of whom are physicians.
3. Supervising Nurse, in direct charge of the nurses.
4. Corps of Trained Nurses.

##### WORKING PLAN OF THE SYSTEM.

###### Duties of Medical Inspectors.

Each Inspector is assigned to duty in a group of schools.

###### 1. Morning Inspection.

Inspector visits each school in his charge before ten o'clock each morning and examines, in a room set apart for this purpose, the following:

- (a) All children isolated by the teachers as suspected cases of contagious diseases.
- (b) All children who have been absent from school.
- (c) Children returning after previous exclusion.
- (d) Children previously ordered under treatment.
- (e) Children referred by the school nurse for diagnosis.
- (f) All affected children showing no evidence of treatment.

###### Cases to Be Excluded.

- (a) Children showing signs or symptoms of small-pox, diphtheria, scarlet fever, measles, chicken-pox, whooping cough or mumps.

Cultures are taken in all cases of sore throat to determine the presence of the diphtheria bacillus.

Cases of small-pox, scarlet fever and measles are reported, by telephone, to the Central Office, so that a diagnostician may at once visit the case, confirm the diagnosis and order isolation. In these cases a postal card is sent from the Division of Contagious Diseases to the Principal of the school informing him, or her, of the presence of contagious disease, with instructions that no member of the family be allowed to attend school until the termination of the case.



DEPARTMENT OF HEALTH.  
BOROUGH OF MANHATTAN.  
DIVISION OF CONTAGIOUS DISEASES.

New York,.....190

The following-named children, pupils of your school, are exposed to the contagion of.....at.....

SEC. 145. No principal or superintendent of any school, and no parent, master or custodian of any child or minor (having the power and authority to prevent) shall permit any child or minor having scarlet fever, diphtheria (croup), small-pox or any dangerous, infectious or contagious disease, or any child in any family in which any such disease exists or has recently existed, to attend any public or private school until the Board of Health shall have given its permission therefor, nor in any manner to be unnecessarily exposed, or to needlessly expose any other person to the taking or to the infection of any contagious disease.

Chief Medical Inspector.

Reported by

Medical Inspector.

POSTAL CARD.

- (b) Cases of pediculosis, with live pediculi.
- (c) Skin diseases, including ringworm of scalp, face or body, scabies, dormant pediculosis, who have persistently refused to undergo treatment.

Cases to Be Referred to Their Own Physician, a Dispensary or to the School Nurses for Treatment.

- (a) Acute conjunctivitis.
- (b) Pediculosis.
- (c) Skin diseases, including ringworm of scalp, face or body, scabies, favus, impetigo and molluscum contagiosum.

These children are re-examined the following day and allowed to attend school as long as treatment is continued. Children affected with trachoma are referred to their own physician or to a dispensary for treatment, and are allowed to attend school as long as evidence of treatment can be shown.

Each excluded child is furnished with an official exclusion card, properly filled out, as follows:

DEPARTMENT OF HEALTH.  
BOROUGH OF MANHATTAN.

New York,.....190

Name..... Age.....  
Address.....

IS ORDERED TO DISCONTINUE ATTENDANCE AT

School No. ...., located at.....  
Reason .....

Medical Inspector.

(SEE OTHER SIDE.)

EXCLUSION CARD, SHOWING FACE.

Notice to Parents.

The disease mentioned on the other side of this card is a contagious affection and liable to be transmitted to other children. The child should receive prompt treatment by any physician (or at any dispensary), and should return to school ....., 190., for re-examination by the Medical Inspector of the Department of Health. If found free from contagion at this time, he or she may resume attendance at school.

EXCLUSION CARD, SHOWING REVERSE.

Each pupil referred to the Nurse for treatment receives from the Medical Inspector a slip on which is written the code number indicating the diagnosis of its affection.

CODE.

- 1. Diphtheria.
- 2. Pediculosis.
- 3. Tonsillitis.
- 4. Pediculosis.
- 5. Acute Conjunctivitis.
- 6. Pediculosis.
- 7. Trachoma.
- 8. Pediculosis.
- 9. Zero.
- 10. Scarlet Fever.
- 11. Measles.
- 12. Varicella.
- 13. Pertussis.
- 14. Mumps.
- 15. Zero.
- 16. Scabies.
- 17. Ringworm.
- 18. Impetigo.
- 19. Favus.
- 20. Molluscum Contagiosum.
- 21. Acute Coryza.

CODE CARD, SHOWING NUMBERS INDICATING DISEASES.

Cases to Be Readmitted.

Children returning after small-pox, scarlet fever, diphtheria, measles and chicken-pox must present a certificate from the Division of Contagious Diseases before readmittance.

Children returning after mumps and whooping cough may be readmitted at the discretion of the Medical Inspector.

2. Routine Inspection.

At the beginning of each term the Medical Inspector makes a routine examination of each child in the schools in his charge. The eyelids, throat, skin and hair of each pupil are examined. The Inspector is not allowed to touch the child, but the latter is required to pull down its own eyelids, open its mouth, show its hands, and, in the case of girls, lift up its back hair. Individual wooden tongue depressors are furnished by the Department.

All cases of disease are recorded on index cards with the proper data in appropriate columns. Code numbers are always used to indicate the character of the disease.

Cases requiring more extended examination are sent to the Inspector's room at a definite time for that purpose.

All cases of contagious disease discovered are dealt with as indicated in the description of Morning Inspection.

CLASS..... ROOM..... SCHOOL NO.....

NAME	Dis- ease.	Ordered under Treatment	Under Treatment	Excluded	Re-admitted	Remarks
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						

Medical Inspector.

INDEX CARD.

All children ordered under treatment are required to report to the Medical Inspector, at a definite time, the following morning for re-examination. If treatment has been instituted, the fact is recorded on the index card, the child ordered to report at regular intervals and, as long as treatment is necessary and continued, the child is allowed to remain in school. Children showing no evidence of treatment are excluded forthwith.

Each day a record of the number of children examined, with names, addresses and cause of exclusion of each excluded child, is mailed to the Central Office. A duplicate is kept on file at the school. The following is the form of card used for this purpose:

43 K-1906

21A-201, '06, 20,000 (P)

DEPARTMENT OF HEALTH, NEW YORK CITY

School No..... Division of Contagious Diseases, Manhattan  
New York,.....190

To the Assistant Chief Medical Inspector:

Sir: I have examined this day in this School on Morning.....

Routine.....Total.....pupils. Time of { Arrival.....  
Departure.....

Pupils excluded and reasons therefor

NAME	AGE	RESIDENCE	CAUSE OF EXCLUSION

Medical Inspector

DAILY REPORT CARD.

3. Physical Examination of School Children.

After the above duties are completed, the children are ordered to report, in turn, to the Medical Inspector, for a complete physical examination. This work is conducted in a room at least twenty feet long. A complete record of the condition of each child is kept on a card of the following form:

37 K-1906

21A-207, 120,000 (P)

PHYSICAL RECORD.

P. S..... Class..... Date.....  
Name..... Age..... Address.....  
1. Nutr. B. G. 10. Def. Nas. Breath. Y. N.  
2. Enl. Cerv. Gl. { Y. N. 11. Teeth B. G.  
3. Chorea A. P. 12. Deform. Palat. Y. N.  
4. Card. Dis. Y. N. 13. Hyper. Tons. Y. N.  
5. Pulm. Dis. Y. N. 14. P. Nas. Growths Y. N.  
6. Skin Dis. Y. N. 15. Mentality B. G.  
7. Def. { Spine Y. N. 16. Treat. necessary Y. N.  
Chest Y. N. 17. Nationality:  
Extrem. Y. N. Remarks:  
8. Def. Vis. { Subj. Obj. Y. N.  
9. Def. Hear. Y. N. Med. Insp.

PHYSICAL RECORD CARD.

Explanation of Abbreviations:

- "Y" means Yes.
- "N" means No.
- "G" means Good.
- "B" means bad.
- "A" means Anterior.
- "P" means Posterior.

The condition in each case is indicated by crossing out the unnecessary letter.



Each child is thoroughly examined for the following conditions:

Nutrition, enlarged cervical glands, anterior or posterior, cardiac disease, pulmonary disease, skin disease, deformity of spine, chest or extremities, defective vision—Snellen's test cards at 20 feet, also reading tests, defective hearing—whispered voice should be heard at a distance of 20 feet, nasal obstruction—thick nasal discharge or inability to blow the nose, defective teeth, deformity of palate, post nasal growths—to be suspected in any case of defective hearing or nasal occlusion, condition may be determined by inspection, palpation not allowed, mental condition, to be determined by general observation.

In each instance where treatment is deemed necessary, an official card notifying the parents is filled out. These cards and the Physical Record cards of each day are sent to the Central Office with the daily school report.

"This notice does NOT exclude this child from school."

DEPARTMENT OF HEALTH,  
THE CITY OF NEW YORK.

.....190

The parent or guardian of..... is hereby informed that a physical examination of this child seems to show an abnormal condition of the .....  
Remarks:.....

Take this child to your family physician for treatment and advice. Take this card with you to the family physician.

THOMAS DARLINGTON, M. D.,  
Commissioner of Health.

HERMANN M. BIGGS, M. D.,  
General Medical Officer.

PARENTS NOTIFICATION CARD.

4. Absentee Visiting.

The Inspector obtains from the Principal of the school, each day, a list of all children who have been absent from school for several days for any unassigned cause. These children are visited at their homes, and a list of the names, ages and addresses of all cases of contagious diseases discovered is sent, each day, with the school report, to the Central Office.

Weekly Report.

A weekly report of all work performed is sent to the Central Office. This report contains date, schools and location of same visited each day, residences visited and name of each child found with a contagious disease at its home address.

DUTIES OF SUPERVISING NURSE.

The Supervising Nurse has entire charge of all of the Nurses. She assigns the nurses to duty at certain schools, sees that necessary supplies are furnished, instructs the Nurses in their duties, inspects their work, receives their reports of work performed and keeps a record of all examinations, treatments and diseases treated by each nurse in each school.

DUTIES OF SCHOOL NURSES.

Each Nurse is assigned to a group of schools. She reports each day at each school, at a certain specified time.

1. Morning Inspection.

In a special room, assigned for the purpose, the Nurse receives all children ordered to report to her for treatment. These cases include pediculosis, ringworm, scabies, favus, impetigo, molluscum, contagiosum and conjunctivitis. The treatment used for these conditions is as follows:

Pediculosis: Children are assembled in groups and are instructed orally, and by means of circulars printed in a language suited to the nationality of the child, as to the methods of home treatment. These cases are not treated in the schools. Treatment advised is as follows: Live pediculi—Saturate the hair with equal parts of kerosene and sweet oil; next day wash with solution of potassium carbonate (one teaspoonful to one quart of water), followed by soap and water.

"Nits": To remove "nits" use hot vinegar or actually remove from hair by hand.

Favus and Ringworm of Scalp: Mild cases, scrub with Tr. Green Soap, remove hair, cover with Flexible Collodion. Severe cases, scrub with Tr. Green Soap, remove hair, paint with Tr. Iodine and cover with Flexible Collodion.

Ringworm of Face and Body: Wash with Tr. Green Soap and cover with Flexible Collodion.

Scabies: Scrub with Tr. Green Soap, apply Sulphur Ointment.

Impetigo: Remove crusts with Tr. Green Soap, apply White Precipitate Ointment.

Molluscum Contagiosum: Express contents, apply Tr. Iodine with toothpick wound with cotton.

Conjunctivitis: Irrigate with saturated solution of Boric Acid.

Cases to Be Visited by the Nurse at the Home of the Children.

1. Flagrant cases of pediculosis. The Nurse shows the mother how to treat the condition and encourages persistence.

2. Excluded cases who do not return at the appointed time.

3. Trachoma cases where treatment is not sought regularly. The Nurse urges the need of treatment, and, if necessary, takes the child to a dispensary.

The Nurse is not allowed to treat cases of trachoma. Children so affected must report to the Nurse each week and show a physician's certificate or dispensary card, properly dated, showing evidence that the child is continuously under treatment. Persistent failure to show such evidence is cause for exclusion.

2. Routine Inspection.

When Morning Inspection has been completed, the Nurse visits the classrooms and makes a weekly routine inspection of the eyelids, hair, skin and throat of each pupil. The method pursued is that given under the Duties of the Medical Inspector, Routine Inspection.

The nurses keep a special set of index cards. All cases of contagious disease found, are noted on these cards. Special cards are kept for the recording of all cases of pediculosis, these cases are under the exclusive care of the nurse. Other cases are noted and ordered to report to the Medical Inspector for the purpose of confirming the diagnosis. The nurse must exclude all children showing symptoms of diphtheria, scarlet fever, measles, whooping cough, chicken-pox or mumps, and if the Inspector is not in the school to confirm the diagnosis, telephone the name and address of each excluded child to the Central Office. An Inspector is then sent to the home of the child and takes further charge of the case.

The nurse forwards each day to the Supervising Nurse, a record of the work performed that day, including:

Number of Children Examined.

Number of Children Excluded.

Number of Children Treated.

Number and Character of Diseases Treated.

Number of Visits made to Children at their Homes.

The nurse also sends to the Supervising Nurse, each week, a report giving the total amount and character of the work performed during the week.

The Department of Health maintains one Hospital and two Dispensaries for the treatment of trachoma. A Dispensary is situated at Gouverneur Slip and a Hospital and Dispensary at the corner of One Hundred and Eighteenth street and Pleasant avenue, Borough of Manhattan. All cases of trachoma not under the care of a private physician are referred for treatment to these hospitals and dispensaries by the Medical Inspector or School Nurse. The date of each treatment is stamped on a special card and the Inspector or Nurse is thus enabled to determine if the child is regularly under treatment.

Tables showing the amount and character of the work performed by the Medical Inspectors and Nurses during the past four years, in all of the Boroughs of New York City, are appended herewith.

Table of Work Performed by Medical Inspectors of Schools in All Boroughs, City of New York, 1903, 1904, 1905 and 1906.

	1903.	1904.	1905.	1906.
Number of visits to schools.....	103,301	101,566	88,964	88,813
Number of children examined .....	11,301,691	12,236,050	6,285,435	5,007,244
Number of children excluded .....	65,294	25,369	18,844	12,895

Reasons for Exclusion.

	1903.	1904.	1905.	1906.
Measles .....	250	1,172	312	377
Diphtheria .....	530	155	74	77
Scarlet fever .....	66	55	47	43
Whooping cough .....	364	187	351	319
Contagious eye diseases.....	32,525	10,624	8,833	5,845
Pediculosis .....	21,100	8,717	4,692	2,155
Chicken pox .....	909	780	937	669
Contagious skin diseases.....	4,029	2,123	2,018	1,616
Miscellaneous .....	5,521	1,556	1,580	1,794
Total.....	65,294	25,369	18,844	12,895

Table of Physical Record of Children.

	1905.*	1906.
Total number of children examined.....	55,332	78,401
Number of cases of bad nutrition.....	3,283	4,921
Number of cases of diseased anterior cervical glands.....	14,214	29,177
Number of cases of diseased posterior cervical glands.....	3,047	8,664
Number of cases of chorea.....	738	1,380
Number of cases of cardiac disease.....	895	1,096
Number of cases of pulmonary disease.....	600	757
Number of cases of skin disease.....	989	1,558
Number of cases of deformity of spine.....	485	424
Number of cases of deformity of chest.....	401	261
Number of cases of deformity of extremities.....	498	550
Number of cases of defective vision.....	16,394	17,928
Number of cases of defective hearing.....	1,296	869
Number of cases of obstructed nasal breathing.....	6,182	11,314
Number of cases of defective teeth.....	18,182	39,597
Number of cases of deformed palate.....	698	831
Number of cases of hypertrophied tonsils.....	8,347	18,306
Number of cases of posterior nasal growths.....	5,119	9,438
Number of cases of defective mentality.....	1,210	1,857
Number of cases where treatment was necessary.....	33,551	56,259
†Nationality—		
Native .....		18,125
Foreign .....		37,234
Not obtained .....		900

\* From March 27 to December 23, 1905.

† Only obtained in cases where treatment was necessary.

Table of Absentee Visiting.

	1904.	1905.	1906.
Measles .....	613	284	1,080
Diphtheria .....	7	4	6
Scarlet fever .....	57	34	56
Whooping cough .....	35	82	162
Mumps .....	45	66	228
Chicken pox .....	103	146	232
Typhoid fever .....	1	1	3
Tuberculosis .....		1	2
Erysipelas .....		2	....
Meningitis .....		3	....
Total.....	861	623	1,789



Table of Work Performed at Eye Hospital and Dispensaries.

	1903.	1904.	1905.	1906.
Number of cases treated by operation.....	4,337	1,729	1,460	1,385
Number of cases treated without operation.....	11,399	7,775	9,223	8,171
Total number of children treated.....	15,736	9,504	10,682	19,556
Total number of visits made for subsequent treatments....	129,830	122,628	161,644	177,161
Total number of treatments.....	145,566	132,132	172,327	187,717
Number of children not having trachoma, examined.....	3,121	1,815	3,222	6,141

Table of Work Performed by the Nurses.

	1903.	1904.	1905.	1906.
Number of visits to schools.....	16,095	27,010	25,943	27,097
Number of visits to tenement houses.....	16,218	26,703	40,070	41,504
Number of visits, miscellaneous.....	293	1,046	1,344	1,597
Total number of visits.....	32,606	54,759	67,357	70,198

Number of Cases Treated.

	1903.	1904.	1905.	1906.
Pediculosis .....	205,023	509,142	616,384	706,600
Contagious eye diseases.....	151,855	204,277	268,855	365,875
Contagious skin diseases.....	16,905	24,151	40,052	58,929
Miscellaneous .....	23,537	45,112	50,801	61,624
Total number of treatments.....	397,320	782,682	976,092	1,193,028

A Report of the Ophthalmological Work of the Department of Health, 1906, in Which is Included a Description of the Methods of Treatment Employed by the Department in Cases of Trachoma, and some Deductions as to the Comparative Value of Different Methods.

## BOROUGH OF MANHATTAN.

Before considering in detail the ophthalmological work, performed by the Department during the year 1906, a short review of this work from its commencement would seem to be desirable.

In December, 1902, the Department of Health commenced the systematic treatment of cases of trachoma occurring in the schools and occupied for this purpose the old building of Gouverneur Hospital. The work in the old Gouverneur Hospital was continued until May, 1904, when this building was torn down and the Department was forced to vacate. Since that time, the work in this locality has been continued in two portable frame houses, situated on Gouverneur slip. During the period that the Department occupied the old Gouverneur Hospital building many operations were performed upon these cases, but, with the removal to the portable houses, operative work ceased and since that time the Department has been able to treat trachoma only by non-operative measures in that part of the City. In March, 1904, the Department opened a hospital at One Hundred and Eighteenth street and Pleasant avenue, in which operations were resumed. The following are the figures for the institution in Gouverneur street, from its commencement in Gouverneur Hospital to the present time. The small number of operations in 1904 was due to their discontinuance during the early part of that year.

1902 (Commencing December 16).

Cases treated by operation.....	127
Cases treated without operation.....	976

1903.

Cases treated by operation.....	4,369
Cases treated without operation.....	16,987

1904.

Cases treated by operation.....	543
Cases treated without operation.....	4,509

1905.

Cases treated (without operation).....	7,483
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1906.

Cases treated (without operation).....	6,179
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In the foregoing tables are included only cases of trachoma, giving a total of cases treated by operation, 5,039, and without operation, 36,134.

During this period, 9,640 cases of contagious eye diseases other than trachoma, were also treated. The number of revisits amounted in:

1902 .....	1,412
1903 .....	131,031
1904 .....	87,782
1905 .....	120,220
1906 .....	125,205

In this table of revisits are included all cases of contagious eye diseases, whether trachoma or not. The total number of revisits for the years mentioned reaches the enormous figures of 465,650.

The figures of the hospital for Contagious Eye Diseases, at One Hundred and Eighteenth street and Pleasant avenue, are as follows:

1904 (March to December).

Number of cases treated by operation.....	1,063
Number of cases treated without operation.....	3,153

1905.

Number of cases treated by operation.....	1,460
Number of cases treated without operation.....	3,200

1906.

Number of cases treated by operation.....	1,385
Number of cases treated without operation.....	4,377

Total number of cases treated by operation.....	4,908
Total number of cases treated without operation.....	10,730

(This table comprises only cases of trachoma.)

During this period 2,398 cases of contagious eye diseases other than trachoma were treated. The number of revisits of all cases was as follows:

1904 .....	33,703
1905 .....	41,424
1906 .....	51,956
Total .....	127,083

At the commencement of the year 1906 the department, therefore, had at its disposal for the treatment of Contagious Eye Diseases in school children a hospital of twenty beds, situated at One Hundred and Eighteenth street and Pleasant avenue, and a dispensary situated at the foot of Gouverneur slip. The medical staff of these two institutions consists of eight physicians, all of whom are qualified oculists and have been connected with one or other of the established eye hospitals in this city, and two physicians who are experienced anaesthetists. The hospital at One Hundred and Eighteenth street is fully equipped for the operative treatment of trachoma, and in addition affords space for the daily treatment in the clinic of cases in which operation is not considered desirable and for the continuous after-treatment of patients upon whom operations have been performed. The dispensary at the foot of Gouverneur slip has no operative service. It is equipped only for the treatment of patients living in that locality who have been operated upon at the hospital in One Hundred and Eighteenth street, and for the treatment of school children in the vicinity upon whom operations have not been deemed essential. Its most important function, perhaps, consists in its affording a place in which operative cases can be selected and from which they can be transferred to the hospital at One Hundred and Eighteenth street.

In order fully to understand the procedures adopted by the department in cases of trachoma occurring in the schools we must begin with the work of the School Inspectors. With them rests the detection of the cases and the primary diagnosis. While these Inspectors are all physicians they are not oculists, and their diagnosis is only tentative, but while not possessing a complete training in eye diseases, all these Inspectors have received special instruction in the diagnosis of trachoma, either at the department eye hospitals or at the New York Eye and Ear Infirmary. Let us follow a case from its detection in the schools to its final discharge from the hospital when cured. A card stating that the child has a contagious affection of the eyes and recommending that he be placed under treatment is given by the School Inspector. This does not mean that the department demands that the patient shall go to one of its own institutions. The department simply insists that unless he be placed under treatment he may not attend school. The patient may be treated by his own physician, by any oculist or at any eye hospital or dispensary. Nor does the department attempt to prescribe the method of treatment that shall be followed. It does not insist upon operative procedures in any case, and any of the recognized methods of treatment will suffice. In case the treatment is instituted by the family physician a certificate from him to that effect will admit the patient to school during the continuance of his treatment, and if the treatment be undertaken by any hospital or dispensary other than those of the department, the card of the institution, stamped with the dates of his visits, will permit the patient to attend school. In cases in which the family physician disagrees with the Inspector as to the diagnosis the case is referred to the Ophthalmologist of the department. If the patient seek advice at one of the hospitals of the department the diagnosis of the School Inspector is then confirmed or reversed, as the case may be, by the physician in charge of the clinic. This physician, as has been stated, is a qualified oculist, and he either recommends operation or treats the case by non-operative measures according to his judgment. If operation be deemed advisable the child is directed to bring one of his parents to the hospital, and if the parents consent the child is operated upon, after having again been examined by the operator. It will thus be seen that no case of trachoma is submitted to operation unless the diagnosis has been concurred in by three physicians, the School Inspector, the physician in the clinic and the surgeon who operates. A child admitted for operation is detained in the hospital for the twelve hours preceding. This is to ensure an empty stomach, the operation always being performed under general anaesthesia. He is not discharged until forty-eight hours later. This is in order that all reaction may subside and to afford time for the separation of adhesions, if these be present. Cases in which reaction is violent or those in which adhesions are more than usually persistent are detained as long as may be necessary. After discharge the patient attends the morning clinic daily, in order that a permanent separation of the adhesions may be effected and that any secretion which may persist may be checked. In order that he may attend school the patient is transferred later to the afternoon clinic for subsequent treatment, which is continued a certain number of times weekly until all hypertrophy of the mucous membrane shall have disappeared. He is then discharged as cured, but is requested to report at the hospital once a month for observation, and this he usually does.

Considering the large amount of material that has been at the department's disposal for the last three years, it may not be out of place in this report to describe the methods of treatment, operative and non-operative, employed by the department; to state so far as is possible the results, good and bad, that have resulted, and to make such deductions as may seem justifiable. The non-operative treatment of uncomplicated cases consists at present, as it has consisted for the last three years, solely in the application of sulphate of copper.

The employment of sulphate of copper has seemed justified by the comparative results observed in over 3,000 cases treated by sulphate of copper, bichloride of mercury and formalin. These substances were tested side by side for a period of six months, at the end of which time, sulphate of copper gave by far the best results. The further conclusion drawn was that the action of the sulphate of copper was due solely to its caustic properties. Bichloride of mercury and formalin were not sufficiently effective as caustics, and the beneficial action of their antiseptic properties was not apparent. In fact, bichloride of mercury 1-500 and formalin 1-20,000 seemed to be of very slight value, and such benefits as were derived from their use appeared to be due for the most part to the friction employed during their application. The consensus of opinion of the physicians in attendance, was that the same result would probably have been obtained if a solution of boric acid had been substituted. Cocaine has been employed from time to time in the Department's clinics in order, if possible, to make these applications less painful. In the majority of cases, it has completely failed in this direction, and the results obtained did not seem to justify the time employed in its instillation and the expense attending its use. Non-operative treatment should be restricted for the most part to cases presenting large superficial follicles, the so-called "frog spawn" type, unaccompanied by marked hypertrophy. In these cases, the results are often exceedingly satisfactory even when the follicles are very numerous. Cases presenting for the most part, hard, small granules, trachoma vera of Alt, are slowly and but slightly influenced by this method of treatment, and in the opinion of the writer it is, in such cases, a waste of time.

The operative procedure employed by the Department consists of "expression," without previous scarification. Scarification alone, in recent cases, is to be condemned. It can only cause the removal of the superficial follicles, while it produces a certain amount of destruction of the mucous membrane and tends to the marked formation of cicatricial tissue. Employed with expression, it is undesirable for the same reasons, and, except in very rare cases, is absolutely unnecessary. In the operation of expression, Prince's, Noyes' and Knapp's forceps have been used. For the past two years, reliance has been placed almost solely upon those of Knapp. The two former express the granules by a method in which lateral stripping of the membrane plays an important part. In mild and superficial cases, they answer their purpose perfectly well, but, when the follicles are deeply seated, the force required for their removal by means of this stripping action is apt to inflict serious damage upon the conjunctiva, to denude it of its epithelium, and to leave a condition of sclerosis, and tends in addition, to make the resulting adhesions dense and unyielding. The pressure exerted vertically by Knapp's roller forceps seems to effect all that their author claims, and, by their use, the granules are most thoroughly expressed and with the least possible trauma. In the canthi, in which situation the granules are apt to be for the most part superficial, Prince's forceps may be advantageously employed. The forceps of Noyes' are at present used almost entirely for the purpose of everting the lids, although the



employment of any instrument for this purpose is only exceptionally necessary when the operator is expert.

The success of an operation for trachoma depends largely upon the personal equation of the operator and upon the character and duration of the after treatment. Carefully performed by a painstaking, conscientious man who understands his work, and supplemented by treatment of an appropriate character prolonged for a proper length of time, it is as generally successful as most of the more important operations of ophthalmic surgery. Under such circumstances, this operation even in hospital practice should result in about 70 per cent. of cures, and in private practice the number of cures should probably be greater. Lack of a proper appreciation of the true conditions that obtain in this disease is responsible for much careless and too rapid operating, of a nature not sufficiently thorough. The very general impression among surgeons that the operation is always easy, that it should not take more than four or five minutes and that it is worthy only of the attention of an inexperienced junior member of a hospital staff is largely responsible for many of the bad results that are obtained and for the bad reputation that the operation has acquired with many. Above every other consideration, the operation should be thorough. It should not terminate until every visible granule has been removed, and until the membrane held is thin and translucent. It is most desirable that this should be accomplished without tearing the conjunctiva or unnecessarily denuding it of its epithelium. It is only with the Knapp's forceps that these results can be obtained in deeply infiltrated cases and, in such cases, the operation may very well take twenty minutes in the hands of an expert. In regard to the infliction of trauma, the main point is not to tear the conjunctiva, but if necessary, the forceps should be rolled over the membrane again and again and considerable vertical pressure should be exerted until all the granules have been expressed not only from the surface but from the deeper parts. The practice of discontinuing the operation when the surface feels smooth to the finger cannot be too strongly condemned.

The use of the bandage has been discontinued at the Department's hospitals and cold applications are used instead, for twelve hours in most cases and longer if oedema of the lids should persist. The bandage while probably limiting the oedema in many cases, seems to increase the density of the adhesions. Cold applications seem to give entire satisfaction. Adhesions are separated every twelve hours during the two days that the child remains in the hospital. In most cases, their tendency to reform to any extent, ceases at the end of this time. If they persist, they are separated in the morning clinic each day, for as long as may be necessary. Much has been said in relation to the infliction of trauma and the resulting formation of adhesions. Undoubtedly, the number and density of the adhesions are very generally proportionate to the amount of trauma inflicted, but, if in deeply infiltrated cases, a certain amount of bruising short of tearing the conjunctiva is necessary for the complete removal of the granules, the requisite amount of trauma should be inflicted and the resulting complications treated as they arise. Adhesions, for the most part, when not due to tears of the conjunctiva, can be separated and can be kept separated and, in the few cases in which they cannot, a slight adhesion remaining is not usually productive of any permanent ill results. The writer has seen but one case of entropion due directly to an operation for trachoma. In this case, the conjunctiva contained many dense adhesions, but the child had been sent home immediately after operation and had never returned for subsequent treatment. Adhesions due to tears are, of course, more serious than those due to the agglutination of the temporarily denuded surfaces of the membrane, but it sometimes happens that division of the resulting band, when it is unattached in some part of its course, will give an excellent result. To conclude the consideration of the operation itself, it may be stated that, while gentleness in operating upon mucous membrane is always desirable, an operation for trachoma above everything else should remove all the trachoma granules.

Except in very mild and superficial cases, the operation should be performed under ether or chloroform. Nitrous oxide gas alone should never be employed. It cannot be relied upon to maintain anaesthesia with safety for prolonged periods, and the congestion which it causes is productive of excessive hemorrhage which obscures the site of the operation and very materially embarrasses the operator.

For the first few days following operation the silver salts are usually employed, until such secretion as may exist has been checked. The patient then returns to the hospital twice or thrice weekly for the application of the sulphate of copper. This treatment is continued until all hypertrophy has disappeared and the membrane presents a normal appearance. When the operation has been properly performed and the after treatment has been persistently carried out, the results are, as has been already stated, very generally satisfactory. It is indeed most gratifying to observe a case in which, previous to the operation, the membrane has been studded and infiltrated with hard granules, presenting after a few weeks an appearance frequently differing not at all from the normal. Such cases are exceedingly common. Others, perhaps, will present, upon close inspection, a few cicatrices, and cases with one or two slight permanent adhesions sometimes occur, but, as already stated, these abnormalities in the conjunctiva, when but slightly marked, do no harm, although they are, of course, to be avoided as much as possible.

The patients who live in the vicinity of One Hundred and Eighteenth street return to the hospital for after treatment; those living in the lower part of the city, to the dispensary at Gouverneur slip. The final results in the former are somewhat better than in the latter, for the reason that the former are as a rule much the more persistent in attending to after treatment, and their smaller number renders them much more easy to manage by the School Inspectors upon whom the responsibility of enforcing the subsequent visits largely depends.

Cases of pannus are sometimes met with. These are treated by the ordinary methods. In addition to expression, atropin and hot applications are employed, and canthotomy when necessary. Canthotomies in these cases are often followed by very excellent results. In cases of pannus, in which the granules have been replaced by cicatricial tissue, linear scarifications repeated twice or thrice weekly are of decided benefit. If in examining his cases before operating an active pannus is discovered by the operator, he very generally defers operation until the acuter symptoms have subsided. In cases with considerable secretion operation is also deferred until the secretion has been checked, for otherwise excessive reaction is very liable to follow.

There is a peculiar form of ulcerative keratitis which sometimes follows an operation for trachoma, and which may occur even when the operation has been apparently most carefully performed. It has occurred several times at the department's hospital, and has been as frequently observed in cases that have been operated upon at other institutions. The keratitis is most probably due to infection of a minute abrasion of the cornea, but it must be stated that it has occurred in cases in which the cornea, examined by the oblique focal illumination both before and after the operation, has revealed no abrasion. These cases are apt to be serious, and the ulcerative process may require cauterization before it is checked.

The records of the Trachoma Hospital show one eye lost in about 20,000 eyes operated upon. In this case the patient had been discharged in apparently good condition after operation and returned two days later. The eye was then secreting profusely, the secretion being loaded with streptococci and a fibrinous exudate was present. There was a sloughing corneal ulcer. In spite of treatment the whole cornea sloughed, and the eye was lost. The case did not differ in appearance from those diphtheritic cases described by Fuchs, in which streptococci are found instead of the Loeffler bacillus. In these cases Fuchs states that the prognosis for the eye is practically hopeless, and this statement the writer has unfortunately had ample opportunity to confirm. The infection probably took place in the child's home. It is of course possible that if this case had been retained in the hospital longer infection might not have occurred. This gives an eye mortality under the department's method of about 1-200 of 1 per cent.

In the 10,000 patients operated upon no death has occurred from the anaesthetic, and in the last two years it has not been necessary to administer oxygen or stimulants in a single case. Ether, preceded by nitrous oxide gas, has been generally employed. Chloroform is used in cases with kidney lesions. The condition of the heart, lungs and kidneys is always determined before operation. The average amount of ether used in each case is about two ounces. Expression under local cocaine anaesthesia has been tried, cocaine in substance and in solution having been employed. Except very mild cases the results have not been satisfactory. Ethyl chloride given by an anaesthetist accustomed to its use produced dangerous symptoms in two cases, and after a short trial its use was abandoned.

In speaking of the results achieved by the City in the treatment of trachoma it is very difficult to give satisfaction by means of figures. Many cases change their residence and disappear from observation, and many relapses are doubtless operated upon at other institutions. An attempt was made during the present year to report upon the condition of 700 cases selected indiscriminately from among those operated upon during the two previous years. These cases lived in widely separated parts of the city, and the tracing of them was exceedingly difficult. Less than 300 could be found, and the results in these showed 71 per cent. of cures, the word "cure" meaning that no follicles and no hypertrophies existed. Still, these figures give a very inadequate idea of the permanency of the results, for the length of time elapsing between the examination and the operation, varied very greatly in the individual cases, and no attempt was made to distinguish the cases that had been mild and those that had been severe in character. However, as representing the gross results in cases selected indiscriminately from those operated upon during a certain period, these figures are certainly to be regarded as encouraging. Perhaps the best judgment of the results of the department's work is to be found from the following more general statement. First, the number of cases in the schools, in spite of the continued infection from the tenements, is decidedly diminished. Secondly, cases of trachoma are much less numerous in the eye hospitals of this city than they formerly were, and the number of advanced cases and of those requiring operation is very materially less. Thirdly, the number of cases found in the public baths during the past summer was not one-third of that found two summers ago. In view of these facts it would not seem too much to state that the number of cases of trachoma, and particularly of the bad cases, in New York City has very much diminished since the department began its work four years ago, and it is perhaps not too much to hope that with greater hospital facilities, which are sadly needed, with a closer inspection of the public baths, and possibly with the dissemination of instructive literature among the families of those afflicted, trachoma in New York City could in a few years be reduced to a very inconsiderable factor.

Examination of the visual acuity of 1,000 school children, instituted in 1904, shows that in about 30 per cent. vision was defective in one or both eyes. In consequence of this result, the further examination of all school children was recommended. This work has been carried on up to the present time by the School Inspectors, and the results obtained and the methods employed will be found in another part of this report.

In April, 1905, the attention of the Department was called to the possibility of limiting the deleterious results which so frequently follow ophthalmia neonatorum, occurring in the practice of midwives. The reporting of such cases to the Department was insisted upon, and each case reported was visited by an Inspector, who informed the parents of the destructive nature of the affection and advised them to place the infant under the care of some qualified physician or to take it for daily treatment to some institution. Midwives were instructed by circular in the treatment of Crede, and were informed that the nitrate of silver solution would be provided gratis at the Department. The results of these methods have apparently been very satisfactory. Many cases were reported and many midwives applied to the Department for Crede's solution which, considering the fact that requests for it are still frequently made, must be in very general use. It is very certain that these measures have been productive of the utmost good, although it is for obvious reasons, difficult to give figures in this connection. The cases of eye disease occurring in the scarlet fever, measles, diphtheria and small-pox hospitals during the year 1906 deserve a passing notice. The case of diphtheritic conjunctivitis are very properly divided into those in which the Loeffler bacillus and those in which the streptococcus predominates. In the former class of cases the prognosis has been found to be fairly good. They are characterized clinically by the classical brawny infiltration of the lids, by the lardaceous appearance of the conjunctiva, the scantiness of secretion, and the presence of membranous exudate which is frequently very well marked. The treatment has consisted in antitoxin, canthotomy, atropine and hot applications when the cornea became involved. Under this treatment, the very general rule has been that the eye has been saved if the patient continue to live. Antitoxin appears to be of unquestioned value. The disease may be primary, it may follow an affection of the throat or nose, or when primary, it may be succeeded by an affection of these cavities. The streptococcal type is characterized clinically by less swelling and infiltration of the lid, less tendency to membranous formation on the lids, more profuse secretion and a marked tendency to involvement of the cornea with consequent perforation and loss of the eye. The prognosis so far as the eye is concerned is practically fatal.

Cases of dacryo-cystitis have occurred in cases of diphtheria, measles and small-pox. They have been treated in the usual way and the results have been very good.

The corneal affections occurring in measles have been observed to differ very greatly in severity, in different series of cases. Frequently enough the ordinary treatment by means of atropine and hot water, followed later by the yellow oxide ointment has given excellent results. In other cases, the ulcerations have only been checked by the actual cautery. Two such eyes have been lost. In other cases, the infants were markedly marasmic.

Hypopyon keratitis occurring in cases of small-pox has generally resulted in the loss of the eyes. One case was, however, saved by cauterization and paracentesis. The case recovered with a large central leucoma but sufficient of the cornea remained clear to enable an artificial pupil to be satisfactorily made.

#### REPORT OF INVESTIGATION CONCERNING THE SUBWAY TUNNEL.

##### BOROUGH OF MANHATTAN.

1. This tunnel is to be the extension of the subway, and will when completed reach from the Battery, Manhattan, to the foot of Joralemon street, Brooklyn, passing under the East river. The boring operations are now nearly completed, only about 60 feet of sand separating the shields which are being driven from the Brooklyn side from those worked from the Manhattan end.

2. The tunnel will consist of two separate, single track tubes, each 15½ feet in diameter and about 6,000 feet long. They are being constructed in the usual manner, by means of segmental iron rings built up and bolted together from the inside. The work now proceeding is at a point approximately midway between the Manhattan and Brooklyn shafts, and about 76 feet below the surface of the river. The material being excavated is sand, although a considerable part of the work has been through rock.

3. The contract is part of that let by the City to J. McDonald, but the sub-contractor responsible for this part of the work is the New York Tunnel Company, of No. 42 Wall street.

4. The methods of working practically duplicate those in vogue at the other tunnels on which we have previously reported. The only novel feature is that the only part of the tubes where air pressure is maintained is at the portions 200 or 300 feet behind the shields, the rest of the tubes being complete except for laying the tracks. It is thus possible to descend the shaft at the Battery, for instance, and walk more than 2,000 feet out under the river, surrounded only by ordinary atmospheric pressure; and communicating passages have been broken from one tube to the other through the rocky part of the river bed in several places, so that it is easy to pass from one tube to the other without going back to the shaft.

5. We found the air locks located about 2,300 feet from the bottom of the shaft. At the time of inspection the air pressure was 38 pounds. Each tube has only two air locks, an upper which is used only as an emergency lock, and a large lower lock used both for a muck lock and for the passage of the men. They are not provided with pressure gauges, time pieces nor thermometers. A lock tender was found on duty at this point, but the air pressure was regulated from within the lock by members of the party. We timed one party coming out, and 20 minutes were consumed in the passage out of the pressure.

These locks are connected with a warming apparatus, which warms the air in the locks when a party is coming out, thus removing the chill due to the expansion of the air. In this respect the warmers perform a useful function. But the coal fires used in operating them give off a large amount of noxious gases, which vitiate the air in the completed portions of the tubes outside of the pressure. When these fires are burning, it is almost impossible to breathe in the upper part of the tubes near the air locks.

6. The medical supervision of the men working in this tunnel, of whom there are between 500 and 600, is left entirely to the labor union. The physician of the labor union certifies the fitness of the men to work, and they are then put to work without further examination on the part of the contractors. The labor union also provides the lock tenders. There is no physician in attendance at the top of the shaft, reliance



being placed on medical aid summoned when required. A room is set apart for workmen who may become afflicted with caisson disease, however, and this room is provided with a medical lock. The hours of work are divided as follows: Two hours' work, then four hours' rest, then two hours' more work. This constitutes a shift. No medical rules are found posted. The usual supply of hot coffee is provided, but none of the workmen were found availing themselves of it.

REPORT OF CONDITIONS RELATING TO PERSONAL SAFETY IN THE CONSTRUCTION OF THE SUBWAY TUNNEL.

On June 26 a communication was received from the Chief Clerk of the Coroner's office, stating that an inquest had been held to ascertain the cause of death of Galina Weikkola.

The Coroner's jury, after investigation, came to the conclusion that the said Galina Weikkola came to his death on the 29th of May, 1906, by air embolism, the "bends." Furthermore, the jury censured the Contractors, S. Pierson & Son, for not giving the man a proper physical examination before allowing him to go to work.

An investigation was made by two very competent Inspectors of this Department concerning the conditions said to obtain in these two tunnels.

In regard to the first statement that a proper physical examination was not given before allowing the men to go to work, it was found that all applicants were given a full physical examination, and were rejected if not in good physical condition. Upon passing this examination each applicant is given a badge or pass, which he is required to show before entering the lock and commencing work. Signs in many different languages are posted in various parts of the tunnel and rooms where the workmen congregate, explaining the dangers of working under compressed air without physical examination, and other definite precautions.

Regarding the second statement that the workmen are allowed to pass in and out of the locks too rapidly, it was found that five minutes were allowed for the pressure in the lock to become equal to that in the tunnel, and that fourteen minutes were allowed to elapse in coming out of the tunnel, or before the pressure in the lock equaled the pressure of the external air. These times are customarily allowed in all tunnel work under the pressure existing at this particular situation.

Regarding the third statement that there were no proper air gauges in the locks so that the workmen could observe under what pressure they were working, it was found that the locks were provided with pressure gauges, clocks and thermometers. Regarding the accuracy of these gauges, it may be stated that the air pressure recorded on the gauge in the tunnel, on the gauge in the lock, and on the small hand gauges carried by the Inspectors, and the gauge in the office of the Superintendent of the work were all the same, namely, 34 pounds.

In regard to the first recommendation made by the Coroner's jury that some adequate means should be devised to prevent the workmen from giving their passes to any outsiders, and thus enabling them to go to work without a proper physical examination, it may be stated that the Contractors have taken the precaution of hanging notices at various places before the eyes of the workmen, telling them of the dangers to be encountered by any person or persons in doing the work without proper physical examination. If any person being thus informed still persists in entering the tunnel without a physical examination, it does not seem quite proper to hold the Contractors responsible.

In regard to the second recommendation that the Board of Health be more strict in the supervision of this work, and in seeing that all precautions possible are taken to prevent further loss of life, it may be stated that sufficient supervision is and has been maintained.

SANITARY BUREAU.

BOROUGH OF THE BRONX.

Compared with the year 1905, the work shows a decided increase, there having been more work performed in all divisions of the Department office.

Division of Inspectors.

In this division the energy of the Department was largely focused upon stables wherein cows were kept and milk produced, and also upon manufacturing plants, the various railway lines and other businesses which have in years heretofore by polluting the air with black smoke been the cause of very many complaints to the Department.

In pursuing our stable work every stable in this Borough wherein cows were kept has been inspected. In making these inspections addresses were obtained from our files of all persons to whom permits to keep cows had been granted since the establishment of the Borough government. Beside those, nearly sixty persons were found who were keeping cows without Department permits; against each one of the latter orders of the Board to remove cows were issued. The total number of stables found was 385. Against a great many of these stables orders of the Board were issued, many of which required radical structural changes. It is my belief, founded on many personal inspections of stables during the fall just past and the early winter, that in no previous year since the establishment of the Department of Health has there been such an improvement in the sanitary condition of cow stables as during the year just past, and the resultant good to the public, especially to children, by the improvement of the milk produced in the dairies within this Borough, consequent upon the improvement of the sanitary condition of the stables and the methods in milking, cooling and handling the milk, can hardly be conceived of or computed.

Black smoke from factories, locomotives, etc., has for a long period of time been recognized by the Department as a nuisance and many orders of the Board have been issued against those responsible therefor. The instructions of the Sanitary Superintendent, a few months since, to criminally prosecute offenders, instead of the slower process of Board orders, have resulted in a remarkable change in conditions. In the spring and summer many were the complaints received at the Department relating to smoke; now there are practically none, nor have there been any for many weeks. The many arrests that have been made within the Borough, of offenders, have resulted in a remarkable clarification of the atmosphere along the railway lines and water front whereat many of the large factories are located. The amendment of section 96 of the Sanitary Code on March 14, 1906, by having become known to factory owners, has undoubtedly contributed to the betterment of conditions and many of the largest manufacturing plants have installed or are now installing smoke consumers. The old roundhouse of the New York Central and Hudson River Railroad on One Hundred and Fiftieth street and Spencer place, the smoke from which was probably the cause of more complaints than any other premises or business, has been removed therefrom to a remote part of the Borough, and since its removal to its present location, not a complaint has been received relating thereto.

Board and Care of Children.

During the year just past the file of persons to whom permits to board and care for children had been issued since the establishment of this branch office has been gone over and every premises visited where a permit was in force. Many holding permits had removed or given up the business of caring for children. In all such cases permits were revoked. The total number revoked was 243.

Food Inspections.

Increase of work along this line has been very pronounced during the past year, as compared with the year 1905, both in the number of inspections made and the number of pounds of food destroyed. The appointment of an additional Food Inspector early in the year has contributed to the increase of work performed, while the transfer of our only Milk Inspector in February to Manhattan Borough has in a measure subtracted from the amount of work in the branch of the service which relates to inspection of milk. No inspections of milk are now being made in this Borough by Inspectors attached to this branch office.

Division of Contagious Diseases.

There were more contagious diseases reported during the year than in 1905, largely due to the prevalence of measles during the first and second quarters. There was a very large increase in the number of visits to cases and the number of rooms disinfected and the number of persons removed to hospitals.

The increase of the number of children vaccinated during the year has been very marked.

On December 11, 1905, the area in Manhattan Borough to be covered by The Bronx wagons for collection of goods for disinfection was fixed at One Hundred and Forty-fifth street to Ship Canal on the north, and during the year just past our wagons have covered said area. The area covered by our ambulances is still from Ninetieth street to City line on the north.

On November 17, 1906, the lime-formaldehyde method of disinfection was discontinued and the permanganate of potash-formaldehyde method was inaugurated in its stead; after a few weeks' trial of the latter, by the order of the Acting Sanitary Superintendent, the lime-formaldehyde method was readopted.

The corps of Medical School Inspectors being a small one, the District Medical Inspectors are assisting in school work and each Inspector has two schools under his care; by this method about twenty schools are provided with Medical Inspectors, which is a great relief to our medical school work.

The schools in this borough, except in portions which are thickly built up, are widely separated, which means a great deal of time spent by Medical Inspectors in traveling from one school to another; therefore, but a few schools can be given to each Inspector and it has been necessary in certain of the outlying schools to have visits made only on alternate days. The corps of Medical Inspectors being small, the work which they have been called upon to do has been arduous, and although I have much desired to have physical examination made of pupils who are backward in their studies, to ascertain whether or not there were physical conditions which might account for dullness of mentality, I have not yet been able to do so. I would strongly recommend an increase in the number of Medical School Inspectors in our corps, that a physical examination of the pupils within our schools, conducted in a manner which has proved so satisfactory in the Borough of Manhattan, can be adopted within this borough.

Comparative Table.

	1905.	1906.
Division of Inspection.		
Number of citizens' complaints received.....	3,727	4,188
Number of complaints forwarded for orders.....	1,164	2,512
Number of complaints returned negative.....	1,979	2,135
Number of mercantile establishments visited.....	56	95
Number of manufactories and workshops visited.....	73	414
Number of stables visited.....	1,493	2,721
Number of sunken and vacant lots visited.....	875	1,775
Number of milk inspections.....	3,961	279
Number of pounds of food, fruit and meat destroyed.....	104,422	169,440
Number of fruit and food inspections.....	8,661	11,072
Division of Contagious Diseases.		
Number of visits to cases of contagious diseases.....	11,497	16,525
Number of visits to tenement houses.....	7,380	10,539
Number of visits to schools.....	6,010	6,637
Number of visits to private dwellings.....	3,801	5,411
Number of miscellaneous visits.....	1,035	1,110
Number of primary vaccinations.....	1,821	2,363
Number of revaccinations.....	1,365	1,865
Number of vaccinations in schools.....	2,827	2,960
Total vaccinations.....	6,013	7,188
Number of certificates of vaccination issued.....	3,332	4,676
Number of children excluded from schools.....	887	1,041
Number of cases of diseases cared for by school nurses.....	22,508	36,095
Number of examinations of children by school nurses.....	2,574	58,295
Number of persons removed to contagious disease hospitals.....	456	834
Number of houses visited for disinfection.....	2,943	5,002
Number of infected rooms disinfected.....	5,610	8,545
Number of times ambulances and vehicles disinfected.....	628	858
Number of pieces of infected goods disinfected.....	5,501	7,245
Number of pieces of infected goods destroyed.....	743	1,125
Total number of inspections.....	21,173	29,402
Mercantile Establishments.		
Number of children interviewed applying for certificates.....	1,842	2,602
Number of employment certificates granted.....	1,295	1,515
Number of employment certificates refused.....	86	46

SANITARY BUREAU.

BOROUGH OF BROOKLYN.

Division of Inspections.

Complaints—The number of complaints received during the past year is slightly less than the year 1905, which is due to the fact that a great many complaints are now sent direct to the Tenement House Department. There were 2,371 original complaints made during the past year. This is much less than the year 1905, one of the reasons being that during the summer of 1905 many original complaints were made by Inspectors investigating the prevalence of typhoid fever in this Borough.

Enforcement of Orders—The method of enforcing orders during the past year has been the same as heretofore. This method has not proven effective in a large majority of cases, for the reason that it is not even possible to secure the attendance of the defendant in court, and most of the judgments obtained are taken by default. Again, many of the Judges of the Municipal Courts are not disposed towards giving judgments for the Department, holding that proceedings are improper from a legal standpoint. The method used in former years, namely, that of instituting criminal proceedings against all those who fail to comply with the order of this Department, was far more successful, and the number of orders not complied with was always at a low figure. I most heartily recommend that this system be re-established.

Smoke Nuisance—A very small number of complaints of citizens in regard to the nuisances of this nature are received at this office. In cases where complaints are received it is almost impossible to obtain the necessary evidence of the violation of the Sanitary Code, as required by the Courts in this borough, for the reason that the complainants are averse to appearing in court to give their testimony. One hundred and one original complaints by Inspectors relative to the smoke nuisance were received; 41 arrests, 9 convictions, and \$725 was collected in fines.

Renovation After Cases of Tuberculosis—During the year 1906, 779 orders for the renovation of apartments which have been occupied by consumptives have been issued, as against 825 for the year 1905. These orders are made upon complaints forwarded to this office by the Medical Inspectors of the Division of Communicable Diseases, and the orders in most cases are promptly complied with.

Meat Inspections—The inspection of meat has been carried on as in former years, attention being chiefly given to animals on the hoof and to carcasses after slaughter.



Shop inspections are also made throughout the borough. The appointment of additional meat inspectors has made it possible to largely increase the number of shop inspections, consequently the efficiency of this work has been greatly increased.

**Food Inspections**—Two inspectors are employed in the inspection of fruit, vegetables and foods other than meat and milk which are offered for sale in the stores in this borough. Our reports in the matter of fruit condemned you will find to be much lessened this year over previous years, by reason of the fact that the inspection of all imported fruit is now done by the New York Office inspectors, and credit, therefore, is given to the New York Office.

**Employment Certificates**—The work of issuing employment certificates is carried on as in former years, amendatory legislation tending to considerably eradicate cases of hardship which arose under the law as originally enacted.

**Inspection of Mercantile Establishments**—While no force of inspectors has been provided to do this work, we are having our regular District Inspectors of the Division of Inspections make these inspections in the course of their usual work in their own districts, and have established a card system showing their inspections from time to time. The number of convictions for violation of the Mercantile Law and the employment of minor labor in this borough has been very few.

The Sanitary Squad as at present constituted is entirely inadequate to meet the requirements placed upon it, and it is necessary in view of the rapid growth of the suburbs in this borough that at least ten (10) additional Patrolmen be added to the Sanitary Squad in order that the borough may be properly covered. Our force of eleven (11) Patrolmen and one (1) Roundsman is absolutely overworked under the present conditions.

#### Division of Contagious Diseases.

The work of the Contagious Disease Division has proceeded very satisfactorily during the past year. At the beginning of the year we had an exceedingly great number of measles cases reported, which continued up to about the first of July. The borough is now divided into twenty-two (22) inspection districts, and the inspectors are doing very excellent work.

The Medical School Inspection is carried on remarkably well, notwithstanding the fact that for the greater part of the year we had a very insufficient staff, due to the fact, in a great measure, that we had to place fourteen (14) extra men at work in the district inspecting, owing to the prevalence of the measles epidemic above mentioned.

At the opening of school, September 10, 11 and 12, 1906, a general inspection was made of all the schools in the borough; a total number of 154,644 children being examined. Of this number, 1,320 were found to have pediculosis; 667 were found who had trachoma, of which 299 were excluded; 200 cases of skin disease were found, of which 25 were excluded; 266 were found who had conjunctivitis, of which 123 were excluded; and 160 were found who had blepharitis. This general inspection proved to be a very great blessing to the School Inspectors, simplifying their work very much as to their future inspections, placing all this vast number of children under observation, and, consequently, reducing the source of contagion to other children. The great diminution of the number of children is the best possible testimonial to the thorough work done during the first three days of school.

In connection with the regular school inspections, the Medical Inspectors have performed vaccinations in this borough other than those performed at the Central Office by the physician detailed for that purpose, and by one Medical Inspector whose time is devoted to vaccinating those who apply by mail for vaccinations to be done at home, when not employed on some other special work. The total number of vaccinations for the year was 18,853, which is approximately 2,000 more than we succeeded in obtaining last year (1905). The increase in vaccinations may be accounted for by the fact that we have had some cases of small-pox in this borough during the past four months, which may possibly have proven an incentive to people to secure a successful vaccination. The Medical Inspectors of Schools are doing very excellent and highly creditable work.

The Medical Inspectors detailed as Diagnosticians are doing most excellent work. They are working almost every day and even employed during the night, searching houses through the section of this borough occupied by colored people, for concealed cases of small-pox. In connection with the work of the Diagnosticians, they have caused to be removed to the Kingston Avenue Hospital for violation of quarantine, 137 cases. They have also caused to be closed 44 stores, due to an infectious or contagious disease in an apartment adjoining.

The Veterinarians of this Department, of which there are two, are doing very satisfactory work, maintaining a proper and strict supervision over all sales stables in connection with their regular routine work. During the past year cases of rabies have considerably increased, and in each instance we have been very zealous in obtaining the names and addresses of persons who have been known to be bitten, and sending the carcass of the dog to the Research Laboratory for examination, and thereby taking every means of safeguarding the public from any further infection of rabies.

The disinfectors of this Department have done most excellent work during the past year. Not once during the year has it been necessary to prefer charges against any one of them, excepting in one instance, and he was a man recently attached to this office and has since been transferred. Total number of houses visited, 19,145; total number of rooms fumigated, 23,866. This is far in excess of the work performed during the year 1905. As is apparent, the proportion of rooms fumigated to the number of visits is in excess of last year. This is due to the large number of rooms ordered fumigated by the Inspectors attached to the Division of Communicable Diseases, as it frequently occurs that the Inspectors of the Division of Communicable Diseases order six and sometimes seven rooms to a case. Number of pieces of goods disinfected, 44,606; number of pieces of infected goods destroyed, 8,846.

The office staff is very efficient at the present time. The various files of the division were never in better shape. During the past year we have had added to the work of the division, the supervision and inspection of the babies boarded outside by institutions. That work was formerly looked after by an inspector, but we have found that the great increase in numbers called for the detailing of another inspector to assist the first. At the present time we are having visits made to every person holding a permit to board and care for children, and we hope very shortly to make a recommendation to have, probably, as many as two hundred permits revoked for various reasons. After the old permits are revoked, and the number sifted down, we will have about three hundred and fifty children boarded out in this Borough which will require occasional inspection. The inspection of these children, and the calls made to new applicants will, undoubtedly, keep two inspectors busy. For that purpose we have two female inspectors detailed to this work, and their work is very satisfactory.

During the past year, also, we have undertaken to have the Day Nurseries visited regularly, and inspected the same as other institutions harboring juveniles. That is once a month, and to intelligently keep a record of same. We are using an ordinary index card properly stamped, setting forth the average attendance, light, heat, etc.—in fact the pre-requisites to an intelligent and efficient record. This work is also done by a female inspector who has been for the past two years assigned as a regular inspector of institutions.

#### SANITARY BUREAU.

##### BOROUGH OF QUEENS.

#### Work Performed by Inspectors, etc., During 1906.

Inspections and reinspections.....	55,437
Number of orders issued.....	1,600
Number of pounds of foodstuffs condemned and destroyed.....	35,961
Permits issued.....	1,206
Number of employment certificates granted.....	1,015
Number of visits to contagious diseases.....	9,492
Number of children examined.....	1,178,993
Number of animals examined.....	8,810
Number of houses visited for disinfection.....	2,884
Number of rooms disinfected.....	3,404
Number of pieces of goods disinfected.....	2,195
Number of pieces of infected goods destroyed.....	1,780
Number of stables inspected.....	3,915
Number of stables vacated.....	238
Number of cows removed from unsanitary stables.....	1,343
Number of dairy stables now in existence.....	83
Number of "single cow" stables now in existence.....	55

#### Increase of Population in the Borough.

For some years past, beginning possibly at the time of the incorporation of the now Borough of Queens with the Greater City of New York, a steady increase of the population of this Borough commenced, and has steadily kept up. By this increase I do not mean the great crowds of pleasure and recreation seekers, coming for a longer or shorter stay, at the seaside resorts and amounting to above 100,000 on many days during the summer, but parties, families, etc., who find this Borough to suit their ideas of fresh air and healthful surroundings; they usually settle down for good, buy ground and build a home, or procure one already in existence—these form the increase of population. According to the figures of the Bureau of Vital Statistics, this increase is seen in the following schedule:

Population of the borough in 1905.....	199,099
Population of the borough in 1906.....	209,686
Population of the borough in 1907, calculated to July 1st.....	220,836

And it must be remembered, all this, in the face of the rather scant means of transportation, the absence of an adequate sewerage system, and an increased price of ordinary commodities over those existing in the Borough of Manhattan.

#### Division of Inspections.

Toward the end of September, 1906, a Division of Inspections for the Borough of Queens was created by the Board, and all inspectors at work in this borough were placed under its supervision, except those directly under the direction of the Division of Communicable Diseases. This was necessary for the reason that all Medical Inspectors do sanitary work as well as school work; these men therefore act in three capacities, viz.: School inspection work, Sanitary work and Contagious Diseases work, which answers well enough at present; there must, however, be a separation of the work in the near future, as the medical and contagious disease work increases with the increase in population. The sanitary work is also constantly increasing, faster than the increase in population for the reason given on the next pages, consequently absorbing too much time of the Medical Inspectors to properly attend to their duties. The few Sanitary Inspectors, not being able to largely increase their field of activity, it seems clear that if the Medical Inspectors are expected to do their work properly and attentively, the sanitary work must be performed by Sanitary Inspectors, and their number largely increased. The technical work they are called upon to do requires that experienced laymen should be assigned to do that kind of work, having practical training and whose mind is not burdened with a medical side of their duties.

During the year 1906, the total number of inspections amounted to 55,437; this must be considered as representing a great deal of work in a borough which spreads over so much territory, and which is divided in but twelve districts.

The sanitary work alone required 36,935 inspections caused by every possible kind of complaint, from the barking of a dog to the drainage or filling in of acres of swamp land. The most often recurring complaints are naturally those which deal with offensive odors, real, imagined or sentimental, but they all call for inspection, and if sufficient to cause a nuisance, require orders for their abatement.

A subject requiring a great deal of attention are:

#### Cesspools and Privy Vaults.

Streets are laid out by private parties, such as realty companies, who buy up tracks of land from 5 to 500 acres, and by laying the land out in buildings lots, produce streets, sometimes way below or much above the grade which will finally become the real one, when taken over by the City. These companies often times provide for water and gas, but never for any sewerage facilities; when therefore the buyer of any such lots has his house built, he finds he has no drainage except that which the ground will absorb; he then builds a privy by digging a hole in the ground and placing a shed over it, the waste water is thrown upon the ground; this goes on, until the settlement which forms sooner or later crowds the original settler on all sides, and the method of disposing the waste and night soil becomes offensive—he is then in a bad fix, as well as his neighbor; the City has probably not taken over the street he lives on, and he can then only do two things, either build a private sewer alone, or together with his neighbors, or build a cesspool for himself, as the first is not always possible or practicable, the second is feasible and possible in all cases, but if the cesspool is tight, which it ought to be, the expense to have it emptied frequently amounts to as much as the interest on the capital investment, as from \$10 to \$40 are charged by scavengers for emptying cesspools of but ordinary size; often we receive complaints on the same cesspools every two or three months. These conditions are done away with wherever sewers have been built and a water supply furnished. It follows logically that the next important matter is

#### Sewerage and Water Supply.

From above described conditions can be gathered the fact that this borough is poorly off as to a sewerage system. In the older portions of the borough, sewers have been in existence for many years, but in the newly located and built up sections the sewers are few, although the Bureau of Sewers, under the present Borough President, has done all in its power to increase the number of sewers as much as possible, but the great territory to be covered makes this improvement a very expensive job, and necessarily slow. Wherever a sewer has been laid and a water supply is at hand, connections are ordered to be made by this Department. All public water supplied to the inhabitants of this Borough comes from driven wells located in various convenient localities for rapid distribution; there are at present seventeen pumping stations in existence, samples of water from each of which are taken each month and a complete sanitary analysis is made. They are reported usually of good quality, although those near the shores of bay or ocean contain a certain quantity of sea water, the sand through which the water pours being non-resistant and together with the natural chloride due to the nearness of the sea brings the chloride and mineral matter up to a high degree.

There is still a great deal of water used from wells, springs, and cisterns, the old inhabitants clinging with great tenacity to their springs and wells, most of which are wholesome and fit for use; cistern water depending on rain water from the roofs is still in existence, but its use is being discouraged and it is now only in certain sections where it is impossible to get any other kind of water that it is used to any great extent. It is for this reason that the keeping of pigeons is ordered to be discontinued wherever rain water is used for drinking purposes. It is surprising with what zeal the owners of these birds try to hold on to them, notwithstanding the fact that few are kept for any useful purpose.

#### Vacant and Sunken Lots.

Complaints against premises of that kind are constantly entered upon our books; they exist everywhere, the most usual cause for complaint is either the dumping or collection of rubbish upon them; the owner living probably far away and holding same only for a rise in value, neglects to look after their condition, and is usually most unwilling to do anything which might involve him in expense, as he receives no return from them. Fortunately we have a strong section in the Sanitary Code under which we can proceed successfully.

Such lots, however, upon which water has collected or collects from drainage, or the water is supplied by springs, or, as frequently happens, through raising the grades of streets surrounding them, are a constant source of trouble on account of the expense of filling in such lots until the grades are even with the surrounding ground. If, as before stated, a good sewerage system existed there would be but little trouble; the absence of such a system makes it impossible to get rid of the water except by filling in. A pond existed behind the Jamaica Station of about four blocks in extent, costing \$30,000 to fill up; if the material used had to be paid for, the amount of expense would have been \$75,000.

#### Cow Stable Inspections.

The Borough of Queens possesses to-day more cow stables and cows than any of the other boroughs of Greater New York, notwithstanding the fact that the number of cow stables has been reduced from 450 to 138, and the cows from 10,000 to 2,100. The greatest number housed at the present time under one continuous roof being 267.



Great progress has been made within the past five months—as the comparative table below shows:

	August 1, 1906.	December 31, 1906.
Number of cows in borough.....	2,782	2,155
Number of cow stables.....	219	138
Number of applications for permits pending.....	.....	39
Number of sites approved by the Board.....	20	42
Number of plans and specifications approved by Board.....	4	21
Number of stables in process of building and renovation.....	51	109

Of the 138 stables now in existence, about 83 are dairy stables, and 55 are "single cow" stables. These single cow stables must comply with the following conditions:

1. A permit will be granted by the Board of Health for the keeping of one fresh milch cow; milk to be used exclusively by the family of the owner.
2. Stable or stall eight (8) feet wide must be provided, with water tight floor (cement or asphalt not required), with shallow gutter in rear of same, with tight drain to sewer or cesspool. Glazed window, four (4) feet square, opening inward at proper angle so that current of air ascends, must be provided. The ceiling must be so arranged to prevent the sifting of dust from hay, etc., on the cow. The side-walls of the stable and stall must be painted or whitewashed at frequent intervals.
3. Eight hundred (800) cubic feet of air space must be provided.
4. Proper and sufficient supply of uncontaminated water must be provided.
5. Cow to be kept clean at all times, and milking utensils not to be kept in stable.
6. Manure kept in a tight box outside stable, and removed twice each week.

#### Dairy Stables.

The dairy interest in Queens is quite extensive and much money is invested in farms, stables, cows and feed. In 1905, when the first rules and regulations for cow stables were formulated and became known among dairy farmers, they were quite astounded and very incredulous, because it was never known that any one could request more than a whitewash, more or less carefully applied, and the replacing of a rotten plank or two in the floor. All those who had this idea too securely fixed in their mind are now out of business, and in this, as in other mundane matters, it was "the survival of the fittest," the man who could see the need and use of a clean cow stable won out. What has been accomplished can be clearly stated:

1. Clean walls all around the inside of the stable.
2. A sanitary base at the foot of the wall permitting no "dirty corners."
3. Plenty of windows, plenty of light and sunshine.
4. Ventilation by windows on the sides of the stable and above the roof by extending same.
5. Good drainage, good manure boxes and no saturation of the surrounding ground.
6. Healthy cows, improvement in the milk supply and cleaner cows.

#### SANITARY BUREAU.

##### BOROUGH OF RICHMOND.

The Sanitary Division in this borough consists of five Sanitary Inspectors, one detailed to each of the five districts comprising the five wards in the Borough of Richmond. Their duties consist of investigating citizens' complaints and general sanitary work in their respective districts. The work in this division has somewhat decreased in the last year, due to the lessening of citizens' complaints, as all houses on the line of public sewers have been properly sewer connected and the nuisances caused by privy vaults and cesspools abated. There is, however, a large area on this island, in the village of Southfield, which, from a sanitary point of view is in very bad condition, there being no public sewers, causing conditions which necessarily become a public nuisance. This matter has been taken up by the Department of Health and recommendations forwarded to the President of the Borough, which I have been informed has been the means of the construction of a large sewage system, which will be begun in the very near future, and will abate this nuisance.

The vacant lots and stagnant pools which have been due to the contour of the ground and the construction of streets, have been largely abated by permission granted to the Street Cleaning Department to fill in with fresh earth and clean ashes, thus abating a nuisance which, prior to their having been filled in, were a source of complaint and a breeding place for mosquitoes.

All the ponds and the marshes surrounding the borough have been drained, the work having been done by Commissioner Doty under a special appropriation by the Board.

The building of bulkheads along the water front and their filling in, and the carrying out of the sewer system to beyond low water mark, has improved the sanitary condition of the entire water front.

Contagious Diseases—The number of contagious disease cases during the past year exceeded that of the previous year, the increase being in the number of cases of diphtheria and measles. We have had no cases of smallpox in this borough, and typhoid fever has been decidedly on the decrease.

All cases of contagious diseases have been inspected by the Medical Sanitary Inspectors of this Department, and the household goods have been removed to the disinfecting plant for sterilization. This, however, has also been carried out in all cases coming under the division of Communicable Diseases, and in all cases of typhoid and tuberculosis.

Stables—A general inspection has been made of all the stables in the Borough of Richmond, and a large number of orders issued, resulting in a very great improvement in their condition, one feature, in connection with their sanitary condition, being the prompt removal of the manure daily, or providing a properly constructed manure pit, which has been allowed in the outlying districts of this borough for the reason that farmers are compelled to keep the manure for fertilizer for their farms.

Milk Inspection—The milk inspection in this borough has been transferred to the Borough of Manhattan, consequently, the supervision and reports have been sent to the Central Office direct. There is but one Milk Inspector in this borough, and I am of the opinion that to keep a proper supervision over the milk dealers, there should be at least three.

Cow Stables—There were in this borough at the beginning of the year 1906, one hundred and twenty-six cow stables where milk was produced and sold to the public and coming under the head of dairies. The inspection of the sanitary conditions of these stables was placed in charge of Dr. Nichols, the Veterinarian in this borough, who made a very exhaustive examination and found that they were by no means in proper sanitary condition. Orders were issued compelling them to bring their dairies up to the standard of those in other boroughs and issued from the Department in New York, requiring them to make certain changes in construction to conform to the rules and regulations of the Department of Health. This necessitated such extensive improvements that a majority of them were compelled to give up their business and dispose of their cattle. There are a few remaining who did not comply with the orders issued, and recommendations were made to the Department that their places be declared public nuisances, which orders were served upon them. It being impossible to remove cattle to the Pound in this borough, where premises are declared a public nuisance, their permits to keep cattle and sell milk were revoked, and criminal proceedings brought against them, so that I believe, at present, that all the dairies producing milk in this borough are up to the standard required by the rules of the Department.

Medical Inspectors—There are five Medical Inspectors in the Borough of Richmond who also do general school work and their medical inspections. Every school

in the Borough of Richmond in the thickly populated district is inspected every day and in the outlying country district three times a week.

I believe that this systematic inspection of the schools has been the means of lessening epidemics of contagious disease which have cropped out in previous years. More attention has been paid to the eyes of school children for the purpose of detecting trachoma and preventing its spread. All children thus infected have been excluded from the schools unless under treatment privately, or at some dispensary.

Systematic vaccination in the public schools has been carried on by the Medical Inspectors, and there are no children attending school that have not been vaccinated.

School Nurses—The District School Nurses appointed in this borough have done excellent work, but the territory is so large that they are only able to cover ten schools, five schools each.

There are thirty-three schools in this borough. The outlying country district schools have received no benefit whatever from the school nurse system. I would recommend that at least three additional Nurses be appointed covering these schools, to carry on this very important work.

The condition of the children in the public schools has very decidedly improved in the past year, due to the efforts of these Nurses in visiting their homes and instructing their parents where it was necessary.

Culture Stations—The establishment of culture stations has been of very great service to the physicians, and especially those living in the country districts, where they are unable to get an early diagnosis or obtain antitoxin at short notice.

It is my opinion that this office should be kept open at night for the reception of cultures, distribution of antitoxin and ambulance calls.

Very great demands have been made for antitoxin, and it is being depended upon for immunization and treatment by physicians generally.

Ambulance Service—The ambulance service has been more prominently in demand this year than in previous years, for the reason that the general practitioners are requesting that the cases of scarlet fever and diphtheria be removed to the Reception Hospital of the S. R. Smith Infirmary.

I would recommend that an additional Ambulance Driver be appointed to be on duty at the ambulance station during the night, as we receive numerous calls for the ambulance after four o'clock, and at present we are dependent upon the Night Watchman to remove the cases, and when he leaves the plant, there is no one to care for the fires or the boiler.

Meat Inspection—The inspection of meat has been carried on as in former years, especial attention being given to carcasses after slaughter. With our present force, which consists of one Inspector, the inspections of the shops are not as frequent as they should be. The Inspector detailed as Meat Inspector is also detailed as a Fruit and Food Inspector, and all other foods which may be offered for sale in markets or stores.

There has been a large quantity of decayed fruit and vegetables destroyed during the past year, and also an inspection kept over the ice boxes and other places where food is stored.

This work has been very satisfactorily carried on by Inspector Kerr.

Orders—There has been a very decided falling off in the number of cases brought for non-compliance with orders within the past year and we have but very few cases pending in court. Compliance with a very large majority of the orders has been brought about by personal effort on the part of the Inspector, the fact being generally known that if orders are not complied with, they will be prosecuted.

There are no lodging houses in the Borough of Richmond and very few tenement houses. We have had some trouble in tenement houses in having orders complied with, where references have been made to the Tenement House Commission. This matter I brought to your attention some time ago, and I believe since then the matter has been taken up and the reference orders more promptly executed.

Disinfecting Plant—The disinfecting plant has been in operation during the entire year with very satisfactory results.

When consolidated with the Greater City of New York, the working force was nearly twice as large as at present. From time to time it has been reduced by resignation or death until at present we are working with a very much reduced force and a decided increase in the demands made upon us.

The clerical force in the office is of sufficient size to keep the work up, but the force working in the field is small.

I have forwarded a request that certain divisions be increased, such as School Nurses, Sanitary Inspectors, additional Ambulance Driver and at least two additional men on the disinfecting and goods delivery wagon.

I believe that the work performed by the employees of the different departments in this borough has been done to the best of their ability, is of a high standard and has my approval.

#### NURSES' WORK IN THE DIVISION OF CONTAGIOUS DISEASES, INCLUDING THE MEDICAL INSPECTION OF SCHOOL CHILDREN.

The following report covers the work of the School Nurses and Contagious Staff in the boroughs of Manhattan, Brooklyn, The Bronx, Queens and Richmond during the year 1906:

School Nurses—The year just finished has proved one of remarkable interest and profit to the school children, owing to the persistent teaching of cleanliness by the Nurses. The most gratifying result, perhaps, is the bright intelligent look in the faces of many of the children who used to look tired and careworn. This is principally due to the care given to the eyes, and the constant efforts of the Nurses in obtaining glasses for the children with defective sight, in many instances paying for the glasses themselves rather than see the children go without. The Nurses have taken a number of children to hospitals and dispensaries for the removal of adenoids and enlarged tonsils when the mother was unable to do so. The results are remarkable. Children formerly considered "defectives" are among the brightest and most studious in the class. The children are more careful in keeping the skin and hair clean; filthy clothes are now an unusual feature, and the air in the class rooms is decidedly better owing to the prevailing cleanliness.

Visits to Homes—The visits to the homes and parents of the children have increased owing to the more rigid examinations made by the Medical Inspector. When any defect of eyes or throat, such as enlarged tonsils or adenoids, has been recorded, the Nurses have visited the homes and urged the parents to have the defects remedied. A large per cent. respond and have the matter attended to at once.

Numerous cases of unreported disease, such as measles, scarlet fever, diphtheria and tuberculosis have been found when making the visits. These were reported at once and the cases isolated or removed to hospitals. Many other cases have been reported to the relief agencies through this office.

Contagious Staff—No change has been made in this staff. Two Nurses cared for the cases of scarlet fever and measles in the homes of the very poor when reported. Instructions were given as to the proper isolation and disinfection, etc., of each patient, the Nurses giving baths, making beds and helping prepare food where assistance was required. Through this instruction, many cases were reported to the Department of Health where formerly they were afraid to do so.

Suggestions—As the present staff of 53 Nurses is entirely inadequate for the amount of work required of them in the schools of Greater New York, I would suggest that the staff be increased to 100 Nurses. In Manhattan, each Nurse is required to inspect 8,887 children, treat any minor contagious disease found among them, assist the doctor while treating trachoma in the school and then visit as many of their homes as needs indicate.

(There are only 25 school hours in the week.)

The average number of children inspected daily is.....	546
The average number of children treated daily is.....	109
The average number of visits to homes daily is.....	5

The Principals of the schools are constantly requesting more of the nurses' time and it has been clearly proven that there is less truancy in the schools where more time and supervision is given by the Nurses.



(General Progress.)

[illegible]







(e) The reports of all inspections and investigations during the preceding twenty-four hours are obtained from the Inspectors and Nurses by telephone daily.

The above system has been introduced in all boroughs and has proved most satisfactory. There is a great saving of time, fumigations being done four or five days earlier than previously, less clerical work is called for, and the system of indexes simplified. During 1907, it is proposed to begin periodic disinfection of the clothing, etc., of tuberculosis cases at their homes. With the exception of Manhattan, the number of new cases of tuberculosis reported in all boroughs was increased. Information was obtained from the attending physician in every private case of tuberculosis on file in Greater New York August 1, 1906. Results are given in the following table.

Tabulated results in the five boroughs of letters sent out to private physicians regarding tubercular patients under their observation:

	Manhattan.	Queens.	The Bronx.	Brooklyn.	Richmond.	Total Number.
Letters sent out.....	5,736	134	300	1,261	81	7,512
Replies received.....	4,126	105	203	822	81	5,337
Failed to reply.....	1,445	29	18	439	..	1,932
Returned, doctors not found.....	165	..	..	77	..	242
Cases recovered.....	266	..	22	39	8	335
Cases improved.....	237	43	31	156	35	496
Cases died.....	835	69	46	198	9	1,157
Cases worse.....	29	12	5	36	8	90
No change.....	52	..	6	30	5	93
Out of town.....	444	..	32	..	8	484
Out of borough.....	29	..	..	..	..	29
Under observation (in file).....	2,001	..	60	..	7	2,068
Don't know, or out of doctors' supervision.....	1,699	67	43	286	23	2,118

Typhoid Fever—Almost 33 per cent. fewer cases were reported during 1906 than during 1905, the great decrease taking place in Brooklyn (700). The number of deaths, however, remained about the same, the case fatality being 18 per cent. as compared with 15 per cent in 1905. There was another slight outbreak of the disease in the Borough of The Bronx in the same area in which an outbreak occurred in 1905. New folding cards have been devised to take the place of the old large history cards. The data obtained from the histories of all cases of typhoid fever reported have been tabulated and are attached to this report.

Cerebro-spinal Meningitis—Less than one half as many cases of this disease occurred during 1906, as compared with 1905—the death rate being reduced from 5.03 to 1.94. The case fatality was slightly increased, however. All data obtained from the histories of all cases of cerebro-spinal meningitis reported, have been tabulated and are attached to this report.

Pneumonia—The number of deaths and the death rate of this disease were about the same as during 1905.

Malarial Fever—As shown in a special report by Dr. Victor Neesen, M. D., concerning the deaths supposed to be due to malarial fever, it seems probable that a large proportion of such deaths are in reality due to typhoid fever or other causes.

Administration of Diphtheria Antitoxin—Diphtheria was more prevalent and more fatal in New York during 1906 than during 1905. About 1,000 more cases occurred (mostly in The Bronx, Brooklyn and Queens), and 430 more deaths. The death rate was increased from 3.6 in 1905, to 4.5 in 1906, and the case fatality from 10.7 per cent. to 12.8 per cent. The lowest death rate and case fatality occurred in The Bronx, being respectively 2.9 and 7.9 per cent. The work of the Inspectors of the Department shows the same good results as heretofore, the case fatality in their cases being only 6.9 per cent., including the moribund cases. A great majority of the fatal cases were those in which the Inspectors were called in on or after the third day of the disease. The majority of the patients received from 5,000 to 10,000 units of antitoxin. Of the 8,000 persons immunized against diphtheria, only two-tenths of one per cent. developed the disease. See the tabulations of results attached to this report.

#### Publications.

During the year the following books and pamphlets were prepared and issued.

1. "Report of the Clinic for the Treatment of Communicable Pulmonary Diseases." This was a bound volume, fully illustrated, and met with general approval.
2. "Handbook of the routine procedure and regulations of the Division of Communicable Diseases" (form No. 202L). This was prepared for the use of the Inspectors and Nurses, and leather bound, interleaved copies were supplied to each employee. It gives a full description of the work of the Division and has been widely distributed to physicians and laymen.
3. Pocket handbook giving list of culture stations, list of services rendered by physicians by the Department of Health, etc. (form No. 206L).
4. Hand bills calling the attention to the danger of dry-dusting and sweeping; printed in English, German and Yiddish (form Nos. 176L and 200L). (Sample herewith given.)

In addition, almost all the circulars and blanks of the Division have been revised and added to.

This opportunity must be taken to commend the work of Dr. Victor Neesen, Inspector in charge of the Borough of Queens, who rendered most valuable assistance in the preparation of the above mentioned publications and who had entire charge of the statistical tabulations of the Division.

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#### DEPARTMENT OF HEALTH

##### THE CITY OF NEW YORK.

#### DIVISION OF COMMUNICABLE DISEASES

##### SWEEPING AND DUSTING.

In sweeping a room raise as little dust as possible, because dust, when breathed, irritates the nose and throat and may set up catarrh. Some of the dust breathed reaches the lungs, making portions of them black and hard and useless.

If the dust breathed contains the germs of consumption—tubercle bacilli—which come from consumptives spitting on the floors, the risk is run of getting consumption. If consumptives use proper spit cups and are careful in coughing or sneezing to hold a handkerchief over the nose and mouth so as not to scatter spittle about in the air, the risk to others of getting the disease by living in the same rooms with the consumptives is mostly removed.

To prevent making a great dust in sweeping, use moist sawdust on bare floors. When the room is carpeted, moisten a newspaper and tear it into small scraps and scatter these over the carpet. In sweeping, brush these scraps of paper along with the broom and they will catch most of the dust and hold it fast, just as the sawdust does on bare floors. Do not have either the paper or the sawdust dripping wet, only moist.

In dusting a room, do not use a feather duster, because this does not remove the dust from the room, but only brushes it into the air. Walking on floors does this also unless the floors are clean.

Use soft, dry clothes to dust with and shake them frequently out of the window; or use slightly moistened cloths and rinse them out in water when finished. In this way the dust can be gotten out of the room.

In rooms which have bare floors, in houses, stores, shops, school-rooms, etc., all dust can be easily removed after it has settled, by passing over the floor a mop, which has been wrung out so as to be only moist, not dripping wet.

THOMAS DARLINGTON, M. D.,

President, Board of Health.

HERMAN M. BIGGS, M. D.,

Medical Officer.

#### Recommendations.

It is recommended:

1. That tuberculosis clinics be established in the boroughs of Queens and Richmond.
2. That the diagnosis laboratory be enlarged as described in the report of the Acting Assistant Director.
3. That the necessary steps be taken for the early appointment of thirty attending Physicians for the tuberculosis clinics.
4. That the distribution of milk and eggs in suitable cases of pulmonary tuberculosis be continued.

#### BOROUGH OF MANHATTAN.

##### Report of Inspector-in-Charge.

Office—During the first week of March the Borough offices of the Division at Fifty-fifth street and Sixth avenue were removed from the second to the fourth mezzanine floor (the old Chemical Laboratory). The old quarters were very small, badly ventilated and entirely lacking in facilities for the proper performance of the steadily increasing work. The new quarters afford ample room and every convenience. They culosis; files, indexes, etc.; (c) a room for all clerical work in connection with the assemble to receive new instructions and to complete the record of their work for the past week; (b) a separate room for all clerical work in connection with tuberculosis; files, indexes, etc.; (c) a room for all clerical work in connection with the reports and records of bacteriological examinations in the Diagnosis Laboratory for diphtheria, sputum, typhoid fever, etc.; (d) office of Inspectors in charge of the boroughs of Manhattan and Queens; (e) office of Inspector in charge culture stations and telephone operator; (f) a large storeroom for all stationery and circulars of the division, which are arranged in numerical order, according to the form number of the blank, thus minimizing the work of taking stock.

When first occupied the new quarters were in a deplorable state, the walls, woodwork, etc., being sadly in need of renovation. Such renovation has since been done and the floors of the rooms covered with linoleum, so that the offices are very presentable and entirely satisfactory.

A plan of the offices and photographs of the various rooms are given herewith. A Stenographer has been added to the office force, replacing two former Clerks, one resigning and the other being transferred to the Borough of The Bronx.

The work of the office having greatly increased, it was found necessary during the latter part of the year to detail a Medical Inspector and a Nurse to assist in the routine work. Numerous minor changes and improvements have been made in the methods of handling the various communicable diseases, all of which will be described later under their respective headings; as a whole the work has been carried out along about the same lines as heretofore.

The following chart shows the weekly number of new cases of and deaths from communicable diseases in the Borough of Manhattan during 1906.

#### Map of the Borough of Manhattan.

Illustrating the different districts assigned to the Medical Inspectors, Nurses and tuberculosis dispensaries.

Red lines, Inspectors' district; blue, Nurses' district; green, dispensaries.

#### Inspectors.

- District 1. Battery to Canal, Rutgers east of Broadway.
- District 2. Canal, Rutgers east of Broadway to Broome street.
- District 3. Broome east of Broadway to Stanton and Prince.
- District 4. East of Broadway, Stanton, Prince to Eighth street, St. Mark's place, Astor place.
- District 5. East of Broadway, from St. Mark's place to Astor place.
- District 6. East of Fifth avenue, Thirtieth to Seventy-ninth street.
- District 7. East of Fifth avenue, Seventy-ninth to One Hundred and Third street.
- District 8. East of Fifth avenue, One Hundred and Third to One Hundred and Twenty-fifth street.
- District 9. North of One Hundred and Tenth street to Harlem river; west of Fifth avenue to One Hundred and Twenty-fifth street; north of One Hundred and Twenty-fifth street to river.
- District 10. North of Forty-fifth street, west of Fifth avenue to river.
- District 11. Fourteenth street, north to Forty-fifth street; west of Fifth avenue to river.
- District 12. Battery, west of Broadway, to Fourteenth street.

#### Nurses.

- District 1. Battery, Grand east of Broadway.
- District 2. Grand street to Prince, Stanton, east of Broadway.
- District 3. Prince, Stanton, east of Broadway to Thirty-eighth street.
- District 4. Thirty-eighth street, east of Fifth avenue, to Ninety-sixth street.
- District 5. Ninety-sixth street, east of Fifth avenue to Harlem river; also One Hundred and Tenth, west of Fifth avenue, to river.
- District 6. Thirty-seventh street to One Hundred and Tenth street, west of Broadway.
- District 7. Battery to Thirty-seventh street, west of Broadway.

#### Dispensaries.

- District 1. Department of Health Clinic—All of the West Side and The Bronx.
- District 2. Gouverneur—From Brooklyn Bridge, east of the Bowery to Grand street and East river.
- District 3. Bellevue—Grand street, Bowery, Fourth avenue, Broadway and Fifth avenue, to Fifty-ninth street and East river.
- District 4. Presbyterian—Fifty-ninth street and Fifth avenue, to Ninety-sixth street and the East river.
- District 5. Harlem—Ninety-sixth street and Fifth avenue to Harlem river and East river.

In order to facilitate the assignment of the work to the Inspectors and Nurses, the above chart of the City is kept with the various districts outlined by, by means of different colored worsted, held in place by small tacks. The red lines indicate the Inspectors' districts; blue, the Nurses, and yellow, those of the tuberculosis dispensaries. As the districts are often changed during the year according to the amount of work in them, it frequently becomes necessary to change the boundary line of the Inspectors and Nurses, in order to equalize the work. Naturally, this can be done very easily by simply moving the tacks and thus avoid having to buy a new map each time.

Inspectors—The total number of Inspectors has remained the same, although two new Inspectors were assigned to the Division during the year—one to fill a vacancy caused by death, and the other being assigned to the Clinic.

The work of the Inspectors has been very satisfactory, 27,566 inspections having been made by them for the past year. Since the new procedure of assigning all work, and receiving all reports by telephone, went into effect, the work given out each day is completed within twenty-four hours. Complaints receive prompt attention and inspection and fumigations are done without delay or loss of cards, etc., in the mail. One unsatisfactory feature of the new system is, that in the inspection of dead cases, the Inspector occasionally calls so promptly that he finds the funeral in progress or a wake being held, he not only disturbing the family, but being compelled to revisit the premises.

Nurses—The assignment of work to the nurses is done by telephone, just as in the case of the Inspectors. The advantages are many: (a) early instruction of the



patient and his family and prompt distribution of circulars of instruction regarding prophylaxis; (b) if patient should be kept under observation or is in need of assistance, the necessary action can be taken earlier; (c) information is obtained as to the failure of the patient to return to the address given after leaving the hospital; this information is important for the proper record of the case in the office and to prevent the exposure of others not properly informed as to the nature of the disease.

The force of Nurses has remained the same throughout the year, two having resigned and two having been appointed in their stead. The total number of their in-

spection amounted to 26,801, nearly the same as last year, notwithstanding the fact they had a less number of cases to keep under their observation at the various tuberculosis clinics, including that of the Department of Health, sent out their own Nurses to care for those cases they had under treatment.

The following table shows the number of visits made by Nurses to cases of tuberculosis under their observation:

Tabulation of the Work Performed by the Nurses of the Borough of Manhattan, Showing the Number of Visits to Tubercular Patients Under Observation in Their Respective Districts.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
District I.....	145	139	155	145	106	71	82	52	52	80	56	78	1,161
District II.....	85	59	64	54	58	37	44	34	33	31	31	42	572
District III.....	121	138	162	168	181	135	66	57	43	76	66	59	1,282
District IV.....	78	108	102	94	80	75	110	43	36	45	39	25	835
District V.....	86	59	54	68	61	57	46	52	57	57	50	64	711
District VI.....	115	94	66	61	73	54	49	40	37	43	46	43	721
District VII.....	174	163	161	159	162	120	127	35	43	84	63	87	1,378

The figures show that the greater number of cases needing a Nurse's care reside in the lower west side of the city, probably because there is no large hospital or tuberculosis dispensary in that section.

Dispensaries—As previously stated, four tuberculosis dispensaries (including that of the Health Department) have agreed to district the city between them. (See map, page ).

When a Nurse finds a case of tuberculosis in need of medical care, she refers the patient to the dispensary in the district in which the patient resides.

The following table shows the number of cases under observation at the five tuberculosis dispensaries on a given date in March and August, 1906:

Table Showing Number of Tubercular Cases Under Observation by the Various Clinics.

	Cases Under Observation and Reported.				Cases Under Observation and Not Reported.				Number of New Cases Under Observation. Not Reported.				Cases no Longer Under Observation. Not in Our File.				Total Number of Cases Under Observation.			
	1905.		1906.		1905.		1906.		1905.		1906.		1905.		1906.		1905.		1906.	
	April.	Aug.	Mar.	Aug.	April.	Aug.	Mar.	Aug.	April.	Aug.	Mar.	Aug.	April.	Aug.	Mar.	Aug.	April.	Aug.	Mar.	Aug.
Gouverneur .....	..	..	78	85	..	..	38	..	..	..	..	..	..	..	84	135	89	69	116	85
Vanderbilt .....	..	..	99	130	..	..	19	6	..	..	..	6	..	..	148	133	74	30	118	136
Bellevue Out-Patient Department. ....	..	..	131	79	..	..	..	..	..	..	..	..	..	..	150	166	114	101	131	79
Harlem Dispensary .....	..	..	29	35	..	..	..	..	..	..	..	..	..	..	44	71	..	..	29	35
Presbyterian .....	..	..	112	66	..	..	75	..	..	..	..	..	..	..	157	202	121	66	127	66

Tuberculosis—The number of new cases of tuberculosis reported during 1906 was 12,693, a decrease of 1,388 cases from 1905, showing that the Department has made considerable progress in checking the disease. This decrease is evidently not due to the fact that hospitals, institutions, physicians, etc., have not complied with the regulations of the Department; on the contrary, the hospital census shows a marked improvement in the result obtained at each census. It is probably due in large part to the persistent and efficient work along various lines of the Department in enlightening the public at large of the dangers of the disease and how to employ proper prophylaxis.

Of the 12,693 cases reported, the majority (6,975) institutions, 2,713 were reported by sputum, 1,626 by private physicians, 157 from other sources, 1,222 cases were reported by death certificates. These last comprised (a) cases not under the care of a physician at the time of death; (b) where the physician signing certificate had only been in attendance for two or three days prior to death; (c) institution cases dying within a few hours or days after admission, and (d) cases which the physicians failed to report during life; these were very few, and satisfactory explanations have been obtained in most instances.

The following table shows the localization according to wards of the new cases reported during each month for the years 1904, 1905 and 1906:

Tuberculosis Ward List, Borough of Manhattan, 1904, 1905 and 1906.

	January.			February.			March.			April.		
	1904.	1905.	1906.	1904.	1905.	1906.	1904.	1905.	1906.	1904.	1905.	1906.
Ward No. 1.....	12	12	12	17	17	12	18	15	12	17	17	10
Ward No. 2.....	..	2	..	1	1	..	2	16	..	2	20	2
Ward No. 3.....	4	6	1	2	4	4	8	21	4	2	17	2
Ward No. 4.....	24	20	38	19	19	42	32	52	60	29	26	44
Ward No. 5.....	7	14	9	11	8	10	9	29	15	13	20	6
Ward No. 6.....	19	8	18	18	10	14	19	44	16	32	30	10
Ward No. 7.....	51	42	78	47	72	67	68	132	138	67	134	85
Ward No. 8.....	41	28	19	25	30	20	21	54	27	20	52	29
Ward No. 9.....	44	23	57	41	40	38	44	54	43	42	42	37
Ward No. 10.....	53	62	38	42	74	43	80	97	63	74	48	36
Ward No. 11.....	37	46	30	27	29	24	55	65	34	39	62	25
Ward No. 12.....	191	187	180	181	183	215	202	192	288	219	235	216
Ward No. 13.....	21	16	13	18	23	14	39	34	25	38	15	12
Ward No. 14.....	12	5	17	11	6	10	29	25	22	41	18	14
Ward No. 15.....	17	8	23	16	12	13	20	35	18	27	29	9
Ward No. 16.....	30	50	40	24	36	27	34	44	42	36	39	26
Ward No. 17.....	56	59	81	66	45	62	89	76	120	120	60	80
Ward No. 18.....	52	50	49	52	42	42	59	40	74	57	81	32
Ward No. 19.....	126	137	120	113	107	114	142	144	174	161	152	133
Ward No. 20.....	77	49	51	61	33	39	72	47	70	79	54	65
Ward No. 21.....	64	21	33	50	26	20	52	28	50	45	66	36
Ward No. 22.....	94	87	113	90	75	94	122	138	156	125	125	119
Total.....	1,032	932	1,020	932	892	924	1,216	1,382	1,451	1,285	1,342	1,028

	May.			June.			July.			August.		
	1904.	1905.	1906.	1904.	1905.	1906.	1904.	1905.	1906.	1904.	1905.	1906.
Ward No. 1.....	21	9	6	16	12	6	15	7	8	20	10	7
Ward No. 2.....	1	5	4	1	16	3	20	3	2	2	12	4
Ward No. 3.....	2	28	4	1	19	4	22	..	2	2	13	3
Ward No. 4.....	18	11	14	9	23	18	25	10	8	23	36	18
Ward No. 5.....	10	19	5	10	11	10	33	10	10	8	21	16
Ward No. 6.....	27	14	15	16	19	28	28	18	9	21	18	20
Ward No. 7.....	59	164	56	69	138	82	159	65	55	50	125	69
Ward No. 8.....	32	47	23	28	37	19	33	7	28	11	41	33
Ward No. 9.....	38	44	51	48	26	64	31	53	55	52	37	47
Ward No. 10.....	39	53	36	40	38	61	34	62	33	42	48	60
Ward No. 11.....	33	28	23	35	26	34	30	47	51	25	36	38
Ward No. 12.....	204	184	206	186	163	263	195	201	210	197	228	230
Ward No. 13.....	36	10	23	15	17	23	11	21	23	21	29	34
Ward No. 14.....	26	10	20	14	11	20	17	17	16	17	10	22
Ward No. 15.....	25	29	17	16	23	5	27	17	12	18	38	18
Ward No. 16.....	39	25	32	24	31	38	28	45	26	23	32	44
Ward No. 17.....	88	65	68	94	74	92	66	97	67	62	89	80
Ward No. 18.....	58	62	49	51	58	55	37	51	38	50	49	57
Ward No. 19.....	157	148	125	129	131	154	140	140	95	110	132	134
Ward No. 20.....	83	15	59	94	33	58	18	86	56	67	24	67
Ward No. 21.....	53	69	39	45	67	52	97	60	37	42	66	49
Ward No. 22.....	103	76	121	158	127	138	160	131	112	134	107	132
Total.....	1,152	1,125	996	1,099	1,100	1,227	1,226	1,148	953	997	1,201	1,182

	September.			October.			November.			December.		
	1904.	1905.	1906.	1904.	1905.	1906.	1904.	1905.	1906.	1904.	1905.	1906.
Ward No. 1.....	13	25	4	16	12	10	12	7	4	22	15	12
Ward No. 2.....	2	29	..	2	17	1	..	19	1	5	18	3
Ward No. 3.....	2	22	..	6	5	2	7	17	1	6	13	3
Ward No. 4.....	22	32	5	15	16	5	6	17	6	26	30	6
Ward No. 5.....	15	38	11	9	19	12	4	23	4	10	17	5
Ward No. 6.....	18	38	19	24	15	23	23	22	18	28	20	15
Ward No. 7.....	49	175	71	62	130	59	49	97	66	66	106	62
Ward No. 8.....	28	47	26	16	41	15	7	40	15	34	27	21
Ward No. 9.....	39	60	54	73	24	21	49	32	43	52	62	54
Ward No. 10.....	65	56	70	61	19	49	63	28	27	62	34	41



	September.			October.			November.			December.		
	1904.	1905.	1906.	1904.	1905.	1906.	1904.	1905.	1906.	1904.	1905.	1906.
Ward No. 11.....	44	35	42	34	14	31	18	22	34	51	40	31
Ward No. 12.....	150	239	222	190	149	166	156	203	170	233	147	222
Ward No. 13.....	18	33	31	16	15	30	8	13	17	24	14	38
Ward No. 14.....	11	29	11	9	12	13	6	8	12	13	13	20
Ward No. 15.....	5	42	17	11	14	12	6	10	7	31	17	13
Ward No. 16.....	25	51	32	49	12	25	30	13	31	55	32	41
Ward No. 17.....	68	113	74	90	84	66	64	90	63	91	88	105
Ward No. 18.....	50	44	52	54	15	50	36	31	49	56	35	48
Ward No. 19.....	87	159	122	145	94	103	121	95	113	168	112	134
Ward No. 20.....	57	43	66	64	32	62	52	31	46	76	37	73
Ward No. 21.....	59	81	40	58	51	26	34	44	23	51	46	30
Ward No. 22.....	99	177	127	115	108	112	76	119	101	112	107	108
Total.....	926	1,568	1,096	1,119	898	893	827	986	851	1,272	1,030	1,085

The reason that the greatest number of cases was reported from the Twelfth Ward is probably due to the fact that it comprises a greater area and contains many of the larger hospitals; the Ninth and Seventeenth Wards, which are very much smaller in area and situated on the lower east side, contained many more cases in comparison. The First Ward, which is chiefly a business district, had the least. During the week ending August 25, 453 new cases were reported, which happened to be just the time the hospital census was completed, accounting for this high figure; the week ending September 10 showed the least number (188).

Deaths from Tuberculosis—Below is a chart showing the number of deaths tabulated according to wards for the years 1905 and 1906:

Tabulation of Dead Cases of Tuberculosis According to Wards in the Borough of Manhattan for 1905 and 1906.

	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.
Ward No. 1.....	1	4	3	5	5	2	5	6	2	4	4	3	7	6	6	..	3	4	3	4	8	5	5	3
Ward No. 2.....	..	..	..	1	..	..	1	..	..	..	..	..	1	..	1	1	..	..	1	..	1	..	..	..
Ward No. 3.....	1	..	..	3	1	2	..	4	2	..	1	2	2	..	..	2	..	..	1	..	2	..	1	2
Ward No. 4.....	4	7	7	4	9	15	13	10	7	6	8	12	5	8	5	7	11	11	8	9	5	6	9	9
Ward No. 5.....	2	3	4	1	1	3	4	2	3	2	..	4	6	3	1	5	4	5	3	2	4	1	5	4
Ward No. 6.....	8	7	10	7	9	10	10	6	6	9	5	12	6	8	4	9	12	6	5	9	10	9	13	5
Ward No. 7.....	10	13	13	13	7	17	11	9	12	12	8	19	6	8	8	11	12	10	7	7	6	11	8	12
Ward No. 8.....	7	10	4	5	8	9	7	7	5	9	8	6	5	7	4	9	8	2	2	4	5	6	8	5
Ward No. 9.....	13	21	12	16	16	29	24	23	22	17	20	20	18	13	15	14	14	14	18	10	10	14	18	25
Ward No. 10.....	9	10	9	15	11	13	17	15	5	10	8	14	11	6	5	9	7	9	9	11	5	3	19	11
Ward No. 11.....	12	11	9	12	19	15	18	18	16	11	8	10	14	11	5	13	8	8	13	7	15	11	11	10
Ward No. 12.....	62	68	70	66	86	114	79	61	82	70	72	83	69	64	47	76	65	73	70	54	81	67	77	87
Ward No. 13.....	4	2	8	3	9	6	7	5	5	3	5	4	5	..	5	7	7	7	2	3	2	4	4	5
Ward No. 14.....	3	11	8	3	2	9	10	6	3	10	5	4	7	1	3	3	10	5	5	2	4	5	5	8
Ward No. 15.....	5	6	7	10	8	7	8	3	9	5	5	9	6	8	6	6	8	3	7	2	8	3	5	7
Ward No. 16.....	13	9	17	10	9	19	15	13	11	12	10	16	14	11	9	9	22	17	12	15	9	11	11	18
Ward No. 17.....	22	20	20	20	19	20	24	14	17	21	19	16	16	16	13	19	27	22	5	9	11	17	22	27
Ward No. 18.....	15	15	15	14	23	17	20	15	11	12	17	23	16	20	10	15	20	11	18	12	14	12	16	21
Ward No. 19.....	48	58	46	50	61	78	75	66	58	47	52	62	69	49	62	57	51	63	34	40	41	51	70	74
Ward No. 20.....	25	20	27	16	26	27	36	29	13	35	19	16	25	21	17	19	31	22	21	21	24	33	22	37
Ward No. 21.....	22	13	16	20	16	23	17	18	13	19	23	20	18	22	20	10	21	23	16	12	8	19	29	25
Ward No. 22.....	36	41	46	32	47	50	64	46	43	53	27	56	34	38	19	40	42	52	38	31	41	44	52	45
Total.....	332	299	351	325	392	485	465	374	345	367	324	411	360	320	265	341	384	367	297	265	313	323	410	440

The largest number of deaths (170) occurred during the week ending November 17, the least (82) during that ending September 1. The Irish race lead in proportion to population, but no particular locality is affected, they being more or less scattered throughout the city. The Norwegian nation had the least, according to their population here.

Tuberculosis Maps—The same tuberculosis maps are being used upon which have been recorded all new cases of tuberculosis occurring in the Borough of Manhattan for the past three years. Solid circles in different colored inks are used to indicate each case.

Black for 1904.

Red for 1905.

Green for 1906.

And for the coming year brown will be used.

Private Physicians' Cases—As in previous years, information regarding every "private" case of tuberculosis was sought for from the physician who reported the case.

Tabulation of the replies gave the following results:

Letters sent out.....	5,736
Replies received.....	4,126
Failed to reply.....	1,445
Returned, doctors not found.....	165
Patient recovered.....	266
Patient improved.....	231
Patient dead.....	835
Patient worse.....	29
No change.....	52
Out of town.....	444
Out of Borough.....	29
Under observation (in file).....	2,001
"Don't know" or out of doctor's supervision.....	1,699

In those cases where no information was received from the attending physician, it was obtained by nurses who called at the address given. In many instances it was found that some of the patients had died, others had left the borough, while some were being treated by other physicians. In only a few cases it was found that they had recovered.

A census of all cases of pulmonary tuberculosis in public institutions was taken March 1 and August 1.

The table below shows the results of such census for the past three years:

	1903.			1904.			1905.			1906.		
	Jan.	May.	Oct.	May.	Sept.	Mar.	Aug.	Mar.	Aug.	Mar.	Aug.	Aug.
Total number cases.....	899	1,170	1,303	1,557	1,553	1,828	1,830	1,993	1,719			
New cases.....	166	36	229	197	47	246	186	183	187			
Male cases.....	..	..	..	..	..	..	1,200	1,325	1,069			
Female cases.....	..	..	..	..	..	..	630	668	650			
Duplicates.....	733	1,040	1,074	1,360	1,506	1,582	1,644	1,810	1,532			

The comparison of the census with the Departmental records should be minimized this coming year, as the institutions, in place of reporting, as heretofore, all cases by postals, now do so daily by telephone; the reports being acknowledged by postals on the day of receipt. All cards are filed under the respective institutions reporting same. This procedure obviates the possibility of any reports going astray while in transit to the Department. When the next census is taken (March 1), the cases on file in the Department should agree exactly with the reports from the hospitals.

Institutions—A few more hospitals treating tuberculosis have been added to the table showing the number of cases treated (obtained from their published annual reports) as compared with the number of cases reported to the Department of Health.

Table Showing Annual Number of Cases of Tuberculosis Treated and Number Reported to the Department of Health for Eleven Large Hospitals.

	1903.	1904.	1905.	1906.
St. Joseph's—				
Treated.....	1,565	1,707	1,699	1,699
Reported.....	1,090	1,240	1,406	1,474
St. Vincent's—				
Treated.....	122	111	37	..
Reported.....	65	58	21	26
Seton—				
Treated.....	865	1,198	524	1,279
Reported.....	607	870	1,011	1,241
Lincoln—				
Treated.....	177	284	211	..
Reported.....	170	222	295	..
Metropolitan—				
Treated.....	1,009	2,507	2,928	..
Reported.....	2,073	2,160	3,377	2,545
Manhattan State—				
Treated.....	..	..	..	..
Reported.....	..	..	60	107
Riverside—				
Treated.....	..	..	..	..
Reported.....	..	..	23	110
Bedford Sanitarium—				
Treated.....	..	..	..	359
Reported.....	..	..	121	..



	1903.	1904.	1905.	1906.
Bellevue—				
Treated .....				1,247
Reported .....			1,321	1,481
Montefiore—				
Treated .....				93
Reported .....			537	556
House of Relief—				
Treated .....				159
Reported .....			325	327

Lincoln Hospital no longer receives patients suffering from tuberculosis. The institution book which formerly recorded the weekly reports of tuberculosis from the various institutions will now be discontinued, as it will be a very easy matter to refer at any time to the report card index and obtain the desired information.

Duplicate Cases—The number of duplicate cases was 7,560, 1,546 less than last year.

Not Found Cases—The number of cases not found at the address given were in excess of those of 1905, probably due to the fact that more extended inquiry was made into the condition and whereabouts of the private cases.

Forcible Removals—It was necessary in only twenty-three instances to remove cases of tuberculosis to Riverside Hospital against their will.

A new order went into effect during the latter part of the year which made it more difficult to have patients removed against their will; (1) the consent of the attending physician had to be obtained; (2) a record of patient's sputum having been examined by the Department showing the tubercular bacilli; (3) or, physically examined by one of our inspectors, confirming the diagnosis; (4) others being exposed to the disease, especially children; (5) non-observance of prophylaxis.

Voluntary Renovation—Premises previously occupied by consumptives were voluntarily renovated by the owners in 388 instances; the landlord attending to same before a compulsory order was instituted against him.

Deaths from Pneumonia—Every death from pneumonia was compared with the tuberculosis records, and very few, possibly no more than a half dozen, were found to have been reported previously as tuberculosis. Investigations were made in every such case and almost invariably a satisfactory explanation was obtained.

Typhoid Fever—This disease, as per accompanying chart for the last three years, shows very little deviation as regards the time of year when the greatest number of cases and deaths occur. During 1906, 1,713 cases were reported, 144 less than in 1905. The greatest number of cases occurred during the week ending September 15 (85), while the least, 5 in all, were during the week ending June 9. In addition there were also reported 153 cases which proved on investigation not to be typhoid fever.

The chart given below, tabulating the cases according to wards, shows that the greatest number of cases were reported from the Twelfth Ward. This, of course, is due to the fact that that ward is the largest and most populous. Ward 1 had the least, being a business district.

Tabulation of Cases of Typhoid Fever According to Wards in the Borough of Manhattan for 1905 and 1906.

	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.
Ward No. 1.....	1	4	..	..	..	..	1	1	..	3	..	..	2	..	1	1	1	1	1	3	2	..	1	1
Ward No. 2.....	..	..	..	..	1	..	..	..	..	..	..	..	1	1	1	..	..	2	..	..	..	..	..	..
Ward No. 3.....	..	..	..	1	1	..	1	..	..	..	..	..	..	4	..	1	..	4	..	..	..	..	..	1
Ward No. 4.....	..	..	1	..	4	1	..	..	1	..	1	..	1	1	3	1	1	..	1	..	3	..	1	1
Ward No. 5.....	..	..	..	..	..	1	..	1	..	3	1	1	..	..	3	1	3	3	..	2	..	..	3	1
Ward No. 6.....	..	..	1	1	..	..	2	1	..	..	..	..	3	1	5	1	..	1	1	1	2	..	..	2
Ward No. 7.....	3	2	3	3	2	2	6	4	4	4	5	4	8	6	12	13	22	20	12	9	15	10	5	4
Ward No. 8.....	1	1	..	2	..	2	1	..	..	..	1	1	..	2	1	2	1	2	1	2	1	1	3	1
Ward No. 9.....	2	..	1	..	2	..	5	3	5	..	3	1	18	2	10	13	25	10	10	8	4	7	4	5
Ward No. 10.....	..	..	2	4	1	1	3	1	1	3	..	4	3	5	8	5	4	9	6	8	2	6	8	1
Ward No. 11.....	7	5	3	4	6	2	4	1	1	..	4	3	11	7	16	5	15	12	9	13	16	12	3	4
Ward No. 12.....	35	27	18	17	13	17	18	16	13	17	19	18	44	32	89	49	119	131	46	75	46	69	62	40
Ward No. 13.....	1	2	..	2	1	..	3	..	1	..	4	9	11	1	6	4	3	9	8	9	2	11	2	7
Ward No. 14.....	..	1	..	..	2	2	..	1	1	..	2	..	..	2	..	2	6	7	..	3	..	3	2	8
Ward No. 15.....	2	..	..	..	1	1	..	3	2	..	..	..	3	1	..	6	2	6	4	5	2	4	..	3
Ward No. 16.....	2	2	5	4	1	5	6	5	3	..	4	2	9	1	13	10	13	3	11	7	3	6	2	5
Ward No. 17.....	2	2	2	1	3	3	3	1	3	..	3	2	10	4	13	3	9	5	4	6	4	4	9	3
Ward No. 18.....	5	4	3	8	5	2	2	2	6	2	4	5	9	6	8	6	20	12	9	10	5	4	8	5
Ward No. 19.....	7	7	4	14	8	13	10	8	5	3	9	9	17	12	34	26	33	32	17	28	16	32	13	25
Ward No. 20.....	6	7	6	3	4	5	2	6	6	3	10	4	12	6	19	13	11	16	19	19	8	7	6	8
Ward No. 21.....	7	3	5	4	5	2	1	2	2	6	8	4	8	4	11	10	12	17	4	15	10	13	8	11
Ward No. 22.....	13	6	10	8	10	2	9	4	11	6	30	5	24	17	60	36	43	50	47	39	33	27	17	21
	94	73	64	76	70	61	77	60	65	50	108	72	194	124	313	217	343	352	210	262	172	216	157	157

Disinfection and Fumigation—Bedding was fumigated in ninety-two instances; almost twice as many as last year, probably due to the fact that postals were sent to the Attending Physician requesting him to inform the Department when the case had terminated or gone to a hospital so that fumigation could be performed.

Routine Procedure and Forms—Beginning January 1, 1907, the large typhoid history will be replaced by a smaller folding card. This will be a great improvement over the one already in use. The old card was of such size that it became folded in the mail, making it hard to file or carry around by the Inspectors, while the new one will be in unison with the tuberculosis card, being the size of a postal.

Every case has been plotted on a large map, as was done in 1905. A photograph of the map is given herewith, showing that there was no special localization of the disease in any particular section of the city.

Inspection of Milk Stores—This was done in every instance where the source of infection was stated as being possibly due to drinking of infected milk. Some two hundred inspections were made, but in no instance did the Inspectors find anything wrong, either as to unsanitary conditions, or lack of care.

Dead Cases—The total number of deaths from typhoid was 325. During the week ending October 6, the largest number occurred, 20 in all; while the least was one, for the weeks ending January 13, March 3 and 24.

Tabulation of Dead Cases of Typhoid Fever According to Wards in the Borough of Manhattan for 1905 and 1906.

	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.	
	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.
Ward No. 1.....	1	..	..	1	..	..	..	..	..	1	..	..	..	1	..	1	..	..	..	..	1	..	..	..
Ward No. 2.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ward No. 3.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Ward No. 4.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
Ward No. 5.....	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	1	1	..	1	..	..	..	..
Ward No. 6.....	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	1	..	11	..	1	1
Ward No. 7.....	..	..	..	..	1	1	..	1	..	2	1	1	1	1	1	2	2	..	..	3	..	2	..	1
Ward No. 8.....	..	1	1	..	..	..	..	..	..	..	..	..	..	..	1	..	2	..	..	..	..	..	..	1
Ward No. 9.....	..	..	..	1	1	..	1	2	2	..	1	..	1	2	1	2	1	2	4	3	2	1	1	1
Ward No. 10.....	..	..	..	1	..	..	2	..	..	..	..	..	..	..	1	2	1	1	..	1	..	..	..	..
Ward No. 11.....	..	1	..	..	..	..	..	..	1	..	..	..	..	..	1	3	3	3	..	5	..	1	1	1
Ward No. 12.....	6	4	3	7	4	3	4	5	3	3	3	6	8	8	8	5	16	12	17	16	7	13	9	10
Ward No. 13.....	..	1	..	1	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1	1	2	1	1	1
Ward No. 14.....	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..
Ward No. 15.....	..	..	..	..	..	..	1	1	..	..	..	..	1	..	..	2	1	..	2	2	..	2	..	..
Ward No. 16.....	1	..	..	..	..	..	1	2	..	1	..	1	1	..	1	..	3	..	..	2	1	2	..	4
Ward No. 17.....	1	..	1	..	1	..	..	..	..	..	..	2	1	1	2	1	..	1	2	3	1	3	..	..
Ward No. 18.....	2	..	..	..	1	..	..	..	1	..	2	1	1	..	1	..	4	1	2	1	1	2	2	3
Ward No. 19.....	1	1	4	3	2	2	..	..	3	1	..	4	3	7	2	8	7	4	4	1	4	2	7	7
Ward No. 20.....	1	1	2	4	1	1	1	2	1	2	2	3	1	..	1	3	4	5	4	..	5	2	2	2
Ward No. 21.....	1	..	1	2	1	..	1	3	..	1	..	1	2	2	2	1	2	1	2	1	..	..	..	1
Ward No. 22.....	2	1	2	..	2	..	1	3	..	1	4	1	4	3	5	6	5	4	6	8	4	3	..	5
	16	10	15	20	13	8	14	20	8	15	14	17	26	23	30	29	52	43	43	56	19	41	18	39



**Cerebro Spinal Meningitis**—The prevalence of cerebro spinal meningitis greatly diminished during 1906 as compared with the two previous years, only 679 cases being reported; two and a half times less than the year 1905. Of these, 36 the greatest number, occurred during the week ending February 21, while during the week ending December 29, there were only two. It is possible that this decrease was partly due to the fact that the Department of Health treated cerebro spinal meningitis as a communicable disease. Quarantine was established, disinfection and fumigation was done wherever it was necessary and all possible precautions taken against the spread of the disease.

The percentage of mortality ran high, there being 545 deaths.

In addition to the above, 80 cases were reported which on investigation, proved not to be cerebro spinal meningitis.

All cases of tubercular meningitis are now investigated.

Disinfection and fumigation was done in 464 instances. In 228 cases the first report received was the death certificate. Many of these were hospital cases.

All cases were plotted on a large map as heretofore. The photograph of this map, given herewith, shows the same distribution of the cases as in 1905—i. e., in the poorer quarters, around the periphery of the island, especially in the localities where Italians are most numerous.

**Erysipelas**—Of the 626 cases reported in the Borough of Manhattan this year, the majority were reported by the various hospitals and institutions. As yet the Department of Health has not strictly enforced the reporting of cases of erysipelas by physicians. It is hoped eventually to do this. The number of deaths were 190, the mortality being less than that of last year.

**Malaria**—Two hundred and twenty-four cases were reported; 31 of these were cases that died not having been reported during life. Every death from malaria has been rigidly investigated, as it is so frequently found that the patient really died of some other disease, such as typhoid fever, puerperal septicaemia, etc.

(See separate report.)

**Glanders**—Only one case was reported.

**Abortion**—There were only 56 cases reported for the entire year and these were principally reported by the hospitals and institutions. No definite action has been taken, as yet, as regards the compulsory reporting of this condition by the profession. A new form card, similar to the others in use by the Division has been devised.

**Septicaemia**—Only 25 cases were reported in the entire Borough of Manhattan. Likewise, little cognizance has been taken of this for the present.

**Tetanus**—Of the 20 cases reported, all were visited by Inspectors. Injection of tetanus antitoxin was offered in every instance, but only 11 patients accepted same. The amount of antitoxin injected to each patient ranged from 5 to 20 c. c. The Inspector revisited the patient in ten to fourteen days, and in no instance, did they develop tetanus. The time of year when most of the cases were reported, was, naturally, the month of July.

#### Administration of Diphtheria Antitoxin in the Borough of Manhattan.

The results obtained by the free administration of antitoxin in cases of diphtheria in the Borough of Manhattan for the past year are given in a separate report.

Immunization was performed in 5,586 cases. The slight decrease in the number of immunizations from last year's figures may be due to the fact that there were not so many outbreaks of diphtheria in the large institutions for children where widespread immunizations are necessary.

It may be of interest to mention the prompt and efficient work of the Inspectors. For the past year a record was kept of the time each Inspector attended to the call sent in, and it was found that in the majority of cases, they made their inspection within one and two hours of the time the case was reported.

**Pneumonia**—The prevalence of pneumonia for the past year has doubled; 1,456 deaths against 716 for 1905.

**Obituary**—In the death of Dr. Thos. De L. Burckhalter, Medical Inspector in this Division, the Department lost the services of an efficient, faithful and honorable physician and one whose special training in contagious diseases, having been resident physician to the Willard Parker Hospital for a number of years, made him especially fitted for the work connected with this Division, and whose loss is regretted by all who were fortunate enough to be associated with him.

#### REPORT OF THE INSPECTOR IN CHARGE OF CULTURE STATIONS.

##### BOROUGH OF MANHATTAN.

There are at present in the Greater City 297 drug stores acting as culture stations, of which 95 are "regular" stations visited daily by the Collector, and 202 "substations" sending specimens and obtaining supplies through the nearest regular station. These stations are divided as follows:

	Regular.	Sub-stations.
Borough of Manhattan.....	26	154
Borough of The Bronx.....	10	29
*Borough of Brooklyn.....	41	2
Borough of Queens.....	10	16
Borough of Richmond.....	8	1

In The Bronx two new stations have been established and none discontinued.

In Manhattan nine new stations have been established and four discontinued.

In Brooklyn one new station has been established and one discontinued.

In Queens two new stations have been established and one discontinued.

The Brooklyn service has been improved by the illustration of thirty-three cabinets similar to those placed in the regular stations in Manhattan, and eight large tin boxes (see photographs). It is expected that the regular stations in the other boroughs will be supplied with cabinets during the coming year.

In Manhattan 135 of the substations have been furnished with large boxes which are properly divided to contain the various outfits, and as a consequence are kept in much better order than the small boxes formerly used. It is expected that all the substations will be furnished with these boxes in the near future.

During the year a vest pocket booklet (Form 206 L) containing a list of all the culture stations, the time of day when each regular station is visited by the Collector, the station to which each substation delivers specimens, and also condensed information for physicians in regard to the work of the Department of Health, was prepared and distributed and met general approval.

A number of the substations are situated at a considerable distance from the nearest regular station, making it necessary for the Messenger to use the street cars, and agreements have been made with the proprietors of these stations to pay the carfares for such rides.

In October the auditing of these carfare bills was turned over to me and I found that several of these stations regularly turned in bills which represented a visit every day in the month. In order to determine if this service was actually performed, I sent to each station a package of cards stamped with the name of the station and dates for the month of November, with instructions that every day that the Messenger called at the collection station a card, corresponding to the date of visit, must be left in the cabinet.

These cards have been brought in by the Collectors, stamped with the date of receipt and turned over to me for filing. As this system has been in operation for only two months, it is impossible to give exact figures for comparison, but I believe that considerable saving will result. The regular stations have been visited once in two weeks by one of the Laboratory Assistants in a Department wagon and the stock of supplies replenished.

The substations have been inspected each month by the Nurses and requisitions for supplies made out when necessary. I have also personally inspected the condition of the regular stations.

In general, the condition of the stations has been very satisfactory and few complaints have been received from physicians, either in regard to lack of supplies or delays in the deliveries of specimens.

\*Of the regular stations in Brooklyn, six only are visited on Sundays and holidays, the others delivering to the nearest station.

The majority of the proprietors of the stations appear to take considerable interest in the work of the Department and are anxious to keep their supplies in good condition and make deliveries promptly. Considering the fact that the service is purely voluntary and without compensation, I think the results are as satisfactory as can be expected.

There are still a number of culture stations which are not supplied with antitoxin and vaccine owing to the fact that the Chief Clerk declines to issue contracts for the same. The proprietors either do not keep the Department antitoxin or are obliged to purchase it and, of course, cannot supply it to physicians on free slips. This makes trouble for the druggists as physicians do not understand why one station should differ from another. It seems to me that this divided arrangement of stations is not satisfactory and that it would be better to have the distribution of all supplies and products under the control of the Division of Communicable Diseases.

#### STEREOPTICON PICTURE EXHIBITIONS ON TUBERCULOSIS.

##### BOROUGH OF MANHATTAN.

The Department has long realized that the most important feature of the organized efforts to limit the spread of pulmonary tuberculosis now being made so generally throughout the world, is popular education. In its work it has sought to educate the public in various ways: By the publication and distribution of literature on the subject; by instruction given, verbally, by its Physicians and Nurses; by formal lectures and by co-operation with the various charitable and other organizations interested in the problem of the prevention of tuberculosis.

It is necessary, before any good results can be expected, to teach the simple everyday truths about the disease; its ready prevention; the possibility of its cure, and the proper care of those suffering from it. It is important, further, to interest others who, though not ignorant, are indifferent to the necessity of united energetic action on the part of the municipality in order to control this modern plague.

To further extend this work of popular education, stereopticon exhibitions were given in twenty-three of the public parks of Manhattan during the summer of 1906, illustrating various points in connection with the disease, and what is being done in various ways by the City to control it and to care for its victims. These pictures showed the ways in which the bacilli causing the disease are transmitted by the cough and expectoration of those who have it; by dust and air filled with particles of their dried sputum; the effect of the disease on the lungs; how overcrowded, dirty, badly ventilated rooms and tenements cause and spread it; how these conditions are being remedied by new building laws; how this Department cares for rooms infected with the germs of consumption by fumigation, and the removal and disinfection of the bedding and furnishings; how it cares for patients in Riverside Hospital and, finally, the possibility of the arrest and even the cure of the disease in country sanatoria such as that recently opened by the Department at Otisville, Orange County, New York.

In addition, the following terse sentences of advice in English and Yiddish were interspersed with the views on the screen:

1. Consumption causes more deaths than any other disease. Nearly one-third of all the people who die between twenty and forty-five years of age die of consumption.
2. If you want to know how to protect yourself and your family from consumption, take time to read these bulletins.
3. Consumption attacks especially those who live in crowded or badly ventilated rooms.
4. Consumption is caused by the poison present in the consumptive's spit. The poisonous spit dries and goes as dust into other people's lungs.
5. A little poisonous spit, when scattered in dust, is enough to affect dozens of people. People who spit on the floors of their homes spread the disease.
6. Consumption is caused by the dust from dried spit. Workmen who spit on the floors of their workshops spread the disease.
7. People who spit on the sidewalks where women get it on their dresses and take the poison home spread the disease.
8. Stop spitting, excepting into spittoons or into the gutters; you may have consumption and not know it.
9. Don't spit on floors. Don't spit in corners of rooms. You may have consumption and not know it.
10. Don't spit on stairs. Consumption is caused by the dust from dried spit. Don't spit on sidewalks.
11. If you have consumption don't give it to others by spitting. If you have not, don't let others give it to you.
12. A consumptive who coughs and spits anywhere and everywhere is a danger to the community.
13. He is a danger to the neighborhood. He is a danger to the family. He will poison the house he lives in.
- No. 14. A consumptive, who coughs and spits anywhere and everywhere, must be made to stop it. He is a danger to his family.
- No. 15. If he will not stop spitting he must be reported to the Board of Health as a dangerous nuisance.
- No. 16. A consumptive should spit into a cloth or paper which can be burned. If he spits anywhere else he is a source of danger to you and your family.
- No. 17. A careful consumptive, one who coughs into a handkerchief and spits into it, or into anything that can be boiled or burned, is perfectly safe to be about you.
- No. 18. Be kind to the careful consumptive, as you would have others be kind to you if you were sick.
- No. 19. The only consumptive to be afraid of is the careless consumptive. He is a danger to the neighborhood. He coughs and spits anywhere and everywhere.
- No. 20. Sunlight and fresh air kill the poison in the consumptive's spit.
- No. 21. In dark, damp or poorly ventilated rooms, the poison remains for months a source of danger.
- No. 22. Rooms which have been occupied by a consumptive should be thoroughly cleaned and then disinfected by the Board of Health.
- No. 23. See that you have fresh air in your homes.
- No. 24. See that you have fresh air in your work-shops. Don't live in a room where there is no fresh air. Don't work in a room where there is no fresh air. Don't sleep in a room where there is no fresh air.
- No. 25. The trouble is that people don't let air enough or sunlight enough into their homes.
- No. 26. If you suspect that you have consumption—if you have a slight persistent cough—if you are gradually, steadily losing weight—
- No. 27. If you are beginning to feel tired all the time—
- No. 28. If you have a slight feeling of feverishness every afternoon—
- No. 29. Go at once to your family physician, or if you are not able to do that, go at once to a dispensary.
- No. 30. Don't waste time or money on patent medicines or "Consumption Cures." They don't cure.
- No. 31. Consumption may be cured, if taken in time, but usually not otherwise.
- No. 32. Patent medicines do not cure consumption, most of them are practically alcoholic drinks in disguise.
- No. 33. They brace you up for a little while, after that you are worse than before.
- No. 34. "Consumption Cures" do not cure consumption. While you are taking them you are losing time, and time you cannot afford to lose.
- No. 35. The treatment of consumption is fresh air day and night; rest, as much as possible; food, as much as you can take.
- No. 36. Fresh air—day and night, summer and winter. Rest—all you can get. Food—all you can eat—plain food, bread and butter and milk.
- No. 37. Fresh air, rest, food. These give you your chance to get well of consumption.
- No. 38. Medicine will help but it is not so important. Avoid alcoholic drinks if you have consumption.
- No. 39. Alcoholic drinks are particularly bad for persons suffering from consumption. They do not cure—they kill.
- No. 40. Few people were ever benefited by the use of alcohol. Thousands of people have been ruined by it.
- No. 41. Self-indulgence and intemperance are very bad for the body. Vice, which weakens the strong, kills the weak.

Exhibitions were given at the following parks on the dates given below:

July 30, Battery Park, foot of Broadway.

August 1, City Hall Park, Broadway and Chambers street.



August 3, Mulberry Bend Park, Mulberry and Bayard streets.  
 August 6, William H. Seward Park, Canal and Jefferson streets.  
 August 8, Corlears Hook Park, Corlears and South streets.  
 August 10, Hamilton Fish Park, Houston and Willett streets.  
 August 12, Abingdon Square Park, Abingdon square.  
 August 13, Hudson Park, Hudson and Leroy streets.  
 August 14, Recreation Pier, Christopher street.  
 August 15, Washington Square Park, Fifth avenue and Waverly place.  
 August 16, Recreation Pier, Third street and East river.  
 August 17, Tompkins Square Park, Avenue A and Seventh street.  
 August 20, Park bounded by Seventeenth and Eighteenth streets and East river.  
 August 22, Stuyvesant Park, Rutherford place and Sixteenth street.  
 August 24, Union Square Park, Broadway and Fourteenth street.  
 August 27, Madison Square Park, Broadway and Twenty-third street.  
 August 29, Alexander Hamilton Park, Twenty-seventh and Twenty-eighth streets, Ninth and Tenth avenues.  
 August 30, Recreation Pier, Twenty-fourth street and East river.  
 September 2, Park bounded by Thirty-fifth and Thirty-sixth streets, First and Second avenues.  
 September 5, Bryant Park, Sixth avenue and Forty-second street.  
 September 6, De Witt Clinton Park, Fifty-second and Fifty-fourth streets and North river.  
 September 7, Recreation Pier, Fiftieth street and North river.  
 September 10, Central Park, The Green.  
 September 12, John Jay Park, Seventy-sixth and Seventy-eighth streets and East river.  
 September 14, East River Park, Eighty-fourth to Eighty-ninth street and East river.  
 September 17, Jefferson Park, One Hundred and Eleventh to One Hundred and Fourteenth streets and First avenue and East river.  
 September 18, Mount Morris Park, Mt. Morris to Madison avenue, One Hundred and Twentieth to One Hundred and Twenty-fourth streets.  
 September 28, St. Nicholas Park, One Hundred and Thirtieth to One Hundred and Forty-fifth streets, St. Nicholas to Tenth avenue.  
 September 29, Recreation Pier, West One Hundred and Twenty-fourth street.

These exhibitions were most successful. Lasting about an hour, in each case they attracted and held crowds of people of all ages and social conditions, and, doubtless, many persons who could not be reached in any other way were influenced. With this encouragement and with a desire to extend their influence as much as possible, similar exhibitions were given on certain of the Recreation Piers.  
 The National Association for the Prevention and Study of Tuberculosis, impressed with the novelty and value of these exhibitions, prepared copies of the slides for use in a traveling exhibition, in other cities of the country.  
 These exhibitions will be made more interesting and instructive by new photographs taken especially for them; the preparation and distribution to the spectators of a printed leaflet or card of information and instruction and the preparation of moving pictures, and continued during the winter as popular illustrated lectures, if possible, in connection with the Department of Education's lectures in the public schools. Arrangements will be made to give the picture exhibits again in the parks during the coming summer.

#### REPORT OF THE INSPECTOR IN CHARGE.

##### BOROUGH OF THE BRONX.

The year just ended has been one of great accomplishment for the Division of Communicable Diseases in the Borough of The Bronx, and it closes with results eminently satisfactory to those whose duty it has been to assist in the work connected with the Division.

During the year the office force has remained the same in number, although the personnel has been somewhat changed owing to the resignations and transfers. The general routine of work in the office has remained practically the same with the exception of a radical change in the method of handling the tuberculosis records, this change having been introduced by the Chief of the Division during the month of November. Details of this change will be found in the report of the Chief of Division.

##### Tuberculosis Clinic.

During the year preparations have been made for the opening of a public clinic for the treatment of communicable pulmonary and throat diseases, on the ground floor of the building now occupied by the Bronx Borough branch of the Department of Health at No. 3731 Third avenue. Plans were filed, contracts let, etc., and at the close of the year everything is practically completed. Most of the furniture and apparatus has been delivered from the manufactories, and unless something unforeseen occurs, the clinic will undoubtedly be opened by February 1, 1907. The space in the building devoted to clinic purposes has been divided into six rooms and two toilets, all arranged so as to allow of free ventilation by transoms, doors and air shafts. The rooms are: (a) registration room; (b) patients' waiting room; (c) drug and coat room; (d) throat room; (e) female examination room; (f) male examination room; (g) toilet and wash room for Physicians; (h) toilet for patients. Each examination room and the Physicians' toilet and wash room are supplied with hot and cold running water. The furnishings of the clinic are of the same type as those in use in the other clinics maintained by the Department of Health in Greater New York for the treatment of communicable pulmonary diseases. The methods of keeping the records, the formulary, etc., will be the same as is now in use in these clinics. The establishment of this clinic will undoubtedly fill a long felt want in the Borough of The Bronx, as there are very many consumptives living in this borough who are without treatment and without means to procure the same from a private physician, and who will unquestionably eagerly embrace the opportunity to procure good treatment near their homes free of cost. The establishment of this clinic will also relieve to some extent the pressure on the clinic in the Borough of Manhattan, to which all The Bronx cases have now to be referred. A competent corps of physicians will be in attendance on the patients, and the clinic will be under the general supervision of the Chief of the Tuberculosis Clinics and under the immediate charge of the Inspector in charge of the Borough.

##### Administration of Diphtheria Antitoxin.

The work of the Inspectors during the year has been commendable. Promptness and thoroughness has been the rule. The work in the administration of diphtheria antitoxin and in intubating has been successful in a high degree, as shown by the very small number of cases of secondary infection. In the matter of intubation we have been greatly aided by the staff of Physicians under Dr. Watson, Resident Physician at Riverside Hospital, North Brother Island. Calls upon him in cases for intubation where our Inspectors have not been immediately available, owing to absence upon other calls at the time, have been cheerfully responded to at once and the lives of many children suffering from laryngeal diphtheria have been preserved by this prompt and effectual action on the part of his hospital staff. There are at present forty culture stations in the borough.

##### Typhoid Fever.

During the latter part of the fall there was a sudden rise in the number of cases of typhoid fever reported to the Department in this borough. It was also noticed that a very large percentage, about 75 per cent., lived in a certain section of the borough not much more than half a mile square. The cases for a few days increased rapidly in number and reached on one day eighteen—a very large number for one day in this borough. Immediate steps were taken for the purpose of ascertaining, if possible, the cause of the outbreak, and for the purpose of eradicating the disease before it might gain a foothold which would make it a serious menace. The following measures were at once adopted:

1. A house to house canvass of the infected district to locate hidden or unreported cases, if any, or any cases not under the care of a physician.
2. The distribution of circulars of information to as large a number of families living in the said district as possible.
3. The visiting of all reported cases by Inspectors, and the instruction by means of literature in precautionary measures.
4. The disinfection of apartments and bedding after the termination of the cases by death, recovery or removal to the hospital.

5. The inspection of all milk stores in the said district (there are thirty-four of these).

6. The inspection of all stores selling raw food stuffs which might be a source of infection. This entailed the inspection in the said district of groceries, fish, fruit and meat stores to the number of seventy-six.

7. A chemical and bacteriological examination of the city water drawn from ten hydrants in different parts of said district.

8. An inspection of the watershed, its streams, lakes and shores, and of the reservoir in which this water is stored for consumption.

9. An inspection of the dairies and creameries from which milk is sent to the distributing stations for consumption in the said district. This of course could be done only in the case of the large suppliers of the district.

10. The keeping of all reported and discovered cases under observation of the Inspectors of the Department.

These measures were well carried out and an epidemic was fortunately averted. With the exception of the rise in the number of cases of typhoid fever previously mentioned, there has been a moderate number of cases only during the remainder of the year, a very small percentage for the size of the borough and its population, which is approximately about four hundred thousand.

##### Cerebro-spinal Meningitis.

Cerebro-spinal meningitis has gradually died out and there have been relatively very few cases reported during the year. Fumigation has been done at the termination of each case, except for some special and adequate reason.

A strict record of all other communicable diseases (pneumonia, erysipelas, abortion, malaria, etc.) has been kept during the year for statistical purposes and for future reference.

Deaths from malaria (so reported) have been investigated by the Inspectors in order to demonstrate whether the death might not have been due to typhoid fever.

All deaths from pneumonia have been investigated to see if the case has not been previously reported as one of tuberculosis. If so found, the attending physician has been communicated with and the premises fumigated and renovated if necessary. The matter has then been referred to the Assistant Registrar of Records for action if necessary.

##### Tuberculosis.

The supervision of tuberculosis constitutes one of the most important branches of the work of this Division. The nurse, in addition to her other regular work in tuberculosis, inspection of culture stations, etc., has had an average of over fifty cases of tuberculosis under her constant observation in their homes. The aid received by many of these patients from the various charity organizations of the City is worthy of mention and of great commendation. There were a moderate number of forcible removals of consumptives to the Riverside Sanatorium owing to bad sanitary conditions at the home and also to the dangers of infection of other members of the family.

There was a considerable increase in the number of cases of tuberculosis reported this past year over 1905. This is due apparently to large increase in population during the year—a fair proportion of this increase coming from the crowded and less sanitary portions of Manhattan. Physicians in general are more carefully reporting their cases, as are also the hospitals and dispensaries. General enlightenment of the public at large through the lay press and through the distribution of circulars in many languages by the Department of Health to afflicted families and others has caused the laity to be on the alert and to seek earlier medical advice than heretofore. The Bronx also shelters a very large number of tuberculosis cases in Seton and St. Joseph's hospitals, both of which are constantly filled with these afflicted people. A goodly number of cases of tuberculosis have been sent from this borough to Ray Brook and Otisville Sanatoria and to St. Vincent's Hospital on Staten Island.

The new clinic will be able to take care of a large number of ambulatory cases, and, altogether, the outlook for the year 1907, in the caring for the supervision over consumptives, is one of good promise.

In conclusion it is to be said that the standard of the work of the Division in the borough has been greatly raised during the past year, due in great measure to the faithful and conscientious work of the Inspectors, Nurses and employees.

#### REPORT OF THE INSPECTOR IN CHARGE.

##### BOROUGH OF BROOKLYN.

Recapitulating the work of this division in the Borough of Brooklyn during 1906 and the progress made, I beg to report as follows:

The offices of the division, located for some eighteen months at No. 75 Henry street, were removed on the 1st of October, 1906, to No. 361 Jay street, this change having been made necessary by the opposition of residents of Henry street and the vicinity to the opening of the tuberculosis clinic, they having secured a permanent injunction against the same, and while the new building is not so spacious as the old, yet it is far more central, and arrangement of its rooms more suitable for our purposes.

The constantly increasing work of the division rendered necessary, early in the year, the employment of two additional Clerks and two Medical Inspectors.

The new telephone system of registration and assignment for inspection of tuberculosis cases has worked very well, as far as the Inspectors are concerned, there being eight of them on district duty. Since its commencement their work has not been heavy. With the Nurses, however, it has not been possible for the four between whom the entire borough is divided to cover the necessary ground so as to complete all work assigned within the allotted twenty-four hours. It is hoped, however, that the services of an additional Nurse for district duty can be secured, which would, in all probability, solve the problem.

To show the distribution of the cases of pulmonary tuberculosis an enlarged map of the borough was purchased, and each and every case reported was indicated thereon with a tack, and this chart now adorns the entire side of one room (see photograph).

##### Tuberculosis.

Our principal work, the sanitary supervision of tuberculosis, has been carried on along the old lines, but these have perhaps been followed out more thoroughly than ever before, resulting in, first, the total report during the year of some 5,400 cases of pulmonary tuberculosis, 400 cases in advance of 1905. Of this number those that the department was permitted to visit received 13,256 visits from our Inspectors and Nurses. More circulars of information regarding this disease were distributed than ever before by Inspectors, by Nurses, and at various meetings concerning this disease held in the borough during the year under private auspices. The new dusting circular figured prominently, and one was issued by Nurse or Inspector on each visit without respect to the nature of the disease.

We have been continually on the lookout for infected houses, and in order to prevent the possibility of such developing, issued during the year some 778 renovation orders, an increase over the previous year of about 200.

##### Typhoid Fever.

This disease has been less prevalent, the 1,200 cases reported being 700 less than last year, and through the circulars of information concerning this disease distributed in every instance, the department may claim some credit in having prevented in many cases direct infection.

##### Cerebro-Spinal Meningitis.

Only 200 cases of cerebro-spinal meningitis having been reported during 1906, the disease may be considered to have become sporadic, and the fumigations and disinfections done and the circulars distributed may again claim some good effect.

##### Diphtheria.

This disease has been rather more prevalent during 1906 than during 1905. As one good result of the department's work I may mention the fact that out of 1,982 persons immunized against the disease by the Inspectors (and they have



injected everyone to their knowledge exposed to the disease) only three developed diphtheria, and each in this instance was a very mild form.

On the 12th of November the long-delayed tuberculosis clinic was opened and started under the most promising auspices, with a most excellent corps of Attending Physicians and Nurses. The attendance runs from two to five new cases daily, and from five to fifteen revisits, but this number is constantly augmenting. Through the kind offices of the Brooklyn Bureau of Charities, daily distribution is made of two quarts of milk and three eggs each to some forty of the clinic's patients who have been adjudged suitable for such extra diet.

The clinic is now open for patients from 2 to 4 p. m. daily, but it will soon be necessary to have morning and evening hours similar to those of the Manhattan clinic.

#### REPORT OF THE INSPECTOR IN CHARGE.

##### BOROUGH OF QUEENS.

###### I.—Inspectors.

No change in the number or personnel of the Inspectors occurred during the year, the division continuing to have one Inspector of its own, plus the services of a Diagnostician for antitoxin injection, loaned by the Division of Inspections.

That this force is hardly adequate for nor commensurate with the size of the borough is apparent at a glance.

Size of Borough—Length, 24 miles; width, 15 miles; area, 107 square miles. Population, 250,000, divided as follows: First Ward, 65,000; Second Ward, 65,000; Third Ward, 29,000; Fourth Ward, 42,000; Fifth Ward, 10,300.

(a) For antitoxin injection the borough was divided into two districts, the first comprising the First and Second Wards, the second the Third, Fourth and Fifth Wards. These two districts compared show the major part of the antitoxin work was done in the first district.

	First District.	Second District.
Primary injections .....	61	53
Persons immunized .....	239	76
Total diphtheria visits .....	286	159

(b) For tuberculosis, typhoid, C. S. M., and all other inspections, the borough was covered in its entirety by the one Inspector. The total area of the district being 107 square miles, liberal allowances had to be made for delay in reaching premises within the prescribed time limit.

###### II.—Nurses.

Up to November 20 a Nurse was assigned to work two days a week in this borough, the balance of her time being divided between Richmond borough and the Manhattan Tuberculosis Clinic. This proved to be so unsatisfactory, by reason of the increase of work and the delay in visiting cases (patients frequently being reported as dead before first visit of Nurse was made) that on November 20 a Nurse was assigned exclusively to the borough.

##### BOROUGH OF QUEENS.

###### Comparative Table I.

Disease.	1905.		1906.	
	Cases.	Deaths.	Cases.	Deaths.
Diphtheria .....	577	72	627	94
Tuberculosis .....	504	278	603	308
Typhoid .....	146	31	166	30
Cerebro-spinal meningitis .....	38	48	21	16
Pneumonia .....	105	384	534	483
Malaria .....	2	4	23	7
Erysipelas .....	2	6	20	10
Sepsis .....	11	16	24	16
Abortion .....	4	10	1	3

Note.—Where the above figures do not correspond with the sum of the daily reports it is because of the subtraction at the end of the year of the total number of "no cases"—i. e., cases that have been counted but returned "no case."

###### III.—Records.

During the year the following changes in gathering and keeping the records were inaugurated:

The method of reporting tuberculosis cases by institutions and of assigning these cases to Inspectors and Nurses was changed from the mail to the telephone (for the detail of this arrangement see Chief of Division's report).

The operation of this system in this borough was attended with some difficulty. Out of the five hospitals in the borough, one had no telephone and one had recently adopted a rule to receive no more cases of tuberculosis. The telephone service to Astoria was and still is so wretched it is only with great difficulty that messages can be transmitted with any degree of accuracy, and that no momentous errors have occurred is only an indication of the carefulness of both the operator in Manhattan and the Inspector in Queens.

Maps—As in 1905, the localities of all cases of tuberculosis, cerebro-spinal meningitis, typhoid and pneumonia were indicated on large maps of the borough by means of colored tacks.

These maps show at a glance the segregational tendency of these diseases, clumps of tacks pointing plainly to foci of contagion. For example, the worst two spots for tuberculosis are Hunter's Point, in Long Island City, and Ridgewood, adjacent to the Brooklyn boundary line.

Chart—A chart was kept indicating by colored lines the weekly rise and fall of the communicable diseases.

In this borough, the weekly reported number of the various diseases so nearly corresponded that the frequent criss-crossing of the colored lines on the chart was confusing. I therefore recommend that the chart for 1907 be modified as per plan proposed.

The reproductions of each disease separately, as here submitted, were so made in order to obviate the bewildering incident to a contemplation of the whole.

###### IV.—Diphtheria.

The time of year in which diphtheria was most prevalent in the borough was the week ending December 22, with thirty-two (32) cases reported and four (4) deaths.

The locality of the greatest occurrence was Hunter's Point, in Long Island City.

Total number of cases reported during the year.....	627
Total number of deaths.....	94

Of the 105 cases injected by the Department, only nine were intubated. This, with the small number of deaths (8), would seem to indicate that the cases were visited promptly and injected early in the course of the disease.

Private Physicians' Cases—Every physician reporting a case of diphtheria but declining the offer of antitoxin injection was interviewed by an Inspector, with a view to ascertaining if antitoxin was administered privately; if not, why not, and offering again the services of the Department.

The Inspectors reported to the Inspector in Charge from time to time that many of the physicians so interviewed grew angry at the fancied interference of the Health Department in their affairs; but the employment of tact usually elicited the information without causing such offense as to result in a formal protest to this office.

A brief summary of this work follows:

Number of physicians interviewed.....	101
Number of interviews.....	278
Privately injected .....	252
"Does not believe in antitoxin".....	2
"Case too mild for antitoxin".....	4
"Does not use it in croup".....	1
"Didn't have to".....	1
"Doing well without antitoxin".....	3
"Called too late".....	1
"Child too nervous".....	1
"Did not wish to use it".....	1
"Injection not warranted".....	1
"Case convalescent".....	3
"Case not diagnosed as diphtheria".....	2
"No reason".....	6

Quarantine Release—Complaints having been received that quarantine was raised by the Division of Contagious Diseases of the borough before later cultures showed diphtheria bacilli to have disappeared, or without any later cultures having been taken, the matter was investigated and the charge found to be true. Since that time daily scrutiny of quarantine releases has been maintained by the Inspector in Charge, and the Assistant Sanitary Superintendent communicated with in each case of omission.

###### V.—Tuberculosis.

The time of the year in which tuberculosis was most prevalent in the borough was the week ending April 7, with twenty (20) cases reported and eight (8) deaths.

The locality of the greatest occurrence was Hunter's Point (Long Island City), with Ridgewood (in the Second Ward) a close second.

Total number of cases reported during the year.....	604
Total number of deaths.....	308
Cases reported by institutions.....	91
Cases reported by private physicians.....	220
Cases reported by dead list.....	99
Cases reported by sputum.....	138
Cases reported by other boroughs.....	53
Cases reported miscellaneous.....	6
Duplicate reports .....	206
Cases not found.....	166
Cases entering hospitals.....	50
Mistaken diagnosis .....	3
Voluntary renovations .....	251
Fumigations .....	360

The last two items, compared, indicate a gratifying willingness on the part of the inhabitants of Queens to augment the efforts of the Health Department in dealing with this disease. There were only twenty-nine (29) ordered renovations.

Forcible Removals—There were only two forcible removals during the year.

Hospitals—The census of cases of tuberculosis in hospitals was taken twice, March 1 and August 1.

The returns made it obvious that in spite of frequent visits by the Inspector in Charge, letters of instruction, etc., the hospitals were not reporting all cases as they should. The chief cause of this negligence was the custom of leaving this duty for the house physician to perform. As these physicians receive no incentive in the shape of remuneration for exercising care in the performance of such duties, as there is no penalty for failure to perform them, and as the incumbent of the position is changed every six months or oftener, the problem of getting full and accurate reports seemed insolvable until the idea occurred of using the telephone instead of the mail. Record books were furnished to the institutions and they are now called up once a week for the required information.

St. John's Hospital, Long Island City—Decided, about June 1, to receive no more cases of tuberculosis.

Private Cases—The annual letter to private physicians requesting information as to their private cases of tuberculosis was sent out (in this borough for the first time) on June 1, with the following results:

Letters sent out.....	134
Replies received .....	105
Failed to reply .....	29
Cases improved .....	43
Cases worse .....	12
Cases died .....	69
Unsatisfactory .....	67

The cards for which no reply was received were given to the Nurse for inspection and the "Private Case" file was then corrected to date.

The private physicians' file of "non-reported cases" shows the following data:

Number of physicians failing to report one case.....	28
Number of physicians failing to report two cases.....	13
Number of physicians failing to report three or more cases.....	4
Number of physicians requiring two letters before replying.....	17
Number of physicians requiring three letters before replying.....	..

Cases of Tuberculosis Reported as Having Died from Other Cause—Four (4) of these cases were investigated with very unsatisfactory results, the physicians maintaining the cases were not tuberculous in spite of our records (sputum, etc.) to the contrary.

###### VI.—Typhoid Fever.

The time of year in which typhoid was most prevalent in the borough was the week ending August 18, with thirteen (13) cases reported and no deaths.

The locality of the greatest occurrence was Hunter's Point (Long Island City).

Total number of cases reported during the year.....	166
Wrong diagnosis .....	9
Total number of deaths.....	30

Of the 166 cases reported, forty-nine (49) were treated in hospitals, the remainder at their homes.

Cases which physicians failed to report before death.....	4
Number of disinfections.....	70
Number of milk stores inspected.....	19
Number of oyster stores inspected.....	1

###### VII.—Cerebro-Spinal Meningitis.

The time of year in which cerebro-spinal meningitis was most prevalent in the borough was the week ending November 17, with three (3) cases reported and no deaths.

The locality of the greatest occurrence was the Ridgewood section, adjacent to Brooklyn:

Total number of cases reported during the year.....	21
Wrong diagnosis .....	2
Total number of deaths.....	16
Cases which physicians failed to report before death.....	5
Number of fumigations and disinfections.....	18



## BOROUGH OF QUEENS.

Tuberculosis Cerebro-Spinal Meningitis and Typhoid Fever, as Reported by Weeks and Arranged by Wards.

Week Ending	Ward I.			Ward II.			Ward III.			Ward IV.			Ward V.		
	Tuber- culosis.	C. S. M.	Ty- phoid.	Tuber- culosis.	C. S. M.	Ty- phoid.	Tuber- culosis.	C. S. M.	Ty- phoid.	Tuber- culosis.	C. S. M.	Ty- phoid.	Tuber- culosis.	C. S. M.	Ty- phoid.
January 6.....	3	..	1	3	..	..	1	..	..	2	1	..	..	..	..
January 13.....	1	..	2	4	..	..	3	..	2	2	..	1	1	..	..
January 20.....	6	1	..	2	..	..	..	..	..	4	..	..	..	..	..
January 27.....	2	..	..	7	..	..	4	..	1	3	..	..	..	..	..
February 3.....	5	..	1	5	..	..	2	..	3	2	..	..	..	..	..
February 10.....	1	..	..	..	..	2	1	..	..	1	..	1	..	..	..
February 17.....	3	..	..	4	..	..	2	..	..	..	..	1	..	..	..
February 24.....	6	..	1	2	..	..	1	..	..	1	..	1	..	..	..
March 3.....	4	..	..	7	..	2	3	..	..	3	..	..	..	..	..
March 10.....	4	..	..	2	..	1	2	..	..	1	..	..	2	..	..
March 17.....	2	..	..	3	..	..	2	..	1	2	..	1	..	..	..
March 24.....	3	..	..	4	..	1	1	..	..	5	..	..	..	..	..
March 31.....	6	..	1	6	..	1	2	..	1	3	..	..	..	..	..
April 7.....	10	..	..	5	..	..	1	..	..	3	..	..	1	..	..
April 14.....	2	..	..	6	..	..	..	..	..	1	..	..	1	..	..
April 21.....	5	..	1	6	..	1	..	..	..	5	..	..	..	..	..
April 28.....	2	..	..	3	..	..	3	..	..	1	..	..	1	..	..
May 5.....	2	1	3	5	..	..	1	..	..	4	..	..	..	..	..
May 12.....	3	..	1	4	..	1	4	..	..	2	..	..	..	..	..
May 19.....	1	..	2	3	..	..	1	..	..	1	..	..	..	..	..
May 26.....	5	..	3	2	..	..	1	..	1	1	..	1	1	..	..
June 2.....	1	..	1	5	2	..	1	..	..	3	..	2	..	..	..
June 9.....	1	..	2	3	..	1	1	..	..	..	..	1	..	..	..
June 16.....	3	..	..	2	..	3	1	..	..	1	..	..	3	..	..
June 23.....	2	1	..	9	..	2	1	..	..	3	..	1	..	..	..
June 30.....	..	..	1	4	..	1	3	1	..	2	1	..	..	..	..
July 7.....	5	2	..	7	..	..	1	..	..	1	..	..	..	..	..
July 14.....	4	..	1	7	..	..	..	..	..	4	..	..	..	..	..
July 21.....	1	..	1	4	..	..	..	..	2	1	..	1	1	..	2
July 28.....	2	..	..	5	..	..	1	..	..	1	..	1	..	..	..
August 4.....	7	..	2	7	..	1	1	..	1	..	..	..	2	..	1
August 11.....	2	..	..	5	..	..	1	..	1	2	..	1	1	..	..
August 18.....	4	..	3	6	1	4	2	..	1	4	..	2	..	..	3
August 25.....	5	..	1	3	..	..	1	..	..	2	..	1	1	..	2
September 1.....	3	..	2	5	1	1	1	..	..	..	..	..	2	..	..
September 8.....	6	..	3	5	..	3	3	..	4	3	..	..	1	..	..
September 15.....	7	..	..	6	1	2	..	..	1	4	..	..	..	..	2
September 22.....	2	..	1	4	..	3	..	..	1	1	..	..	..	..	1
September 29.....	3	..	5	5	..	..	..	1	3	2	..	2	..	..	..
October 6.....	4	..	5	3	..	1	6	..	1	..	..	..	..	..	..
October 13.....	6	..	..	9	..	1	2	..	..	2	..	2	..	..	2
October 20.....	8	..	2	6	..	..	..	1	..	2	..	2	..	..	..
October 27.....	5	..	1	2	..	1	4	..	1	1	..	..	..	..	..
November 3.....	4	..	..	1	1	1	3	..	1	1	..	..	..	..	..
November 10.....	2	..	2	3	..	..	..	..	1	2	..	1	..	..	..
November 17.....	2	..	2	8	3	..	3	..	..	1	..	..	..	..	..
November 24.....	2	..	..	3	..	..	4	..	1	1	..	2	..	..	..
December 1.....	6	..	4	4	1	..	..	..	..	2	..	1	1	..	..
December 8.....	3	..	1	4	..	1	..	..	..	..	..	1	..	..	..
December 15.....	2	..	1	2	..	..	1	..	..	..	..	..	1	..	..
December 22.....	3	..	..	6	..	1	1	1	..	1	..	1	..	..	..
December 29.....	1	..	1	3	..	..	..	..	..	..	..	4	..	..	..
Total.....	183	5	58	229	10	36	77	4	28	95	2	32	20	..	13

## VIII.—Pneumonia.

The time of year in which pneumonia was most prevalent in the borough was the week ending March 3, with twenty-one (21) deaths reported.

Total number of cases reported during the year..... 534

Of these only fifty-nine (59) were living cases, the balance (483) being reported by dead list.

## IX.—Malaria.

Total number of cases reported during the year..... 23

All deaths from this disease (11) were investigated, and in four instances it was found that other causes than malaria were responsible for death, so the death certificates were corrected accordingly.

## X.—Erysipelas.

Cases reported during the year..... 20

Reports filed, no investigation.

## XI.—Abortion.

Cases reported during the year..... 1

Reports filed, no investigation.

## XII.—Puerperal Septicaemia.

Cases reported during the year..... 24

Reports filed, no investigation.

## XIII.—Culture Stations.

The sixteen substations in the borough were inspected every month by either the Inspector or Nurse, and thrice during the year by the Inspector-in-Charge. One station (Bayside) was discontinued and another (Rockaway Beach) was put on pro-

bation. Other than these, the pharmacists evinced a willingness to do as directed, and the boxes, although in some instances too small, are now in good order and condition.

## XIV.—Tabulation of Histories and Compilation of Statistics for the Division.

It was decided at the beginning of the year that this work would be better done continuously (from week to week) throughout the year, instead of being left for the closing weeks. The task was assigned to the Inspector-in-Charge of Queens, who drew up sheets for each borough and for each disease. The histories, when completed were sent to his office by the Inspectors-in-Charge of each borough, and were returned stamped "Tabulated," for filing.

This plan should have worked very well, the one flaw being the sending of incomplete histories to be tabulated. This lack of care caused much inconvenience and delay. In order to obviate this difficulty it is recommended that the histories for each borough be hereafter tabulated by the Inspector-in-Charge of each borough.

Added force is lent to this suggestion by the fact that the steady increase in the office work of the Borough of Queens will compel the appointment of a Clerk, unless the above recommendation is adopted.

## Recommendations.

1. Establishment of a tuberculosis clinic either in Long Island City or Jamaica. The necessity for such a clinic grows daily with the increase of the population of the borough.

2. Removal of borough office to the borough building in Jamaica. This recommendation is made with full knowledge that its adoption will work an inconvenience to the present Inspector-in-Charge of the borough, but as the "good of the service" should overshadow personal preference, it is made in that spirit.

3. Transfer of the Work of Tabulation—The divisional statistics of each borough to be tabulated by the respective Inspector-in-Charge (the private physician antitoxin histories by the Inspector-in-Charge of Culture Stations).

4. Rearrangement of Inspector's Districts—The assignment of another Inspector to the borough, to relieve the borrowed services of a diagnostician, and to more



equitably divide the work, is a pressing need which bids fair to be supplied within the next few months by the transference of a Manhattan Inspector, at his own request, to Queens.

#### REPORT OF THE INSPECTOR IN CHARGE. BOROUGH OF RICHMOND.

Commencing January 1, 1906, all inspections, administration of antitoxin, etc., which formerly was done by the various district Inspectors of the Division of Contagious Diseases, have been done by the Inspector-in-Charge and one Nurse, the latter spending two days per week here until December 1, since when she has spent four days per week here.

All disinfections have been made by our own disinfectant, promptly and thoroughly. This small force, with the very large territory to be covered, added to the very poor public transit facilities, has had at times very hard work to get the work done on time, but I am glad to report that the work has always been promptly and efficiently performed.

There has been no epidemic of any of the communicable diseases under the supervision of this Division in this borough—all cases reported being sporadic, and in only one instance (a case of typhoid) was there any suspicion of direct infection.

#### Typhoid Fever.

There were two less cases of typhoid fever this year than last, and the death rate was 1.3 per 1,000 of population as against 1.5 per 1,000 last year.

#### Tuberculosis.

There were 20 per cent. more cases of tuberculosis reported this year than last, while the number of previously unreported dead cases has fallen from 41 in 1905 to 28 in 1906, thus showing that the physicians are reporting their cases better. The death rate per 1,000 has fallen from 21.2 per 1,000 in 1905 to 17.1 in 1906. The presence in this borough of a sanatorium for tuberculosis which receives most of its cases from other boroughs, brings this death rate higher. If we subtract the deaths of patients in this sanatorium from the total deaths from this cause we get a revised death rate for this borough of 12.4 per 1,000.

#### Pneumonia.

There have been a great many more cases reported during 1906 as the physicians understand more and more that this is a reportable disease. The death rate per 1,000 has fallen markedly, however, from 22 in 1905 to 18.9 in 1906.

#### Diphtheria.

Twenty-one cases of diphtheria received 35 curative injections of antitoxin, with no deaths due to diphtheria proper. Twelve intubations were made with no deaths. Two hundred and twenty exposed individuals received immunizing doses of antitoxin and only one of these cases subsequently contracted diphtheria, and as it developed in less than 24 hours after the immunization was performed, the child probably had the disease at that time. The case proved a very mild one.

#### CLINICS FOR THE TREATMENT OF COMMUNICABLE PULMONARY DISEASES.

##### Report of the Chief of Clinics.

A review of the work of the Clinic for the Treatment of Communicable Pulmonary Diseases for the year 1906 is interesting, quite as much for the large share it has had in the various efforts made for the care and relief of tuberculous patients by municipal, private and charitable organizations, as for the steady progress and effectiveness of its own work.

The dispensary system, so much more tardy in development in this country than in France or Germany, has, in the past year, grown rapidly, becoming daily more satisfactory and more an essential part of the modern anti-tuberculosis machine.

When, therefore, it is said that the Department Clinic has thoroughly justified the purposes for which it was established; that it has been a clearing house for the various classes of consumptives as well as an individual school of instruction, or preventorium; that it has served as a model for similar institutions elsewhere in this country, and that it has shared actively with similar dispensaries here in concerted measures for the relief, care and control of the City's consumptives, it is evident that the year has been one of success and progress.

##### History Cards.

An improved set of history cards has been devised which is more comprehensive and is designed for use in and to secure uniformity of the records of all the tuberculosis institutions of the Department.

##### Otisville Sanatorium.

Since the opening of the sanatorium for incipient patients at Otisville, all applicants have been examined in the clinic and admitted by the Chief of Clinic. To the Assistant to the Chief of Clinic has been assigned the conduction of each party of patients to the sanatorium.

##### State Sanatorium.

Applicants for admission to the State Sanatorium at Ray Brook, N. Y., have also been examined at the Clinic, subject to review by the Chief of Clinic and final examination by the Chief of Division.

##### Extra Diet.

Extra diet in the form of milk and eggs has been supplied on recommendation of the physicians in attendance and subject to the approval of the Chief of Clinic to incipient and favorable second-stage cases only, and only after careful investigation by a nurse of their financial need and fitness for such aid, previous experience having shown the necessity of great care and constant control to prevent abuse of this valuable adjunct to treatment. Further, only those who become and remain patients of the Clinic now receive the extra diet, its distribution by the Manhattan office of this Division having been discontinued early in the year. As heretofore, both eggs and milk have been distributed through the depots of the New York Diet Kitchen Association at the expense of this Department. The appended tabulations indicate the limitations which it has seemed wise to make in the distribution of extra diet.

##### Nurses.

The assignment of an additional Nurse to the work of visiting patients in their homes has assisted in the extension of the clinic's sphere of influence and has made it possible to keep more patients needing such attention under observation. It is recommended again, as in the report of 1905, that this feature of dispensary work is essential and should be extended as rapidly as possible along the lines of legitimate nursing, the instruction and care of patients and the disinfection and fumigation from time to time of their personal and bed clothing in their homes.

##### Brooklyn Clinic.

In accordance with the plan of this Department to establish dispensaries in the other boroughs of the City, the Brooklyn Clinic was opened in the building of this Division, at No. 361 Jay street, on November 12, 1906. It is similar in equipment, methods of operation and purpose to the Manhattan Clinic. Occupying the ground and first floors, there are provided a registration room, a waiting room for patients, an examination room each for men and women and a throat room. Owing to many delays the latter is not yet equipped, and the Clinic as a whole has scarcely established itself, but the work done so far has been very satisfactory.

##### Chief of Clinics, Supervising Nurse, Clinic Nurses.

With this, the first extension of the Department dispensary system, the organization and immediate direction of the Brooklyn Clinic, as well as all those soon to be put in operation elsewhere, was assigned to the Chief of Clinic under the title of Chief of Clinics, and Miss Lois Davidson was detailed as Supervising Nurse of Clinic nurses. For the Manhattan Clinic, in addition to three nurses assigned to

Clinic work, two nurses are detailed from the Willard Parker Hospital. For the Brooklyn Clinic three nurses are detailed from the Kingston Avenue Hospital.

##### X-Ray Work.

Unfortunately, little use has been made of the X-Ray plant except for radioscopic examinations, as, owing to lack of a suitable dark room, no photographic work could be done. However, since the removal of the drug laboratory from the cellar of the Clinic, a completely equipped dark room has been designed and is now being installed there. Improvements have been made in the efficiency of the plant and the ease and safety of its operation, and under the direction of Dr. L. G. Cole, who has kindly offered his services, it is hoped during the coming year to make some studies, by means of photographic plates, of incipient lesions.

##### Attending Physicians.

Some changes have been made in the personnel of the attending physicians. Their services, given without remuneration, have been for the most part faithful and efficient. The work is exacting, not without hazard, and requires skill, judgment and a knowledge of the tuberculosis problem, which only men trained in this work possess. This Department cannot expect to secure and retain the services of such clinical assistants without making them some financial return; certainly, it cannot demand their services to the detriment of their own private work, and it is therefore strongly recommended, in order to secure more constant attendance and fewer changes in the attending staff, that, as has been promised for so long a time, adequate salaries be paid.

##### Dispensary Districts.

An exceedingly important feature of the year's work to which attention is especially directed, is the co-operation of the Manhattan Clinic with other tuberculosis dispensaries of that borough and under the auspices of the Charity Organization Society's Committee on the Prevention of Tuberculosis, in the Society's relief work, and the development from this of a system of dispensary districts which promises in the future to be an important factor in the municipal control of pulmonary tuberculosis.

Certain charitable persons having given to the Charity Organization Society a considerable sum of money to be expended for the relief of tuberculosis patients, a sub-committee was appointed consisting of the Secretary of the Committee, Mr. Paul Kennaday; the Assistant Secretary of the Society, Mr. C. C. Carstens; Mr. Gaylord White, interested in the society's work; Dr. S. F. Hallock, closely identified with the district work of the society, and the following physicians:

Dr. Jas. Alexander Miller, chairman; director of the tuberculosis dispensaries of Bellevue and Allied Hospitals.

Dr. J. H. Huddleston, in charge of the tuberculosis work of Gouverneur Hospital Dispensary.

Dr. Henry L. Shively, in charge of the tuberculosis work of the Presbyterian Hospital Dispensary.

Dr. Henry W. Patterson, in charge of the tuberculosis work of Vanderbilt Clinic.

Dr. B. H. Waters, in charge of the clinics of the Department of Health.

Early in the year this Committee, sitting once a week, began reviewing cases referred to it by the district agents of the Charity Organization Society and deciding the best disposition to make of each; in some cases removing them to better quarters and paying the excess rent; in others, paying the wage loss while patients were in a sanatorium, providing beds for the separate use of patients, sending patients for periods of several weeks or months to the country, besides giving much financial assistance. (For more detailed information see below and also the special report of this Committee.)

It was soon found that such work required preliminary medical examinations and reports, and while at first such reports were obtained from the dispensary at which the patient was attending, it was later thought desirable that the respective chiefs, being members of the Committee, could best do this work.

Many patients, too ill to attend the dispensary, required to be visited in their homes. The greater part of this visiting has been done by the physicians of this Department.

Still later, in order to facilitate the work of the dispensary nurse and to avoid duplication of their visits, it was decided to assign to each dispensary represented on this Committee a definite district and, after June 1, to require each dispensary to refer every new patient, as soon as a final diagnosis of pulmonary tuberculosis could be made, to the dispensary in whose district he or she lived, further treatment being thereafter refused in the dispensary of original application.

The districts as first laid out were:

Bellevue, bounded on the south by East Tenth street, on the west by the Bowery, Broadway and Fifth avenue, on the north by Fifty-ninth street, and on the east by the river.

Gouverneur, bounded on the south by the Brooklyn Bridge, on the west by the New Bowery, on the north by Grand street, and on the east by the river.

Presbyterian, bounded on the south by Fifty-ninth street, on the west by Fifth avenue, on the north by Ninety-fifth street, and on the east by the river.

Harlem, bounded on the south by Ninety-fifth street, on the west by Fifth avenue, on the north and east by the river.

The Department of Health, the rest of Manhattan Borough and the other boroughs of the City.

Later, Bellevue district was increased by the extension of the southern boundary to Grand street. Still later, on the admission of Vanderbilt Clinic to the system, certain changes in boundaries were made, so that at present they are:

Bellevue, on the south by Grand street, on the west by the Bowery, Broadway and Fifth avenue, on the north by Forty-second street and on the east by the river.

Gouverneur, on the south by Dover street, on the west by the New Bowery and the Bowery, on the north by Grand street and on the east by the river.

Presbyterian, on the south by Fifty-ninth street, on the west by Fifth avenue, on the north by One Hundred and Tenth street and on the east by the river.

Harlem, on the south by One Hundred and Tenth street, on the west by Eighth avenue and on the north and east by the river.

Vanderbilt, on the south by Fiftieth street, on the west by the river, on the east by Eighth avenue and Central Park West, and on the north by the borough limits.

As will be seen by reference to the statistical tables, this procedure has affected little, if at all, the attendance at the Manhattan clinic of the Department. This is probably due to the fact that there has been during the year a steady increase in the number of patients applying for admission. Whether the recent assignment of a district to Vanderbilt Clinic, which occurred about December 1, will greatly diminish our attendance remains to be seen. Even if it should it will, within certain limits, be an advantage, as it is not possible now to give to so many patients the careful individual attention demanded in a tuberculosis dispensary.

This scheme has been of such advantage and has been so easily put into operation, securing, as it does, convenience for the patients, facility and saving of time for the dispensary Nurses, and an orderly distribution of patients, that the question may well be considered of extending and strengthening the system, not as a part or only a part of the Charity Organization Society's relief plan, but as a definite municipal system. True, objection has already been made by teachers of medicine that it tends to deprive them of teaching material. It remains then only for the institution in which teaching is done to establish in their respective dispensaries special classes for tuberculosis patients. In one instance this has already been done. This objection has been overruled and the dispensary in question has entered into the arrangement.

In an interesting and exhaustive report on the hospital and dispensary problem made for the Committee on the Prevention of Tuberculosis of the Charity Organization Society by Mr. Christopher Easton, he recommends that a system of tuberculosis dispensaries be established under a uniform administration. This in many of its essentials has already been accomplished by this group of associated dispensaries, with benefit to each, and the logical development and extension of any such dispensary plan would seem also to involve and necessitate a requirement which would be entirely justifiable on preventive grounds and entirely within the powers of this Department, namely: That tuberculosis patients be permitted to attend only special tuberculosis dispensaries. Such patients are not received now in any of our general hospitals. Why should we receive them in our general dispensaries and subject the other patients in overcrowded waiting rooms to the danger of infection?

It is recommended that this dispensary plan and the suggestion here made be considered by the Department during the coming year.



The following tabulations indicate how great a share the clinic of the Department has had in the relief work of the Charity Organization Society referred to at length above, and the appended tabulations of the work of the clinic for the year and of the Brooklyn clinic for the last two months indicate the following facts of especial interest:

Tabulation of Cases Referred to the Relief Committee of the Committee on the Prevention of Tuberculosis of the Charity Organization Society by the Manhattan Clinic, January 30 to December 31, 1906.

	Cases.
Number of cases examined and reported upon for this committee.....	263
Diagnosis, pulmonary tuberculosis.....	222
Diagnosis, negative.....	41
Aid recommended by Manhattan clinic.....	38
Hospital recommended.....	107
Country care recommended.....	28

Action Taken by Tuberculosis Relief Committee in These Cases.

Patients sent to hospital.....	57
Patients sent to country.....	29
Assistance, food, clothing and rent to patient.....	44
Assistance, food, clothing and rent to patient's family.....	35
Clothing only supplied.....	11
Employment obtained.....	4
Families removed to new apartments from old, dirty ones, moving expenses, rent, etc., paid.....	9
Emergency relief supplied.....	3
Extra diet supplied.....	12
Rent only paid.....	3
Insurance paid.....	1
Children sent to institution.....	2
Advanced cases referred to the District Committees.....	18

After June 1, according to the dispensary system suggested by this committee, there were:

	Patients.
Referred to other tuberculosis dispensaries.....	307
Referred by other tuberculosis dispensaries to this clinic.....	124
Referred to Gouverneur.....	71
Referred to Bellevue.....	127
Referred to Presbyterian.....	39
Referred to Harlem.....	70
	307
Referred by Gouverneur.....	30
Referred by Bellevue.....	69
Referred by Presbyterian.....	9
Referred by Harlem.....	16

Tuberculosis Clinic.

	Manhattan.		Brooklyn, Nov. 12 to Dec. 31, 1906.
	1905.	1906.	
Total new patients treated.....	3,815	4,088	118
Total new patients treated, male.....	2,443	2,579	70
Total new patients treated, female.....	1,372	1,509	48
Total old patients treated.....	15,580	17,109	452
Total old patients treated, male.....	10,608	11,165	289
Total old patients treated, female.....	4,972	5,944	163
Total number of patients treated.....	19,395	21,197	570
Average daily attendance.....	64	70	14
Number of Russians treated.....	474	424	11
Number of Austrians treated.....	145	203	3
Number of Germans treated.....	110	92	3
Number of Irish treated.....	120	169	4
Number of colored treated.....	32	39	1
Number of United States treated.....	588	244	14
Various.....	201	281	6
Tailors, furriers, sweatshops.....	428	615	16
Tailors.....	105	128	3
Operators.....	313	143	9
Furriers.....	10	10	1
Cigarmakers.....	18	32	...
Factory.....	193	60	3
Housework.....	293	375	10
Various.....	484	753	8
Foreign born patients.....	1,064	888	27
Foreign born patients who contracted tuberculosis before arrival in this country.....	65	50	...
Residents of Manhattan.....	3,272	3,397	...
Residents of The Bronx.....	147	141	...
Residents of Brooklyn.....	341	496	570
Residents of Queens.....	24	29	...
Residents of Richmond.....	31	7	...
*Number of quarts of milk supplied to clinic patients.....	†12,510	†22,299	...
*Number of eggs supplied to clinic patients.....	†9,757	†44,544	...
Total number of new cases.....	3,815	4,088	118
Diagnosis tuberculosis, sputum positive.....	881	781	25
Diagnosis tuberculosis, sputum negative.....	789	1,005	14
Total number of positive cases transferred to hospitals.....	554	607	1
Total number of positive cases transferred to sanatoria.....	119	189	...
Under treatment at clinic.....	451	870	191
Not found at address given.....	409	210	2

\* Diet supplied to 187 patients.

† Quarts of milk supplied by the Division, 50,142. Eggs supplied by the Division, 96,480.

‡ Number admitted, 116.

	Manhattan.		Brooklyn, Nov. 12 to Dec. 31, 1906.
	1905.	1906.	
Deaths.....	137	128	...
Cases under treatment, diagnosis doubtful.....	327	176	74
Cases not found tuberculous, transferred to general hospitals and dispensaries or discharged.....	2,145	2,126	...
Cases examined for Ray Brook.....	651	270	...
Cases recommended as suitable for admission.....	107	†131	...
Number of specimens of sputum examined.....	2,231	2,315	75
Tubercle bacilli found.....	881	781	25
Tubercle bacilli not found.....	1,350	1,534	50
Number of patients treated in throat clinic.....	521	1,548	...

Laryngeal examination was made of 2,307 patients. Of these 1,621 presented the following pathological conditions:

Not Tubercular.		
Chronic hypertrophic rhinitis.....		244
Chronic laryngitis.....		195
Chronic pharyngitis.....		572
Chronic rhino-pharyngitis.....		508
Tonsillar hypertrophy.....		42
		1,561
Tubercular.		
Laryngitis.....		102
Pharyngitis.....		1
		103
		1,664

Of the remainder various lesions were presented by 166.

The percentage of laryngeal tuberculosis in patients having pulmonary tuberculosis is shown to be about 5½ per cent.

ANNUAL REPORT OF TUBERCULOSIS CLINICS.

BOROUGH OF MANHATTAN AND BROOKLYN.

Manhattan Tuberculosis Clinic—Attendance Table.

Month.	New Cases.			Old Cases.			Total.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
January.....	193	119	312	1,044	530	1,574	1,237	649	1,886
February.....	149	81	230	927	449	1,376	1,076	530	1,606
March.....	208	127	335	1,031	528	1,559	1,239	655	1,894
April.....	228	140	368	970	529	1,499	1,198	669	1,867
May.....	251	143	394	1,056	602	1,658	1,307	745	2,052
June.....	238	133	371	1,036	509	1,545	1,274	642	1,916
July.....	213	127	340	937	429	1,366	1,150	556	1,706
August.....	214	155	369	819	409	1,228	1,033	564	1,597
September.....	239	109	348	798	417	1,215	1,037	526	1,563
October.....	248	142	390	1,019	594	1,613	1,267	736	2,003
November.....	211	128	339	760	498	1,258	971	626	1,597
December.....	187	105	292	768	450	1,218	955	555	1,510
Total.....	2,579	1,509	4,088	11,165	5,944	17,109	13,744	7,453	21,197

Daily average attendance, 70.

Brooklyn Tuberculosis Clinic—Attendance Table.

Month.	New Cases.			Old Cases.			Total.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
November 12-30.....	42	27	69	104	65	169	146	92	238
December.....	28	21	49	185	98	283	213	119	332

Manhattan Clinic.

Of 1,132 foreign born patients only fifty, or less than one-half of 1 per cent. contracted the disease previous to their arrival in this country.

The number of new patients, the number of revisits and the daily average attendance was increased, despite the increased number of special tuberculosis dispensaries, and the number of patients (see above) transferred to them by this clinic in excess of those transferred by them to this clinic.

In only 176 instances was the diagnosis considered doubtful, as against 327 last year. This seems to indicate better observation of patients and greater skill and decision on the part of the clinic physicians.

The small number of "not found" cases, the large number of visits made (over 86 a week) and the number of patients (318) visited more or less frequently during the year, shows commendable work by the Nurses.

Only a little over 33½ per cent. of sputum examinations proved to be positive. This seems to be too small a percentage, and steps have been taken to make special searches of those specimens which have been twice negative, when the clinical diagnosis is tuberculosis.

The reduction in the number of applicants for admission to the State Sanatorium at Ray Brook and the increased proportion of those recommended as suitable for admission is perhaps best explained by the better understanding which a year's experience has given both physicians and patients of the conditions imposed by the sanatorium requirements.

The total amount of milk issued includes that issued during the first four months of the year by the Manhattan office of the division. Of this, 22,299 quarts were issued to clinic patients, and since May 1 the monthly average for the clinic has been about 1,800 quarts. Approximately the same reduction was made in the number of eggs issued.

Investigation of Deaths Due to Malarial Fever.

Death from malarial fever in this climate and in this age should occur very rarely, if at all. The exceptional cases, it would seem, would be those cases of pernicious malarial fever imported from the tropics. With the accurate means of bacteriological diagnosis now within the knowledge and at the command of



every physician in New York City, mistakes in diagnosis and the confounding of malaria with typhoid, etc., ought to be reduced to the minimum. With the specific quinine intelligently employed, and with the recently acquired knowledge of the cause and prevention of the disease, and with the authorities, municipal and state, putting into practical effect the prophylactic suggestions of scientists, fatalities from "malaria" per se should be practically unknown.

For the purpose of ascertaining just what proportion of the reported deaths from malaria should be attributed to other and more potent causes, the following card was designed for the use of Inspectors of this division in gathering the information and for tabulating the results.

## MALARIA

DEPARTMENT OF HEALTH  
DIVISION OF COMMUNICABLE DISEASES

Borough of ..... Date .....

Address ..... Floor ..... No. ....

Name ..... Age ..... Occu. .... M. F. M. S. W. Nat. ....

Reported. Date ..... How P. O. B. DL. C. I. ....

By ..... Address ..... By ..... Ret. ....

Assn. To ..... Ret. .... By ..... Ret. ....

Assn. To ..... Ret. .... By ..... Ret. ....

175 L-1907 ..... 2919, '06, 5,000 (P)

Preceding attacks ..... Temp. ....

Chills ..... Sweating ..... Spleen enlarged ..... Results

Blood examined ..... Widal ..... Results

Rose spots ..... Type ..... Tertian ..... Quotidian ..... Quartan ..... Results

Malarial Plasmodia ..... Results

Has patient been a resident of New York? If so, where? .....

Bitten by Mosquitoes? .....

Diagnosis based on .....

Remarks: .....

Date ..... M. D. ....

Inspector.

Routine—These cards are issued from the borough office, from returns received from the Registrar's office, where the information is obtained from the original death certificates. The cards are then sent by mail to the Inspector in whose district the attending physician resides. The Inspector makes an ap-

pointment with the physician, then calls upon him, and in as diplomatic a manner as possible seeks elucidation on the following points:

1. On what basis the diagnosis was made; whether blood examination or clinical signs.

2. If no blood examination was made, the reason why; the Inspector politely pointing out the facilities offered by the Health Department, free of charge, and urging that in future cases of the kind they be utilized.

3. The Inspector's own opinion, based on the remarks, manner and apparent scientific sincerity of the physician, also on the entrance into the case of insurance and the necessity of adjusting the cause of death to fit the requirements of the insurance company.

Upon the return of these histories from the Inspectors they are forwarded to the Registrar's office, where correction of the death certificates is made where it is deemed advisable. The cards are then returned to the borough office for tabulation and filing.

Results—A review of these histories for all the boroughs for 1906 shows Manhattan to have had 22, The Bronx 3, Brooklyn 6, Queens 11 and Richmond none; a total of 42 for the Greater City. Of this total 23, or more than half, were between the ages of 20 and 40, 15 had preceding attacks, the duration of illness in 9 was 1 to 2 weeks, in 4 less than 1 week, in 3, 2 to 3 weeks, and in 22 over 3 weeks. The temperature was intermittent in only 15 cases, 27 had chills, 27 had sweats, 28 had enlargement of the spleen, 2 had rose spots. In most cases the type of the exacerbation was not stated. Where it was 14 were tertian, 4 quotidian and 1 quartan. The blood was examined in only 7 cases, 6 of which showed malarial plasmodia and none Widal. Ten (10) of the 41 resided out of the city before attacked; 9 were bitten by mosquitoes—whether the anophales was not stated. In 31 cases the physician made his diagnosis by clinical signs. In only 9 cases was the death certificate altered, although the Inspectors returned a contrary opinion in 12 cases.

These opinions follows:

Considered to be—

Typhoid .....	2
Alcoholism .....	1
"Pulmonary trouble" .....	1
Cerebral Compression .....	1
Tuberculosis .....	2
Acute gastritis .....	1
Broncho-pneumonia .....	1
Puerperal septicaemia .....	1
Nephritis .....	1
Meningitis .....	1

12

So that in only 6 instances (14 per cent.) could it be positively stated that the patient had malarial fever, and in 12 (28 per cent.) it was almost certain that the patient did not die from that cause.

## TABULATION OF CASES OF DIPHTHERIA IN WHICH ANTITOXIN WAS ADMINISTERED.

Diphtheria Table.

	Manhattan.		The Bronx.		Brooklyn.		Queens.		Richmond.		Total.	
	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.
Number of cases of diphtheria reported.....	7,553	7,444	992	1,251	4,307	5,211	577	627	257	224	13,686	14,757
Number of deaths.....	660	731	200	252	519	793	72	94	18	28	1,469	1,899
Death rate, per cent.....	3.11	3.36	7.32	8.68	3.80	5.64	3.61	4.48	2.46	3.77	3.64	4.57
Case fatality, per cent.....	8.7	9.8	20.2	20.1	12.0	15.2	11.5	14.9	7.0	12.5	10.7	12.8
Manhattan, cases died in.....	.....	.....	134	166	.....	.....	.....	.....	.....	.....	.....	.....
Corrected death rate.....	3.74	4.12	2.41	2.96	.....	.....	.....	.....	.....	.....	.....	.....
Corrected case fatality, per cent.....	10.3	11.7	7.7	7.9	.....	.....	.....	.....	.....	.....	.....	.....

## Antitoxin Injected By Inspectors.

	Manhattan.		The Bronx.		Brooklyn.		Queens.		Richmond.		Total.	
	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.
Total cases injected.....	2,949	2,987	222	402	320	679	54	104	20	24	3,458	4,196
False or removed to hospital.....	1,223	1,398	41	135	140	257	.....	24	13	15	1,417	1,829
Considered as diphtheria.....	1,726	1,589	181	267	180	422	54	80	7	9	2,148	2,367
Died .....	95	80	14	17	14	49	4	8	1	.....	128	154
Moribund .....	36	32	4	7	7	22	1	4	1	.....	49	65
Cases fatality, per cent.....	5.5	5.3	7.7	6.8	7.7	13.1	7.4	11.1	14.2	.....	5.9	6.9
Cases fatality, moribund deducted, per cent.....	3.4	3.2	5.6	4.1	4.0	7.6	5.6	5.8	.....	.....	3.7	4.1
Cause of death—												
Asthenia .....	.....	19	.....	9	.....	25	.....	8	.....	.....	.....	61
Asphyxia .....	.....	10	.....	2	.....	14	.....	.....	.....	.....	.....	26
Sepsis .....	.....	22	.....	6	.....	10	.....	.....	.....	.....	.....	38
Cardiac-paralysis .....	.....	22	.....	.....	.....	.....	.....	.....	.....	.....	.....	22
Pneumonia .....	.....	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	7
Died, Hours After First Injection—												
1 to 24 .....	.....	32	.....	7	.....	22	.....	4	.....	.....	.....	65
24 to 48 .....	.....	11	.....	1	.....	9	.....	2	.....	.....	.....	23
48 to 72 .....	.....	8	.....	1	.....	9	.....	.....	.....	.....	.....	18
72 to 96 .....	.....	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	7
Over 96 .....	.....	22	.....	8	.....	9	.....	2	.....	.....	.....	41
Died, Day of Disease—												
First .....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	2
Second .....	.....	4	.....	.....	.....	5	.....	2	.....	.....	.....	11
Third .....	.....	11	.....	4	.....	6	.....	2	.....	.....	.....	23
Fourth .....	.....	14	.....	2	.....	5	.....	1	.....	.....	.....	22
Fifth .....	.....	12	.....	1	.....	9	.....	1	.....	.....	.....	23
Fifth to 10th .....	.....	29	.....	5	.....	20	.....	1	.....	.....	.....	55
Tenth to 20th .....	.....	9	.....	5	.....	3	.....	.....	.....	.....	.....	17
Over 20th .....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1



	Manhattan.		The Bronx.		Brooklyn.		Queens.		Richmond.		Total.	
	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.
Total Cases, Day of Disease Injected—												
First .....	235	27	42	6	4	314						
Second .....	742	106	212	35	5	1,100						
Third .....	445	83	123	28	8	687						
Fourth .....	203	35	63	8	1	309						
Fifth .....	58	18	18	5	1	100						
Fifth to 10th .....	60	22	24	1	1	107						
Tenth to 20th .....	11	1	2	1	1	15						
Subsequent injections .....	134	40	52	12	4	242						
Units under 5,000 .....	270	19	101	71	5	466						
5,000 to 10,000 .....	1,377	166	366	13	12	1,934						
Over 10,000 .....	107	107	17	1	1	232						
Laryngeal Cases—												
Cases .....	240	264	23	54	37	99	8	15	2	3	310	435
Deaths .....	41	49	3	8	10	36	2	4	1	1	57	98
Case fatality, per cent. ....	17.00	18.5	25.00	14.8	22.00	36.3	25.00	26.6	50.00	33.3	18.3	22.5
Moribund deducted .....	23	26	6	5	21	1	3	1	1	1	30	56
Cases fatality, per cent. ....	8.2	9.6	4.1	15.6	19.2	14.2	8.3	33.3	9.6	11.00		
Laryngeal Cases (Intubated)—												
Cases .....	48	43	8	11	8	47	2	8	1	1	67	109
Deaths .....	11	25	2	1	3	25	1	1	1	1	16	52
Case fatality, per cent. ....	22.00	58.1	.25	.09	37.5	53.2	12.5	12.5	12.5	12.5	.24	47.7
Moribund deducted .....	5	8	1	1	1	14	1	1	1	1	7	23
Case fatality, per cent. ....	14.00	48.5	14.2	28.5	33.3	12.8	12.8	12.8	12.8	12.8	.15	33.7
Immunizations .....	6,133	5,064	453	1,276	913	1,753	74	291	153	98	7,726	8,482
Developed diphtheria .....	5	13	1	3	2	1	1	1	1	1	8	17
Per cent. ....	.08	.25	.22	.23	.21	.05	1.0	1.0	1.0	1.0	.10	.20

## Antitoxin Injected by Private Physicians.

	Manhattan.		The Bronx.		Brooklyn.		Queens.		Richmond.		Total.	
	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.
Total cases injected.....	1,079	256	1,236	186	104	2,681						
False or removed to hospital.....	221	38	158	9	16	442						
Considered as diphtheria.....	565	858	119	218	715	1,078	80	177	74	88	1,553	2,419
Died .....	57	66	11	9	88	131	10	16	10	9	176	231
Moribund .....	21	22	3	1	32	41	5	8	4	1	65	73
Case fatality, per cent. ....	10.00	12.7	9.2	6.4	12.3	20.5	12.5	19.00	13.5	16.1	11.3	16.00
Case fatality, moribund deducted, per cent. ....	6.4	8.8	6.8	5.7	8.2	15.00	6.2	10.5	9.5	14.5	7.4	11.5
Cause of Death—												
Sepsis .....	21	1	43	3	1	69						
Suffocation .....	8	2	22	5	1	37						
Asthenia .....	25	4	50	6	6	91						
Pneumonia .....	5	2	6	1	1	13						
Not stated .....	7	10	2	2	2	21						
Died, Days After First Injection—												
First .....	22	1	41	8	1	73						
Second .....	9	1	26	1	1	36						
Third .....	8	3	10	3	1	25						
Fourth .....	6	6	6	1	1	12						
Fifth .....	2	7	2	2	2	13						
Over five .....	11	29	3	4	4	50						
Not stated .....	3	12	1	1	1	22						
Total Cases, Day of Disease Injected—												
First .....	216	53	166	46	19	500						
Second .....	259	47	313	26	35	680						
Third .....	146	37	203	13	8	407						
Fourth .....	46	9	70	8	5	138						
Fifth .....	18	8	17	1	4	48						
Over five .....	28	6	42	5	2	83						
Not stated .....	16	10	1	1	1	26						
Units—												
Under 5,000 .....	562	99	657	82	39	1,439						
5,000 to 10,000 .....	121	46	121	27	29	344						
Over 10,000 .....	27	15	49	5	5	96						
Not stated .....	3	1	1	1	1	3						
Rash—												
Erythema .....	50	7	35	4	2	98						
Urticaria .....	20	8	20	1	3	52						
Appeared Days After Injection—												
0 to 5 .....	35	5	30	5	2	77						
5 to 10 .....	17	9	17	3	3	46						
10 to 20 .....	3	1	1	1	1	4						
Over 20 .....	1	1	1	1	1	1						
Not stated .....	1	1	1	1	1	1						
Larynx—												
Involved .....	125	206	15	31	107	161	23	33	19	12	289	443
Intubated .....	70	10	57	8	8	153						
Immunizations .....	638	213	704	59	32	1,646						
Developed diphtheria .....	4	4	4	4	4	4						
Per cent. ....	.56	.56	.56	.56	.56	.56						



## TABULATION OF CASES OF TYPHOID FEVER IN 1906.

Typhoid Fever, 1906.

	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.	Total.
Male .....	965	134	653	95	49	1,896
Female .....	638	123	464	56	19	1,300
Not stated .....	28	..	37	..	2	67
Age—						
0 to 1.....	3	..	2	..	..	5
1 to 5.....	55	10	24	6	..	95
5 to 10.....	131	30	77	25	1	264
10 to 20.....	397	70	308	49	16	840
20 to 50.....	984	140	693	65	53	1,935
50 or over.....	61	7	49	6	..	123
Commercial business men.....	58	5	20	2	1	86
Clerks .....	165	30	136	14	4	349
Factory workers .....	23	3	22	6	1	55
Firemen .....	6	..	..	..	..	6
Houseworkers .....	346	61	258	22	13	700
Laborers, indoor .....	89	4	12	4	..	109
Laborers, outdoor .....	161	17	94	18	3	293
Literary workers .....	5	..	1	..	..	6
Manual trades .....	82	23	115	7	3	230
Policemen .....	2	3	4	1	2	12
Professional .....	84	12	43	4	3	146
Skilled artisans .....	27	5	13	5	..	50
School attendants .....	322	6	202	47	5	582
Storekeepers .....	32	5	31	3	1	72
Sailors .....	24	3	41	2	29	99
Sewers .....	49	3	17	..	..	69
Soldiers .....	2	3	..	..	2	7
Private house .....	197	75	466	95	27	860
Boarding house .....	60	1	33	..	2	96
Boats .....	26	..	22	1	28	77
Lodging house .....	26	2	6	..	2	36
Hotels and institutions.....	149	6	24	2	3	184
Stable .....	1	..	..	..	..	1
Tenements .....	1,121	148	478	36	1	1,784
Tents .....	..	..	1	..	..	1
Sanitary condition bad.....	189	12	76	2	5	284
Blood examined .....	1,275	175	675	86	68	2,279
Widal positive .....	1,023	118	530	70	61	1,802
Urine examined .....	1,086	91	496	64	41	1,778
Diazo positive .....	475	37	302	45	31	890
Spleen enlarged .....	1,161	155	828	129	44	2,317
Rose spots present.....	1,067	157	801	111	52	2,188
Other cases, family.....	144	28	84	18	2	276
Other cases, house.....	84	14	57	1	1	157
Other cases, friends.....	32	2	15	1	4	54
Patient has separate room.....	771	177	678	108	21	1,755
Water bottled.....	110	18	54	2	2	186
Water, Croton .....	1,306	109	945	131	30	2,521
Water, tank .....	115	22	85	16	33	271
Precautions taken .....	1,464	230	1,031	146	63	2,934
Source—						
Milk .....	357	80	261	37	5	740
Oysters .....	65	5	44	2	4	120
Exposure .....	191	33	106	17	6	353
O. O. T. ....	484	57	291	17	38	887
Unknown .....	534	82	452	78	17	1,163

## TABULATION OF CASES OF CEREBRO-SPINAL MENINGITIS FOR 1906.

Cerebro-spinal Meningitis, 1906.

	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.	Total.
Male .....	338	32	115	10	16	611
Female .....	286	28	90	9	2	415
Not stated .....	3	..	4	..	..	7
Age—						
0 to 1.....	100	20	28	3	1	152
1 to 5.....	192	15	64	6	4	281
5 to 10.....	127	4	39	3	5	178
10 to 20.....	113	12	43	2	6	176
20 or over.....	95	9	35	5	2	146
Not stated .....	..	..	..	..	..	..
United States .....	263	28	67	11	10	379
England-Scotland .....	3	..	2	..	1	6
Ireland .....	26	3	8	..	1	38

	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.	Total.
Japan .....	1	..	..	..	..	1
Germany .....	39	4	7	4	1	55
France .....	1	..	..	..	..	1
Russia .....	76	1	25	..	..	102
Italy .....	109	9	44	1	..	163
Black .....	5	..	2	1	..	8
Not stated .....	..	..	..	..	8	5
Tenement .....	597	39	149	10	11	806
Halls dirty .....	178	7	61	..	2	248
Area dirty .....	178	3	46	..	1	228
Yard dirty .....	188	7	50	..	2	247
Street dirty .....	199	14	40	1	1	255
Cerebro-spinal meningitis in neighborhood .....	126	11	21	1	7	166
Ventilation bad .....	101	5	35	..	1	142
Light bad .....	100	4	28	..	1	133
Plumbing bad .....	99	2	19	..	..	120
No cleanliness .....	113	7	50	..	2	172
Dust, yes .....	125	11	65	5	2	208
Parasites, yes .....	61	5	22	4	2	94
Pets, yes .....	59	15	23	3	4	104
Present health, bad .....	13	..	5	..	..	18
Food and clothing, bad.....	45	2	13	..	..	60
Personal cleanliness, bad.....	34	3	22	..	1	60
Susceptibility to colds.....	50	6	6	4	..	66
Exposure to cerebro-spinal meningitis.....	25	3	10	1	5	44
Exposure to overheating, etc.....	50	3	2	..	1	56
Exposure to cold, etc.....	81	5	13	..	2	101
Health at onset, bad.....	42	7	7	..	..	56
Onset slow .....	39	4	13	..	4	60
Stiffness of neck.....	556	47	192	17	14	826
Headache .....	437	37	151	16	16	657
Convulsions .....	348	36	122	12	8	526
Vomiting .....	538	46	171	16	16	787
Eruption, petech .....	131	13	29	3	2	178
Eruption, herpes .....	123	11	32	7	1	174
Nasal discharge .....	92	7	41	8	5	153
Kernig's sign .....	386	27	129	12	15	569
No temperature .....	..	..	1	..	..	1
Leucocytes counted .....	202	10	2	1	..	215
Eye involved .....	85	17	35	1	..	138
Ear involved .....	31	3	3	..	..	37
Pneumonia .....	30	4	6	1	1	42
Paralysis .....	33	7	24	2	1	67
Diagnosed by clinical signs.....	387	45	168	19	13	632
Diagnosed by lumbar puncture.....	240	15	41	..	5	301
Treatment, medical .....	607	52	191	19	13	882
Death on first day.....	37	2	10	..	1	50
Death on second day.....	34	3	19	4	1	61
Death on third day.....	38	4	12	..	..	54
Death on fourth day.....	37	5	15	3	1	61
Death on fifth day.....	33	4	10	..	1	48
Death in five to ten days.....	70	12	35	3	1	121
Death in ten to twenty days.....	108	8	33	3	4	156
Death in twenty days or over.....	126	9	30	5	..	170
Day not stated.....	6	3	5	..	1	15
Sent to hospital.....	..	..	3	..	..	3
From convulsions .....	91	3	5	1	1	101
From coma and exhaustion.....	381	41	159	17	8	606
From pneumonia .....	13	..	2	..	..	15
Not stated .....	..	6	43	..	1	50
Recovery complete .....	114	7	28	1	7	157
On one to seven days.....	2	..	1	..	..	3
On seven to fourteen days.....	13	2	3	..	..	18
On fourteen to twenty-one days.....	17	..	8	..	3	28
On twenty-one to twenty-eight days.....	19	1	2	..	1	23
On twenty-eight to thirty-five days.....	15	..	2	1	..	18
On thirty-five days or over.....	48	4	6	..	..	58
Not stated .....	..	..	6	..	3	9
Recovery incomplete .....	24	3	9	..	1	37
Micro-organism in spinal fluid.....	185	5	27	..	4	221
Fumigation and disinfection ordered..	495	50	174	19	11	749
Antitoxin administered .....	16	..	2	..	..	18
Antitoxin recoveries .....	6	..	1	..	..	7
Antitoxin deaths .....	10	..	1	..	..	11
No case, doubtful .....	..	..	..	..	..	..
No diagnosis .....	6	..	18	..	..	24
Simple M.....	1	..	6	1	..	8
Traumatic M.....	..	..	..	..	..	..
Tubercular M.....	13	5	16	4	..	38
Syphilitic M.....	..	..	..	..	..	..



	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.	Total.
Pneumonia .....	16	..	1	..	..	17
Gastro, intestinal .....	4	..	6	..	..	10
Typhoid .....	1	..	..	..	..	1
Bronchitis .....	1	..	..	..	..	1
Strip meningitis .....	4	..	..	..	..	4
Nephritis .....	1	..	..	..	..	1
Influenza .....	1	..	..	..	..	1
Measles .....	1	..	1	..	..	2
Endocarditis .....	1	..	..	..	..	1
Not found .....	11	..	..	..	..	11
Septicaemia .....	..	..	1	..	..	1
Otitis .....	..	..	1	..	..	1
Tuberculosis .....	..	..	2	..	..	2

## DIAGNOSIS LABORATORY.

## Report of the Assistant Director.

It is with much pleasure that I can report the renovation of the entire Diagnosis Laboratory. No money being available for the purpose, the work of painting the wood-work, kalsomining the walls and making repairs in general, devolved upon the Laboratory force and they displaying an admirable "esprit de corps," each one contributed his share of work to the general improvement of the Laboratory, with the result that the Diagnosis Laboratory from a poorly ventilated, poorly equipped and ill lighted assortment of rooms, now has the appearance and tone of a first class Laboratory.

There is still room for improvement. If a supply room could be built on the roof and connected with a door cut through the wall at the head of the main stairway, it would facilitate the work of the Laboratory (and prevent much interruption of the same) by changing the course of traffic. The numerous persons coming to the Laboratory for supplies, etc., would no longer enter the Laboratory proper, but their course would be deviated directly to the supply room. An additional examining room should also be added (see chart), the present quarters of the Laboratory Assistants being somewhat cramped.

Following is a chart of the Laboratory with proposed changes, in red lines.

For further plans of Laboratory, see accompanying photographs.

The Laboratory staff at present consists of the Acting Assistant Director, three Assistant Bacteriologists, three Bacteriological Diagnosticians, seven Laboratory Assistants, two Laborers, one Hospital Clerk and three Clerks.

The Assistant Bacteriologists and Laboratory Assistants are provided with white linen suits, which are worn while they are working in the Laboratory.

The statistical work of the Laboratory is given on a separate sheet.

Following is a report of the work performed in the various branches during 1906:

The routine work consists in

Examination of cultures for diphtheria bacilli,

Examination of sputum for tubercle bacilli,

Examination of blood for Widal reaction.

Examination of urine for Diazo reaction,

Examination of blood for malarial organisms,

Examination of smears for diplococcus intracellularis meningitidis,

Examination of smears for pneumococcus of Frankel.

## Examination of Cultures for Diphtheria Bacilli.

A slight improvement has been made in the routine preparation of specimens; three films instead of two being placed on an ordinary glass slide, this saves time both for the maker of the specimen as well as the examiner, besides reducing the expenses of the Laboratory. In all other respects the work is carried on in the same manner as in the previous year. Fifty thousand six hundred and nine culture tubes were examined; 18,950 being proven positive, and 369 negative specimens; these were confined to two boroughs, Manhattan and Brooklyn.

## Tuberculosis.

The work during the past year has greatly increased, a daily average of over eighty (80) specimens having been examined, thereby testifying to the work accomplished. We are grateful for having been furnished with a separate room, in which the preparation of films is carried on by two Laboratory Assistants, from six until eleven in the morning. No sooner is this work completed than the entire room is disinfected with a 5 per cent. carbolic solution.

During 1906 there were 21,773 specimens examined, with a total of 6,752 positive results, yet, the number of positive specimens found might be increased, if the Laboratory staff were enlarged, permitting a still more thorough searching of negative specimens.

All positive examinations, on request of the physicians of Greater New York, are telephoned to their residences no later than 10 a. m. the next morning.

## Typhoid.

In regard to the Widal examination, the one to ten dilution has been dropped and the one to twenty alone employed, with a time limit fixed at one half hour. Since this has been done, there is no longer a request by the physicians to kindly explain the results of examination. Mr. J. S. C. Stelling, a Bacteriological Diagnostician, has had some difficulty in preserving the vitality of the Bacillus Typhosus, but since the latter have been transferred from bouillon to agar agar instead of bouillon to bouillon, and the former used as to stock solution for a week, this trouble has been obviated.

For the year 1906, the total examinations were 6,181, of these 1,502 were proven positive, 4,091 negative, and 588 doubtful.

In the examinations of urine for Ehrlich's diazo-reaction, there has been no change; it might be advisable to have the physicians notified to send in early specimens, for instance, where duration of disease is ten days or less, as the positive result of examination of the urine can be obtained much earlier than the Widal reaction. The total number of examinations was 1,226, of which 405 were proven positive; 765 negative; 56 doubtful. The methylene blue reaction for the same purpose as the diazo reaction, did not give satisfactory results.

## Culture Tubes.

During 1906 all culture tubes for substations have been sealed with paraffin instead of rubber caps.

This change has brought about a great saving in expense. During 1907 all stations will be supplied with them.

The price of rubber caps has been two hundred dollars (\$200) per ten thousand (10,000), while it costs but five dollars (\$5) to paraffin the same number and the results attained as to the keeping of the tubes moist and sterile, are better than in previous years.

## Opsonic Index.

During the latter months of 1906 investigations in connection with the determination of the tuberculo-opsonic index were begun. It is hoped to continue these during 1907, paying special attention to the tuberculo-opsonic index of healthy persons of various nationalities. Should the results prove of value, the appointment of additional Bacteriologists will be necessary.

## REPORT OF THE RIVERSIDE SANATORIUM, NORTH BROTHER ISLAND, CITY OF NEW YORK.

The capacity of the Riverside Sanatorium on January 1, 1906, was four (4) pavilions, with eighty (80) beds. The capacity of the Riverside Sanatorium January 1, 1907, is six (6) pavilions with one hundred and sixteen (116) beds.

## Plant.

The present accommodations are six pavilions, Nos. 6, 8, 9, 10, 11 and 12. Of these, 8, 10, 11 and 12 are for males; capacity, seventy-eight (78) beds. Pavilions 6 and 9 are used for females; capacity, thirty-eight (38) beds.

In description in detail it may be said that

Pavilion 6 has one ward of 14 beds..... 14  
Pavilions 8 and 9 have four wards each of 6 beds..... 48  
Pavilions 11 and 12 have two wards each of 12 beds..... 48  
Pavilion 10 has one ward in use, 6 beds..... 6

Total..... 116

Pavilion 10 is in use partly as administration centre for the tuberculosis division. One ward is divided into two rooms which serve respectively as office and laboratory; a second ward serves as a male dining room, seating forty, and a third ward is occupied by six patients. The fourth ward is occupied by Orderlies who were formerly tuberculosis patients. This pavilion contains also a small room which was formerly used for the isolation of objectionable cases, but has during the year been fitted up for the treatment of the eye, ear, nose and throat cases.

Pavilion 11 has been provided during the year with partitions, eight feet high, which extend nine feet between the beds at right angles to the walls, so that each ward is separated into four separate rooms. The room effect is increased by curtains which hang from a rod crossing the space between the partitions. The cubic feet of air space varies from about 1,000 in pavilion 6 to 1,200 in each of the other pavilions. The windows are all large and vary in number from four in wards with six beds to ten in each of the larger wards.

Pavilions 11 and 12 each have one bath and two toilets in each ward. Every pavilion has a store room and a room which is provided with a gas stove and is used as a temporary kitchen.

## Sun Rooms.

One each for males and females, one summer house for males and one tent house.

The sun house for men is 10 by 60 by 8 feet high, inclosed with glass windows that can be opened from above or below. The one for women is 19 by 19 by 8 feet high, inclosed with glass windows on hinges that can be hooked to the ceiling above, making an open air pavilion.

The summer house is about 19 by 19 by 8 feet high, open on all sides.

The tent house is large enough to accommodate two patients with dressing room and sleeping room.

The wards and the sun rooms are steam heated. The wards are lighted by electricity.

## Care of Plant.

The grounds around the pavilions are cared for by two men whose duty it is to pick up all waste, etc., keep grass in good condition.

The floors of all wards, toilets and bath are washed daily with soap and water with washing soda and 10 per cent. ammonia, and with creolin twice a week.

Tables, beds, stands and window sills are wiped off with 1-40 carbolic acid solution.

All cleaning in wards is done between the hours of 6.30 and 10.00 a. m. No dry sweeping is permitted. The wards are fumigated with formalin on an average of every ten days.

## Nurses.

There are fifteen Nurses in the tuberculosis service. They are employed by the Superintendent of Nurses, at \$40 per month and maintenance, and come from the various training schools of the United States and Canada. The duties of the Nurses are taking temperatures, giving medication, baths, doing dressings, preparing extra diets, supervising the Orderlies and Cleaners and regulating the ventilation of the wards.

## Orderlies.

There are seven Orderlies. For the past ten months we have been employing men who were formerly tuberculosis patients. They are employed by the Superintendent of Nurses at \$30 per month and maintenance. Thus far they have given entire satisfaction. The Orderlies do the general waiting on bed patients, making of beds, the care of the linen and distribution of same and other necessary duties.

## Cleaners.

There are thirteen Cleaners, including Helpers in the dining room, and are employed by the Superintendent of Nurses at \$16 and \$18 per month and maintenance. They are usually secured through the employment agency, although at the present time there are some who were former tuberculosis patients.

## Care of Sputum.

Seabury & Johnson sputum cups are used exclusively. They are collected three times daily; at 7.30 a. m., and 1 and 6.30 p. m.

The man whose duty it is to collect the sputum carries a large white enameled covered pail, in which he puts the cups which have been in use in each ward, collecting all the cups in one pavilion and then emptying the contents into a garbage can provided for that purpose. This can is emptied into the crematory every morning at nine o'clock.

The pail and garbage can which are thus used are carbolized every day, and the brass frames for the pasteboard cups are carbolized once a week.

## Care of Patients.

Food—The cooking for all the pavilions is done in the general kitchen. It is transferred from the kitchen to the wards and dining room in a wagon provided with steam cans.

The meals for ambulatory cases are as follows:

## Breakfast.

Cereal, meat, eggs, toast, coffee, bread (white, graham or rye) and butter.

## Dinner.

Soup, meat, vegetables, toast, dessert, tea and coffee.

## Supper.

Hot or cold meat, eggs, toast, coffee and tea, fruit.

## Extra for all Cases.

Raw scraped beef, rare roast beef, cooked scraped beef, beef juice.

The food for all bed cases is served in the wards on bed trays. Besides the extra food, the Nurses prepare several delicate dishes for the more enfeebled patients. Eggs and milk are kept in the wards at all times, so that the patients may have access to them during the day. Many take from this extra supply six eggs a day.

On admission to the hospital, each patient is stripped of his or her clothing, given a bath and issued:

One undershirt,  
One pair drawers,  
One pair socks,  
One pair shoes,  
One top shirt,  
One pair pants,



One cardigan jacket,  
One cap,  
One pair pajamas,  
One overcoat,

—and the women are given the clothing they require. The clothing worn by the patients to the hospital is fumigated and sent to a room where it is labeled and numbered. It remains there until the patient is discharged or dies. In the first case they are returned to the patient, in the latter they are turned over to relatives or friends.

#### Admission of Patients.

All admission cards are issued by the Chief of the Division of Communicable Diseases, and under no circumstances will a case be received into the hospital without first consulting his office. After receiving a card, the patient is sent to the Reception Hospital at the foot of East Sixteenth street or Health Department dock at the foot of East One Hundred and Thirty-second street, where they are transferred to the hospital on the steamship "Franklin Edson."

#### Class of Patients.

First—Voluntary cases.

Second—Compulsory cases.

Cases of the second class are those which are forced in by the Health Department as being a menace to the public health. These are removed by ambulance, and it is sometimes necessary to have an officer at the house to assist in the removal.

#### Discharge.

The method by which a patient procures a discharge is as follows:

Application is first made to the physician in charge who communicates the wishes of the patient to the Chief of the Division of Communicable Diseases. An Inspector is then directed to the home of the patient, and if he finds the premises conform to the Department regulation, he or she is then discharged. In case the Inspector's report is adverse, the patient is compelled to remain in the hospital.

#### Visiting Days.

The visiting days are Tuesday and Thursday, 10 a. m. to 12 m.; Sundays, 1 p. m. to 3 p. m. The boat leaves the Department of Health dock, foot of East One Hundred and Thirty-second street, fifteen minutes after the hour.

#### Medical Care of Patients.

On admission, a full history is taken.

Form of History—The same as that used in the tuberculosis clinics of the Department and at Otisville Sanatorium.

The temperature, pulse, respiration are taken between 5 and 6.30 a. m., and 2 and 4 p. m. Patients with a temperature above 100 are kept quiet in bed. Those that are normal are allowed to take a moderate amount of exercise.

#### Ventilation of Wards.

The wards are kept under forced ventilation at all times. The temperature varies between 50 and 60 degrees in winter. In summer they are open on all sides.

#### General Supervision.

The work is directly under the supervision of Dr. S. P. Watson, Resident Physician; Dr. F. S. Westmoreland, Assistant Resident Physician. The visiting staff consists of Drs. Knopf, Huddleston and Pulley. During the period of their service they visit the hospital once a week and can be called whenever it is found necessary to have their advice.

During the year 1906, 322 patients (male and female) were admitted.

The following table shows the nationality, occupation, age at entrance and the district in which they lived prior to their admission to the hospital:

Nationality.	
United States .....	158
Ireland .....	56
Russia .....	42
Germany .....	17
England .....	10
Scotland .....	6
Italy .....	6
Sweden .....	4
Switzerland .....	3
Hungary .....	5
Austria .....	9
Roumania .....	2
Norway .....	1
Portugal .....	1
Poland .....	1

#### Occupation.

Laborer .....	62
Civil Engineer .....	1
Miner .....	1
Tailor .....	16
Bookkeeper .....	4
Truckman .....	20
Carpenter .....	9
Clerk .....	20
Plumber .....	6
Musician .....	3
Painter .....	4
Druggist .....	2
Cook .....	2
Cigarmaker .....	2
Peddler .....	5
Fireman .....	1
Soldier .....	2
Housework .....	66
Electrician .....	1
Machinist .....	3
Stenographer .....	3
Butcher .....	1

Barkeeper .....	5
Factory .....	31
Conductor .....	4
Barber .....	1
Porter .....	4
Printer .....	7
Waiter .....	4
Pianomaker .....	1
Artist .....	3
News agent .....	2
Minister .....	2
Blacksmith .....	3
Baker .....	1
Photographer .....	1
Janitor .....	7
Brewer .....	1

#### Age.

Ten years .....	2
Fifteen years .....	12
Twenty years .....	48
Twenty-five years .....	52
Thirty years .....	50
Thirty-five years .....	46
Forty years .....	40
Forty-five years .....	28
Fifty years .....	22
Fifty-five years .....	10
Sixty years .....	3
Sixty-five years .....	4
Seventy years .....	1

#### Districts.

Harlem Dispensary .....	12
Presbyterian .....	28
Bellevue .....	124
Gouverneur .....	42
Vanderbilt .....	4
Health Department Clinic .....	44
Brooklyn .....	63
Staten Island .....	5

The following table shows the results in the cases during the year 1906. The classification in stages is in accordance with that recommended by the National Association for the Prevention of Tuberculosis at entrance, duration in sanatorium and condition at exit:

	One Week.	One Week to Three Months.	Three Months to Six Months.	Six Months to Nine Months.	Nine Months to One Year.	Total.
First stage .....	3	20	4	1	...	8
Second stage .....	8	57	29	5	8	107
Third stage .....	19	98	37	21	12	187
Dead .....	16	39	17	5	...	77
Progressed .....	10	96	28	12	10	156
Improved .....	4	40	25	10	10	89
Discharged .....	9	75	43	9	4	140
Hospital .....	5	61	10	13	16	105

#### Rules for Patients.

1. Never spit on the grounds, on the floor of the wards or toilet rooms, into the sinks or anywhere except into the cup or bottle provided for that purpose.
2. You are required to carry your sputum cup or bottle with you wherever you go. Never leave it lying about on the grounds. If your cup is more than half full, exchange it for a fresh one at the place appointed for that purpose. If you have a bottle you must clean it yourself, according to the instructions you will receive from the Nurse. If you should accidentally spill the contents of your sputum cup, inform the nurse or orderly of the fact, so that the place may be properly disinfected.
3. Never swallow your sputum. Don't cough unless you have to. Hold a piece of gauze before your face when coughing or sneezing. Avoid soiling your hands, face or clothing with sputum. Wash your hands before each meal.
4. Unless instructed by the doctor or Nurse to remain in bed, all patients able to walk must arise with the bell at 6 a. m. Patients must go to bed not later than 9.30 p. m., after which hour no games will be allowed in the ward.
5. Patients are not allowed in the wards while the same are being cleansed, nor at any other time during the day excepting by special permission of the doctor or nurse.
6. The use of whiskey or alcoholic beverages other than those prescribed by the doctor is absolutely prohibited. There must be no smoking in the wards or toilet rooms.
7. Boisterous conduct, profanity and loud talking or quarreling are strictly prohibited.
8. Patients must not brush their clothing nor shake their blankets or bedding in the wards.
9. Patients are not allowed to raise or lower the windows nor to meddle with the valves of the radiators. If there is too much draught, or if it is too hot, inform the Nurse and she will make the necessary correction.
10. Your chances of getting well depend largely upon the observance of these rules. It is, therefore, to your interest to obey them and to see that they are followed by the other patients. The individual who breaks these rules is your enemy, and should be promptly reported to the Doctor or Nurse. If you have any other complaint to make, state the case to the Doctor.

#### DIVISION OF COMMUNICABLE DISEASES.

##### GENERAL STATISTICAL TABLE.

##### Section I—Communicable Diseases.

	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.	Total
Population, 1904 .....	2,061,907	256,924	1,321,403	189,046	71,743	3,901,023
Population, 1905 .....	2,117,375	273,007	1,362,352	199,099	72,947	4,024,780
Population, 1906 .....	2,174,335	290,007	1,404,569	209,686	74,173	4,152,860

	Manhattan.			The Bronx.		Brooklyn.		Queens.		Richmond.		Total.	
	1904.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.
General death rate per 10,000 .....	218.2	187.4	....	202.5	....	175.7	....	160.3	....	190.4	....	183.1	....



	Manhattan.			The Bronx.		Brooklyn.		Queens.		Richmond.		Total.	
	1904.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.
(a) Tuberculosis.													
Total number of new cases reported.....	12,579	14,081	12,693	955	1,198	4,897	5,324	504	603	394	267	20,831	20,085
Total number of duplicates reported.....	8,199	9,106	7,537	358	664	2,026	2,202	19	206	133	132	11,642	10,741
Total number of cases reported by physicians and sputum.....	....	4,621	2,713	375	620	1,497	2,980	108	358	85	145	6,686	6,816
Total number of cases reported by institutions.....	....	6,492	6,975	235	424	1,189	1,896	....	91	280	122	8,196	9,508
Total number of deaths from tuberculosis.....	4,114	4,237	4,450	1,441	1,450	2,420	2,557	278	308	159	190	8,535	8,995
Total number of deaths not previously reported.....	998	867	1,222	118	153	614	477	74	99	41	28	1,714	1,979
Death rate, pulmonary tuberculosis.....	19.95	20.01	20.00	52.78	49.99	17.76	18.20	13.96	14.68	21.70	25.61	21.21	21.65
Cases died in Manhattan.....	....	....	....	916	864	....	4	....	1	....	56	....	....
Cases died in The Bronx.....	....	....	....	....	....	....	....	....	....	....	1	....	....
Cases died in Brooklyn.....	....	....	....	....	37	....	....	....	11	....	3	....	....
Cases died in Queens.....	....	....	....	8	....	....	3	....	....	....	....	....	....
Cases died in Richmond.....	....	....	....	3	....	....	....	....	....	....	....	....	....
Corrected death rate.....	....	24.33	24.72	19.23	18.58	....	18.51	....	14.64	....	17.93	....	....
Number of tuberculosis inspections.....	27,964	31,005	41,931	2,724	4,280	6,733	13,256	375	1,222	264	681	41,101	61,370
Number of living cases visited by Inspectors.....	6,724	6,945	6,164	242	637	1,683	3,207	104	251	70	76	9,044	10,335
Number of dead cases visited by Inspectors.....	3,919	3,638	3,568	353	701	1,690	2,519	214	447	47	87	5,942	7,322
Number of inspections made by Nurses.....	17,321	20,422	32,199	2,129	2,951	3,360	7,530	57	524	147	518	26,115	43,722
Number of cases not found at reported address.....	....	1,971	4,699	103	222	390	758	20	166	24	55	2,508	5,900
Number of cases reported without a "home" address.....	....	274	22	33	16	11	77	....	....	3	2	321	117
Number of cases reported to this office, but living in other boroughs..	....	....	1,271	117	117	....	62	....	....	....	....	....	....
Number of cases gone out of town.....	....	....	105	....	65	....	155	....	....	....	....	....	....
Number of original complaints (renovations).....	803	358	140	255	450	580	905	26	48	....	2	1,219	1,545
Number of premises renovated voluntarily.....	....	705	384	21	44	342	706	26	251	1	17	1,095	1,402
Number of fumigations ordered.....	4,093	4,781	3,946	350	727	1,962	2,924	381	426	104	126	7,578	8,149
Number of cases forcibly removed to Riverside Hospital.....	35	17	23	2	12	13	24	2	2	1	3	35	64
Number of cases referred to charitable organizations.....	381	841	159	....	21	23	24	....	....	10	15	874	219
Number of cases referred to hospital.....	416	1,352	590	24	70	194	35	1	50	8	17	1,579	762
Number of patients supplied with milk.....	....	518	683	....	....	....	300	....	....	....	....	518	983
Number of patients supplied with eggs.....	....	642	677	....	....	....	301	....	....	....	....	642	978
(b) Typhoid Fever.													
Number of new cases reported.....	1,916	1,867	1,713	327	301	1,913	1,215	146	166	73	72	4,326	3,467
Number of deaths from typhoid fever.....	277	273	325	37	44	297	230	31	30	11	10	649	639
Number of deaths not previously reported.....	....	51	119	1	8	9	11	3	4	....	3	64	145
Death rate, typhoid fever, per cent.....	1.38	1.28	1.03	1.35	1.51	2.18	1.63	1.55	1.43	1.50	1.34	1.61	1.53
Case fatality, per cent.....	15.5	14.6	18.9	11.3	14.6	15.5	19.0	21.2	18.0	15.0	13.8	15.0	18.4
Number of typhoid inspections.....	3,248	1,400	2,421	....	333	1,861	1,421	....	181	4	26	....	4,382
Number of typhoid fumigations.....	....	50	92	6	62	20	154	4	29	1	7	81	344
Number of oyster inspections.....	....	....	27	....	8	....	4	....	1	....	8	....	48
Number of milk inspections.....	....	....	200	....	25	....	157	....	19	....	1	....	402
(c) Cerebro-Spinal Meningitis.													
Number of new cases reported.....	1,044	1,892	679	118	72	689	241	38	21	18	19	2,755	1,032
Number of deaths from cerebro-spinal meningitis.....	1,003	1,424	545	87	55	455	184	48	10	12	12	2,026	806
Number of deaths not previously reported.....	....	....	228	4	17	24	....	....	5	1	3	29	253
Death rate, cerebro-spinal meningitis.....	4.86	6.72	2.56	3.18	1.89	3.33	1.31	2.41	0.47	1.64	1.61	5.03	1.94
Case fatality, per cent.....	....	75.2	80.4	73.7	76.3	66.0	76.3	....	47.6	66.6	63.1	73.5	78.1
Number of cerebro-spinal meningitis inspections.....	....	2,144	2,346	....	169	322	554	41	54	50	12	2,557	3,135
Number of cerebro-spinal meningitis fumigations.....	....	900	464	54	20	304	188	16	7	14	7	1,288	686
(d) Pneumonia.													
Number of cases reported by institutions.....	....	....	1,456	....	747	....	3,761	....	534	....	286	....	6,784
Number of deaths from pneumonia.....	4,226	2,733	2,850	364	453	2,148	2,097	284	271	159	96	5,688	5,767
Death rate, pneumonia, per cent.....	20.49	12.90	13.10	13.33	15.62	15.76	14.92	14.26	12.92	21.79	12.94	14.13	13.88
Number of deaths, broncho-pneumonia.....	3,181	2,889	3,141	153	238	951	1,460	100	212	33	50	4,126	5,101
Death rate, broncho-pneumonia, per cent.....	15.42	13.64	14.44	5.60	8.20	6.98	10.39	5.02	10.11	4.52	6.74	10.25	12.28
(e) Malarial Fever.													
Number of new cases reported.....	....	172	221	24	26	70	76	2	23	91	78	359	424
Number of deaths.....	20	14	26	5	1	29	29	3	7	1	1	52	64
Death rate, per cent.....	0.09	0.06	0.11	0.06	0.03	0.21	0.20	0.15	0.33	0.14	0.13	0.12	0.15
(f) Erysipelas.													
Number of new cases reported.....	....	538	626	22	22	7	85	2	20	24	35	593	788
Number of deaths from erysipelas.....	....	179	190	9	12	69	81	6	6	1	3	264	292
Death rate, per cent.....	....	0.84	0.87	0.32	0.41	0.50	0.50	0.30	0.28	0.13	0.40	0.65	0.70
(g) Puerperal Septicaemia.													
Number of new cases reported.....	....	5	25	11	21	3	28	11	24	9	18	39	116
Number of deaths.....	152	151	132	38	25	94	79	16	20	7	7	300	263
Death rate, per cent.....	0.73	0.71	0.60	1.39	0.86	0.68	0.56	0.80	0.95	0.97	0.94	0.76	0.63
Diagnosis Laboratory.													
Number of bacteriological diagnoses of suspected diphtheria.....	*13,362	14,104	....	2,111	7,051	7,792	653	906	514	503	21,580	25,416	....
Number showing K. L. B.....	*5,446	4,818	....	814	2,999	3,163	226	352	179	156	8,823	9,303	....
Number not showing K. L. B.....	*7,510	8,372	....	1,199	3,794	4,250	380	496	310	320	12,061	14,637	....
Number indecisive.....	*406	914	....	98	258	379	47	58	25	27	696	1,476	....
Number later cultures.....	*12,169	12,476	....	1,270	7,629	9,638	507	482	512	277	19,273	24,143	....
Number taken by Medical School Inspectors.....	*313	322	....	....	....	88	....	....	....	....	313	410	....
Number of trial cultures.....	*342	455	....	8	227	11	....	....	....	2	....	476	....
Tuberculosis Sputum.													
Number of specimens examined.....	....	14,730	....	1,273	....	5,044	....	405	....	327	18,639	21,779	....
Number showing tubercle bacilli.....	....	4,172	....	447	....	1,915	....	148	....	100	6,424	6,782	....
Number not showing tubercle bacilli.....	....	10,558	....	826	....	3,129	....	257	....	227	12,215	14,997	....



	Manhattan.			The Bronx.		Brooklyn.		Queens.		Richmond.		Total.	
	1904.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.	1905.	1906.
Widal Reaction.													
Number of specimens of blood examined.....			3,411		649		1,663		226		211	5,754	6,160
Number showing reaction.....			753		151		451		71		57	1,229	1,493
Number not showing reaction.....			2,354		421		1,039		136		132	3,646	4,082
Number indecisive .....			304		77		163		19		22	879	585
Diazo Reaction.													
Number of specimens examined.....			618		102		421		71		8	1,082	1,220
Number showing reaction.....			182		34		143		30		4	313	401
Number not showing reaction.....			405		65		258		38		4	691	762
Number indecisive .....			31		3		20		3			78	57
Malaria.													
Number of specimens examined.....			697		115		291		38		57	1,035	1,198
Number showing malaria plasmodium.....			74		9		17		9		13	150	122
Number not showing malaria plasmodium.....			623		106		274		29		44	885	1,076
Miscellaneous.													
Number of visits to collect specimens.....			9,164		3,640		12,824		3,276		2,547	31,999	31,451
Number of laboratory preparations made.....												72,132	80,753
Number of culture tubes made.....												86,124	97,848
Number of swabs made.....												97,245	99,009
Number of sputum jars prepared.....													18,665
Number of Widal outfits prepared.....													5,597
Number of diazo outfits prepared.....													1,370
Number of malaria outfits prepared.....													2,230
Number of cerebro-spinal meningitis outfits prepared.....													250
Cerebro-Spinal Meningitis.													
Number of specimens examined.....			24				2						26
Number showing meningococci.....			9				1						10
Number not showing meningococci.....			15				1						16

\* Manhattan and The Bronx.

## Antitoxin Injections—Inspectors' Records.

	Reached Premises.				Total Visits.
	Within One Hour.	Within Two Hours.	Within Three Hours.	Over Three Hours.	
Manhattan—					
Brown .....	70	65	24	11	170
Burckhalter .....	90	59	14	24	187
Ennis .....	113	56	26	59	254
Finkelstein .....	46	83	24	9	162
Ghertler .....	225	99	16	34	374
Goetchius .....	128	77	15	37	257
Goldstein .....	210	157	37	16	420
Goodman .....	102	68	17	19	206
Kremer .....	151	84	26	14	275
MacAdam .....	123	62	15	47	247
Mahnkin .....	71	67	36	35	209
Rothwell .....	3	4	4	9	20
Schultze .....	52	32	20	23	127
Stevenson .....	208	45	16	36	305
Tannenbaum .....	336	21	15	6	378
Wilson .....	23	39	18	8	88
The Bronx—					
Dillenberg .....	87	60	10	8	165
Elliot .....	60	46	8	14	128
Klein .....	79	36	13	16	144
Pinckney .....	1	1	.....	....	2
Brooklyn—					
Bedford .....	28	26	11	16	81
Beery .....	23	32	24	39	118
Blateis .....	43	33	32	62	170
Bowen .....	7	19	13	23	62
Eberle .....	5	10	3	15	33
Jones .....	80	38	13	17	148
Knause .....	26	36	38	54	154
Peacock .....	3	7	4	22	36
Peck .....	37	29	9	30	105
Queens—					
Lehman .....	19	50	23	9	101
Sheridan .....	33	12	9	8	62
Richmond—					
Patterson .....	20	10	..	6	36

## RESEARCH LABORATORY.

The following report covers the essential features of the work carried out during 1906. After the ending of 1905 the practical refining of diphtheria antitoxin was definitely accomplished. Since then we have been treating all cases of diphtheria in Greater New York with this refined and concentrated antitoxin. In the hospital we have carefully watched the effect of this refining. We have done this by giving to half the children the serum in its non-refined state and then treating the other half of the children with the refined antitoxin.

The results of this observation have proven conclusively that the refining of the antitoxin not only has the advantage of giving a stronger antitoxin, but it also has

the advantage of producing fewer rashes and other disagreeable symptoms. We have improved our methods of producing diphtheria antitoxin so that with less horses than in 1905 we produce more than twice as much diphtheria antitoxin. During 1906 more than 1,000 liters of serum were obtained from the horses, so that we now have quite a large supply on hand and have at present only ten horses in the stables.

Upon tetanus antitoxin we have done considerable experimental work. This has enabled us to refine it the same as diphtheria antitoxin. We have also shown by animal experiments that every minute of delay after the beginning of symptoms is a great loss in the probability of doing good by the injections of antitoxin. When during the early symptoms very large doses are given intravenously, we found not only in animals but also in men that good results were frequently obtained. It is interesting to note that the number of deaths from diphtheria in Greater New York was less during 1906 than any previous year.

There has been a good deal of activity in the study of hydrophobia as well as a great increase in the number of patients treated for the bites of rabid dogs. During the past year 323 persons have been treated. This, which is a considerable increase over 1905, took place largely in the fall, and is due to our development of mailing the Pasteur vaccine to the suburbs and to distant places. Much work has been done under the direction of Dr. Williams upon the cause of hydrophobia. This has divided itself into two different parts. First, the routine study of all brains sent in for diagnosis, and second, experimental work in guinea pigs to determine (a) the rapidity of development of the disease and the correspondence between the course of the disease and the morphology and time of appearance of bodies; (b) the possibility of growth of the micro-organism in fresh brains removed from the animal.

The results obtained in the study outlined under 1 and 2a have been very helpful. In the first place, in confirming our work on the diagnostic value of the negri bodies, and secondly in adding new evidence in favor of the protozoan nature of the bodies. The work under 2b has just been begun, so we cannot give results.

The work on the etiology of vaccinia and variola has been continued and consists in the study of development of the vaccine bodies under the microscope in the living corneal tissue, and we are getting results which encourage us to think that we may be able to add the final proof as to the protozoan nature of these bodies. We have begun the serious study of the cause of scarlet fever. The section work on the etiology of scarlet fever is progressing slowly because of the few deaths which are occurring at the height of the disease. We have succeeded, however, in getting some good autopsy material which is being carefully studied.

A very important piece of work has been undertaken upon the agglutination of cultures of glanders bacilli by the blood of horses with either latent or developed glanders. This test indicates that a great many horses that were only suspected of having glanders really are infected. The great advantage of the agglutination test over the mallein test is that it does not disable the horse at all and does not keep the horse from work, even for a moment. There are still a number of points to be decided, as what degree of agglutination indicates strongly that the horse has glanders and what degree of agglutination makes the diagnosis positive. We are still actively engaged in the study of this question. Mallein is still being produced for the use of the Department and for those outside of the Department.

Upon tuberculosis we have done but little work except of a routine nature, but are intending to take up immunization with vaccines upon a considerable scale.

We have been carrying on tests of the Opsonic index in cases of tuberculosis, which are being treated with the bacterial substances of the tubercle bacillus.

We have been aiding the New York County Medical Society in the supervision of a number of dairies, the examination of the milk being done free of charge in the laboratory. Much work upon pasteurization has been started.

Disinfection continues to be overlooked by the laboratory, but no important work except of a routine nature has been carried on. Over 8,000 tests from rooms that have been disinfected have been made.

At the end of the year we are engaged upon the following problems: The refining of antitoxin, the use of vaccines in tuberculosis and other diseases, the value of the Opsonic test, the prevalence of glanders in the horses of New York and the use of the agglutination test in detecting it, the effect of different temperatures applied for different lengths of time upon the disease germs that occur in milk.

A routine manufacture of diphtheria antitoxin, tetanus antitoxin, mallein, tuberculin and vaccines for several diseases is being carried on as before.

## VACCINE LABORATORY.

Report of the Work Performed at the Vaccine Laboratory During the Year 1906.

The routine work has been carried on as in previous years and the accompanying table gives the statistical items.

Plant—On account of the expected construction of a new laboratory, few changes have been made in the present plant during the past year. There have been installed, however, an electric motor, which supplies the power for a suction pump used to fill capillary tubes; for a compressed air cylinder, used to produce a blow-pipe flame for sealing tubes, and for a shaft supplied with belting, which turns the grinders by which the vaccine pulp is emulsified. There has also been installed another electric motor, which furnishes the power for clipping the calves.



Routine—There have been few changes during the past year in the process of preparing vaccine virus. The ratio of pulp to glycerine mixture has been continued at 1 to 4. All the calves are now clipped closely on entrance to the stable, and the resulting increase in cleanliness of the animals is marked. No pathological condition was observed in the calves at autopsy during the entire year.

Since the demonstration in this laboratory of tetanus bacilli in calf faeces, it has been the practice to make an anaerobic culture from every collection of virus, and test it for the presence of tetanus toxine. This work is performed as follows: A 3-inch test tube containing nutrient bouillon is inoculated with the contents of one capillary tube of vaccine virus. A 6-inch test tube is then prepared with one and one-third grains of pyrogallic acid and a short piece of potassium hydrate stick. The tube is one-half filled with water and the 3-inch tube is placed in the 6-inch tube so that the rim of the smaller tube rests on the rim of the larger. Both tubes are then covered with an inverted glass test tube and placed in a glass containing enough water to cover the mouth of the inverted tube, and thereby to prevent the entrance of air. The whole apparatus is then placed in an incubator at 37 degrees centigrade for forty-eight hours. On the removal the bouillon is filtered through a Berkefeld filter and the filtrate, which would contain any tetanus toxine present, is injected to the amount of ½ a cubic centimeter into a guinea pig. The pig is kept under observation for three days, and if there are no symptoms of tetanus the virus is deemed free of tetanus toxine. Since the adoption of this routine examination no virus has been found to show the presence of tetanus. To determine the presence of ordinary pyogenic organism, the contents of one capillary tube of vaccine virus are injected beneath the skin of another guinea pig, and this pig is kept under observation five days. During the year all the guinea pigs have shown no reaction with the exception of two. These two developed small abscesses, but as they were injected by a new laboratory assistant, it is thought probable that the abscesses were the result of careless technique.

Some chance observations in the purchase of capillary tubes at drug stores throughout the City have shown that it is not an infrequent practice of the stores to keep and sell vaccine virus far too old to be efficient. To one Laboratory Assistant is therefore assigned the task of visiting drug stores throughout the City, inspecting the stock of capillary tubes on hand, withdrawing tubes of inefficient virus and replacing them, without cost to the druggist, with an equal number of tubes of fresh virus.

During the last three months of the year 769 tubes were so reclaimed and an equal number of fresh tubes issued.

Experimental Work—When glycerine was first used as an emulsifying agent, the statement was made, and in part supported by experiments made in this laboratory, that the glycerine has an antiseptic effect on the germs contained in the vaccine pulp, and that contact with the glycerine for a few weeks is sufficient to render the virus sterile, as far as the ordinary bacteria are concerned. It became early evident that while certain bacteria are easily killed, certain others are practically unaffected, and when these varieties are present, glycerinated virus a year or more old may contain many bacteria. While these bacteria are as a rule non-pathogenic, it cannot be positively asserted that in all cases there is no possibility that they may not contribute to inflammation at the site of inoculation. It is desirable, therefore, to get rid of these bacteria as far as possible, and experiments have been conducted to this end.

It must be recognized, however, that the prime requisite of vaccine virus is not the production of a sterile fluid, but the production of a virus, which, when inoculated, will produce the disease vaccinia. It has been demonstrated in the laboratory, for example, that it is possible, by incubating the tubes of glycerinated virus for twenty-four to forty-eight hours, to increase the bacterioid power of the glycerine, and to produce nearly sterile virus quickly, but the process of incubation is found to diminish the efficiency of the virus.

Experiments have been made by adding ½ per cent. carbolic acid to the glycerinated emulsion, and while it is found that this addition notably diminishes the number of bacteria present, it does not render the virus sterile. One per cent. carbolic acid in glycerine, however, kills the germs rapidly. It is the custom of the laboratory to make plate cultures and counts on each of two tubes of virus on the seventh day after collection, again on the fourteenth, again on the twenty-first, and finally on the twenty-eighth day after collection.

The counts vary considerably for the following reasons: The skin of one calf and the vesicles produced on it contain more bacteria than the skin and vesicles of another calf—the quantity of virus used in the count is not precisely fixed, for all the tubes do not contain exactly the same amount; the virus being an emulsion and not a liquid shows an uneven distribution of the bacteria, so that two drops of the same size from the same emulsion may give somewhat different counts. In other words, the count is recognized simply as an index of cleanliness.

The following table exhibits the average number of bacteria per tube found on each of the four dates from ten calves (a) while 50 per cent. glycerine was the only antiseptic, (b) while ½ per cent. carbolic acid in glycerine was the only antiseptic, and (c) after the introduction of 1 per cent. carbolic acid in glycerine:

Day.	Glycerine.	One-half Per Cent. Carbolic.	One Per Cent. Carbolic.
7th.....	Innumerable .....	4,372	867
14th.....	Innumerable .....	3,103	582
21st.....	Innumerable .....	1,578	492
28th.....	Lowest number in 80 plates, 2,629.....	622	285

To determine the effect of carbolic acid upon the efficiency of the virus, the pulp taken from twenty-five successive calves was mixed in each case one-half with ½ per cent. carbolic acid in 50 per cent. glycerine and the other half with 1 per cent. carbolic acid in 50 per cent. glycerine. The two sets of material from each calf were tested by repeated use in primary vaccinations over a period of months, and it was found that there was no difference between the two in the life of the virus.

During the latter months of the year, therefore, the routine preparation of virus has been to emulsify it in 1 per cent. carbolic acid, 50 per cent. glycerine and 49 per cent. water.

There have at times appeared observations on the possibility of producing the disease "vaccinia" by inoculating material taken from a vaccinated animal apart from the site of the vesicle, and this laboratory has made a number of tests on the presence of the specific organism of vaccinia in the inguinal glands of the calves inoculated. These observations are worthy of a special respect, because the glands were removed at autopsy after the skin containing the scars of the curretted vesicles had been removed, and because the autopsy was performed in the slaughter-house at a distance from the laboratory by a veterinary surgeon, who does not come in contact with the vaccine material, so that it may be safely assumed that there was no possibility that these glands became infected by contact with vaccine material. Parts of the glands were cut up and the glands mixed with 50 per cent. glycerine, and the material so obtained was examined bacteriologically and then used for primary vaccinations. It should be said here that cultures made from these were sterile in all but one instance, in which a diplococcus was found. Tests were made on glands taken from twenty-five calves, and the glands were removed at periods following the vaccination of the calves varying from six to twenty-two days. In two instances only out of the twenty-five were positive results obtained in primary vaccination. In one the gland had been removed thirteen days after vaccination of the calf, and in the other six days after vaccination. It is apparently demonstrated, therefore, that exceptionally the inguinal glands of the vaccinated animal may contain the specific organism of the disease. The spleen was tested in like manner twice, but in neither instance did a positive result follow use in primary vaccination.

The degree of dilution of the pulp by the glycerine mixture is one of the points of difference in vaccine laboratories' practice. Experiments have been

made in this laboratory to determine the effect on the efficiency of virus of various degrees of dilution. It may be stated, first, that all degrees up to one part of pulp in six parts of glycerine emulsion yield virus which is uniformly efficient if the virus is used promptly. A series of preparations in which the ratios of virus to excipient have been 1 to 2, 1 to 2½, 1 to 3, 1 to 3½, 1 to 4 and 1 to 5, have been watched and tested over periods of time extending in some cases to two years. Conclusions are difficult, because a strongly efficient virus in any of these dilutions will last much longer than a mildly efficient virus, but the tabular view of the results obtained indicates that up to the dilution of 1 to 4 there is no appreciable difference in the duration of the efficiency of the virus. High dilutions are uncertain because it is not at present possible to divide the pulp finely enough to permit its even spread through many times its weight of liquid. A dilution, for example, of one part of pulp to twenty-four of excipient has been found in many cases to be efficient when used in primary vaccination, but in a hundred primary vaccinations its percentage of efficiency is small. Experimentally dilutions have been prepared and tested ranging all the way from one part of pulp to six of excipient to one part of pulp to five hundred of excipient. Successful vaccinations are common with all dilutions up to one part of pulp and two hundred and fifty of excipient. Higher dilutions than the last rarely give successful "takes."

The amount of immunity granted by a single vesicle has been the subject of some debate. Experiments have been made in the laboratory on the immunity against vaccinia produced by a single small vesicle on the calf. It is somewhat difficult to produce a small vesicle on the calf because even when the virus is pricked into the skin by one thrust of a needle the resulting vesicle may be of considerable size, one-quarter of an inch in diameter, for example. Three calves, however, were vaccinated so as to produce the smallest vesicle possible, and re-vaccinated two to three weeks after the original vaccination. In each case the revaccination failed, and it is inferred that at least against early revaccination the smallest vesicle possible to obtain on a calf affords immunity.

# PATHOLOGIST.

## Report of Work Performed During the Year 1906.

Autopsies have been conducted on cases dying of suspected communicable diseases when further investigation was deemed important. Also upon horses dying while being used for the development of antitoxins.

A larger part of the work is, however, represented by the production of antitoxins, the duties consisting of regular inspections of the horses and stable, supervision of injections and bleedings of the horses, and handling of the antitoxin in bulk. The total number of horses under treatment during the year was thirty-seven (37). Most of these were employed in the production of diphtheria antitoxins, and from twenty-six (26) of them so used antitoxin was obtained. This diphtheria antitoxin product is represented by a total of 1,680.685c.c., of which amount 165,355c.c. was in the form of serum and 1,515,330c.c. was citrated plasma.

From two horses injected with tetanus toxin there was obtained tetanus antitoxin to the extent of 24,450c.c.

A few horses were used for experimental inoculations with the toxins of dysentery bacilli, typhoid bacilli, streptococci and rabies.

The total number of injections was 662 and of the bleedings 319, the latter yielding serum or citrated plasma having a combined bulk of 1,704,975c.c.

## KINGSTON AVENUE HOSPITAL.

### Medical Work.

Three thousand seventy-eight (3,078) with three hundred seventy-two (372) accompanying have been treated as follows:

	Cases.
Remaining .....	165
Diphtheria, mortality rate, 31.3 per cent.....	399
Scarlet fever, mortality rate, 12.1 per cent.....	609
Measles, mortality rate, 12.6 per cent.....	1,344
Small-pox, mortality rate, 5.5 per cent.....	108
Measles, scarlet fever and varicella.....	1
Varicella, mortality rate, 5.6 per cent.....	78
Pertussis, mortality rate, 5.8 per cent.....	11
German measles .....	3
Diphtheria and measles, mortality rate, 21.7 per cent.....	69
Diphtheria and scarlet fever, mortality rate, 22. per cent.....	50
Diphtheria and varicella.....	1
Diphtheria and pertussis .....	1
Typhoid fever, mortality rate, 100. per cent.....	1
Scarlet fever and measles .....	129
Scarlet fever and varicella .....	11
Scarlet fever and pertussis.....	8
Measles and pertussis .....	30
Measles and varicella.....	27
Measles, scarlet fever and diphtheria.....	2
Measles, varicella and pertussis.....	1
Measles and mumps .....	2
Mumps .....	2
Measles, scarlet fever and pertussis.....	5
Varicella and pertussis .....	1
Scarlet fever and pertussis.....	8

Of the diphtheria cases six (6) died within twelve (12) hours, fourteen (14) within twenty-four (24) hours, thirteen (13) within thirty-six (36) hours, and ten (10) within forty-eight (48) hours after admission. There were one hundred and fourteen (114) intubation cases, of which seventy-two (72) died.

It will be seen from the foregoing figures that the high death rate may be explained by the deaths occurring in those cases that were profoundly toxicated upon admission or in cases requiring intubation, but if the intubation and moribund cases are eliminated, the death rate is very much lower. I would also call your attention to the fact that a large percentage of the cases sent to our institution are in a poorly nourished condition and physically unable to combat the disease.

I would respectfully call your attention to the necessary cost of the treatment of mixed infections. You will observe that there have been five hundred and twenty-six (526) mixed infections in the hospital distributed over a range of nineteen (19) different mixed infections. It is not infrequently happens that it is necessary to take care of a large number of different infections at one time, necessitating a Day Nurse, Night Nurse and a Ward Attendant for every infection. In most instances there would be only one or two cases to one isolation ward. The facilities of this hospital are wholly inadequate for taking care of these cases. At the present time there should be provided a number of admission wards where the cases admitted daily could be kept for observation until the incubation period of the various contagious diseases to which the patient is liable has passed. To prevent the spread of mixed infections in this hospital, where there are so many foreign patients admitted, from whom, and of whom, there is no possibility of getting histories, demands the utmost care on the part of the officials of the institution and the very best methods of isolation. Both of these factors are absolutely essential, the absence of either of them makes the spread of infection almost inevitable.

There have been made (exclusive of diphtheria) five thousand six hundred and thirty-nine (5,639) examinations in the Pathological Laboratory, as follows:

Urines, four thousand six hundred and sixty-two (4,662); bacteriological examinations, exudates, etc., nine hundred and seventy-seven (977); of these five hundred and sixty-two (562) smears have been made from cases suffering from vaginitis, of which two hundred and ten (210) have shown the presence of an organism having the morphological and staining characteristics of the gonococcus, and the clinical aspect of the cases has been that of specific vaginitis. This disease has been of such an infectious character as to demand its isolation and treatment as that of a most communicable disease. All the female children admitted are held in an observation room until it can be determined whether vaginitis is present. This disease is so persistent



that frequently a child has to be retained for some time after its recovery from the contagious disease for which it was admitted. The most favorably recommended therapeutic measures have been employed to cure this disease and for the last month systematic vaccinations have been employed with the view of raising the resistance of the children to such a degree that a cure will be effected. Too few cases have been observed to draw any conclusion as to the value of this mode of treatment. During the year a systematic study of the pathological lesions of the diseases treated in this hospital has been carried on in the Research Laboratory and will be continued during the year 1907.

#### Administrative Work.

There are on the grounds of the Kingston Avenue Hospital, thirty-one (31) buildings, as follows: Administration building, stable with annex, disinfecting station, kitchen, ice plant, storehouse and laundry, five (5) pavilions, diphtheria building, scarlet fever building, six (6) cottages, four (4) wigwams, boiler house, two (2) morgues, paint shop, two (2) incinerator houses, one (1) green house and the Nurses' home.

There are employed in the institution one hundred and ninety-nine (199) persons, as follows: Two (2) Hospital Physicians, five (5) Medical Internes, one (1) Matron ten (10) Hospital Clerks, of whom three (3) are detailed to the Tuberculosis Clinic in Jay street, one (1) is detailed to the Chief of the Ambulance service, two (2) are detailed to the Borough headquarters at Nos. 38 and 40 Clinton street, one (1) Superintendent of Nurses, fifty-one (51) Nurses, of whom three (3) are detailed to the Tuberculosis Clinic in Jay street, fifty-six (56) Domestic, of whom one (1) is detailed to the Tuberculosis Clinic in Jay street, five (5) Firemen, three (3) Carpenters, one (1) Telephone Operator, one (1) Gardener, one (1) Watchman, two (2) Orderlies, thirty-seven (37) Laborers, of whom two (2) are detailed to the Headquarters of the Borough, Nos. 38 and 40 Clinton street, two (2) are detailed at the Disinfecting Station of the Borough, eighteen (18) Drivers, of whom one (1) is detailed at Nos. 38 and 40 Clinton street, one (1) Driver detailed to the Visiting Physician of the Kingston Avenue Hospital and seven (7) Drivers detailed to the Disinfecting Station of the Borough, one (1) Helper, four (4) Engineers.

In estimating the cost of administration of this institution, the money expended on these special details should not be charged against the hospital.

During the past year permanent improvements have been added to the hospital, as follows: Pipe trench, completing the installation of the new steam system; retaining wall about the store house and laundry; enclosing the stairway of the dormitory; the erection of four portable wigwams for isolation purposes; the completion of new stable; completion of new incinerating plants; division of the rear half of pavilion No. 3 into four isolation rooms; painting interior of wards 2, 3, 5 and 6; the renovation of lavatories of wards 2, 3, 5 and 6.

The grounds of the hospital are being gradually filled in, there having been deposited several thousand loads of dirt during the year. This is being so distributed that in the spring the grounds will present a much better appearance. The difficulty of getting contractors to proceed rapidly with contracts awarded them on this plant, on account of men not wishing to work in the grounds of a contagious disease hospital, has made it necessary for us to have as much as possible of the repair and improvement work of the institution performed by our own employees. That you may have some information regarding the extent of this work it is detailed to you by Departments as follows:

#### Carpenters.

During the year 1906 the following permanent improvements have been made by the Carpenters of this institution: The raising of cottage No. 10 for the purpose of allowing the pipe gallery to be constructed under it and resetting it on its foundation (the lowest estimate submitted for this particular piece of work was over \$800); the erection of five tent platforms; the renovation and reconstruction of the bath rooms in pavilions 2, 3, 5 and 6; the subdivision of the north end of pavilion 3 into four isolation rooms; the erection of platforms for four wigwam cottages, together with the sheathing inside of the same; the erection of 4,070 linear feet of shelving in the store rooms of the hospital; the erection of 400 feet of fencing; the partitioning off and sheathing the room of 2,000 cubic feet of space in the basement of the administration building; the installation of transoms for ventilation in the inside room of the stable dormitory; the partitioning off of a dormitory in the south half of the basement of the scarlet fever pavilion; the partitioning off of a storage room in the ice plant.

In addition to the permanent improvements, the carpenters have kept up the repairs of woodwork in the institution, as well as a number of days of repair work at the borough building at Nos. 38 and 40 Clinton street.

#### Engineering Department.

The following permanent improvements have been made by the Engineering Department:

Installing new gas ranges in the administration building; running gas to doctor's room in basement; installing new steam line under pavilion 1 for cooking purposes; installing new gas range in pavilion 1; repairing steam coil in pavilion 1, and running new return line under building from heating system; installing new steam coils in pavilions 2 and 3; installing new return under pavilion 4 and new nipples in radiators in pavilions 4 and 5; installing new returns under pavilion 6; cutting out old water line in rear of pavilion 6 and putting in new one; putting boilers in running order; removing No. 3 sewer pump from boiler room to engine room and putting same in good order, thereby making practically a new pump out of same; redrilling blowers on Nos. 4-5 boilers; putting new grate bars in No. 3 boilers; putting new gas line in front of all of the five boilers; rebushing pulley for extractor in laundry; taking laundry engine apart and making same as good as new; taking down two old Nason straps from laundry drying room mangle and connecting same with our return system; putting new 2-inch steam line in laundry for heating sleeping apartments upstairs; taking extractor apart and putting same in good working order; repairing mangle; cutting new floor drain in laundry; lowering sewer line from stable that runs through tunnel; putting generator in stable for ambulance station; taking small sterilizer from old building; installing same in disinfection station; cutting through wall and building new wall around No. 1 sterilizer; drilling through wall to raise tracks; putting new gas ranges in Nurses' Home; putting new gas line in Nurses' Home to light the ice box; installing gas piping and fixtures in wigwams; running new cold water line under platform of wigwams; putting steam, hot and cold water, gas and sewer connections in wigwams after they had been removed to cottage platform, using on this job 200 feet of ½-inch pipe, 128 feet of 4-inch sewer pipe and 250 feet of 1-inch steam pipe, covering same with hair felt, asbestos paper and canvas; cutting through wall of engine room for suction line; overhauling all valves on steam plant; renewing all defective flanged joints; putting the steam plant in good working order; putting new 2-inch return line between pavilions 1 and 2; taking coal elevator apart and putting same in good order; taking engine for coal elevator apart and repairing same; making new concrete floor between boiler room and coal shed; concreting floor in engine room where old boilers stood; new steam connection for sewer pumps; putting No. 2 sewer pump in first class order; running gas in hallway of dormitory, over laundry and dormitory over storehouse; digging trench for new line of suction pipe from engine room to tank; calked all the joints on old 8-inch suction line; installed two new radiators in administration building.

In addition to the permanent improvements, the engineering department has kept up all of the current repairs for the year.

#### Painters.

All of the painting performed at this hospital during the year has been done by its own employees. Scraping and painting on the outside of pavilions 5 and 6; painting of the interior of pavilions 2, 3, 5 and 6, and the interior of pavilion 7, the painting of the interior of the wigwams and cottages and the enameling of the hospital furniture.

The needs for further permanent improvements of this hospital are great, especially for dormitories, laundry and a kitchen.

#### Dormitory.

The present dormitory facilities are entirely inadequate, it being necessary at the present time to house certain of the ward helpers in the basement of the scarlet fever pavilion. There is not in the institution a dormitory in which Orderlies can be housed. It has been the policy of the management of this institution to encourage male employees to lodge at their own homes. There should

be kept on the plant a sufficient number of male employees at all times to meet any fire emergency. I would respectfully recommend that the proposed new administration building be provided as soon as possible and that the present administration building be made into a dormitory for domestics. Such a change would allow of the present female dormitories being used for male help.

#### Laundry.

The laundry of the present institution is entirely inadequate. It consists of one thousand four hundred and forty (1,440) square feet of floor space, two washers, one extractor, five stationary washtubs, one mangle and six hundred and eighty-eight (688) cubic feet of drying space. The number of articles passing through this laundry during the year was six hundred and forty-four thousand four hundred (644,400). The number of persons employed in the laundry is fourteen (14).

You will see that in addition to the inadequate facilities the plant has been overcrowded by the employees. I would therefore respectfully recommend that the first improvement that takes place in the Kingston Avenue Hospital, after providing a new dormitory, be that of the erection of a laundry of a capacity sufficient not only for our present needs but for the needs of this institution ten (10) years hence.

#### Kitchen.

About thirty-six thousand (36,000) meals were served from the diet kitchen of this institution during the year 1906.

The kitchen is one-half (½) of one of the old wooden pavilions. It has seven hundred and seventy (770) square feet of space, contains one (1) large coal range and is not provided with hot water system. For the first half of the year there was one steam cooker, the second one being installed in July. It has none of the furnishings of a modern kitchen. It is therefore recommended that the building next provided after the laundry be that of a kitchen adequate to the demand of this institution ten years hence.

#### RECEPTION HOSPITAL.

Medical Work—1,954 cases with 52 accompanying have been treated as follows:

Remaining .....	12
Diphtheria .....	358
Scarlet fever .....	489
Measles .....	607
Smallpox .....	44
Mumps .....	1
Varicella .....	21
Pertussis .....	12
German measles .....	4
Diphtheria and scarlet fever .....	20
Diphtheria and measles .....	87
Diphtheria and varicella .....	3
Diphtheria and pertussis .....	1
Diphtheria, scarlet fever and measles .....	5
Scarlet fever and measles .....	3
Scarlet fever and varicella .....	2
Diphtheria, scarlet fever and pertussis .....	1
Measles and pertussis .....	9
Measles and varicella .....	2
Glanders .....	1
Hydrophobia .....	1
Cerebrospinal meningitis .....	16
Tuberculosis .....	106

Administration Work—26 persons are employed in the hospital work, as follows: 1 Supervising Nurse, 7 Nurses, 4 Orderlies, 6 Domestic and 8 Helpers.

The report of permanent improvements and general repairs to buildings is included in the report of the Willard Parker Hospital.

Respectfully submitted,

ROBERT J. WILSON, Superintendent of Hospitals.

Department of Health,  
Corner of Fifty-fifth Street and Sixth Avenue,  
New York, February, 1907.

Dr. WALTER BENSEL, Assistant Sanitary Superintendent, Department of Health:

Dear Sir—I have the honor to submit to you the following report of the work of the Willard Parker Hospital for the year 1906.

The hospital did not receive any patients until March 14, 1906, so that the report actually shows about nine months' work.

#### Medical Work.

Nine hundred and eighty-eight cases, with 6 accompanying, have been treated as follows: 935 cases of diphtheria, 53 cases of scarlatina, 6 accompanying. The death rate in the diphtheria was 24.9 per cent. This high death rate is accounted for by the number of cases admitted, either profoundly intoxicated with diphtheria poison, as intubation cases, or cases complicated with broncho-pneumonia. The number of cases dying within 48 hours after admission was 81, 36 within 12 hours, 24 between 12 and 24 hours, 14 between 24 and 36 hours and 10 between 36 and 48 hours after admission. Thus it will be seen that 60 cases died before 24 hours after admission, and it can be assumed that the majority were too much poisoned to respond to treatment.

Intubation Cases—The total number of tube cases treated from March 14, 1906, to December 31 was 323. Of this number 153 were discharged cured and 170 died. When the fatal intubation cases are eliminated it is found that the mortality is only 8.4 per cent.

A complication that has caused a very great deal of annoyance and the most rigid adherence to isolation to prevent its spread has been vaginitis. There has been a large number of these cases, and in many instances they have persisted long after the contagious disease was entirely cured. Every therapeutic measure has been used to hasten their recovery. During the last month a number of cases have been vaccinated, with the hope of effecting a cure by the increase of opsonins in the blood. There have been too few cases to draw conclusions, but if results warrant it the treatment will be continued in the chronic cases.

On December 24, 1906, two wards in the new scarlet fever pavilion were opened, and cases of scarlet fever were admitted. Up to the 31st of December 53 cases were treated, with two deaths, with the mortality rate of 3.77 per cent.

Your attention is especially called to the expense of treating mixed infections. Each case suffering with a mixed infection with contagious diseases needs isolation, with one day Nurse, one night Nurse and one day Attendant. It is especially necessary that the hospital be provided with the proper receiving wards, where the cases admitted daily can be watched until after the incubation period of the acute contagious diseases. There is no proper place for isolation, excepting the Reception Hospital, which is inadequate. From the beginning of my administration, on April 1, 1906, a systematic study of the skin and mucous membranes of the diseases treated in the hospitals has been conducted. This work is being done in the Research Laboratory of the hospital, and is to be continued during the present year. The system of keeping histories in the hospital cases has been simplified by a new chart that it is hoped will make the clinical records of the hospital complete and easily accessible.

Visitors—Your attention is called to the necessity of regulating hours of visiting patients at the hospitals. On visiting days it is a common occurrence to see every child in a ward with thirty beds crying at once. The depressing, not to say dangerous, effect on very sick cases cannot be over-estimated. I would therefore recommend that visiting be restricted to one day a week, and



that only one person at a time be allowed to visit. In all cases of very sick patients the hospital notifies the interested persons that they may see the case at any time, under conditions approved by the physician in charge.

All visitors to the contagious hospitals are vaccinated.

#### Administration Work.

Two hundred and three persons are employed in the hospital work, as follows: Two Hospital Physicians, working in the Willard Parker and Reception Hospitals; 1 Hospital Physician, assigned to the Otisville Sanatorium; 4 Internes, working in the diphtheria and scarlet fever wards of the Willard Parker Hospital; 2 Hospital Clerks, working in the hospital; 1 Hospital Clerk, assigned to the tuberculosis clinic at Fifty-fifth street; 1 Hospital Clerk, assigned to the President's office; 1 Hospital Clerk, assigned to the Division of Communicable Diseases; 1 Hospital Clerk, assigned to the Vaccine Laboratory at the Willard Parker Hospital plant; 1 Matron of the Willard Parker Hospital; 1 Supervising Nurse; 37 Nurses, 2 of whom are assigned to the tuberculosis clinic; 2 Helpers, 3 Engineers, 8 Firemen, 1 Carpenter, 1 Elevator Man; 2 Drivers, assigned to the President's office; 1 Driver, assigned to the Division of Communicable Diseases; 1 Driver, assigned to the Assistant Sanitary Superintendent; 6 Drivers, assigned to the Disinfecting Station; 4 Ambulance Drivers; 1 Watchman, assigned to the drug laboratory; 2 Laborers, assigned to the Research Laboratory of the hospital; 2 Laborers, assigned to the vaccine laboratory; 1 Laborer, assigned to the Division of Communicable Diseases; 1 Laborer, assigned to Borough of Richmond; 1 Laborer, assigned to the Disinfecting Station; 2 Laborers, assigned to Fifty-fifth street building. Total number of assigned Laborers, 27. Total number of Domestic, 81. Four Domestic, assigned to the Fifty-fifth street building; 1 Domestic, assigned to the vaccine laboratory, and 10 Domestic, assigned to the Research Laboratory building. Your attention is called to the large number of employees of this institution who are on special detail. And in considering the expense of administration should not be charged against the hospital in estimating the cost of treatment per patient.

I consider the various buildings, with the employees working therein, at the foot of East Sixteenth street, essentially of the hospital plant, but in estimating cost of maintenance each should be considered separately.

At the Willard Parker Hospital there are twenty buildings, as follows:

Disinfecting Station.  
Gatehouse.  
Ambulance Station.  
Vaccine Laboratory.  
Old Willard Parker.  
Boiler house.  
Coal storage house.  
Animal house.  
Morgue.  
Plague Laboratory building.  
Research Laboratory building.  
Administration building.  
Reception kitchen.  
Inspector's house.  
Scarlet fever pavilion.  
Scarlet fever kitchen.  
Reception Hospital.  
Dock house.  
Reception storehouse.  
Avenue C annex.

During the year the following permanent improvements have been made:

Avenue C Annex—Renovation of sidewalk; repairing rain leader with new cast iron pipe; alteration of the gaspipe system so that all gas is now controlled by one meter.

Disinfecting Station and Dormitory—The second and third floors of the Disinfecting Station have been renovated and turned into a dormitory for hospital help, with 16 rooms and 48 bed capacity.

Ambulance Station and Vaccine Laboratory—New floors have been placed in the horse stalls of the ambulance station and the stalls placed in first-class condition. The Croton water supply pipe of the ambulance station, which formerly was defective, has been repaired. New electric fixtures have been installed throughout the ambulance station and Vaccine Laboratory.

Plague Laboratory—A new Nason steam trap, with necessary steamfitting, has been installed, so that the hot water supply is completely controlled and a permanent supply of hot water provided. The cold water supply pipe of this building has been replaced by a new pipe.

Morgue—The Morgue has been painted.

New Boiler House and Coal Storage—Have been completed. A new malleable iron blow-off pipe from the boiler house to the river has been installed. The electric lighting has been installed in the boiler house and coal storage.

Willard Parker Hospital and Annex—The Willard Parker Hospital has been renovated throughout, and was occupied for the first time since renovation on March 14, 1906. This building is now modern and up to date in every respect. Screens and awnings furnished throughout.

Administration Building—Has been turned over to the department and accepted, and is now fully occupied, the ground floors being used for administrative purposes and the floors above the ground being used as a Nurses' home. Since the building has been occupied the cellar has been partitioned off into storerooms for the Engineer, Hospital Clerk and storage for groceries and general storage.

New Research Laboratory—Shades and awnings have been furnished for this building. Vacuum pipes have been installed for the laboratory parts of the building. Two new chemical tables, with all appliances, water, gas, etc., have been supplied on the fourth floor. Windows and doors of the storeroom on the first floor and windows and doors throughout the cellar have been protected by heavy wire. Hot water bath for the chemical tables on the third floor have been installed.

Scarlet fever pavilion has been completed and opened, and on December 31 contained fifty-three patients.

The new kitchen for the Reception Hospital is nearly completed.

The Reception Hospital and Waiting Room—Plumbing work has been repaired throughout and new cisterns furnished for the toilets. The waiting room on the dock has been painted.

The difficulty of getting emergency work done quickly in this hospital on account of the fear that workmen have that they may contract contagious disease here, and the subsequent delay and annoyance, has made it advisable to have all possible repair and permanent improvement work done by our own employees. I call your attention to the following improvements made in this way:

Engineering Department—Five-inch blow-off line from the boilers to the river. Sewers cleaned three times. Overhauling of the pumps and elevator in the Willard Parker Hospital. The making of all steam, gas and water connections and the installation of the sterilizing apparatus in the operating room.

Reception Hospital—One hundred and ten feet of defective water piping and 70 feet of steam piping renewed.

Scarlet Fever Building—Overhauling of pumps and one elevator. Renewing 30 feet of defective water piping and 20 feet of steam piping. Extending to new gas lines and the installation of 8 new electric fixtures.

Research Laboratory Building—Installation of gas piping for sterilizers. Installation of the vacuum apparatus in bottling room. Installing the gas attachments to one chemical table. Installation of the steam piping for the water baths in the Chemical Laboratory.

Administration Building—Overhauling 2 pumps, 2 steam traps, 1 elevator and the electric call bells.

Ambulance Station—Renewing 20 feet of water piping. Overhauling elevator engine.

Vaccine Laboratory—Renewing 60 feet of water piping. Installing call bells. Renewing 30 feet steam piping and repairing of the vacuum pump.

Plague Laboratory—Renewing 25 feet of water piping. Renewing 20 feet of piping on the main steam line.

Boiler House—Overhauling of 2 pumps and 1 pump regulator. Repairing of the main steam lines. Repairing 2 blow-off valves, 1 steam trap. Repairing 4 stock valves. Repairing 3 regulators. Installation of 13 electric lights.

Annex Building—Overhauling of furnace. Installation of 10 feet of new pipe to furnace. Renewing 15 feet of water piping.

Besides this work, which represents permanent improvements, the engineering department has kept up all of the ordinary repairing in the water supply, gas and electricity.

Carpenter Shop—The following permanent improvements have been made by the Carpenters:

The erection of a fence around the grounds of the Willard Parker Hospital building. The erection of a fence making an animal yard. The partitioning off of storerooms in the cellar of the Research Laboratory and administration buildings. The erection of one large work table in the Chemical Laboratory and the erection of one work table in the Research Laboratory. In addition to this the Carpenters have kept up all minor repairs, such as repairs to doors and windows of the institution, besides the making of closets, shelves, etc., throughout the buildings of the hospital plant.

In the last year the greatly increased capacity for patients at this hospital has made it necessary to very much increase the number of employees, and your attention is called to the necessity of furnishing the hospital with the following buildings:

Dormitories for the Help—Under the present conditions about one-half of the female help is housed in what is called the Avenue C Annex, at Avenue C and Sixteenth street. The Domestic working in the administration building are accommodated on the top floor of that building, while the ward maids, as far as possible, are accommodated in the new dormitory over the Disinfecting Station. None of these buildings were intended for the purposes for which they are used, and as this plant grows it will be absolutely necessary to provide proper dormitory facilities for the care of the female help. I would respectfully recommend that the first improvements made by the Department of Health be that it furnish the proper dormitory for the female help employed in this plant.

Male Help—All of the male employees have been encouraged to live on the outside. It would be impossible to keep them under the present conditions, but we are forced to provide sufficient room for enough men for fire protection. Aside from that no provision has been made to house male help. In the event of a new dormitory for the female help being provided it would give us the new dormitory over the Disinfecting Station, which is at present occupied by the female help, and which was originally intended for the male help. This would be sufficient for the needs of the hospital for about ten years.

Laundry—This hospital has no laundry, and is entirely dependent upon Riverside Hospital for its laundry work, with the exception of that done for the executive officers. This lack of a laundry has frequently seriously handicapped the executives of the hospital in keeping their wards in good condition. Furthermore, it is necessary under the present conditions to have one-third, if not a half, more articles in use than would be necessary were the laundry on the hospital grounds, this being occasioned by the fact that the actual amount of goods subject to laundry use is found in duplicate on the boat going to North Brother Island, in duplicate again at the laundry at North Brother Island and in duplicate again on the boat being returned from North Brother Island. Furthermore, there is constantly trouble about getting the laundry returned properly, so that frequently it is necessary to wash diapers and other absolutely essential goods of the hospital and dry them in attics or over radiators as best we can. I would therefore respectfully recommend that the second building considered for this plant be a laundry, to be furnished as soon as possible.

Machine Shop—The engineering department is very much handicapped in their work by the fact that all steam, gas and water fittings must be purchased by the usual requisition routine, which takes so long a time that it frequently forces us to have work done on emergency requisition which we would otherwise do ourselves. If the proper machine shop was installed in the hospital plant, a great many of the fittings that are now purchased would be made by our own men, and what is more to the point, can be furnished immediately when needed. I would therefore respectfully recommend that when the laundry building is provided that the basement story be fitted up as a machine shop, so that the power of the laundry may be utilized for the machinery in the machine shop.

Storehouse—The present storehouses are wholly unequal for the work they are called upon to do. At the present time we have one storeroom in the westerly end of the administration building and three rooms on the first floor of the same building, which are used for storage purposes. All of these are overcrowded and do not meet the demands of the hospital at its present size. When the new buildings now contemplated are completed it will be absolutely necessary to have new storehouses. It is therefore recommended that the Department of Health acquire immediately that portion of the gas company's grounds west of the east side of Avenue D, and that they appropriate the two-story brick building on those grounds for storehouse purposes.

The following is a report of the amount of work performed in the chemical laboratory during the year ending December 31, 1906:

The amount of work accomplished in number of analyses and variety has exceeded that of any previous years.

It has comprised the examination of a varied class of substances, including foods, drugs, Health and other department supplies, medico legal examination, the testing of new methods and experimental work. Though principally for the Department of Health, it also represents a considerable amount for other departments, as will be seen in the itemized statement.

In addition to the analytical work should be considered the time of the chemists spent in the courts as expert witnesses.

These results of the year's work are primarily due to the fact that the new laboratory at the foot of East Sixteenth street was ready for occupancy early in the year. The moving of the laboratory stock of apparatus and reagents for the Health Department building at Fifty-fifth street and Sixth avenue was begun about the first of February, and occupied two weeks.

This laboratory is much more convenient in its equipment of water, steam, electricity and light and much better arranged in its room division for analytical work.

The following is a detailed statement, alphabetically arranged, of the analytical work:

#### Alcoholic Beverages.

25 samples of alcoholic beverages were examined.

4 samples were examined for wood alcohol only, and were found to be free from it.

21 samples were examined for alcoholic composition and injurious ingredients with the following results:

No.	Sample.	Received From.	Result.
27150	Cognac brandy B.....	Martin Weiser, No. 1142 Second avenue.....	Alcohol by weight, 37.31 per cent.; alcohol by volume, 44.43 per cent.; methyl alcohol, none.
27047	Jamaica rum.....	F. Fischer, No. 203 East Sixtieth street.....	Methyl alcohol, poisonous metals and arsenic, none.



No.	Sample.	Received From.	Result.
24857	Kummel .....	Dr. Nelson, No. 1413 Prospect avenue.....	Free from poisonous substances.
26851	Liquid (brown).....	Arthur Louen, One Hundred and Seventy-first street and Brook avenue .....	Alcohol by weight, 44.59 per cent.; alcohol by volume, 52.15 per cent.; total solids (extract), 0.21 per cent.; methyl alcohol, none; tannic acid, high.
25006	Whisky No. 1.....	Chief Clerk's Office.....	Alcohol by weight, 37.55 per cent.; alcohol by volume, 44.67 per cent.; extractive matter, 0.52 per cent.; artificial coloring matter (coal tar colors), wood alcohol and ash, none.
25007	Whisky No. 2.....	Chief Clerk's Office.....	Alcohol by weight, 34.21 per cent.; alcohol by volume, 41.00 per cent.; extractive matter, 0.52 per cent.; artificial coloring matter (coal tar colors), wood alcohol and ash, none.
25008	Whisky No. 3.....	Chief Clerk's Office.....	Alcohol by weight, 34.94 per cent.; alcohol by volume, 41.79 per cent.; extractive matter, 0.32 per cent.; artificial coloring matter (coal tar colors), wood alcohol and ash, none.
25009	Whisky No. 4.....	Chief Clerk's Office.....	Alcohol by weight, 38.40 per cent.; alcohol by volume, 45.95 per cent.; extractive matter, 0.74 per cent.; artificial coloring matter (coal tar colors), wood alcohol and ash, none.
25391	Whisky .....	Wagon of D. Engle, No. 37 Clinton street, Yonkers.....	Alcohol by weight, 37.00 per cent.; alcohol by volume, 44.06 per cent.; methyl alcohol, extractive matter and ash, none.
25392	Whisky .....	Wagon of D. Engle, No. 37 Clinton street, Yonkers.....	Alcohol by weight, 31.75 per cent.; alcohol by volume, 38.18 per cent.; methyl alcohol and ash, none; extractive matter, 0.012 per cent.
25458	Whisky .....	Max Pollak & Bros.....	Alcohol by weight, 26.06 per cent.; alcohol by volume, 32.19 per cent.; extractive matter in 100 c. c., 2.3612 gms.; artificial coloring matter (coal tar colors) and wood alcohol, none.
25459	Whisky .....	Max Klein, No. 94 Avenue B.....	Alcohol by weight, 36.31 per cent.; alcohol by volume, 43.26 per cent.; extractive matter in 100 c. c., 0.5840 gms.; artificial coloring matter (coal tar colors) and wood alcohol, none.
25626	Whisky, rye.....	Andrew Sheridan, No. 375 First avenue.....	Free from wood alcohol.
26053	Whisky .....	Mr. Hauser, No. 510 East One Hundred and Nineteenth street .....	Free from wood alcohol.
26054	Whisky .....	J. Wolken, No. 2312 Second avenue.....	Free from wood alcohol.
26908	Whisky No. 1.....	Chief Clerk's Office.....	Alcohol by weight, 36.96 per cent.; alcohol by volume, 44.00 per cent.; extract, 00.32 per cent.
26909	Whisky No. 2.....	Chief Clerk's Office.....	Alcohol by weight, 37.02 per cent.; alcohol by volume, 44.06 per cent.; extract, 00.32 per cent.
26939	Whisky .....	John Steinberg, No. 322 Tenth avenue.....	Alcohol by weight, 39.27 per cent.; alcohol by volume, 46.75 per cent.; methyl alcohol, none.
27554	Whisky .....	Mrs. Mary Quinn, No. 243 West Sixty-first street.....	Free from wood alcohol.
24833	Wine .....	John Solari & Co., No. 336 Greenwich street.....	Alcohol by weight, 10.07 per cent.; wine gives reaction for traces of wood alcohol.
24872	Wine .....	John Solari & Co., No. 336 Greenwich street.....	Alcohol by weight, 12.71 per cent.; residue at 100 degrees C., 1.7 per cent.; ash, 0.244 per cent.; total acidity, 42.3 c. c. N-10 acid per 50 c. c.; non-volatile acidity, 32.2 c. c. N-10 acid per 50 c. c.; volatile acidity, 10.1 c. c. N-10 acid per 50 c. c.
24892	Wine (white).....	Freund, Tremont avenue, The Bronx.....	Free from poisonous substances.
25738	Wine .....	Captain Lantry's precinct.....	Alcohol by weight, 11.36 per cent.; alcohol by volume, 14.18 per cent.; extractive matter, 1.57 per cent.; ash, 0.1644 per cent.; artificial coloring matter, preservatives, benzoic and salicylic acids, none; poisonous metals and chloral hydrate, none.
26188	Wine .....	Dr. Robert's office.....	Extractive matter, 11.38 per cent.; ash, 0.299 per cent.; alcohol by weight, 14.37 per cent.; alcohol by volume, 18.48 per cent.; heavy metals, artificial coloring matter, preservatives, benzoic and salicylic acids, none.

## Baking Powder.

No.	Brand.	Where Purchased.	Results.	Available Carbon Dioxide.
24514	Solar .....	Henry Burte, No. 32 West End avenue.....	Phosphate powder.....	10.60 per cent.
24794	Egg .....	.....	Phosphate and alum powder.....	5.12 per cent.
24923	Red Star.....	R. H. Macy, Thirty-fourth street and Broadway.....	Tartrate powder.....	7.88 per cent.
24932	Cleveland .....	.....	Tartrate powder.....	12.02 per cent.
24933	Sea Foam.....	.....	Tartrate powder.....	13.98 per cent.
24971	Egg .....	.....	Phosphate and alum powder.....	10.85 per cent.

## Bread and Flour.

No.	Brand.	Where Purchased.	Results.
25733	Rye bread.....	L. Siegman, No. 67 East One Hundred and Ninth street..	Free from dirt and other foreign substances.
27076	Bread .....	.....	Carbohydrates, 44.63 per cent.
24917	Corn starch.....	.....	Ash, 0.80 per cent.; microscopic examination failed to show adulterations with foreign starches.

## Candy, Ice Cream, etc.

No.	Brand.	Sample.	Where Purchased.	Results.
27296	.....	Candy in bag No. 1..	Father Family Candy Store, No. 90 North Sixth street, Brooklyn.....	Free from poisonous metals and coloring matter.
27297	.....	Candy in bag No. 2..	Father Family Candy Store, No. 90 North Sixth street, Brooklyn.....	Free from poisonous metals and coloring matter.
25474	.....	Wild cherry drops No. 1.....	Franklin and De Kalb avenues, Brooklyn.....	Free from paraffin and poisonous metals; colored with a coal tar dye.
25475	.....	Wild cherry drops No. 2.....	Franklin avenue and Park place, Brooklyn.....	Free from paraffin and poisonous metals; colored with a coal tar dye.
25476	.....	Wild cherry drops No. 3.....	Franklin avenue and St. John's place, Brooklyn...	Free from paraffin and poisonous metals; colored with a coal tar dye.
25477	Royal.....	Gum drops.....	Adolph Hecht, No. 207 East Twenty-fifth street...	Free from paraffin and poisonous metals; colored with a coal tar dye.
25553	Royal.....	Gum drops.....	E. Greenfield Sons & Co., No. 44 Barclay street...	Free from paraffin, coloring matter and poisonous metals.
.....	.....	A & B; A white.....	.....	Free from paraffin and poisonous metals; colored with a coal tar dye; starch present.
.....	.....	B red.....	.....	Free from paraffin and poisonous metals; colored with a coal tar dye; starch present.
27756	.....	Pineapple No. 1.....	H. Sipe, No. 20 Desbrosses street.....	Sulphites in traces present.
27757	.....	Pineapple No. 2.....	H. Sipe, No. 20 Desbrosses street.....	Sulphites in traces present.
27795	.....	Pineapple slices.....	.....	Free from sulphites.
25674	.....	Caramels .....	James Mattor & Co., No. 113 Avenue B.....	Free from paraffin.
25675	.....	Caramels .....	Ernest Hagedorn, No. 113 Avenue C.....	Free from paraffin.
25686	.....	Caramels .....	Herman Boehlings, No. 273 First avenue.....	Free from paraffin.
25687	.....	Caramels .....	L. Hoberg & Co., Nos. 119 and 121 Third avenue.	Free from paraffin.
25688	.....	Caramels .....	Pietro Caparall & Calamaty, No. 124 Third avenue.	Free from paraffin.
25689	.....	Caramels .....	Hemetrious Coomoolos, No. 238 East Fourteenth street .....	Free from paraffin.
25690	.....	Caramels .....	Joseph Anrig, No. 983 Amsterdam avenue.....	Free from paraffin.
25691	.....	Caramels .....	Plump's, No. 684 Columbus avenue.....	Free from paraffin.
25692	.....	Caramels .....	Jacob Stechmann, No. 888 Amsterdam avenue....	Free from paraffin.
25693	.....	Caramels .....	Henry Fajen, No. 716 Columbus avenue.....	Free from paraffin.
25694	.....	Caramels .....	I. M. Ossenbruggen, No. 746 Columbus avenue....	Free from paraffin.
25695	.....	Caramels .....	Pape's, No. 646 Columbus avenue.....	Free from paraffin.
25696	.....	Caramels .....	Knippenberg's, No. 802 Columbus avenue.....	Free from paraffin.
25697	.....	Caramels .....	W. R. Ersfeld, No. 848 Amsterdam avenue.....	0.17 per cent. paraffin present.
25698	.....	Caramels .....	Henry Frerck's, No. 891 Columbus avenue.....	0.19 per cent. paraffin present.



No.	Brand.	Sample.	Where Purchased.	Results.
25699		Caramels	Henry Luming, No. 881 Columbus avenue.	0.436 per cent. paraffin present.
25700		Caramels	Peter Jurg, No. 938 Amsterdam avenue.	0.215 per cent. paraffin present.
25701		Caramels	R. Eckhoff, No. 928 Columbus avenue.	Free from paraffin.
25706		Caramels	Frank J. Mutterer, No. 483 Amsterdam avenue.	Free from paraffin.
25707		Caramels	Henry Wittrock, No. 173 Amsterdam avenue.	Free from paraffin.
25708		Caramels	A. Riemann, No. 133 Columbus avenue.	1.365 per cent. paraffin present.
25709		Caramels	Frederick Hoppe, No. 24 Amsterdam avenue.	0.678 per cent. paraffin present.
25710		Caramels	Catherine Murray, No. 582 Columbus avenue.	2.10 per cent. paraffin present.
25711		Caramels	J. Hollinger, No. 142 Columbus avenue.	Free from paraffin.
25714		Caramels	Elizabeth Kopf, No. 272 Third avenue.	0.327 per cent. paraffin present.
25715		Caramels	H. Marcks, No. 453 Third avenue.	0.38 per cent. paraffin present.
25717		Caramels	F. Woolworth, No. 262 Sixth avenue.	Free from paraffin.
25718		Caramels	Henry Siegel & Co., Fourteenth street and Sixth avenue.	Free from paraffin.
25719		Caramels	The Mirror, Sixth avenue and Seventeenth street.	Free from paraffin.
25720		Caramels	Siegel-Cooper Company, Sixth avenue and Eighteenth street.	Free from paraffin.
25721		Caramels	D. F. Caramel Company, No. 463 Greenwich street.	Free from paraffin.
27262		Caramels	Dells, No. 1369 Broadway.	2.04 per cent. paraffin present.
27263		Chocolate creams	Dells, No. 1369 Broadway.	1.03 per cent. paraffin present.
27295		Chocolate coconut cream bar	Geo. Huncke, No. 1824 Amsterdam avenue.	Free from paraffin.
25479		Chocolate	Adolph Hecht, No. 207 East Twenty-fifth street.	Free from paraffin and injurious ingredients.
25551	U. N. O.	Chocolate	Crave & Martin Company, Nos. 309 and 311 East Twenty-second street.	Free from paraffin, coal tar dyes and injurious ingredients.
25552	O. I. C. U.	Chocolate	Jacob Mendelowitz, No. 203 East Forty-ninth street.	Free from paraffin, coal tar dyes and injurious ingredients.
25713		Chocolate covered caramels	Herman Hunsoth, No. 627 Second avenue.	Free from paraffin.
25716		Chocolate covered caramels	John Klein, No. 316 Third avenue.	Free from paraffin.
24843		Chocolates	Loft's, Park row and Nassau street.	Free from starch, poisonous metals and terra alba; artificial color trace.
25925	Powell's.	Chocolate almonds	Moses Jandorf, No. 201 West Fifty-eighth street.	Unadulterated.
25926	Powell's.	Chocolate cream drops	Moses Jandorf, No. 201 West Fifty-eighth street.	Unadulterated.
25450		Candy	A. Lombardo, No. 339 East One Hundred and Sixth street.	Free from poisonous metals and mineral substances.
25478		Candy	Adolph Hecht, No. 207 East Twenty-fifth street.	Free from poisonous metals; colored with coal tar dye; 1 per cent. paraffin.
25478		Candy	Adolph Hecht, No. 207 East Twenty-fifth street.	Free from poisonous metals; colored with coal tar dye; 1 per cent. paraffin.
26263		Strawberries	John Boschen, No. 589 Amsterdam avenue.	Colored with artificial color coal tar dye; poisonous metals, none; starch in large amounts.
26534		Candy	John Kusel, No. 34 Third avenue.	Free from poisonous metals.
25554	Cupid.	Raspberries	Greenfield Sons & Co., No. 44 Barclay street.	Free from poisonous metals; colored with a coal tar dye; paraffin present.
25667		Candy	Adrizzone F. Figli, No. 524 East Fourteenth street.	Coal tar dye and starch present; free from paraffin and poisonous metals.
25727		Molasses taffy bar	Emanuel Psardudakis, No. 381 Sixth avenue.	Free from poisonous metals, starch and artificial coloring matter; 1.34 per cent. paraffin present.
25728		Molasses taffy drops	Emanuel Psardudakis, No. 381 Sixth avenue.	Free from adulterants.
24825		Candy		Free from heavy metals; artificial coloring matter; coal tar colors present.
24842		Strawberries	John Boschen, No. 589 Amsterdam avenue.	Colored with a coal tar dye; artificial flavor present; free from mineral adulterants and poisonous metals.
25927	Extra Fine.	Marshmallow drops	Moses Jandorf, No. 201 West Fifty-eighth street.	Contains starch; free from artificial coloring matter, paraffin and poisonous metals; mineral matter normal.
25928	Hess Bros.	Carmen kisses	Moses Jandorf, No. 201 West Fifty-eighth street.	Unadulterated.
27017		Candy	Mrs. Belle Ravitch, No. 326 West Sixteenth street.	Free from heavy metals; artificial coloring matter; coal tar colors present.
27057		Candy	Abr. Shubkin, No. 830 Third avenue.	Coal tar dyes and starch present.
27382		Candy	Dr. W. B. Robinson, No. 264 Crescent street.	Coal tar dyes present; free from poisonous metals.
27549	Hawley & Hoops.	Candy	Hawley & Hoops, No. 267 Mulberry street.	Free from wood alcohol and artificial colors.
27550	Hawley & Hoops.	Candy	Hawley & Hoops, No. 267 Mulberry street.	Free from wood alcohol and artificial colors.
27568		Candy	H. Sacher, No. 86 Forsyth street.	Free from heavy metals; artificial coloring matter and starch present.
27569		Candy	H. Sacher, No. 86 Forsyth street.	Free from heavy metals; artificial coloring matter present.
27656		Sugar matches	A. Peterson, No. 2469 Broadway.	Free from heavy metals and artificial coloring matter; starch present.
27704	Hildreth's.	Original velvet candy	H. A. Salman, No. 468 Canal street.	Free from paraffin, artificial coloring matter and heavy metals.
27852		Gum drops	A. Frankfurter, No. 68 St. Mark's place.	Free from artificial coloring matter and heavy metals; starch and licorice present.
27797	Heide's.	Licorice pastilles	Alfred Erglander, No. 1651 First avenue.	Free from artificial coloring matter and heavy metals; starch and licorice present.
27798		Licorice gum drops	Herman Unger, No. 1643 First avenue.	Artificial coloring matter and heavy metals absent; starch and licorice present.
27799		Licorice pipes	Herman Unger, No. 1643 First avenue.	Free from artificial coloring matter and heavy metals; starch and licorice present.
27800		Licorice gum drops	Finke Bros., No. 1655 First avenue.	Free from artificial coloring matter and heavy metals; starch and licorice present.
27801		Licorice pennies	Henry Mushin, No. 1545 First avenue.	Free from artificial coloring matter and heavy metals; starch and licorice present.
27802		Licorice drops	Liedes, No. 1573 Avenue A.	Free from artificial coloring matter and heavy metals; starch and licorice present.
27803		Licorice gum drops	Lorenzen Bros., No. 1488 Avenue C.	Free from artificial coloring matter and heavy metals; starch and licorice present.
27804	Duches.	Flexible licorice	Bernard Benjamin, No. 312 East Eighty-second street.	Free from artificial coloring matter and heavy metals; starch and licorice present.
27805		Licorice sticks	Louis Kolsch, No. 1487 Avenue A.	Free from artificial coloring matter and heavy metals; starch and licorice present.
27847	Duches.	Licorice tubes	Herman Brussow, No. 1493 Avenue A.	Free from artificial coloring matter and heavy metals; starch and licorice present.
27848		Licorice whips	A. Frankfurter, No. 58 St. Mark's place.	Artificial coloring matter and heavy metals absent; starch and licorice present.
27849		Licorice squares	Louis Katz, No. 200 East Seventh street.	Free from artificial coloring matter and heavy metals; starch and licorice present.
27850		Licorice squares	Herman Brussow, No. 1493 Avenue A.	Free from artificial coloring matter and heavy metals; starch and licorice present.
27851		Licorice raspberries	Louis Katz, No. 200 East Seventh street.	Free from artificial coloring matter and heavy metals; starch and licorice present.
27853		Licorice drops	John Alberti, No. 113 Avenue B.	Free from artificial coloring matter and heavy metals; starch and licorice present.
27873		Licorice	Christopher Tietjen, No. 1660 Second avenue.	Free from artificial coloring matter and heavy metals; starch and licorice present.
27874		Licorice drops	Harry Greenberg, No. 1632 First avenue.	Free from artificial coloring matter and heavy metals; starch and licorice present.
27875		Licorice	Mark Rosenberg, No. 210 East Sixty-third street.	Free from artificial coloring matter and heavy metals; starch and licorice present.
27876		Licorice gum drops	Samuel Hoffmann, No. 1836 Second avenue.	Free from artificial coloring matter and heavy metals; starch and licorice present.
27877		Licorice shoes	Mark Rosenberg, No. 210 East Sixty-third street.	Free from artificial coloring matter and heavy metals; starch and licorice present.
27878		Licorice balls	Harry Greenberg, No. 1632 First avenue.	Artificial coloring matter (carbon) present; free from starch, heavy metals and licorice.
27879		Licorice gum drops	Solomon Frechtman, No. 1696 Second avenue.	Free from artificial coloring matter and heavy metals; starch and licorice present.
27880		Licorice pellets	Benjamin Strauss, No. 1685 Second avenue.	Free from artificial coloring matter and heavy metals; starch and licorice present.
27912		Licorice squares	David Haber, No. 193 Avenue B.	Free from artificial coloring matter and heavy metals; starch and licorice present.
27913	Select.	Licorice sticks	Barnet Cooper, No. 307 East Eighth street.	Free from artificial coloring matter and heavy metals; starch and licorice present.
27914		Licorice gum drops	John Alberti, No. 113 Avenue B.	Free from artificial coloring matter and heavy metals; starch and licorice present.
27916		Licorice strawberries	Ferdinand Wolf, No. 96 East Fourth street.	Free from artificial coloring matter and heavy metals; starch and licorice present.



No.	Brand.	Sample.	Where Purchased.	Results.
27917		Licorice faces.....	Max Hein, No. 114 East Fourth street.....	Free from artificial coloring matter and heavy metals; starch and licorice present.
27918		Licorice strings.....	Sam Manowitch, No. 196 East Fourth street.....	Free from artificial coloring matter and heavy metals; starch and licorice present.
27016		Ice cream.....	Mrs. Belle Ravitch, No. 326 West Sixteenth street.	Free from poisonous metals and artificial coloring matter; coal tar colors.
25739		Ginger ale.....	G. B. Seely's Sons, No. 319 West Fifteenth street.	Free from heavy metals, artificial coloring matter and preservatives.
27063		Soda water.....	Louis Appelbaum, No. 376 Broome street.....	Sample is not polluted; free from poisonous metals.
27516		Candy .....	Henry Heide, No. 84 Vandam street.....	Free from mineral acids.
27515		Cream candy.....	Henry Heide, No. 84 Vandam street.....	Free from mineral acids.

## Coloring Matter for Confectionery, Meats and Sausages.

No.	Brand.	Sample.	Where Purchased.	Results.
27230		Red color.....	H. Baron & Co., No. 311 Broome street.....	Sample is a coal tar color; minerals, none.
23159		Coloring fluid.....		Sample corresponds to carmine.
24883		Congo brown.....	G. Guigerich, No. 70 Amsterdam avenue.....	Sample is Congo brown G; is a harmless color.
24884		Yoko yellow.....	G. Guigerich, No. 70 Amsterdam avenue.....	Corresponds in reaction to a mixture of orange G and acid yellow G.
25911		Blood color (in bottle)	Sussman Volt, No. 88 Delancey street.....	Contains coal tar dye.
25936		Blood color.....	M. Ettlinger & Co., No. 97 Front street.....	Contains coal tar dye.
25979		Color liquid.....	S. Oppenheimer, No. 100 Pearl street.....	Contains coal tar dye.
25980		Color powder.....	S. Oppenheimer, No. 100 Pearl street.....	Contains coal tar dye.
25982		Blood color.....	Geo. Bauer, No. 1208 First avenue.....	Contains coal tar dye.
25935		Congo brown.....	M. Ettlinger & Co., No. 97 Front street.....	Corresponds in reaction to Bismarck brown; is a coal tar dye.
26229		Sugar color.....	H. Baron & Co., No. 311 Broome street.....	Contains caramel.
26287		Silent blood color...	E. P. Ham, No. 211 Washington street.....	Corresponds in reaction to Bismarck brown; is a coal tar dye.
27303		Candy coloring, vegetable yellow.....	F. G. Brewster & Co., No. 306 East Sixty-first street .....	Contains a vegetable color; minerals, none.
27304		Candy coloring, vegetable green.....	F. G. Brewster & Co., No. 306 East Sixty-first street .....	Contains a vegetable color; minerals, none.
27306		Candy coloring, carmine red.....	F. G. Brewster & Co., No. 306 East Sixty-first street .....	Cochineal and aluminum present; aluminum probably base of color.
27308		Candy coloring.....	Auerbach & Sons, No. 334 West Thirty-ninth street	Sample is a coal tar color; minerals, none.
27309		Candy coloring.....	Auerbach & Sons, No. 334 West Thirty-ninth street	Sample is a coal tar color; trace of aluminum present.
27310		Candy coloring.....	Auerbach & Sons, No. 334 West Thirty-ninth street	Sample is a coal tar color; minerals, none.
27321		Pure red fruit color.	Conron & Co., No. 265 West Broadway.....	Sample is a coal tar color.
27322	Conron's.....	Orange color.....	Conron & Co., No. 265 West Broadway.....	Sample is a coal tar color.
27364	Lion.....	Red color.....	Rex Extract Company, No. 166 Duane street.....	Sample is a coal tar color.
27365		Red (coal tar derivative) .....	Rex Extract Company, No. 166 Duane street.....	Sample is a coal tar color.
27366		Yellow (coal tar derivative) .....	Rex Extract Company, No. 166 Duane street.....	Sample is a coal tar color.
27452		Color, orange candy..	Advance Novelty Company, No. 629 East Sixteenth street.....	Sample is a coal tar color; aluminum trace.
27453		Color, yellow candy..	Advance Novelty Company, No. 629 East Sixteenth street.....	Sample is a coal tar color; aluminum and iron trace.
27454		Color, violet candy..	Advance Novelty Company, No. 629 East Sixteenth street.....	Sample contains coal tar color, cochineal and aluminum.
27455		Color, orange candy..	Hartog & Beinbauer Company, No. 617 West Forty-seventh street.....	Sample is a coal tar color; aluminum trace.
27456		Color, red candy....	Hartog & Beinbauer Company, No. 617 West Forty-seventh street.....	Sample contains eosin; minerals, none.
27457		Color, lemon candy..	Hartog & Beinbauer Company, No. 617 West Forty-seventh street.....	Sample is a coal tar color; iron and aluminum traces.
27519		Candy coloring.....	Henry Heide, No. 84 Vandam street.....	Sample is a coal tar color; rosin present; minerals, none.
27520		Candy coloring.....	Henry Heide, No. 84 Vandam street.....	Sample is a coal tar color; copper present.
27521		Candy coloring.....	Henry Heide, No. 84 Vandam street.....	Minerals, none.
27231		Orange .....	H. Baron & Co., No. 311 Broome street.....	Artificial color (coal tar dye) present; methyl alcohol, none.

## Condensed Milk and Evaporated Creams.

No.	Brand.	From Whom Purchased.	Results.									
			Fat. Per Cent.	Proteids. Per Cent.	Cane Sugar. Per Cent.	Milk Sugar. Per Cent.	Ash. Per Cent.	Total Solids. Per Cent.	Milk Solids. Per Cent.	E. F. in O. M. Per Cent.	F. in M. S. Per Cent.	
24864	Butler .....	James Butler, No. 1042 Second avenue.....	8.14	7.30	43.96	11.79	1.75	72.94	28.98	3.35	28.09	No. Ant. Unadul.
24865	Liberty .....	James Butler, No. 1042 Second avenue.....	9.54	8.31	43.54	12.39	1.75	75.53	31.99	3.93	29.82	No. Ant. Unadul.
24899	Bouquet .....	Fourteenth Street Store, Fourteenth street and Sixth avenue .....	11.08	8.12	42.04	11.47	1.61	74.32	32.28	4.95	34.32	No. Ant. Unadul.
24900	Sweet Clover.....	J. H. Holsten, No. 238 East Fifty-sixth street.....	10.32	8.29	40.84	11.48	1.75	72.68	31.84	4.25	32.41	No. Ant. Unadul.
24938	Essie .....	James Butler, No. 1141 Second avenue.....	9.90	7.56	42.32	10.22	1.71	71.71	29.39	4.16	33.69	No. Ant. Unadul.
24939	Alderney .....	T. Anderson, No. 1136 Second avenue.....	9.87	8.91	43.23	12.32	1.76	76.09	32.86	4.04	30.04	No. Ant. Unadul.
24940	Grandmother .....	G. A. and P. Tea Company, No. 774 Third avenue.....	9.10	7.73	42.89	11.19	1.69	72.60	29.71	3.86	30.63	No. Ant. Unadul.
25194	Coin .....	M. Frazer, No. 207 East Fifty-seventh street.....	11.53	8.49	39.93	11.59	1.87	73.41	33.48	4.43	34.44	No. Ant. Unadul.
25195	Red Line.....	M. Frazer, No. 207 East Fifty-seventh street.....	11.32	8.67	39.27	11.09	1.94	72.29	33.02	4.20	34.28	No. Ant. Unadul.
25196	Fox River Valley.....	M. Frazer, No. 207 East Fifty-seventh street.....	11.27	9.82	38.45	12.27	1.95	73.76	35.31	4.20	31.92	No. Ant. Unadul.
25197	Sun .....	M. Frazer, No. 207 East Fifty-seventh street.....	11.45	9.13	38.86	10.75	1.88	72.07	33.21	4.40	34.48	No. Ant. Unadul.
25198	Snow .....	M. Frazer, No. 207 East Fifty-seventh street.....	11.01	8.67	39.49	11.62	1.85	72.64	33.15	4.29	33.21	No. Ant. Unadul.
25199	Lily .....	Dick Meyer, No. 1029 Second avenue.....	8.38	7.94	40.16	12.58	1.80	70.86	30.70	3.35	27.30	No. Ant. Unadul.
25200	Lion .....	J. Holsten, No. 238 East Fifty-sixth street.....	11.35	9.15	37.26	11.44	1.93	71.13	33.87	4.24	33.51	No. Ant. Unadul.
25201	Wood Lane.....	J. Holsten, No. 238 East Fifty-sixth street.....	11.63	8.42	39.76	10.97	1.92	72.70	32.94	4.36	35.31	No. Ant. Unadul.
25202	Nabob .....	M. Frazer, No. 207 East Fifty-seventh street.....	11.66	8.94	36.18	10.15	1.92	68.85	32.67	4.37	35.69	No. Ant. Unadul.
25203	Cream .....	M. Frazer, No. 207 East Fifty-seventh street.....	11.40	8.64	39.29	12.39	1.88	73.60	34.31	4.37	33.23	No. Ant. Unadul.
25204	Hunter .....	M. Frazer, No. 207 East Fifty-seventh street.....	8.71	8.15	43.87	11.36	1.68	73.77	29.90	3.74	29.13	No. Ant. Unadul.
25260	Aldico .....	E. D. Meyer, No. 688 Third avenue.....	9.19	8.44	40.30	11.70	1.73	71.36	31.06	3.83	29.59	No. Ant. Unadul.
25261	Crown Astor .....	A. F. Beckman, No. 1327 Second avenue.....	11.78	9.00	37.41	12.41	1.87	72.47	35.06	4.53	33.60	No. Ant. Unadul.
25444	Our Best.....	R. I. Brooks, No. 714 Third avenue.....	9.35	7.94	41.75	10.39	1.70	71.13	29.38	3.96	31.83	No. Ant. Unadul.
25445	Vermont .....	Bloomington Bros., Third avenue and Fifty-ninth street..	9.21	8.15	43.47	10.26	1.74	72.83	29.36	3.81	31.36	No. Ant. Unadul.



No.	Brand.	From Whom Purchased.	Results.								No. Ant.	Unadul.	
			Fat. Per Cent.	Proteids. Per Cent.	Cane Sugar. Per Cent.	Milk Sugar. Per Cent.	Ash. Per Cent.	Total Solids. Per Cent.	Milk Solids. Per Cent.	E. F. in O. M. Per Cent.			F. in M. S. Per Cent.
25446	Republic .....	C. F. Riegger, No. 435 East Forty-ninth street.....	11.65	8.03	41.69	11.59	1.65	74.61	32.92	5.07	35.39	No. Ant.	Unadul.
25676	.....	Charles E. Muller, No. 286 Howard avenue, Brooklyn....	Sample is free from tyrotoxicon.										
25677	.....	Charles E. Muller, No. 286 Howard avenue, Brooklyn....	Sample is free from tyrotoxicon.										
25773	Darling .....	Andrew Davey, No. 1063 Second avenue.....	9.57	7.89	44.20	11.96	1.70	75.32	31.12	4.06	30.75	No. Ant.	Unadul.
25774	Meadow Brook .....	Andrew Davey, No. 1063 Second avenue.....	8.85	8.24	42.98	12.03	1.74	73.84	30.86	3.69	28.68	No. Ant.	Unadul.
25775	Champion .....	Andrew Davey, No. 1063 Second avenue.....	10.57	8.03	40.34	13.01	1.79	73.74	33.40	4.25	31.65	No. Ant.	Unadul.
25776	Hunter .....	John Holsten, No. 238 East Fifty-sixth street.....	8.66	8.32	43.23	11.21	1.78	73.20	29.97	3.51	28.89	No. Ant.	Unadul.
25777	Sweet Clover .....	Andrew Davey, No. 1063 Second avenue.....	9.82	8.70	42.56	13.22	1.89	76.19	33.63	3.73	29.20	No. Ant.	Unadul.
25778	Rustic .....	Andrew Davey, No. 1063 Second avenue.....	9.38	8.06	43.05	12.36	1.87	74.72	31.67	3.61	29.65	No. Ant.	Unadul.
26401	Butler's .....	James Butler, No. 353 Ninth avenue.....	8.99	8.05	44.30	10.31	1.86	74.40	30.10	3.48	33.48	No. Ant.	Unadul.
26402	Essie .....	James Butler, No. 353 Ninth avenue.....	8.65	8.23	45.06	12.91	1.96	73.85	28.79	3.18	30.05	No. Ant.	Unadul.
26774	Sweet Clover .....	Andrew Davey, No. 1063 Second avenue.....	10.00	8.02	42.95	13.29	1.83	76.09	33.14	3.94	30.17	No. Ant.	Unadul.
26775	Lily White .....	R. H. Macy & Co., Broadway and Thirty-fourth street..	9.27	8.62	40.41	13.09	1.79	73.18	32.77	3.72	28.29	No. Ant.	Unadul.
26838	The Best .....	Joseph Schuss, No. 516 East Thirteenth street.....	8.99	7.93	38.71	12.13	1.74	69.50	30.79	3.67	29.20	No. Ant.	Unadul.
26839	Star .....	Joseph Schuss, No. 516 East Thirteenth street.....	9.22	8.44	43.82	11.23	1.91	74.62	30.80	3.48	30.00	No. Ant.	Unadul.
27097	Champion .....	L. Meyer, No. 813 Ninth avenue.....	10.00	7.89	41.77	11.17	1.60	72.43	30.66	....	....	No. Ant.	Unadul.
27098	Silver Cord.....	H. N. Roehack, No. 749 Ninth avenue.....	12.45	7.45	40.86	11.16	1.58	71.92	31.06	....	....	No. Ant.	Unadul.
27425	Liberty .....	James Butler, No. 1042 Second avenue.....	8.63	8.07	41.33	10.55	1.70	70.34	29.01	....	....	No. Ant.	Unadul.
27426	Butler's .....	James Butler, No. 1042 Second avenue.....	7.79	7.89	44.22	12.42	1.73	74.05	29.83	....	....	No. Ant.	Unadul.
27427	Essie .....	James Butler, No. 1042 Second avenue.....	8.33	8.16	43.80	12.76	1.78	74.83	31.03	....	....	No. Ant.	Unadul.
27428	Jaxon .....	.....	6.32	8.16	40.18	10.09	1.79	66.54	26.36	....	....	No. Ant.	Unadul.
27430	Jaxon .....	.....	6.82	8.22	39.69	11.11	1.84	67.48	27.79	....	....	No. Ant.	Unadul.
27868	Oxford .....	F. D. Levine, No. 208 West Twenty-eighth street.....	10.03	8.16	40.89	12.29	1.56	72.93	32.04	....	....	No. Ant.	Unadul.
27945	Aldico .....	Allen Ditchett, No. 305 Greenwich street.....	6.80	10.34	42.06	10.77	1.58	71.58	29.52	....	....	No. Ant.	Unadul.

## Evaporated Creams.

No.	Brand.	From Whom Purchased.	Results.									
			Fat. Per Cent.	Proteids. Per Cent.	Cane Sugar. Per Cent.	Milk Sugar. Per Cent.	Ash. Per Cent.	Total Solids. Per Cent.	Milk Solids. Per Cent.	E. F. in O. M. Per Cent.	F. in M. S. Per Cent.	
24866	Silver Cow .....	James Butler, No. 1042 Second avenue.....	8.81	....	....	....	1.83	30.41	....	3.47	28.97	No. Ant. Unadul.
24867	Diamond .....	James Butler, No. 1042 Second avenue.....	Sample not fit for analysis. Heavy coagulation. Acid reaction, odor and taste. lactic acid present.								0.40365 per cent.	
24897	Our Pet .....	Fourteenth Street Store, Fourteenth street and Sixth ave- nue .....	8.38	....	....	....	1.62	29.09	....	3.72	28.81	No. Ant. Unadul.
24898	St. Charles .....	Fourteenth Street Store, Fourteenth street and Sixth ave- nue .....	Contents of can curdled. 1.58625 gm. lactic acid present.									
24937	Diamond .....	James Butler, No. 1042 Second avenue.....	Contents of can heavily curdled. Contents of can required neutralize equivalent to 0.86625 gm. of free lactic acid.								96.25 c. c. tenth	normal alkali to
25262	Van Camp's .....	George Neckermann, No. 188 East Sixty-fourth street....	8.21	....	....	....	1.44	26.51	....	4.11	30.97	No. Ant. Unadul.
25263	Pet .....	A. F. Beckman, No. 1327 Second avenue.....	8.40	....	....	....	1.69	28.46	....	3.57	29.51	No. Ant. Unadul.
25486	Van Camp's .....	Nich. Rosenberger, No. 1989 Third avenue.....	7.50	....	....	....	1.39	25.89	....	3.89	28.97	No. Ant. Unadul.
25772	Borden's Peerless .....	Andrew Davey, No. 1063 Second avenue.....	8.55	....	....	....	1.59	28.76	....	3.89	29.73	No. Ant. Unadul.
25771	Gold Cross.....	Andrew Davey, No. 1063 Second avenue.....	8.40	....	....	....	1.74	28.87	....	3.49	29.10	No. Ant. Unadul.
26770	Gold Cross.....	Andrew Davey, No. 1063 Second avenue.....	8.66	....	....	....	....	28.20	....	3.61	30.71	No. Ant. Unadul.
26771	Van Camp's .....	Bloomington Bros., Fifty-ninth street and Third avenue..	8.40	....	....	....	....	30.62	....	3.19	27.43	No. Ant. Unadul.
26772	Lily White .....	R. H. Macy & Co., Thirty-fourth street and Broadway....	8.45	....	....	....	....	28.50	....	3.67	29.65	No. Ant. Unadul.
26773	Highland .....	Bloomington Bros., Fifty-ninth street and Third avenue..	8.88	....	....	....	....	27.02	....	4.29	32.86	No. Ant. Unadul.
27096	Van Camp's Sterilized.....	H. N. Roehack, No. 749 Ninth avenue.....	8.14	....	....	....	....	28.26	Sample unadulterated. Fats more than 25 per cent. milk solids.			No. Ant. Unadul.
27429	Silver Cow .....	James Butler, No. 1042 Second avenue.....	8.90	....	....	....	....	30.93	Sample unadulterated. Fat more than 25 per cent. milk solids.			
24910	Condensed Milk—Received from West Sixty-first street.....	Dr. Robert's office. Marked Mrs. Lottie Curry, No. 242	Recovered the following amount of arsenic equivalent to arsenous acid, 0.2593 grammes, equal to 3.56 grains.									

## Condiments, Catsup, Pickles, etc.

No.	Sample.	Brand.	From Whom Purchased.	Results.
24837	Catsup	Long Island	Samuel Roth, No. 1132 First avenue.	Sample colored with coal tar dye. Benzoic acid present.
24841	Catsup	Heinz		Free from artificial coloring matter—coal tar dye, benzoic and salicylic acids.
24868	Catsup	Pride of the Farm	M. Pollak, No. 873 Third avenue.	Free from artificial coloring matter—coal tar dye and benzoic acid.
24914	Catsup			Free from artificial coloring matter—coal tar dye. Benzoic acid present.
25683	Catsup	Blue Bell		Free from artificial coloring matter—coal tar dye. Benzoic acid present.
26626	Catsup	Long Island	Franz Keller, No. 1888 Second avenue.	Free from artificial color (coal tar), salicylic and boric acids and borax. Benzoic acid present.
27484	Catsup	Sunbeam		Free from artificial color (coal tar), salicylic and boric acids and borax. Benzoic acid present.
27499	Catsup	Heinz		Free from artificial color (coal tar), salicylic, benzoic and boric acids and borax.
27854	Catsup	Columbia	Columbia Conserve Company, No. 247 West Broadway	Free from artificial color (coal tar). Benzoic acid calculated to sodium benzoate, 0.12 per cent.
24915	Worcestershire sauce			Free from artificial coloring matter and preservatives.
26463	Baked beans	Heinz	Mrs. Mary Kemmler, No. 862 Columbus avenue.	Free from artificial coloring matter, preservatives and poisonous metals.
26762	Vinegar (apple)		Steinhardt & Strassbourger, Eighty-sixth street and Third avenue.	Free from hydrochloric acid, sulphuric and phosphoric acids. Total solids, 2.70 per cent.; ash, 0.24 per cent.; acidity (acetic acid), 4.14 per cent.; ash per cent. Total solids, 8.74 per cent. Sample is cider vinegar.
27196	Salt		Fischer & Co., No. 2325 Second avenue.	Free from sulphurous acid.
27483	Pickled gherkins	Crosse & Blackwell's		Free from mineral acids, copper and zinc salts. Acetic acid present.
27497	Sour pickled gherkins	Heinz		Free from mineral acids, copper and zinc salts. Acetic acid present.
27498	Sour mixed pickles	Heinz		Free from mineral acids, copper and zinc salts. Acetic acid present.
27562	Mixed pickles		Recht & Rosenbaum, No. 419 East Seventy-seventh street	Free from mineral acids, copper and zinc.



No.	Sample.	Brand.	From Whom Purchased.	Results.
27563	Gherkins .....	.....	Recht & Rosenbaum, No. 419 East Seventy-seventh street .....	Free from mineral acids, copper and zinc.
27777	Sweet mixed pickles.....	.....	Edw. Rafter, No. 630 Hudson street.....	Free from mineral acids and copper.
27776	Mixed pickles.....	.....	Edw. Rafter, No. 630 Hudson street.....	Free from mineral acids and copper.
27493	Chow chow.....	Crosse & Blackwell.....	.....	Free from mineral acids, copper and zinc. Acetic acid and turmeric present.
27494	Chow chow.....	Heinz.....	.....	Free from mineral acids, copper and zinc. Acetic acid and turmeric present.
27564	Chow chow.....	.....	Recht & Rosenbaum, No. 419 East Seventy-seventh street .....	Free from mineral acids, copper and zinc. Turmeric present.
27495	Apple butter.....	Heinz.....	.....	Free from artificial color (coal tar), salicylic, benzoic and boric acids and borax.
26190	Salt .....	.....	.....	Sample consists of the chlorides and sulphates of sodium and potassium.
26192	Vinegar .....	.....	.....	Sample is a distilled product, containing some acetic acid and some mineral acid.
27332	Vinegar .....	.....	H. Mahlstadt, No. 699 Tenth avenue.....	Solids 4.20 per cent., ash 0.542 per cent. Total acidity, 4.20 per cent. as acetic acid, mineral acid 2.12 per cent. as sulphuric acid; hydrochloric absent; sulphuric acid present.
27487	Vinegar .....	.....	.....	Specific gravity, 1.0181; acidity (acetic acid), 4.56 per cent.; ash, 0.36 per cent. Total solids, 2.38 per cent. Mineral acids, none.
27502	Vinegar, pure cider.....	Heinz.....	.....	Specific gravity, 1.0183; acidity (acetic acid), 5.40 per cent. Total solids, 2.58 per cent.; ash, 0.38 per cent. Mineral acids, none.
25210	Horse radish.....	.....	Fatt Bros., No. 1161 Second avenue.....	Free from preservatives other than acetic acid.
27921	Catsup tomato.....	Our Blossom.....	Clark, Chapin & Bushnell, No. 177 Duane street..	Free from artificial color (coal tar). Benzoate of sodium, 0.19 per cent.

## Disinfectants and Preservatives.

No.	Sample.	From Whom Received.	Result.
24823	Formaldehyde .....	Dr. Wilson.....	Formaldehyde, 39.34 per cent.; specific gravity, 1.060.
24904	Formaldehyde .....	Dr. Wilson.....	Formaldehyde, 39.72 per cent.
24964	Formaldehyde .....	Dr. Wilson.....	Formaldehyde, 39.48 per cent.
25169	Formaldehyde .....	Dr. Wilson.....	Formaldehyde, 38.60 per cent.
25238	Formaldehyde .....	Dr. Wilson.....	Formaldehyde, 7.25 per cent.
27894	Mixture of formaldehyde and potassium permanganate (spent).....	Dr. Wilson.....	Formaldehyde, 1.00 per cent.
25779	Disinfectant .....	Borough of Brooklyn.....	Sample forwarded to Bacteriological Laboratory and reported from there.
25780	Disinfectant .....	Borough of Brooklyn.....	Sample forwarded to Bacteriological Laboratory and reported from there.
25781	Bug destroyer.....	Borough of Brooklyn.....	Sample forwarded to Bacteriological Laboratory and reported from there.
25782	Bug destroyer.....	Borough of Brooklyn.....	Sample forwarded to Bacteriological Laboratory and reported from there.
26242	Preservaline .....	Dr. Bensch.....	Sample is a mixture of sodium chloride and borax.
26243	Preservaline .....	Dr. Bensch.....	Sample is a mixture of sodium chloride, potassium nitrate and borax, and is colored with an aniline dye.
26244	Preservaline .....	Dr. Bensch.....	Sample is a mixture of sodium chloride, potassium nitrate, borax and boric acid.
26245	Preservaline .....	Dr. Bensch.....	Sample is a mixture of sodium chloride and boric acid.
26246	Preservaline .....	Dr. Bensch.....	Sample is a mixture of sodium sulphite and sulphates.
26247	Zanzarine .....	Dr. Bensch.....	Sample is a coal tar dye, and gives a reaction for bismark brown.
Purchased From—			
26442	Borax, "20 Mule Team Brand".....	Leon Hirsch, No. 368 Greenwich street.....	Corresponds to requirements of U. S. P., 1900.
26443	Borax, "20 Mule Team Brand".....	Bloomington Bros., Fifty-ninth street and Third avenue .....	Corresponds to requirements of U. S. P., 1900.
26495	Preservative powder.....	Otto Stahl, No. 2332 Second avenue.....	Sample contains a coal tar dye. Borax, boric acid, sulphites and paraform absent.
26933	Preservaline .....	J. Heussner, No. 24 Forest avenue, Queens..	Sample contains a coal tar dye. Borax or boric acid and sodium chloride.
27301	Liquid used on tripe.....	Swift & Co., Eleventh avenue, between Thirty-fourth and Thirty-fifth streets.....	Free from borax.
27302	Liquid used on beef.....	Swift & Co., Eleventh avenue, between Thirty-fourth and Thirty-fifth streets.....	Free from borax.
27829	Exhausted paraform.....	Dr. Wilson.....	Formaldehyde, 0.975 per cent.
27893	Paraform .....	Dr. Wilson.....	Formaldehyde, 94.9 per cent.
25836	Preservaline .....	Division of Inspections.....	Found borax, sodium chloride and probably a nitrate. A coal tar dye is present.
26024	Preservaline .....	Division of Inspections.....	Sample contains borax, salt and sulphates.
26020	Preservative .....	Division of Inspections.....	Sample contains borax, salt, sulphates, nitrates and coal tar dye.
26088	Preservative .....	Division of Inspections.....	Sample contains borax, salt and coal tar dye.
25977	Sausage preservative .....	Division of Inspections.....	Sample contains borax, salt and sulphates.
25978	Curing .....	Division of Inspections.....	Sample contains borax, salt, sulphates and nitrates.
26087	Saltpetre .....	Division of Inspections.....	Sample contains nitrates with a trace of chlorides.
*26017	Beef pickle.....	Division of Inspections.....	Sample contains borax and salt.
26018	Beef pickle.....	Division of Inspections.....	Sample contains borax, salt, sulphates and nitrates.
26019	Beef pickle.....	Division of Inspections.....	Sample contains nitrates, salt and sulphates.
26021	Beef pickle.....	Division of Inspections.....	Sample contains nitrates, salt, sulphates and borax.
26022	Beef pickle.....	Division of Inspections.....	Sample contains borax, salt and sulphates.
27157	Borax, pure.....	Division of Inspections.....	Sample conforms to the requirements of the U. S. P.
27158	Borax .....	Division of Inspections.....	Sample conforms to the requirements of the U. S. P.
27159	Borax, "20 Mule Team Brand".....	Division of Inspections.....	Sample conforms to the requirements of the U. S. P.
27160	Borax .....	Division of Inspections.....	Sample conforms to the requirements of the U. S. P.
27161	Borax .....	Division of Inspections.....	Sample conforms to the requirements of the U. S. P.
27162	Borax .....	Division of Inspections.....	Sample conforms to the requirements of the U. S. P.
27163	Borax .....	Division of Inspections.....	Sample conforms to the requirements of the U. S. P.
27431	Borax, Crescent brand.....	Division of Inspections.....	Chlorides, bicarbonates and boric acids present. Free from phosphates and sulphates.
26766	Freeze-em pickle.....	Division of Inspections.....	Contains nitrates, chlorides and sulphates.

\* Should follow Borax 26443.

## Drugs and Medicines.

No.	Sample.	From Whom Received.	From Whom Purchased.	Results.
25242	Acacia, gran.....	Drug Laboratory.....	.....	Sample complies with the requirements of the U. S. P.
25124	Aloes, pil.....	Drug Laboratory.....	.....	Pills are made of soap and aloes.
25125	Aloes, pil.....	Drug Laboratory.....	.....	Pills are made of soap and aloes.



No.	Sample.	From Whom Received.	From Whom Purchased.	Results.
25126	Aloes, pil.....	Drug Laboratory.....		Pills are made of soap and aloes.
25127	Aloes, pil.....	Drug Laboratory.....		Pills are made of soap and aloes.
25304	Aloes .....	Drug Laboratory.....		Moisture, 6.71 per cent. Water soluble, 69.85 per cent. Fairly clear solution, 1 gm. to 5 cm.3 alcohol (95 per cent.).
25305	Aloes, gum.....	Drug Laboratory.....		Moisture, 6.05 per cent. Water soluble, 78.59 per cent. Fairly clear solution, 1 gm. to 5 cm.3 (alc., 95).
25343	Aloes, barbadoes.....	Drug Laboratory.....		Moisture, 5.81 per cent. Water soluble, 74.63 per cent. Fairly clear solution, 1 gm. to 5 cm.3 (alc., 95).
25075	Aconite leaves, fl. ext.....	Drug Laboratory.....		Contains 0.384 gms. of aconitine per 100 cubic centimeters.
25317	Aconite, ground.....	Drug Laboratory.....		Found 0.274 per cent. alkaloids.
25318	Aconite, ground.....	Drug Laboratory.....		Found 0.118 per cent. alkaloids.
25569	Aconite, fl. ext.....	.....A. Ratner, No. 334 Eighth avenue.....		Found 0.12 per cent. alkaloids.
25581	Aconite, tinct.....	.....Louis Youngwitz, No. 1855 Lexington avenue.....		Found 0.004 per cent. alkaloids.
25788	Aconite, powdered rad.....	Drug Laboratory.....		Found 0.256 per cent. aconitine by the U. S. P. assay method.
25798	Aconite root, powdered.....	Drug Laboratory.....		Found 0.256 per cent. aconitine by the U. S. P. assay method.
25799	Aconite root, powdered.....	Drug Laboratory.....		Found 0.371 per cent. aconitine by the U. S. P. assay method.
25894	Aconite, rad.....	Drug Laboratory.....		Found 0.256 per cent. aconitine by the U. S. P. assay method.
24742	Alcohol, absolute.....	.....E. R. Squibb & Sons.....		Sample is chemically pure.
25860	Ammanol tablets.....			Found 3.287 grs. of acetanilid per tablet. Starch used as a filler.
25588	Atropine hypodermic tab.....	.....Geo. P. Hermes, No. 543 Second avenue.....		Found 0.048 grs. per tablet; 1/20 grs. per tablet.
25050	Belladonna leaves, fl. ext.....	Drug Laboratory.....		Contains 0.5165 gms. of mydriatic alkaloids per 100 cm.
25152	Belladonna plasters.....	Drug Laboratory.....		Found 0.33 per cent. alkaloids.
25153	Belladonna plasters.....	Drug Laboratory.....		Found 0.38 per cent. alkaloids.
25154	Belladonna plasters.....	Drug Laboratory.....		Found 0.29 per cent. alkaloids.
25155	Belladonna plasters.....	Drug Laboratory.....		Found 0.32 per cent. alkaloids.
25286	Belladonna, powd.....	Drug Laboratory.....		Found 0.2136 per cent. alkaloids.
25287	Belladonna leaves, ground.....	Drug Laboratory.....		Found 0.166 per cent. alkaloids.
25298	Belladonna leaves, powd.....	Drug Laboratory.....		Found 0.023 per cent. alkaloids.
25600	Belladonna plaster.....	.....H. C. Miner, No. 203 Bowery.....		Found 0.35 per cent. alkaloids.
25789	Belladonna, powd. fol.....	Drug Laboratory.....		Found 0.178 per cent. alkaloids by the U. S. P. assay method.
25797	Belladonna leaf, powd.....	Drug Laboratory.....		Found 0.247 per cent. alkaloids by the U. S. P. assay method.
25801	Belladonna leaf, powd.....			Found 0.241 per cent. alkaloids by the U. S. P. assay method.
25897	Belladonna, fol.....	Drug Laboratory.....		Found 0.511 per cent. alkaloids by the U. S. P. assay method.
26792	Belladonna, radix.....	Drug Laboratory.....		Found 0.29 per cent. alkaloids.
26793	Belladonna root.....	Drug Laboratory.....		Found 0.505 per cent. alkaloids.
26794	Belladonna root.....	Drug Laboratory.....		Found 0.45 per cent. alkaloids.
26795	Belladonna root, powd.....	Drug Laboratory.....		Found 0.304 per cent. alkaloids.
25796	Belladonna root, powd.....	Drug Laboratory.....		Found 0.534 per cent. alkaloids.
25797	Belladonna root, powd.....	Drug Laboratory.....		Found 0.54 per cent. alkaloids.
25621	Bismuth subnit.....	.....F. Franciulli, No. 223 Grand street.....		Bismuth oxide on ignition of 1 gram, 0.80. Free from heavy metals, copper, lead and arsenic. Sample conforms to requirements of Pharmacopœia.
27166	Blue ointment.....	.....E. Nall, No. 48 Grand street.....		10 gms. ointment contain 2.40 gms. metallic mercury.
25057	Buchu fl. ext.....	Drug Laboratory.....		Found 19.598 gms. solids per 100 cc. Ether extract from the acid solution equals 3.311 gms. per 100 cc.
25058	Buchu fl. ext.....	Drug Laboratory.....		Found 20.03 gms. solids per 100 cc. Ether extract from the acid solution equals 4.815 gms. per 100 cc.
25328	Buchu leaves, short ground...	Drug Laboratory.....		Found 16.937 per cent. extractives with fluid extract menstruum.
25329	Buchu leaves, short powd.....	Drug Laboratory.....		Found 17.51 per cent. extractives with fluid extract menstruum.
25330	Buchu leaves, long powd.....	Drug Laboratory.....		Found 15.697 per cent. extractives with fluid extract menstruum.
25331	Buchu leaves, short ground...	Drug Laboratory.....		Found 16.77 per cent. extractives with fluid extract menstruum.
25332	Buchu, powd.....	Drug Laboratory.....		Found 19.635 per cent. extractives with fluid extract menstruum.
25410	Buchu, tinct.....	Drug Laboratory.....		Found 0.6422 per cent. extractives with ether from weak acid solution.
25411	Buchu, tinct.....	Drug Laboratory.....		Found 0.4324 per cent. extractives with ether from weak acid solution.
25412	Buchu, fl. ext.....	Drug Laboratory.....		Found 4.2174 per cent. extractives with ether from weak acid solution.
25413	Buchu, fl. ext.....	Drug Laboratory.....		Found 4.324 per cent. extractives with ether from weak acid solution.
25414	Buchu, tinct.....	Drug Laboratory.....		Found 1.0966 per cent. extractives with ether from weak acid solution.
25455	Boric acid.....	.....J. B. Fragner, No. 522 West One Hundred and Fifty-first street.....		Conforms to the requirements of the U. S. P., 1900.
24855	Bovine .....	Drug Laboratory.....		Found 16.54 per cent. protein by weight. Borax, .1098 gms. per 100 cc. Free from alcohol, alkaloids, chloral. Borax, 1.684 grs. per 100 cc. and cocaine.
25138	Cascara sagrada, ex.....	Drug Laboratory.....		Extract with 100 cm.3, 95 per cent. alcohol equals 35.08 per cent.
25139	Cascara sagrada, powd. ex.....	Drug Laboratory.....		Extract with 100 cm.3, 95 per cent. alcohol equals 42.81 per cent.
25140	Cascara sagrada, powd. ex.....	Drug Laboratory.....		Extract with 100 cm.3, 95 per cent. alcohol equals 44.94 per cent.
25427	Cascara sagrada, tinct.....	Drug Laboratory.....		Found 6.27 gms. solids per 100 cc.
25428	Cascara sagrada, tinct.....	Drug Laboratory.....		Found 4.99 gms. solids per 100 cc.
27000	Cascara sagrada, fl. ext.....	.....V. Kostkas, No. 700 Ninth avenue.....		Residue equals 29.67 per cent., which is somewhat low. Free from wood alcohol.
25555	Cascara quinine bromide tab..	.....Drug store, corner Court street and Second place, Brooklyn .....		Found 34.92 per cent. acetanilid. Starch used as a filler. Free from quinine, morphine, opium, alkaloids, chloral and cocaine.
25131	Cannabis indica, powd. ex....	Drug Laboratory.....		Found 31.216 gms. of etherial extract per 100 gms. of the drug.
25132	Cannabis indica, powd. ex....	Drug Laboratory.....		Found 11.402 gms. of etherial extract from the ammoniacal solution per 100 gms. of the drug.
25282	Cannabis indica herb, powd...	Drug Laboratory.....		Found 20.937 per cent. extractive with fluid extract menstruum.
25299	Cannabis indica herb.....	Drug Laboratory.....		Found 12.081 per cent. extractive with fluid extract menstruum.
25426	Cannabis indica, fl. ext.....	Drug Laboratory.....		Found 7.1704 per cent. of etherial extract from ammonia solution.
25565	Cannabis indica, ext.....	.....J. Ellner, Stanton street, corner Ludlow street....		Found 0.48 grs. per capsule; 1/2 gr. per capsule.
25566	Cannabis indica, ext.....	.....P. Shapiro, No. 740 Ninth avenue.....		Found 7.85 per cent. of ether extract from ammoniacal solution per 100 cc.
25627	Carbolic wash.....	.....H. Guelmans, No. 423 Second avenue.....		Sample contains 4.23 per cent. carbolic acid.
25729	Carbolic water.....	.....Bockshitzky Bros. & Co., No. 69 Avenue C.....		Sample contains 1.31 per cent. carbolic acid.
25730	Carbolic wash.....	.....M. Levy, No. 53 Avenue C.....		Sample contains 4.01 per cent. carbolic acid.
25731	Carbolic wash.....	.....Selig Lesser, No. 59 Avenue D.....		Sample contains 1.65 per cent. carbolic acid.
25737	Carbolic acid, crude.....	.....Bockshitzky Bros. & Co., No. 69 Avenue C.....		Sample contains 2.74 per cent. carbolic acid.
25302	Colchicum seed, pulv.....	Drug Laboratory.....		Sample, .35 per cent. colchicine.
25323	Colchici semen.....	Drug Laboratory.....		Sample, 0.434 per cent. colchicine.
25059	Colchicum seed, fl. ext.....	Drug Laboratory.....		Sample, 0.435 gms. colchicine per 100 cc.
25060	Colchicum seed, fl. ext.....	Drug Laboratory.....		Sample, 0.466 gms. colchicine per 100 cc.



No.	Sample.	From Whom Received.	From Whom Purchased.	Results.
25061	Colchicum seed, fl. ext.....	Drug Laboratory.....		Sample, 0.503 gms. colchicine per 100 cc.
25062	Colchicum seed, fl. ext.....	Drug Laboratory.....		Sample, 0.435 gms. colchicine per 100 cc.
25063	Colchicum seed, fl. ext.....	Drug Laboratory.....		Sample, 0.400 gms. colchicine per 100 cc.
25103	Colchicum, vin.....	Drug Laboratory.....		Sample, 0.0422 per cent. colchicine.
25107	Colchicum seed, vin.....	Drug Laboratory.....		Sample, 0.0391 per cent. colchicine.
25108	Colchicum seed, wine.....	Drug Laboratory.....		Sample, 0.0297 per cent. colchicine.
25109	Colchicum seed, wine.....	Drug Laboratory.....		Sample, 0.0316 per cent. colchicine.
25110	Colchicum sem. tr.....	Drug Laboratory.....		Contains 0.0426 gms. colchicine per 100 cc.
25111	Colchicum sem. tr.....	Drug Laboratory.....		Contains 0.0442 gms. colchicine per 100 cc.
25112	Colchicum seeds, tr.....	Drug Laboratory.....		Contains 0.0463 gms. colchicine per 100 cc.
25283	Colchicum seeds, powd.....	Drug Laboratory.....		Found 0.40 per cent. colchicine.
25284	Colchicum seeds, powd.....	Drug Laboratory.....		Found 1.376 per cent. colchicine.
25303	Colchicum seeds, powd.....	Drug Laboratory.....		Found 0.55 per cent. colchicine.
25430	Colchicum seeds, fl. ext.....	Drug Laboratory.....		Found 0.0244 per cent. colchicine.
26787	Colchicum seeds, powd.....	Drug Laboratory.....		Found 0.492 per cent. colchicine.
26788	Colchicum seeds, powd.....	Drug Laboratory.....		Found 0.912 per cent. colchicine.
26789	Colchicum seeds, powd.....	Drug Laboratory.....		Found 0.68 per cent. colchicine.
25046	Chloral hydrate cryst.....	Drug Laboratory.....		Free from chlorides. Shows no yellowish fumes on heating with nitric acid. Sample conforms to requirements of U. S. P.
25048	Chloral hydrate.....	Drug Laboratory.....		Sample contains trace of chlorine not combined with chloral hydrate.
25049	Chloral hydrate cryst.....	Drug Laboratory.....		Sample contains trace of chlorine not combined with chloral hydrate.
25045	Codeine tablet trit.....	Drug Laboratory.....		Sample contains between $\frac{1}{2}$ and $\frac{1}{4}$ grains codeine per tablet.
25563	Codeine.....	Jos. Feldman, No. 182 Canal street.....		Found 0.1555 grs. codeine per powder.
25583	Codeine hypodermic tablets...	Wm. Siegmeister, No. 195 Avenue A.....		Found 0.039 grs. per tablet; $\frac{1}{25}$ gr. per tablet.
25587	Codeine tablet trit.....	Franz Bradtkes, No. 108 Avenue D.....		Found 0.17 grs. per tablet; $\frac{1}{2}$ gr. per tablet.
27122	Codeine.....	Division of Inspections.....		Sample free from morphine.
25025	Cerium oxalate.....	Drug Laboratory.....		Corresponds to U. S. P. requirements.
25034	Cerium oxalate, pure.....	Drug Laboratory.....		Corresponds to U. S. P. requirements.
25036	Cerii oxalas.....	Drug Laboratory.....		Corresponds to U. S. P. requirements.
25615	Cerii oxalas.....	Barnet Kirschstein, No. 335 East Houston street..		Corresponds to U. S. P. requirements, 1900. Weight of powders, 3.842 gms. or 59.3 grs. Average weight per powder, .320 gms. or 4.94 grs.
25622	Cocaine solution, 4 per cent..	I. Friedman, No. 178 Henry street.....		Sample contains 3.53 per cent. cocaine hydrochloride.
25648	Calomel.....	Drug Laboratory.....		Conform to the U. S. P. requirements, 1900.
25651	Calcium hypophosphite.....	Drug Laboratory.....		Conform to the U. S. P. requirements, 1900.
25764	Chase's constipation tab.....	Mrs. M. Lee Stark, No. 532 Decatur street, Brooklyn.....		Found average weight per tablet, 2.2 grs. Atropine, 0.0006 gr. Strychnine, 0.0032 gr. Aloes present. Probably some licorice chocolate as a coating.
25156	Citrate of magnesia.....	Drug Laboratory.....		Consists of magnesium and potassium citrate and free citric acid. Sample free from foreign ingredients.
25157	Citrate of magnesia.....	Drug Laboratory.....		Consists of magnesium and potassium citrate and free citric acid. Sample free from foreign ingredients.
25158	Citrate of magnesia.....	Drug Laboratory.....		Consists of magnesium and potassium citrate and free citric acid. Sample free from foreign ingredients.
25159	Citrate of magnesia.....	Drug Laboratory.....		Consists of magnesium and potassium citrate and free citric acid. Sample free from foreign ingredients.
25160	Citrate of magnesia.....	Drug Laboratory.....		Consists of magnesium and potassium citrate and free citric acid. Sample free from foreign ingredients.
27345	Citrate of magnesia.....	Halper's Pharmacy, No. 2091 Amsterdam avenue..		Conforms to requirements of U. S. P., 1900.
27346	Citrate of magnesia.....	Halper's Pharmacy, No. 1297 Amsterdam avenue..		Conforms to requirements of U. S. P., 1900.
27347	Citrate of magnesia.....	Halper's Pharmacy, corner Prospect and Longwood avenues.....		Conforms to requirements of U. S. P., 1900.
26790	Conium maculatum, ground..	Drug Laboratory.....		Found 0.146 per cent. alkaloids.
26791	Conium, powd.....	Drug Laboratory.....		Found 0.194 per cent. alkaloids.
26799	Coca, fol.....	Drug Laboratory.....		Found 0.768 per cent. alkaloids.
26800	Coca, fol.....	Drug Laboratory.....		Found 0.522 per cent. alkaloids.
24740	Chloroform.....	E. R. Squibb & Sons.....		Sample is chemically pure.
26895	Chloroform.....	Chief Clerk's Office.....		Boiling point, 61 degrees C. Specific gravity, 1.4901.
26907	Chloroform.....	Stock room in Laboratory.....		Boiling point, 60.5 degrees C. Specific gravity, 1.4902.
27165	Camphor liniment.....	H. Von Berg, One Hundred and Fourteenth street and St. Nicholas avenue.....		Free from methyl alcohol and cottonseed oil.
25076	Digitalis, fl. ext.....	Drug Laboratory.....		Found 0.314 per cent. digitoxin.
25095	Digitalis, tr.....	Drug Laboratory.....		Found 0.029 per cent. digitoxin.
25096	Digitalis, tr.....	Drug Laboratory.....		Found 0.026 per cent. digitoxin.
25253	Digitalis, infusion.....	Hegeman & Co., Seventh avenue and One Hundred and Twenty-fifth street.....		Found 0.01 gm. of digitalin per 100 cc.
25340	Digitalis, ground.....	Drug Laboratory.....		Found 0.034 per cent. alkaloids by weight.
25350	Digitalis leaf, powd.....	Drug Laboratory.....		Found 0.0212 per cent. alkaloids by weight.
25503	Digitalin sol.....	D. H. M. Biggs.....		Found 0.0084 gm. equals $\frac{1}{118}$ gr. per drachm digitalin; $\frac{1}{100}$ grain marked on bottle per drachm.
25564	Digitalis, pulv.....	Salvatore Seavo, No. 23 Monroe street.....		Found 0.22 gr. of leaves per powder; $\frac{1}{45}$ gr. of leaves per powder.
25571	Digitalis, fl. ext.....	W. S. Rockey, Ninth avenue and Forty-second street.....		Found 0.053 per cent. digitalin.
25582	Digitalis, tinct.....	Ernst Boetzel, corner One Hundred and Sixth street and Lexington avenue.....		Found 0.0096 per cent. digitalin.
25777	Digitalis, infusion.....	J. F. Comerford, No. 921 Columbus avenue.....		Found 0.0048 per cent. digitalin.
25070	Ergot, fl. ext.....	Drug Laboratory.....		Found 0.052 per cent. ergotinin; 13.53 per cent. solids soluble in alcohol and water (gummy matter removed).
25071	Ergot, fl. ext.....	Drug Laboratory.....		Found 0.04 per cent. ergotinin; 17.33 per cent. solids soluble in alcohol and water (gummy matter removed).
25072	Ergot, fl. ext.....	Drug Laboratory.....		Found 0.046 per cent. ergotinin; 13.36 per cent. solids soluble in alcohol and water (gummy matter removed).
25073	Ergot, fl. ext.....	Drug Laboratory.....		Found 0.041 per cent. ergotinin; 12.30 per cent. solids soluble in water and alcohol (gummy matter removed).
25074	Ergot, fl. ext.....	Drug Laboratory.....		Found 0.058 per cent. ergotinin; 8.74 per cent. solids soluble in alcohol and water (gummy matter removed).
25128	Ergot, fl. ext.....	Drug Laboratory.....		Found 0.01 per cent. ergotinin; 13.75 per cent. solids soluble in alcohol and water (gummy matter removed).
25129	Ergot, ex. powd.....	Drug Laboratory.....		Found 9.28 per cent. to be soluble in alcohol and water after the removal of gummy matter.
25130	Ergot, ex. powd.....	Drug Laboratory.....		Found 7.45 per cent. to be soluble in alcohol and water after the removal of gummy matter.
25319	Ergot, secale cornutum.....	Drug Laboratory.....		Found 0.0536 per cent. ergotinin.



No.	Sample.	From Whom Received.	From Whom Purchased.	Results.
25320	Ergot, secale cornutum, pulv..	Drug Laboratory.....		Found 0.0412 per cent. ergotin.
25321	Ergot, powd.....	Drug Laboratory.....		Found 0.0432 per cent. ergotin.
25322	Ergot, crushed.....	Drug Laboratory.....		Found 0.0372 per cent. ergotin.
25567	Ergotae, fl. ext.....	S. J. Livingston, No. 723 Ninth avenue.....		Found 0.032 per cent. ergotin.
24741	Ether .....	E. R. Squibb & Sons.....		Sample is chemically pure.
27164	Essence of peppermint.....	H. Von Berg, One Hundred and Fourteenth street and St. Nicholas avenue.....		Free from methyl alcohol.
25349	Foxglove leaves, crushed.....	Drug Laboratory.....		Found 0.273 per cent. digitoxin.
25035	Gallic acid.....	Drug Laboratory.....		Corresponds to U. S. P. requirements.
25037	Gallic acid, pure.....	Drug Laboratory.....		Corresponds to the U. S. P. requirements.
25021	Gibson's tablets.....	Hegeman & Co., Broadway, near Fulton street....		Average weight tablet, 2.1147 gms. Ash, 0.75 per cent. Free from chloroform, chloral, ammonia compounds and alkaloids.
25469	.....	Halper's Pharmacy, No. 1297 Amsterdam avenue..		Sample is almost completely soluble in H <sub>2</sub> O. A gummy residue remains. Free from substances soluble in acid, solution extracted with chloroform. Free from alkaloids, chloral and chloroform. Average weight, 2.22 per cent. Ash, .59.
25470	Gibson's tablets.....	Kinsman's Drug Store, One Hundred and Twenty-fifth street and Eighth avenue.....		Sample is almost completely soluble in water. A gummy residue remains. Free from substances soluble in acid, solution extracted with chloroform. Free from alkaloids, chloral and chloroform. Average weight per tablet, 2.1750 per cent. Ash equals .69.
25471	Gibson's tablets.....	E. C. Rich, No. 342 West Fourteenth street.....		Sample is almost completely soluble in water. A gummy residue remains. Free from substances soluble in acid, solution extracted with chloroform. Free from alkaloids, chloral and chloroform. Average weight per tablet, 2.0631 per cent. Ash equals .69.
25472	Gibson's tablets.....	E. C. Rich, No. 342 West Fourteenth street.....		Sample is almost completely soluble in water. A gummy residue remains. Free from substances soluble in acid, solution extracted with chloroform. Free from alkaloids, chloral and chloroform. Average weight per tablet, 2.0323. Ash, .71 per cent.
25252	Ginger, tincture.....	Geo. Vickroth, No. 574 Amsterdam avenue.....		Found 0.0648 gms. of solids per 100 cc. Odor and taste that of ginger.
25164	Glycerine, C. P.....	Drug Laboratory.....		Slight mineral residue. Butyric acid present. Turbidity with barium chloride.
25165	Glycerine .....	Drug Laboratory.....		Slight mineral residue. Butyric acid present. Turbidity with barium chloride.
25166	Glycerine .....	Drug Laboratory.....		More than slight mineral residue. Butyric acid present. Turbidity with barium chloride. Conc. sulphuric acid gives a deep yellow. Reduces Fehling's solution.
25499	Glonoin sol.....	Dr. H. M. Biggs.....		Found 1/66 gr. per drachm.
25333	Gum kino.....	Drug Laboratory.....		Sample corresponds to U. S. P. requirements in its solubility in water and alcohol, but not in ether.
25336	Gum kino, powd.....	Drug Laboratory.....		Sample corresponds to U. S. P. requirements in its solubility in water and alcohol, but not in ether.
25064	Gelsemium, fl. ext.....	Drug Laboratory.....		Sample, 0.575 per cent. gelsemine.
25065	Gelsemium, fl. ext.....	Drug Laboratory.....		Sample, 0.555 per cent. gelsemine.
25066	Gelsemium, fl. ext.....	Drug Laboratory.....		Sample, 0.274 per cent. gelsemine.
25067	Gelsemium, fl. ext.....	Drug Laboratory.....		Sample, 0.340 per cent. gelsemine.
25068	Gelsemium, fl. ext.....	Drug Laboratory.....		Sample, 0.466 per cent. gelsemine.
25069	Gelsemium, fl. ext.....	Drug Laboratory.....		Sample, 0.673 per cent. gelsemine.
25113	Gelsemii, tinct.....	Drug Laboratory.....		Sample, 0.045 per cent. gelsemine.
25114	Gelsemium, tinct.....	Drug Laboratory.....		Sample, 0.033 per cent. gelsemine.
25115	Gelsemii, tinct.....	Drug Laboratory.....		Sample, 0.051 per cent. gelsemine.
25285	Gelsemium, powd.....	Drug Laboratory.....		Extract from 10 gms.; 100 cm $\frac{3}{4}$ of 95 per cent. alcohol, 17.69 per cent.
25296	Gelsemii, ground.....	Drug Laboratory.....		Extract from 10 gms.; 100 cm $\frac{3}{4}$ of 95 per cent. alcohol, 12.21 per cent.
25604	Gaultheriae ol., true.....	Paul Fels, Amsterdam avenue and Ninety-fifth street .....		Sample is apparently synthetic oil of wintergreen. Amount of sample is too small to arrive at a definite conclusion.
25606	Gaultheriae ol., synthetic.....	L. E. Michal, Columbus avenue and Ninety-fourth street .....		Sample is apparently synthetic oil of wintergreen.
25136	Henbane, powd. ex.....	Drug Laboratory.....		Found 0.068 per cent. alkaloids.
25137	Henbane, powd. ex.....	Drug Laboratory.....		Found 0.0866 per cent. alkaloids.
25311	Henbane leaves, ground.....	Drug Laboratory.....		Found 0.0138 per cent. alkaloids.
25312	Henbane leaves, powd.....	Drug Laboratory.....		Found 0.138 per cent. alkaloids.
25313	Henbane leaves, powd.....	Drug Laboratory.....		Found 0.013 per cent. alkaloids.
25339	Henbane leaves, ground.....	Drug Laboratory.....		Found 0.016 per cent. alkaloids.
25425	Henbane, fl. ext.....	Drug Laboratory.....		Found 0.055 per cent. alkaloids.
25055	Hyoscyamus, fl. ext.....	Drug Laboratory.....		Found 0.051 per cent. alkaloids.
25056	Hyoscyamus, fl. ext.....	Drug Laboratory.....		Found 0.057 per cent. alkaloids.
25133	Hyoscyamus, powd. ext.....	Drug Laboratory.....		Found 0.07 per cent. alkaloids.
25134	Hyoscyamus, powd. ext.....	Drug Laboratory.....		Found 0.048 per cent. alkaloids.
25135	Hyoscyamus, powd. ext.....	Drug Laboratory.....		Found 0.162 per cent. alkaloids.
25326	Hyoscyami leaves, powd.....	Drug Laboratory.....		Found 0.039 per cent. alkaloids.
25372	Hyoscyami, tinct.....	Drug Laboratory.....		Found 0.0048 per cent. alkaloids.
25373	Hyoscyami, tinct.....	Drug Laboratory.....		Found 0.0094 per cent. alkaloids.
25374	Hyoscyamus, tinct.....	Drug Laboratory.....		Found 0.0068 per cent. alkaloids.
25520	Hydrogen peroxide.....	Drug Laboratory.....		Found hydrogen peroxide, 3.36 per cent. Available oxygen, 11.09 vol. Conforms to requirements of U. S. P.
25523	Hydrogen peroxide.....	.....		Found hydrogen peroxide, 3.05 per cent. Available oxygen, 10.07 vol. Conforms to requirements of U. S. P.
25570	Hyoscyami, fl. ext.....	Gebhard's Pharmacy, No. 357 Eighth avenue.....		Found 0.07 per cent. alkaloids.
25580	Hyoscyami, tinct.....	John Ziegler, corner One Hundred and Tenth street and Lexington avenue.....		No alkaloids present.
25796	Hyoscyamus, powd.....	Drug Laboratory.....		Found 0.028 per cent. alkaloids by the U. S. P. assay method.
25787	Hyoscyamus, powd. fol.....	Drug Laboratory.....		Found 0.037 per cent. alkaloids by the U. S. P. assay method.
25800	Hyoscyamus, powd.....	Drug Laboratory.....		Found 0.030 per cent. alkaloids by the U. S. P. assay method.
25896	Hyoscyamus herb.....	Drug Laboratory.....		Found 0.044 per cent. alkaloids by the U. S. P. assay method.
25337	Hemlock poison, powd.....	Drug Laboratory.....		Found 0.652 per cent. alkaloids.
25342	Hemlock poison, ground.....	Drug Laboratory.....		Found 0.342 per cent. alkaloids.
27386	Hypodermic tablets, soluble...	Dr. Robert's Office.....		Found atropine present and morphine present.
26798	Hydrastis canadensis, rad.....	Drug Laboratory.....		Found 2.94 per cent hydrastin.
26801	Hyoscyamus, fol.....	Drug Laboratory.....		Found 0.079 per cent. alkaloids.
26802	Hyoscyamus .....	Drug Laboratory.....		Found 0.086 per cent. alkaloids.
25024	Iodine, resublimed.....	Drug Laboratory.....		Found 99.97 per cent. iodine.
25254	Iodine, tinct.....	Hegeman & Co., No. 1917 Amsterdam avenue....		Found 5.21 per cent. iodine. Free from wood alcohol.
27342	Iodine, tinct.....	Halper's Pharmacy, No. 2091 Amsterdam avenue..		Sample conforms to the requirements of the U. S. P., 1900.
27343	Iodine, tinct.....	Halper's Pharmacy, Prospect and Longwood avenues .....		Sample conforms to the requirements of the U. S. P., 1900.
27344	Iodine, tinct.....	Halper's Pharmacy, No. 1297 Amsterdam avenue..		Sample conforms to the requirements of the U. S. P., 1900.
25572	Iodine, tinct.....	Al B. Baltzly, No. 2278 Seventh avenue.....		Found 2.54 per cent. iodine. Free from wood alcohol.



No.	Sample.	From Whom Received.	From Whom Purchased.	Results.
25088	Ipecac, fl. ext.....	Drug Laboratory.....		Found 1.07 gms. alkaloids in 100 cc.
25089	Ipecac, fl. ext.....	Drug Laboratory.....		Found 1.40 gms. alkaloids in 100 cc.
25090	Ipecac, fl. ext.....	Drug Laboratory.....		Found 1.065 gms. alkaloids in 100 cc.
25091	Ipecac, fl. ext.....	Drug Laboratory.....		Found 1.17 gms. alkaloids in 100 cc.
25092	Ipecac, fl. ext.....	Drug Laboratory.....		Found 1.22 gms. alkaloids in 100 cc.
25093	Ipecac, fl. ext.....	Drug Laboratory.....		Found 1.26 gms. alkaloids in 100 cc.
25345	Ipecac, ground.....	Drug Laboratory.....		Found 0.203 per cent. alkaloids.
25346	Ipecac, powd.....	Drug Laboratory.....		Found 0.571 per cent. alkaloids.
25347	Ipecac root, powd.....	Drug Laboratory.....		Found 0.652 per cent. alkaloids.
25348	Ipecac root, ground.....	Drug Laboratory.....		Found 0.504 per cent. alkaloids.
26781	Ipecac root, powd.....	Drug Laboratory.....		Found 0.212 per cent. alkaloids.
26782	Ipecac root, powd.....	Drug Laboratory.....		Found 2.00 per cent. alkaloids.
26783	Ipecac root, powd.....	Drug Laboratory.....		Found 1.81 per cent. alkaloids.
26784	Ipecacuanhae rad.....	Drug Laboratory.....		Found 1.88 per cent. alkaloids.
26785	Ipecacuanhae rad.....	Drug Laboratory.....		Found 1.67 per cent. alkaloids.
26786	Ipecacuanhae rad.....	Drug Laboratory.....		Found 1.81 per cent. alkaloids.
25292	Jalape, pulv.....	Drug Laboratory.....		Found ether soluble resin, 1.64 per cent. Total resin, 10.46 per cent.
25293	Jalape root, powd.....	Drug Laboratory.....		Found ether soluble resin, 0.66 per cent. Total resin, 4.17 per cent.
25294	Jalape, powd.....	Drug Laboratory.....		Found ether soluble resin, 1.12 per cent. Total resin, 8.83 per cent.
25295	Jalape, ground.....	Drug Laboratory.....		Found ether soluble resin, 1.37 per cent. Total resin, 5.37 per cent.
25334	Kino, pulv.....	Drug Laboratory.....		Sample corresponds to the requirements of the U. S. P. in its solubility in water and alcohol, but not in ether.
25335	Kino, ground.....	Drug Laboratory.....		Sample corresponds to the requirements of the U. S. P. in its solubility in water and alcohol, but not in ether.
24990	Lozenges .....	Kinsman's Pharmacy, Thirty-ninth street and Eighth avenue.....		Average weight tablet, 1.9970 gms. Ash, 0.62 per cent. Free from chloroform, chloral, ammonia compounds and alkaloids.
25051	Lobelia, fl. ext.....	Drug Laboratory.....		Found 0.16 per cent. lobelin.
25314	Lobelia, ground.....	Drug Laboratory.....		Found 0.118 per cent. lobelin, extracted in fluid extract menstruum.
25315	Lobelia, powd.....	Drug Laboratory.....		Found 0.065 per cent. lobelin, extracted in fluid extract menstruum.
25316	Lobelia, powd.....	Drug Laboratory.....		Found 0.085 per cent. lobelin, extracted in fluid extract menstruum.
25364	Lobelia, tinct.....	Drug Laboratory.....		Found 0.0248 per cent. lobelin.
25365	Lobelia, tinct.....	Drug Laboratory.....		Found 0.026 per cent. lobelin.
25366	Lobelia, fl. ext.....	Drug Laboratory.....		Found 0.1140 per cent. lobelin.
25367	Lobelia, fl. ext.....	Drug Laboratory.....		Found 0.2100 per cent. lobelin.
25368	Lobelia, fl. ext.....	Drug Laboratory.....		Found 0.1496 per cent. lobelin.
25369	Lobelia, fl. ext.....	Drug Laboratory.....		Found 0.1580 per cent. lobelin.
25370	Lobelia, fl. ext.....	Drug Laboratory.....		Found 0.1536 per cent. lobelin.
25371	Lobelia, tinct.....	Drug Laboratory.....		Found 0.024 per cent. lobelin.
25568	Lobelia, fl. ext.....	John K. Oats, No. 658 Ninth avenue.....		Found 0.23 per cent. lobelin.
25579	Lobelia, tinct.....	Cody & Berger, No. 1754 Lexington avenue.....		Found 0.01 per cent. lobelin.
25047	Magnesia aperient, granular..	Drug Laboratory.....		Sample consists of magnesium sulphate, sodium bicarbonate and potassium bitartrate.
27505	Medicine .....	Coroner's Physician.....		This analysis was cancelled. A civil suit was planned upon the result of the analysis.
25599	Morphine, sulphate.....	Bokschizky & Rotkowitz, No. 250 Rivington street.....		Found 0.077 gms. equals 1.20 grs. morphine. Corresponding to 0.180 gms. equals 2.81 grs. morphine sulphate.
25609	Morphine .....	Leo W. Geisler, No. 915 Amsterdam avenue.....		Found 0.120 gms. equals 1.878 grs. morphine.
25614	Morphine, tab. trit.....	Solomon Rosenthal, No. 23 Avenue D.....		Found 0.120 gms. morphine. Average amount per tablet, 0.020 gms. equals 5/16 grs.
25617	Morphine, hypodermic tab....	Geo. W. Jarchow, No. 445 Second avenue.....		Found 0.073 gms. of morphine. Average amount per tablet, 0.012 gms. equals 3/16 gr.
25619	Morphine .....	Harry Lerner, No. 93 Avenue B.....		Found 0.1158 gms. equals 1.8 gr. morphine.
25144	Nitroglycerin tablets.....	Drug Laboratory.....		Found 0.0104 grs. nitroglycerin per tablet.
25145	Nitroglycerin tablets.....	Drug Laboratory.....		Found 0.005 grs. nitroglycerin per tablet.
25275	Nitroglycerin tablets.....	Dr. Herman M. Biggs.....		Found 0.0111 grs. nitroglycerin per tablet.
25395	Nitroglycerin tablets.....	Dr. Stutterford.....		Found 0.0126 grs. nitroglycerin per tablet.
25396	Nitroglycerin tablets.....	Dr. Stutterford.....		Found 0.0152 grs. nitroglycerin per tablet.
25464	Nitroglycerin tablets.....	Dr. Herman M. Biggs.....		Found 0.0009 grs. nitroglycerin per tablet.
25500	Nitroglycerin tablets.....	Dr. Herman M. Biggs.....		Found 1/53 (.019) gr. nitroglycerin per tablet.
25501	Nitroglycerin tablets.....	Dr. Herman M. Biggs.....		Found 1/107 (.0093) gr. nitroglycerin per tablet.
25519	Nitroglycerin tablets.....	Drug Laboratory.....		Found 1/177 gr. nitroglycerin per tablet.
25586	Nitroglycerin tablets, trit....	S. Lesser, No. 59 Avenue D.....		Found .037 gr. and 1/27 gr. nitroglycerin per tablet.
25589	Nitroglycerin, hypodermic tabs.	Chas. E. Kessper, No. 621 Second avenue.....		No nitroglycerin found.
25590	Nitroglycerin, hypodermic tabs.	Hy. Steinach, No. 870 Second avenue.....		Found 1/200 gr. nitroglycerin per tablet.
25593	Nitroglycerin, hypodermic tabs.	Bockshitzky Bros. & Co., No. 69 Avenue C.....		Found 1/50 gr. nitroglycerin per tablet.
25281	Nux vomica, ground.....	Drug Laboratory.....		Found 0.259 per cent. alkaloids.
25300	Nux vomica, powd.....	Drug Laboratory.....		Found 0.246 per cent. alkaloids.
25301	Nux vomica, pulv.....	Drug Laboratory.....		Found 0.188 per cent. alkaloids.
25573	Nux vomica, tinct.....	Geo. H. Koch, No. 2482 Eighth avenue.....		Found 0.0344 per cent. strychnine.
25595	Nux vomica, fl. ext.....	S. Abraham, No. 1815 Madison avenue.....		Found 1.45 per cent. strychnine.
25790	Nux vomica, powd.....	Drug Laboratory.....		Found 3.92 per cent. strychnine by U. S. P. assay method.
25802	Nux vomica, powd. ex.....	Drug Laboratory.....		Found 2.286 per cent. strychnine by U. S. P. assay method.
25895	Nux vomica, powd. ex.....	Drug Laboratory.....		Found 2.025 per cent. strychnine by U. S. P. assay method.
27012	Nux vomica, tinct.....	Hollis M. Barnes, southwest corner One Hundred and Tenth street and Madison avenue.....		Residue equals .184 per cent., of which strychnine equals .028 per cent.
25277	Opium, granulated.....	Drug Laboratory.....		Found 11.19 per cent. morphine.
25278	Opium, powd.....	Drug Laboratory.....		Found 11.71 per cent. morphine.
25279	Opium, powd.....	Drug Laboratory.....		Found 11.992 per cent. morphine.
25280	Opium, granulated.....	Drug Laboratory.....		Found 10.13 per cent. morphine.
25608	Opium, pulv.....	E. C. Goetting, No. 820 Amsterdam avenue.....		Found opium.
25618	Opium, pulv.....	Geo. Gregorious, No. 259 First avenue.....		Found opium.
25028	Potassium bitartras.....	Drug Laboratory.....		Sample corresponds to the requirements of the U. S. P., excepting the presence of a trace of iron.
25030	Potassium bitartrate, powd....	Drug Laboratory.....		Sample corresponds to the requirements of the U. S. P., excepting the presence of a trace of iron.
25241	Potassium hypophosphite.....	Drug Laboratory.....		Sample does not dissolve in seven parts of alcohol at 25 degrees C, even on heating completely. Gives an alkaline reaction with phenolphthalein very slight; effervesces with acid; otherwise conforms to the requirements of the U. S. P.



No.	Sample.	From Whom Received.	From Whom Purchased.	Results.
25650	Potassium hypophosphite.....	Drug Laboratory.....		Sample corresponds to the requirements of the U. S. P., 1900.
25029	Potassium iodidum.....	Drug Laboratory.....		Sample corresponds to the requirements of the U. S. P., excepting a trace of iron.
25031	Potassium iodide.....	Drug Laboratory.....		Sample corresponds to the requirements of the U. S. P., excepting a trace of iron.
25032	Potassium iodide.....	Drug Laboratory.....		Sample gives reaction for a considerable quantity of iron and traces of iodates. A trace is insoluble in alcohol of .928 sp. gr., otherwise sample conforms to the requirements of U. S. P.
27121	Potassium nitrate.....	Dr. Fields.....		Sample is potassium carbonate.
25116	Pepsin, powd.....	Drug Laboratory.....		Sample somewhat below the standard of the U. S. P.
25117	Pepsin, aseptic.....	Drug Laboratory.....		Sample corresponds to the requirements of U. S. P.
25118	Pepsin, concentrated.....	Drug Laboratory.....		Sample corresponds to the requirements of U. S. P.
25119	Pepsin, scales.....	Drug Laboratory.....		Sample corresponds to the requirements of U. S. P.
25120	Pepsin, pure.....	Drug Laboratory.....		Sample somewhat below the standard of the U. S. P.
25121	Pepsin, scale.....	Drug Laboratory.....		Sample corresponds to the requirements of U. S. P.
25122	Pepsin, scale, pure.....	Drug Laboratory.....		Sample somewhat below the standard of the U. S. P.
25123	Pepsin, aseptic, powd.....	Drug Laboratory.....		Sample corresponds to the requirements of U. S. P.
25576	Pepsin, scales.....	Chas. H. Lowe, No. 761 Amsterdam avenue.....		Sample was not packed to withstand moisture, and consequently was gummy and not up to the standard of the U. S. P.
25591	Pepsin, scales.....	Leister & Dohremoend, No. 134 First avenue.....		Sample corresponds to the requirements of the U. S. P.
24921	Powder, white.....	O. C. Weimer, No. 173 Seventh avenue.....		Sample contains cocaine hydrochloride, 34.35 per cent.; adulterated with acetanilid.
25867	Powder.....	Commissioner's Office.....		Sample is antipyrin.
26979	Powder, white.....	Dr. Bensel.....		Sample is cocaine hydrochloride.
27816	Powder.....	Dr. Bensel.....		Sample melts at 117 degrees C, and on addition of a few drops of H <sub>2</sub> SO <sub>4</sub> to its hot aqueous solution, a turbidity is produced and also an aromatic odor. This corresponds to the tests given for terpin hydrate in the U. S. P., 1900.
24856	Phenalgine.....	Drug Laboratory.....		Found 7.33 per cent. acetanilid by difference, 29.67 per cent. sodium bicarbonate.
24886	Pile oil.....	Drug Laboratory.....		Sample contains a little carbolic acid. Free from cocaine and morphine.
27043	Pessaries.....	Jas. Moran, M. D., No. 345 West Fifty-eighth street.....		Some contain ichthyol and some do not.
25052	Rhubarb, fl. ext.....	Drug Laboratory.....		Found 22.243 gms. solids per 100 cc.
25053	Rhubarb, fl. ext.....	Drug Laboratory.....		Found 34.57 gms. solids per 100 cc.
25054	Rhubarb, fl. ext.....	Drug Laboratory.....		Found 44.665 gms. solids per 100 cc.
25341	Rhubarb, powd.....	Drug Laboratory.....		Found 40.27 per cent. extractives with fluid extract menstruum.
25351	Rhubarb, sawdust.....	Drug Laboratory.....		Found 44.21 per cent. extractives with fluid extract menstruum.
25429	Rhubarb, tinct.....	Drug Laboratory.....		Found 16.41 gms. solids per 100 cc.
25578	Rhubarb, tinct.....	O. A. Meyers, No. 1822 Lexington avenue.....		Found 15.321 gms. solids per 100 cc.
25594	Rhubarb, fl. ext.....	S. Ackerman, No. 1755 Park avenue.....		Found 21.5475 gms. solids per 100 cc.
25027	Rochelle salt.....	Drug Laboratory.....		Sample conforms to the requirements of the U. S. P., except salt has a slight pinkish to brownish color when exposed to air, probably due to trace of iron; 1 gm. of salt after ignition requires 14.2 cc. N/2 sulphuric acid.
25*33	Rochelle salt, powd.....	Drug Laboratory.....		Sample conforms to the requirements of the U. S. P., except salt has a slight brownish color when exposed to air, probably due to trace of iron; 1 gm. salt after ignition requires 14.4 N/2 sulphuric acid.
27336	Rochelle salt.....	Halper's Pharmacy, No. 1297 Amsterdam avenue.....		Sample corresponds to the requirements of the U. S. P., 1900.
27337	Rochelle salt.....	Halper's Pharmacy, Amsterdam avenue and One Hundred and Sixty-fourth street.....		Sample corresponds to the requirements of the U. S. P., 1900.
27338	Rochelle salt.....	Halper's Pharmacy, Prospect and Longwood avenues.....		Sample corresponds to the requirements of the U. S. P., 1900.
27509	Rochelle salt.....	O. C. Weinman, No. 173 Seventh avenue.....		Sample corresponds to the requirements of the U. S. P., except for faint trace of iron.
24922	Sbarums vegetable tonic.....	Drug Laboratory.....		Sample free from alkaloids, narcotics, arsenic and antimony. Total solids, 2.34 per cent. Ash, 0.64 per cent. Phosphates present.
25239	Santonine.....	Drug Laboratory.....		Melting point, 168 degrees. In other respects conforms to requirements of U. S. P.
25625	Saccharum lactis.....	Leo W. Geisler, No. 915 Amsterdam avenue.....		Ash and starch none. Milk, sugar, 100 per cent.
25647	Sesame oil.....	Drug Laboratory.....		Sample is pure sesame oil.
27044	Spirits of nitrous ether.....	Drug Laboratory.....		Specific gravity (at 25 degrees C), 0.8198. Boiling point (approximately), 68 degrees C. Ethyl nitrite (by nitrometer), 2.44 per cent.
25161	Soap liniment.....	Drug Laboratory.....		Alcohol by weight, 71.83 per cent. Alcohol by volume, 79.84 per cent. Camphor (by polariscope), about 4.50 per cent. Soap, 7.10 per cent. Result on soap is high owing to difficulty in dehydration.
25162	Soap liniment.....	Drug Laboratory.....		Alcohol by weight, 74.24 per cent. Alcohol by volume, 83.20 per cent. Camphor (by polariscope), about 4.50 per cent. Soap, 8.22 per cent. Result on soap is high owing to difficulty in dehydration.
25163	Soap liniment.....	Drug Laboratory.....		Alcohol by weight, 64.45 per cent. Alcohol by volume, 73.00 per cent. Camphor (by polariscope), 4.50 per cent. Soap, 9.03 per cent. Result on soap is high owing to difficulty in dehydration.
25605	Saponis liniment.....	Zagat Drug Company, No. 2117 Eighth avenue.....		Sample conforms to the requirements of the U. S. P., 1900.
25585	Strychnine nitrate hypodermic tab.....	Lawall & Searles, Avenue C and Eighth street.....		Found 1/37 grain per tablet and 0.027 grain per tablet.
25276	Strychnine capsules.....	Dr. Herman Biggs.....		Found for 14 capsules an average of 0.0093 gr. per capsule of strychnine and for 11 capsules an average of 0.0125 grs. per capsule of strychnine. Average for 25 equals .011 gr.
25584	Strychnine tablets, trit.....	Morris Drugasch, No. 157 Avenue B.....		Found 0.025 gr. per tablet and 1/40 gr. per tablet.
25240	Sodium hypophosphite.....	Drug Laboratory.....		Sample does not dissolve in 25 pts. of alcohol even on heating. Effervesces with acid; reacts for alkali with phenolphthalein; otherwise conforms to the requirements of the U. S. P.
25652	Sodium hypophosphite.....	Drug Laboratory.....		Sample conforms to the requirements of the U. S. P., 1900.
25653	Sodium hypophosphite.....	Drug Laboratory.....		Sample conforms to the requirements of the U. S. P., 1900.
25206	Sodium phosphate.....	Hegeman & Co., One Hundred and Twenty-fifth street and Lenox avenue.....		Sample conforms to the requirements of the U. S. P., 1900.
25026	Sodium salicylate.....	Drug Laboratory.....		Sample conforms to the requirements of the U. S. P., except not soluble in 8 parts of water nor 5.5 parts alcohol. Contains faint trace of iron; 1 gm. after ignition requires 12.3 cc. N/2 sulphuric acid.
25038	Sodii salicylas.....	Drug Laboratory.....		Sample contains 96.96 per cent. sodium salicylate.
25624	Sodii salicylas.....	Dr. Kerr, No. 74 Market street.....		Sample contains 97.92 per cent. sodium salicylate.
25616	Sodii sulph.....	Leo Dreyfus, No. 231 Second avenue.....		Sample conforms to the requirements of the U. S. P., 1900.
25081	Stramonium leaves, fl. ext.....	Drug Laboratory.....		Found 0.247 gms. per 100 cc. of alkaloids.
25082	Stramonium leaves, fl. ext.....	Drug Laboratory.....		Found 0.086 gms. mydriatic alkaloids in 100 cc.
25083	Stramonium leaves, fl. ext.....	Drug Laboratory.....		Found 0.0517 gms. mydriatic alkaloids in 100 cc.
25086	Stramonium leaves, fl. ext.....	Drug Laboratory.....		Found 0.1607 gms. mydriatic alkaloids in 100 cc.
25094	Stramonii, tinct.....	Drug Laboratory.....		Found 0.013 gms. mydriatic alkaloids in 100 cc.
25288	Stramonium leaf, powd.....	Drug Laboratory.....		Found 0.0564 per cent. alkaloids.
25289	Stramonium fol., ground.....	Drug Laboratory.....		Found 0.0726 per cent. alkaloids.
25290	Stramonium, pulv.....	Drug Laboratory.....		Found 0.034 per cent. alkaloids.
25291	Stramonium leaves, ground.....	Drug Laboratory.....		Found 0.046 per cent. alkaloids.
25297	Stramonium, powd.....	Drug Laboratory.....		Found 0.043 per cent. alkaloids.



No.	Sample.	From Whom Received.	From Whom Purchased.	Results.
25574	Stramonium, sem. tr. fl.	.....	A. Salinger, No. 51 West One Hundred and Sixth street	Found 0.0036 per cent. alkaloids.
25592	Stramonium, sem. tr.	.....	Eimer & Amend, No. 205 Third avenue.	Found 0.003 per cent. alkaloids.
25077	Senna, fl. ext.	.....	Drug Laboratory.	Found 61.851 gms. solids per 100 cc.
25078	Senna, fl. ext.	.....	Drug Laboratory.	Found 19.328 gms. solids per 100 cc.
25079	Senna, fl. ext.	.....	Drug Laboratory.	Found 38.094 gms. solids per 100 cc.
25080	Senna, fl. ext.	.....	Drug Laboratory.	Found 19.589 gms. solids per 100 cc.
25324	Senna, powd.	.....	Drug Laboratory.	Found 16.167 per cent extractives with fluid extract menstruum.
25325	Senna, ground.	.....	Drug Laboratory.	Found 22.275 per cent. extractives with fluid extract menstruum.
25327	Senna Alexandria, powd.	.....	Drug Laboratory.	Found 21.496 per cent. extractives with fluid extract menstruum.
25338	Senna, tinnev, powd.	.....	Drug Laboratory.	Found 18.302 per cent. extractives with fluid extract menstruum.
25406	Senna, tinct.	.....	Drug Laboratory.	Found 4.28 gms. solids per 100 cc.
25407	Senna, tinct.	.....	Drug Laboratory.	Found 6.02 gms. solids per 100 cc.
25408	Senna, fl. ext.	.....	Drug Laboratory.	Found 20.8 gms. solids per 100 cc.
25409	Senna, fl. ext.	.....	Drug Laboratory.	Found 13.91 gms. solids per 100 cc.
27001	Senna, fl. ext.	.....	J. Gibian, northeast corner Thirty-fourth street and Eighth avenue.	Residue equals 39.34 per cent., which is above the average. Free from wood alcohol.
27339	Spirits of camphor.	.....	Halper's Pharmacy, No. 2091 Amsterdam avenue.	Sample reads in 200 mm. tube; on polariscope, 25.8; 25.8 degrees equals 11.17 per cent. camphor. Free from wood alcohol.
27340	Spirits of camphor.	.....	Halper's Pharmacy, Prospect and Longwood avenues	Sample reads in 200 mm. tube; on polariscope, 18.2; 18.2 degrees equals 7.88 per cent. camphor. Free from wood alcohol.
27341	Spirits of camphor.	.....	Halper's Pharmacy, No. 1297 Amsterdam avenue.	Sample reads in 200 mm. tube; on polariscope, 23.0; 23 degrees equals 9.96 per cent. camphor. Free from wood alcohol.
27510	Spirits of camphor.	.....	O. C. Weinman, No. 173 Seventh avenue.	Polariscope (100 mm. tube), 6.6; methyl alcohol none; 5 per cent. camphor solution reads: Polariscope (100 mm. tube), 13.3.
27768	Spirits of camphor.	.....	Halper's Pharmacy, Prospect and Longwood avenues	Sample reads in 200 mm. tube; on polariscope, 11.39 per cent. Free from wood alcohol.
27769	Spirits of camphor.	.....	Halper's Pharmacy, No. 1297 Amsterdam avenue.	Sample reads in 200 mm. tube; on polariscope, 26.50; 26.5 degrees equals 11.47 per cent. camphor. Free from wood alcohol.
27770	Spirits of camphor.	.....	Halper's Pharmacy, Amsterdam avenue and One Hundred and Sixty-fourth street.	Sample reads in 200 mm. tube; in polariscope, 22.4; 22.4 degrees equals 9.70 per cent. camphor. Free from wood alcohol.
25540	Silver nitrate.	.....	.....	Found 100.19 per cent. silver nitrate.
25623	Tannic acid.	.....	Bernstein Pharmacy Company, Hester and Eldridge streets	Found ash 0.158 soluble in water. Free from resinous matter. Sample conforms to requirements of U. S. P.
26779	Tablets A and B.	.....	Coroner Shady.	Sample A is salol and phenacetin. Sample B is salol and phenacetin.
25306	Valerian root, powd.	.....	Drug Laboratory.	Found 16.918 per cent. extractives with fluid extract menstruum.
25307	Valerian root, ground.	.....	Drug Laboratory.	Found 15.123 per cent. extractives with fluid extract menstruum.
25308	Valerian, German, powd.	.....	Drug Laboratory.	Found 17.092 per cent. extractives with fluid extract menstruum.
25309	Valerian, pulv.	.....	Drug Laboratory.	Found 16.183 per cent. extractives with fluid extract menstruum.
25310	Valerian, German, ground.	.....	Drug Laboratory.	Found 13.994 per cent. extractives with fluid extract menstruum.
25415	Valerian, tinct.	.....	Drug Laboratory.	Found 4.21 gms. solids per 100 cc.
25416	Valerian, tinct.	.....	Drug Laboratory.	Found 2.32 gms. solids per 100 cc.
25417	Valerian, fl. ext.	.....	Drug Laboratory.	Found 20.73 gms. solids per 100 cc.
25418	Valerian root, fl. ext.	.....	Drug Laboratory.	Found 11.23 gms. solids per 100 cc.
25419	Valerian, fl. ext.	.....	Drug Laboratory.	Found 11.97 gms. solids per 100 cc.
25420	Valerian, fl. ext.	.....	Drug Laboratory.	Found 14.27 gms. solids per 100 cc.
25421	Valerian, fl. ext.	.....	Drug Laboratory.	Found 8.77 gms. solids per 100 cc.
25422	Valerian, tinct.	.....	Drug Laboratory.	Found 2.82 gms. solids per 100 cc.
26999	Valerian, tinct.	.....	Dr. John Lo Pintos, No. 356 East Twelfth street.	Residue equals 1.45 per cent., which is somewhat low. Free from wood alcohol.
27002	Valerian, tinct.	.....	Wm. C. Jemmer, No. 993 Columbus avenue.	Residue equals 1.81 per cent., which is somewhat low. Free from wood alcohol.
27003	Valerian, fl. ext.	.....	H. Rich, No. 1716 Park avenue.	Sample is free from wood alcohol.
25649	Zinc oxide.	.....	Drug Laboratory.	Sample conforms to the requirements of the U. S. P., 1900.
25575	Zingiberis, tinct.	.....	Wassell Pharmacy, One Hundred and Seventh street and Columbus avenue.	Residue equals .036 per cent. Tastes and smells like ginger.

## Fats and Oils—Vegetable.

No.	Sample.	From Whom Received.	From Whom Purchased.	Results.
24822	Butter print.	.....	F. W. Smith, No. 197 Reid avenue, Brooklyn.	Sample is genuine butter. Free from boric acid and borax.
24952	Butter	.....	Park & Tilford, No. 784 Fifth avenue.	Sample is genuine butter. Free from boric acid and borax.
25344	Butter	.....	Levi Edsall, Far Rockaway.	Sample is not genuine butter.
25457	Butter (renovated).	.....	A. Garamella, No. 315 East Twenty-eighth street.	Foam test indicates, renovated butter. Reichert Meissl No. 28.15. Sample is renovated butter.
27298	Butter	.....	Samuel Klein, No. 1467 Second avenue.	Foam test and melting test respond for genuine butter.
27762	Butter	.....	William Schwacke, No. 244 West Tenth street.	5 gms. of filtered fat give a volatile fatty acid number of 33.15. Sample is butter.
27855	Butter	.....	Howe Baking Company, No. 3355 Third avenue, The Bronx.	Sample is butter.
27760	Fat in can.	Chief Sanitary Insp.	.....	Iodine number equals 49.6, Maumene number equals 19 degrees C., sol. pt. equals 41 degrees C.—37 degrees C., melting pt. equals 43 degrees — 46 degrees, refractive index equals 1.4535 at 48 degrees C., equals 1.4512 at 60 degrees C. Constants corresponds to tallow.
23973	Oil beading.	Division of Inspections.	.....	Sp. gr., 0.9159. Free from cottonseed and sesame oils. Sample corresponds to olive oil.
24796	Oil mustard.	Division of Inspections.	.....	Sample contains cottonseed oil. Sp. gr. equals 0.927, Kottstorfer value equals 193. Sample is adulterated.
24834	Oil salad, "Santa Marcelo".	.....	Frank G'tek, No. 1156 First avenue.	Sp. gr., 0.925. Saponification number 190. Cottonseed oil present.
25380	Oil, hydroleine.	.....	Abr. I. Meyer, No. 945 First avenue.	Sample is made up with pure cod liver oil.
24752	Oil, cod liver, "Wasboe's".	.....	S. Piscanie, No. 163 West Twenty-seventh street.	Responds to the tests for purity of the U. S. Dispensatory. Sp. gr., 0.925; Kottstorfer value, 170.6. Sample is unadulterated.
24838	Oil, cod liver.	Dr. Billing's office.	.....	Conforms with the requirements of the U. S. P., 1900. Saponification number 171.
27265	Oil.	Mr. B. Teodor, U. S. Treasury Dept.	.....	Sp. gr. at 155 degrees C. equals 0.9145; refractive index equals 1.4667; free fatty acids as oleic acid equals 4.06. Sample is free from cottonseed oil.
27266	Oil.	Mr. B. Teodor, U. S. Treasury Dept.	.....	Sp. gr. at 155 degrees C. equals 0.9136; refractive index equals 1.4665; free fatty acids as oleic acid equals 3.72. Free from cottonseed oil.
27267	Oil.	Mr. B. Teodor, U. S. Treasury Dept.	.....	Sp. gr. at 155 degrees C. equals 0.9147; refractive index equals 1.4669; free fatty acids as oleic acid equals 3.195. Sample is free from cottonseed oil.
27268	Oil.	Mr. B. Teodor, U. S. Treasury Dept.	.....	Sp. gr. at 155 degrees C. equals 0.9136; refractive index equals 1.4665; free fatty acids as oleic acid equals 3.64. Sample is free from cottonseed oil.
27269	Oil.	Mr. B. Teodor, U. S. Treasury Dept.	.....	Sp. gr. at 155 degrees C. equals 0.9142; refractive index equals 1.4665; free fatty acids as oleic acid equals 4.65. Free from cottonseed oil.
27270	Oil.	Mr. B. Teodor, U. S. Treasury Dept.	.....	Sp. gr. at 155 degrees C. equals 0.9138; refractive index equals 1.4664; free fatty acids as oleic acid equals 4.787. Free from cottonseed oil.
27333	Oil.	.....	.....	Sample is cottonseed oil.



No.	Sample.	From Whom Received.	From Whom Purchased.	Results.
25020	Oil, olive.....	Chief Clerk's Office.....		Sample is free from peanut, cottonseed and sesame oils.
25465	Oil, olive.....	Drug Laboratory.....		Sample is free from peanut, cottonseed and sesame oils.
27755	Oil, olive, pure.....	D. Certero, No. 85 Christopher street.....		Sample gives Halphen's reaction for cottonseed oil; iodine number 98.9; refractive index at 22 degrees C. equals 1.4692; Maumene number 55 degrees C. Sesame oil, none.
28037	Oil, olive.....	Drug Laboratory.....		Refractive index, 1.4682; iodine number 88; Maumene number 35.5; free fatty acids as oleic acid equals 0.65. Free from cottonseed oil and sesame oil. Unadulterated.
27612	Oil, korno vegetable.....	Gilbert Parker Company, No. 306 Greenwich street.....		Iodine number 103.2; Maumene number 71 degrees; refractive index, 1.4717 at 20 C. Constants corresponds to tallow.

## Oils, Mineral, Soap and Coal.

No.	Sample.	From Whom Received.	From Whom Purchased.	Results.
27858	Oil, dynamo.....	Bellevue Hospital.....		Flashing pt., 401 degrees F.; gravity at 155 degrees C., 31 degrees B. Cold test, 26 degrees F.; viscosity at 70 degrees C., 110 Engler; viscosity at 100 degrees C., 100 Engler.
27861	Oil, dynamo, "valvoline"....	Bellevue Hospital.....		Flashing pt., 392 degrees F.; gravity at 155 degrees C., 32 degrees B. Cold test, 28 degrees F.; viscosity at 70 degrees C., 100 Engler; viscosity at 100 degrees C., 85 Engler.
24882	Oil, cylinder.....	Bellevue Hospital.....		Cold test, 38 degrees F.
24881	Oil, cylinder.....	Bellevue Hospital.....		Cold test, 40 degrees F.
25167	Oil, cylinder.....	Bellevue Hospital.....		Flash pt., 566.6 degrees F.; sp. gr., 0.892; viscosity, 177.
25168	Oil, cylinder.....	Bellevue Hospital.....		Flash pt., 560 degrees F.; sp. gr., 0.896; viscosity, 180.
27859	Oil, cylinder.....	Bellevue Hospital.....		Flash pt., 536 degrees F.; sp. gr. at 155 degrees C., 26 degrees B.; cold test, 62 degrees F.; viscosity at 100 degrees C., 275 Engler.
27862	Oil, cylinder, "valvoline"....	Bellevue Hospital.....		Flashing pt., 482 degrees F.; gravity at 155 degrees C., 24 degrees B.; cold test, 62 degrees F.; viscosity at 100 degrees C., 183 Engler.
27857	Oil, engine.....	Bellevue Hospital.....		Flashing pt., 383 degrees F.; gravity at 155 degrees C., 22 degrees B.; cold test, 30 degrees F.; viscosity at 70 degrees C., 115 Engler; viscosity at 100 degrees C., 95 Engler.
27860	Oil, engine, "valvoline"....	Bellevue Hospital.....		Flashing pt., 347 degrees F.; gravity at 155 degrees C., 32 degrees B.; cold test, 30 degrees F.; viscosity at 70 degrees C., 105 Engler; viscosity at 100 degrees C., 93 Engler.
24879	Oil, engine.....	Bellevue Hospital.....		Flash pt., 403 degrees F.; sp. gr., 0.900; cold test, 28 degrees F.; viscosity, 412.
24880	Oil, engine.....	Bellevue Hospital.....		Flash pt., 406 degrees F.; sp. gr., 0.900; cold test, 29 degrees F.; viscosity, 420.
24873	Soap.....	Comptroller's Office.....		Moisture, 22.30; free alkali, 0.20; resin, 22.63. Soluble in 10 pts. of 94 per cent. alcohol.
24874	Soap.....	Comptroller's Office.....		Moisture, 27.70; free alkali, 0.30; resin, 21.77. Insoluble in 10 parts of 94 per cent. alcohol.
24947	Soap.....	Chief Clerk's Office.....		Moisture, 19.52 per cent.; free alkali, trace.
24966	Soap.....	Bellevue Hospital.....		Moisture, 25.19 per cent.; free alkali, trace; resin, 21.80 per cent. Soluble in 10 parts 94 per cent. alcohol.
24967	Soap, chip.....	Chief Clerk's Office.....		Moisture, 19.94 per cent.; free alkali, 0.10 per cent.
24968	Soap, chip.....	Chief Clerk's Office.....		Moisture, 20.00 per cent.; free alkali, trace.
25223	Soap.....	Comptroller's Office.....		Moisture, 24.49 per cent.; free alkali, 0.20 per cent.; resin, 22.53 per cent. Soluble in 10 parts 94 per cent. alcohol.
25557	Soap.....	Department of Correction.....		Moisture, 21.60 per cent.; free alkali, 0.10 per cent.; resin, 22.57 per cent.
25558	Soap.....	Department of Correction.....		Moisture, 21.35 per cent.; free alkali, 0.10 per cent.; resin, 26.95 per cent.
25872	Soap, chip.....	Riverside Hospital.....		Moisture, 19.87 per cent.; free alkali, 0.10 per cent.
26193	Soap.....	Deputy Fire Commissioner, Brooklyn.....		Water present, 19.18 per cent.; fatty acids, 58.73 per cent. No free caustic alkali present.
26194	Soap.....	Deputy Fire Commissioner, Brooklyn.....		Water present, 23.57 per cent.; fatty acids, 29.38 per cent. No free caustic alkali present.
26850	Soap.....	Department of Charities.....		Moisture, 20.19 per cent.; resin, 10.31 per cent. Free caustic alkali, none. Foreign material, trace. Sample soluble in 10 parts 94 per cent. alcohol.
25722	Coal.....	Kingston Ave. Hospital.....		Moisture, 2.45 per cent.; vol. and comp., 5.91 per cent.; fixed carb., 73.15 per cent.; ash, 18.49 per cent.
25750	Coal.....	Kingston Ave. Hospital.....		Moisture, 2.97 per cent.; vol. and comp., 6.58 per cent.; fixed carb., 71.23 per cent.; ash, 19.22 per cent.
25749	Coal.....	Kingston Ave. Hospital.....		Moisture, 2.89 per cent.; vol. and comp., 6.31 per cent.; fixed carb., 73.58 per cent.; ash, 17.22 per cent.
27300	Coal.....	Dr. Wilson.....		Moisture, 3.14 per cent.; vol. and comp., 4.09 per cent.; fixed carb., 74.96 per cent.; ash, 17.81 per cent.
27458	Coal.....	Kingston Ave. Hospital.....		Moisture, 3.85 per cent.; vol. and comp., 7.07 per cent.; fixed carb., 66.31 per cent.; ash, 22.77 per cent.
27870	Coal.....	Kingston Ave. Hospital.....		Moisture, 0.76 per cent.; vol. and comp., 9.84 per cent.; fixed carb., 76.80 per cent.; ash, 12.60 per cent.
27871	Coal.....	Kingston Ave. Hospital.....		Moisture, 1.85 per cent.; vol. and comp., 5.73 per cent.; fixed carb., 81.87 per cent.; ash, 10.55 per cent.
25785	Coal.....	Bellevue Hospital.....		Moisture, 2.60 per cent.; vol. and comp., 7.61 per cent.; fixed carb., 71.47 per cent.; ash, 18.32 per cent.
26075	Coal.....	Bellevue Hospital.....		Moisture, 4.39 per cent.; vol. and comp., 5.92 per cent.; fixed carb., 77.66 per cent.; ash, 12.03 per cent.
24912	Coal.....	Bellevue Hospital.....		Moisture, 1.37 per cent.; vol. and comp., 6.83 per cent.; fixed carb., 72.65 per cent.; ash, 19.15 per cent.
24913	Coal.....	Bellevue Hospital.....		Moisture, 1.63 per cent.; vol. and comp., 6.11 per cent.; fixed carb., 74.96 per cent.; ash, 17.30 per cent.
24934	Coal.....	Bellevue Hospital (sample lost in moving).....		
24935	Coal.....	Bellevue Hospital (sample lost in moving).....		
25014	Coal.....	Bellevue Hospital.....		Moisture, 1.47 per cent.; vol. and comp., 6.32 per cent.; fixed carb., 74.29 per cent.; ash, 17.92 per cent.
25015	Coal.....	Bellevue Hospital.....		Moisture, 1.43 per cent.; vol. and comp., 6.20 per cent.; fixed carb., 73.56 per cent.; ash, 19.81 per cent.
25016	Coal.....	Bellevue Hospital.....		Moisture, 1.49 per cent.; vol. and comp., 6.39 per cent.; fixed carb., 69.50 per cent.; ash, 22.62 per cent.
25017	Coal.....	Bellevue Hospital.....		Moisture, 1.84 per cent.; vol. and comp., 6.56 per cent.; fixed carb., 69.72 per cent.; ash, 21.90 per cent.
25216	Coal.....	Bellevue Hospital.....		Moisture, 0.73 per cent.; vol. and comp., 6.64 per cent.; fixed carb., 71.72 per cent.; ash, 20.90 per cent.
25390	Coal.....	Bellevue Hospital.....		Moisture, 3.09 per cent.; vol. and comp., 5.45 per cent.; fixed carb., 78.39 per cent.; ash, 13.07 per cent.
25483	Coal.....	Bellevue Hospital.....		Moisture, 2.36 per cent.; vol. and comp., 3.26 per cent.; fixed carb., 71.98 per cent.; ash, 22.40 per cent.
25629	Coal.....	Bellevue Hospital.....		Moisture, 1.39 per cent.; vol. and comp., 7.23 per cent.; fixed carb., 72.08 per cent.; ash, 19.20 per cent.
25684	Coal.....	Bellevue Hospital.....		Moisture, 2.27 per cent.; vol. and comp., 5.93 per cent.; fixed carb., 74.07 per cent.; ash, 17.73 per cent.
25685	Coal.....	Bellevue Hospital.....		Moisture, 2.18 per cent.; vol. and comp., 5.58 per cent.; fixed carb., 73.16 per cent.; ash, 19.08 per cent.
25765	Coal.....	Bellevue Hospital.....		Moisture, 2.06 per cent.; vol. and comp., 5.95 per cent.; fixed carb., 77.56 per cent.; ash, 14.43 per cent.
25385	Coal.....	Riverside Hospital.....		Moisture, 2.86 per cent.; vol. and comp., 4.04 per cent.; fixed carb., 73.74 per cent.; ash, 19.36 per cent.
25386	Coal.....	Riverside Hospital.....		Moisture, 2.44 per cent.; vol. and comp., 4.41 per cent.; fixed carb., 82.20 per cent.; ash, 10.95 per cent.
26248	Coal.....	Dr. Wilson.....		Moisture, 3.76 per cent.; vol. and comp., 5.43 per cent.; fixed carb., 73.06 per cent.; ash, 17.76 per cent.
24984	Coal.....	Chief Clerk's Office.....		Moisture, 2.55 per cent.; vol. and comp., 4.90 per cent.; fixed carb., 71.97 per cent.; ash, 20.58 per cent.
24997	Coal.....	Chief Clerk's Office.....		Moisture, 3.53 per cent.; vol. and comp., 7.19 per cent.; fixed carb., 67.18 per cent.; ash, 22.10 per cent.
25018	Coal.....	Chief Clerk's Office.....		Moisture, 2.53 per cent.; vol. and comp., 5.73 per cent.; fixed carb., 74.97 per cent.; ash, 16.77 per cent.
25211	Coal.....	Chief Clerk's Office.....		Moisture, 2.10 per cent.; vol. and comp., 4.84 per cent.; fixed carb., 76.52 per cent.; ash, 16.54 per cent.
25264	Coal.....	Chief Clerk's Office.....		Moisture, 2.93 per cent.; vol. and comp., 4.63 per cent.; fixed carb., 74.08 per cent.; ash, 18.36 per cent.
25271	Coal.....	Chief Clerk's Office.....		Moisture, 0.72 per cent.; vol. and comp., 5.95 per cent.; fixed carb., 77.81 per cent.; ash, 15.52 per cent.
25272	Coal.....	Chief Clerk's Office.....		Moisture, 2.50 per cent.; vol. and comp., 5.09 per cent.; fixed carb., 74.60 per cent.; ash, 17.81 per cent.
25273	Coal.....	Chief Clerk's Office.....		Moisture, 2.43 per cent.; vol. and comp., 3.85 per cent.; fixed carb., 77.81 per cent.; ash, 15.91 per cent.
27282	Coal.....	Chief Clerk's Office.....		Moisture, 3.28 per cent.; vol. and comp., 3.91 per cent.; fixed carb., 67.81 per cent.; ash, 25.00 per cent.
25405	Coal.....	Chief Clerk's Office.....		Moisture, 3.10 per cent.; vol. and comp., 5.16 per cent.; fixed carb., 72.85 per cent.; ash, 18.89 per cent.
25433	Coal.....	Chief Clerk's Office.....		Moisture, 2.50 per cent.; vol. and comp., 4.13 per cent.; fixed carb., 74.46 per cent.; ash, 18.91 per cent.



No.	Sample.	From Whom Received.	From Whom Purchased.	Results.
26982	Coal.....	Chief Clerk's Office.....		Moisture, 3.27 per cent.; vol. and comp., 5.36 per cent.; fixed carb., 74.97 per cent.; ash, 16.40 per cent.
25174	Coal.....	Kingston Ave. Hospital.....		Moisture, 2.47 per cent.; vol. and comp., 5.31 per cent.; fixed carb., 76.39 per cent.; ash, 15.84 per cent.
25175	Coal.....	Kingston Ave. Hospital.....		Moisture, 3.41 per cent.; vol. and comp., 6.54 per cent.; fixed carb., 73.82 per cent.; ash, 16.24 per cent.
25176	Coal.....	Kingston Ave. Hospital.....		Moisture, 3.18 per cent.; vol. and comp., 6.88 per cent.; fixed carb., 74.25 per cent.; ash, 15.70 per cent.
26177	Coal.....	Kingston Ave. Hospital.....		Moisture, 3.52 per cent.; vol. and comp., 7.19 per cent.; fixed carb., 74.51 per cent.; ash, 14.80 per cent.
25178	Coal.....	Kingston Ave. Hospital.....		Moisture, 2.92 per cent.; vol. and comp., 4.56 per cent.; fixed carb., 79.57 per cent.; ash, 12.96 per cent.
25213	Coal.....	Kingston Ave. Hospital.....		Moisture, 2.89 per cent.; vol. and comp., 5.16 per cent.; fixed carb., 75.07 per cent.; ash, 16.88 per cent.
25214	Coal.....	Kingston Ave. Hospital.....		Moisture, 3.33 per cent.; vol. and comp., 6.40 per cent.; fixed carb., 74.51 per cent.; ash, 15.76 per cent.
25215	Coal.....	Bellevue Hospital.....		Moisture, 0.80 per cent.; vol. and comp., 6.20 per cent.; fixed carb., 71.59 per cent.; ash, 21.41 per cent.
25447	Coal.....	Kingston Ave. Hospital.....		Moisture, 2.12 per cent.; vol. and comp., 5.26 per cent.; fixed carb., 77.29 per cent.; ash, 15.33 per cent.
25456	Coal.....	Kingston Ave. Hospital.....		Moisture, 2.50 per cent.; vol. and comp., 4.99 per cent.; fixed carb., 84.64 per cent.; ash, 7.87 per cent.
25512	Coal.....	Kingston Ave. Hospital.....		Moisture, 2.56 per cent.; vol. and comp., 6.26 per cent.; fixed carb., 72.56 per cent.; ash, 18.62 per cent.
25513	Coal.....	Kingston Ave. Hospital.....		Moisture, 2.01 per cent.; vol. and comp., 6.55 per cent.; fixed carb., 73.25 per cent.; ash, 18.19 per cent.
25522	Coal.....	Kingston Ave. Hospital.....		Moisture, 2.86 per cent.; vol. and comp., 4.76 per cent.; fixed carb., 71.28 per cent.; ash, 21.10 per cent.
25536	Coal.....	Kingston Ave. Hospital.....		Moisture, 2.35 per cent.; vol. and comp., 4.79 per cent.; fixed carb., 75.51 per cent.; ash, 17.35 per cent.
25537	Coal.....	Kingston Ave. Hospital.....		Moisture, 2.09 per cent.; vol. and comp., 5.44 per cent.; fixed carb., 78.88 per cent.; ash, 13.59 per cent.
25560	Coal.....	Kingston Ave. Hospital.....		Moisture, 2.04 per cent.; vol. and comp., 4.72 per cent.; fixed carb., 73.99 per cent.; ash, 19.25 per cent.
25561	Coal.....	Kingston Ave. Hospital.....		Moisture, 2.29 per cent.; vol. and comp., 5.71 per cent.; fixed carb., 71.32 per cent.; ash, 20.68 per cent.
25644	Coal.....	Kingston Ave. Hospital.....		Moisture, 2.55 per cent.; vol. and comp., 5.18 per cent.; fixed carb., 71.83 per cent.; ash, 20.44 per cent.
25747	Coal.....	Kingston Ave. Hospital.....		Moisture, 4.03 per cent.; vol. and comp., 6.07 per cent.; fixed carb., 73.30 per cent.; ash, 16.60 per cent.
25748	Coal.....	Kingston Ave. Hospital.....		Moisture, 3.10 per cent.; vol. and comp., 6.10 per cent.; fixed carb., 75.46 per cent.; ash, 15.34 per cent.
25768	Coal.....	Kingston Ave. Hospital.....		Moisture, 4.40 per cent.; vol. and comp., 8.45 per cent.; fixed carb., 72.58 per cent.; ash, 14.57 per cent.

## Fish, Canned, Dried, etc.

No.	Sample.	Brand.	From Whom Purchased.	Results.
27834	Cod .....		Fair, Lennon & Co., No. 30 Gansevoort street..	Sample is free from boracic acid and sulphites.
27835	Cod .....		B. M. Shipman, No. 73 Hudson street.....	Sample is free from boracic acid and sulphites.
27836	Cod .....		B. M. Shipman, No. 73 Hudson street.....	Sample is free from boracic acid and sulphites.
27705	Fish .....		D. Pargano, No. 178 Hester street.....	Sample is free from boracic acid and sulphurous acid.
27846	Fish .....		Toker Storage and Forwarding Company, No. 105 Hudson street .....	Sample is free from boracic acid and sulphites.
24358	Salmon.....	Lotus .....	H. M. Anthony, No. 48 West Broadway.....	Sample is free from cottonseed and sesame oils.
24359	Salmon steak.....	Republic .....	Austin, Nichols & Co., No. 61 Hudson street....	Sample is free from cottonseed and sesame oils.
24361	Salmon.....	Silver Star.....	Kemp, Day & Co., No. 73 Hudson street.....	Sample is free from cottonseed and sesame oils.
24362	Salmon.....	Sunbeam .....	Austin, Nichols & Co., No. 61 Hudson street....	Sample is free from cottonseed and sesame oils.
24364	Salmon.....	Columbia River.....	Austin, Nichols & Co., No. 61 Hudson street....	Sample is free from cottonseed and sesame oils.
24942	Salmon.....	Reliance .....	C. Vagt & Co., No. 335 Seventh avenue.....	Sample is free from cottonseed and sesame oils.
24994	Salmon.....	Caesar .....	G. A. & P. Tea Company, No. 583 Eighth avenue.	Sample is free from cottonseed and sesame oils.
25440	Salmon.....	Ruby Red.....	Omanoff Bros., No. 1673 Lexington avenue.....	Sample is free from cottonseed and sesame oils.
25786	Salmon.....	Nabob .....	P. Hornstein, No. 1539 First avenue.....	Sample is free from poisonous metals, artificial coloring matter and cottonseed oil.
24371	Sardines.....	Royal Scarlet .....	R. C. Williams, No. 56 Hudson street.....	Sample is free from cottonseed and sesame oils.
24374	Sardines.....	Renard and Cie.....	R. C. Williams, No. 56 Hudson street.....	Sample is free from cottonseed and sesame oils.
24377	Sardines.....	Bon Appetit.....	R. C. Williams, No. 56 Hudson street.....	Sample is free from cottonseed and sesame oils.
24869	Sardines.....	Le Guern.....	M. Pollack, No. 873 Third avenue.....	Sample is free from cottonseed and sesame oils, heavy metals and borax.
24943	Sardines.....	Continental .....	C. Vagt & Co., No. 335 Seventh avenue.....	Sample contains cottonseed oil. Sesame oil absent.
24995	Sardines.....	Rosalind .....	Quinlan, 617 Eighth avenue.....	Sample is free from cottonseed and sesame oils.
Received From—				
25482	Sardines.....		John Scanlon, Seventeenth Precinct.....	No analysis made.

## Flavoring Extracts.

No.	Sample.	Brand.	From Whom Purchased.	Result.
23133	Almond .....			Sample is colored with a coal tar dye (tropaeolin).
27210	Bitter almond.....	Goodheart .....	R. M. Goodheart & Co., No. 174 Reade street....	Free from artificial color, coal tar dye, methyl alcohol, nitrobenzol and hydrocyanic acid.
27285	Bitter almond.....	Burton .....	W. Burton, No. 75 Barclay street.....	Free from artificial color, coal tar dye, methyl alcohol, nitrobenzol and hydrocyanic acid.
27318	Bitter almond.....	Conron .....	Conron & Co., No. 265 West Broadway.....	Free from artificial color, coal tar dye, methyl alcohol and nitrobenzol. Hydrocyanic acid present.
27356	Bitter almond.....	Lion .....	Rex Extract Company, No. 166 Duane street....	Free from artificial color, coal tar dye, methyl alcohol, nitrobenzol and hydrocyanic acid.
27368	Bitter almond.....	Bastine's .....	Bastine & Co., No. 19 Warren street.....	Free from artificial color, coal tar dye, methyl alcohol, nitrobenzol and hydrocyanic acid.
23974	Creme de menthe ess..			Found 39.76 per cent. alcohol by weight, 47.00 per cent. alcohol by volume. Free from wood alcohol and artificial color.
24588	Coumarin.....		Magnus & Lauer, No. 257 Pearl street.....	Sample C contains no acetanilid; Sample B gives strong isonitril reaction.
24598	Coumarin.....		Magnus & Lauer, No. 257 Pearl street.....	Sample gives strong isonitril reaction.
27367	Cinnamon.....	Bastine's .....	Bastine & Co., No. 19 Warren street.....	Sample is free from artificial color (coal tar) and wood alcohol. Cinnamon oil present.
27375	Clove.....	Bastine's .....	Bastine & Co., No. 19 Warren street.....	Sample is free from artificial color (coal tar) and wood alcohol. Clove oil present.
25517	Candy flavor.....		Henry Heide, No. 84 Vandam street.....	Sample is free from ether, artificial color (coal tar). Sample is oil of limes.
27214	Coffee .....	Goodheart.....	R. M. Goodheart & Co., No. 174 Reade street....	Sample is free from caramel and methyl alcohol. Caffeine present. True extract of coffee.
27630	Coffee .....			Sample is free from artificial coloring matter.
27249	Ginger ale ess.....		Fischer Chem. Imp. Company, No. 14 Platt street.	Sample is free from methyl alcohol; artificial color; turmeric.
27359	Ginger ale ess.....	Lion .....	Rex Extract Company, No. 166 Duane street....	Sample is free from methyl alcohol; artificial color (coal tar).
27407	Jamaica ginger.....	Thompson's .....	J. E. Thompson, No. 257 Greenwich street.....	Sample is free from methyl alcohol; artificial color (coal tar). Ginger present.
27216	Jamaica ginger.....	Goodheart .....	R. M. Goodheart & Co., No. 174 Reade street....	Sample is free from artificial color (coal tar) and methyl alcohol. Ginger present.
27233	Jamaica ginger.....		H. Baron & Co., No. 311 Broome street.....	Sample is free from artificial color (coal tar) and methyl alcohol. Capsicum present.



No.	Sample.	Brand.	From Whom Purchased.	Result.
27316	Jamaica ginger.....	Conron's .....	Conron & Co., No. 265 West Broadway.....	Sample is free from artificial color (coal tar) and methyl alcohol. Ginger present.
24768	Lemon.....	Ragus .....	.....	Sample is free from artificial color (coal tar) and methyl alcohol. Lemon oil (by polariscope), 0.53 per cent.; alcohol by volume, 54.14 per cent.; alcohol by weight, 46.41 per cent.
24491	Lemon.....	.....	.....	Sample is free from artificial color and methyl alcohol. Lemon oil (by polariscope), none. Alcohol by weight, 35.35 per cent.; alcohol by volume, 42.23 per cent.
25504	Lemon.....	Gunnison's .....	.....	Sp. gr., 0.9779; lemon oil by polariscope, none; alcohol by weight, 14.6; alcohol by volume, 18.1. Sample free from coal tar color and methyl alcohol.
25505	Lemon.....	Premier .....	.....	Sp. gr., 0.8723; alcohol by weight, 66.3; alcohol by volume, 73.2. Free from coal tar dye and wood alcohol. Lemon oil by polariscope, 3.59 per cent.
27051	Lemon.....	.....	John Woodos, No. 446 Broadway.....	Free from methyl alcohol.
27065	Lemon.....	Peerless .....	James Butler, No. 1042 Second avenue.....	Free from methyl alcohol.
27066	Lemon.....	Elite .....	Andrew Davey, No. 1063 Second avenue.....	Free from methyl alcohol.
27067	Lemon.....	Eagle .....	James Butler, No. 1042 Second avenue.....	Free from methyl alcohol.
27068	Lemon.....	Our Own.....	James Butler, No. 1042 Second avenue.....	Free from methyl alcohol.
27069	Lemon.....	Aetna .....	C. Hencken, No. 1101 Second avenue.....	Free from methyl alcohol.
27070	Lemon.....	Sauer's .....	J. H. Holsten, No. 238 East Fifty-sixth street....	Free from methyl alcohol.
27071	Lemon.....	Warfield .....	....., No. 1091 Second avenue....	Free from methyl alcohol.
27102	Lemon.....	Princess .....	H. N. Boehack, No. 749 Ninth avenue.....	Free from methyl alcohol. Lemon oil (by polariscope), 0.88 per cent.; artificial color, trace.
27103	Lemon.....	Queen .....	H. N. Boehack, No. 749 Ninth avenue.....	Free from methyl alcohol. Artificial color (coal tar dye) present. Lemon oil (by polariscope), 1.82 per cent.
27108	Lemon.....	Monogram .....	Pekovitch Bros., No. 879 Ninth avenue.....	Free from methyl alcohol. Artificial color (coal tar dye) present. Lemon oil (by polariscope), 0.12 per cent.
27110	Lemon.....	Chester's .....	A. F. Beckman, No. 840 Ninth avenue.....	Free from methyl alcohol. Artificial color (coal tar dye) present. Lemon oil (by polariscope), none.
27111	Lemon.....	Republic .....	L. Meyer, No. 813 Ninth avenue.....	Free from methyl alcohol and artificial color (coal tar). Lemon oil (by polariscope), 2.94 per cent.
27112	Lemon.....	Reliable .....	L. Meyer, No. 813 Ninth avenue.....	Free from methyl alcohol and artificial color (coal tar). Lemon oil (by polariscope), 0.41 per cent.
27204	Lemon.....	Bloomingdale .....	Bloomingdale Bros., Fifty-ninth street and Third avenue .....	Free from methyl alcohol. Artificial color (coal tar dye) present. Lemon oil (by polariscope), 0.18 per cent.
27211	Lemon.....	Goodheart's .....	R. M. Goodheart & Co., No. 174 Reade street....	Free from methyl alcohol and artificial coloring matter. Lemon oil (by polariscope), 4.53 per cent.
27217	Lemon.....	.....	R. M. Goodheart & Co., No. 174 Reade street....	Free from methyl alcohol. Artificial color (coal tar dye) present. Lemon oil (by polariscope), 2.29 per cent.
27226	Lemon.....	XXXX .....	H. Baron & Co., No. 311 Broome street.....	Sample free from methyl alcohol. Artificial color (coal tar dye) present. Lemon oil (by polariscope), 0.29 per cent.
27234	Lemon.....	.....	H. Baron & Co., No. 311 Broome street.....	Sample free from methyl alcohol. Artificial color (coal tar dye) present. Lemon oil (by polariscope), 0.41 per cent.
27241	Lemon.....	.....	Leo Benjamin, No. 1743 Avenue A.....	Sample free from methyl alcohol. Artificial color (coal tar dye) present. Lemon oil (by polariscope), 4.11 per cent.
27260	Lemon.....	Excellent .....	A. H. Bullard, No. 51 Vesey street.....	Sample free from methyl alcohol and artificial color (coal tar). Polariscopes (100 mm.) tube, 19.2.
27289	Lemon.....	Burton's .....	W. Burton, No. 75 Barclay street.....	Free from methyl alcohol. Artificial color (coal tar dye) present. Lemon oil (by polariscope), 0.12 per cent.
27320	Lemon.....	Conron's .....	Conron & Co., No. 265 West Broadway.....	Sample free from methyl alcohol and artificial color (coal tar dye). Lemon oil (by polariscope), 0.18 per cent.
27361	Lemon.....	Lion .....	Rex Extract Company, No. 166 Duane street.....	Sample free from methyl alcohol. Artificial color (coal tar) present. Lemon oil (by polariscope), 1.76 per cent.
27376	Lemon.....	Bastine's .....	Bastine & Co., No. 19 Warren street.....	Artificial color (coal tar) present. Lemon oil (by polariscope), 7.47 per cent.
27277	Lemon.....	"Jackson's Compound" .....	Bastine & Co., No. 19 Warren street.....	Sample is free from methyl alcohol. Artificial color, trace. Lemon oil (by polariscope), 0.23 per cent.
27381	Lemon.....	Gunnison's .....	.....	Sample is free from artificial color (coal tar). Alcohol by weight, 30.88 per cent.; alcohol by volume, 37.04 per cent.; lemon oil (by polariscope), 0.71 per cent.
27403	Lemon.....	Thompson's .....	J. E. Thompson, No. 257 Greenwich street.....	Sample is free from artificial color (coal tar) and methyl alcohol. Lemon oil (by polariscope), 5.71 per cent.
27405	Lemon.....	Hart's .....	J. E. Thompson, No. 257 Greenwich street.....	Sample is free from methyl alcohol; artificial color—turmeric. Lemon oil (by polariscope), 0.59 per cent.
27439	Lemon.....	Crown .....	A. H. Schultze Company, New York.....	Sample is free from methyl alcohol and artificial color (coal tar). Lemon oil (by polariscope), 0.176 per cent.
27543	Lemon peel.....	.....	Consumer's Flavoring Extract Company, No. 241 Greenwich street.....	Sample is free from methyl alcohol. Artificial color (coal tar) present. Lemon oil (by polariscope), 1.88 per cent.
27447	Lemon peel.....	.....	Wood & Selick, No. 36 Hudson street.....	Sample is free from methyl alcohol and artificial color (coal tar). Lemon oil (by polariscope), 7.35 per cent.
27101	Maraschino.....	Red Cross.....	M. Michalson & Son, New York.....	Sample is free from methyl alcohol, artificial color (coal tar), nitrobenzol and hydrocyanic acid.
24771	Orange.....	Ragus .....	.....	Sample is free from methyl alcohol and artificial color. Alcohol by weight, 37.73 per cent.; alcohol by volume, 44.86 per cent.; orange oil (by polariscope), 0.03 per cent.
27227	Orange.....	.....	H. Baron & Co., No. 311 Broome street.....	Sample is free from methyl alcohol. Artificial color (coal tar) present. Sample is adulterated.
27288	Orange.....	Burton's .....	W. Burton, No. 75 Barclay street.....	Sample is free from methyl alcohol. Artificial color (coal tar) present. Orange oil (by polariscope), 0.226 per cent.
27315	Orange.....	Conron's .....	Conron & Co., No. 265 West Broadway.....	Sample is free from methyl alcohol. Artificial color (coal tar) present. Orange oil (by polariscope), 0.19 per cent.
27362	Orange.....	Lion .....	Rex Extract Company, No. 166 Duane street.....	Sample is free from methyl alcohol and artificial color (coal tar). Orange oil (by polariscope), 0.08 per cent.
27373	Orange.....	Bastine's .....	Bastine & Co., No. 19 Warren street.....	Sample is free from methyl alcohol. Artificial color (coal tar) present. Orange oil (by polariscope), 3.02 per cent.
27394	Orange.....	.....	M. Tuscano, No. 163 Washington street.....	Sample is free from methyl alcohol. Artificial color (coal tar) present. Orange oil (by polariscope), 0.04 per cent.
27402	Orange.....	Thompson's .....	J. E. Thompson, No. 257 Greenwich street.....	Sample is free from methyl alcohol and artificial color (coal tar). Orange oil (by polariscope), 1.85 per cent.
27169	Oil, strawberry.....	.....	J. N. Hickok, No. 85 Murray street.....	Sample is free from sulphuric ether.
27170	Oil, pineapple.....	.....	J. N. Hickok, No. 85 Murray street.....	Sample is free from sulphuric ether.
27171	Oil, raspberry.....	.....	J. N. Hickok, No. 85 Murray street.....	Sample is free from sulphuric ether.
27443	Oil, lemon.....	.....	J. Cane & Son, No. 140 Reade street.....	Sample is free from sugar and artificial color (coal tar). Polariscopes, (5 per cent. solution 100 mm. tube), 11.1. Polarization much too high for lemon oil. Sample has odor of turpentine, but turpentine has not a high polarization.
27444	Oil, orange.....	.....	J. Cane & Son, No. 140 Reade street.....	Sample is free from methyl alcohol and artificial color (coal tar). Orange oil (by polariscope), 60.00 per cent.
27445	Oil, lemon.....	.....	Wood & Selick, No. 36 Hudson street.....	Sample is free from methyl alcohol and artificial color (coal tar). Sample is lemon oil.
27538	Oil, lemon.....	.....	Crandall & Godley, No. 157 Franklin street.....	Sample is free from methyl alcohol and artificial color (coal tar). Lemon oil (by polariscope), 98.80 per cent.
27539	Oil, orange.....	.....	Crandall & Godley, No. 157 Franklin street.....	Sample is free from methyl alcohol and artificial color (coal tar). Orange oil (by polariscope), 8.87 per cent.
27540	Oil strawberry .....	.....	Crandall & Godley, No. 157 Franklin street.....	Sample is free from methyl alcohol. Artificial color trace.
27542	Oil anise .....	Star.....	Consumer's Flavoring Extract Company, No. 241 Greenwich street .....	Sample is oil of anise.
27544	Oil wintergreen .....	.....	Consumer's Flavoring Extract Company, No. 241 Greenwich street .....	Sample is oil of wintergreen.



No.	Sample.	Brand.	From Whom Purchased.	Result.
27548	Oil anise .....		O. J. Weeks & Co., No. 91 Murray street.....	Sample is oil of anise.
27633	Orange paste .....			Sample is free from artificial coloring matter.
27099	Pistache .....		Robt. Reid & Co., No. 32 New Chambers street...	Sample is free from methyl alcohol. Artificial color (coal tar dye) present. Synthetic compound.
27100	Pistache.....	Red Cross .....	M. Michelson & Son, New York.....	Sample is free from artificial color (coal tar), methyl alcohol, nitrobenzol and hydrocyanic acid.
27213	Pistache.....	Goodheart .....	R. M. Goodheart & Co., No. 174 Reade street....	Sample is free from methyl alcohol, nitrobenzol and hydrocyanic acid. Artificial color (coal tar) present.
27286	Pistache.....	Burton's .....	W. Burton, No. 75 Barclay street.....	Sample is free from methyl alcohol, nitrobenzol and hydrocyanic acid. Artificial color (coal tar) present.
27391	Pistache .....		M. Tuscano, No. 163 Washington street.....	Sample is free from methyl alcohol, nitrobenzol and hydrocyanic acid. Artificial color (coal tar) present.
27406	Pistache.....	Thompson's .....	J. E. Thompson, No. 257 Greenwich street.....	Sample is free from methyl alcohol, nitrobenzol and hydrocyanic acid. Artificial color, trace.
27209	Pineapple.....	Goodheart's .....	R. M. Goodheart & Co., No. 174 Reade street....	Sample is free from artificial color (coal tar) and methyl alcohol.
27225	Pineapple .....		H. Baron & Co., No. 311 Broome street.....	Sample is free from methyl alcohol. Artificial color (coal tar dye) present. Synthetic compound.
27253	Pineapple essence.....		Fischer Chem. Imp. Co., No. 14 Platt street.....	Sample is free from methyl alcohol and artificial color (coal tar dye).
27257	Pineapple.....	Excellent .....	A. H. Bullard, No. 51 Vesey street.....	Sample is free from methyl alcohol and artificial color (coal tar dye).
27273	Pineapple syrup .....	Blue Bell.....	Fourteenth Street Store, Fourteenth street and Sixth avenue .....	Sample is free from artificial color (coal tar). Benzoic acid present.
27314	Pineapple.....	Conron's .....	Conron & Co., No. 265 West Broadway.....	Sample is free from methyl alcohol. Artificial color (coal tar) present.
27357	Pineapple.....	Lion .....	Rex Extract Company, No. 166 Duane street....	Sample is free from methyl alcohol and artificial color (coal tar).
27369	Pineapple.....	Bastine's .....	Bastine & Co., No. 19 Warren street.....	Sample is free from methyl alcohol and artificial color (coal tar).
27390	Pineapple .....		M. Tuscano, No. 163 Washington street.....	Sample is free from methyl alcohol and artificial color (coal tar).
27398	Pineapple.....	Thompson's .....	J. E. Thompson, No. 257 Greenwich street.....	Sample is free from methyl alcohol and artificial color (coal tar).
27399	Pure almond .....	Thompson's.....	J. E. Thompson, No. 257 Greenwich street.....	Sample is free from methyl alcohol, artificial color (coal tar), nitrobenzol and hydrocyanic acid.
27235	Peach .....		H. Baron & Co., No. 311 Broome street.....	Sample is free from methyl alcohol. Artificial color (coal tar dye) present. Synthetic compound.
27250	Peach fruit essence.....		Fischer Chem. Imp. Co., No. 14 Platt street.....	Sample is free from methyl alcohol. Artificial color (coal tar) present.
27545	Peach .....		Consumers' Flavoring Extract Company, No. 241 Greenwich street .....	Sample is free from methyl alcohol. Artificial color (coal tar) present.
27207	Raspberry .....	Goodheart's.....	R. M. Goodheart & Co., No. 174 Reade street....	Sample is free from methyl alcohol. Artificial color (coal tar) present.
27228	Raspberry .....		H. Baron & Co., No. 311 Broome street.....	Sample is free from methyl alcohol and artificial color (coal tar). Coloring matter gives reactions corresponding to cochineal.
27254	Raspberry fruit essence.....		Fischer Chem. Imp. Co., No. 14 Platt street.....	Sample is free from methyl alcohol. Artificial color, trace.
27258	Raspberry.....	Excellent .....	A. H. Bullard, No. 51 Vesey street.....	Sample is free from methyl alcohol and artificial color (coal tar).
27284	Raspberry.....	Burton's .....	W. Burton, No. 75 Barclay street.....	Sample is free from methyl alcohol. Artificial color (coal tar) present.
27312	Raspberry.....	Conron's .....	Conron & Co., No. 265 West Broadway.....	Sample is free from methyl alcohol. Artificial color (coal tar) present.
27358	Raspberry.....	Lion .....	Rex Extract Company, No. 166 Duane street....	Sample is free from methyl alcohol. Artificial color, trace.
27370	Raspberry.....	Bastine's .....	Bastine & Co., No. 19 Warren street.....	Sample is free from methyl alcohol. Artificial color (coal tar) present.
27400	Raspberry.....	Thompson's .....	J. E. Thompson, No. 257 Greenwich street.....	Sample is free from methyl alcohol and artificial color (coal tar).
26404	Raspberry .....		Kalman & Coopersmith, No. 284 Monroe street...	Sample is free from methyl alcohol. Artificial color (coal tar) present.
27577	Raspberry .....		A. Essing, No. 380 Pearl street.....	Sample is free from methyl alcohol. Artificial color (coal tar), trace.
24770	Raspberry.....	Ragus .....		Sample contains artificial color.
24901	Raspberry .....		Max Steinberg, No. 1687 Park avenue.....	Sample is free from artificial color.
27222	Rose .....		H. Baron & Co., No. 311 Broome street.....	Sample is free from methyl alcohol. Artificial color (coal tar dye) present. Sample is adulterated.
27283	Rose.....	Burton's .....	W. Burton, No. 75 Barclay street.....	Sample is free from methyl alcohol. Artificial color (coal tar dye) present.
27374	Rose.....	Bastine's .....	Bastine & Co., No. 19 Warren street.....	Sample is free from methyl alcohol and artificial color.
27401	Rose.....	Thompson's .....	J. E. Thompson, No. 257 Greenwich street.....	Sample is free from methyl alcohol. Artificial color, trace.
27572	Rose .....		Max Steinberg, No. 1687 Park avenue.....	Sample is free from methyl alcohol. Artificial color (coal tar) present.
27232	Sarsaparilla .....		H. Baron & Co., No. 311 Broome street.....	Sample is free from methyl alcohol. Artificial color present. Oil of sassafras present.
27251	Sarsaparilla fruit essence.....		Fischer Chem. Imp. Co., No. 14 Platt street.....	Sample is free from artificial color. Sassafras and wintergreen oils present.
27259	Sarsaparilla.....	Excellent .....	A. H. Bullard, No. 51 Vesey street.....	Sample is free from artificial color. Sassafras and wintergreen oils present.
27319	Sarsaparilla.....	Conron's .....	Conron & Co., No. 265 West Broadway.....	Sample is free from methyl alcohol. Sassafras and wintergreen oils present. Artificial color (coal tar) present.
27631	Sarsaparilla .....			Sample is free from artificial coloring matter.
24769	Strawberry.....	Ragus .....		Artificial coloring matter present.
24902	Strawberry .....		Max Steinberg, No. 1687 Park avenue.....	Artificial coloring matter present.
26403	Strawberry .....		Kalman & Coopersmith, No. 284 Monroe street...	Sample is free from preservatives. Coal tar coloring matter present.
26919	Strawberry .....		Abr. Marcus, No. 56 East One Hundred and First street .....	Sample is free from methyl alcohol. Coal tar color present.
27215	Strawberry.....	Goodheart's .....	R. M. Goodheart & Co., No. 174 Reade street....	Sample is free from methyl alcohol and artificial color (coal tar).
27224	Strawberry .....		H. Baron & Co., No. 311 Broome street.....	Sample is free from methyl alcohol. Artificial color (coal tar) present. Synthetic compound.
27255	Strawberry fruit essence.....		Fischer Chem. Imp. Co., No. 14 Platt street.....	Sample is free from methyl alcohol. Artificial color, trace.
27256	Strawberry.....	Excellent .....	A. H. Bullard, No. 51 Vesey street.....	Sample is free from methyl alcohol. Artificial color, trace.
27313	Strawberry.....	Conron's .....	Conron & Co., No. 265 West Broadway.....	Sample is free from methyl alcohol. Artificial color (coal tar) present.
27360	Strawberry.....	Lion .....	Rex Extract Company, No. 166 Duane street....	Sample is free from methyl alcohol. Artificial color, trace.
27371	Strawberry.....	Bastine's .....	Bastine & Co., No. 19 Warren street.....	Sample is free from methyl alcohol. Artificial color (coal tar) present.
27393	Strawberry .....		M. Tuscano, No. 163 Washington street.....	Sample is free from methyl alcohol. Artificial color (coal tar) present.
27409	Strawberry.....	Thompson's .....	J. E. Thompson, No. 257 Greenwich street.....	Sample is free from methyl alcohol. Artificial color (coal tar) present.
27541	Strawberry .....		Crandall & Godley, No. 157 Franklin street.....	Sample is free from methyl alcohol and artificial color (coal tar).
27571	Strawberry .....		Max Steinberg, No. 1687 Park avenue.....	Sample is free from methyl alcohol. Artificial color (coal tar) present.
27578	Tutti frutti .....		A. Essing, No. 380 Pearl street.....	Sample is free from methyl alcohol. Artificial color (coal tar) and sulphuric ether.
24599	Vanillodeur .....			Sample is free from acetanilid.
24767	Vanilla.....	Ragus .....		Sample is free from methyl alcohol. Vanillin, 0.86 per cent.; coumarin, 0.06 per cent.; alcohol by weight, 17.98 per cent.; alcohol by volume, 23.01 per cent. Caramel present.
25443	Vanilla.....	Burton's .....	R. I. Brooks, No. 714 Third avenue.....	Sample is free from methyl alcohol and artificial coloring. Vanillin, 0.18 per cent.; coumarin, 0.00 per cent.; alcohol by weight, 31.20 per cent.; alcohol by volume, 39.00 per cent.
25506	Vanilla.....	Gunnison Double.....		Sample is free from methyl alcohol and artificial color. Vanillin, 0.18 per cent.; coumarin, 0.04 per cent.; alcohol by weight, 12.43 per cent.; alcohol by volume, 15.86 per cent.
25507	Vanilla.....	Premium .....		Sample is free from methyl alcohol and artificial color. Vanillin, 0.134 per cent.; coumarin, none; alcohol by weight, 17.40 per cent.; alcohol by volume, 22.27 per cent.
27052	Vanilla .....		G. Lowell & Co., No. 73 Murray street.....	Sample is free from methyl alcohol.
27072	Vanilla.....	Atlas .....	Andrew Davey, No. 1063 Second avenue.....	Sample is free from methyl alcohol.



No.	Sample.	Brand.	From Whom Purchased.	Result.
27073	Vanilla.....	Continental .....	Andrew Davey, No. 1063 Second avenue.....	Sample is free from methyl alcohol.
27074	Vanilla.....	Sauer's .....	J. H. Holsten, No. 238 East Fifty-sixth street....	Sample is free from methyl alcohol.
27075	Vanilla.....	Savoy .....	Store, No. 1091 Second avenue.....	Sample is free from methyl alcohol.
27104	Vanilla.....	Empire State .....	Peklovitch Bros., No. 879 Ninth avenue.....	Sample is free from methyl alcohol and acetanilid. Coumarin, 0.100 per cent.; vanillin, 0.177 per cent.
27105	Vanilla.....	Taylor's .....	Peklovitch Bros., No. 879 Ninth avenue.....	Sample is free from methyl alcohol. Coumarin, 0.06 per cent.; vanillin, 0.23 per cent.
27106	Vanilla.....	White Rose .....	Peklovitch Bros., No. 879 Ninth avenue.....	Sample is free from methyl alcohol and coumarin. Vanillin, 0.088 per cent.
27109	Vanilla .....	.....	Peklovitch Bros., No. 879 Ninth avenue.....	Sample is free from methyl alcohol. Coumarin, 0.095 per cent.; vanillin, 0.151 per cent.
27205	Vanilla.....	Yale .....	R. M. Goodheart & Co., No. 174 Reade street....	Sample is free from methyl alcohol. Coumarin, 0.115 per cent.; vanillin, 0.73 per cent.
27206	Vanilla.....	Manhattan .....	R. M. Goodheart & Co., No. 174 Reade street....	Sample is free from methyl alcohol. Coumarin, 0.53 per cent.; vanillin, 0.100 per cent.
27208	Vanilla.....	Goodheart's .....	R. M. Goodheart & Co., No. 174 Reade street....	Sample is free from methyl alcohol and coumarin. Vanillin, 0.154 per cent.
27212	Vanilla.....	Goodheart's .....	R. M. Goodheart & Co., No. 174 Reade street....	Sample is free from methyl alcohol. Coumarin, 0.013 per cent.; vanillin, 0.141 per cent.
27218	Vanilla .....	.....	R. M. Goodheart & Co., No. 174 Reade street....	Sample is free from methyl alcohol. Coumarin, 0.064 per cent.; vanillin, 0.061 per cent.
				Sample is free from acetanilid.
27219	Vanilla.....	Goodheart's .....	R. M. Goodheart & Co., No. 174 Reade street....	Sample is free from methyl alcohol. Coumarin, 0.044 per cent.; vanillin, 0.073 per cent.
27223	Vanilla .....	.....	H. Baron & Co., No. 311 Broome street.....	Sample is free from methyl alcohol. Coumarin, 0.042 per cent.; vanillin, 0.301 per cent.
				Sample is free from acetanilid.
27240	Vanilla .....	.....	Leo Benjamin, No. 1743 Avenue A.....	Sample is free from methyl alcohol. Coumarin, 0.192 per cent.; vanillin, 0.346 per cent.
27252	Vanilla.....	Mexican .....	Fischer Chem. Imp. Co., No. 14 Platt street.....	Sample is free from methyl alcohol. Coumarin, 0.045 per cent.; vanillin, 0.043 per cent.
27261	Vanilla.....	Excellent .....	A. H. Bullard, No. 51 Vesey street.....	Sample is free from methyl alcohol. Coumarin, 0.016 per cent.; vanillin, 0.240 per cent.
27293	Vanilla.....	Burton's .....	W. Burton, No. 75 Barclay street.....	Sample is free from acetanilid. Coumarin, 0.116 per cent.; vanillin, 0.127 per cent.
27629	Vanilla .....	.....	.....	Sample is free from artificial coloring matter.
27317	Vanilla.....	Conron's .....	Conron & Co., No. 265 West Broadway.....	Sample is free from methyl alcohol. Coumarin, 0.152 per cent.; vanillin, 0.291 per cent.
27380	Vanilla.....	Gunnison's .....	.....	Sample is free from methyl alcohol. Coumarin, 0.444 per cent.; vanillin, 0.146 per cent.
27395	Vanilla .....	.....	M. Tuscano, No. 163 Washington street.....	Sample is free from methyl alcohol. Coumarin, 0.190 per cent.; vanillin, 0.249 per cent.
				Sample is free from acetanilid.
27442	Vanilla.....	Royal .....	M. Bower & Co., No. 165 Chambers street.....	Sample is free from methyl alcohol. Coumarin, 0.168 per cent.; vanillin, 0.195 per cent.
27392	Lemon .....	.....	M. Tuscano, No. 163 Washington street.....	Artificial color (coal tar) present. Methyl alcohol, none.
				Lemon oil (by polariscope), none.
27632	Lemon paste .....	.....	.....	Sample is free from artificial coloring matter.

## Fruits, Canned, Dried, etc.

No.	Sample.	Brand.	From Whom Purchased.	Results.
27634	Cherries .....	.....	.....	Sample is free from artificial coloring matter.
27695	Cherries .....	.....	Crown Cordial and Extract Company, No. 18 Desbrosses street .....	Sample is free from artificial coloring matter (coal tar dyes), and from salicylic, benzoic and boric acids and borates.
24836	Peaches.....	National .....	Bloomington Bros., Fifty-ninth street and Third avenue .....	Sample is free from salicylic, benzoic acids and artificial coloring matter (coal tar dye).
25487	Peaches.....	Mountain Beauty.....	Isaac Friedmann, No. 1507 Second avenue.....	Sample is free from boric acid or borax, benzoic and salicylic acids, formaldehyde, sulphites, poisonous metals and artificial color.
25544	Peaches.....	Amcehat .....	.....	Sample is free from coal tar dye. Black color due to the presence of tannate of iron. Contains iron, expressed as Fe <sub>2</sub> O <sub>3</sub> —0.073 per cent.
27687	Pineapple .....	.....	Crown Cordial and Extract Company, No. 18 Desbrosses street .....	Sample is free from artificial coloring matter (coal tar dye), from salicylic, benzoic and boric acids and borates.
27688	Pineapple .....	.....	Crown Cordial and Extract Company, No. 18 Desbrosses street .....	Sample is free from salicylic, benzoic and boric acids and borates, from artificial coloring matter (coal tar dye).
27689	Peach .....	.....	Crown Cordial and Extract Company, No. 18 Desbrosses street .....	Sample is free from artificial coloring matter (coal tar dye), from salicylic, benzoic and boric acids and borates.
27690	Peach .....	.....	Crown Cordial and Extract Company, No. 18 Desbrosses street .....	Sample is free from salicylic, benzoic and boric acids and borates, from artificial coloring matter (coal tar dye).
27693	Raspberry .....	.....	Crown Cordial and Extract Company, No. 18 Desbrosses street .....	Sample is free from artificial coloring matter (coal tar dye), from salicylic, benzoic and boric acids and borates.
27694	Raspberry .....	.....	Crown Cordial and Extract Company, No. 18 Desbrosses street .....	Sample is free from salicylic, benzoic and boric acids and borates, from artificial coloring matter (coal tar dye).
24941	Strawberries.....	Essie Br.....	Jas. Butler, No. 1042 Second avenue.....	Sample is free from artificial coloring matter (coal tar dye), from benzoic acid and salicylic acid.
27496	Strawberries.....	Heinz .....	.....	Sample is free from artificial color (coal tar) and glucose. Cane sugar present.
27691	Strawberries .....	.....	Crown Cordial and Extract Company, No. 18 Desbrosses street .....	Sample is free from artificial coloring matter (coal tar dye), from salicylic, benzoic and boric acids and borates.
27692	Strawberries .....	.....	Crown Cordial and Extract Company, No. 18 Desbrosses street .....	Sample is free from salicylic, benzoic and boric acids and borates, from artificial coloring matter (coal tar dye).

## Jams, Jellies, Honey, Preserves, etc.

No.	Sample.	Brand.	From Whom Purchased.	Results.
25468	Jam.....	Damson .....	H. Eitzen, No. 1284 Amsterdam avenue.....	Direct reading, 200 mm. tube at 13.0 degrees C. equals plus 102.2; invert reading, 200 mm. tube at 13.0 degrees C. equals plus 90.0. Contains benzoic acid and artificial coloring matter (coal tar dye).
24944	Peach jam.....	Extra Quality .....	C. Vagt, No. 202 West Sixtieth street.....	Direct reading, 200 mm. tube at 16 degrees C. equals plus 71; invert reading, 200 mm. tube at 20 degrees C. equals plus 22.0. Free from artificial coloring matter (coal tar colors). Benzoic acid present. Sample made up with glucose.
27637	Peach jam .....	.....	.....	Sample is free from artificial coloring matter.
27636	Pineapple jam .....	.....	.....	Sample is free from artificial coloring matter.
25393	Red raspberry jam.....	Atlas .....	Andrew Davey, No. 244 Avenue A.....	Direct reading, 200 mm. tube at 21 degrees C. equals plus 99; invert reading, 200 mm. tube at 21 degrees C. equals plus 92. Sample is free from artificial coloring matter (coal tar dye), benzoic and salicylic acids.



No.	Sample.	Brand.	From Whom Purchased.	Results.
27635	Raspberry jam .....			Sample is free from artificial coloring matter.
24946	Strawberry jam.....		T. Assanti, No. 44 West End avenue.....	Direct reading, 200 mm. tube 20 degrees C. equals plus 127.0; invert reading, 200 mm. tube 20 degrees C. equals plus 124.0. Sample is free from artificial coloring matter (coal tar dye), benzoic and salicylic acids. Sample made up with glucose.
25510	Strawberry jam.....	Republic .....		Direct reading, 200 mm. tube at 13 degrees C. equals plus 23.0; invert reading, 200 mm. tube at 13 degrees C. equals minus 24.0. Sample is free from benzoic and salicylic acids. Artificial coloring matter (coal tar dye) present.
25511	Strawberry jam.....	Thistle .....		Direct reading, 200 mm. tube at 13 degrees C. equals plus 32.0; invert reading, 200 mm. tube at 13 degrees C. equals plus 11.2. Sample is free from artificial coloring matter (coal tar dyes). Benzoic acid present. Sample is made up with glucose.
24992	Apple jelly .....		P. Praker, No. 2515 Eighth avenue.....	Direct reading, 200 mm. tube at 20 degrees C. equals plus 137.0; invert reading, 200 mm. tube at 21 degrees C. equals plus 132.5. Sample is free from artificial coloring matter (coal tar dye), benzoic and salicylic acids.
24973	Currant jelly .....			Direct reading, 200 mm. tube at 20 degrees C. equals plus 9.6; invert reading, 200 mm. tube at 20 degrees C. equals minus 23.0. Sample is free from artificial coloring matter (coal tar colors), salicylic and benzoic acids. Sample unadulterated.
26894	Currant jelly .....			Sugar (direct reading), equals plus 11.4; sugar (indirect reading), equals minus 23.6. Sample is free from artificial color (coal tar). Sample is unadulterated.
26894	Currant jelly.....			Sugar (direct reading), equals plus 11.4; sugar (indirect reading), equals minus 23.6. Free from artificial color (coal tar) and gelatin. Sample is unadulterated.
27500	Currant jelly.....	Heinz .....		Sample is free from artificial color (coal tar) and glucose. Cane sugar present.
27501	Currant jelly.....	Premier .....		Sample is free from artificial color (coal tar) and glucose. Cane sugar present.
24991	Quince jelly .....			Direct reading, 200 mm. tube at 21 degrees C. equals plus 135.4; invert reading, 200 mm. tube at 20 degrees C. equals plus 130.4. Sample is free from artificial coloring matter (coal tar colors), benzoic and salicylic acids.
24945	Raspberry jelly.....	Acme .....	Fitzpatrick Bros., No. 8 Amsterdam avenue.....	Direct reading, 20 degrees C. in 200 mm. tube equals plus 20.4; invert reading, 21 degrees C. in 200 mm. tube equals minus 21.0. Sample is free from artificial coloring matter (coal tar colors), benzoic and salicylic acids.
24972	Red currant jelly.....			Direct reading in 200 mm. tube at 20 degrees C. equals plus 1.0; invert reading in 200 mm. tube at 20 degrees C. equals minus 20.0. Sample is free from artificial coloring (coal tar colors), salicylic and benzoic acids. Sample is unadulterated.
25173	Honey.....	J. W. .....	H. Levin, No. 77 Second avenue.....	Direct reading, 200 mm. tube at 14 degrees C. equals minus 15; invert reading, 200 mm. tube at 14 degrees C. equals minus 20. Sample appears to be unadulterated.
27202	Honey (pure clover).....	Golden Tree .....	Bloomington Bros., Fifty-ninth street and Third avenue .....	Sample is honey.
27203	Honey.....	California White Sage.....	Bloomington Bros., Fifty-ninth street and Third avenue .....	Sample is honey.

## Meats—Canned, Preserved, etc.

No.	Sample.	From Whom Purchased.	Results.
25834	Blood pudding.....	Rohe & Bro., No. 523 West Thirty-sixth street.....	Free from preservatives and artificial coloring matter.
25853	Blood pudding.....	Geo. Wittman, No. 338 East One Hundred and Second street.	Free from preservatives and artificial coloring matter.
25924	Blood pudding.....	Fred Winter, No. 692 Tenth avenue.....	Free from borax.
25940	Blood pudding.....	Theo. Bertsch, No. 1658 Third avenue.....	Free from preservatives and artificial coloring matter.
25946	Blood pudding, smoked.....	Peter Stenger, No. 1475 First avenue.....	Free from borax.
25947	Blood pudding, dry.....	Peter Stenger, No. 1475 First avenue.....	Free from preservatives and artificial coloring matter.
25962	Blood pudding.....	Gustav Reiss, No. 617 Ninth avenue.....	Free from preservatives and artificial coloring matter.
26000	Blood pudding.....	Geo. Bauer, No. 1208 First avenue.....	Free from preservatives and artificial coloring matter.
26039	Blood pudding.....	Chris. Widmann, No. 1708 First avenue.....	Free from borax.
26051	Blood pudding.....	Phillip Spitzhoff, No. 659 Ninth avenue.....	Free from borax.
26060	Blood pudding.....	A. Becker, No. 2690 Third avenue.....	Free from borax.
26070	Blood pudding.....	Jacob Muller, No. 671 Eleventh avenue.....	Free from borax.
26078	Blood pudding, smoked.....	Alfred Naef, No. 2185 Second avenue.....	Free from borax.
26156	Blood pudding, domestic.....	John Schumker, No. 966 East One Hundred and Thirty-fourth street .....	Free from preservatives and coloring matter.
26161	Blood pudding, domestic.....	John Leim, No. 133 Lincoln avenue.....	Free from preservatives and coloring matter.
26196	Blood pudding.....	John Rollman, No. 763 Columbus avenue.....	Free from preservatives and coloring matter.
26203	Blood pudding.....	Chas. Beckstein, No. 793 Columbus avenue.....	Free from preservatives and coloring matter.
26222	Blood pudding.....	Eberhard Pantel, No. 1825 Second avenue.....	Free from preservatives and coloring matter.
26225	Blood pudding, dried.....	Oscar Pache, No. 1744 Second avenue.....	Free from preservatives and coloring matter.
26274	Blood pudding.....	Eliz Kogler, No. 8 Greenwich street.....	Free from preservatives and coloring matter.
26279	Blood pudding.....	John Dreyer, No. 152 West street.....	Free from preservatives and coloring matter.
26319	Blood pudding.....	Henry Eberle, No. 110 Amsterdam avenue.....	Sample contains borax.
26321	Blood pudding.....	Geo. Gingerich, No. 70 Amsterdam avenue.....	Free from borax and sulphites.
26343	Blood pudding.....	Wm. G. Wagner, No. 573 First avenue.....	Free from borax and sulphites.
26369	Blood pudding.....	C. Schneider, No. 77 Broome street.....	Free from borax and sulphites.
26380	Blood pudding.....	Christ Seher, No. 1887 Third avenue.....	Free from borax.
26389	Blood pudding.....	Nauss Bros., No. 2291 Third avenue.....	Free from borax.
26392	Blood pudding.....	Frank Schwintek, No. 1979 Third avenue.....	Free from borax.
26406	Blood pudding.....	John Hohloch, No. 1569 Second avenue.....	Free from borax and sulphites.
26408	Blood pudding.....	Louis Grimm, No. 1427 Second avenue.....	Free from borax and sulphites.
26446	Blood pudding.....	Chas. Beckstein, No. 793 Columbus avenue.....	Free from preservatives and artificial coloring matter.
26472	Blood pudding.....	John Rollman, No. 763 Columbus avenue.....	Free from preservatives and artificial coloring matter.
26478	Blood pudding.....	Wm. Sutton, No. 829 First avenue.....	Free from preservatives and artificial coloring matter.
26510	Blood pudding.....	Wm. Klingler, No. 2634 Third avenue.....	Free from borax, sulphites and artificial coloring matter.
26515	Blood pudding.....	Adolph Becker, No. 2690 Third avenue.....	Free from borax, sulphites and artificial coloring matter.
26523	Blood pudding.....	John Heim, No. 133 Lincoln avenue.....	Free from borax, sulphites and artificial coloring matter.
26804	Blood pudding.....	Geo. Nolberger, No. 1464 Amsterdam avenue.....	Free from boric and sulphurous acids, artificial coloring matter, benzoic and salicylic acids.
26807	Blood pudding.....	August Essig, No. 25 Manhattan street.....	Free from coloring matter, boric, sulphurous, benzoic and salicylic acids.
26853	Blood pudding.....	Joseph Viegel, No. 1976 Amsterdam avenue.....	Free from preservatives and artificial coloring matter.
25832	Bologna .....	Rohe Bros., No. 523 West Thirty-sixth street.....	Free from preservatives and artificial coloring matter.
25844	Bologna .....	H. Siegel, Fourteenth street and Sixth avenue.....	Free from preservatives and artificial coloring matter.
25847	Bologna .....	Adams, Twenty-first street and Sixth avenue.....	Free from preservatives. Contains an artificial coloring matter.
25848	Bologna .....	Simpson & Crawford, Nineteenth street and Sixth avenue....	Free from preservatives. Contains an artificial coloring matter.
25849	Bologna .....	Bloomington Brothers, Fifty-ninth street and Third avenue...	Free from preservatives and artificial coloring matter.
25850	Bologna .....	Geo. Wittman, No. 338 East One Hundred and Second street..	Free from borax.
25854	Bologna .....	Geo. Herold, Second avenue and One Hundred and Second street .....	Free from borax.



No.	Sample.	From Whom Purchased.	Results.
25858	Bologna	C. F. Schaeue & Co., No. 2060 Third avenue.	Free from preservatives and artificial coloring matter.
25861	Bologna	Fred Benz, No. 412 East One Hundred and Second street.	Free from preservatives and artificial coloring matter.
25863	Bologna, smoked liver.	Fischer & Co., No. 2325 Second avenue.	Free from borax.
25865	Bologna, meat.	Fischer & Co., No. 2325 Second avenue.	Free from borax.
25866	Bologna, ham.	Fischer & Co., No. 2325 Second avenue.	Sample contains borax.
25873	Bologna, blood.	Otto Stahl, No. 2332 Third avenue.	Free from borax.
25874	Bologna, smoked blood.	Otto Stahl, No. 2332 Third avenue.	Free from borax.
25880	Bologna	Goldman & Schwasheimer, No. 83 Third avenue.	Contains borax.
25885	Bologna	M. A. Buchsbaum, No. 523 Ninth avenue.	Free from preservatives and artificial coloring matter.
25889	Bologna, blood.	Richard Weber, Third avenue, between One Hundred and Nineteenth and One Hundred and Twentieth streets.	Free from preservatives and artificial coloring matter.
25892	Bologna, meat.	Richard Weber, Third avenue, between One Hundred and Nineteenth and One Hundred and Twentieth streets.	Free from borax.
25893	Bologna, meat.	Louis Grimm, No. 1427 Second avenue.	Contains borax. Free from artificial coloring matter.
25901	Bologna, meat.	John Hohloch, No. 1569 Second avenue.	Free from preservatives and artificial coloring matter.
25906	Bologna, meat.	Woelfle & Pfeiffer, No. 1530 Second avenue.	Free from borax.
25908	Bologna, salami.	Solomon Muntz, No. 208 Delancey street.	Free from preservatives and artificial coloring matter.
25909	Bologna, bread.	Solomon Muntz, No. 208 Delancey street.	Free from preservatives and artificial coloring matter.
25910	Bologna, smoked.	Solomon Muntz, No. 208 Delancey street.	Free from preservatives and artificial coloring matter.
25912	Bologna, bread.	Sussman Volk, No. 88 Delancey street.	Free from preservatives and artificial coloring matter.
25915	Bologna, smoked coverlat.	Sussman Volk, No. 88 Delancey street.	Free from borax.
25916	Bologna, yaeger.	Frederick Schempff, No. 1540 Second avenue.	Contains borax. Free from artificial coloring matter.
25918	Bologna, blood.	Frederick Schempff, No. 1540 Second avenue.	Free from borax.
25920	Bologna	A. Buchsbaum Company, No. 729 Ninth avenue.	Free from preservatives and artificial coloring matter.
25921	Bologna	Fred Winter, No. 692 Tenth avenue.	Contains borax. Free from artificial coloring matter.
25923	Bologna	John T. Muller, No. 724 Tenth avenue.	Contains borax. Free from artificial coloring matter.
25939	Bologna, meat.	Theo. Bertsch, No. 1658 Third avenue.	Free from preservatives and artificial coloring matter.
25944	Bologna, bauren.	W. Holschuh, No. 1605 First avenue.	Free from borax.
25945	Bologna, bauren.	W. Holschuh, No. 1605 First avenue.	Free from preservatives and artificial coloring matter.
25949	Bologna, ham.	Peter Stenger, No. 1475 First avenue.	Free from preservatives and artificial coloring matter.
25951	Bologna, beef.	Anton Renschler, No. 3405 Third avenue.	Free from borax.
25954	Bologna, ham.	F. P. Brauer, corner of Clay avenue and One Hundred and Seventy-fourth street.	Contains borax.
25956	Bologna, beef.	G. Brenzinger, No. 3022 Third avenue.	Contains borax.
25937	Bologna, beef.	F. E. Brauer, corner of Clay avenue and One Hundred and Seventy-fourth street.	Contains borax.
25959	Bologna, beef.	A. Essig, No. 25 Manhattan street.	Free from borax.
25960	Bologna, beef.	E. A. Michels' Sons, No. 2914 Third avenue.	Contains borax.
25961	Bologna	Geo. Kems, No. 496 Ninth avenue.	Free from borax.
25968	Bologna, salami.	Jacob Keiser, No. 1507 First avenue.	Free from preservatives and artificial coloring matter.
25969	Bologna, meat.	Jacob Keiser, No. 1507 First avenue.	Free from preservatives and artificial coloring matter.
25972	Bologna, garlic.	Bernstein, Greenberg Company, No. 82 Rivington street.	Free from preservatives and artificial coloring matter.
25974	Bologna, blood.	R. Kallensee, No. 1650 Third avenue.	Free from preservatives and artificial coloring matter.
25975	Bologna, meat.	R. Kallensee, No. 1650 Third avenue.	Free from preservatives and artificial coloring matter.
25975	Bologna, meat.	R. Kallensee, No. 1650 Third avenue.	Contains borax.
25984	Bologna, meat.	Vaclav Novak, No. 1363 First avenue.	Free from preservatives and artificial coloring matter.
25989	Bologna, meat.	Antonio Martinek, No. 1353 First avenue.	Free from borax.
25990	Bologna	Antonio Martinek, No. 1353 First avenue.	Free from borax.
25992	Bologna, bauren.	Frank Mosner, No. 1373 First avenue.	Contains borax.
25995	Bologna, meat.	Alois Zoufaly, No. 1356 First avenue.	Contains borax.
25996	Bologna, cervelat.	Alois Zoufaly, No. 1356 First avenue.	Free from borax.
25997	Bologna, blood.	Alois Zoufaly, No. 1356 First avenue.	Free from borax.
25998	Bologna, garlic.	Andrew Adamko, No. 1296 First avenue.	Free from preservatives and artificial coloring matter.
27018	Bologna, liver.	Chas. Bossler, No. 5 Second avenue.	Free from preservatives and artificial coloring matter.
27019	Bologna, blood.	Chas. Bossler, No. 5 Second avenue.	Free from preservatives and artificial coloring matter.
27021	Bologna, meat.	Chas. Bossler, No. 5 Second avenue.	Free from preservatives and artificial coloring matter.
27049	Bologna	Geo. Glenz, No. 903 East One Hundred and Sixty-fifth street.	Free from preservatives and artificial coloring matter.
27123	Bologna	Adolph Schmidt, No. 339 East Forty-sixth street.	Free from borax, sulphites and coloring matter.
27128	Bologna	Armour Packing Company, West Harlem Market.	Contains boracic acid.
27135	Bologna	John Rollmanno, No. 763 Columbus avenue.	Free from preservatives. Artificial coloring matter present.
27271	Bologna, blood.	John Melchner, No. 9 First avenue.	Free from preservatives and artificial coloring matter.
27299	Bologna, meat.	Alois Zoufaly, No. 1356 First avenue.	Free from preservatives and artificial coloring matter.
27765	Bologna	Eberhard Pantle, No. 25 Second avenue.	Free from preservatives and artificial coloring matter.
26003	Bologna, meat.	Geo. Bauer, No. 1208 First avenue.	Free from preservatives and artificial coloring matter.
26008	Bologna	Swift & Co., Eleventh avenue and Thirty-fifth street.	Contains borax.
26009	Bologna	Armour & Co., Thirty-fifth street and Eleventh avenue.	Free from borax.
26026	Bologna, dry.	Jos. Soukopf, No. 1424 Avenue A.	Free from borax.
26029	Bologna, dry.	Jos. Wimmer, No. 1391 Avenue A.	Contains borax.
26032	Bologna, dry.	Wm. Chyba, No. 1374 Avenue A.	Free from borax.
26037	Bologna, round.	Max Liebscher, No. 1598 Avenue A.	Free from borax.
26038	Bologna, ham.	Max Liebscher, No. 1598 Avenue A.	Free from borax.
26041	Bologna, land yaeger.	Chris Widmann, No. 1708 First avenue.	Free from borax.
26042	Bologna, bauren.	Chris Widmann, No. 1708 First avenue.	Free from borax.
26043	Bologna, smoked blood.	Hy. Fleck, No. 1679 Avenue A.	Free from borax.
26046	Bologna, cervelat.	Hy. Fleck, No. 1679 Avenue A.	Free from borax.
26047	Bologna	Philip Spitzhoff, No. 659 Ninth avenue.	Free from borax.
26057	Bologna, ham.	A. Becker, No. 2690 Third avenue.	Free from borax.
26059	Bologna, beef.	A. Becker, No. 2690 Third avenue.	Free from borax.
26062	Bologna, beef.	Wm. Klinger, No. 2634 Third avenue.	Free from borax.
26064	Bologna, ham.	Wm. Klinger, No. 2634 Third avenue.	Contains borax.
26066	Bologna, beef.	Wm. Klinger, No. 2634 Third avenue.	Free from borax.
26069	Bologna	Jacob Muller, No. 671 Eleventh avenue.	Free from borax.



No.	Sample.	From Whom Purchased.	Results.
26074	Bologna	R. J. Pusim, No. 850 Tenth avenue.....	Free from borax.
26079	Bologna	Jacob Brucker, No. 2382 First avenue.....	Free from borax.
26110	Bologna, ham.....	Harnischfeger & Mathes, No. 1048 Second avenue.....	Free from borax.
26113	Bologna, kohser.....	Felix Metzger, No. 1044 Second avenue.....	Free from borax.
26115	Bologna, meat.....	Christian Gonnell, No. 1010 Second avenue.....	Free from borax.
26116	Bologna, land yaeger.....	Christian Gonnell, No. 1010 Second avenue.....	Free from borax.
26117	Bologna, blood.....	Christian Gonnell, No. 1010 Second avenue.....	Free from borax.
26120	Bologna, ham.....	Anton W. Finger, No. 866 Second avenue.....	Free from borax.
26121	Bologna, meat.....	A. Schmidt, No. 339 East Forty-sixth street.....	Free from borax.
26122	Bologna, blood tongue.....	A. Schmidt, No. 339 East Forty-sixth street.....	Free from borax.
26124	Bologna, blood.....	Gabriel Vetter, No. 763 Second avenue.....	Free from borax.
26126	Bologna, meat.....	F. Majewski & Son, No. 607 Second avenue.....	Free from borax.
26129	Bologna, blood.....	Louis Drescher, No. 632 Second avenue.....	Free from borax.
26130	Bologna, meat.....	Louis Drescher, No. 632 Second avenue.....	Free from borax.
26131	Bologna, ham.....	Louis Drescher, No. 632 Second avenue.....	Free from borax.
26132	Bologna, meat.....	G. Pfizenmaier, No. 189 Avenue A.....	Free from borax.
26136	Bologna, blood.....	Geo. Herold, No. 139 Avenue A.....	Free from borax.
26139	Bologna, smoked.....	Geo. Herold, No. 139 Avenue A.....	Free from borax.
26143	Bologna, ham.....	Adolph Lindner, No. 98 First avenue.....	Free from borax.
26144	Bologna, blood tongue.....	Adolph Lindner, No. 98 First avenue.....	Free from borax.
26145	Bologna, meat.....	Adolph Lindner, No. 98 First avenue.....	Free from borax.
26157	Bologna	John Schwenker, No. 966 East One Hundred and Thirty-fourth street .....	Free from preservatives and artificial coloring matter.
26162	Bologna	John Leim, No. 133 Lincoln avenue, The Bronx.....	Free from preservatives and artificial coloring matter.
26164	Bologna, blood.....	John Kohl, No. 423 East Fifteenth street.....	Free from preservatives and artificial coloring matter.
26167	Bologna, meat.....	John Kohl, No. 423 East Fifteenth street.....	Free from preservatives and artificial coloring matter.
26168	Bologna, meat.....	G. C. Goetz, No. 250 First avenue.....	Free from preservatives and artificial coloring matter.
26171	Bologna, ham.....	G. C. Goetz, No. 250 First avenue.....	Free from preservatives and artificial coloring matter.
26173	Bologna, blood.....	Louis Cappel, No. 302 First avenue.....	Free from preservatives and artificial coloring matter.
26175	Bologna, meat.....	Louis Cappel, No. 302 First avenue.....	Free from preservatives and artificial coloring matter.
26183	Bologna	Samuel Hutter, No. 767 Ninth avenue.....	Free from preservatives and artificial coloring matter.
26185	Bologna	Geo. Lidinger, No. 765 Ninth avenue.....	Free from preservatives and artificial coloring matter.
26187	Bologna	Louis Wagner, No. 849 Tenth avenue.....	Free from preservatives and artificial coloring matter.
26198	Bologna, ham.....	John Rollman, No. 763 Columbus avenue.....	Free from preservatives and artificial coloring matter.
26201	Bologna, beef.....	Chas. Beckstein, No. 793 Columbus avenue.....	Free from preservatives and artificial coloring matter.
26206	Bologna, ham.....	Chas. Beckstein, No. 793 Columbus avenue.....	Free from preservatives and artificial coloring matter.
26207	Bologna, meat.....	Isaac Melchner, No. 9 First avenue.....	Free from preservatives and artificial coloring matter.
26208	Bologna, blood.....	Isaac Melchner, No. 9 First avenue.....	Free from preservatives and artificial coloring matter.
26209	Bologna, ham.....	Isaac Melchner, No. 9 First avenue.....	Free from preservatives and artificial coloring matter.
26213	Bologna, meat.....	John Fuhrman, No. 59 First avenue.....	Contains borax.
26214	Bologna, blood.....	John Fuhrman, No. 59 First avenue.....	Free from preservatives and artificial coloring matter.
26215	Bologna, ham.....	John Fuhrman, No. 59 First avenue.....	Free from preservatives and artificial coloring matter.
26217	Bologna, liver.....	Stutz & Feiler, No. 151 First avenue.....	Free from preservatives and artificial coloring matter.
26218	Bologna, meat.....	Stutz & Feiler, No. 151 First avenue.....	Free from preservatives and artificial coloring matter.
26220	Bologna, Polish.....	John Jamoski, No. 546 East Eleventh street.....	Free from preservatives and artificial coloring matter.
26226	Bologna, meat.....	Oscar Pache, No. 1744 Second avenue.....	Free from preservatives and artificial coloring matter.
26228	Bologna, ham.....	Oscar Pache, No. 1744 Second avenue.....	Free from preservatives and artificial coloring matter.
26229	Bologna, blood.....	David Reubold, No. 1805 Second avenue.....	Free from preservatives and artificial coloring matter.
26231	Bologna, meat.....	David Reubold, No. 1805 Second avenue.....	Free from preservatives and artificial coloring matter.
26233	Bologna, meat.....	John Heil, No. 387 First avenue.....	Free from preservatives and artificial coloring matter.
26237	Bologna, ham.....	Frank Hopf, No. 506 First avenue.....	Free from preservatives and artificial coloring matter.
26265	Bologna, Hungarian.....	Leopold Kuhn, No. 193 East Third street.....	Free from preservatives and artificial coloring matter.
26267	Bologna, garlic.....	I. Blank, No. 1454 Second avenue.....	Free from preservatives and artificial coloring matter.
26269	Bologna, ham.....	I. Blank, No. 1454 Second avenue.....	Free from preservatives and artificial coloring matter.
26271	Bologna	Eliz. Koegler, No. 8 Greenwich street.....	Contains borax.
26273	Bologna	E. P. Ham, No. 211 West street.....	Free from artificial coloring matter and preservatives.
26278	Bologna	John Dreyer, No. 152 West street.....	Free from artificial coloring matter and preservatives.
26284	Bologna, ham.....	John Hoesel, No. 182 Avenue B.....	Free from borax and sulphites.
26285	Bologna, blood.....	John Hoesel, No. 182 Avenue B.....	Free from borax and sulphites.
26288	Bologna, Kolbas.....	John Fershman, No. 174 East Third street.....	Free from borax and sulphites.
26290	Bologna, blood.....	Ballentine Hermes, No. 258 Avenue B.....	Free from borax and sulphites.
26291	Bologna, liver.....	Ballentine Hermes, No. 258 Avenue B.....	Free from borax and sulphites.
26293	Bologna, blood.....	B. F. Jaissel, No. 200 Avenue B.....	Free from borax and sulphites.
26296	Bologna, liver.....	B. F. Jaissel, No. 200 Avenue B.....	Free from borax and sulphites.
26297	Bologna	Greenhut & Muschel, No. 226 Rivington street.....	Free from borax and sulphites.
26299	Bologna	Greenhut & Muschel, No. 226 Rivington street.....	Free from borax and sulphites.
26303	Bologna	Morris Schoenberg, No. 30 Rivington street.....	Free from borax and sulphites.
26304	Bologna	Max Arick, No. 74 Delancey street.....	Free from borax and sulphites.
26305	Bologna	Max Arick, No. 74 Delancey street.....	Free from borax and sulphites.
26306	Bologna, red.....	Max Arick, No. 74 Delancey street.....	Free from borax and sulphites.
26308	Bologna	Max Arick, No. 74 Delancey street.....	Free from borax and sulphites.
26309	Bologna	Max Arick, No. 74 Delancey street.....	Free from borax and sulphites.
26310	Bologna, flat.....	Max Arick, No. 74 Delancey street.....	Free from borax and sulphites.
26313	Bologna, small.....	Moses Selig & Bro., No. 80 Amsterdam avenue.....	Free from borax and sulphites.
26316	Bologna, small.....	Henry Eberle, No. 110 Amsterdam avenue.....	Free from borax and sulphites.
26318	Bologna, beef.....	Henry Eberle, No. 110 Amsterdam avenue.....	Free from borax and sulphites.
26322	Bologna, small.....	Geo. Gingerich, No. 70 Amsterdam avenue.....	Free from borax and sulphites.
26327	Bologna, small.....	John Foersh, No. 122 Manhattan street.....	Free from borax and sulphites.
26330	Bologna, Kolbas.....	Stanislaw Mierzewski, No. 215 East Third street.....	Free from borax and sulphites.
26331	Bologna, blood.....	Stanislaw Mierzewski, No. 215 East Third street.....	Free from borax and sulphites.



No.	Sample.	From Whom Purchased.	Results.
26332	Bologna, rice.....	Stanislaw Mierzewski, No. 215 East Third street.....	Free from borax and sulphites.
26333	Bologna, Kolbas.....	W. Tochman, No. 211 East Third street.....	Free from borax and sulphites.
26334	Bologna, meat.....	W. Tochman, No. 211 East Third street.....	Free from borax and sulphites.
26335	Bologna, rice.....	John Bacsl, No. 253 East Third street.....	Free from borax and sulphites.
26337	Bologna, Kolbas.....	John Bacsl, No. 253 East Third street.....	Free from borax and sulphites.
26340	Bologna, large.....	Wm. Bormester, No. 544 Second avenue.....	Contains borax.
26341	Bologna.....	Wm. Bormester, No. 544 Second avenue.....	Free from borax and sulphites.
26345	Bologna, meat.....	Wm. G. Wagner, No. 573 First avenue.....	Free from borax and sulphites.
26348	Bologna, ham.....	Lang Brothers, No. 569 Tenth avenue.....	Free from borax and sulphites.
26352	Bologna, blood.....	Chas. Reichert, No. 104 West Houston street.....	Free from borax and sulphites.
26354	Bologna.....	Chas. Reichert, No. 104 West Houston street.....	Free from borax and sulphites.
26359	Bologna.....	Bernard Mayer, No. 161 Perry street.....	Free from borax and sulphites.
26364	Bologna, smoked.....	D. Moskowitz, No. 49 Cannon street.....	Free from borax and sulphites.
26367	Bologna, meat.....	Aug. Hieden, No. 207 Hester street.....	Free from borax and sulphites.
26371	Bologna.....	C. Schneider, No. 77 Broome street.....	Free from borax and sulphites.
26374	Bologna, ham.....	C. Schneider, No. 77 Broome street.....	Free from borax and sulphites.
26375	Bologna, broad.....	I. Gellis, No. 37 Essex street.....	Free from borax and sulphites.
26381	Bologna, ham.....	Christ Seher, No. 1887 Third avenue.....	Free from borax.
26384	Bologna, meat.....	S. Ludwig, No. 1833 Third avenue.....	Free from borax.
26390	Bologna, meat.....	Nauss Brothers, No. 2291 Third avenue.....	Free from borax.
26393	Bologna, ham.....	Frank Schwintek, No. 1979 Third avenue.....	Free from borax.
26394	Bologna, meat.....	Frank Schwintek, No. 1979 Third avenue.....	Free from borax.
26407	Bologna, blood.....	Frederick Schampf, No. 1540 Second avenue.....	Free from borax and sulphites.
26409	Bologna, ham.....	Louis Grimm, No. 1427 Second avenue.....	Contains borax.
26412	Bologna.....	M. Zimmerman & Co., Nos. 318 to 324 East Houston street...	Free from borax and sulphites.
26411	Bologna, peckless.....	M. Zimmerman & Co., Nos. 318 to 324 East Houston street...	Free from borax and sulphites.
26415	Bologna, large.....	M. Zimmerman & Co., Nos. 318 to 324 East Houston street...	Free from borax and sulphites.
26416	Bologna, long.....	M. Zimmerman & Co., Nos. 318 to 324 East Houston street...	Free from borax and sulphites.
26426	Bologna.....	M. Kroll Sons, No. 33 Canal street.....	Free from preservatives and artificial coloring matter.
26428	Bologna.....	Isaac Gillis, No. 37 Essex street.....	Free from preservatives and artificial coloring matter.
26429	Bologna.....	Isaac Gillis, No. 37 Essex street.....	Free from preservatives and artificial coloring matter.
26432	Bologna.....	Gertrude Langer, No. 137 West Houston street.....	Free from preservatives and artificial coloring matter.
26437	Bologna.....	Erschowsky Brothers, No. 175 West Houston street.....	Free from preservatives and artificial coloring matter.
26438	Bologna.....	Erschowsky Brothers, No. 175 West Houston street.....	Free from preservatives and artificial coloring matter.
26445	Bologna, beef.....	Chas. Beckstein, No. 793 Columbus avenue.....	Free from preservatives and artificial coloring matter.
26447	Bologna, ham.....	Chas. Beckstein, No. 793 Columbus avenue.....	Free from preservatives and artificial coloring matter.
26469	Bologna, ham.....	John Rollman, No. 763 Columbus avenue.....	Free from preservatives and artificial coloring matter.
26471	Bologna, beef.....	John Rollman, No. 763 Columbus avenue.....	Free from preservatives and artificial coloring matter.
26474	Bologna, ham.....	Max Herman, No. 950 First avenue.....	Free from preservatives and artificial coloring matter.
26477	Bologna, meat.....	Max Herman, No. 950 First avenue.....	Free from preservatives and artificial coloring matter.
26480	Bologna, scraped.....	Wm. Sutton, No. 829 First avenue.....	Free from preservatives and artificial coloring matter.
26482	Bologna.....	Carl Decker, No. 835 Second avenue.....	Free from preservatives and artificial coloring matter.
26488	Bologna, cervelat.....	R. Kallensee, No. 1650 Third avenue.....	Free from preservatives and artificial coloring matter.
26513	Bologna, ham.....	Wm. Klinger, No. 2634 Third avenue.....	Free from borax, sulphites and coloring matter.
26514	Bologna.....	Wm. Klinger, No. 2634 Third avenue.....	Free from borax, sulphites and coloring matter.
26518	Bologna, ham.....	Adolph Becker, No. 2690 Third avenue.....	Free from borax, sulphites and coloring matter.
26519	Bologna.....	Adolph Becker, No. 2690 Third avenue.....	Free from borax, sulphites and coloring matter.
26521	Bologna.....	John Heim, No. 133 Lincoln avenue, The Bronx.....	Free from borax, sulphites and coloring matter.
26524	Bologna.....	John Heim, No. 133 Lincoln avenue, The Bronx.....	Free from borax, sulphites and coloring matter.
26525	Bologna, blood.....	Lang Brothers, No. 569 Second avenue.....	Free from borax, sulphites and coloring matter.
26531	Bologna, blood.....	Majewski & Sons, No. 607 Second avenue.....	Free from borax, sulphites and coloring matter.
26547	Bologna, ham.....	Jacob Dangler, No. 722 Myrtle avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26548	Bologna, bauren.....	Jacob Dangler, No. 722 Myrtle avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26551	Bologna, Holstein.....	Jacob Dangler, No. 722 Myrtle avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26552	Bologna, beef.....	Jacob Dangler, No. 722 Myrtle avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26554	Bologna, ham.....	Louis Stutz & Sons, No. 815 Broadway, Brooklyn.....	Free from borax, sulphites and coloring matter.
26558	Bologna, beef.....	Louis Stutz & Sons, No. 815 Broadway, Brooklyn.....	Contains borax.
26562	Bologna.....	Louis Stutz & Sons, No. 815 Broadway, Brooklyn.....	Contains borax.
26566	Bologna, beef.....	Ed. C. Krummel, No. 906 Broadway, Brooklyn.....	Free from borax, sulphites and coloring matter.
26568	Bologna, blood tongue.....	Ed. C. Krummel, No. 906 Broadway, Brooklyn.....	Contains borax.
26569	Bologna, thick.....	Ed. C. Krummel, No. 906 Broadway, Brooklyn.....	Free from borax, sulphites and coloring matter.
26572	Bologna, ham.....	Ed. C. Krummel, No. 906 Broadway, Brooklyn.....	Free from borax, sulphites and coloring matter.
26573	Bologna, half thick.....	Ed. C. Krummel, No. 906 Broadway, Brooklyn.....	Free from borax, sulphites and coloring matter.
26589	Bologna, beef.....	Chris. Grozinger, No. 195 Hamburg avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26590	Bologna, beef.....	Chris. Grozinger, No. 195 Hamburg avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26595	Bologna, blood and tongue.....	Chris. Grozinger, No. 195 Hamburg avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26596	Bologna, ham.....	Chris. Grozinger, No. 195 Hamburg avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26598	Bologna, ring.....	Chas. J. Stahl, Metropolitan and Union avenues, Brooklyn....	Free from borax, sulphites and coloring matter.
26599	Bologna, blood and tongue.....	Chas. J. Stahl, Metropolitan and Union avenues, Brooklyn....	Free from borax, sulphites and coloring matter.
26603	Bologna, tongue.....	Adolph Gobel, Morgan avenue, corner of Rock street, Brooklyn	Free from borax, sulphites and coloring matter.
26604	Bologna, smoked.....	Adolph Gobel, Morgan avenue, corner of Rock street, Brooklyn	Free from borax, sulphites and coloring matter.
26605	Bologna, ham.....	Adolph Gobel, Morgan avenue, corner of Rock street, Brooklyn	Free from borax, sulphites and coloring matter.
26606	Bologna, half thick.....	Adolph Gobel, Morgan avenue, corner of Rock street, Brooklyn	Free from borax, sulphites and coloring matter.
26608	Bologna, smoked.....	Adolph Gobel, Morgan avenue, corner of Rock street, Brooklyn	Free from borax, sulphites and coloring matter.
26615	Bologna, ham.....	Bernard Spitzer, No. 192 Leonard street, Brooklyn.....	Free from borax, sulphites and coloring matter.
26617	Bologna, ring.....	Bernard Spitzer, No. 192 Leonard street, Brooklyn.....	Free from borax, sulphites and coloring matter.
26628	Bologna, long.....	Boehm & Co., No. 185 Fort Green place, Brooklyn.....	Free from borax, sulphites and coloring matter.
26629	Bologna, blood and tongue.....	Boehm & Co., No. 185 Fort Green place, Brooklyn.....	Free from borax, sulphites and coloring matter.



## Meats—Canned, Preserved, etc.

No.	Sample.	From Whom Purchased.	Results.
26631	Bologna, smoked .....	Boehm & Co., No. 185 Fort Green place, Brooklyn.....	Free from borax, sulphites and coloring matter.
26634	Bologna, smoked .....	Boehm & Co., No. 185 Fort Green place, Brooklyn.....	Free from borax, sulphites and coloring matter.
26636	Bologna, smoked .....	International Provision Company, No. 33 Degraw street, Brooklyn .....	Free from borax, sulphites and coloring matter.
26639	Bologna, tongue and blood.....	International Provision Company, No. 33 Degraw street, Brooklyn .....	Free from borax, sulphites and coloring matter.
26643	Bologna, ham .....	Hutuelker Brothers, No. 653 Fifth avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26645	Bologna, tongue and blood.....	Hutuelker Brothers, No. 653 Fifth avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26648	Bologna, smoked .....	Hutuelker Brothers, No. 653 Fifth avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26652	Bologna, half thick .....	F. H. Tietje, No. 656 Third avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26653	Bologna, blood and tongue.....	F. H. Tietje, No. 656 Third avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26655	Bologna, ham .....	F. H. Tietje, No. 656 Third avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26656	Bologna, smoked .....	F. H. Tietje, No. 656 Third avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26657	Bologna, blood .....	F. H. Tietje, No. 656 Third avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26658	Bologna, ring .....	F. H. Tietje, No. 656 Third avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26663	Bologna .....	Julius Wachler, No. 996 First avenue.....	Free from borax, sulphites and coloring matter.
26669	Bologna .....	Huhn Brothers, No. 1162 Second avenue.....	Free from borax, sulphites and coloring matter.
26685	Bologna, long .....	S. Sieber, No. 128 Norman avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26686	Bologna, ham .....	Jos. Rank, No. 1005 Manhattan avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26689	Bologna, tongue .....	Jos. Rank, No. 1005 Manhattan avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26690	Bologna .....	Jos. Rank, No. 1005 Manhattan avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26693	Bologna, long .....	C. Heidelberger's Sons, No. 856 Manhattan avenue, Brooklyn.	Free from borax, sulphites and coloring matter.
26697	Bologna, large .....	C. Heidelberger's Sons, No. 856 Manhattan avenue, Brooklyn.	Free from borax, sulphites and coloring matter.
26698	Bologna, ring .....	C. Heidelberger's Sons, No. 856 Manhattan avenue, Brooklyn.	Free from borax, sulphites and coloring matter.
26701	Bologna, ham .....	C. Heidelberger's Sons, No. 856 Manhattan avenue, Brooklyn.	Free from borax, sulphites and coloring matter.
26702	Bologna, long .....	Louis Meyer, No. 374 Flushing avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26703	Bologna, ham .....	Louis Meyer, No. 374 Flushing avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26706	Bologna, large .....	Louis Meyer, No. 374 Flushing avenue, Brooklyn.....	Contains borax.
26707	Bologna, tongue .....	Louis Meyer, No. 374 Flushing avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26717	Bologna, blood .....	G. C. Goelz, No. 250 First avenue.....	Free from borax, sulphites and coloring matter.
26719	Bologna, ham .....	G. C. Goelz, No. 250 First avenue.....	Free from borax, sulphites and coloring matter.
26727	Bologna, beef .....	Brenzinger, No. 3022 Third avenue.....	Free from borax, sulphites and coloring matter.
26728	Bologna, ham .....	Brenzinger, No. 3022 Third avenue.....	Free from borax, sulphites and coloring matter.
26735	Bologna, ring .....	.....	Free from borax, sulphites and coloring matter.
26739	Bologna .....	John Kohl, No. 423 East Fifteenth street.....	Free from borax, sulphites and coloring matter.
26741	Bologna, ham .....	John Kohl, No. 423 East Fifteenth street.....	Free from borax, sulphites and coloring matter.
26743	Bologna, ham .....	A. Lester Heyer, Nos. 318 and 320 East Twenty-ninth street..	Free from borax, sulphites and coloring matter.
26808	Bologna, ham .....	Aug. Essig, No. 25 Manhattan street.....	Free from sulphurous, benzoic and salicylic acids. Free from coloring matter and boric acid.
26809	Bologna, beef .....	Aug. Essig, No. 25 Manhattan street.....	Free from sulphurous, benzoic and salicylic acids. Free from coloring matter and boric acid.
26825	Bologna .....	Max Herman, No. 950 First avenue.....	Free from sulphurous, benzoic, boric and salicylic acids. Free from coloring matter.
26826	Bologna .....	....., No. 350 East Fifty-fourth street.....	Free from sulphurous, benzoic, salicylic acid and boric acid. Free from coloring matter.
26830	Bologna, Hungarian .....	May Wayner, No. 1501 Avenue A.....	Free from preservatives and artificial coloring matter.
26855	Bologna, beef .....	Joseph Viegel, No. 1976 Amsterdam avenue.....	Free from preservatives. Coal tar dye present.
26861	Bologna, link .....	Metzger, Brothers, No. 1044 Second avenue.....	Free from preservatives.
26864	Bologna .....	Justin Gortke, No. 1043 Second avenue.....	Free from preservatives and artificial coloring matter.
26867	Bologna, meat .....	Jos. Masin, No. 1384 Avenue A.....	Free from preservatives and artificial coloring matter.
26875	Bologna, liver .....	Val. Hermes, No. 258 Avenue B.....	Free from preservatives and artificial coloring matter.
26877	Bologna, ham .....	Val. Hermes, No. 258 Avenue B.....	Free from preservatives and artificial coloring matter.
26898	Bologna, blood .....	Chas. Seher, No. 2583 Eighth avenue.....	Free from preservatives and artificial coloring matter.
26900	Bologna, beef .....	Chas. Seher, No. 2583 Eighth avenue.....	Free from preservatives and artificial coloring matter.
26903	Bologna, blood .....	Frederick Fischer, No. 2398 Eighth avenue.....	Free from preservatives and artificial coloring matter.
26904	Bologna, beef .....	Frederick Fischer, No. 2398 Eighth avenue.....	Free from preservatives and artificial coloring matter.
26910	Bologna, hard .....	Wm. Chyba, No. 1374 Avenue A.....	Free from preservatives and artificial coloring matter.
26914	Bologna .....	F. Ferc, No. 326 East Seventy-first street.....	Free from preservatives and artificial coloring matter.
26928	Bologna, blood .....	John Melchner, No. 9 First avenue.....	Free from preservatives and artificial coloring matter.
26929	Bologna, fresh liver .....	John Melchner, No. 9 First avenue.....	Free from preservatives and artificial coloring matter.
26931	Bologna, ham .....	John Melchner, No. 9 First avenue.....	Free from preservatives and artificial coloring matter.
26947	Bologna, blood .....	Geo. Pfizwnmaier, No. 189 Avenue A.....	Free from sulphurous acid, boric acid and coloring matter.
26948	Bologna, smoked liver .....	Geo. Pfizwnmaier, No. 189 Avenue A.....	Free from sulphurous acid, boric acid and coloring matter.
26949	Bologna, meat .....	Geo. Pfizwnmaier, No. 189 Avenue A.....	Free from sulphurous acid, boric acid and coloring matter.
26986	Bologna, beef .....	Mrs. Rosie Boher, No. 786 Cortland avenue, The Bronx....	Free from sulphurous acid, boric acid and coloring matter.
26987	Bologna, ham .....	Mrs. Rosie Boher, No. 786 Cortland avenue, The Bronx....	Free from sulphurous acid, boric acid and coloring matter.
26613	Bologna .....	Bernard Spitzer, No. 192 Leonard street, Brooklyn.....	Free from borax, sulphites and coloring matter.
26298	Beef, corned .....	Greenhut & Muschel, No. 226 Rivington street.....	Free from borax and sulphites.
26302	Beef, smoked .....	Morris Schoenberg, No. 30 Rivington street.....	Free from borax and sulphites.
26362	Beef, rolled .....	D. Moskowitz, No. 49 Cannon street.....	Free from borax and sulphites.
26366	Beef, corned .....	D. Moskowitz, No. 49 Cannon street.....	Free from borax and sulphites.
26368	Beef, corned .....	Aug. Hieden, No. 207 Hester street.....	Free from borax and sulphites.
26378	Beef, corned .....	I. Gellis, No. 37 Essex street.....	Free from borax and sulphites.
26417	Beef, corned .....	M. Zimmerman & Co., Nos. 318 to 324 East Houston street...	Free from borax and sulphites.
26418	Beef, smoked .....	M. Zimmerman & Co., Nos. 318 to 324 East Houston street...	Free from borax and sulphites.
25818	Frankfurters .....	A. McCarthy, No. 39 Sixth avenue.....	Contains borax.
25820	Frankfurters .....	Ginzoborge, northeast corner of Twenty-seventh street and Eighth avenue.....	Free from preservatives and coloring matter.
25821	Frankfurters .....	N. Rothchild, No. 187 Seventh avenue.....	Contains borax.
25831	Frankfurters .....	Rohe & Bro., No. 523 West Thirty-sixth street.....	Free from preservatives and coloring matter.
25837	Frankfurters .....	Samuel Maze, Fort George avenue.....	Free from preservatives. Artificial coloring matter present.
25838	Frankfurters .....	Morris Bieber, Fort George avenue.....	Free from preservatives and artificial coloring matter.



No.	Sample.	From Whom Purchased.	Results.
25839	Frankfurters	Jas. A. Guilben, Fort George avenue.....	Free from preservatives and artificial coloring matter.
25840	Frankfurters	Jas. Mozza, Fort George avenue.....	Contains borax.
25845	Frankfurters	Fourteenth Street Store, Fourteenth street and Sixth avenue..	Free from preservatives and artificial coloring matter.
25856	Frankfurters	Geo. Herold, Second avenue and One Hundred and Second street .....	Free from preservatives and artificial coloring matter.
25857	Frankfurters	C. F. Schae & Co., No. 2060 Third avenue.....	Free from preservatives and artificial coloring matter.
25859	Frankfurters	Fred. Benz, No. 412 East One Hundred and Second street....	Contains borax. Free from artificial coloring matter.
25860	Frankfurters	Fred. Benz, No. 412 East One Hundred and Second street....	Free from preservatives and artificial coloring matter.
25864	Frankfurters	Fischer & Co., No. 2325 Second avenue.....	Free from preservatives and artificial coloring matter.
25876	Frankfurters	Otto Stahl, No. 2332 Third avenue.....	Contains borax. Free from artificial coloring matter.
25877	Frankfurters	Otto Stahl, No. 2332 Third avenue.....	Contains borax. Free from artificial coloring matter.
25883	Frankfurters	A. W. Michel, No. 90 Ninth avenue.....	Free from preservatives and artificial coloring matter.
25886	Frankfurters	M. A. Buchsbaum, No. 523 Ninth avenue.....	Free from borax.
25888	Frankfurters	A. L. Maier, No. 444 Tenth avenue.....	Contains borax.
25890	Frankfurters	Richard Weber, Third avenue, between One Hundred and Nineteenth and One Hundred and Twentieth streets.....	Free from borax.
25900	Frankfurters	Louis Grimm, No. 1427 Second avenue.....	Contains borax. Free from artificial coloring matter.
25902	Frankfurters	John Hohloch, No. 1569 Second avenue.....	Free from borax.
25903	Frankfurters	Harry Brennen, No. 75 Goerck street.....	Free from preservatives and artificial coloring matter.
25904	Frankfurters	Harry Brennen, No. 75 Goerck street.....	Free from borax.
25905	Frankfurters	Woelfle & Pfeiffer, No. 1530 Second avenue.....	Free from borax.
25907	Frankfurters	Solomon Muntz, No. 208 Delancey street.....	Free from preservatives and artificial coloring matter.
25913	Frankfurters	Sussman Volk, No. 88 Delancey street.....	Free from preservatives and artificial coloring matter.
25917	Frankfurters	Frederick Schempff, No. 1540 Second avenue.....	Contains borax. Free from artificial coloring matter.
25919	Frankfurters	John T. Muller, No. 724 Tenth avenue.....	Free from preservatives and artificial coloring matter.
25922	Frankfurters	A. Buchsbaum Company, No. 729 Ninth avenue.....	Free from preservatives and artificial coloring matter.
25942	Frankfurters	W. Holschuh, No. 1605 First avenue.....	Free from preservatives and artificial coloring matter.
25948	Frankfurters	Peter Stenger, No. 1475 First avenue.....	Free from preservatives and artificial coloring matter.
25950	Frankfurters	G. Holzberger, Amsterdam avenue.....	Free from borax.
25952	Frankfurters	G. Brenzenger, No. 3022 Third avenue.....	Contains borax.
25953	Frankfurters	A. Essig, No. 25 Manhattan street.....	Free from borax.
25955	Frankfurters	Ed. Michels Sons, No. 2916 Third avenue.....	Contains borax.
25958	Frankfurters	Anton Renschler, No. 3405 Third avenue.....	Free from borax.
25963	Frankfurters	Gustav Reiss, No. 617 Ninth avenue.....	Free from preservatives and artificial coloring matter.
25965	Frankfurters	Geo. Kems, No. 496 Ninth avenue.....	Free from preservatives and artificial coloring matter.
25966	Frankfurters	Max Kleinfeldt, No. 97 Park row.....	Contains borax.
25970	Frankfurters, Kosher.....	Jacob Keiser, No. 1507 First avenue.....	Free from borax.
25973	Frankfurters	R. Kallensee, No. 1650 Third avenue.....	Contains borax. Free from artificial coloring matter.
25985	Frankfurters	Vaclav Novak, No. 1363 First avenue.....	Free from preservatives and artificial coloring matter.
25986	Frankfurters	Frank Zadina, No. 1432 First avenue.....	Contains borax.
25994	Frankfurters	Frank Mosner, No. 1373 First avenue.....	Contains borax.
26002	Frankfurters, large.....	Geo. Bauer, No. 1208 Eighth avenue.....	Free from preservatives and artificial coloring matter.
26010	Frankfurters	Armour & Co., Thirty-fifth street and Eleventh avenue.....	Free from borax.
26025	Frankfurters	Jos. Soukopf, No. 1424 Avenue A.....	Free from borax.
26031	Frankfurters	Jos. Wimmer, No. 1391 Avenue A.....	Contains borax.
26034	Frankfurters	Wm. Chyba, No. 1374 Avenue A.....	Free from borax.
26040	Frankfurters	Chris. Widmann, No. 1708 First avenue.....	Free from borax.
26045	Frankfurters	Henry Fleck, No. 1679 Avenue A.....	Free from borax.
26048	Frankfurters	Philip Spitzhoff, No. 659 Ninth avenue.....	Free from borax.
26056	Frankfurters	A. Becker, No. 2690 Third avenue.....	Free from borax.
26061	Frankfurters	Wm. Klinger, No. 2634 Third avenue.....	Contains borax.
26071	Frankfurters	Jacob Muller, No. 671 Eleventh avenue.....	Free from borax.
26072	Frankfurters	R. J. Pusim, No. 850 Tenth avenue.....	Free from borax.
26077	Frankfurters	Alfred Naef, No. 2185 Second avenue.....	Contains borax.
26080	Frankfurters	Jacob Brucker, No. 2185 Second avenue.....	Free from borax.
26097	Frankfurters	N. Eisler, No. 2211 Eighth avenue.....	Free from borax.
26098	Frankfurters	L. Goldsmith, No. 2171 Eighth avenue.....	Contains borax.
26099	Frankfurters	Grout & Fisher, No. 2172 Eighth avenue.....	Free from borax.
26100	Frankfurters	H. Branell, No. 2108 Eighth avenue.....	Contains borax.
26108	Frankfurters	Julin H. Garthe, No. 1043 Second avenue.....	Free from borax.
26111	Frankfurters	Harmischfeger & Mathes, No. 1048 Second avenue.....	Free from borax.
26112	Frankfurters	Felix Metzger, No. 1044 Second avenue.....	Free from borax.
26119	Frankfurters	Anton W. Finger, No. 866 Second avenue.....	Free from borax.
26123	Frankfurters, barroom.....	A. Schmidt, No. 339 East Forty-sixth street.....	Contains borax.
26134	Frankfurters	G. Pfizemaier, No. 189 Avenue A.....	Free from borax.
26140	Frankfurters	Geo. Herold, No. 139 Avenue A.....	Free from borax.
26146	Frankfurters	Adolph Lindner, No. 98 First avenue.....	Free from borax.
26155	Frankfurters, domestic.....	John Schuenker, No. 966 East One Hundred and Thirty-fourth street .....	Free from preservatives and coloring matter.
26159	Frankfurters, domestic.....	John Leim, No. 133 Lincoln avenue, The Bronx.....	Free from preservatives and coloring matter.
26165	Frankfurters	John Kohl, No. 423 East Fifteenth street.....	Free from preservatives and coloring matter.
26169	Frankfurters	G. C. Goetz, No. 250 First avenue.....	Free from preservatives and coloring matter.
26176	Frankfurters	Louis Cappel, No. 302 First avenue.....	Free from preservatives and coloring matter.
26182	Frankfurters	Samuel Hutter, No. 767 Ninth avenue.....	Free from preservatives and coloring matter.
26184	Frankfurters	Geo. F. Lidinger, No. 765 Ninth avenue.....	Free from preservatives and coloring matter.
26186	Frankfurters	Louis Wagner, No. 849 Tenth avenue.....	Free from preservatives and coloring matter.
26200	Frankfurters	John Rollman, No. 763 Columbus avenue.....	Free from preservatives and coloring matter.
26204	Frankfurters	Chas. Beckstein, No. 793 Columbus avenue.....	Free from preservatives and coloring matter.
26210	Frankfurters	Isaac Melchner, No. 9 First avenue.....	Contains borax.
26212	Frankfurters	John Fuhrman, No. 59 First avenue.....	Contains borax.
26219	Frankfurters	Stutz & Feiler, No. 151 First avenue.....	Free from preservatives and coloring matter.



No.	Sample.	From Whom Purchased.	Results.
26223	Frankfurters	Eberhard Pantel, No. 1825 Second avenue.	Free from preservatives and coloring matter.
26227	Frankfurters	Oscar Pache, No. 1744 Second avenue.	Free from preservatives and coloring matter.
26232	Frankfurters	John Heil, No. 387 First avenue.	Free from preservatives and coloring matter.
26234	Frankfurters	Fritz Sache, No. 423 First avenue.	Free from preservatives and coloring matter.
26239	Frankfurters	Frank Hopf, No. 506 First avenue.	Free from preservatives and coloring matter.
26249	Frankfurters	Armour & Co., Nos. 7 and 9 Manhattan Market.	Free from preservatives and coloring matter.
26250	Frankfurters	Jacob Scholl, No. 855 Tenth avenue.	Free from preservatives and coloring matter.
26252	Frankfurters	Sebastian Dorfmueller, No. 500 Eleventh avenue.	Free from preservatives and coloring matter.
26253	Frankfurters	Fred Hoez, No. 150 West Seventeenth street.	Free from preservatives and coloring matter.
26254	Frankfurters	F. Muller, No. 623 Tenth avenue.	Free from preservatives and coloring matter.
26255	Frankfurters	Albert Kerner, No. 523 Tenth avenue.	Free from preservatives and coloring matter.
26256	Frankfurters	Albert Nagle, No. 583 Eleventh avenue.	Free from preservatives and coloring matter.
26257	Frankfurters	Wm. Eppinger, No. 640 Tenth avenue.	Free from preservatives and coloring matter.
26258	Frankfurters	F. Muller, No. 761 Tenth avenue.	Free from preservatives and coloring matter.
26259	Frankfurters	A. Linemnaier, No. 257 West Fifty-second street.	Free from preservatives and coloring matter.
26260	Frankfurters	G. Schoenecker, No. 662 Tenth avenue.	Free from preservatives and coloring matter.
26261	Frankfurters	Pfeiffer & Reihsmann, No. 488 Tenth avenue.	Free from preservatives and coloring matter.
26262	Frankfurters	Griesar & Zeroas, No. 546 Ninth avenue.	Free from preservatives and coloring matter.
26268	Frankfurters	I. Blank, No. 1454 Second avenue.	Free from preservatives and coloring matter.
26276	Frankfurters	Eliz. Koegler, No. 8 Greenwich street.	Contains borax.
26280	Frankfurters	John Dreyer, No. 152 West street.	Free from preservatives and coloring matter.
26282	Frankfurters	E. P. Ham, No. 211 Washington street.	Free from borax and sulphites.
26283	Frankfurters	J. Hoesel, No. 182 Avenue B.	Free from borax and sulphites.
26292	Frankfurters	Ballentine Hermes, No. 258 Avenue B.	Free from borax and sulphites.
26294	Frankfurters	B. F. Jaisel, No. 200 Avenue B.	Free from borax and sulphites.
26300	Frankfurters	Greenhut & Muschel, No. 226 Rivington street.	Free from borax and sulphites.
26301	Frankfurters	Morris Schoenberg, No. 30 Rivington street.	Free from borax and sulphites.
26311	Frankfurters	Carl F. Spaney, No. 717 Ninth avenue.	Free from borax and sulphites.
26312	Frankfurters	E. Reidel, No. 510 Tenth avenue.	Free from borax and sulphites.
26314	Frankfurters	Moses Selig & Bro., No. 80 Amsterdam avenue.	Free from borax and sulphites.
26317	Frankfurters	Henry Eberle, No. 110 Amsterdam avenue.	Free from borax and sulphites.
26324	Frankfurters	Geo. Gingerich, No. 70 Amsterdam avenue.	Free from borax and sulphites.
26328	Frankfurters	John Foerst, No. 122 Manhattan street.	Free from borax and sulphites.
26339	Frankfurters	Wm. Bormester, No. 544 Second avenue.	Contains borax.
26344	Frankfurters	Wm. G. Wagner, No. 573 First avenue.	Free from borax and sulphites.
26346	Frankfurters	Lang Brothers, No. 569 Tenth avenue.	Free from borax and sulphites.
26353	Frankfurters	Chas. Reichert, No. 104 West Houston street.	Free from borax and sulphites.
26363	Frankfurters	D. Moskowitz, No. 49 Cannon street.	Free from borax and sulphites.
26373	Frankfurters	C. Schneider, No. 77 Broome street.	Free from borax and sulphites.
26377	Frankfurters	I. Gellis, No. 37 Essex street.	Free from borax and sulphites.
26383	Frankfurters	S. Ludwig, No. 1833 Third avenue.	Free from borax.
26386	Frankfurters	Chas. Schloerb, No. 1913 Third avenue.	Free from borax.
26391	Frankfurters	Nauss Brothers, No. 2291 Third avenue.	Free from borax.
26425	Frankfurters	M. Kroll Sons, No. 33 Canal street.	Free from preservatives and coloring matter.
26430	Frankfurters	Isaac Gillis, No. 37 Essex street.	Free from preservatives and coloring matter.
26431	Frankfurters	Gertrude Langer, No. 137 West Houston street.	Free from preservatives and coloring matter.
26436	Frankfurters	Erschowsky & Bro., No. 175 West Houston street.	Free from preservatives and coloring matter.
26448	Frankfurters	Chas. Beckstein, No. 703 Columbus avenue.	Free from preservatives and coloring matter.
26457	Frankfurters	A. Dreyfus, No. 704 Ninth avenue.	Contains borax.
26458	Frankfurters	Louis Abendschein, No. 931 Columbus avenue.	Free from preservatives and coloring matter.
26459	Frankfurters	A. Andre, No. 884 Columbus avenue.	Free from preservatives and coloring matter.
26460	Frankfurters	Geo. F. Liginger, No. 765 Ninth avenue.	Free from preservatives and coloring matter.
26461	Frankfurters	W. Hirsch, No. 181 Amsterdam avenue.	Free from preservatives and coloring matter.
26462	Frankfurters	N. Zushlam, No. 792 Ninth avenue.	Free from preservatives and coloring matter.
26467	Frankfurters	John Rollman, No. 763 Columbus avenue.	Free from preservatives and coloring matter.
26475	Frankfurters	Max Herman, No. 950 First avenue.	Free from preservatives and coloring matter.
26485	Frankfurters	Carl Decker, No. 835 Second avenue.	Free from preservatives and coloring matter.
26486	Frankfurters, barroom.	Otto Stahl, No. 2332 Third avenue.	Free from preservatives and coloring matter.
26487	Frankfurters	Otto Stahl, No. 2332 Third avenue.	Free from preservatives and coloring matter.
26489	Frankfurters	R. Kallensee, No. 1650 Third avenue.	Free from preservatives and coloring matter.
26490	Frankfurters	Fischer & Co., No. 2325 Second avenue.	Free from preservatives and coloring matter.
26492	Frankfurters	Fk. Benz, No. 412 East One Hundred and Second street.	Free from preservatives and coloring matter.
26493	Frankfurters	Theo. Bertsch, No. 1628 Third avenue.	Free from preservatives and coloring matter.
26494	Frankfurters	Geo. Whittmann, No. 338 East One Hundred and Second street.	Free from preservatives and coloring matter.
26509	Frankfurters	Wm. Klinger, No. 2634 Third avenue.	Free from borax, sulphites and coloring matter.
26520	Frankfurters	Adolph Becker, No. 2690 Third avenue.	Free from borax, sulphites and coloring matter.
26526	Frankfurters	Lang Brothers, No. 569 Second avenue.	Free from borax, sulphites and coloring matter.
26528	Frankfurters	Wm. Burmeister, No. 544 Second avenue.	Contains borax.
26533	Frankfurters	Majewski & Sons, No. 607 Second avenue.	Free from borax, sulphites and coloring matter.
26538	Frankfurters	Imperial Beef Company, No. 551 Eighth avenue.	Free from borax, sulphites and coloring matter.
26539	Frankfurters	E. Schultheis, No. 573 Eighth avenue.	Free from borax, sulphites and coloring matter.
26540	Frankfurters	M. Saalberg, No. 592 Eighth avenue.	Free from borax, sulphites and coloring matter.
26541	Frankfurters	Geo. Kramer, No. 38 Greenwich street.	Contains borax.
26542	Frankfurters	F. Strohmeier, No. 616 Eighth avenue.	Free from borax, sulphites and coloring matter.
26543	Frankfurters	Adam Siebert, No. 132 Greenwich street.	Free from borax, sulphites and coloring matter.
26550	Frankfurters	Jacob Dangler, No. 722 Myrtle avenue, Brooklyn.	Free from borax, sulphites and coloring matter.
26556	Frankfurters, smoked.	Louis Stutz & Sons, No. 815 Broadway, Brooklyn.	Contains borax.
26563	Frankfurters, smoked.	Edw. C. Krummel, No. 906 Broadway, Brooklyn.	Free from borax, sulphites and coloring matter.
26591	Frankfurters, smoked.	Chris. Grozinger, No. 195 Hamburg avenue, Brooklyn.	Free from borax, sulphites and coloring matter.
26602	Frankfurters	Ch. J. Stahl, Metropolitan and Union avenues, Brooklyn.	Free from borax, sulphites and coloring matter.



No.	Sample.	From Whom Purchased.	Results.
26609	Frankfurters	Adolph Gobel, Morgan avenue, corner of Rock street, Brooklyn	Free from borax, sulphites and coloring matter.
26616	Frankfurters, smoked	Bernard Spitzer, No. 192 Leonard street, Brooklyn	Free from borax, sulphites and coloring matter.
26627	Frankfurters, smoked	Boehm & Co., No. 185 Fort Greene place, Brooklyn	Free from borax, sulphites and coloring matter.
26633	Frankfurters, smooth	Boehm & Co., No. 185 Fort Greene place, Brooklyn	Free from borax, sulphites and coloring matter.
26640	Frankfurters, smoked	International Provision Company, No. 33 Degraw street, Brooklyn	Free from borax, sulphites and coloring matter.
26647	Frankfurters, smoked	Hutuelker Brothers, No. 653 Fifth avenue, Brooklyn	Free from borax, sulphites and coloring matter.
26659	Frankfurters, smoked	F. H. Tietje, No. 656 Third avenue, Brooklyn	Free from borax, sulphites and coloring matter.
26666	Frankfurters	Julius Wähler, No. 996 First avenue	Free from borax, sulphites and coloring matter.
26668	Frankfurters	Huhn Brothers, No. 1162 Second avenue	Free from borax, sulphites and coloring matter.
26688	Frankfurters, smoked	Jos. Rank, No. 1005 Manhattan avenue, Brooklyn	Free from borax, sulphites and coloring matter.
26695	Frankfurters	C. Heidelberger's Sons, No. 856 Manhattan avenue, Brooklyn	Free from borax, sulphites and coloring matter.
26705	Frankfurters, smoked	Louis Meyer, No. 374 Flushing avenue, Brooklyn	Borax present.
26711	Frankfurters, smoked	Louis Meyer, No. 374 Flushing avenue, Brooklyn	Borax present.
26713	Frankfurters	D. Reubold, No. 1805 Second avenue	Free from borax, sulphites and coloring matter.
26716	Frankfurters	Eberhard Pantle, No. 1825 Second avenue	Free from borax, sulphites and coloring matter.
26720	Frankfurters	G. C. Goetz, No. 250 First avenue	Free from borax, sulphites and coloring matter.
26721	Frankfurters	Wm. Love, No. 363 Seventh avenue	Contains borax.
26722	Frankfurters	E. Bokens, No. 376 Seventh avenue	Free from borax, sulphites and coloring matter.
26723	Frankfurters	A. Futterer & Co., No. 371 Seventh avenue	Free from borax, sulphites and coloring matter.
26724	Frankfurters	A. Schmidt, No. 339 East Forty-sixth street	Contains borax.
26729	Frankfurters	Brenzinger, No. 3022 Third avenue	Free from borax, sulphites and coloring matter.
26736	Frankfurters		Free from borax, sulphites and coloring matter.
26740	Frankfurters	John Kohl, No. 423 East Fifteenth street	Free from borax, sulphites and coloring matter.
26744	Frankfurters	A. Lester Heyer, Nos. 318 and 320 East Twenty-ninth street	Free from borax, sulphites and coloring matter.
26749	Frankfurters	A. Martinek, No. 1353 First avenue	Free from boric and sulphurous acids and coloring matter.
26750	Frankfurters	J. Keiser, No. 1507 First avenue	Free from boric and sulphurous acids and coloring matter.
26751	Frankfurters	P. Stenger, No. 1475 First avenue	Free from boric and sulphurous acids and coloring matter.
26753	Frankfurters	W. Holschuh, No. 1605 First avenue	Free from boric and sulphurous acids and coloring matter.
26805	Frankfurters	Geo. Nolberger, No. 1464 Amsterdam avenue	Free from boric, sulphurous, benzoic and salicylic acids and coloring matter.
26806	Frankfurters	August Essig, No. 25 Manhattan street	Free from boric, sulphurous, benzoic and salicylic acids and coloring matter.
26812	Frankfurters	Max Berkower, No. 129 Mulberry street, Brooklyn	Free from boric, sulphurous, benzoic and salicylic acids and coloring matter.
26813	Frankfurters	Edmund Gallagher, No. 177 Atlantic avenue, Brooklyn	Free from boric, sulphurous, benzoic and salicylic acids and coloring matter.
26814	Frankfurters	Thomas Corenas, No. 7 Chrystie street	Free from boric, sulphurous, benzoic and salicylic acids and coloring matter.
26815	Frankfurters	Lovie Corenas, No. 2812 Fifteenth street, Coney Island	Free from boric, sulphurous, benzoic and salicylic acids and coloring matter.
26816	Frankfurters	C. Langer, No. 137 East Houston street	Free from boric, sulphurous, benzoic and salicylic acids and coloring matter.
26817	Frankfurters	George Danantapoulos, No. 7 Chrystie street	Free from boric, sulphurous, benzoic and salicylic acids and coloring matter.
26818	Frankfurters	John Gavelletus, No. 7 Chrystie street	Free from boric, sulphurous, benzoic and salicylic acids and coloring matter.
26819	Frankfurters	John Germnet, No. 132 White street	Free from boric, sulphurous, benzoic and salicylic acids and coloring matter.
26820	Frankfurters	David Sosowsky, No. 292 Monroe street	Free from boric, sulphurous, benzoic and salicylic acids and coloring matter.
26821	Frankfurters	Brenner & Hermanson, No. 77 Goerck street	Free from boric, sulphurous, benzoic and salicylic acids and coloring matter.
26829	Frankfurters	Christin Widman, No. 708 First avenue	Free from preservatives and artificial coloring matter.
26834	Frankfurters	Henry Fleck, No. 1679 Avenue A	Free from preservatives and artificial coloring matter.
26854	Frankfurters	Joseph Viegel, No. 1976 Amsterdam avenue	Free from preservatives. Coal tar dye present.
26863	Frankfurters	Justin Gortke, No. 1043 Second avenue	Free from preservatives and artificial coloring matter.
26865	Frankfurters	Metzger Bros., No. 1044 Second avenue	Free from preservatives and artificial coloring matter.
26866	Frankfurters	Jos. Wimmer, No. 1391 Avenue A	Free from preservatives and artificial coloring matter.
26868	Frankfurters	Frank Mosner, No. 1373 First avenue	Free from preservatives and artificial coloring matter.
26871	Frankfurters, barroom	Alois Zoufaly, No. 1356 First avenue	Free from preservatives and artificial coloring matter.
26872	Frankfurters	William Chyba, No. 1374 Avenue A	Free from preservatives. Artificial coloring present.
26876	Frankfurters	Val. Hermes, No. 258 Avenue B	Free from preservatives and artificial coloring matter.
26901	Frankfurters	Charles Seher, No. 2583 Eighth avenue	Free from preservatives. Artificial coloring present.
26905	Frankfurters	Fred Fischer, No. 2398 Eighth avenue	Free from preservatives and artificial coloring matter.
26911	Frankfurters	William Chyba, No. 1374 Avenue A	Free from preservatives and artificial coloring matter.
26922	Frankfurters	Frank Ferc, No. 326 East Seventy-first street	Free from preservatives and artificial coloring matter.
26930	Frankfurters	John Melchner, No. 9 First avenue	Free from preservatives and artificial coloring matter.
26950	Frankfurters	George Pfizenmaier, No. 189 Avenue A	Free from sulphurous and boric acids and coloring matter.
26951	Frankfurters	Mr. Becker, No. 237 Ninth avenue	Free from sulphurous and boric acids and coloring matter.
26976	Frankfurters	Frank Bund, No. 320 Ninth avenue	Free from sulphurous and boric acids and coloring matter.
26977	Frankfurters	Albert Dandowitz, corner of Eighth street and Broadway	Free from sulphurous and boric acids and coloring matter.
26985	Frankfurters	Mrs. Rosie Boher, No. 786 Courtland avenue, The Bronx	Free from sulphurous and boric acids and coloring matter.
27004	Frankfurters	H. Garfinkel, No. 235 Seventh avenue	Free from preservatives and artificial coloring matter.
27013	Frankfurters	William Goldschmidt, No. 621 Courtland avenue, The Bronx	Free from preservatives and artificial coloring matter.
27014	Frankfurters	Harnischfeger & Mathes, No. 1048 Second avenue	Free from preservatives and artificial coloring matter.
27020	Frankfurters, domestic	Charles Bossler, No. 5 Second avenue	Free from preservatives and artificial coloring matter.
27022	Frankfurters	George Herold, No. 2151 Second avenue	Free from preservatives and artificial coloring matter.
27023	Frankfurters	Charles Schloerb, No. 1913 Third avenue	Free from preservatives and artificial coloring matter.
27034	Frankfurters	John Kohl, No. 423 East Fifteenth street	Free from preservatives and artificial coloring matter.
27048	Frankfurters	George Glenz, No. 903 East One Hundred and Sixty-fifth street	Free from preservatives and artificial coloring matter.
27056	Frankfurters	Frederick Schempff, No. 1540 Second avenue	Free from preservatives and artificial coloring matter.
27084	Frankfurters	George Mayer, No. 805 Westchester avenue, The Bronx	Free from preservatives and artificial coloring matter.
27113	Frankfurters	Louis Drescher, No. 632 Second avenue	Free from preservatives and artificial coloring matter.
27130	Frankfurters	Swift & Co., West Harlem Market	Boracic acid present.
27167	Frankfurters	Louis Cappel, No. 302 First avenue	Free from preservatives and artificial coloring matter.
27168	Frankfurters	West Shore Beef Company, No. 688 Eighth avenue	Free from preservatives and artificial coloring matter.
27198	Frankfurters	H. Garthe, No. 1043 Second avenue	Free from preservatives and artificial coloring matter.
27239	Frankfurters	Adolph Schmidt, No. 339 East Forty-sixth street	Free from preservatives and artificial coloring matter.
27388	Frankfurters	Goldman & Schweisheimer, No. 93 Third avenue	Free from preservatives and artificial coloring matter.
27389	Frankfurters	Stutz & Feiller, No. 151 First avenue	Free from preservatives and artificial coloring matter.
27531	Frankfurters	Gottlad Jaissle, No. 200 Avenue B	Free from preservatives and artificial coloring matter.



No.	Sample.	From Whom Purchased.	Results.
27559	Frankfurters	Frank Mossner, No. 1373 First avenue.	Free from preservatives and artificial coloring matter.
27567	Frankfurters	Gertrude Langer, No. 137 East Houston street.	Free from preservatives and artificial coloring matter.
25833	Headcheese	Rohe & Brother, No. 523 West Thirty-sixth street.	Free from preservatives and artificial coloring matter.
25852	Headcheese	George Wittman, No. 338 East One Hundred and Second street	Free from preservatives and artificial coloring matter.
25855	Headcheese	George Herold, Second avenue and One Hundred and Second street	Free from preservatives and artificial coloring matter.
25878	Headcheese	Goldman & Schwasheimer, No. 83 Third avenue.	Free from borax.
25941	Headcheese	Theo. Bertsch, No. 1658 Third avenue.	Free from preservatives and artificial coloring matter.
25964	Headcheese	Gustav Reiss, No. 617 Ninth avenue.	Free from preservatives and artificial coloring matter.
25988	Headcheese	Frank Zadina, No. 1432 First avenue.	Free from borax.
25991	Headcheese	Antonia Martinek, No. 1353 First avenue.	Free from borax.
25999	Headcheese	Andrew Adamko, No. 1296 First avenue.	Free from preservatives and artificial coloring matter.
26028	Headcheese	Joseph Soukopf, No. 1424 Avenue A.	Free from borax.
26035	Headcheese, domestic blood.	Joseph Masin, No. 1384 Avenue A.	Free from borax.
26036	Headcheese, white.	Joseph Masin, No. 1384 Avenue A.	Free from borax.
26050	Headcheese	Philip Spitzhoff, No. 659 Ninth avenue.	Free from borax.
26055	Headcheese	A. Becker, No. 2690 Third avenue.	Free from borax.
26065	Headcheese	William Klinger, No. 2634 Third avenue.	Free from borax.
26068	Headcheese	Jacob Muller, No. 671 Eleventh avenue.	Free from borax.
26076	Headcheese, blood.	Alfred Naef, No. 2185 Second avenue.	Free from borax.
26109	Headcheese, German	Harnischfeger & Mathes, No. 1048 Second avenue.	Free from borax.
26118	Headcheese	Anton W. Finger, No. 866 Second avenue.	Free from borax.
26141	Headcheese	George Herold, No. 139 Avenue A.	Free from borax.
26142	Headcheese	Adolph Lindner, No. 98 First avenue.	Contains borax.
26163	Headcheese	John Kohl, No. 423 East Fifteenth street.	Free from preservatives and artificial coloring matter.
26170	Headcheese	G. C. Goelz, No. 250 First avenue.	Free from preservatives and artificial coloring matter.
26174	Headcheese	Louis Cappel, No. 302 First avenue.	Free from preservatives and artificial coloring matter.
26831	Headcheese	Oscar Pochi, No. 1744 Second avenue.	Free from preservatives and artificial coloring matter.
26197	Headcheese	John Rollman, No. 763 Columbus avenue.	Free from preservatives and artificial coloring matter.
26202	Headcheese	Charles Beckstein, No. 793 Columbus avenue.	Free from preservatives and artificial coloring matter.
26235	Headcheese	Fritz Sachs, No. 423 First avenue.	Free from preservatives and artificial coloring matter.
26238	Headcheese	Frank Hopf, No. 506 First avenue.	Free from preservatives and artificial coloring matter.
26266	Headcheese	I. Blank, No. 1454 Second avenue.	Free from preservatives and artificial coloring matter.
26281	Headcheese	John Dreyer, No. 152 West street.	Free from preservatives and artificial coloring matter.
26286	Headcheese	John Hoesel, No. 182 Avenue B.	Free from borax and sulphites.
26289	Headcheese	Ballentine Hermes, No. 258 Avenue B.	Free from borax and sulphites.
26295	Headcheese	B. F. Jaissel, No. 200 Avenue B.	Free from borax and sulphites.
26315	Headcheese	Henry Eberle, No. 110 Amsterdam avenue.	Contains borax.
26323	Headcheese	George Gingerich, No. 70 Amsterdam avenue.	Free from borax and sulphites.
26336	Headcheese	John Bacsl, No. 253 East Third street.	Free from borax and sulphites.
26338	Headcheese	William Bormester, No. 544 Second avenue.	Free from borax and sulphites.
26349	Headcheese	Lang Bros., No. 569 Tenth avenue.	Free from borax and sulphites.
26351	Headcheese	Charles Reichert, No. 104 West Houston street.	Free from borax and sulphites.
26357	Headcheese	Bernard Meyer, No. 161 Perry street.	Free from borax and sulphites.
26372	Headcheese	C. Schneider, No. 77 Broome street.	Free from borax and sulphites.
26385	Headcheese	S. Ludwig, No. 1833 Third avenue.	Free from borax.
26387	Headcheese	Chris Schloerb, No. 1913 Third avenue.	Free from borax.
26450	Headcheese	Charles Beckstein, No. 793 Columbus avenue.	Free from preservatives and coloring matter.
26468	Headcheese	John Rollman, No. 763 Columbus avenue.	Free from preservatives and coloring matter.
26481	Headcheese	Carl Decker, No. 835 Second avenue.	Free from preservatives and coloring matter.
26511	Headcheese	William Klinger, No. 2634 Third avenue.	Free from borax, sulphites and coloring matter.
26516	Headcheese	Adolph Becker, No. 2690 Third avenue.	Free from borax, sulphites and coloring matter.
26522	Headcheese	John Heim, No. 133 Lincoln avenue, The Bronx.	Free from borax, sulphites and coloring matter.
26530	Headcheese	William Burmeister, No. 544 Second avenue.	Free from borax, sulphites and coloring matter.
26553	Headcheese	Jacob Dangler, No. 722 Myrtle avenue, Brooklyn.	Free from borax, sulphites and coloring matter.
26571	Headcheese, white.	Ed. C. Krummel, No. 906 Broadway, Brooklyn.	Free from borax, sulphites and coloring matter.
26597	Headcheese, white.	Chris. Grozinger, No. 195 Hamburg avenue, Brooklyn.	Free from borax, sulphites and coloring matter.
26601	Headcheese, white.	Ch. J. Stahl, Metropolitan and Union avenues, Brooklyn.	Free from borax, sulphites and coloring matter.
26612	Headcheese, white.	Adolph Gobel, Morgan avenue and Rock street, Brooklyn.	Free from borax, sulphites and coloring matter.
26614	Headcheese, white.	Bernard Spitzer, No. 192 Leonard street, Brooklyn.	Contains borax.
26638	Headcheese, white.	International Pro. Company, No. 33 Degraw street, Brooklyn.	Free from borax, sulphites and coloring matter.
26644	Headcheese, white.	Hutuelker Bros., No. 653 Fifth avenue, Brooklyn.	Free from borax, sulphites and coloring matter.
26654	Headcheese, white.	F. H. Tietje, No. 656 Third avenue, Brooklyn.	Free from borax, sulphites and coloring matter.
26664	Headcheese	Julius Wachler, No. 996 First avenue.	Free from borax, sulphites and coloring matter.
26694	Headcheese	C. Heidelberger's Sons, No. 856 Manhattan avenue.	Free from borax, sulphites and coloring matter.
26709	Headcheese, white.	Louis Meyer, No. 374 Flushing avenue, Brooklyn.	Free from borax, sulphites and coloring matter.
26718	Headcheese	G. C. Goelz, No. 250 First avenue.	Free from borax, sulphites and coloring matter.
26742	Headcheese	John Kohl, No. 423 East Fifteenth street.	Free from borax, sulphites and coloring matter.
26746	Headcheese	A. Lester Heyer, Nos. 318 and 320 East Twenty-eighth street.	Free from borax, sulphites and coloring matter.
26823	Headcheese	Max Hermann, No. 950 First avenue.	Free from boric, sulphurous, benzoic and salicylic acids and coloring matter.
26878	Headcheese	Val. Hermes, No. 258 Avenue B.	Free from preservatives and artificial coloring matter.
26899	Headcheese	Charles Seher, No. 2583 Eighth avenue.	Free from preservatives and artificial coloring matter.
26902	Headcheese	Fred Fischer, No. 2398 Eighth avenue.	Free from preservatives and artificial coloring matter.
26988	Headcheese	Mrs. Rosie Boher, No. 786 Courtland avenue, The Bronx.	Free from boric and sulphurous acids and coloring matter.
25835	Liver pudding.	Rohe Bros., No. 523 West Thirty-sixth street.	Free from preservatives and artificial coloring matter.
26058	Liver pudding.	A. Becker, No. 2690 Third avenue.	Free from borax.
26063	Liver pudding.	William Klinger, No. 2634 Third avenue.	Free from borax.
26856	Liver pudding.	Joseph Viegel, No. 1976 Amsterdam avenue.	Free from preservatives and artificial coloring matter.
25879	Salami	Goldman & Schwasheimer, No. 83 Third avenue.	Contains borax.
25971	Salami	Bernstein-Greenberg Company, No. 82 Rivington street.	Free from borax.



No.	Sample.	From Whom Purchased.	Results.
25983	Salami	Vaclav Novak, No. 1363 First avenue.	Free from borax.
26006	Salami, German	Swift & Co., Eleventh avenue and Thirty-fifth street.	Contains borax.
26007	Salami, Italian	Swift & Co., Eleventh avenue and Thirty-fifth street.	Free from borax.
26355	Salami	Charles Reichert, No. 104 West Houston street.	Free from borax and sulphites.
26361	Salami	D. Moskowitz, No. 49 Cannon street.	Free from borax and sulphites.
26376	Salami	I. Gellis, No. 37 Essex street.	Free from borax and sulphites.
26424	Salami	M. Kroll Sons, No. 33 Canal street.	Free from preservatives and coloring matter.
26433	Salami	Gertrude Langer, No. 137 West Houston street.	Free from preservatives and coloring matter.
26435	Salami	Erschowsky & Bro., No. 175 West Houston street.	Contains borax.
25814A Sausages		Gustav Langer, No. 137 East Houston street.	Contains coloring matter. Free from preservatives.
25814B Sausages		Gustav Langer, No. 137 East Houston street.	Free from preservatives and coloring matter.
25814C Sausages		Gustav Langer, No. 137 East Houston street.	Free from preservatives. Coloring matter present.
25814D Sausages		Gustav Langer, No. 137 East Houston street.	Free from preservatives. Coloring matter present.
25814E Sausages		Gustav Langer, No. 137 East Houston street.	Free from preservatives. Coloring matter present.
25814F Sausages		Gustav Langer, No. 137 East Houston street.	Free from preservatives and coloring matter.
25814G Sausages		Gustav Langer, No. 137 East Houston street.	Free from preservatives. Coloring matter present.
25814H Sausages		Gustav Langer, No. 137 East Houston street.	Free from preservatives and coloring matter.
25815 Sausages		A. Guilda, No. 66 West Third street.	Free from preservatives and artificial coloring matter.
25816 Sausages		P. Lewith, No. 43 Greenwich street.	Free from preservatives and artificial coloring matter.
25817 Sausages		M. Dreyfus, No. 423 Greenwich street.	Free from preservatives and artificial coloring matter.
25819 Sausages		A. Percival, No. 100 Sixth avenue.	Borax present.
25822 Sausages		S. Lichtenstein, No. 287 Eighth avenue.	Borax present.
25823 Sausages		Val. Linke, No. 147 Seventh avenue.	Free from preservatives and coloring matter.
25824 Sausages		A. Lewis, No. 107 Seventh avenue.	Borax present.
25825A Sausages		S. Ershowsky & Bro., No. 175 East Houston street.	Borax present.
25825B Sausages		S. Ershowsky & Bro., No. 175 East Houston street.	Borax present.
25826A Sausages		Fred Hauff, No. 41 Broadway.	Free from preservatives and coloring matter.
25826B Sausages		Fred Hauff, No. 41 Broadway.	Free from preservatives and coloring matter.
25826C Sausages		Fred Hauff, No. 41 Broadway.	Free from preservatives and coloring matter.
25826D Sausages		Fred Hauff, No. 41 Broadway.	Borax present.
25826E Sausages		Fred Hauff, No. 41 Broadway.	Free from preservatives and coloring matter.
25826F Sausages		Fred Hauff, No. 41 Broadway.	Free from preservatives and coloring matter.
25826G Sausages		Fred Hauff, No. 41 Broadway.	Free from preservatives and coloring matter.
25827A Sausages		M. Zimmerman & Co., No. 318 East Houston street.	Free from preservatives and coloring matter.
25827B Sausages		M. Zimmerman & Co., No. 318 East Houston street.	Borax present.
25827C Sausages		M. Zimmerman & Co., No. 318 East Houston street.	Free from preservatives and coloring matter.
25827D Sausages		M. Zimmerman & Co., No. 318 East Houston street.	Free from preservatives and coloring matter.
25827E Sausages		M. Zimmerman & Co., No. 318 East Houston street.	Free from preservatives and coloring matter.
25827F Sausages		M. Zimmerman & Co., No. 318 East Houston street.	Free from preservatives and coloring matter.
25827G Sausages		M. Zimmerman & Co., No. 318 East Houston street.	Free from preservatives and coloring matter.
25827H Sausages		M. Zimmerman & Co., No. 318 East Houston street.	Borax present.
25827I Sausages		M. Zimmerman & Co., No. 318 East Houston street.	Borax present.
25830 Sausages		Rohe Bros., No. 523 West Thirty-sixth street.	Borax present.
25842 Sausages		F. Metzger, No. 1044 Second avenue.	Free from preservatives and coloring matter.
25843A Sausages		Gomprecht Sausage Company, No. 797 Third avenue.	Borax present.
25843B Sausages		Gomprecht Sausage Company, No. 797 Third avenue.	Borax present.
25846 Sausages		Siegel Cooper, Eighteenth street and Sixth avenue.	Contains a sulphite.
25882 Sausages		Goldman & Schwasheimer, No. 83 Third avenue.	Borax present.
25884 Sausages		A. W. Michel, No. 90 Ninth avenue.	Borax present.
25887 Sausages		A. L. Maier, No. 444 Tenth avenue.	Free from preservatives and artificial coloring matter.
26005 Sausages, German		Swift & Co., Eleventh avenue and Thirty-fifth street.	Borax present.
26090 Sausages, Cervelat		Ph. H. Loewith, No. 403 Greenwich street.	Free from borax.
26091 Sausages, Salami		Ph. H. Loewith, No. 403 Greenwich street.	Free from borax.
26092 Sausages, Cervelat		Ph. H. Loewith, No. 403 Greenwich street.	Free from borax.
26096 Sausages		C. H. Reed's Sons, No. 185 First avenue.	Free from borax.
26101 Sausages		L. Lammell, No. 2193 Eighth avenue.	Free from borax.
26106 Sausages, fresh		Julius H. Garthe, No. 1043 Second avenue.	Free from borax.
26138 Sausages, fresh		George Herold, No. 138 Avenue A.	Free from borax.
26251 Sausages		Fred Winter, No. 692 Tenth avenue.	Free from preservatives and coloring matter.
26277 Sausages, fresh		Eliz. Koegler, No. 8 Greenwich street.	Free from preservatives and coloring matter.
26307 Sausages		Max Arick, No. 74 Delancey street.	Free from borax and sulphites.
26414 Sausages		M. Zimmerman & Co., No. 318 East Houston street.	Free from borax and sulphites.
26439 Sausages, Summer		John Morrell & Co., No. 620 East Thirty-sixth street.	Free from preservatives and coloring matter.
26496 Sausages, Armour's			Free from preservatives and coloring matter.
26545 Sausages, pork		Jacob Dangler, No. 722 Myrtle avenue, Brooklyn.	Free from borax, sulphites and coloring matter.
26555 Sausages, pork		Louis Stutz & Sons, No. 815 Broadway.	Borax present.
26630 Sausages, pork		Boehm & Co., No. 185 Fort Greene place, Brooklyn.	Free from borax, sulphites and coloring matter.
26635 Sausages, pork		International Provision Company, No. 33 Degraw street, Brooklyn	Borax present.
26650 Sausages (Bauren Wurst)		Hutuelker Bros., No. 653 Fifth avenue, Brooklyn.	Free from borax, sulphites and coloring matter.
26696 Sausages, pork		C. Heidelberger's Sons, No. 856 Manhattan avenue, Brooklyn.	Free from borax, sulphites and coloring matter.
26745 Sausages		A. Lester Heyer, Nos. 318 and 320 East Twenty-ninth street.	Free from borax, sulphites and coloring matter.
27126 Sausages		Armour & Co., West Harlem Market.	Sulphurous acid—trace present.
27127 Sausages		H. Dietz, No. 482 Lenox avenue.	Boracic acid present.
27686 Sausages		Ferdinando Rivecco, No. 137 Van Brunt street.	Sulphurous acid present.
25914 Meat, spiced		Sussman Volk, No. 88 Delancey street.	Free from borax.
25929 Meat, raw			Free from borax, sulphites and artificial coloring matter.
26379 Meat, spiced		I. Gellis, No. 37 Essex street.	Free from borax and sulphites.
26434 Meat, specked		Gertrude Langer, No. 137 West Houston street.	Free from preservatives and coloring matter.
26620 Meat, chopped		Brennwasser, No. 1616 Second avenue.	Free from borax, sulphites and coloring matter.
26621 Meat, chopped		Nauss Bros. Company, Eightieth street and Second avenue.	Free from borax, sulphites and coloring matter.



No.	Sample.	From Whom Purchased.	Results.
26622	Meat, chopped.....	Brennwasser, No. 1571 Second avenue.....	Free from borax, sulphites and coloring matter.
26623	Meat, chopped.....	Brennwasser, No. 1571 Second avenue.....	Free from borax, sulphites and coloring matter.
26626	Meat, chopped.....	Abr. Tuck, No. 1569 Lexington avenue.....	Sulphurous acid present.
26763	Meat, chopped.....	.....	Sulphurous acid present.
26912	Meat, chopped.....	F. Perc, No. 326 East Seventy-first street.....	Free from preservatives and artificial coloring matter.
26978	Meat, chopped.....	N. Levy & Co., No. 230 Eighth avenue.....	Sulphurous acid present.
27125	Meat, round steak.....	Jacob Wise, No. 100 West Thirty-fourth street.....	Free from borax, sulphites and coloring matter.
27131	Meat, chopped.....	L. Oppenheimer, No. 2037 Second avenue.....	Sulphurous acid present.
27132	Meat, chopped.....	Kahn Bachenheimer, No. 361 Lenox avenue.....	Sulphurous acid present.
27136	Meat, chopped.....	John Rollmann, No. 763 Columbus avenue.....	Sulphurous acid present.
27556	Meat, chopped.....	J. Wendel & Son, No. 2733 Eighth avenue.....	Sulphurous acid present.
27565	Meat, chopped.....	Reliance Beef Company, No. 1738 Fulton street, Brooklyn..	Sulphurous acid present.
27566	Meat, chopped.....	E. Meyer, No. 2030 Fulton street, Brooklyn.....	Sulphurous acid present.
27606	Meat, chopped.....	Chapman's, corner Fulton and Bridge streets, Brooklyn.....	Sulphurous acid present.
27609	Meat, chopped.....	S. Klein, No. 620 Myrtle avenue, Brooklyn.....	Sulphurous acid present.
27610	Meat, chopped.....	Columbia Meat Market, No. 635 Myrtle avenue, Brooklyn....	Sulphurous acid present.
27611	Meat, chopped.....	Isadore Katz, No. 482 Myrtle avenue, Brooklyn.....	Sulphurous acid present.
27763	Meat, chopped.....	Martin Herrmann, No. 1804 Second avenue.....	Sulphurous acid present.
27764	Meat, chopped.....	Gustav Schmidt, No. 1823 Second avenue.....	Sulphurous acid present.
27488	Meat, chopped.....	William Zick, No. 29 Bleecker street.....	Sulphurous acid present.
27489	Meat, chopped.....	Joe Mayer, No. 368 Bleecker street.....	Sulphurous acid present.
27490	Meat, chopped.....	Frank Bund, No. 278 Bleecker street.....	Sulphurous acid present.
27491	Meat, chopped.....	Fourteenth Street Store, Fourteenth street and Sixth avenue.	Sulphurous acid—trace present.
27492	Meat, chopped.....	Fourteenth Street Store, Fourteenth street and Sixth avenue.	Sulphurous acid—trace present.
27384	Tripe .....	Swift & Co.....	Free from borax.
27385	Tripe .....	Morris & Co., West Harlem Market.....	Borax present.
27414	Tripe .....	Morris & Co.....	Borax present.
27413	Tripe .....	Swift & Co., Twelfth avenue and Manhattan street.....	Free from borax.
27555	Tripe .....	Ind. Preservative Company.....	Free from preservatives.
25851	Wurst, liver.....	George Wittman, No. 338 East One Hundred and Second street .....	Free from preservatives and artificial coloring matter.
25862	Wurst, liver.....	Fred Benz, No. 412 East One Hundred and Second street..	Free from borax.
25875	Wurst, liver, smoked.....	Otto Stahl, No. 2332 Third avenue.....	Free from preservatives and artificial coloring matter.
25881	Wurst, knack.....	Goldman & Schwasheimer, No. 83 Third avenue.....	Borax present.
25891	Wurst, liver.....	Richard Weber, Third avenue, between One Hundred and Nineteenth and One Hundred and Twentieth streets.....	Free from preservatives and artificial coloring matter.
25899	Wurst, liver, smoked.....	Louis Grimm, No. 1427 Second avenue.....	Borax present. Free from artificial coloring matter.
25943	Wurst, liver, smoked.....	W. Holschuh, No. 1605 First avenue.....	Free from borax.
25987	Wurst, knack.....	Frank Zadina, No. 1432 First avenue.....	Free from preservatives and artificial coloring matter.
25993	Wurst, liver, smoked.....	Frank Mossner, No. 1373 First avenue.....	Free from preservatives and artificial coloring matter.
26001	Wurst, liver.....	George Bauer, No. 1208 First avenue.....	Free from preservatives and artificial coloring matter.
26027	Wurst, knack.....	Joseph Soukopf, No. 1424 Avenue A.....	Free from borax.
26030	Wurst, knack.....	Joseph Wimmer, No. 1391 Avenue A.....	Borax present.
26033	Wurst, knack.....	William Chyba, No. 1374 Avenue A.....	Free from borax.
26044	Wurst, liver, smoked.....	Henry Fleck, No. 1679 Avenue A.....	Free from borax.
26049	Wurst, liver.....	Philip Spitzhoff, No. 659 Ninth avenue.....	Free from borax.
26073	Wurst, liver.....	R. J. Pusim, No. 850 Tenth avenue.....	Free from borax.
26105	Wurst, liver, smoked.....	Julius Garthe, No. 1043 Second avenue.....	Free from borax.
26107	Wurst, liver, smoked.....	Julius Garthe, No. 1043 Second avenue.....	Free from borax.
26114	Wurst, knack.....	Felix Metzger, No. 1044 Second avenue.....	Free from borax.
26125	Wurst, knack.....	Gabriel Vetter, No. 763 Second avenue.....	Free from borax.
26127	Wurst, liver, smoked.....	F. Majewski & Son, No. 607 Second avenue.....	Free from borax.
26128	Wurst, Cervelat.....	F. Majewski & Son, No. 607 Second avenue.....	Free from borax.
26133	Wurst, liver.....	G. Pfizenmaier, No. 189 Avenue A.....	Free from borax.
26135	Wurst, blood.....	G. Pfizenmaier, No. 189 Avenue A.....	Free from borax.
26137	Wurst, liver.....	George Herold, No. 139 Avenue A.....	Free from borax.
26158	Wurst, liver.....	John Schwenker, No. 966 East One Hundred and Thirty-fourth street .....	Free from preservatives and coloring matter.
26160	Wurst, liver.....	John Leim, No. 133 Lincoln avenue, The Bronx.....	Free from preservatives and coloring matter.
26166	Wurst, liver.....	John Kohl, No. 423 East Fifteenth street.....	Free from preservatives and coloring matter.
26172	Wurst, liver.....	Louis Cappel, No. 302 First avenue.....	Free from preservatives and coloring matter.
26199	Wurst, liver .....	John Rollman, No. 763 Columbus avenue.....	Free from preservatives and coloring matter.
26205	Wurst, liver.....	John Beckstein, No. 793 Columbus avenue.....	Free from preservatives and coloring matter.
26211	Wurst, liver.....	Isaac Melchner, No. 9 First avenue.....	Free from preservatives and coloring matter.
26216	Wurst, blood.....	Stutz & Feiler, No. 151 First avenue.....	Borax present.
26221	Wurst, liver.....	Everhard Pantel, No. 1826 Second avenue.....	Free from preservatives and coloring matter.
26224	Wurst, land yeager.....	Everhard Pantel, No. 1826 Second avenue.....	Free from preservatives and coloring matter.
26230	Wurst, liver.....	David Reubold, No. 1805 Second avenue.....	Free from preservatives and coloring matter.
26236	Wurst, blood.....	Frank Hopf, No. 506 First avenue.....	Free from preservatives and coloring matter.
26240	Wurst, liver.....	Frank Hopf, No. 506 First avenue.....	Free from preservatives and coloring matter.
26241	Wurst, Bauren.....	Frank Hopf, No. 506 First avenue.....	Free from preservatives and coloring matter.
26272	Wurst, liver.....	John Dreyer, No. 152 West street.....	Free from preservatives and coloring matter.
26275	Wurst, liver.....	Eliz. Koegler, No. 8 Greenwich street.....	Free from preservatives and coloring matter.
26320	Wurst, liver.....	Henry Eberle, No. 110 Amsterdam avenue.....	Free from borax and sulphites.
26325	Wurst, liver.....	George Gingerich, No. 70 Amsterdam avenue.....	Free from borax and sulphites.
26326	Wurst, liver.....	George Gingerich, No. 70 Amsterdam avenue.....	Free from borax and sulphites.
26329	Wurst, liver.....	John Foerst, No. 122 Manhattan street.....	Borax present.
26342	Wurst, liver.....	William G. Wagner, No. 573 First avenue.....	Free from borax and sulphites.
26347	Wurst, liver.....	Lang Bros., No. 569 Tenth avenue.....	Free from borax and sulphites.
26350	Wurst, yeager .....	Lang Bros., No. 569 Tenth avenue.....	Free from borax and sulphites.
26356	Wurst, liver.....	Charles Reichert, No. 104 West Houston street.....	Free from borax and sulphites.
26358	Wurst, liver.....	Bernard Meyer, No. 161 Perry street.....	Free from borax and sulphites.



No.	Sample.	From Whom Purchased.	Results.
26370	Wurst, liver.....	C. Schneider, No. 77 Broome street.....	Free from borax and sulphites.
26382	Wurst, knack.....	Christ Seher, No. 1887 Third avenue.....	Free from borax.
26388	Wurst, liver.....	Charles Schloerb, No. 1913 Third avenue.....	Free from borax.
26395	Wurst, liver.....	Frank S. Schwintek, No. 1979 Third avenue.....	Free from borax.
26405	Wurst, liver.....	Woelfle & Pfeiffer.....	Free from borax and sulphites.
26410	Wurst, liver.....	Louis Grimm, No. 1427 Second avenue.....	Free from borax and sulphites.
26413	Wurst, knack.....	M. Zimmerman & Co., Nos. 318 to 324 East Houston street..	Free from borax and sulphites.
26449	Wurst, liver.....	Charles Beckstein, No. 793 Columbus avenue.....	Free from preservatives and coloring matter.
26470	Wurst, liver.....	John Rollman, No. 763 Columbus avenue.....	Free from preservatives and coloring matter.
26473	Wurst, liver.....	Max Herman, No. 950 First avenue.....	Free from preservatives and coloring matter.
26476	Wurst, blood.....	Max Herman, No. 950 First avenue.....	Free from preservatives and coloring matter.
26479	Wurst, liver.....	William Sutton, No. 829 First avenue.....	Free from preservatives and coloring matter.
26483	Wurst, liver.....	Carl Decker, No. 835 Second avenue.....	Free from preservatives and coloring matter.
26484	Wurst, blood.....	Carl Decker, No. 835 Second avenue.....	Free from preservatives and coloring matter.
26491	Wurst, knack.....	Fischer & Co., No. 2325 Second avenue.....	Free from preservatives and coloring matter.
26512	Wurst, liver.....	William Klingler, No. 2634 Third avenue.....	Free from borax, sulphites and coloring matter.
26517	Wurst, liver.....	Adolph Becker, No. 2690 Third avenue.....	Free from borax, sulphites and coloring matter.
26527	Wurst, liver.....	Lang Bros., No. 569 Second avenue.....	Free from borax, sulphites and coloring matter.
26529	Wurst, liver.....	William Burmeister, No. 544 Second avenue.....	Free from borax, sulphites and coloring matter.
26532	Wurst, liver.....	Majewski & Sons, No. 607 Second avenue.....	Free from borax, sulphites and coloring matter.
26546	Wurst, blood.....	Jacob Dangler, No. 722 Myrtle avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26549	Wurst, liver.....	Jacob Dangler, No. 722 Myrtle avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26557	Wurst, liver.....	Louis Stutz & Sons, No. 815 Broadway, Brooklyn.....	Borax present.
26559	Wurst, Bauren.....	Louis Stutz & Sons, No. 815 Broadway, Brooklyn.....	Borax present.
26560	Wurst, liver.....	Louis Stutz & Sons, No. 815 Broadway, Brooklyn.....	Free from borax, sulphites and coloring matter.
26561	Wurst, blood.....	Louis Stutz & Sons, No. 815 Broadway, Brooklyn.....	Free from borax, sulphites and coloring matter.
26564	Wurst, liver.....	Edw. C. Krummel, No. 906 Broadway, Brooklyn.....	Free from borax, sulphites and coloring matter.
26565	Wurst, Bauren.....	Edw. C. Krummel, No. 906 Broadway, Brooklyn.....	Borax present.
26567	Wurst, blood.....	Edw. C. Krummel, No. 906 Broadway, Brooklyn.....	Borax present.
26570	Wurst, liver.....	Edw. C. Krummel, No. 906 Broadway, Brooklyn.....	Free from borax, sulphites and coloring matter.
26592	Wurst, liver.....	Chris Grozinger, No. 195 Hamburg avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26593	Wurst, liver.....	Chris Grozinger, No. 195 Hamburg avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26594	Wurst, Bauren.....	Chris Grozinger, No. 195 Hamburg avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26600	Wurst, liver.....	Charles Stahl, Metropolitan and Union avenues, Brooklyn....	Free from borax, sulphites and coloring matter.
26607	Wurst, liver.....	Adolph Gobel, Morgan avenue, corner Rock street, Brooklyn.	Free from borax, sulphites and coloring matter.
26610	Wurst, liver.....	Adolph Gobel, Morgan avenue, corner Rock street, Brooklyn.	Free from borax, sulphites and coloring matter.
26611	Wurst, Bauren.....	Adolph Gobel, Morgan avenue, corner Rock street, Brooklyn.	Free from borax, sulphites and coloring matter.
26632	Wurst, liver.....	Boehm & Co., No. 185 Fort Greene place, Brooklyn.....	Free from borax, sulphites and coloring matter.
26641	Wurst, liver.....	International Provision Company, No. 33 Degraw street, Brooklyn .....	Free from borax, sulphites and coloring matter.
26642	Wurst, liver.....	International Provision Company, No. 33 Degraw street, Brooklyn .....	Free from borax, sulphites and coloring matter.
26646	Wurst, liver.....	Hytuelker Bros., No. 653 Fifth avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26649	Wurst, liver.....	Hytuelker Bros., No. 653 Fifth avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26651	Wurst, liver.....	F. H. Tietje, No. 656 Third avenue.....	Free from borax, sulphites and coloring matter.
26660	Wurst, liver.....	F. H. Tietje, No. 656 Third avenue.....	Free from borax, sulphites and coloring matter.
26661	Wurst, liver.....	F. H. Tietje, No. 656 Third avenue.....	Free from borax, sulphites and coloring matter.
26662	Wurst, Bauren.....	F. H. Tietje, No. 656 Third avenue.....	Free from borax, sulphites and coloring matter.
26665	Wurst, blood.....	Julius Waehler, No. 996 First avenue.....	Free from borax, sulphites and coloring matter.
26667	Wurst, liver.....	Julius Waehler, No. 996 First avenue.....	Free from borax, sulphites and coloring matter.
26670	Wurst, blood.....	Huhn Bros., No. 1162 Second avenue.....	Free from borax, sulphites and coloring matter.
26687	Wurst, liver.....	Joseph Rank, No. 1005 Manhattan avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26691	Wurst, liver.....	Joseph Rank, No. 1005 Manhattan avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26692	Wurst, liver.....	C. Heidelberger's Sons, No. 856 Manhattan avenue, Brooklyn.	Free from borax, sulphites and coloring matter.
26699	Wurst, Bauren.....	C. Heidelberger's Sons, No. 856 Manhattan avenue, Brooklyn.	Free from borax, sulphites and coloring matter.
26700	Wurst, liver.....	C. Heidelberger's Sons, No. 856 Manhattan avenue, Brooklyn.	Free from borax, sulphites and coloring matter.
26704	Wurst, liver.....	Louis Meyer, No. 374 Flushing avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26710	Wurst, liver.....	Louis Meyer, No. 374 Flushing avenue, Brooklyn.....	Free from borax, sulphites and coloring matter.
26712	Wurst, knack.....	Louis Meyer, No. 374 Flushing avenue, Brooklyn.....	Borax present.
26714	Wurst, liver.....	D. Reubold, No. 1805 Second avenue.....	Free from borax, sulphites and coloring matter.
26715	Wurst, liver.....	Eberhard Pantel, No. 1825 Second avenue.....	Free from borax, sulphites and coloring matter.
26730	Wurst, liver.....	Brennzinger, No. 3022 Third avenue.....	Free from borax, sulphites and coloring matter.
26737	Wurst, blood.....		Free from borax, sulphites and coloring matter.
26738	Wurst, liver.....	John Kohl, No. 423 East Fifteenth street.....	Free from borax, sulphites and coloring matter.
26752	Wurst, liver.....	P. Stenger, No. 1475 First avenue.....	Free from boric, sulphurous, benzoic and salicylic acids and coloring matter.
26754	Wurst, liver.....	W. Holschuh, No. 1605 First avenue.....	Free from boric and sulphurous acids and coloring matter.
26822	Wurst, liver.....	Max Herman, No. 950 First avenue.....	Free from boric, sulphurous, benzoic and salicylic acids and coloring matter.
26824	Wurst, blood.....	Max Herman, No. 950 First avenue.....	Free from boric, sulphurous, benzoic and salicylic acids and coloring matter.
26832	Wurst, liver.....	Oscar Pochi, No. 1744 Second avenue.....	Free from preservatives and coloring matter.
26833	Wurst, liver.....	Max Celscher, No. 1598 Avenue A.....	Free from preservatives and coloring matter.

No.	Brand.	Sample.	From Whom Purchased.	Results.
26835		Wurst, liver .....	Henry Fleck, No. 1679 Avenue A.....	Free from preservatives and artificial coloring matter.
26862		Wurst, liver .....	Justin Gortke, No. 1043 Second avenue.....	Free from preservatives and artificial coloring matter.
26869		Wurst, knack .....	Jas. Soukup, No. 1424 Avenue A.....	Free from preservatives and artificial coloring matter.
26870		Wurst, liver .....	Frank Zadina, No. 1432 First avenue.....	Free from preservatives and artificial coloring matter.
26873		Wurst, liver .....	Vaclav Novak, No. 1363 First avenue.....	Free from preservatives and artificial coloring matter.
26913		Wurst, liver .....	F. Ferc, No. 326 East Seventy-first street.....	Free from preservatives and artificial coloring matter.



No.	Brand.	Sample.	From Whom Purchased.	Results.
26923		Wurst, liver	Andrew Adamko, No. 1296 First avenue.....	Free from preservatives and artificial coloring matter.
26921		Wurst, liver	Frank Ferc, No. 326 East Seventy-first street..	Free from preservatives and artificial coloring matter.
26924		Wurst, liver	Geo. Bauer, No. 1208 First avenue.....	Free from preservatives and artificial coloring matter.
26984		Wurst, liver	Mrs. Rose Boher, No. 786 Cortlandt avenue, The Bronx .....	Free from boric and sulphurous acids and coloring matter.
27024		Wurst, liver	Frank Schwintek, No. 1979 Third avenue.....	Sulphurous acid present.
27025		Wurst, liver	C. Ludwig, No. 1823 Third avenue.....	Sulphurous and boracic acids present.
27026		Wurst, liver	John Tafel, No. 1887 Third avenue.....	Sulphurous acid, trace present.
27027		Wurst, liver	Alfred Naef, No. 2185 Second avenue.....	Free from preservatives and artificial coloring matter.
27028		Wurst, liver	Fischer & Co., No. 2325 Second avenue.....	Sulphurous acid, trace present.
27095		Wurst, knack	Anton Martinek, No. 1353 First avenue.....	Free from preservatives and artificial coloring matter.
27133		Wurst, liver	Fischer & Co., No. 2325 Second avenue.....	Sulphurous acid, trace present.
27134		Wurst, liver	John Tafel, No. 1887 Third avenue.....	Free from preservatives and artificial coloring matter.
27177		Wurst, liver	Justin Garthe, No. 1043 Second avenue.....	Free from preservatives and artificial coloring matter.
27195		Wurst, liver	Chas. Koelle, No. 1569 Second avenue.....	Free from preservatives and artificial coloring matter.
27238		Wurst, liver	Adolph Schmidt, No. 339 East Forty-sixth street.	Free from borax, sulphites and coloring matter.
27417		Wurst, liver	D. Reubold, No. 1805 Second avenue.....	Free from preservatives and artificial coloring matter.
27436		Wurst, liver	Louis Grimm, No. 1427 Third avenue.....	Free from preservatives and artificial coloring matter.
27508		Wurst, liver	Bernard Pantle, No. 1825 Second avenue.....	Free from preservatives and artificial coloring matter.
27607		Wurst, liver	Frank Schwintek, No. 1979 Third avenue.....	Free from preservatives and artificial coloring matter.
27685		Wurst, liver	Conrad Ludwig, No. 1833 Third avenue.....	Free from preservatives and artificial coloring matter.
27759		Wurst, liver	Henry Fleck, No. 1679 Avenue A.....	Free from preservatives and artificial coloring matter.
27919		Wurst, liver	Fischer & Co., No. 2325 Second avenue.....	Free from sulphurous and boric acids and coloring matter.
24895		Tongue (potted)	Wm. Gartelman, No. 2364 Eighth avenue.....	Free from benzoic, salicylic and boric acids and artificial coloring matter (coal tar colors).
25251		Bacon	A. F. Warner.....	Free from potassium cyanide and strychnine.
25828	Rex Brand.....	Ham (potted)	Leo Bohdt, No. 454 Ninth avenue.....	Free from borax, sulphites, salicylic and benzoic acids and beta natpthol. Free from preservatives.
25829	Libbys.....	Chicken (potted)	Leo Bohdt, No. 454 Ninth avenue.....	Free from borax, sulphites, salicylic and benzoic acids or beta naphthol. Free from preservatives.
25937		Ox tongue (potted).....	John Koenig, No. 481 Ninth avenue.....	Free from borax.
25938		Ham (potted)	John Koenig, No. 481 Ninth avenue.....	Free from borax.
25967		Breast fat	Jacob Keiser, No. 1507 First avenue.....	Free from borax.
26365		Pastrama	D. Moskowitz, No. 49 Cannon street.....	Free from borax and sulphites.
26419		Pastrama	M. Zimmerman & Co., No. 318 East Houston street .....	Free from borax and sulphites.
26420		Paprica fat	M. Zimmerman & Co., No. 318 East Houston street .....	Free from borax and sulphites.
26427		Paprica fat	M. Kroll Sons, No. 33 Canal street.....	Free from preservatives and coloring matter.
26440		Pork trimmings	John Morrell & Co., No. 620 East Thirty-sixth street .....	Free from preservatives and coloring matter.
26637		Ham, pressed	Int. Provision Company, No. 33 Degraw street, Brooklyn .....	Free from borax, sulphites and coloring matter.
26803		Liver	.....	Free from boric, sulphurous, benzoic and salicylic acids and coloring matter.
26920		Cervelat	Vincenzo Sauc, No. 401 East Seventy-third street .....	Free from preservatives and artificial coloring matter.
27129		Ham, pressed	Swift & Co., West Harlem Market.....	Boracic acid present. Sulphurous acid, trace present.
27383		Tongue	.....	Physiological test negative.
27743		Caviar	Ferdinand Hanson, No. 336 Greenwich street...	Free from borax, boric, benzoic and salicylic acids and sulphites.

Note—Meats should follow liver pudding.

#### Milks and Creams.

No.	Sample.	From Whom Received.	Results.
25668	Milk, human	Dr. Wilson	Milk sugar (by difference), 7.35 per cent.; fat, 4.30 per cent.; proteid, 1.73 per cent.; ash, 0.28 per cent.
27151	Milk, human	Mr. Wolf	Fat, 1.09 per cent.; total solids, 9.29 per cent.
27422	Milk, human	Dr. Robert's Office	Fat, 3.13 per cent.; total solids, 11.72 per cent.
27448	Milk, human	Dr. Robert's Office	Fat, 0.97 per cent.; total solids, 9.34 per cent.
24925	Mothermilk	Commissioner's Office	Moisture, 3.11 per cent.; ash, 6.69 per cent.; fat, 11.10 per cent.; proteid, 16.23 per cent.; milk sugar (by difference), 62.87 per cent.
24959	Milk	Dr. Bense's Office	Free from poisonous metals, cyanides, acetic and mineral acids.
25224	Milk	Bellevue Hospital	Free from formaldehyde and borax, salicylic, benzoic acids and bata naphthol.
25226			
25549	Milk	H. S. Sanden, No. 603 Bloomfield street, Hoboken.....	Free from alkaloids.
26671	Milk	Mrs. Hopkins, No. 3112 Webster avenue.....	Free from formaldehyde, borax, salicylic and benzoic acids and hydrogen peroxide.
25795	Horlick's Malted	D. E. Ushkow, No. 1870 Lexington avenue.....	Free from preservatives and artificial coloring matter. Fat, 1.54 per cent.
26455	Milk	Dr. Robert's Office	Free from preservatives.
27613	Milk, Korno	Gilbert Parker Company, No. 306 Greenwich street.....	Protein, 28.1 per cent.; sugar, 48.38 per cent (by polariscope); ash, 6.71 per cent.; fats, 11.57 per cent.; water, 6.94 per cent. Free from borax and boracic acid.
27709	Milk, White Cross.....	Mr. Clark	Water, 60.51 per cent.; total solids, 39.49 per cent.; fats, 10.74 per cent.; solids, not fat, 28.75 per cent.; sugar, 14.18 per cent. Proteid, 11.86 per cent.; ash, 2.39 per cent.
24818	Cream	Dr. Robert's Office	Gelatin, borax, formaldehyde and starch negative. No antiseptics. Unadulterated.
26500	Cream	Division of Inspections.....	Sample contains no calcium sucrate.
26501	Cream	Division of Inspections.....	Sample contains no calcium sucrate.
26502	Cream	Division of Inspections.....	Sample contains no calcium sucrate.
26503	Cream	Division of Inspections.....	Sample contains no calcium sucrate.
26672	Cream	Division of Inspections.....	Sample contains no calcium sucrate.
26673	Cream	Division of Inspections.....	Sample contains no calcium sucrate.
26674	Cream	Division of Inspections.....	Sample contains no calcium sucrate.
26675	Cream	Division of Inspections.....	Sample contains no calcium sucrate.
26676	Cream	Division of Inspections.....	Sample contains no calcium sucrate.
26677	Cream	Division of Inspections.....	Sample contains no calcium sucrate.



No.	Sample.	From Whom Received.	Results.
26678	Cream .....	Division of Inspections.....	Sample contains no calcium sucrate.
26679	Cream .....	Division of Inspections.....	Sample contains no calcium sucrate.
26680	Cream .....	Division of Inspections.....	Sample contains no calcium sucrate.
26681	Cream .....	Division of Inspections.....	Sample contains no calcium sucrate.

Number of milks adulterated, 2,984; unadulterated, 6,455; special, 44.

## Non-alcoholic Beverages.

No.	Sample.	Brand.	From Whom Purchased.	Results.
27415	Cider, sweet .....		Whispell Bros., No. 17 Harlem Market.....	Salicylic acid present.
27416	Cider, sweet .....		Geo. C. Kline, No. 327 East One Hundred and Twenty-second street .....	Benzoic acid present.
27435	Cider, sweet.....		A. R. Holthusen, No. 434 East Ninety-second street .....	Benzoic acid present.
27557	Cider, champagne.....	Beutel's .....	Wm. C. Beutel, No. 401 East Eighty-first street.	Specific gravity, 1.0324; acidity (acetic acid), 0.38 per cent.; total solids, 7.76 per cent.; ash, 0.02 per cent.; alcohol, none.
27558	Cider, sweet apple.....		Wm. C. Beutel, No. 401 East Eighty-first street.	Specific gravity, 1.0923; acidity (acetic acid), 0.52 per cent.; total solids, 23.66 per cent.; ash, 0.27 per cent.; alcohol, none. Benzoic acid present.
27830	Cider, sweet apple.....	Our Own.....	Jacob Paley, No. 1849 First avenue.....	Alcohol by weight, 1.27 per cent.; alcohol by volume, 1.65 per cent.; total solids, 7.52 per cent.; ash, 0.04 per cent.; acidity (calculated to acetic acid), 0.91 per cent. Free from salicylic, benzoic and boric acids, borates, sulphites and beta naphthol.
27449	Ginger ale.....	Belfast Crown .....	A. H. Schultz Company, New York.....	Free from artificial color (coal tar) and methyl alcohol. Ginger present.
27619	Ginger ale.....		Augusta Aubano, No. 33 Park street.....	Direct reading (polariscope), plus 3.7; indirect reading (polariscope), minus 1.1. Free from artificial color (coal tar), salicylic, benzoic and boric acids, borates and sulphites.
24065	Grape juice.....	Easie .....	J. Butler, No. 1143 Second avenue.....	Free from artificial color, formaldehyde, sulphites, borax or boric acid, salicylic and benzoic acids.
27275	Grape juice.....	Blue Bell .....	Fourteenth Street Store, Fourteenth street and Sixth avenue .....	Alcohol (ethyl), none; alcohol (methyl), none. Free from artificial color (coal tar), salicylic and benzoic acids.
24073	Lime juice .....		Bloomingdale Bros., Fifty-ninth street and Third avenue .....	Free from mineral, tartaric, borax or boric acids, benzoic and salicylic acids, sulphites, formaldehyde and artificial color. Free from phosphoric, hydrochloric, sulphuric, tartaric, borax or boric acids, benzoic and salicylic acids, formaldehyde, sulphites and artificial color. Acidity (calculated to citric acid), 9.10 per cent.
24128	Lime juice .....			
25205	Lime Juice .....		Bloomingdale Bros., Fifty-ninth street and Third avenue .....	Free from phosphoric, hydrochloric, sulphuric, tartaric, borax and boric acids, benzoic acid and salicylic acid, formaldehyde, sulphites and artificial color. Acidity (calculated to citric acid), 9.10 per cent.
27276	Lime juice .....		Fourteenth Street Store, Fourteenth street and Sixth avenue .....	Free from artificial color (coal tar), mineral acid and sugar.
24985	Lemon juice .....		August Reibstein, No. 48 Stuyvesant street.....	Free from artificial color, mineral acids, tartaric, phosphoric, borax or boric acids, benzoic and salicylic acids, formaldehyde and sulphites. Acidity (calculated to citric acid), 3.58 per cent.
27274	Raspberry vinegar.....	Blue Bell .....	Fourteenth Street Store, Fourteenth street and Sixth avenue .....	Alcohol (ethyl), none; methyl alcohol, none; acetic acid, 0.80 per cent. Free from salicylic and benzoic acids. Artificial color (coal tar) present.
24048	Lemon juice .....		Lennox & Reibstein, No. 188 Second avenue...	Free from tartaric acid, inorganic acid, artificial color, borax or boric acid, salicylic and benzoic acids, sulphites and formaldehyde.

## Police Department.

No.	Sample.	From Whom Received.	Results.
24861	Brown substance .....	Second Inspection District.....	Morphine and meconic acids present. Analysis shows sample to be opium.
24862	Bowls and cans in package.....	Second Inspection District.....	Morphine and meconic acids present. Analysis shows sample to be opium.
24863	Bowls and cans in package.....	Second Inspection District.....	Morphine and meconic acids present. Analysis shows sample to be opium.
25104	Brown substance .....	Fifteenth Precinct .....	Reaction for meconic acid and morphine indicates opium.
25105	Brown substance .....	Fifteenth Precinct .....	Reaction for meconic acid. No reaction for morphine. Opium present.
25106	Brown substance .....	Fifteenth Precinct .....	Reaction for meconic acid and morphine indicates opium.
25243	Brown substance .....	Sixth Precinct .....	Sample is a preparation of opium, containing more than 2 grs. to the ounce.
25268	Brown substance .....	Sixth Precinct .....	Sample is a preparation of opium, containing more than 2 grs. to the ounce.
25480	Brown substance .....	Second Inspection District.....	Sample is a preparation of opium. Morphine and meconic acid present.
25481	Brown substance .....	Second Inspection District.....	Sample is a preparation of opium. Morphine and meconic acid present.
25539	Brown substance .....	Sixth Precinct .....	Sample is a preparation of opium, containing more than 2 grs. per ounce.
25741	Brown substance .....	Twentieth Precinct .....	Sample is a preparation of opium, containing more than 2 grs. per ounce.
25751	Liquid, brown .....	Eighth Precinct .....	Gives reaction for cotton root and viburnum prunifolium.
25769	Brown substance .....	Nineteenth Precinct .....	Sample is a preparation of opium, containing more than 2 grs. per ounce.
25770	Brown substance .....	Nineteenth Precinct .....	Sample is a preparation of opium, containing more than 2 grs. per ounce.
25981	Brown substance .....	Fourteenth Precinct .....	Sample contains 74.15 per cent. arsenious oxide.
26456	Brown substance .....	Twentieth Precinct .....	Sample contains more than 2 grs. of opium to the ounce.
27080	Brown substance .....	Sixth Precinct .....	Sample is a preparation of opium. Meconic acid and morphine present.
27706	Brown substance .....	Twentieth Precinct .....	Sample is a preparation of opium, containing more than 2 grs. to the ounce.
27707	Brown substance .....	Twentieth Precinct .....	Sample is a preparation of opium. Meconic acid and morphine present.
27825	Brown substance .....	Twentieth Precinct .....	Sample is a preparation of opium. Meconic acid and morphine present.
27843	Brown substance .....	Fifteenth Precinct .....	Sample is a preparation of opium. Meconic acid and morphine present.
27867	Brown substance .....	Twentieth Precinct .....	Sample is a preparation of opium. Meconic acid and morphine present.
27897	Brown substance .....	Twentieth Precinct .....	Sample is a preparation of opium. Meconic acid and morphine present.
27911	Brown substance .....	Twentieth Precinct .....	Sample is a preparation of opium. Meconic acid and morphine present.
24566	Cakes .....	Twenty-eighth Precinct .....	Free from arsenic, antimony, tin, lead, mercury, copper and zinc. Physiological test negative.
24665	Candy (233 samples).....	Thirty-second Precinct .....	Free from injurious ingredients.
24711			
24797	Cigar .....	District Attorney's Office.....	Free from volatile alkaloids, potassium cyanide and poisonous metals.
24798	Cigar .....	District Attorney's Office.....	Free from volatile alkaloids, potassium cyanide and poisonous metals.
24877	Coat in package.....	District Attorney's Office.....	Coat cut by concentrated sulphuric acid.
24891	Candy .....	Detective Sergeant Peter McCormack.....	Free from poisonous metals, starch and terra alba. Physiological test negative.
25376	Candy .....	Twenty-ninth Precinct .....	Free from paraffin, poisonous metals and coloring matter.
25431	Candy .....	Twenty-fifth Precinct .....	Found per pound of candy, .5 oz. absolute alcohol by weight, .585 oz. absolute alcohol by volume. Free from wood alcohol.
27050	Dagger in envelope.....	Seventy-eighth Precinct .....	Microscopical examination failed to show presence of blood.
24889	Drawer lined with velvet.....	Eighty-first Precinct .....	Free from milk sugar.
25005	Horse ball .....	Health Department Squad .....	Contains 70.46 per cent. arsenious oxide.
25502	Horse ball .....	Twelfth Precinct.....	Contains 70.50 per cent. arsenious oxide.



No.	Sample.	From Whom Received.	Results.
24800	Liquid	Twenty-fifth Precinct	Alcohol, by weight, 8.87 per cent.; by volume, 11.08 per cent.
24819	Liquid	Bronx Detective Bureau	Free from chloral hydrate and cocaine.
24827	Liquid	Forty-fourth Precinct	Alcohol, by weight, 37.34 per cent.; by volume, 44.43 per cent.
24828	Liquid	Fortieth Precinct	Alcohol, by weight, 38.92 per cent.; by volume, 46.08 per cent.
24858	Liquid	Sixty-sixth Precinct	Alcohol, by weight, 3.38 per cent.; by volume, 4.34 per cent.
24876	Liquid	Sixty-sixth Precinct	Alcohol, by weight, 35.13 per cent.; by volume, 42.06 per cent.
24885	Liquid	Sixty-sixth Precinct	Alcohol, by weight, 38.17 per cent.; by volume, 45.53 per cent.
24931	Liquid	Twenty-ninth Precinct	Alcohol, by weight, 8.99 per cent.; by volume, 11.26 per cent.
24957	Liquid	Twenty-ninth Precinct	Alcohol, by weight, 7.83 per cent.; by volume, 9.86 per cent.
25170	Liquid	Fifty-sixth Precinct	Alcohol, by weight, 3.97 per cent.; by volume, 5.08 per cent.
25171	Liquid	Fifty-sixth Precinct	Alcohol, by weight, 3.34 per cent.; by volume, 4.27 per cent.
25172	Liquid	Coroner's Office, The Bronx	Contains no volatile, vegetable or mineral poisons.
25209	Liquid	Detective Bureau	Contains chloral hydrate.
25227	Liquid	Twentieth Precinct	Chloral hydrate present.
25394	Liquid	Fifty-sixth Precinct	Alcohol, by weight, 38.37 per cent.; by volume, 45.65 per cent.
25550	Liquid	Twelfth Precinct	Alcohol, by weight, 14.46 per cent.; by volume, 18.68 per cent.
25556	Liquid	Twelfth Precinct	Alcohol, by weight, 11.24 per cent.; by volume, 14.84 per cent.
25596	Liquid	District Attorney's Office	Free from alkaloids. It gives reactions corresponding to viburnum prunifolium.
25597	Liquid	District Attorney's Office	Free from alkaloids, chloral and cocaine.
25705	Liquid	State Excise Department	Alcohol, by weight, 11.23 per cent.; by volume, 14.65 per cent.
25794	Liquid	Fifteenth Precinct	Alcohol, by weight, 7.33 per cent.; by volume, 9.21 per cent.
26004	Liquid	Fifty-sixth Precinct	Alcohol, by weight, 37.70 per cent.; by volume, 44.79 per cent.
26095	Liquid	Eighty-third Precinct	Alcohol, by weight, 2.29 per cent.; by volume, 2.93 per cent.
26441	Liquid	Sixty-second Precinct	Alcohol, by weight, 3.83 per cent.; by volume, 5.00 per cent.
26454	Liquid	Twenty-eighth Precinct	Alcohol, by weight, 36.01 per cent.; by volume, 42.89 per cent.
26505	Liquid	Eighth Inspection District, Brooklyn	Alcohol, by weight, 3.91 per cent.; by volume, 5.00 per cent.
26506	Liquid, brown	Eighth Inspection District, Brooklyn	Alcohol, by weight, 3.80 per cent.; by volume, 4.85 per cent.
26618	Liquid	Twenty-ninth Precinct	Free from chloral.
26755	Liquid	Eighteenth Precinct	Sample contains chloral.
26837	Liquid	Sixty-second Precinct	Alcohol, by weight, 3.32 per cent.; by volume, 4.27 per cent.
26915	Liquid	Sixty-second Precinct	Alcohol, by weight, 3.42 per cent.; by volume, 4.71 per cent.
26926	Liquid	Sixteenth Precinct	Alcohol, by weight, 6.92 per cent.; by volume, 8.88 per cent.
26936	Liquid	Twenty-ninth Precinct	Alcohol, by weight, 9.45 per cent.; by volume, 11.87 per cent.
26942	Liquid	Eighty-third Precinct	Alcohol, by weight, 39.18 per cent.; by volume, 46.59 per cent.
26943	Liquid	Eighty-third Precinct	Alcohol, by weight, 3.51 per cent.; by volume, 4.49 per cent.
26989	Liquid	Fifteenth Precinct	Alcohol, by weight, 7.71 per cent.; by volume, 9.70 per cent.
26992	Liquid	Eighty-third Precinct	Alcohol, by weight, 2.72 per cent.; by volume, 3.49 per cent.
26993	Liquid	Eighty-third Precinct	Alcohol, by weight, 3.22 per cent.; by volume, 4.12 per cent.
26994	Liquid	Eighty-third Precinct	Alcohol, by weight, 36.20 per cent.; by volume, 43.26 per cent.
26997	Liquid	Fifteenth Precinct	Microscopical examination failed to show presence of blood.
27032	Liquid	Coroner's Office	Contains 92.94 per cent. ethyl alcohol by volume.
27045	Liquid	Sixty-third Precinct	Alcohol, by weight, 5.78 per cent.; by volume, 7.21 per cent.
27119	Liquid	Eighty-third Precinct	Alcohol, by weight, 2.76 per cent.; by volume, 3.55 per cent.
27197	Liquid and white crystals	Coroner's Office	Contains oxalic acid.
27387	Liquid	Eighty-third Precinct	Alcohol, by weight, 38.01 per cent.; by volume, 45.16 per cent.
27486	Liquid	Sixth Precinct	Appears to be a liniment.
27506	Liquid	Fifty-third Precinct	Sample contains opium.
27507	Liquid	Fifty-third Precinct	Sulphuric and sulphurous acids present.
27608	Liquid	First Precinct	Sample gives reaction for phenol. Corresponds in these reactions to a sample labeled lysol in this Laboratory.
27926	Liquid	Eighty-fifth Precinct	Alcohol, by weight, 2.18 per cent.; by volume, 2.79 per cent.
27236	Meat	Health Squad, Richmond	Poisonous metals, strychnine, morphine, hydrocyanic acid and powdered glass absent.
27885	Medicine (liquid)	District Attorney's Office	Sample is a solution of potassium iodide.
27884	Milk	District Attorney's Office	Volatile, mineral and vegetable poisons absent.
27033	Organs, humans	Coroner's Office	Poisonous metals, vegetable alkaloids and chloral hydrate absent. Acetanilid present.
25598	Pills	District Attorney's Office	Found about 3 grs. of aloes per pill. Capsicum present.
25704	Pill	District Attorney's Office	Found 3.86 grs. of aloes in pill.
27015	Pills	District Attorney's Office	Pills contain aloes.
27077	Pills	Coroner's Office	Mineral poisons, vegetable alkaloids and acids absent.
27031	Powder	Coroner's Office	Made up of acetanilid.
27221	Plaster (from wall)	District Attorney's Office	Examination of spots on plaster showed the presence of blood.
27573	Sandwich	Twenty-eighth Precinct	Free from poisonous metals and vegetable alkaloids.
26998	Scraping from fingernails	Fifteenth Precinct	Microscopical examination failed to show presence of blood.
24996	Stomach and contents	Thirteenth Precinct	Poisonous metals, alkaloids and chloral absent.
24998	Stomach and contents	Coroner's Office	Paraldehyde, slight silver mirror. Arsenic and alkaloids absent.
26625	Stomach and contents	Health Department Squad, Richmond	Poisonous metals, alkaloids and powdered glass absent.
25562	Tea (herb)	Fifty-eighth Precinct	Sample contains senna leaves, sassafras bark, marshmallow fennel seeds, coriander seeds, anise seeds, lavender flowers. Does not contain alkaloids.
27220	Tin pan	District Attorney's Office	Examination of spots on pan did not show presence of blood.
27053	White crystals	Detective Bureau	Vial contains chloral hydrate.
26906	White crystals	District Attorney's Office	Sample is cocaine hydrochloride.
27334	White powder	Sixth Precinct	Weight of sample, 118.9650 gms. Sample pure arsenious oxide.
27485	White crystals	Sixth Precinct	Bottle contains chloral hydrate.
25377	Vomit	Twenty-eighth Precinct	Contains no volatile, mineral or vegetable poisons.
27078	Vomit	Coroner's Office	Analysis not made.

## Spices.

No.	Brand.	Sample.	From Whom Received.	From Whom Purchased.	Results.
25382	Republic	Cinnamon	Drug Laboratory		Moisture, 10.10 per cent.; total ash, 4.13 per cent.; soluble ash, 1.47 per cent.; ash HC <sub>1</sub> insoluble, 0.26 per cent.; ethereal extract, 4.49 per cent.; volatile oils, 1.68 per cent.; fixed oils, 2.81 per cent.



No.	Brand.	Sample.	From Whom Received.	From Whom Purchased.	Results.
25712	Blue Ribbon....	Cinnamon .....	Chief Clerk's Office.....	.....	Moisture, 10.74 per cent.; total ash, 2.84 per cent.; water soluble ash, 1.46 per cent.; HCl insoluble ash, 0.10 per cent.; total ether extract, 4.42 per cent.; volatile extract, 2.40 per cent.
24919	.....	Mustard .....	Bellevue Hospital.....	.....	Moisture, 3.27 per cent.; ether extract, 19.80 per cent.; ash, 5.07 per cent.; water soluble ash, 0.02 per cent.; HCl insoluble ash, 0.05 per cent.; microscopic ex. negative.
25381	Blue Ribbon....	Mustard .....	Drug Laboratory.....	.....	Moisture, 2.42 per cent.; total ash, 5.71 per cent.; soluble ash, 0.49 per cent.; HCl ash insoluble, 0.49 per cent.; ethereal extract, 28.95 per cent.; volatile oils, 0.33 per cent.; fixed oils, 28.62 per cent. Turmeric absent.
24916	.....	Pepper .....	Bellevue Hospital.....	.....	Moisture, 7.39 per cent.; ether extract, 8.12 per cent.; ash, 4.10 per cent.; water soluble ash, 2.68 per cent.; HCl insoluble ash, 0.4 per cent.; microscopic ex. negative.
25207	.....	Pepper .....	.....	H. Kapnelian, No. 457 West Sixteenth street.....	Moisture, 5.00 per cent.; ash, 3.68 per cent.; water insoluble ash, 2.97 per cent.; HCl insoluble ash, 1.51 per cent.; ether extract, 2.89 per cent.
25383	.....	Pepper, black.....	Drug Laboratory.....	.....	Moisture, 8.77 per cent.; total ash, 6.94 per cent.; soluble ash, 2.80 per cent.; HCl insoluble ash, 1.33 per cent.; ethereal extract, 8.53 per cent.; volatile oils, 1.06 per cent.; fixed oils, 7.47 per cent.
25384	.....	Pepper, white.....	Drug Laboratory.....	.....	Moisture, 9.86 per cent.; total ash, 1.66 per cent.; soluble ash, 0.28 per cent.; insoluble HCl ash, 0.29 per cent.; ethereal extract, 7.64 per cent.; volatile oils, 0.62 per cent.; fixed oils, 7.02 per cent.
25441	Rosen Paprika...	Pepper, red.....	.....	Emil Zerkowitz, No. 41 Park row.	Moisture, 5.01 per cent.; ash, 6.28 per cent.; ether extract, 10.00 per cent.; volatile ether extract, 1.82 per cent. Colored with coal tar dye.
25442	Rosen Paprika...	Pepper, red.....	.....	Emil Zerkowitz, No. 41 Park row.	Moisture, 4.45 per cent.; ash, 9.88 per cent.; ether extract, 9.25 per cent.; volatile ether extract, 1.62 per cent. Coal tar colors absent.

## Sugars and Syrups.

No.	Brand.	Sample.	From Whom Received.	From Whom Purchased.	Results.
25404	.....	Sugar, granulated....	.....	John Klinge & Co., No. 171 East Thirty-third street.....	Direct reading in 100 mm. tube at 14 degrees C. equals plus 50 degrees. Invert reading in 100 mm. tube at 14 degrees C. equals minus 12.2. Free from ash. Sample unadulterated.
25039	.....	Sugar of milk powder.	Drug Laboratory.....	.....	Sample composed of pure milk sugar.
25040	.....	.....	Drug Laboratory.....	.....	Sample composed of pure milk sugar.
25352	.....	.....	Drug Laboratory.....	Seeman Bros., North Moore and Hudson streets.....	Reading 98.87. Free from starch and ash. Sample unadulterated.
26466	Magnolia.....	Molasses .....	.....	.....	Found 37 per cent. sucrose, grape sugar minus glucose, 21.6 per cent. Direct reading equals plus 54. Invert reading equals plus 7.2; ash, 3.77 per cent.
26940	.....	.....	Dr. Bensei.....	.....	Direct reading 200 mm. tube equals plus 54; dextrose, 21.23 per cent. Invert reading 200 mm. tube equals plus 4.4; ash, 4.26 per cent.; sucrose, 37.15 per cent.
27627	.....	Syrup, chocolate.....	Dr. Bensei.....	.....	Free from artificial coloring matter.
27201	.....	Syrup, ginger.....	.....	Bloomingdale Bros., Fifty-ninth street and Third avenue.....	Free from artificial color (coal tar), benzoic and salicylic acids and glucose. Ginger present.
27628	.....	Syrup, ginger.....	Dr. Bensei.....	.....	Sample contains artificial coloring matter, probably a coal tar dye.
24949	Riverside.....	Syrup, maple.....	Chief Clerk's Office.....	.....	Direct reading 200 mm. tube equals plus 57.2. Invert reading 200 mm. tube at 19 degrees C. equals minus 21.5; ash, 0.30 per cent. Adulterated with cane sugar.
24958	.....	Syrup, maple.....	Chief Clerk's Office.....	.....	Direct reading 200 mm. tube equals plus 58.6. Invert reading 200 mm. tube at 17.5 degrees C. equals minus 23.9; ash, 0.59 per cent.
25019	Hudson.....	Syrup, maple.....	.....	H. J. Robertson, No. 1333 First avenue .....	Direct reading 200 mm. tube at 14 degrees C. equals plus 62.4. Invert reading 200 mm. tube at 14 degrees C. equals minus 24.0; ash, 0.25 per cent. Sample contains added cane sugar.
25250	.....	Syrup, maple.....	Chief Clerk's Office.....	.....	Direct reading 200 mm. tube at 14 degrees C. equals plus 55.8. Invert reading 200 mm. tube at 14 degrees C. equals minus 23.7; ash, 0.59 per cent. Sample unadulterated.
25403	.....	Syrup, maple.....	Chief Clerk's Office.....	.....	Direct reading 200 mm. tube at 14 degrees C. equals plus 64. Invert reading 200 mm. tube at 14 degrees C. equals minus 24; ash, 0.572 per cent. Sample unadulterated.
25449	.....	.....	Chief Clerk's Office.....	.....	Direct reading 200 mm. tube at 14 degrees C. equals plus 60.2. Invert reading 200 mm. tube at 14 degrees C. equals minus 23.5; ash, 0.55 per cent. Sample unadulterated.
25543	.....	.....	Chief Clerk's Office.....	.....	Direct reading 200 mm. tube equals 58.5. Invert reading 200 mm. tube at 23 degrees C. equals minus 21.5; ash, 0.56 per cent. Sample unadulterated.
27659	.....	Syrup, maple (pure sap) .....	Chief Clerk's Office.....	Austin, Nichols & Co.....	Direct reading 200 mm. tube equals plus 54.6. Indirect reading at 28 degrees C. equals minus 20; ash, 0.71 per cent. According to Hortvet's method, sample is pure maple syrup.
27724	Warfield .....	Syrup, maple.....	Chief Clerk's Office.....	Seeman Bros., North Moore and Hudson streets.....	Direct reading equals plus 66.2. Indirect reading at 22 degrees C. equals minus 20; ash, 0.18 per cent. According to Hortvet's method, sample contains cane sugar.
27725	White Rose....	Syrup, maple.....	Chief Clerk's Office.....	Seeman Bros., North Moore and Hudson streets.....	Direct reading equals plus 54. Indirect reading equals minus 18.4; ash, 0.61 per cent. According to Hortvet's method, sample is pure maple syrup.
27750	Green Mountain...	Syrup, maple, Vermont	Chief Clerk's Office.....	A. F. Beckman & Co., No. 460 Greenwich street.....	Direct reading equals plus 65.6. Indirect reading equals minus 10.6; ash, 0.26 per cent. According to Hortvet's method, sample contains cane sugar.
27200	.....	Syrup, lemon phosphate .....	Chief Clerk's Office.....	Bloomingdale Bros., Fifty-ninth street and Third avenue.....	Artificial color (coal tar) and phosphates present. Free from mineral and tartaric acids.
27272	Blue Bell.....	Syrup, lemon.....	Chief Clerk's Office.....	Fourteenth Street Store, Fourteenth street and Sixth avenue.	Free from artificial color (coal tar), mineral and tartaric acids.
25270	.....	Syrup .....	Bellevue Hospital.....	.....	Direct reading 200 mm. tube at 14 degrees C. equals plus 36. Invert reading 200 mm. tube at 14 degrees C. equals minus 8; ash, 6.32 per cent.
25670	Park.....	Syrup, Vermont.....	Bellevue Hospital.....	Greenwald Bros., Eighty-seventh street and Third avenue.....	Direct polarization 200 mm. tube at 16 degrees C. equals plus 56.8. Invert polarization 200 mm. tube at 16 degrees C. equals minus 20.7; ash, 0.054 per cent. Sample made up largely of cane sugar, as stated on label.

## Soups.

No.	Brand.	Sample.	From Whom Purchased.	Results.
24062	Blue Ribbon....	Tomato .....	J. Butler, No. 1143 Second avenue.....	Free from benzoic and salicylic acids; borax or boric acid, formaldehyde, sulphites and artificial color.
24063	Blue Ribbon....	Vermicelli .....	J. Butler, No. 1143 Second avenue.....	Free from benzoic and salicylic acids; borax or boric acid, formaldehyde, sulphites and artificial color.
27064	Campbell's.....	Chicken .....	B. Lipman, No. 117 Bleecker street.....	Free from preservatives and coloring matter.

## Tea, Coffee, Cocoa, etc.

No.	From Whom Received.	Brand.	Sample.	Results.
24950	Chief Clerk's Office.....	.....	Coffee (Standard).....	Moisture, 3.52 per cent.; ash, 4.50 per cent.; ether extract, 11.30 per cent.; caffeine, 1.25 per cent.
24951	Chief Clerk's Office.....	.....	Coffee .....	Moisture, 2.71 per cent.; ash, 4.40 per cent.; ether extract, 12.39 per cent.; caffeine, 1.52 per cent.



No.	From Whom Received.	Brand.	Sample.	Results.
24909	Mrs. Lottie Curry, No. 242 West Sixty-first street.		Coffee, liquid.	Free from injurious ingredients.
24918	Bellevue Hospital.		Cocoa	Moisture, 3.60 per cent.; ash, 5.26 per cent.; ether extract, 28.05 per cent.; W. S. A., 2.29 per cent.; HC <sub>1</sub> I. A., 0.165 per cent. Microscopic examination, negative.
24948	Chief Clerk's Office (Riverside).	Powell's	Cocoa.	Moisture, 1.17 per cent.; fats, 24.66 per cent.; alkaloids, 0.88 per cent.; T., 5.53 per cent.; W. S. A., 1.65 per cent.; W. I. A., 3.875 per cent.; HC <sub>1</sub> I. S., 0.365 per cent. Free from added starch and foreign matter.
25011	Bellevue Hospital.	Powell's I. B.	Cocoa.	Moisture, 1.08 per cent.; fats, 23.00 per cent.; alkaloids, 0.81 per cent.; T., 5.59 per cent.; W. S. A., 1.81 per cent.; W. I. A., 3.78 per cent.; HC <sub>1</sub> I. S., 0.23 per cent. Free from added starch and foreign matter.
25012	Bellevue Hospital.	Baker's I. A.	Cocoa.	Moisture, 1.36 per cent.; fats, 29.02 per cent.; alkaloids, 0.73 per cent.; T., 5.38 per cent.; W. S. A., 1.83 per cent.; W. I. A., 3.55 per cent.; HC <sub>1</sub> I. S., 0.17 per cent.
25538	Bellevue Hospital.	Powell's.	Chocolate	Water, 3.65 per cent.; fat, 52.28 per cent.; crude fibre, 2.94 per cent.; theobromine, 0.69 per cent.; caffeine, 0.10 per cent.; T., 3.12 per cent.; W. S. A., 1.37 per cent.; HC <sub>1</sub> I. S., 0.09 per cent.
27721	A. M. Powell & Co., No. 152 Chambers street.	Powell's.	Chocolate	Ether extract, 36.75 per cent.; iodine no., 36.60. Melting point begins, 29 degrees C.; complete, 34 degrees C. Solidifying point, 21 degrees C.; refractive index, 40 degrees C., 1.4571.
27856	Department of Health.		Chocolate	Sample contains cocoa shells.

## Vegetables, Canned, Dried, etc.

No.	Sample.	Brand.	From Whom Received.	From Whom Purchased.	Results.
24835	Beans, string.	F.		Bloomington Bros., Fifty-ninth street and Third avenue.	Free from heavy metals, preservatives and coal tar colors.
24896	Beans, lima.	Trumpet		Charles Schroeder, No. 2272 Eighth avenue	Free from benzoic and salicylic acids, artificial coloring matter, coal tar colors and poisonous metals.
24804	Beets.	Honeycomb			Free from poisonous metals, borax or boric acid, salicylic and benzoic acids, formaldehyde, sulphites and artificial color.
25379	Corn, sugar.	Bangor		Frank Pewdyck, No. 281 First avenue.	Free from benzoic and salicylic acids, sulphurous acid, coal tar colors and poisonous metals.
25451	Corn.	Codorus		E. Rafter, No. 231 Avenue B.	Free from benzoic and salicylic acids, coal tar colors and poisonous metals.
26840	Corn.	Champion			Free from preservatives and poisonous metals.
26896	Corn.	Crescent	Chief Clerk's Office.		Free from preservatives and poisonous metals.
27637	Corn.		Chief Clerk's Office.	P. A. Gaynor, No. 64 Gansevoort street	Free from sulphurous acid and heavy metals.
27820	Corn.	Unity Fancy.	Chief Clerk's Office.	Hewson & Fitzpatrick, No. 254 Greenwich street.	Free from salicylic, benzoic and boric acids or borates and sulphites.
27905	Corn, sugar.	Epicure	Chief Clerk's Office.	John S. Sills & Sons, Thirty-seventh street and Eleventh avenue.	Free from salicylic, benzoic and boric acids or borates and sulphites.
27943	Corn, sugar.	The Best.	Chief Clerk's Office.	Allen Ditchett Com any, No. 305 Greenwich street.	Free from salicylic, benzoic and boric acids or borates and sulphites.
27944	Corn, sugar.	Four Hundred.	Chief Clerk's Office.	Allen Ditchett Com any, No. 305 Greenwich street.	Free from salicylic, benzoic and boric acids or borates and sulphites.
27870	Peas.	Cedar	Chief Clerk's Office.	E. Westerman, No. 1664 Third avenue.	Free from preservatives, heavy metals and coal tar dye.
27751	Peas, sifted.	Gold Rock.	Chief Clerk's Office.	A. F. Beckman & Co., No. 460 Greenwich street.	Free from salicylic, benzoic, boric acids and borates and metals.
27752	Peas.	Crown Astor.	Chief Clerk's Office.	A. F. Beckman & Co., No. 460 Greenwich street.	Free from salicylic, benzoic, boric acids and borates and metals.
27771	Peas.	Wayland	Chief Clerk's Office.	Edw. Rafter, No. 630 Hudson street.	Free from salicylic, benzoic, boric acids and borates and metals.
27772	Peas.	Steuben	Chief Clerk's Office.	Edw. Rafter, No. 630 Hudson street.	Free from salicylic, benzoic, boric acids and borates, copper and zinc. Trace of iron present.
27821	Peas.	Unity	Chief Clerk's Office.	Hewson & Fitzpatrick, No. 254 Greenwich street.	Free from salicylic, benzoic, boric acids and borates, copper and zinc. Trace of iron present.
27822	Corn.	Green Shield.	Chief Clerk's Office.	Hewson & Fitzpatrick, No. 254 Greenwich street.	Free from salicylic, benzoic, boric acids and borates and sulphites.
27823	Peas, sugar.	Unity	Chief Clerk's Office.	Hewson & Fitzpatrick, No. 254 Greenwich street.	Free from salicylic, benzoic, boric acids and borates and metals.
27824	Peas.	Unity Standard.	Chief Clerk's Office.	Hewson & Fitzpatrick, No. 254 Greenwich street.	Free from salicylic, benzoic, boric acids and borates, copper and zinc. Trace of iron present.
27901	Peas, honey.	Empire State.	Chief Clerk's Office.	John S. Sills & Sons, Thirty-seventh street and Eleventh avenue.	Free from salicylic, benzoic, boric acids and borates and metals.
27904	Peas.	Epicure	Chief Clerk's Office.	John S. Sills & Sons, Thirty-seventh street and Eleventh avenue.	Free from salicylic, benzoic, boric acids and borates and metals.
27924	Peas.	Elite	Chief Clerk's Office.	Clark, Chapin & Bushnell, No. 177 Duane street.	Free from salicylic, benzoic, boric acids and borates and metals.
27941	Peas.	New Carnation.	Chief Clerk's Office.	Allen Ditchett & Co., No. 305 Greenwich street.	Free from salicylic, benzoic, boric acids and borates and metals.
27942	Peas.	The Best.	Chief Clerk's Office.	Allen Ditchett & Co., No. 305 Greenwich street.	Free from salicylic, benzoic, boric acids and borates and metals.
25514	Rhubarb.	Silver Lake.	Chief Clerk's Office.		Free from ptomaines and poisonous metals.
25515	Rhubarb.		Queens Office.		Analysis not made.
26857	Rhubarb.	Silver Lake.	Queens Office.	G. A. & P. Tea Company, No. 198 First avenue.	Free from artificial coloring matter, preservatives and heavy metals.
24936	Spinach.	Shield	Queens Office.	C. G. Foltmann, No. 1566 Third avenue	Free from artificial coloring matter, poisonous metals, benzoic and salicylic acids.
25669	Squash		Queens Office.	Greenwald Bros., Third avenue and Eighty-seventh street.	Free from artificial coloring matter, preservatives and heavy metals.
24871	Tomatoes.	Fountain	Queens Office.	Siegel Cooper Company, Eighteenth street and Sixth avenue.	Free from coal tar colors, benzoic and salicylic acids and heavy metals.
24983	Tomatoes.	Priscilla	Queens Office.		Free from coal tar colors, benzoic and salicylic acids and heavy metals.
24993	Tomatoes.	Francesco Rossano.	Chief Clerk's Office.	Frank Squalinty, No. 2169 First avenue	Free from coal tar colors, benzoic and salicylic acids and heavy metals.
25212	Tomatoes.	Big R.	Chief Clerk's Office.	Jas. Butler, No. 215 Willis avenue, The Bronx.	Free from coal tar colors, benzoic and salicylic acids and heavy metals.
25265	Tomatoes.	Pride of Talbot.	Chief Clerk's Office.	Andrew Davis, No. 481 Second avenue	Free from coal tar colors, benzoic and salicylic acids and heavy metals.
25439	Tomatoes.	Champion	Chief Clerk's Office.	Armanoff Bros., No. 1673 Lexington avenue	Free from coal tar colors, benzoic and salicylic acids and heavy metals.
25485	Tomatoes.	West End.	Chief Clerk's Office.	Frank Luori, No. 321 Ninth avenue.	Free from coal tar colors, benzoic and salicylic acids and heavy metals.
26897	Tomatoes.	Violet	Chief Clerk's Office.	Wm. Voorhees, Gravesend avenue, near Kings Highway, Brooklyn.	Free from arsenic. Tin and iron present.
27199	Tomatoes.	Turkey	Chief Clerk's Office.		Free from preservatives, artificial coloring matter and metals.
27639	Tomatoes.	Empress	Chief Clerk's Office.	F. H. Legget & Co., No. 128 Franklin street	Free from preservatives and artificial coloring matter.
27640	Tomatoes.	Riverside	Chief Clerk's Office.	F. H. Legget & Co., No. 128 Franklin street	Free from preservatives and artificial coloring matter.
27641	Tomatoes.	Wright & Rogers.	Chief Clerk's Office.	F. H. Legget & Co., No. 128 Franklin street	Free from preservatives and artificial coloring matter.
27642	Tomatoes.	Empress	Chief Clerk's Office.	F. H. Legget & Co., No. 128 Franklin street	Free from preservatives and artificial coloring matter.



No.	Sample.	Brand.	From Whom Received.	From Whom Purchased.	Results.
27643	Tomatoes.....	Premier .....	Chief Clerk's Office..	F. H. Legget & Co., No. 128 Franklin street .....	Free from preservatives and artificial coloring matter.
27644	Tomatoes.....	Nabob .....	Chief Clerk's Office..	F. H. Legget & Co., No. 128 Franklin street .....	Free from preservatives and artificial coloring matter.
27645	Tomatoes.....	Varick .....	Chief Clerk's Office..	F. H. Legget & Co., No. 128 Franklin street .....	Free from preservatives and artificial coloring matter.
27660	Tomatoes.....	Republic .....	Chief Clerk's Office..	Austin, Nichol & Co., No. 61 Hudson street .....	Free from preservatives and artificial coloring matter.
27661	Tomatoes.....	Harvest .....	Chief Clerk's Office..	Austin, Nichol & Co., No. 61 Hudson street .....	Free from preservatives and artificial coloring matter.
27662	Tomatoes.....	Hand Picked.....	Chief Clerk's Office..	Austin, Nichol & Co., No. 61 Hudson street .....	Free from preservatives and artificial coloring matter.
27663	Tomatoes.....	Sunbeam .....	Chief Clerk's Office..	Austin, Nichol & Co., No. 61 Hudson street .....	Free from preservatives and artificial coloring matter.
27700	Tomatoes.....	Our Cook's.....	Chief Clerk's Office..	R. C. William & Co., No. 56 Hudson street .....	Free from preservatives and artificial coloring matter.
27701	Tomatoes.....	Robin Hood.....	Chief Clerk's Office..	R. C. William & Co., No. 56 Hudson street .....	Free from preservatives and artificial coloring matter.
27702	Tomatoes.....	Royal Scarlet.....	Chief Clerk's Office..	R. C. William & Co., No. 56 Hudson street .....	Free from preservatives and artificial coloring matter.
27703	Tomatoes.....	Trump .....	Chief Clerk's Office..	R. C. William & Co., No. 56 Hudson street .....	Free from preservatives and artificial coloring matter.
27711	Tomatoes.....	Princess .....	Chief Clerk's Office..	Koenig & Schuster, No. 380 Greenwich street.....	Free from preservatives and artificial coloring matter.
27712	Tomatoes.....	Queen .....	Chief Clerk's Office..	Koenig & Schuster, No. 380 Greenwich street.....	Free from preservatives and artificial coloring matter.
27713	Tomatoes.....	Regent .....	Chief Clerk's Office..	Koenig & Schuster, No. 380 Greenwich street.....	Free from preservatives and artificial coloring matter.
27714	Tomatoes.....	Pride of Talbot.....	Chief Clerk's Office..	Andrew Davey, No. 350 Washington street .....	Free from preservatives and artificial coloring matter.
27715	Tomatoes.....	G. & D.....	Chief Clerk's Office..	Andrew Davey, No. 350 Washington street .....	Free from preservatives and artificial coloring matter.
27716	Tomatoes.....	Ruby King.....	Chief Clerk's Office..	Andrew Davey, No. 350 Washington street .....	Free from preservatives and artificial coloring matter.
27717	Tomatoes.....	Milford Haven.....	Chief Clerk's Office..	Andrew Davey, No. 350 Washington street .....	Free from preservatives and artificial coloring matter.
27718	Tomatoes.....	P. & D.....	Chief Clerk's Office..	Andrew Davey, No. 350 Washington street .....	Free from preservatives and artificial coloring matter.
27719	Tomatoes.....	Homer .....	Chief Clerk's Office..	Andrew Davey, No. 350 Washington street .....	Free from preservatives and artificial coloring matter.
27726	Tomatoes.....	Waverly .....	Chief Clerk's Office..	Seeman Bros., North Moore and Hudson streets.....	Free from preservatives and artificial coloring matter.
27727	Tomatoes.....	Warfield .....	Chief Clerk's Office..	Seeman Bros., North Moore and Hudson streets.....	Free from preservatives and artificial coloring matter.
27728	Tomatoes.....	Checker .....	Chief Clerk's Office..	Seeman Bros., North Moore and Hudson streets.....	Free from preservatives and artificial coloring matter.
27730	Tomatoes.....	White Rose.....	Chief Clerk's Office..	Seeman Bros., North Moore and Hudson streets.....	Free from preservatives and artificial coloring matter.
27740	Tomatoes.....	Shrewsbury .....	Chief Clerk's Office..	E. C. Hazard & Co., No. 119 Hudson street .....	Free from preservatives and artificial coloring matter.
27741	Tomatoes.....	Fairmount .....	Chief Clerk's Office..	E. C. Hazard & Co., No. 119 Hudson street .....	Free from preservatives and artificial coloring matter.
27742	Tomatoes.....	Love Apples.....	Chief Clerk's Office..	E. C. Hazard & Co., No. 119 Hudson street .....	Free from preservatives and artificial coloring matter.
27753	Tomatoes.....	Crown Astor.....	Chief Clerk's Office..	A. F. Beckman & Co., No. 460 Greenwich street.....	Free from preservatives and artificial coloring matter.
27754	Tomatoes.....	Gold Rock.....	Chief Clerk's Office..	A. F. Beckman & Co., No. 460 Greenwich street.....	Free from preservatives and artificial coloring matter.
27773	Tomatoes.....	White Line.....	Chief Clerk's Office..	Edw. Rafter Company, No. 630 Hudson street.....	Free from preservatives and artificial coloring matter.
27774	Tomatoes.....	Export .....	Chief Clerk's Office..	Edw. Rafter Company, No. 630 Hudson street.....	Free from preservatives and artificial coloring matter.
27778	Tomatoes.....	O. K.....	Chief Clerk's Office..	Robert Hill, No. 348 West Fifty-second street.....	Free from preservatives and artificial coloring matter.
27779	Tomatoes.....	Alpha .....	Chief Clerk's Office..	Robert Hill, No. 348 West Fifty-second street.....	Free from preservatives and artificial coloring matter.
27792	Tomatoes.....	Extra Family.....	Chief Clerk's Office..	Curtice Bros., No. 138 Franklin street.	Free from preservatives and artificial coloring matter.
27793	Tomatoes.....	Monroe .....	Chief Clerk's Office..	Curtice Bros., No. 138 Franklin street.	Free from preservatives and artificial coloring matter.
27794	Tomatoes.....	Blue Label.....	Chief Clerk's Office..	Curtice Bros., No. 138 Franklin street.	Free from preservatives and artificial coloring matter.
27818	Tomatoes.....	Varick .....	Chief Clerk's Office..	Hewson & Fitzpatrick, No. 254 Greenwich street.....	Free from preservatives and artificial coloring matter.
27819	Tomatoes.....	Gypsy Queen.....	Chief Clerk's Office..	Hewson & Fitzpatrick, No. 254 Greenwich street.....	Free from preservatives and artificial coloring matter.
27902	Tomatoes.....	Winsome .....	Chief Clerk's Office..	John S. Sills & Co., Thirty-seventh street and Eleventh avenue.....	Free from preservatives and artificial coloring matter.
27903	Tomatoes.....	Epicure .....	Chief Clerk's Office..	John S. Sills & Co., Thirty-seventh street and Eleventh avenue.....	Free from preservatives and artificial coloring matter.
27925	Tomatoes.....	Reliable .....	Chief Clerk's Office..	Clark, Chapin & Bushnell, No. 177 Duane street.....	Free from preservatives and artificial coloring matter.
27946	Tomatoes.....	Blanelco .....	Chief Clerk's Office..	Nellis & Co., No. 140 Franklin street.	Free from preservatives and artificial coloring matter.
27947	Tomatoes.....	Sale .....	Chief Clerk's Office..	Nellis & Co., No. 140 Franklin street.	Free from preservatives and artificial coloring matter.
27949	Tomatoes.....	Supreme .....	Chief Clerk's Office..	Burton & Davis, No. 198 Franklin street .....	Free from preservatives and artificial coloring matter.
27729	Tomatoes.....	Golden Rose.....	Chief Clerk's Office..	Seeman Bros., North Moore and Hudson streets.....	Free from preservatives and artificial coloring matter.

Waters—Cellar Water.

Number examined .....	38	For Hall of Records Building.....	1
For Division of Inspections, Department of Health.....	18		
For Department of Water Supply, Gas and Electricity.....	19	Of these 19 appeared to be underground water; 19 appeared to be Croton water.	

Complete Sanitary.

No.	Result.
566 Lithia water.....	
24894 .....	Taken from Simpson, Crawford & Simpson Company, Ninth street and Sixth avenue.....
	Parts by weight per million: Calcium oxide, 153.40; barium oxide, 8.47; magnesium oxide, 4.22; ferric oxide, 1.30; alumina, 20.64; potassium oxide, 112.43; lithium oxide, 4.05; sodium chloride, 40.21; sulphates, 214.02; silica, 15.30; organic, volatile CO <sub>2</sub> , etc., 220.00.



## Miscellaneous.

No.	Brand.	Sample.	From Whom Received or Purchased.	Results.
27307	.....	Avisol .....	O. J. Weeks & Co., No. 91 Murray street.....	Sulphuric acid, 52.28 per cent.; sulphurous acid, 6.27 per cent.; glucose, 8.16 per cent.
26761	.....	Barley, Robinsons.....	*Dr. Robert's Office.....	Benzoic acid, boric acid or borax, salicylic acid, formaldehyde and poisonous metals absent.
25871	.....	Bean .....	Mrs. Jennie Miller, No. 179 Norfolk street.....	Sample is unadulterated.
27667	.....	Chewing gum.....	*Division of Inspections, Borough of Queens.....	Free from injurious ingredients.
27758	.....	Chicken feed.....	*Assistant Sanitary Superintendent, Richmond.....	Free from arsenic, heavy metals, mineral and organic acids and strychnine.
27551	Crown....	Cigarettes, cinnamon.....	Samuel Margulies, No. 67 East Ninety-ninth street.....	Free from nicotine, cocaine and morphine.
27560	Globe....	Cigarettes, cinnamon.....	Globe Specialty Company, No. 131 Bowery.....	Free from nicotine, cocaine and morphine.
27561	Star....	Cigarettes, cinnamon.....	Globe Specialty Company, No. 131 Bowery.....	Free from nicotine, cocaine and morphine.
27655	Sauls....	Cigarettes, cinnamon.....	.....	Free from nicotine, cocaine and morphine.
27147	.....	Water, colored.....	Martin Weiser, No. 1142 Second avenue.....	Alcohol (by weight), 0.16 per cent.; alcohol (by volume), 0.20 per cent.; methyl alcohol, none; acetic acid, 0.83 per cent.
24720	.....	Cream thickener.....	*Division of Inspections.....	Sample contains calcium succate.
26270	.....	Cream thickener (creamade).....	*Division of Inspections.....	Sample is calcium succate.
27576	.....	Deposit from graveyard urns.....	*Assistant Sanitary Superintendent, Borough of Richmond....	Substance is composed of sandy dirt and particles of vegetation. It is free from copper.
27616	.....	Egg, Korno.....	Gilbert Parker Company, No. 306 Greenwich street.....	Protein, 45.94 per cent.; ash, 4.17 per cent.; fats, 39.65 per cent. Free from coloring matter (coal tar dye) and borax and boric acid.
27617	Korno....	Egg, substitute.....	Gilbert Parker Company, No. 306 Greenwich street.....	Protein, 52.59 per cent.; ash, 5.67 per cent.; fats, 8.89 per cent. Free from coloring matter (coal tar dye) and borax and boric acid.
24533	.....	Fertilizer, fresh.....	*Division of Inspections.....	The odor of this sample is not due to gases given off. It is probably due to the impalpable powder.
24534	.....	Fertilizer, screened.....	*Division of Inspections.....	The odor of this sample is not due to gases given off. It is probably due to the impalpable powder.
26023	.....	Filler .....	A. Lester Heyer, No. 318 East Thirty-ninth street.....	Sample consists of starch.
26421	.....	Filler, sausage.....	M. Zimmerman & Co., No. 318 East Houston street.....	Sample is made up of starch. Borax and sulphites absent.
26769	.....	Flour, bull meat.....	C. M. Webster, No. 39 Pearl street.....	Sample composed of flour (used as a filler).
27614	.....	Flour, Korno potato.....	Gilbert Parker Company, No. 306 Greenwich street.....	Starch present. Mineral matter (as a filler), none.
27838	.....	Gelatin .....	Henry Heide, Hudson and Vandam streets.....	Contains 0.143 per cent. sulphurous anhydride.
27839	.....	Gelatin .....	Henry Heide, Hudson and Vandam streets.....	Contains 0.131 per cent. sulphurous anhydride.
27840	.....	Gelatin .....	Henry Heide, Hudson and Vandam streets.....	Contains 0.184 per cent. sulphurous anhydride.
27178	Berlin....	Health extract.....	*Commissioner's Office.....	Caramel present. Free from caffeine, proteins, alkaloids and poisonous metals.
26767	.....	Lard tallow purifier.....	C. M. Webster, No. 39 Pearl street.....	Ash, 0.11 per cent. Carbonate and chlorides present.
25363	.....	Liquid in glass.....	Moritz R. Arcelli, No. 525 Sixth street.....	Free from volatile, vegetable and mineral poison.
25463	.....	Liquid, white.....	C. Eisenberg, No. 1281 Madison avenue.....	Free from wood alcohol.
24924	.....	Lactalbumin .....	*Commissioner's Office.....	Moisture, 3.36 per cent.; ash, 5.34 per cent.; fat, 6.36 per cent.; proteid, 13.31 per cent.; milk sugar (by difference), 71.63 per cent.
25654	.....	Milk powder, "Wimmers".....	*Commissioner's Office.....	Moisture, 20.13 per cent.; ash, 7.96 per cent.; fat, 14.35 per cent.; proteid, 20.11 per cent.; milk sugar (by difference), 37.45 per cent.
27083	.....	Milk powder, "Trumilk".....	*Commissioner's Office.....	Moisture, 2.54 per cent.; ash, 6.23 per cent.; fat, 24.91 per cent.; proteid, 27.04 per cent.; milk sugar (by difference), 39.28 per cent.
27116	.....	Milk powder, "Trumilk".....	*Commissioner's Office (by request).....	Moisture, 2.10 per cent.; ash, 5.70 per cent.; fat, 29.60 per cent.; proteid, 25.06 per cent.; milk sugar (by difference), 37.54 per cent.
27117	.....	Milk powder, "Trumilk".....	*Commissioner's Office (by request).....	Moisture, 2.46 per cent.; ash, 8.18 per cent.; fat, 1.22 per cent.; proteid, 33.47 per cent.; milk sugar (by difference), 54.67 per cent.
27118	.....	Milk powder, "Trumilk".....	*Commissioner's Office (by request).....	Moisture, 2.45 per cent.; ash, 6.08 per cent.; fat, 26.32 per cent.; proteid, 25.70 per cent.; milk sugar (by difference), 39.45 per cent.
25793	.....	Metal polish.....	*Dr. Wilson.....	Sample is a mixture of magnesium oxide and kerosene oil.
26731	.....	Nun's veiling.....	R. H. Macy & Co., Thirty-fourth street and Broadway.....	Sample is wool.
25868	.....	Nuts, maple.....	Samuel Schwartz, No. 187 Norfolk street.....	Sample unadulterated.
25869	.....	Nuts, Turkish.....	Samuel Schwartz, No. 187 Norfolk street.....	Sample unadulterated.
25870	.....	Nuts, pistache.....	Samuel Schwartz, No. 187 Norfolk street.....	Sample unadulterated.
27237	.....	Paint .....	*Mr. Naughton.....	Sample is made up of linseed oil and lead carbonate.
27737	Rozsa....	Paprica .....	Adolph Pollak, No. 400 East Seventy-fourth street.....	Moisture, 5.75 per cent.; ash, 8.51 per cent.; ether extract, 14.10 per cent.; volatile ether extract, 2.25 per cent.
27410	.....	Paraffin .....	.....	Sample is paraffin. Melting point, 47 degrees C.
27432	.....	Paste, cremolin strawberry.....	Leo Benjamin, No. 1743 Avenue A.....	Calcium carbonate, cane sugar and artificial coloring matter present. Preservatives absent.
27433	.....	Paste, cremolin pistache.....	Leo Benjamin, No. 1743 Avenue A.....	Calcium carbonate, cane sugar and artificial coloring matter present. Preservatives absent.
27434	.....	Paste, cremolin banana.....	Leo Benjamin, No. 1743 Avenue A.....	Calcium carbonate, cane sugar and artificial coloring matter present. Preservatives absent.
27618	.....	Paste, Eureka.....	American Paste Company, No. 1402 Broadway.....	Fats present in small quantity. Reducing sugar present. Starch present in small quantity. Gums soluble in absolute alcohol absent.
27518	.....	Candy polisher.....	Henry Heide, No. 84 Vandam street.....	Artificial color (coal tar) present. Minerals none.
24859	.....	Plum pudding.....	*Dr. Robert's Office.....	Arsenic, antimony, tin, lead none. Alkaloids none.
26682	.....	Poultry wash.....	Selner Brothers, No. 1989 Third avenue.....	Free from boric acid, borax, formaldehyde, benzoic and salicylic acids.
26683	.....	Poultry wash.....	Berthol & Laudauer, No. 1907 Third avenue.....	Free from boric acid, borax, formaldehyde, benzoic and salicylic acids.
26684	.....	Poultry wash.....	Independent Beef Company, No. 2277 Third avenue.....	Free from boric acid, borax, formaldehyde, benzoic and salicylic acids.
27615	Korno....	Shortening compound.....	Gilbert Parker Company, No. 306 Greenwich street.....	Iodine No. 97.3; melting point, 41 degrees; 45 degrees solidifying point, 43 degrees; 39 degrees maumene, No. 46 degrees; refractive index, 1.453 at 69 degrees. Gives Halphen's reaction for cottonseed oil.
26191	.....	Saltpeter .....	*Commissioner's Office.....	Sample consists of the chlorides and nitrates of sodium and potassium.
27511	.....	Snuff .....	O. C. Weinman, No. 173 Seventh avenue.....	Free from alkaloids, cocaine, salicylic and benzoic acids, borax or boric acid.
27513	.....	Shellac .....	Henry Heide, No. 84 Vandam street.....	Contains wood alcohol.
27514	.....	Shellac .....	Henry Heide, No. 84 Vandam street.....	Contains wood alcohol.
27437	Exhibit A.	Soy, thick.....	*United States Treasury Department.....	Sp. gr., 1.4181 at 155 degrees C.; total solids, 72.60 per cent.; ash, 7.67 per cent.; ash soluble in water, practically all; protein, 1.714 per cent.; sugar, 21.8 per cent. Ether extract yields no recognizable substance by taste or odor. Protein by 6.25 x Kjeldal N.
27438	Exhibit B.	Soy, thin.....	*United States Treasury Department.....	Sp. gr., 1.2635 at 155 degrees C.; total solids, 36.74 per cent.; ash, 25.02 per cent.; ash soluble in water, practically all; protein, 3.73 per cent.; sugar, none. Ether extract yields no recognizable substance by taste or odor. Protein by 6.25 x Kjeldal N.
27620	.....	Soy, thick.....	*United States Treasury Department.....	Sp. gr., 1.4160 at 155 degrees C.; total solids, 73.16 per cent.; ash, 9.72 per cent.; ash soluble in water, practically all; protein, 1.401 per cent.; sugar, 22.8 per cent. Ether extract yields no recognizable substance by taste or odor. Protein by 6.25 x Kjeldal N.
27621	.....	Soy, thin.....	*United States Treasury Department.....	Sp. gr., 1.2669 at 155 degrees C.; total solids, 37.12 per cent.; ash, 22.23 per cent.; ash soluble in water, practically all; protein, 3.83 per cent.; sugar, none. Ether extract yields no recognizable substance by taste or odor. Protein by 6.25 x Kjeldal N.
27622	.....	Soy, thick.....	*Detective Bureau.....	Sp. gr., 1.4202 at 155 degrees C.; total solids, 72.97 per cent.; ash, 8.91 per cent.; ash soluble in water, practically all; protein, 0.77 per cent.; sugar, 22.5 per cent. Ether extract yields no recognizable substance by taste or odor. Protein by 6.25 x Kjeldal N.
27623	.....	Soy, thin.....	*Detective Bureau.....	Sp. gr., 1.2763 at 155 degrees C.; total solids, 40.25 per cent.; ash, 24.94 per cent.; ash soluble in water, practically all; protein, 8.46 per cent.; sugar, none. Ether extract gives no recognizable substance by taste or odor. Protein by 6.25 x Kjeldal N.
27646	.....	Sewage A.....	*Commissioner's Office.....	Odor of sample resembles naphtha. Sample begins to distil at 35 degrees C. The distillate does not flash when warmed and a match is applied. Sample contains light naphtha in traces.
27647	.....	Sewage B.....	*Commissioner's Office.....	Odor of sample resembles naphtha. Sample begins to distil at 38 degrees C. The distillate does not flash when warmed and a match is applied. Sample contains a trace of light naphtha.
27648	.....	Sewage D.....	*Commissioner's Office.....	Odor of sample (very faintly) resembles naphtha. Sample begins to distill at 48 degrees C. The distillate does not flash when warmed and a match is applied. Sample contains trace of very light naphtha.
27649	.....	Sewage E.....	*Commissioner's Office.....	Odor of sample resembles naphtha. The sample begins to distil at 42 degrees C. Distillate does not flash when warmed and a match is applied. Sample contains a trace of light naphtha.
27650	.....	Sewage F.....	*Commissioner's Office.....	Odor of sample resembles naphtha. Sample begins to distil at 55 degrees C. Distillate does not flash when warmed and match is applied. Sample contains a trace of light naphtha.
26764	.....	Saltze (Konservierung), D....	C. M. Webster, No. 37 Pearl street.....	Nitrates, chlorides and sulphates present.

\* From whom received.



No.	Brand.	Sample.	From Whom Received or Purchased.	Results.
26765		Saltze (Konservierung), red...	C. M. Webster, No. 37 Pearl street.	Nitrates, chlorides and sulphates present.
28002		Salt solution.		Sp. gr. at 60 degrees F. (pycnometer), 1.0277 corresponding. Corresponding reading B. of H. lactometer, 95.5. Standard lactometer at 59 degrees F., 96.0.
28003		Salt solution.		Sp. gr. at 60 degrees F. (by pycnometer), 1.0307. Corresponding reading B. of H. lactometer, 106. Standard lactometer at 59 degrees F., 106.5.
28004		Salt solution.		Sp. gr. at 60 degrees F. (by pycnometer), 1.0341. Corresponding reading B. of H. lactometer, 118. Standard lactometer at 59 degrees F., 117.
25269		Turpentine	*Department of Corrections.	Sp. gr., 0.862; pale yellow color; 75 per cent. distills between 308 degrees F. and 330 degrees F.; 25 per cent. distills above 330 degrees F.
24513		Soda, washing.	Gustav Peterson, No. 247 West Sixtieth street.	Sample contains carbon dioxide, 51.98 per cent. Calculated, 52.38 per cent.
24878		Soda, washing.	*Bellevue Hospital.	Alkali (calculated as carbonate), 87.50 per cent. Chlorides present.
24905		Soda, washing.	*Bellevue Hospital.	Alkali (calculated as carbonate), 87.50 per cent. Chlorides present.
24906		Soda, washing.	*Bellevue Hospital.	Alkali (calculated as carbonate), 81.50 per cent. Chlorides present.
24907		Soda, washing.	*Bellevue Hospital.	Alkali (calculated as carbonate), 83.50 per cent. Chlorides present.
24908		Soda, washing.	*Bellevue Hospital.	Alkali (calculated as carbonate), 85.00 per cent. Chlorides present.
25010		Soda, washing.	*Bellevue Hospital.	Alkali (calculated as carbonate), 88.50 per cent. Chlorides present.
26768		Soda, washing, Ozo.	C. H. Webster, No. 37 Pearl street.	Sample composed of soap containing large amount of alkaline carbonates.
27152		White lead, Atlantic.	*Kingston Avenue Hospital.	Sample free from adulteration.
27153		White lead, Harrison.	*Kingston Avenue Hospital.	Sample too small in quantity to make proper determinations.
27408		White lead, Harrison.	*Kingston Avenue Hospital.	Sample free from adulterations.
24808		Urine	*Drug Laboratory.	Free from sugar and albumen.
24893		Urine	*Dr. Shields.	Sp. gr., 1.022. Free from sugar and albumen.
25013		Urine	*Dr. Robert's Office.	Free from sugar and albumen.
25249		Urine	*Assistant Sanitary Superintendent, The Bronx.	Free from sugar and albumen.
25645		Urine	*Dr. Guilfooy.	Free from sugar and albumen.
26360		Urine	*Dr. Shield.	Sp. gr., 1.017. Free from sugar and albumen.
27305		Glucose	F. G. Brewster & Co., No. 306 East Sixty-first street.	Free from sulphuric acid and bi-sulphite of soda.
27451		Glucose and sugar mixture.	Advance Novelty Company, No. 629 East Sixteenth street.	Contains sulphuric and sulphurous acids.
25389		Celery	Eliz. McCabe, No. 240 East Nineteenth street.	Sample coated with several patches of greenish color. Tests for arsenic and copper gave negative results.

\* From whom received.

Number of Babcock flasks tested.	142
Number of lactometers tested.	217
Number of thermometers tested.	140

The following is a report of the Bureau of Records for the year 1906:

## Population.

The population of the Greater City, as furnished by the State census of the year 1905, was 4,014,304 persons, and the estimated population for the middle of the year 1906 was 4,152,860; the estimates by boroughs, made upon the assumption that the rate of increase which prevailed between the Federal census of 1900 and the State census of 1905 still maintains in each borough, gave the following figures:

Manhattan	2,174,335
The Bronx	290,097
Brooklyn	1,404,569
Queens	209,686
Richmond	74,173
Greater City.	4,152,860

## General Statistics—Births.

There were 111,722 births reported during the year, as against 103,881 reported in 1905, an increase of 7,891, distributed among the boroughs as follows:

Manhattan	2,802
The Bronx	647
Brooklyn	3,566
Queens	695
Richmond	181

The following table gives the number of births and birth rates in the boroughs and City since 1898 to 1906:

Births Reported and Birth Rates by Boroughs and City, 1898 to 1906.

Borough.	1898.		1899.		1900.	
	Number of Births.	Rate.	Number of Births.	Rate.	Number of Births.	Rate.
Manhattan	49,835	27.54	48,397	26.44	50,494	27.23
The Bronx	3,524	21.07	3,671	19.96	4,122	20.45
Brooklyn	21,395	15.54	21,203	18.73	22,572	19.34
Queens	2,826	20.62	2,943	20.27	3,084	20.07
Richmond	1,348	21.14	1,418	21.67	1,449	21.59
City of New York.	78,928	24.12	77,632	23.13	81,721	23.71

Borough.	1901.		1902.		1903.	
	Number of Births.	Rate.	Number of Births.	Rate.	Number of Births.	Rate.
Manhattan	49,990	26.25	52,291	26.74	56,078	27.93
The Bronx	4,023	18.79	5,220	22.94	6,053	25.03
Brooklyn	22,182	18.40	23,507	18.91	27,292	21.29
Queens	3,127	19.32	3,198	18.76	3,802	21.18
Richmond	1,413	20.71	1,428	20.58	1,530	21.68
City of New York	80,735	22.72	85,644	23.36	94,755	25.06

Borough.	1904.		1905.		1906.	
	Number of Births.	Rate.	Number of Births.	Rate.	Number of Births.	Rate.
Manhattan	59,196	28.71	60,202	28.43	63,005	29.11
The Bronx	6,033	23.48	6,659	24.39	7,306	25.18
Brooklyn	28,859	21.89	30,972	22.73	34,538	24.59
Queens	3,871	20.48	4,355	21.87	5,050	24.08
Richmond	1,596	22.25	1,692	23.19	1,873	25.25
City of New York.	99,555	25.52	103,880	25.81	111,772	26.91

The above table shows that there has been a considerable increase in the percentage of reported births compared with the year 1898, when the Charter of the Greater City went into effect. This increase is due to several causes; first, the high marriage rate for the preceding two or three years has been followed by an actual increase in the number of births occurring in the City and consequent increase in the number of births reported; second, the necessity of producing a certificate of birth in order to obtain admission into the public schools in certain densely populated sections of the City has indirectly acted as a stimulus upon the parents who have been referred to the physicians and midwives to obtain certificates of birth from them in births occurring in previous years, of which no record was filed at the time of birth; third, the constant endeavors of the Registrar and his assistants to compel compliance with the law.

## Marriages.

The marriages reported during the year number 48,355 against 42,675 in 1905, an increase of 5,680, distributed among the boroughs as follows:

Manhattan	3,934
The Bronx	207
Brooklyn	1,184
Queens	328
Richmond	27

The marriage rate was 11.64 marriages, or 23.28 persons married per 1,000 of the population, an extremely high rate; the rate in the Borough of Manhattan reached the high-water mark of 29.74 persons married per 1,000 of the population. The great factor in the production of such a high rate has undoubtedly been the prosperous condition of the City during the past year.

The following table gives the number of marriages reported, and rates per 1,000, in the boroughs and City since 1898:

Marriages Reported and Marriage Rates by Boroughs and City, 1898 to 1906.

Borough.	1898.		1899.		1900.	
	Number of Marriages.	Rate.	Number of Marriages.	Rate.	Number of Marriages.	Rate.
Manhattan	20,118	11.12	20,836	11.36	21,979	11.85
The Bronx	651	3.89	904	4.92	948	4.69
Brooklyn	7,129	6.51	7,612	8.48	8,214	7.04
Queens	636	4.64	710	4.89	768	5.00
Richmond	351	5.50	412	6.30	428	6.38
City of New York.	28,885	8.83	474	9.07	32,247	9.36

Borough.	1901.		1902.		1903.	
	Number of Marriages.	Rate.	Number of Marriages.	Rate.	Number of Marriages.	Rate.
Manhattan	22,895	12.02	24,766	12.67	25,911	12.90
The Bronx	1,067	4.80	1,227	5.03	1,354	4.76
Brooklyn	8,303	6.89	9,014	7.25	9,616	7.50
Queens	777	4.80	768	4.51	855	4.76
Richmond	405	5.93	432	6.23	438	6.21
City of New York.	33,447	9.41	36,207	9.88	38,174	10.10

Borough.	1904.		1905.		1906.	
	Number of Marriages.	Rate.	Number of Marriages.	Rate.	Number of Marriages.	Rate.
Manhattan	26,500	12.85	28,408	13.42	32,342	14.87
The Bronx	1,465	4.97	1,820	6.67	2,027	6.99
Brooklyn	10,019	7.61	10,778	7.91	11,966	8.51
Queens	921	4.87	1,092	5.48	1,420	6.77
Richmond	531	7.40	573	7.86	600	8.09
City of New York.	39,436	10.11	42,671	10.60	48,355	11.64

## Still Births.

There were 6,646 still births reported during the year, with a rate of 1.60 per 1,000 of the population, against 6,352 and a rate of 1.58 in the previous year.



## Deaths.

There were 76,203 deaths reported during the year against 73,714 reported in 1905, an increase of 2,489; the rate for 1906 was 18.35 per 1,000 of the population; that for 1905 was 18.32, an increase of .03 of a point; the quinquennial average for the preceding five years was 18.04, the rate for 1906 being lower by .59 of a point. The following table gives the death rates by boroughs and City since 1898, the year of the creation of the Greater City; the rate for 1906 compares favorably with those of the preceding years, being the third lowest:

Borough.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.
Manhattan .....	20.23	19.77	20.97	20.22	18.80	18.43	20.53	18.74	18.32
The Bronx .....	22.42	20.23	21.58	22.40	21.69	19.70	24.98	20.25	21.64
Brooklyn .....	19.77	19.13	20.15	19.30	17.97	17.27	18.83	17.57	17.82
Queens .....	18.69	17.29	17.96	17.30	16.32	14.90	16.04	16.03	17.09
Richmond .....	20.48	19.45	20.53	19.71	18.48	17.29	20.25	19.04	20.06
City of New York....	20.26	19.47	20.57	19.90	18.58	17.95	20.01	18.32	18.35

In the following table the deaths of residents of each borough, which have occurred in a borough other than the one of which they were residents at time of death, have been distributed among the boroughs according to residence, thus producing a corrected interborough mortality; for instance, in Manhattan Borough there occurred 877 deaths of residents of other boroughs, and 1,790 deaths of residents of Manhattan were reported from the other boroughs, thus adding 913 deaths to Manhattan's total for the year.

## Corrected Interborough Mortality.

	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.	Total.
Manhattan .....	.....	342	425	79	31	877
The Bronx .....	1,463	.....	11	2	1	1,477
Brooklyn .....	104	4	.....	56	9	173
Queens .....	77	11	111	.....	1	200
Richmond .....	149	4	32	1	.....	186
Total....	1,793	361	579	138	42	2,913
	877	1,477	173	200	186	2,913
	916	1,116	406	62	144	.....

	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.
Total deaths reported.....	39,831	6,277	25,024	3,583	1,488
Corrected total .....	40,747	5,161	25,430	3,521	1,344
Corrected death rates.....	18.74	17.79	18.11	16.79	18.12

The following table gives the death rates of the former City of New York (present Boroughs of Manhattan and The Bronx) and the former City of Brooklyn (present Borough of Brooklyn) from 1866 to date. Attention is drawn to the striking differences between the death rates of the earlier years and those of the later in both cities; if we compare the death rate of the old City of New York, in 1866, when the Board of Health was first organized, with those of the past year, the remarkable decrease of over 46.70 will be found; the rate of the City of Brooklyn for 1866, compared with that of the present Borough of Brooklyn, shows a decrease of 35 per cent.

## General Death Rate Per 1,000, Old City of New York, 1866-1906.

Year.	Death Rate.	Year.	Death Rate.	Year.	Death Rate.
1866.....	34.92	1880.....	26.41	1894.....	22.76
1867.....	28.65	1881.....	31.04	1895.....	23.18
1868.....	29.25	1882.....	29.61	1896.....	24.81
1869.....	28.09	1883.....	25.80	1897.....	20.03
1870.....	28.81	1884.....	25.82	1898.....	20.46
1871.....	28.22	1885.....	25.55	1899.....	19.81
1872.....	33.70	1886.....	25.99	1900.....	21.03
1873.....	29.63	1887.....	26.32	1901.....	20.45
1874.....	27.87	1888.....	26.39	1902.....	19.11
1875.....	29.40	1889.....	25.32	1903.....	18.57
1876.....	27.11	1890.....	24.87	1904.....	21.02
1877.....	23.66	1891.....	26.31	1905.....	18.91
1878.....	23.68	1892.....	25.95	1906.....	18.71
1879.....	24.13	1893.....	25.30		

## General Death Rate Per 1,000, City and Borough of Brooklyn, 1866-1906.

Year.	Death Rate.	Year.	Death Rate.	Year.	Death Rate.
1866.....	27.51	1880.....	23.27	1894.....	21.95
1867.....	25.09	1881.....	24.79	1895.....	22.67
1868.....	24.69	1882.....	24.81	1896.....	21.79
1869.....	23.32	1883.....	22.03	1897.....	19.40
1870.....	24.02	1884.....	21.90	1898.....	20.01
1871.....	24.82	1885.....	23.10	1899.....	19.10
1872.....	24.76	1886.....	22.70	1900.....	20.10
1873.....	24.52	1887.....	23.33	1901.....	19.33
1874.....	23.66	1888.....	21.23	1902.....	17.97
1875.....	25.78	1889.....	23.63	1903.....	17.27
1876.....	24.69	1890.....	24.53	1904.....	18.83
1877.....	22.02	1891.....	25.62	1905.....	17.57
1878.....	20.79	1892.....	24.23	1906.....	17.82
1879.....	21.03	1893.....	23.74		

The following table shows the number of deaths from the principal causes in the entire City during the year, and compares its mortality with that of 1905, indicating the increases and decreases:

Cause of Death.	1905.	1906.	Increase in 1906.	Decrease in 1906.
Typhoid fever .....	649	639	....	10
Malarial fevers .....	53	64	11	....
Small-pox .....	9	6	....	3
Measles .....	520	1,145	625	....
Scarlet fever .....	473	491	18	....
Whooping cough .....	408	367	....	41
Diphtheria and croup.....	1,544	1,898	354	....
Influenza .....	311	241	....	70
Dysentery .....	149	142	....	7
Pulmonary tuberculosis .....	8,535	8,995	420	....
Other tuberculous diseases .....	1,123	1,239	116	....
Cancer, sarcoma .....	2,875	3,005	130	....
Diabetes .....	589	652	63	....
Alcoholism .....	596	636	40	....
Diseases of the nervous system.....	7,501	6,046	....	1,455
Diseases of the circulatory system.....	6,437	6,951	514	....
Bronchitis, acute .....	1,417	1,319	....	98
Pneumonia (lobular and bronchial).....	9,783	10,868	1,085	....
Diarrhoeal diseases (under two years).....	5,877	5,784	....	93
Diarrhoeal diseases (two years and over).....	754	721	....	33
Other diseases of the digestive system.....	3,109	3,158	49	....
Bright's disease, acute nephritis.....	5,944	6,108	164	....
Puerperal diseases .....	815	763	....	52
Congenital debility and malformation.....	4,019	4,366	317	....
Old age .....	723	890	167	....
Homicide .....	165	253	88	....
Suicide .....	660	707	47	....
Accident .....	3,651	3,781	130	....
Ill defined causes .....	1,092	969	....	123
All other causes .....	3,933	4,069	136	....
Total.....	73,714	76,203	4,474	1,985
Balance .....	2,489	....	....	2,489

## Typhoid Fever.

There were ten less deaths reported from this disease than in the previous year; the boroughs showing increases were Manhattan (52) and The Bronx (7), and decreases, Brooklyn (67), Queens (1) and Richmond (1).

The death rate per 100,000 of the population was 15.4 for the past year, against 16.12 for 1905, a decrease of 1.08 point per 100,000. In the old City of New York the number of deaths in 1906 was 369, showing a mortality of over 18 per cent. in 2,014 cases reported against 310 deaths with a mortality of 14 per cent. in 2,194 cases in 1905; in the Borough of Brooklyn 230 deaths were reported and 1,215 cases, showing a case mortality of 19 per cent., against 207 deaths and 2,884 cases, with a mortality of 10 per cent. in 1905, so that apparently the disease exhibited a considerable increase in virulence during 1906.

The following tables show the number of deaths and rates per 10,000 in the old City of New York and City and Borough of Brooklyn for a period of 32 years:

## Deaths and Death Rates from Typhoid Fever, Old City of New York and City and Borough of Brooklyn, Per 10,000, 1874 to 1906.

Year.	Old City of New York.			Brooklyn.		
	Deaths.	Death Rates.	Decennial Rates.	Deaths.	Death Rates.	Decennial Rates.
1874 .....	305	2.96	....	81	1.74	....
1875 .....	376	3.60	....	102	2.11	....
1876 .....	325	3.02	....	97	1.94	....
1877 .....	343	3.10	....	82	1.59	....
1878 .....	321	2.81	3.44	59	1.11	1.55
1879 .....	268	2.28	....	59	1.07	....
1880 .....	372	3.08	....	71	1.25	....
1881 .....	594	4.77	....	99	1.69	....
1882 .....	516	4.03	....	93	1.54	....
1883 .....	625	4.74	....	92	1.47	....
1884 .....	476	3.51	....	107	1.66	....
1885 .....	405	2.90	....	153	2.30	....
1886 .....	433	3.01	....	123	1.77	....
1887 .....	421	2.85	....	143	1.95	....
1888 .....	364	2.39	2.62	153	2.02	2.00
1889 .....	397	2.53	....	161	2.06	....
1890 .....	352	2.18	....	182	2.25	....
1891 .....	384	2.31	....	180	2.16	....
1892 .....	400	2.34	....	162	1.89	....
1893 .....	381	2.17	....	179	2.02	....
1894 .....	326	1.80	....	159	1.65	....
1895 .....	322	1.72	....	173	1.74	....
1896 .....	297	1.56	....	163	1.58	....
1897 .....	299	1.54	....	173	1.62	....
1898 .....	376	1.90	1.72	270	2.46	....
1899 .....	294	1.46	....	205	1.81	2.14
1900 .....	372	1.81	....	301	2.57	....
1901 .....	412	1.95	....	272	2.25	....
1902 .....	399	1.83	....	322	2.59	....
1903 .....	350	1.56	....	267	2.08	....
1904 .....	309	1.33	....	303	2.29	....
1905 .....	310	1.30	....	297	2.18	....
1906 .....	369	1.50	....	230	1.64	....

## Malarial Fevers.

The number of deaths reported from malarial fevers was 64, an increase of eleven over the previous year; this increase was due in a measure to an increased number of typical malarial cases brought into the City from the South and Southwest, all deaths



reported from this disease having been investigated by the Inspectors attached to the Division of Communicable Diseases.

#### Small Pox.

Six (6) deaths were reported during the year, a decrease of three (3) compared with last year.

#### Measles.

1906 was undoubtedly a measles year; in the Greater City almost 40,000 cases were reported, with 1,145 deaths, against 20,000 cases with 520 deaths; the increase was distributed equally among the boroughs, and, as usual, was accompanied by the corresponding increase in the deaths from broncho pneumonia. The effect of an epidemic of measles on the mortality from broncho pneumonia—two diseases confined chiefly to childhood—is evident upon a glance at the following table, which gives the deaths from these two diseases by months for the years 1905 and 1906 in the Greater City:

Month.	Deaths from Measles.		Deaths from Broncho Pneumonia.	
	1905.	1906.	1905.	1906.
January .....	32	116	507	536
February .....	25	162	412	534
March .....	49	228	474	648
April .....	52	212	473	605
May .....	66	165	389	506
June .....	92	103	303	326
July .....	63	67	255	228
August .....	33	25	221	228
September .....	15	13	177	287
October .....	13	11	243	332
November .....	40	16	294	390
December .....	40	27	378	480
Total .....	520	1,145	4,126	5,101

The decennial death rate per 10,000 of the population in the old City of New York in 1875-1884 was 3.64, in 1885-1894 it rose to 4.10 and fell in 1895-1904 to 2.40; in 1905 the rate was 1.31 and in 1906 2.69, more than double that of the previous year, and the highest death rate from this disease since 1896.

#### Diphtheria and Croup.

Eighteen hundred and ninety-eight deaths were reported from this disease in 1906 with a rate per 100,000 of 45.7 against 1,544 deaths and a rate of 38.4. This increase in all probability is due to the neglect of the use of diphtheria antitoxin during the first day or two of the disease. In the Borough of Manhattan the rate was 33.6, in The Bronx 86.9, in Brooklyn 56.5, in Queens 44.8, and in Richmond 37.7; the case fatality in Manhattan was 9.8 per cent., in The Bronx 20.1 per cent., in Brooklyn 15.2 per cent., in Queens 15 per cent. and in Richmond 12.5 per cent. There is hardly any doubt but that antitoxin is used earlier and oftener by the physicians practicing in Manhattan as compared with those of other boroughs, and these figures in themselves constitute an object lesson that should be impressed upon the minds of the practitioners of medicine in the City.

#### Pulmonary Tuberculosis.

Eighty-nine hundred and fifty-five deaths were reported, giving a death rate of 2.16 per 1,000, against 8,335 deaths and a rate of 2.12 for 1905; in the old City of New York the rate for 1906 was 2.39 per 1,000, against 2.38 in 1905 and 1904, so that appar-

ently the decrease in the rate which has been noted for many years has come to a standstill, and it impresses upon us the necessity of enlarging the present municipal sanatorium at Otisville and instituting additional ones.

#### Cancer and Sarcoma.

The deaths from these diseases numbered 3,005 in 1906 against 2,875 in 1905, the rate per 1,000,000 being respectively 724 and 714; the tendency towards continued increase in the rate is here shown, and reference may be had to the annual reports of 1903 and 1904 for confirmation of the actual as well as apparent increase of cancer mortality.

#### Diseases of the Nervous System.

There were 6,046 deaths reported under this general heading against 7,501 in 1905, a decrease of 1,455 deaths, 1,213 of these 1,455 being due to the decrease in the mortality from cerebro-spinal meningitis, which, in 1904, appeared in the form of a severe epidemic and continued with increased virulence until July, 1905.

#### Circulatory and Urinary Diseases.

The deaths from diseases of these two divisions are considered together in this commentary, as both are often named conjointly upon the certificates of death, difficulty often arising as to which should be given the preference, and as both have correlative anatomical and physiological functions.

In 1906 there were 6,951 deaths reported from diseases of the circulatory system and 6,108 from organic disease of the kidneys, a total of 13,059 deaths against a total of 12,381 deaths in 1905, an increase of 678; the rates per 10,000 of the population were 31.4 in 1906 and 30.8 in 1905. The tendency of the death rate from these two combined causes has been gradually upward since the organization of the Board in 1866; the death rate in the decennium 1869-1878 was 17.13 per 10,000, that of 1879-1888, 20.47 and that of 1889-1898, 24.23; the rate in 1906 was 27.34, which, if compared with the rate of the first decennium mentioned shows an increase of 10.21 points, an increase of 59.6 per cent.; one of the fruitful causes of this tremendous increase is the presence among us since 1889 of influenza, with its direful effects upon all invalids suffering from organic diseases; additional causes are dependent upon the conditions of high pressure under which we have been and are at present living; the rapid wear and tear of feverishly active commercial life and the consequent recourse to over-indulgence in strong drinks and food are undoubtedly prominent factors.

#### Diseases of the Respiratory Organs.

There were 13,361 deaths from all respiratory diseases reported during the year against 12,371 in 1905, an increase of 990; most of this increase was due to the greater mortality from broncho pneumonia, which equalled 975 deaths more than in 1905; the mortality from lobar pneumonia was higher by 110 deaths; the reason for the great increase in the deaths among children from broncho pneumonia was the exceedingly severe epidemic of measles which prevailed during the first six months of 1906; this phase was treated upon previously under the heading of "measles."

#### Diarrhoeal Diseases.

There were 6,505 deaths reported from this class of diseases against 6,631 in 1905, a decrease of 126 deaths; the rate per 1,000 was 1.57 in 1906 and 1.65 in 1905, a decrease of .08 of a point. Though small this reduction of .08 of a point is due entirely to the efforts put forth by the Department of Health to educate mothers or others who have charge of the feeding and care of infants, such education being accomplished by cards printed in English and many of the foreign languages of those who have made the City their abode, and also by sending visiting nurses to give instruction in the proper means of feeding and caring for the infants in their charge.

#### Violent Deaths.

Four thousand seven hundred and forty-one deaths were reported under this heading, against 4,476 during 1905; this increase of 265 was distributed as follows: Homicides 88, suicides 47 and accidents 130.

#### Searches and Transcripts.

During 1906 90,964 searches were made and 39,085 transcripts issued of the records of births, deaths and marriages; the searches increased 2,569 and the transcripts 3,252 over the figures of 1905.

### REPORT OF BUREAU OF RECORDS.

For Year Ending December 31, 1906.

	Borough of—					City of New York.
	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.	
Number of deaths.....	39,831	6,277	25,024	3,583	1,488	76,203
Death rates .....	18.32	21.64	17.81	17.09	20.06	18.35
*Corrected death rates .....	18.74	17.79	18.11	16.79	18.12	.....

\*These corrected rates are the result of distributing among the boroughs the deaths of residents of each borough which have occurred in a borough other than the one of which they were residents at the time of death.

Borough.	Estimated Population.	Certificates Received and Tabulated.				Rate per 1,000.				Transit Permits Issued.	Coroners' Cases.	Searches Made.	Transcripts Issued.
		Marriages.	Births.	Deaths.	Still-births.	Marriages.	Births.	Deaths.	Still-births.				
Manhattan .....	2,194,335	32,342	63,005	39,831	3,752	14.87	28.98	18.32	1.73	1,055	5,618	56,382	22,617
The Bronx .....	290,097	2,027	7,306	6,277	430	6.99	25.19	21.64	1.48	39	871	6,168	2,929
Brooklyn .....	1,404,569	11,966	34,538	25,024	2,071	8.52	24.59	17.81	1.47	475	3,348	25,479	12,021
Queens .....	209,686	1,420	5,050	3,583	300	6.77	24.08	17.09	1.43	497	673	2,166	1,130
Richmond .....	74,173	600	1,873	1,488	93	8.09	25.25	20.06	1.25	....	257	769	388
City of New York....	4,152,860	48,355	111,772	76,203	6,646	11.64	26.92	18.35	1.60	2,066	10,767	90,964	39,085

	Borough of—					City of New York.
	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.	
Number of deaths in institutions.....	14,866	2,639	5,811	539	589	24,444
Number of deaths in tenements.....	21,745	2,079	12,021	896	103	36,844
Number of deaths in dwellings.....	1,713	1,352	6,543	1,915	700	12,223
Number of deaths in hotels and boarding houses.....	527	27	111	55	17	737
Number of deaths in streets, rivers, etc. ....	980	180	538	178	79	1,955



Particulars Regarding Births, Deaths, Marriages and Still-  
City of

	Total.	White.		Colored.		Chinese.		Native Parents.		Foreign Parents.		Parentage of Mixed Nativities.		Parentage Unknown or Not Stated.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
*Marriages .....	48,355	46,911	46,930	1,428	1,424	16	1	....	....	....	....	....	....	....	....
*Births .....	111,772	56,386	53,581	937	858	6	4	14,939	14,327	35,070	33,244	6,882	6,455	435	420
Deaths .....	76,203	40,916	33,150	1,048	999	87	3	8,168	7,153	27,031	22,163	3,910	3,214	2,942	1,622
*Still-births .....	†6,646	3,711	2,680	123	89	....	....	1,096	797	2,134	1,514	388	284	217	178

\* The returns of births, marriages and still-births are incomplete. † Sex undetermined.

Borough of

	Total.	White.		Colored.		Chinese.		Native Parents.		Foreign Parents.		Parentage of Mixed Nativities.		Parentage Unknown or Not Stated.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Marriages .....	32,342	31,318	31,341	1,010	1,000	14	1	....	....	....	....	....	....	....	....
Births .....	63,005	31,629	30,183	629	554	6	4	6,015	5,855	22,782	21,549	3,099	3,001	365	339
Deaths .....	39,831	21,457	17,048	650	594	80	2	3,599	3,078	15,002	12,101	1,774	1,392	1,811	1,074
Still-births .....	*3,752	2,057	1,519	88	61	....	....	441	332	1,342	1,007	211	142	152	103

\* Sex undetermined.

Borough of

	Total.	White.		Colored.		Chinese.		Native Parents.		Foreign Parents.		Parentage of Mixed Nativities.		Parentage Unknown or Not Stated.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Marriages .....	2,027	2,000	2,001	26	26	1	....	....	....	....	....	....	....	....	....
Births .....	7,306	3,736	3,467	44	59	....	....	1,416	1,316	1,540	1,426	815	771	9	13
Deaths .....	6,277	3,373	2,700	93	111	....	....	654	619	2,262	1,771	337	294	213	127
Still-births .....	*430	248	169	5	4	....	....	98	58	107	66	39	33	9	16

\* Sex undetermined.

Borough of

	Total.	White.		Colored.		Chinese.		Native Parents.		Foreign Parents.		Parentage of Mixed Nativities.		Parentage Unknown or Not Stated.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Marriages .....	11,966	11,643	11,640	323	326	....	....	....	....	....	....	....	....	....	....
Births .....	34,538	17,535	16,599	214	190	....	....	5,963	5,672	9,391	8,968	2,340	2,097	55	52
Deaths .....	25,024	13,263	11,253	254	247	6	1	3,183	2,858	8,154	7,012	1,471	1,262	716	368
Still-births .....	*2,071	1,165	853	24	18	....	....	450	351	584	375	106	91	49	54

\* Sex undetermined.

Borough of

	Total.	White.		Colored.		Chinese.		Native Parents.		Foreign Parents.		Parentage of Mixed Nativities.		Parentage Unknown or Not Stated.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Marriages .....	1,420	1,372	1,369	48	51	....	....	....	....	....	....	....	....	....	....
Births .....	5,050	2,520	2,453	38	39	....	....	1,124	1,087	972	940	458	449	4	16
Deaths .....	3,583	1,962	1,540	39	42	....	....	488	405	1,156	939	253	268	104	30
Still-births .....	*300	184	106	4	5	....	....	82	41	82	53	22	14	2	3

\* Sex undetermined.

Borough of

	Total.	White.		Colored.		Chinese.		Native Parents.		Foreign Parents.		Parentage of Mixed Nativities.		Parentage Unknown or Not Stated.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Marriages .....	600	578	579	21	21	1	....	....	....	....	....	....	....	....	....
Births .....	1,873	966	879	12	16	....	....	421	397	385	361	170	137	2	....
Deaths .....	1,488	861	609	12	5	1	....	244	193	457	340	75	58	98	23
Still-births .....	*93	57	33	2	1	....	....	25	15	19	13	10	4	5	2

\* Sex undetermined.



births Reported During the Year Ending December 31, 1906.  
New York.

Single.		Married.		Widowed.		Divorced.		Not Stated.		Month of Utero-gestation.										Not Stated.
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	1	2	3	4	5	6	7	8	9	10	
44,914	44,475	....	....	3,087	3,278	354	602	....	....	..	..	..	..	..	..	..	..	..	..	..
....	....	....	....	....	....	....	....	....	....	..	..	..	..	..	..	..	..	..	..	..
23,841	16,938	13,418	9,627	4,212	7,449	33	36	548	101	..	..	..	..	..	..	..	..	..	..	..
....	....	....	....	....	....	....	....	....	....	..	14	112	268	519	804	1,031	861	2,755	262	20

## Manhattan.

Single.		Married.		Widowed.		Divorced.		Not Stated.		Month of Utero-gestation.										Not Stated.
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	1	2	3	4	5	6	7	8	9	10	
30,566	29,998	....	....	1,542	1,912	234	432	....	....	..	..	..	..	..	..	..	..	..	..	..
....	....	....	....	....	....	....	....	....	....	..	..	..	..	..	..	..	..	..	..	..
12,657	10,031	6,989	4,839	2,063	2,779	20	22	358	73	..	..	..	..	..	..	..	..	..	..	..
....	....	....	....	....	....	....	....	....	....	..	12	86	175	318	478	570	462	1,449	199	3

## The Bronx.

Single.		Married.		Widowed.		Divorced.		Not Stated.		Month of Utero-gestation.										Not Stated.
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	1	2	3	4	5	6	7	8	9	10	
1,789	1,839	....	....	217	170	21	18	....	....	..	..	..	..	..	..	..	..	..	..	..
....	....	....	....	....	....	....	....	....	....	..	..	..	..	..	..	..	..	..	..	..
1,872	1,295	1,153	867	422	643	1	....	18	6	..	..	..	..	..	..	..	..	..	..	..
....	....	....	....	....	....	....	....	....	....	..	1	6	13	29	42	79	65	131	57	7

## Brooklyn.

Single.		Married.		Widowed.		Divorced.		Not Stated.		Month of Utero-gestation.										Not Stated.
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	1	2	3	4	5	6	7	8	9	10	
10,758	10,832	....	....	1,120	993	88	141	....	....	..	..	..	..	..	..	..	..	..	..	..
....	....	....	....	....	....	....	....	....	....	..	..	..	..	..	..	..	..	..	..	..
7,606	5,552	4,352	3,263	1,427	2,651	10	13	129	21	..	..	..	..	..	..	..	..	..	..	..
....	....	....	....	....	....	....	....	....	....	..	1	15	72	152	233	311	277	999	5	6

## Queens.

Single.		Married.		Widowed.		Divorced.		Not Stated.		Month of Utero-gestation.										Not Stated.
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	1	2	3	4	5	6	7	8	9	10	
1,267	1,267	....	....	144	143	9	10	....	....	..	..	..	..	..	..	..	..	..	..	..
....	....	....	....	....	....	....	....	....	....	..	..	..	..	..	..	..	..	..	..	..
1,120	759	662	479	200	342	1	1	18	1	..	..	..	..	..	..	..	..	..	..	..
....	....	....	....	....	....	....	....	....	....	..	..	3	5	12	41	53	38	143	1	4

## Richmond.

Single.		Married.		Widowed.		Divorced.		Not Stated.		Month of Utero-gestation.										Not Stated.
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	1	2	3	4	5	6	7	8	9	10	
533	539	....	....	64	60	2	1	....	....	..	..	..	..	..	..	..	..	..	..	..
....	....	....	....	....	....	....	....	....	....	..	..	..	..	..	..	..	..	..	..	..
486	301	262	179	100	134	1	....	25	....	..	..	..	..	..	..	..	..	..	..	..
....	....	....	....	....	....	....	....	....	....	..	..	2	3	8	10	18	19	33	..	..



## Report of Births for the Year Ending December 31, 1906.

Month.	Total.	White.		Colored.		Chinese.		Native Parents.		Foreign Parents.		Mixed Parentage.		Unknown Parentage.		Births of Mixed Parentage.	Attended by Physicians.	Attended by Midwives.	Apparently Illegitimate.	Twins.	Triplets.
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.						
January .....	9,885	5,024	4,718	79	62	1	1	1,333	1,222	3,096	2,961	630	562	45	36	597	5,673	4,212	150	78	..
February .....	8,538	4,359	4,007	87	83	1	1	1,137	1,111	2,716	2,480	553	466	41	34	552	4,848	3,690	145	77	..
March .....	9,465	4,748	4,574	76	65	1	1	1,256	1,244	2,939	2,786	599	572	32	37	621	5,123	4,342	140	62	..
April .....	8,400	4,260	4,006	59	74	1	..	1,190	1,120	2,586	2,435	514	481	30	44	543	4,830	3,570	131	60	..
May .....	8,637	4,336	4,163	79	59	..	..	1,169	1,162	2,655	2,499	543	522	48	39	547	5,031	3,606	159	73	1
June .....	8,655	4,320	4,201	74	60	..	..	1,147	1,158	2,683	2,584	531	496	33	23	568	4,951	3,704	97	79	..
July .....	9,747	4,832	4,740	85	88	1	1	1,431	1,373	2,854	2,855	603	568	30	33	602	5,779	3,968	151	75	..
August .....	10,267	5,211	4,880	90	85	1	..	1,352	1,258	3,317	3,084	596	594	37	29	647	6,138	4,129	136	92	..
September .....	9,273	4,654	4,478	73	68	..	..	1,177	1,132	2,943	2,856	579	519	28	39	561	5,193	4,080	107	61	..
October .....	10,140	5,137	4,843	87	71	1	1	1,374	1,236	3,212	3,084	619	557	20	38	614	5,687	4,453	120	84	..
November .....	9,169	4,644	4,378	72	74	..	1	1,154	1,150	2,996	2,730	520	532	46	41	577	5,044	4,125	129	61	..
December .....	9,596	4,859	4,591	75	70	1	..	1,224	1,155	3,073	2,889	596	590	42	27	578	5,364	4,232	122	73	..
Total.....	111,772	56,384	53,579	936	859	8	6	14,944	14,321	35,070	33,243	6,883	6,459	432	420	7,007	63,661	48,111	1,587	875	1

## BOROUGH OF MANHATTAN.

## Report of Births for the Year Ending December 31, 1906.

Month.	Total.	White.		Colored.		Chinese.		Native Parents.		Foreign Parents.		Mixed Parentage.		Unknown Parentage.		Births of Mixed Parentage.	Attended by Physicians.	Attended by Midwives.	Apparently Illegitimate.	Twins.	Triplets.
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.						
January .....	5,641	2,856	2,682	57	44	1	1	541	515	2,019	1,928	316	254	38	30	230	3,126	2,515	116	33	..
February .....	4,919	2,513	2,290	52	62	1	1	467	457	1,803	1,656	263	214	33	26	208	2,778	2,141	112	36	..
March .....	5,453	2,725	2,629	52	45	1	1	547	543	1,919	1,842	286	266	26	24	222	2,902	2,551	110	25	..
April .....	4,904	2,486	2,334	38	45	1	..	533	491	1,728	1,629	237	226	27	33	239	2,765	2,139	111	25	..
May .....	4,848	2,374	2,372	58	37	..	..	461	474	1,695	1,663	233	243	43	36	203	2,803	2,045	132	32	1
June .....	4,855	2,416	2,352	49	38	..	..	464	478	1,746	1,652	230	238	25	22	215	2,689	2,166	75	32	..
July .....	5,320	2,616	2,592	54	56	1	1	550	516	1,845	1,855	251	249	25	29	222	3,031	2,289	115	30	..
August .....	5,775	2,925	2,737	59	53	1	..	552	522	2,123	1,960	275	286	35	22	242	3,565	2,210	109	40	..
September .....	5,181	2,613	2,489	46	33	..	..	442	448	1,938	1,816	255	226	24	32	184	2,808	2,373	89	27	..
October .....	5,609	2,785	2,710	63	49	1	1	533	461	2,032	1,998	271	272	13	29	221	2,968	2,641	88	41	..
November .....	5,213	2,662	2,455	48	47	..	1	455	473	1,980	1,743	237	252	38	35	233	2,833	2,380	110	18	..
December .....	5,287	2,656	2,532	52	46	1	..	475	472	1,953	1,806	246	279	35	21	186	2,846	2,441	93	23	..
Total.....	63,005	31,627	30,181	628	555	8	6	6,020	5,850	22,781	21,548	3,100	3,005	362	339	2,605	35,114	27,891	1,260	362	1

## BOROUGH OF THE BRONX.

## Report of Births for the Year Ending December 31, 1906.

Month.	Total.	White.		Colored.		Chinese.		Native Parents.		Foreign Parents.		Mixed Parentage.		Unknown Parentage.		Births of Mixed Parentage.	Attended by Physicians.	Attended by Midwives.	Apparently Illegitimate.	Twins.	Triplets.
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.						
January .....	586	294	285	2	5	..	..	113	108	128	118	55	64	..	..	56	397	189	6	6	..
February .....	483	245	231	4	3	..	..	90	90	102	85	57	58	..	1	62	320	163	3	6	..
March .....	549	276	261	5	7	..	..	94	112	128	98	59	55	1	2	56	387	162	5	5	..
April .....	567	285	275	2	5	..	..	109	111	104	103	74	65	..	1	67	422	145	1	4	..
May .....	521	291	220	5	5	..	..	108	79	119	99	69	46	..	1	57	356	165	7	8	..
June .....	575	280	288	5	2	..	..	110	105	94	137	78	48	3	..	74	392	183	8	9	..
July .....	682	344	324	6	8	..	..	159	132	118	125	71	73	2	2	89	508	174	7	3	..
August .....	645	336	303	2	4	..	..	128	120	144	129	66	57	..	1	68	450	195	8	4	..
September .....	698	330	352	7	9	..	..	139	131	130	142	68	87	..	1	85	490	208	3	8	..
October .....	709	384	322	1	2	..	..	137	112	171	136	77	76	..	..	68	494	215	1	5	..
November .....	628	325	299	2	2	..	..	114	106	149	131	62	62	2	2	78	398	230	4	7	..
December .....	663	346	307	3	7	..	..	115	109	154	123	79	80	1	2	92	455	208	7	10	..
Total.....	7,306	3,736	3,467	44	59	..	..	1,416	1,315	1,541	1,426	815	771	9	13	851	5,069	2,237	60	75	..

## BOROUGH OF BROOKLYN.

## Report of Births for the Year Ending December 31, 1906.

Month.	Total.	White.		Colored.		Chinese.		Native Parents.		Foreign Parents.		Mixed Parentage.		Unknown Parentage.		Births of Mixed Parentage.	Attended by Physicians.	Attended by Midwives.	Apparently Illegitimate.	Twins.	Triplets.
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.						
January .....	3,056	1,568	1,462	15	11	..	..	540	468	825	808	211	192	7	5	275	1,811	1,245	23	29	..
February .....	2,593	1,340	1,219	20	14	..	..	453	438	716	643	183	147	8	5	240	1,438	1,155	26	30	..
March .....	2,938	1,475	1,434	17	12	..	..	505	488	782	752	201	197	4	9	296	1,547	1,391	22	28	..
April .....	2,428	1,238	1,154	17	19	..	..	429	409	670	613	153	145	3	6	205	1,344	1,084	12	27	..
May .....	2,740	1,401	1,311	15	13	..	..	470	494	751	650	190	179	5	1	241	1,552	1,188	18	25	..
June .....	2,629	1,336	1,263	16	14	..	..	436	430	736	690	176	156	4	1	230	1,484	1,145	13	29	..
July .....	3,162	1,565	1,557	23	17	..	..	589	613	772	767	225	192	2	2	251	1,900	1,262	26	42	..



Month.	Total.	White.		Colored.		Chinese.		Native Parents.		Foreign Parents.		Mixed Parentage.		Unknown Parentage.		Births of Mixed Parentage.	At- tended by Phy- sicians.	At- tended by Mid- wives.	Appar- ently Illegiti- mate.	Twins.	Trip- lets.
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.						
August .....	3,186	1,618	1,524	25	19	..	..	532	464	913	880	196	195	2	4	287	1,728	1,458	17	42	..
September .....	2,850	1,434	1,379	15	22	..	..	469	453	767	773	209	171	4	4	261	1,600	1,250	13	18	..
October .....	3,200	1,647	1,519	19	15	..	..	569	528	880	831	212	167	5	8	289	1,850	1,350	25	31	..
November .....	2,770	1,387	1,343	21	19	..	..	475	450	753	731	174	177	6	4	217	1,492	1,278	14	25	..
December .....	2,986	1,526	1,434	11	15	..	..	496	437	826	830	210	179	5	3	251	1,692	1,294	20	33	..
Total.....	34,538	17,535	16,599	214	190	..	..	5,963	5,672	9,391	8,968	2,340	2,097	55	52	3,043	19,438	15,100	229	359	..

## BOROUGH OF QUEENS.

Report of Births for the Year Ending December 31, 1906.

Month.	Total.	White.		Colored.		Chinese.		Native Parents.		Foreign Parents.		Mixed Parentage.		Unknown Parentage.		Births of Mixed Parentage.	At- tended by Phy- sicians.	At- tended by Mid- wives.	Appar- ently Illegiti- mate.	Twins.	Trip- lets.
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.						
January .....	438	219	213	4	2	..	..	99	89	88	85	36	40	..	1	24	246	192	4	9	..
February .....	395	204	177	10	4	..	..	99	81	76	66	39	32	..	2	28	215	180	2	3	..
March .....	386	198	186	1	1	..	..	80	79	76	67	42	39	1	2	37	212	174	3	2	..
April .....	348	169	173	2	4	..	..	80	76	57	61	34	36	..	4	20	198	150	4	3	..
May .....	384	184	199	..	1	..	..	93	83	58	67	33	49	..	1	36	232	152	1	5	..
June .....	390	187	197	3	3	..	..	85	89	75	71	30	40	..	..	30	232	158	..	4	..
July .....	444	235	202	2	5	..	..	95	83	95	80	46	44	1	..	34	262	182	1	..	..
August .....	511	249	252	4	6	..	..	110	126	98	85	45	45	..	2	38	298	213	2	4	..
September .....	375	186	184	3	2	..	..	85	70	71	91	33	23	..	2	19	199	176	2	8	..
October .....	461	235	219	2	5	..	..	103	105	90	87	43	31	1	1	24	270	191	4	6	..
November .....	382	187	190	1	4	..	..	80	92	78	76	30	26	..	..	27	209	173	1	6	..
December .....	536	267	261	6	2	..	..	115	114	110	104	47	44	1	1	37	305	231	2	5	..
Total.....	5,050	2,520	2,453	38	39	..	..	1,124	1,087	972	940	458	449	4	16	354	2,878	2,172	26	55	..

## BOROUGH OF RICHMOND.

Report of Births for the Year Ending December 31, 1906.

Month.	Total.	White.		Colored.		Chinese.		Native Parents.		Foreign Parents.		Mixed Parentage.		Unknown Parentage.		Births of Mixed Parentage.	At- tended by Phy- sicians.	At- tended by Mid- wives.	Appar- ently Illegiti- mate.	Twins.	Trip- lets.
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.						
January .....	164	87	76	1	..	..	..	40	42	36	22	12	12	..	..	12	93	71	1	1	..
February .....	148	57	90	1	..	..	..	28	45	19	30	11	15	..	..	14	97	51	1	2	..
March .....	139	74	64	1	..	..	..	30	22	34	27	11	15	..	..	10	75	64	1	2	..
April .....	153	82	70	..	1	..	..	39	33	27	29	16	9	..	..	12	101	52	3	1	..
May .....	144	86	54	1	3	..	..	37	32	32	20	18	5	..	..	10	88	56	1	3	..
June .....	206	101	101	1	3	..	..	52	56	32	34	17	14	1	..	19	154	52	1	5	..
July .....	139	72	65	..	2	..	..	38	29	24	28	10	10	..	..	6	78	61	2	..	..
August .....	150	83	64	..	3	..	..	30	26	39	30	14	11	..	..	12	97	53	..	2	..
September .....	169	91	74	2	2	..	..	42	30	37	34	14	12	..	..	12	96	73	..	..	..
October .....	161	86	73	2	..	..	..	32	30	39	32	16	11	1	..	12	105	56	2	1	..
November .....	176	83	91	..	2	..	..	30	29	36	49	17	15	..	..	22	112	64	..	5	..
December .....	124	64	57	3	..	..	..	23	23	30	26	14	8	..	..	13	66	58	..	2	..
Total.....	1,873	966	879	12	16	..	..	421	397	385	361	170	137	2	..	154	1,162	711	12	24	..

## Births by Nativities of Parents.

Country.	Borough of Manhattan.		Borough of The Bronx.		Borough of Brooklyn.		Borough of Queens.		Borough of Richmond.		City of New York.	
	Nativity of Both Parents.	Nativity of Mother Only.	Nativity of Both Parents.	Nativity of Mother Only.	Nativity of Both Parents.	Nativity of Mother Only.	Nativity of Both Parents.	Nativity of Mother Only.	Nativity of Both Parents.	Nativity of Mother Only.	Nativity of Both Parents.	Nativity of Mother Only.
Austria-Hungary .....	7,259	1,356	152	84	1,350	337	117	48	69	1	8,947	1,826
Bohemia .....	542	144	19	6	6	6	38	12	1	..	606	168
British America .....	84	151	17	38	67	124	14	20	4	13	186	346
England .....	194	535	44	99	159	394	32	50	31	20	460	1,098
France .....	130	136	8	19	8	40	6	9	7	2	159	206
Germany .....	1,946	891	491	237	1,519	682	472	191	112	43	4,540	2,044
Ireland .....	3,727	1,545	324	196	1,379	737	127	116	74	56	5,631	2,650
Italy .....	13,359	148	1,188	9	5,895	44	556	7	218	5	21,216	213
Russia and Poland.....	11,781	613	480	54	5,084	264	264	19	100	1	17,709	951
Scotland .....	73	112	22	22	61	89	12	25	28	3	196	251
Sweden .....	365	172	94	21	476	121	25	17	85	6	1,045	337
Switzerland .....	40	46	8	12	13	24	6	12	2	2	69	96
United States .....	11,870	3,959	2,732	735	11,635	2,817	2,211	575	818	152	29,266	8,238
Other foreign.....	1,484	336	120	56	1,025	181	49	20	15	3	2,693	596
Unknown .....	..	7	19	..	1	..	..	..	2	..	22	7
Total .....	52,854	10,151	5,718	1,588	28,678	5,860	3,929	1,121	1,566	307	92,745	19,027



Table of Marriages in The City of New York for the Year Ending December 31, 1906.

Month.	Total.	White.		Colored.		Chinese.		Single.		Widowed.		Divorced.		Native.		Foreign.	
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
January .....	4,155	4,006	4,007	148	148	1	..	3,823	3,789	308	315	24	51	1,783	1,888	2,372	2,267
February .....	3,595	3,508	3,508	87	87	..	..	3,384	3,309	193	248	18	38	1,434	1,566	2,161	2,029
March .....	3,441	3,342	3,343	98	98	1	..	3,196	3,172	226	230	19	39	1,325	1,434	2,116	2,007
April .....	3,390	3,294	3,297	94	93	2	..	3,122	3,057	237	281	31	52	1,535	1,677	1,855	1,713
May .....	3,344	3,232	3,235	111	109	1	..	3,058	3,061	257	237	29	46	1,395	1,493	1,949	1,851
June .....	5,733	5,627	5,628	105	105	1	..	5,334	5,354	357	317	42	62	2,620	2,743	3,113	2,990
July .....	3,480	3,360	3,362	119	118	1	..	3,205	3,196	240	232	35	52	1,552	1,639	1,928	1,841
August .....	3,933	3,834	3,834	99	99	..	..	3,630	3,597	266	277	37	59	1,773	1,827	2,160	2,106
September .....	3,971	3,818	3,821	150	150	3	..	3,706	3,662	241	266	24	43	1,837	1,967	2,134	2,004
October .....	4,469	4,344	4,345	124	124	1	..	4,169	4,097	263	315	37	57	1,905	2,089	2,564	2,380
November .....	4,333	4,191	4,193	140	139	2	1	4,070	4,014	235	267	28	52	1,835	1,951	2,498	2,382
December .....	4,511	4,355	4,357	155	154	1	..	4,217	4,167	264	293	30	51	1,776	1,917	2,735	2,594
Total .....	48,355	46,911	46,930	1,430	1,424	14	1	44,914	44,475	3,087	3,278	354	602	20,770	22,191	27,585	26,164

## BOROUGH OF MANHATTAN.

Month.	Total.	White.		Colored.		Chinese.		Single.		Widowed.		Divorced.		Native.		Foreign.	
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
January .....	2,913	2,801	2,802	111	111	1	..	2,724	2,683	170	190	19	40	1,158	1,199	1,755	1,714
February .....	2,553	2,490	2,490	63	63	..	..	2,449	2,378	92	146	12	29	862	939	1,691	1,614
March .....	2,441	2,362	2,365	78	76	1	..	2,321	2,287	107	130	13	24	862	924	1,579	1,517
April .....	2,291	2,216	2,220	73	71	2	..	2,149	2,090	117	165	25	36	918	1,008	1,373	1,283
May .....	2,241	2,168	2,171	72	70	1	..	2,090	2,068	133	136	18	37	844	900	1,397	1,341
June .....	3,690	3,622	3,624	67	66	1	..	3,478	3,463	184	186	28	41	1,486	1,547	2,204	2,143
July .....	2,158	2,068	2,070	89	88	1	..	2,018	2,001	118	126	22	31	828	870	1,330	1,288
August .....	2,755	2,684	2,684	71	71	..	..	2,574	2,523	153	183	28	49	1,186	1,224	1,569	1,531
September .....	2,554	2,449	2,452	102	102	3	..	2,430	2,380	116	149	8	25	1,080	1,140	1,474	1,414
October .....	2,957	2,863	2,864	93	93	1	..	2,807	2,718	125	193	25	46	1,097	1,202	1,860	1,755
November .....	2,875	2,787	2,789	86	85	2	1	2,750	2,696	107	144	18	35	1,065	1,142	1,810	1,733
December .....	2,914	2,808	2,810	105	104	1	..	2,776	2,711	120	164	18	39	947	1,028	1,967	1,886
Total .....	32,342	31,318	31,341	1,010	1,000	14	1	44,914	44,475	3,087	3,278	354	602	20,770	22,191	27,585	26,164

## BOROUGH OF THE BRONX.

Month.	Total.	White.		Colored.		Chinese.		Single.		Widowed.		Divorced.		Native.		Foreign.	
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
January .....	169	166	166	3	3	..	..	153	152	15	17	1	..	95	94	74	75
February .....	147	142	142	5	5	..	..	127	129	20	16	..	2	81	96	66	51
March .....	140	140	140	..	..	..	..	117	125	22	14	1	1	69	77	71	63
April .....	129	126	126	3	3	..	..	117	115	10	12	2	2	70	86	59	43
May .....	138	136	136	2	2	..	..	120	124	17	13	1	1	76	77	62	61
June .....	223	222	222	1	1	..	..	206	206	13	15	4	2	138	141	85	82
July .....	151	149	150	2	1	..	..	134	141	17	10	..	..	95	98	56	53
August .....	141	140	140	1	1	..	..	120	126	20	12	1	3	80	87	61	54
September .....	191	190	190	1	1	..	..	168	176	19	14	4	1	105	122	86	69
October .....	194	193	193	1	1	..	..	172	180	18	11	4	3	109	127	85	67
November .....	208	204	204	4	4	..	..	184	186	23	20	1	2	111	119	97	89
December .....	196	192	192	4	4	..	..	171	179	23	16	2	1	102	122	94	74
Total .....	2,027	2,000	2,001	27	26	..	..	1,789	1,839	217	170	21	18	1,131	1,246	896	781

## BOROUGH OF BROOKLYN.

Month.	Total.	White.		Colored.		Chinese.		Single.		Widowed.		Divorced.		Native.		Foreign.	
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
January .....	931	904	903	27	28	..	..	820	825	107	97	4	9	431	490	500	441
February .....	762	745	745	17	17	..	..	691	689	66	67	5	6	409	437	353	325
March .....	770	753	752	17	18	..	..	682	684	83	73	5	13	334	368	436	402
April .....	846	830	830	16	16	..	..	745	745	97	89	4	12	456	490	390	356
May .....	809	780	780	29	29	..	..	717	739	85	62	7	8	374	414	435	395
June .....	1,567	1,538	1,538	29	29	..	..	1,422	1,447	136	102	9	18	820	875	747	692
July .....	972	949	948	23	24	..	..	877	882	84	69	11	21	491	534	481	438
August .....	896	877	877	19	19	..	..	810	814	79	75	7	7	409	422	487	474
September .....	1,054	1,013	1,013	41	41	..	..	952	951	91	86	11	17	543	583	511	471
October .....	1,101	1,077	1,077	24	24	..	..	994	1,003	100	91	7	7	545	601	556	500
November .....	1,044	999	999	45	45	..	..	946	938	90	93	8	13	521	546	523	498
December .....	1,214	1,178	1,178	36	36	..	..	1,102	1,115	102	89	10	10	610	648	604	566
Total .....	11,966	11,643	11,640	323	326	..	..	10,758	10,832	1,120	993	88	141	5,943	6,408	6,023	5,558



## BOROUGH OF QUEENS.

Month.	Total.	White.		Colored.		Chinese.		Single.		Widowed.		Divorced.		Native.		Foreign.	
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
January .....	99	97	97	2	2	..	..	87	91	12	6	..	2	71	74	28	25
February .....	85	84	84	1	1	..	..	75	71	9	13	1	1	54	65	31	20
March .....	55	53	52	2	3	..	..	48	46	7	8	..	1	35	40	20	15
April .....	92	90	89	2	3	..	..	83	78	9	12	..	2	69	73	23	19
May .....	122	117	117	5	5	..	..	102	102	17	20	3	..	81	83	41	39
June .....	169	165	164	4	5	..	..	153	157	15	11	1	1	122	128	47	41
July .....	143	138	138	5	5	..	..	124	123	17	20	2	..	103	104	40	39
August .....	97	90	90	7	7	..	..	86	93	11	4	..	..	70	71	27	26
September .....	112	108	108	4	4	..	..	97	99	14	13	1	..	75	79	37	33
October .....	162	156	156	6	6	..	..	148	147	13	14	1	1	115	118	47	44
November .....	147	145	145	2	2	..	..	140	140	7	6	..	1	100	104	47	43
December .....	137	129	129	8	8	..	..	124	120	13	16	..	1	95	94	42	43
Total .....	1,420	1,372	1,369	48	51	..	..	1,267	1,267	144	143	9	10	990	1,033	430	387

## BOROUGH OF RICHMOND.

Month.	Total.	White.		Colored.		Chinese.		Single.		Widowed.		Divorced.		Native.		Foreign.	
		Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
January .....	43	38	39	5	4	..	..	39	38	4	5	..	..	28	31	15	12
February .....	48	47	47	1	1	..	..	42	42	6	6	..	..	28	29	20	19
March .....	35	34	34	1	1	..	..	28	30	7	5	..	..	25	25	10	10
April .....	32	32	32	..	..	..	..	28	29	4	3	..	..	22	20	10	12
May .....	34	31	31	3	3	..	..	29	28	5	6	..	..	20	19	14	15
June .....	84	80	80	4	4	..	..	75	81	9	3	..	..	54	52	30	32
July .....	56	56	56	..	..	..	..	52	49	4	7	..	..	35	33	21	23
August .....	44	43	43	1	1	..	..	40	41	3	3	1	..	28	23	16	21
September .....	60	58	58	2	2	..	..	59	56	1	4	..	..	34	43	26	17
October .....	55	55	55	..	..	..	..	48	49	7	6	..	..	39	41	16	14
November .....	59	56	56	3	3	..	..	50	54	8	4	1	1	38	40	21	19
December .....	50	48	48	2	2	..	..	44	42	6	8	..	..	22	25	28	25
Total .....	600	578	579	22	21	..	..	534	529	64	60	2	1	373	381	227	219

Table of Mortality from the Principal Causes of Death in the Year 1906.

## BOROUGH OF MANHATTAN.

Cause of Death.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Total, all causes.....	3,373	3,310	3,765	3,690	3,510	2,877	3,321	3,399	3,170	3,079	2,903	3,434	39,831
1. Typhoid fever .....	10	21	7	21	16	15	24	32	41	60	46	32	325
2. Typhus fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..
3. Malarial fevers .....	1	..	3	1	..	..	6	5	2	5	2	1	26
4. Small-pox .....	..	..	..	..	..	..	..	..	..	..	..	..	..
5. Measles .....	40	63	82	98	65	43	27	10	12	5	9	9	463
6. Scarlet fever .....	18	19	22	17	25	7	8	5	7	5	11	23	167
7. Whooping cough .....	10	4	8	11	15	13	15	24	18	22	7	21	168
8. Diphtheria and croup.....	57	74	87	95	102	68	55	16	24	34	59	60	731
9. Influenza .....	11	15	13	16	11	2	2	..	..	1	8	21	100
10. Asiatic Cholera .....	..	..	..	..	..	..	..	..	..	..	..	..	..
11. Cholera nostras .....	..	..	..	..	..	..	..	..	..	..	..	..	..
12. Other epidemic diseases.....	26	27	14	25	26	24	19	11	14	14	17	16	233
13. Tuberculosis. pulmonalis .....	381	345	422	397	393	361	351	375	322	357	356	390	4,450
14. Tubercular meningitis .....	30	47	50	44	40	54	43	28	43	28	32	28	467
15. Other forms of tuberculosis .....	17	18	29	17	23	17	20	22	12	23	20	25	243
16. Cancer, malignant tumors.....	137	137	124	142	121	123	138	146	144	142	127	149	1,630
17. Meningitis, simple .....	62	85	80	122	104	61	50	29	36	34	38	43	744
17a. Cerebro spinal meningitis.....	49	55	64	93	85	47	36	17	20	25	27	27	545
18. Apoplexy, congestion and softening of Brain.....	136	127	113	124	109	88	59	91	91	117	107	118	1,280
19. Organic heart disease.....	252	240	267	303	277	222	267	208	237	251	287	300	3,111
20. Acute bronchitis .....	96	86	106	62	51	36	38	22	23	44	34	44	642
21. Chronic bronchitis .....	6	7	4	4	3	2	4	..	2	1	6	10	49
22. Pneumonia (excluding broncho-pneumonia).....	318	313	390	346	282	165	98	108	106	165	216	343	2,850
22a. Broncho-Pneumonia .....	353	300	403	381	328	209	143	145	177	200	228	274	3,141
23. Diseases of stomach (cancer excepted).....	20	15	16	13	18	10	21	15	19	21	14	13	195
24. Diarrhoeas (under 5 years).....	61	66	96	83	103	203	661	723	548	278	99	82	3,003
25. Hernia, intestinal obstruction.....	31	26	26	29	36	21	31	22	28	27	24	31	332
26. Cirrhosis of liver.....	52	41	40	42	35	28	37	46	49	48	41	44	503
27. Bright's disease and nephritis.....	277	289	301	285	263	219	212	243	243	241	235	339	3,147
28. Diseases of women (not cancer).....	16	21	14	13	17	11	6	19	10	10	21	19	177
29. Puerperal septicemia .....	15	12	13	17	18	8	8	6	8	8	5	14	132
30. Other puerperal diseases.....	24	21	33	21	26	20	25	23	9	17	18	29	266



Cause of Death.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
31. Congenital debility and malformations.....	243	240	249	257	209	198	211	239	212	221	182	230	2,691
32. Old age .....	22	30	35	27	33	22	23	33	30	27	26	20	328
33. Violent deaths .....	180	170	187	199	238	230	252	263	215	188	228	210	2,569
a. Sunstroke .....	..	..	..	..	1	3	24	40	2	..	..	..	70
b. Other accidents .....	134	121	137	147	188	196	191	183	172	148	184	171	1,972
c. Homicide .....	10	12	12	14	11	9	10	15	15	9	15	10	142
d. Suicide .....	45	37	38	38	38	22	27	25	26	31	29	29	385
34. All other causes .....	428	419	489	450	492	371	428	411	392	410	372	458	5,120
35. Ill-defined causes .....	34	32	42	28	31	26	39	79	96	75	28	38	548
	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>
Under one year.....	699	751	803	787	675	635	1,025	1,144	1,013	778	529	625	9,464
One year, under two years.....	191	210	274	288	276	208	227	216	192	152	138	151	2,523
Total under five years .....	1,035	1,120	1,306	1,272	1,157	1,024	1,417	1,455	1,290	1,030	779	893	13,778
Sixty-five years and over.....	518	482	506	454	446	336	353	353	334	437	435	537	5,191
Seventy years and over.....	340	316	336	296	293	220	211	240	210	288	272	363	3,385
	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>
Males .....	1,896	1,824	2,041	2,061	1,996	1,633	1,875	1,861	1,768	1,708	1,608	1,913	22,184
Females .....	1,477	1,486	1,724	1,629	1,514	1,244	1,446	1,538	1,402	1,371	1,295	1,521	17,647
Colored .....	94	88	109	109	102	102	112	118	108	93	92	124	1,251
Chinese .....	7	5	8	7	8	7	4	5	7	6	8	6	78

## BOROUGH OF THE BRONX.

Cause of Death.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Total, all causes .....	532	544	627	552	541	477	534	557	465	461	460	527	6,277
1. Typhoid fever .....	3	..	1	4	1	1	3	7	5	4	9	6	44
2. Typhus fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..
3. Malarial fevers .....	..	..	..	1	..	..	..	..	..	..	..	..	1
4. Small-pox .....	..	..	..	..	..	..	..	..	..	..	..	..	..
5. Measles .....	11	16	49	29	33	28	17	3	..	2	5	6	199
6. Scarlet fever .....	3	4	10	2	12	7	3	1	..	1	1	1	45
7. Whooping cough .....	..	1	2	..	4	1	3	9	4	5	4	1	34
8. Diphtheria and croup.....	50	53	54	21	17	11	10	4	3	7	10	12	252
9. Influenza .....	7	..	2	3	1	..	..	..	..	..	1	2	16
10. Asiatic Cholera .....	..	..	..	..	..	..	..	..	..	..	..	..	..
11. Cholera nostras .....	..	..	..	..	..	..	..	..	..	..	..	..	..
12. Other epidemic diseases .....	1	3	1	1	4	1	6	8	2	1	1	1	30
13. Tuberculosis pulmonalis .....	121	142	138	113	127	125	109	104	106	129	111	125	1,450
14. Tubercular meningitis .....	5	4	5	5	3	4	5	7	5	4	5	6	58
15. Other forms of tuberculosis.....	2	2	4	1	1	2	4	2	1	3	1	5	28
16. Cancer, malignant tumors .....	19	17	18	18	23	13	23	21	15	15	20	24	226
17. Meningitis, simple .....	3	8	10	12	12	10	8	7	7	7	5	5	94
17a. Cerebro spinal meningitis .....	1	6	6	9	8	6	2	4	5	4	2	2	55
18. Apoplexy, congestion and softening of brain.....	16	18	12	24	17	14	15	11	13	18	17	18	193
19. Organic heart disease.....	38	29	32	30	24	36	23	28	36	32	39	48	395
20. Acute bronchitis .....	16	4	10	11	7	3	..	1	2	4	11	9	78
21. Chronic bronchitis .....	2	..	4	6	2	1	1	..	..	1	1	..	18
22. Pneumonia (excluding broncho-pneumonia) .....	62	44	65	65	42	26	18	13	12	24	35	47	453
22a. Broncho-pneumonia .....	16	22	25	30	16	12	17	13	19	21	26	21	238
23. Diseases of stomach (cancer excepted).....	3	2	5	1	3	5	2	1	2	5	5	4	38
24. Diarrhœas (under 5 years).....	14	8	7	14	12	25	92	93	49	19	7	11	351
25. Hernia, intestinal obstruction.....	2	5	1	1	6	2	6	6	2	4	2	4	41
26. Cirrhosis of liver.....	5	5	2	5	6	6	6	8	5	11	5	5	69
27. Bright's disease and nephritis.....	34	44	43	28	57	39	46	49	38	31	31	31	471
28. Diseases of women (not cancer).....	2	2	..	2	2	..	2	..	3	1	1	2	17
29. Puerperal septicæmia .....	..	3	7	3	2	3	2	..	1	2	..	2	25
30. Other puerperal diseases .....	3	3	2	2	2	2	1	2	3	5	3	7	35
31. Congenital debility and malformations.....	20	20	23	21	16	18	30	29	35	27	16	20	275
32. Old age .....	3	4	5	8	3	2	2	5	4	6	6	12	60
33. Violent deaths .....	21	28	31	35	38	33	34	47	31	23	26	39	386
a. Sunstroke .....	..	..	..	..	..	..	3	1	1	..	..	..	5
b. Other accidents .....	16	25	22	30	35	27	23	33	26	18	21	32	308
c. Homicide .....	1	1	3	..	..	3	1	1	2	..	3	1	16
d. Suicide .....	4	2	6	5	3	3	7	12	2	5	2	6	57
34. All other causes.....	48	52	57	54	45	46	43	71	53	42	51	47	609
35. Ill-defined causes .....	2	1	2	2	3	1	3	7	9	7	5	6	48
Under one year .....	70	75	84	81	62	65	143	148	119	70	62	59	1,029
One year, under two years.....	34	36	55	41	41	31	32	37	23	17	9	22	378
Total under five years.....	144	146	198	167	139	127	204	199	143	102	88	99	1,756
Sixty-five years and over.....	76	68	80	85	63	57	59	66	67	62	76	76	835
Seventy years and over .....	52	40	57	58	46	34	40	42	43	45	55	57	569
Males .....	301	295	332	301	306	271	274	303	268	261	252	302	3,466
Females .....	231	249	295	251	235	206	260	254	197	200	208	225	2,811
Colored .....	21	19	24	13	19	19	16	20	11	17	17	8	204
Chinese .....	..	..	..	..	..	..	..	..	..	..	..	..	..



## BOROUGH OF BROOKLYN.

Cause of Death.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Total, all causes.....	2,269	2,064	2,293	2,082	2,204	1,873	2,352	2,096	1,925	1,913	1,867	2,086	25,024
1. Typhoid fever .....	13	10	13	6	14	13	23	31	31	35	23	18	230
2. Typhus fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..
3. Malarial fevers .....	1	..	2	..	4	2	5	..	6	3	1	5	29
4. Smallpox .....	..	..	..	1	2	3	..	..	..	..	..	..	6
5. Measles .....	59	79	89	79	61	29	20	11	1	4	2	12	446
6. Scarlet fever .....	28	16	15	42	72	21	14	6	6	7	9	22	258
7. Whooping cough .....	9	6	9	6	7	5	16	19	9	19	11	16	132
8. Diphtheria and croup.....	99	100	86	61	89	45	48	33	35	49	70	78	793
9. Influenza .....	21	19	26	14	6	4	1	..	2	2	2	17	114
10. Asiatic cholera .....	..	..	..	..	..	..	..	..	..	..	..	..	..
11. Cholera nostras .....	..	..	..	..	..	..	..	..	..	..	..	..	..
12. Other epidemic diseases.....	16	13	13	16	20	7	23	21	6	12	4	10	161
13. Tuberculosis pulmonalis .....	183	204	252	219	241	228	220	194	199	204	201	212	2,557
14. Tubercular meningitis .....	11	20	22	18	20	24	18	16	17	17	11	13	207
15. Other forms of tuberculosis.....	18	14	11	11	21	14	17	15	18	11	12	20	182
16. Cancer, malignant tumors.....	81	69	84	78	78	89	83	79	68	100	97	69	975
17. Meningitis, simple .....	39	22	43	36	36	20	24	17	18	15	8	17	295
17a. Cerebro spinal meningitis.....	23	16	33	25	25	11	12	10	8	7	8	6	181
18. Apoplexy, congestion and softening of brain.....	111	87	109	83	94	75	79	73	76	87	83	117	1,074
19. Organic heart disease.....	174	158	146	126	122	122	117	111	102	142	131	200	1,651
20. Acute bronchitis .....	76	64	58	61	44	23	21	26	26	32	32	61	524
21. Chronic bronchitis .....	13	23	22	12	10	17	7	13	8	16	20	14	175
22. Pneumonia (excluding broncho-pneumonia).....	323	241	250	250	165	104	86	53	88	119	182	230	2,097
22a. Broncho-pneumonia .....	147	186	188	163	147	84	52	58	73	96	116	150	1,460
23. Diseases of stomach (cancer excepted).....	20	19	21	16	14	17	21	21	24	23	16	19	231
24. Diarrhoeas (under 5 years).....	45	34	38	53	79	175	604	455	339	190	57	35	2,104
25. Hernia, intestinal obstruction.....	15	9	16	9	16	13	12	14	14	11	15	18	162
26. Cirrhosis of liver.....	21	28	31	28	44	30	28	36	32	34	37	35	384
27. Bright's disease and nephritis.....	204	181	174	181	196	158	170	141	139	174	182	176	2,076
28. Diseases of women (not cancer).....	13	12	11	11	11	13	11	10	8	2	8	7	117
29. Puerperal septicaemia .....	12	7	8	9	3	11	5	4	5	3	8	4	79
30. Other puerperal diseases.....	11	18	21	8	12	10	15	17	16	17	13	12	170
31. Congenital debility and malformations.....	125	89	106	80	114	112	124	127	120	130	120	94	1,341
32. Old age .....	33	26	33	30	40	30	25	37	33	34	42	30	393
33. Violent deaths .....	92	82	94	99	132	111	147	135	117	105	106	110	1,330
a. Sunstroke .....	..	..	..	..	..	2	8	16	2	..	..	..	28
b. Other accidents .....	71	68	66	71	97	80	118	93	98	90	81	84	1,017
c. Homicide .....	7	6	6	6	14	9	4	6	5	2	8	8	81
d. Suicide .....	14	8	22	22	21	20	17	20	12	13	17	18	204
34. All other causes.....	248	218	291	256	269	234	268	250	252	208	236	258	2,988
35. Ill-defined causes .....	8	10	11	20	21	30	48	73	37	12	6	7	283
Under one year.....	400	360	379	358	386	425	812	700	562	422	316	333	5,453
One year, under two years.....	167	160	173	142	163	98	141	141	112	98	77	99	1,571
Total under 5 years.....	745	682	716	673	709	645	1,095	929	751	605	467	530	8,547
Sixty-five years and over.....	365	348	385	309	333	295	280	279	265	347	344	407	3,957
Seventy years and over.....	249	235	272	214	235	195	186	188	178	232	227	290	2,701
Males .....	1,193	1,112	1,234	1,137	1,221	1,016	1,314	1,145	1,022	1,012	996	1,121	13,523
Females .....	1,076	952	1,059	945	983	857	1,038	951	903	901	871	965	11,501
Colored .....	54	52	47	46	30	33	49	44	38	33	38	39	503
Chinese .....	1	1	1	2	..	..	1	1	..	..	..	..	7

## BOROUGH OF QUEENS.

Cause of Death.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Total, all causes.....	226	272	293	265	286	258	389	379	330	300	280	305	3,583
1. Typhoid fever .....	2	1	4	1	2	2	3	4	6	2	3	..	30
2. Typhus fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..
3. Malarial fevers .....	..	..	..	1	2	2	..	1	..	..	1	..	7
4. Smallpox .....	..	..	..	..	..	..	..	..	..	..	..	..	..
5. Measles .....	4	2	5	4	4	3	2	1	..	..	..	..	25
6. Scarlet fever .....	1	4	1	2	5	1	..	..	..	..	1	..	15
7. Whooping cough .....	..	1	..	1	..	1	4	3	4	1	2	6	23
8. Diphtheria and croup.....	4	9	14	6	6	2	5	7	4	13	12	12	94
9. Influenza .....	1	3	2	2	1	..	..	..	..	..	1	1	11
10. Asiatic cholera .....	..	..	..	..	..	..	..	..	..	..	..	..	..
11. Cholera nostras .....	..	..	..	..	..	..	..	..	..	..	..	..	..
12. Other epidemic diseases.....	1	4	1	..	2	..	3	4	5	..	..	..	20
13. Tuberculosis pulmonalis.....	26	23	31	26	19	26	22	23	27	32	31	22	308
14. Tubercular meningitis .....	..	3	1	2	3	3	3	2	2	1	2	3	25
15. Other forms of tuberculosis.....	1	..	2	1	2	1	3	..	..	2	1	3	16



Cause of Death.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
16. Cancer, malignant tumors.....	7	9	7	7	8	10	11	14	11	9	12	14	119
17. Meningitis, simple .....	4	1	6	4	7	6	5	4	3	3	1	5	49
17a. Cerebro spinal meningitis.....	1	..	1	..	2	1	3	1	2	2	1	2	16
18. Apoplexy, congestion and softening of brain.....	13	13	19	8	14	8	11	11	9	11	21	22	160
19. Organic heart disease.....	26	21	31	32	26	20	29	19	25	26	18	16	289
20. Acute bronchitis .....	3	7	13	7	5	3	1	5	1	4	4	9	62
21. Chronic bronchitis .....	1	..	1	1	2	..	..	..	..	..	..	2	7
22. Pneumonia (excluding broncho-pneumonia).....	34	38	36	19	33	11	8	8	7	20	20	37	271
22a. Broncho-pneumonia .....	16	22	23	22	12	20	12	11	14	13	16	31	212
23. Diseases of stomach (cancer excepted).....	1	..	..	..	3	5	1	2	1	2	..	1	16
24. Diarrhoeas (under 5 years).....	3	6	7	11	14	25	111	101	70	25	16	5	394
25. Hernia, intestinal obstruction.....	2	4	1	2	..	2	4	8	..	4	3	2	32
26. Cirrhosis of liver.....	3	5	5	3	3	7	3	3	8	5	2	4	51
27. Bright's disease and nephritis.....	20	17	30	30	30	23	36	28	23	19	36	28	310
28. Diseases of women (not cancer).....	..	1	1	..	2	1	..	1	..	..	2	..	8
29. Puerperal septicaemia .....	1	4	1	1	1	5	2	1	2	..	1	1	20
30. Other puerperal diseases.....	..	1	..	..	6	3	3	3	2	1	1	..	20
31. Congenital debility and malformations.....	10	17	13	8	16	17	22	17	16	20	23	20	199
32. Old age .....	5	6	3	7	10	7	2	5	3	10	6	4	68
33. Violent deaths .....	14	25	12	28	20	24	35	39	43	46	24	34	344
a. Sunstroke .....	..	..	..	..	..	..	3	3	1	..	..	..	7
b. Other accidents .....	12	24	11	23	13	22	25	28	38	39	16	28	279
c. Homicide .....	..	..	..	..	..	..	2	1	1	..	3	3	10
d. Suicide .....	2	1	1	5	7	2	5	7	3	7	5	3	48
34. All other causes.....	22	25	22	27	27	20	39	33	36	26	29	22	328
35. Ill-defined causes .....	1	..	1	2	1	..	9	21	8	5	1	1	50
Under one year.....	38	56	50	52	59	64	149	154	108	65	50	58	903
One year, under two years.....	8	12	15	10	15	16	24	19	14	8	19	16	176
Total under five years.....	57	82	83	75	93	91	187	187	133	87	84	94	1,253
Sixty-five years and over.....	44	38	48	51	57	39	45	46	49	61	51	61	590
Seventy years and over.....	32	26	35	31	38	30	35	31	37	41	36	39	411
Males .....	127	151	168	148	148	150	216	224	179	165	153	172	2,001
Females .....	99	121	125	117	138	108	173	155	151	135	127	133	1,582
Colored .....	6	4	2	9	10	2	12	10	1	4	7	13	80
Chinese .....	..	..	..	..	..	..	..	..	..	..	..	..	..

Table of Mortality from the Principal Causes of Death in the Year 1906.

## BOROUGH OF RICHMOND.

Cause of Death.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Total, all causes.....	118	103	126	97	107	109	198	184	131	100	100	115	1,488
1. Typhoid fever.....	..	..	..	..	..	..	1	3	1	3	2	..	10
2. Typhus fever.....	..	..	..	..	..	..	..	..	..	..	..	..	..
3. Malarial fevers.....	..	..	..	..	..	..	..	1	..	..	..	..	1
4. Smallpox .....	..	..	..	..	..	..	..	..	..	..	..	..	..
5. Measles .....	2	2	3	2	2	..	1	..	..	..	..	..	12
6. Scarlet fever.....	..	..	..	1	1	1	..	1	..	1	..	1	6
7. Whooping cough.....	..	..	..	..	1	..	3	2	1	..	1	2	10
8. Diphtheria and croup.....	4	2	..	2	2	1	2	5	1	3	2	4	28
9. Influenza .....	..	..	..	..	..	..	..	..	..	..	..	..	..
10. Asiatic cholera.....	..	..	..	..	..	..	..	..	..	..	..	..	..
11. Cholera nostras.....	..	..	..	..	..	..	..	..	..	..	..	..	..
12. Other epidemic diseases.....	3	..	1	..	..	..	..	1	1	1	..	..	7
13. Tuberculosis pulmonalis.....	14	16	24	16	10	18	21	13	16	11	14	17	190
14. Tubercular meningitis.....	..	..	1	..	..	1	2	2	..	1	..	1	8
15. Other forms of tuberculosis.....	..	1	..	1	1	..	1	1	..	..	..	..	5
16. Cancer, malignant tumors.....	5	2	4	6	2	5	6	5	5	3	8	4	55
17. Meningitis, simple.....	1	1	2	3	3	2	3	1	2	3	2	1	24
17a. Cerebro spinal meningitis.....	1	..	2	..	2	1	1	..	2	1	2	..	12
18. Apoplexy, congestion and softening of brain.....	4	8	4	5	8	7	4	5	5	5	7	3	65
19. Organic heart disease.....	13	7	9	8	11	4	16	10	12	4	6	11	111
20. Acute bronchitis.....	4	1	..	1	..	1	1	2	1	..	2	..	13
21. Chronic bronchitis.....	..	..	1	..	..	1	1	..	..	1	1	..	5
22. Pneumonia (excluding broncho-pneumonia).....	20	13	8	6	11	2	6	4	4	5	5	12	96
22a. Broncho-pneumonia .....	4	5	9	9	3	1	4	1	4	2	4	4	50
23. Diseases of stomach (cancer excepted).....	..	..	1	2	1	1	1	2	..	..	..	..	8
24. Diarrhoeas (under five years).....	4	1	6	1	..	3	64	54	18	8	1	4	164
25. Hernia, intestinal obstruction.....	..	2	..	..	1	1	2	2	..	1	..	1	10
26. Cirrhosis of liver.....	3	3	3	2	1	2	1	1	1	..	5	2	24
27. Bright's disease and nephritis.....	9	6	12	7	8	4	4	15	7	12	8	12	104
28. Diseases of women (not cancer).....	1	..	..	..	..	1	1	..	3	..	..	1	7
29. Puerperal septicaemia.....	2	2	1	1	1	..	..	..	..	..	..	..	7
30. Other puerperal diseases.....	1	..	1	..	1	..	..	1	2	..	..	3	9
31. Congenital debility and malformations.....	4	4	5	6	5	17	11	9	12	12	4	5	94



Cause of Death.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
32. Old age.....	5	3	3	3	1	3	1	6	4	2	2	8	41
33. Violent deaths.....	1	6	12	4	17	15	16	10	9	5	8	9	112
a. Sunstroke .....	..	..	..	..	..	..	1	1	..	..	..	..	3
b. Other accidents.....	1	4	7	3	16	11	13	9	9	5	8	7	93
c. Homicide .....	..	1	..	..	1	..	..	..	..	..	..	2	4
d. Suicide .....	..	1	5	1	..	4	2	..	..	..	..	..	13
34. All other causes.....	14	17	16	10	16	15	16	15	14	12	17	10	172
35. Ill-defined causes.....	..	1	..	1	..	3	9	12	8	5	1	..	40
Under one year.....	13	7	14	13	7	27	89	78	41	29	11	11	340
One year, under two years.....	3	4	7	5	3	3	14	9	4	4	4	6	66
Total under five years.....	19	13	24	20	13	32	108	91	47	36	18	22	443
Sixty-five years and over.....	35	34	27	24	29	20	17	29	27	14	27	37	320
Seventy years and over.....	28	27	20	18	23	14	14	22	21	8	22	26	243
Males .....	66	64	78	67	65	69	117	99	71	57	58	63	874
Females .....	52	39	48	30	42	40	81	85	60	43	42	52	614
Colored .....	3	2	2	..	2	..	1	4	1	2	1	..	18
Chinese .....	..	..	..	..	..	1	..	..	..	..	..	..	1

## City of New York.

Cause of Death.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Total, all causes.....	6,518	6,293	7,104	6,686	6,648	5,594	6,794	6,615	6,021	5,853	5,610	6,467	76,203
1. Typhoid fever.....	28	32	25	32	33	31	54	77	84	104	83	56	639
2. Typhus fever.....	..	..	..	..	..	..	..	..	..	..	..	..	..
3. Malarial fevers.....	2	..	5	3	6	4	11	7	8	8	4	6	64
4. Smallpox .....	..	..	..	1	2	3	..	..	..	..	..	..	6
5. Measles .....	116	162	228	212	165	103	67	25	13	11	16	27	1,145
6. Scarlet fever.....	50	43	48	64	115	37	25	13	13	14	22	47	491
7. Whooping cough.....	19	12	19	18	27	20	41	57	36	47	25	46	367
8. Diphtheria and croup.....	214	238	241	185	216	127	120	65	67	106	153	166	1,898
9. Influenza .....	40	37	43	35	19	6	3	..	2	3	12	41	241
10. Asiatic cholera.....	..	..	..	..	..	..	..	..	..	..	..	..	..
11. Cholera nostras.....	..	..	..	..	..	..	..	..	..	..	..	..	..
12. Other epidemic diseases.....	47	47	30	42	52	32	51	45	28	28	22	27	451
13. Tuberculosis pulmonalis.....	725	730	867	771	790	758	723	709	670	733	713	766	8,955
14. Tubercular meningitis.....	46	74	79	69	66	86	71	55	67	51	50	51	765
15. Other forms of tuberculosis.....	38	35	46	31	48	34	45	40	31	39	34	53	474
16. Cancer, malignant tumors.....	249	234	237	251	232	240	261	265	243	269	264	260	3,005
17. Meningitis, simple.....	109	117	141	177	162	99	90	58	66	62	54	71	1,206
17a. Cerebro spinal meningitis.....	75	77	106	127	122	66	54	32	37	39	40	37	812
18. Apoplexy, congestion and softening of brain.....	280	253	257	244	242	192	168	191	194	238	235	278	2,772
19. Organic heart disease.....	503	455	485	499	460	404	452	376	412	455	481	575	5,557
20. Acute bronchitis.....	195	162	187	142	107	66	61	56	53	84	83	123	1,319
21. Chronic bronchitis.....	22	30	32	23	17	21	13	13	10	19	28	26	254
22. Pneumonia (excluding broncho-pneumonia).....	757	649	749	686	533	308	216	186	217	333	464	669	5,767
22a. Broncho-pneumonia .....	536	535	648	605	506	326	228	228	287	332	390	480	5,101
23. Diseases of stomach (cancer excepted).....	44	36	43	32	39	38	46	41	46	51	35	37	488
24. Diarrheas (under five years).....	127	115	154	162	208	431	1,532	1,426	1,024	520	180	137	6,016
25. Hernia, intestinal obstruction.....	50	46	44	41	59	39	55	52	44	47	44	56	577
26. Cirrhosis of liver.....	84	82	81	80	89	73	75	94	95	98	90	90	1,031
27. Bright's disease and nephritis.....	544	537	560	531	554	443	468	476	450	477	482	586	6,108
28. Diseases of women (not cancer).....	32	36	26	26	32	26	20	30	24	13	32	29	326
29. Puerperal septicæmia.....	30	28	30	31	25	27	17	11	16	13	14	21	263
30. Other puerperal diseases.....	39	43	57	31	47	35	44	46	32	40	35	51	500
31. Congenital debility and malformations.....	402	370	396	372	360	362	397	421	395	410	345	370	4,600
32. Old age.....	68	69	79	75	87	64	53	86	74	79	82	74	890
33. Violent deaths.....	317	312	336	365	444	413	484	494	415	367	392	402	4,741
a. Sunstroke .....	..	..	..	..	1	5	39	61	6	..	..	..	112
b. Other accidents.....	235	243	242	274	348	336	370	346	343	300	310	322	3,669
c. Homicide .....	18	20	21	20	26	21	17	23	23	11	29	24	253
d. Suicide .....	64	49	73	71	69	51	58	64	43	56	53	56	707
34. All other causes.....	760	730	875	797	850	686	795	780	747	698	705	794	9,217
35. Ill-defined causes.....	45	44	56	53	56	60	108	192	158	104	41	52	969
Under one year.....	1,221	1,240	1,330	1,290	1,189	1,215	2,218	2,224	1,843	1,364	968	1,086	17,188
One year, under two years.....	403	420	526	485	498	356	438	422	345	279	247	294	4,713
Total under five years.....	2,001	2,032	2,327	2,207	2,111	1,919	3,011	2,861	2,364	1,870	1,436	1,638	25,777
Sixty-five years and over.....	1,038	970	1,046	923	928	747	754	773	743	921	933	1,118	10,894
Seventy years and over.....	701	644	720	617	635	493	486	523	489	614	612	775	7,309
Males .....	3,583	3,446	3,853	3,714	3,736	3,140	3,796	3,632	3,308	3,203	3,067	3,570	42,048
Females .....	2,935	2,847	3,251	2,972	2,912	2,454	2,998	2,983	2,713	2,650	2,543	2,897	34,155
Colored .....	178	165	184	177	163	156	190	196	159	149	155	184	2,056
Chinese .....	8	6	9	9	8	8	5	6	7	6	8	6	86



Actual Number of Deaths from Zymotic and Certain Other Preventable Diseases, by Wards.  
BOROUGH OF MANHATTAN.

Wards.	Area in Acres.	Population by Census of 1900.	Number of Persons to the Acre.	Cerebro-spinal Meningitis.	Diphtheria and Croup.	Typhoid Fever.	Malarial Fever.	Measles.	Scarlet Fever.	Small-pox.	Whooping Cough.	Diarrhoeal Diseases.	Phthisis.	Pneumonia.	Broncho Pneumonia.	All Causes.	Deaths in Institutions.	Deaths of Children Under Five Years.
First .....	154.0	9,516	61.8	19	4	4	..	6	4	..	5	39	47	43	34	428	63	127
Second .....	81.0	1,488	18.4	..	1	..	..	1	..	..	..	1	4	1	1	23	..	6
Third .....	95.0	1,797	18.9	..	1	2	1	..	..	..	..	..	15	6	1	86	..	5
Fourth .....	83.0	19,554	235.7	3	24	1	..	20	2	..	1	42	104	87	92	701	37	297
Fifth .....	168.0	8,298	49.4	9	2	4	..	1	1	..	..	15	35	20	12	283	332	50
Sixth .....	86.0	20,004	232.7	10	6	3	1	16	..	..	2	44	96	71	71	567	18	206
Seventh .....	198.0	89,237	450.7	36	41	14	1	22	8	..	13	146	146	114	150	1,511	499	651
Eighth .....	183.0	29,059	158.8	8	19	4	..	6	6	..	1	70	80	56	65	626	30	228
Ninth .....	322.0	59,650	185.2	20	33	15	3	13	8	..	6	155	216	122	95	1,666	509	479
Tenth .....	110.0	71,879	653.4	22	19	5	1	12	6	..	10	96	127	74	88	966	..	401
Eleventh .....	196.0	99,144	505.8	31	44	12	..	19	8	..	8	163	135	116	172	1,498	122	704
Twelfth .....	5,504.0	476,602	86.6	117	142	95	6	102	41	..	48	738	904	714	728	9,872	2,711	3,026
Thirteenth .....	107.0	64,117	599.2	25	19	9	..	19	7	..	1	72	50	48	68	725	..	339
Fourteenth .....	96.0	34,035	354.5	21	27	2	..	22	7	..	..	112	67	60	164	838	..	484
Fifteenth .....	198.0	24,066	121.5	11	11	8	..	5	..	..	1	43	69	49	49	541	1	155
Sixteenth .....	349.0	52,808	151.3	13	9	12	2	18	5	..	2	88	160	65	79	1,202	26	285
Seventeenth .....	331.0	130,796	395.1	33	58	12	1	35	10	..	11	240	226	171	261	2,346	96	1,019
Eighteenth .....	450.0	61,325	136.3	21	48	9	..	16	7	..	8	133	192	104	96	1,737	1,586	595
Nineteenth .....	1,481.0	257,448	173.8	57	89	41	2	71	16	..	17	550	705	335	436	6,366	5,025	2,579
Twentieth .....	444.0	89,798	202.2	31	40	25	1	17	8	..	6	127	304	149	129	1,946	153	550
Twenty-first .....	411.0	60,211	146.5	24	31	12	2	17	3	..	4	135	227	127	63	1,757	2,815	418
Twenty-second .....	1,529.0	189,261	123.7	34	63	36	5	25	20	..	24	259	541	318	287	4,146	843	1,174
Total .....	12,576.0	1,850,093	147.2	545	731	325	26	463	167	..	168	3,268	4,450	2,850	3,141	39,831	14,866	13,778

## Borough of The Bronx.

Wards.	Area in Acres.	Population by Census of 1900.	Number of Persons to the Acre.	Cerebro-spinal Meningitis.	Diphtheria and Croup.	Typhoid Fever.	Malarial Fever.	Measles.	Scarlet Fever.	Small-pox.	Whooping Cough.	Diarrhoeal Diseases.	Phthisis.	Pneumonia.	Broncho Pneumonia.	All Causes.	Deaths in Institutions.	Deaths of Children Under Five Years.
Twenty-third .....	4,267.0	132,413	31.0	41	226	36	..	183	43	..	21	269	941	276	153	4,258	1,926	1,267
Twenty-fourth .....	22,255.8	43,009	1.9	14	26	8	1	16	2	..	13	115	509	177	85	2,019	713	489
Total .....	26,522.8	175,422	6.6	55	252	44	1	199	45	..	34	384	1,450	453	238	6,277	2,639	1,756

## BOROUGH OF BROOKLYN.

Wards.	Area in Acres.	Population by Census of 1900.	Number of Persons to the Acre.	Cerebro-spinal Meningitis.	Diphtheria and Croup.	Typhoid Fever.	Malarial Fever.	Measles.	Scarlet Fever.	Small-pox.	Whooping Cough.	Diarrhoeal Diseases.	Phthisis.	Pneumonia.	Broncho Pneumonia.	All Causes.	Deaths in Institutions.	Deaths of Children Under Five Years.
First .....	233.0	20,307	87.2	3	9	4	..	5	..	..	1	60	22	26	16	369	93	152
Second .....	97.7	8,565	87.7	1	1	..	..	3	2	..	1	25	15	24	20	196	..	80
Third .....	161.4	17,949	111.2	4	7	..	..	4	..	..	4	24	31	28	5	277	58	107
Fourth .....	111.3	12,568	112.9	5	5	1	2	5	3	..	1	26	29	35	11	268	3	99
Fifth .....	119.4	18,862	158.0	5	8	1	..	11	3	..	..	79	33	36	32	392	..	209
Sixth .....	302.9	42,485	140.2	15	27	23	4	17	5	..	2	99	367	144	93	1,569	838	352
Seventh .....	458.5	40,471	88.3	3	13	5	2	18	3	..	2	45	55	64	42	619	11	195
Eighth .....	1,843.2	52,414	28.4	7	47	26	2	10	3	..	5	124	95	88	90	1,217	155	465
Ninth .....	623.6	42,876	68.8	6	20	5	..	11	2	..	5	66	68	67	37	717	49	224
Tenth .....	318.7	39,100	122.7	3	26	6	..	13	1	..	3	96	80	76	59	749	..	328
Eleventh .....	252.6	22,608	89.5	7	4	12	3	9	..	..	5	51	49	49	36	613	210	194
Twelfth .....	663.1	30,354	45.8	2	22	..	1	21	5	..	11	61	45	55	73	601	..	278
Thirteenth .....	230.3	24,029	104.3	5	11	4	..	2	..	..	1	34	37	63	21	562	229	117
Fourteenth .....	282.6	31,483	111.4	7	24	1	..	5	2	..	3	121	55	56	62	654	..	360
Fifteenth .....	244.8	30,269	123.6	3	19	1	1	3	3	..	3	67	48	65	44	522	..	230
Sixteenth .....	244.8	56,550	231.0	6	24	1	..	5	9	..	3	102	64	89	53	707	2	343
Seventeenth .....	823.3	57,309	69.6	3	57	10	3	9	13	..	4	146	89	83	100	1,109	..	464
Eighteenth .....	873.0	25,133	28.8	6	23	19	2	3	..	..	2	72	111	61	47	793	320	235
Nineteenth .....	413.8	37,645	91.0	2	18	6	1	4	3	..	1	37	47	62	25	560	18	167
Twentieth .....	461.5	25,446	55.1	5	6	8	..	5	..	..	2	54	71	61	36	734	316	176
Twenty-first .....	483.2	58,957	122.0	9	24	1	..	6	..	..	8	65	100	78	46	829	2	282
Twenty-second .....	1,361.6	66,575	48.8	5	24	10	1	11	4	..	3	79	102	101	66	1,227	222	313
Twenty-third .....	736.0	61,813	84.0	5	8	19	1	4	7	..	6	53	60	71	31	931	155	192
Twenty-fourth .....	1,198.5	31,767	26.5	7	17	10	1	6	8	..	7	67	190	83	39	1,077	499	244
Twenty-fifth .....	567.8	48,328	85.1	2	20	1	..	5	5	..	2	41	72	57	30	739	74	190
Twenty-sixth .....	3,590.2	66,086	18.4	14	48	8	1	27	9	..	13	167	127	99	132	1,331	94	619
Twenty-seventh .....	400.7	43,961	109.7	6	26	2	..	6	3	..	8	90	73	61	56	713	29	312
Twenty-eighth .....	884.4	77,912	88.1	11	25	18	1	2	7	..	5	96	125	98	53	1,366	293	337
Twenty-ninth .....	3,800.0	27,188	7.2	25	182	23	1	157	150	6	8	69	222	119	44	2,276	1,854	672
Thirtieth .....	5,404.1	24,700	4.6	1	39	2	1	57	6	..	5	96	46	65	45	806	240	431
Thirty-first .....	6,312.3	14,609	2.3	1	5	2	1	2	1	..	7	40	13	23	11	358	47	130
Thirty-second .....	5,479.5	8,243	1.5	..	4	1	..	..	1	..	1	14	16	10	5	143	..	50
Total .....	38,977.8	1,166,582	29.9	184	793	230	29	446	258	6	132	2,266	2,557	2,097	1,460	25,024	5,811	8,547



Wards.	Area in Acres.	Population by Census of 1900.	Number of Persons to the Acre.	Cerebro-spinal Meningitis.	Diphtheria and Croup.	Typhoid Fever.	Malarial Fever.	Measles.	Scarlet Fever.	Small-pox.	Whooping Cough.	Diarrheal Diseases.	Phthisis.	Pneumonia.	Broncho Pneumonia.	All Causes.	Deaths in Institutions.	Deaths of Children Under Five Years.
First .....	4,650.0	48,272	10.4	4	24	9	..	6	4	..	1	95	83	79	85	1,033	253	327
Second .....	14,700.0	40,903	2.8	8	42	6	1	7	6	..	12	155	120	92	69	1,071	9	462
Third .....	22,000.0	25,870	1.2	2	6	4	1	3	..	..	2	47	38	30	10	492	100	164
Fourth .....	36,600.0	30,761	.8	2	21	8	4	9	5	..	8	97	64	61	36	807	125	258
Fifth .....	3,770.0	7,193	1.9	..	1	3	1	..	..	..	..	20	3	9	12	180	52	43
Total.....	81,720.0	152,999	1.9	16	94	30	7	25	15	..	23	414	308	271	212	3,583	539	1,254

Wards.	Area in Acres.	Population by Census of 1900.	Number of Persons to the Acre.	Cerebro-spinal Meningitis.	Diphtheria and Croup.	Typhoid Fever.	Malarial Fever.	Measles.	Scarlet Fever.	Small-pox.	Whooping Cough.	Diarrheal Diseases.	Phthisis.	Pneumonia.	Broncho Pneumonia.	All Causes.	Deaths in Institutions.	Deaths of Children Under Five Years.
First .....	3,340.0	21,441	6.4	8	16	4	..	5	2	..	4	43	104	46	28	692	412	128
Second .....	4,130.0	13,200	3.2	3	3	4	1	1	..	..	1	21	31	10	6	200	37	51
Third .....	10,050.0	13,701	1.4	..	1	..	..	3	2	..	1	27	21	20	8	201	18	78
Fourth .....	8,180.0	9,516	1.2	..	5	1	..	1	2	..	2	68	23	8	8	274	106	152
Fifth .....	10,900.0	9,163	.8	1	3	1	..	2	..	..	2	14	11	12	..	121	16	34
Total.....	36,600.0	67,021	1.8	12	28	10	1	12	6	..	10	173	190	96	50	1,488	589	443

Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col.-Chin- ored. ese.
I. General Diseases.																										
1. Typhoid fever.....	325	206	1	1	1	..	2	5	7	12	21	38	26	30	29	14	8	5	3	1	4	2	1	..	..	7 ..
2. Typhus fever.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3. Relapsing fever.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
4. Malarial fever.....	26	21	2	1	1	1	..	5	..	..	..	3	1	2	4	2	3	..	..	..	..	..	..	1	..	..
5. Smallpox .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
6. Measles .....	463	232	68	101	33	12	8	222	10	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2 ..
7. Scarlet fever.....	167	89	4	14	20	18	6	62	17	7	1	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..
8. Whooping cough....	168	83	47	22	8	5	..	82	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6 ..
9. Diphtheria and croup.	731	417	52	132	86	47	30	347	53	6	1	4	2	2	..	1	..	..	1	..	..	..	..	..	..	3 ..
10. Influenza .....	100	44	4	..	1	..	..	5	2	..	1	2	1	3	2	4	2	4	3	4	3	2	3	2	1	2 ..
11. Miliary fever.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
12. Asiatic cholera.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
13. Cholera nostras....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
14. Dysentery .....	36	16	1	1	..	..	..	2	..	..	1	1	1	1	..	1	..	3	..	2	..	2	1	..	1	1
15. Plague .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
16. Yellow fever.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
17. Leprosy .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
18. Erysipelas .....	190	99	32	..	..	..	..	32	..	4	..	2	4	7	12	4	6	10	5	4	7	1	1	..	..	1 ..
19. Other epidemic dis- eases .....	7	2	1	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1
20. Pyæmia, septicæmia..	49	32	9	1	2	..	..	12	..	..	..	4	..	1	4	2	3	3	1	2	..	..	..	..	..	1 ..
21. Glanders .....	6	6	..	..	..	..	..	..	..	..	..	1	..	..	3	1	..	..	1	..	..	..	..	..	..	..
22. Malign																										



Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col.-Chin- ored. etc.	
44. Cancer of the skin...	47	32	..	..	..	..	..	..	2	1	..	1	1	1	1	2	2	3	6	5	6	1	..	..	..	..	
45. Cancer of other organs and unspecified....	259	162	1	1	..	..	..	2	2	2	5	5	6	10	7	15	11	15	20	21	20	12	6	2	1	1	
46. Other tumors (except of female genital organs) .....	23	11	1	..	..	..	..	1	1	2	1	..	..	2	..	1	..	1	..	1	1	..	..	..	..	..	
47. Acute articular rheu- matism .....	211	89	1	..	..	2	3	6	11	8	8	3	5	5	3	2	12	10	5	4	3	2	1	1	..	..	
48. Chronic rheumatism and gout.....	79	32	..	..	..	..	..	..	1	1	1	1	1	1	..	..	2	3	4	4	6	2	3	1	1	..	
49. Scurvy .....	6	2	1	..	..	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
50. Diabetes .....	366	165	..	..	..	..	..	..	..	..	7	5	1	2	12	9	19	23	26	19	16	17	3	5	1	1	
51. Exophthalmic goitre..	21	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
52. Addison's disease....	4	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	
53. Leukæmia .....	42	24	..	..	1	..	..	1	2	..	..	..	1	1	1	5	2	1	1	3	3	1	1	1	..	1	
54. Anæmia, chlorosis....	54	23	1	..	2	..	..	3	3	..	..	..	2	1	2	3	2	1	3	1	2	..	..	..	..	1	
55. Other general diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
56. Alcoholism, acute and chronic .....	392	309	..	..	..	..	..	..	1	..	..	4	25	53	54	44	50	27	19	21	7	1	3	..	..	3	
57. Lead poisoning.....	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	
58. Other chronic poison- ings of occupation.	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	
59. Other chronic poison- ings .....	8	4	..	..	..	..	..	..	..	..	..	..	1	..	1	1	..	..	..	..	1	..	..	..	..	..	
II. Diseases of Nerv- ous System and Or- gans of Sense.																											
60. Encephalitis .....	6	3	1	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	
61. Simple meningitis.... (Of which)	744	416	95	45	32	19	15	206	69	24	28	23	13	7	16	8	9	5	4	2	1	..	1	..	..	17	
61a. Cerebro-spinal menin- gitis .....	545	304	56	26	25	15	15	137	59	23	26	21	11	5	9	5	5	2	..	1	..	..	..	..	..	10	
62. Locomotor ataxia....	48	39	..	..	..	..	..	..	..	..	..	..	..	1	7	3	6	12	6	1	2	..	1	..	..	..	
63. Other diseases of spinal cord.....	53	30	..	..	..	..	1	1	..	..	..	..	2	1	2	6	4	3	..	3	4	3	1	..	..	..	
64. Apoplexy, congestion of brain.....	1,255	644	7	..	..	..	..	7	1	..	..	2	3	13	18	46	56	86	81	90	93	65	47	24	12	8	
65. Softening of brain...	25	12	..	..	..	..	..	..	..	..	..	..	..	..	1	..	3	..	2	1	..	2	..	3	1	..	
66. Paralysis unspecified.	131	74	1	..	..	..	1	2	..	..	..	..	2	5	6	8	10	8	6	11	6	3	1	2	4	1	
67. General paresis.....	98	57	..	..	..	..	..	..	..	..	..	..	..	3	5	16	9	8	4	4	5	2	..	1	..	..	
68. Other forms of in- sanity .....	20	8	..	..	..	..	..	..	..	..	1	..	..	2	2	..	1	..	..	1	1	..	..	..	..	..	
69. Epilepsy .....	71	44	5	..	..	..	..	5	1	1	2	7	4	6	3	6	1	..	2	1	4	..	..	1	..	2	
70. Convulsions (not puer- peral) .....	4	2	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	
71. Convulsions of infants	415	223	193	21	7	1	1	223	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	
72. Tetanus, trismus....	31	18	11	..	..	..	..	11	1	1	..	1	1	1	..	2	..	..	..	..	..	..	..	..	..	..	
73. Chorea .....	4	3	..	1	..	..	..	1	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
74. Other nervous dis- eases .....	122	80	..	..	3	..	..	3	3	3	2	9	15	11	14	6	5	2	2	2	1	2	..	..	..	2	
75. Diseases of the eyes..	4	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
76. Diseases of the ears.	149	89	17	7	2	1	1	28	10	7	7	8	5	8	6	3	..	2	2	2	..	..	1	..	..	..	
III. Diseases of Cir- culatory System.																											
77. Pericarditis .....	23	14	2	..	..	..	..	2	1	..	..	..	1	3	..	..	2	1	1	1	1	..	..	1	..	..	
78. Acute endocarditis...	120	70	3	1	1	1	..	6	4	4	6	1	6	6	2	6	4	4	6	4	4	2	4	1	..	..	
79. Organic heart dis- eases .....	3,111	1,515	5	3	1	3	2	14	19	27	32	46	61	83	111	125	134	154	156	171	141	119	65	31	26	45	
80. Angina pectoris.....	77	50	..	..	..	..	..	..	..	..	..	1	..	2	3	5	5	7	7	10	4	4	1	1	..	..	
81. Diseases of arteries, aneurism, etc.....	235	142	..	..	..	..	..	..	..	..	..	1	4	4	8	14	13	12	7	13	16	15	14	13	8	8	
82. Embolism, thrombosis	71	30	1	1	..	..	1	3	..	2	..	1	1	..	2	..	2	3	1	3	6	3	3	..	..	..	
83. Diseases of veins (hæmorrhoids, var- ices, phlebitis, etc.)	12	6	..	..	..	..	..	..	..	..	..	1	..	1	..	1	..	1	..	..	..	1	..	..	..	..	
84. Diseases of lymphatics (lymphangitis, etc.)	15	7	2	..	1	1	..	4	..	1	..	1	..	..	..	..	..	..	..	..	1	..	..	..	1	..	
85. Hæmorrhage .....	75	45	32	1	..	..	..	33	..	2	..	1	1	1	3	..	1	..	2	..	1	..	..	..	..	6	
86. Other diseases of cir- culatory system....	1	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
IV. Diseases of Re- spiratory System.																											
87. Diseases of nasal fossæ .....	1	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
88. Diseases of the larynx	21	12	6	1	..	..	2	9	..	..	1	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	
89. Diseases of thyroid gland .....	3	2	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	
90. Acute bronchitis.....	642	306	194	49	10	4	1	258																			



Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col.-Chin- ored. esc.	
110. Acute yellow atrophy of liver.....	8	3	..	..	..	..	..	..	..	..	1	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	
111. Hydatid tumor of liver .....	3	3	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	1	..	..	..	..	..	..	
112. Cirrhosis of liver.....	503	327	..	..	..	..	..	..	..	1	..	1	3	16	38	58	45	49	46	31	20	13	5	1	..	8	
113. Biliary calculi.....	107	49	1	..	..	..	..	1	..	..	1	..	2	2	2	3	6	11	5	4	5	4	2	1	..	..	
114. Other diseases of liver	71	42	2	..	..	..	..	2	..	1	..	5	4	2	3	2	4	7	3	3	4	1	..	..	1	3	
115. Diseases of spleen....	5	4	..	..	..	..	..	..	..	..	..	..	2	2	..	..	..	..	..	..	..	..	..	..	..	..	
116. Simple peritonitis (non-puerperal) ..	45	23	3	..	..	2	1	6	..	..	1	..	4	2	..	1	4	1	..	..	1	2	1	..	..	..	
117. Other diseases of di- gestive system (ex- cept tuberculosis and cancer).....	13	7	..	..	..	..	..	..	..	..	..	..	1	1	..	1	2	..	2	..	..	..	..	..	..	..	
118. Appendicitis and iliac abscess .....	310	193	..	1	..	1	1	3	15	17	23	19	23	25	17	14	9	9	6	9	2	1	1	..	..	2	
VI. Diseases of Genito- urinary System.																											
119. Acute nephritis.....	336	159	17	4	4	6	..	31	10	2	6	9	10	9	18	9	10	8	15	6	5	7	4	..	..	6	
120. Bright's disease.....	2,811	1,577	1	..	2	2	..	5	..	4	6	23	59	80	127	150	170	178	184	188	163	128	60	34	18	27	5
121. Other diseases of kid- neys and adnexa..	48	25	..	..	..	..	..	..	..	..	..	1	..	1	5	2	1	3	2	1	2	4	1	1	1	..	
122. Urinary calculus.....	17	15	..	..	..	..	..	..	..	..	..	..	1	1	1	..	2	1	1	2	1	1	3	1	..	..	
123. Diseases of bladder..	39	28	1	1	..	..	..	2	1	..	..	..	..	..	1	..	..	3	1	2	4	4	5	4	1	..	
124. Diseases of urethra, urinary abscess, etc.	29	20	..	..	..	..	..	..	..	..	..	..	..	2	2	4	1	4	3	1	2	1	..	..	..	..	
125. Diseases of the pros- tate .....	43	43	..	..	..	..	..	..	..	..	..	..	1	1	1	1	1	..	2	8	7	8	7	5	1	..	
126. Non-venereal diseases of male genital or- gans .....	2	2	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	
127. Metritis .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
128. Uterine hemorrhage (not puerperal)....	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
129. Uterine tumor (not cancer) .....	58	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
130. Other diseases of uterus .....	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
131. Ovarian cysts and tumors .....	19	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
132. Other diseases of fe- male genital organs	80	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
133. Diseases of breast (not puerperal, nor can- cer) .....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
VII. Puerperal Dis- eases.																											
134. Accidents of preg- nancy .....	100	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
135. Puerperal hemorrhage	28	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
136. Other accidents of labor .....	71	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
137. Puerperal septicemia.	132	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
138. Puerperal albuminuria and convulsions...	65	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
139. Puerperal phlegmasia alba dolens.....	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
140. Other accidents of parturition, sudden death .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
141. Puerperal diseases of breast .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
VIII. Diseases of Skin and Cellular Tissue.																											
142. Gangrene .....	47	19	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1	2	3	3	2	5	1	..	
143. Carbuncle .....	15	11	1	..	..	..	..	1	..	..	..	..	..	1	1	..	..	2	2	1	1	1	1	..	..	..	
144. Phlegmon, acute abscess .....	75	48	14	..	..	..	..	14	1	2	3	1	2	5	6	2	5	2	2	2	..	..	1	..	..	3	
145. Other diseases of skin and adnexa.....	31	14	9	2	..	..	..	11	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	1	..	..	
IX. Diseases of Loco- motory System.																											
146. Diseases of bones (non-tuberculous)..	48	36	10	6	1	..	1	18	..	2	3	1	1	4	1	2	1	..	1	1	..	1	..	..	..	3	
147. Arthritis, other dis- eases of joints (ex- cept tuberculosis and rheumatism)...	10	6	1	..	..	..	..	1	..	1	..	..	1	..	..	1	1	..	1	..	..	..	..	..	..	..	
148. Amputation .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
149. Other diseases of or- gans of locomotion.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
X. Malformations.																											
150. Congenital malforma- tions .....	302	182	166	5	4	5	..	180	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	3	
XI. Diseases of In- fancy.																											
151. Congenital debility, icterus and sclerema	2,250	1,223	1,220	2	1	..	..	1,223	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	50	
151a. Injury during birth..	139	82	82	..	..	..	..	82	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	
152. Other diseases pecu- liar to infancy.....	17	13	13	..	..	..	..	13	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	
153. Neglect .....	1	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
XII. Diseases of Old Age.																											
154. Senile debility.....	328	100	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	6	10	18	18	27	18	..	..	
XIII. External Causes.																											
155. Suicide by poison....	71	45	..	..	..	..	..	..	..	..	..	2	5	10	6	8	6	2	2	2	2	..	..	..	..	1	
156. Suicide by asphyxia..	120	86	..	..	..	..	..	..	..	..	..	8	9	4	11	11	13	6	12	6	4	2	..	..	..	..	
157. Suicide by hanging or strangulation .....	30	26	..	..	..	..	..	..	..	..	..	1	2	5	7	4	1	2	1	1	1	..	..	1	..	1	
158. Suicide by drowning.	5	3	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	1	..	..	..	..	..	
159. Suicide by firearms...	107	99	..	..	..	..	..	..	..	1	4	14	11	11	11	7	9	10	8	8	1	2	2	..	..		



Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col-Chin- ored. etc.	
172. Accidental drowning.	219	205	1	1	..	..	..	2	16	12	13	12	23	22	19	26	15	14	19	4	4	1	..	..	1	3	..
173. Inanition (starvation)	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
174. Inhalation of noxious gas, not suicidal...	155	108	5	..	..	..	..	5	..	..	2	17	10	10	13	11	6	9	8	3	4	5	4	1	..	6	..
175. Other acute poisoning	48	25	1	..	3	2	1	7	2	..	..	..	4	1	3	1	2	3	..	2	..	..	..	..	..	1	..
176. Other external violence	218	134	13	2	1	..	..	16	2	..	5	23	18	20	13	11	10	6	3	3	2	2	..	..	..	10	2
(Of which)																											
a. Homicide, b by blows .....	26	20	..	..	..	..	..	..	..	..	1	4	2	2	1	3	4	..	2	1	..	..	..	..	..	..	..
b. Homicide, b by sharp instruments	27	24	..	..	..	..	..	..	1	..	1	7	4	5	1	3	1	1	..	..	..	..	..	..	..	2	..
c. Homicide, b by gunshot .....	78	55	..	..	..	..	..	..	..	..	3	13	11	8	8	4	4	2	1	1	..	..	..	..	..	4	2
d. Homicide, b by poison .....	2	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..
e. Homicide, b by other methods.	9	2	1	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
XIV. Ill-defined or Not Specified Causes.																											
177. Dropsy .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
178. Sudden death, not puerperal .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
179. Ill-defined causes....	548	283	249	26	2	4	..	281	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	11	..
I.—General diseases.....	10,486	5,988	401	356	211	115	63	1,146	170	70	160	331	459	585	632	483	513	408	360	262	197	119	56	25	12	188	43
a. Tuberculous diseases .....	5,160	3,272	111	80	54	28	13	286	56	25	112	251	366	447	459	331	325	225	172	105	68	26	12	2	4	144	38
b. Cancer .....	1,630	677	2	1	..	..	..	3	4	4	5	9	13	22	34	53	67	83	111	89	76	61	27	12	4	10	2
II.—Diseases of nervous system and organs of sense .....	3,180	1,743	331	74	44	21	19	489	87	36	42	51	45	55	73	111	97	124	113	123	118	78	53	29	19	40	3
III.—Diseases of circulatory system .....	3,740	1,880	46	6	3	5	3	63	24	36	38	53	74	100	129	151	161	182	181	202	173	144	88	47	34	60	7
IV.—Diseases of respiratory system .....	7,234	4,030	1,164	606	184	75	35	2,064	74	19	39	81	133	143	175	200	188	168	162	173	148	111	67	41	44	145	8
V.—Diseases of digestive system .....	4,911	2,700	1,390	222	46	22	6	1,686	31	23	34	35	54	78	83	106	123	111	97	83	53	47	32	14	10	65	3
VI.—Diseases of genito- urinary system....	3,502	1,869	20	5	6	8	..	39	11	6	12	33	71	94	155	166	185	198	208	208	184	153	80	45	21	33	5
VII.—Puerperal diseases...	398	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
VIII.—Diseases of skin and cellular tissue....	168	92	24	2	..	..	..	26	1	2	3	2	2	6	7	2	7	4	5	6	4	4	4	6	1	3	..
IX.—Diseases of locomotory system .....	58	42	11	6	1	..	1	19	..	3	3	1	2	4	1	3	2	..	2	1	..	1	..	..	..	3	..
X.—Malformations .....	302	182	166	5	4	5	..	180	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..
XI.—Diseases of infancy..	2,407	1,319	1,316	2	1	..	..	1,319	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	52	..
XII.—Diseases of old age..	328	100	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	6	10	18	18	27	18	..	..
XIII.—External causes....	2,569	1,956	39	27	31	33	34	164	129	60	84	168	193	224	204	190	141	125	94	74	53	32	11	7	3	57	6
a. Suicide .....	385	297	..	..	..	..	..	..	..	1	4	28	29	35	42	34	36	25	24	20	10	5	2	2	..	3	4
b. Homicide .....	142	103	1	..	..	..	..	1	1	..	5	24	17	16	11	10	9	3	3	3	..	..	..	..	..	6	2
c. Accident .....	2,042	1,556	38	27	31	33	34	163	128	59	75	116	147	173	151	146	96	97	67	51	43	27	9	5	3	48	..
XIV.—Causes Ill-defined...	548	283	249	26	2	4	..	281	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	11	..
Total males.....	..	22,184	5,157	1,337	533	288	161	7,476	528	255	416	756	1,033	1,289	1,460	1,412	1,417	1,320	1,225	1,138	940	707	409	241	162	660	75
Total females.....	..	17,647	4,307	1,186	430	225	154	6,302	402	269	383	693	809	835	869	888	810	862	838	955	866	721	518	341	286	591	3
Total both sexes	..	39,831	9,464	2,523	963	513	315	13,778	930	524	799	1,449	1,842	2,124	2,329	2,300	2,227	2,182	2,063	2,093	1,806	1,428	927	582	448	1,251	78

## BOROUGH OF MANHATTAN.

Deaths of Females, by Age, and Cause of Death, for the Year Ending December 31, 1906.

[illegible]



Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col.-Chin- ored. ese.	
27. Tuberculosis of lungs	1,563	18	16	10	6	2	52	17	34	130	234	260	215	191	133	97	63	61	41	17	11	6	1	..	111	..	
28. Tubercular meningitis	221	52	43	39	13	11	158	23	12	10	9	5	2	2	..	..	..	..	..	..	..	..	..	..	..	14	..
29. Abdominal tuberculo- sis .....	48	8	1	2	..	1	12	2	..	4	4	8	4	4	4	1	..	1	1	1	1	1	..	..	..	3	1
30. Potts' disease .....	16	..	..	1	1	1	5	2	5	1	..	..	3	..	..	..	..	1	1	..	..	..	..	..	..	1	..
31. Cold abscess .....	2	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
32. White swelling .....	10	..	..	..	..	1	1	3	4	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..
33. Tuberculosis of other organs .....	9	..	..	1	..	..	1	1	..	1	1	1	2	1	1	..	..	..	..	..	..	..	..	..	..	1	..
34. General tuberculosis..	11	2	2	..	1	..	5	..	1	..	2	2	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
35. Scrofula .....	2	2	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
36. Syphilis .....	79	63	4	..	1	..	68	..	..	..	1	1	1	3	1	2	2	..	..	..	..	..	..	..	..	4	..
37. Gonorrhœa (adults)..	2	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..
38. Gonorrhœa (children)	3	3	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
39. Cancer, etc., of the mouth .....	9	..	..	..	..	..	..	..	..	..	1	..	..	..	1	2	..	1	1	1	..	1	1	..	..	..	..
40. Cancer of stomach, liver .....	314	..	..	..	..	1	1	..	..	..	1	3	6	8	27	32	54	45	43	42	31	15	3	3	1	..	..
41. Cancer of intestines, rectum .....	144	..	..	..	1	..	1	..	..	1	1	4	4	8	16	21	22	15	22	10	7	6	4	2	2	..	..
42. Cancer of female genital organs ....	244	..	..	..	..	..	..	..	1	2	2	4	16	21	32	43	36	30	29	12	7	4	3	2	4	..	..
43. Cancer of the breast.	130	..	..	..	..	..	..	..	..	..	..	1	5	12	16	17	19	20	15	8	7	2	5	3	2	..	..
44. Cancer of the skin...	15	1	..	..	..	..	1	..	..	1	..	..	..	1	..	1	2	2	2	2	1	..	1	1	..	..	..
45. Cancer of other organs and un- specified .....	97	1	..	1	1	..	3	..	..	2	3	2	5	6	16	15	10	10	11	5	2	6	..	1	1	..	..
46. Other tumors (except of female genital organs) .....	12	..	..	..	..	..	..	..	..	..	..	1	2	1	1	2	2	1	..	1	..	..	..	..	1	..	..
47. Acute articular rheu- matism .....	122	..	1	2	..	1	4	18	20	9	3	9	7	6	6	7	5	4	9	6	3	5	..	1	5	..	..
48. Chronic rheumatism and gout .....	47	..	..	..	..	..	..	..	3	1	..	3	..	1	2	3	..	3	7	5	8	4	4	3	..	..	..
49. Scurvey .....	4	..	..	1	..	..	1	1	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
50. Diabetes .....	201	..	..	..	..	..	..	1	1	3	4	6	1	8	2	14	31	23	36	30	22	14	2	3	1	..	..
51. Exophthalmic goitre..	21	..	..	..	..	..	..	..	..	3	..	1	2	2	3	1	2	4	2	1	..	..	..	..	..	1	..
52. Addison's disease ...	3	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	..	..	..	..	..	..	..	..	..	..	..
53. Leukæmia .....	18	1	..	..	..	1	2	2	1	..	..	2	2	2	1	2	2	..	1	..	1	..	..	..	..	1	..
54. Anæmia, chlorosis....	31	4	1	..	..	..	5	..	..	1	2	1	3	2	4	2	4	2	1	1	2	1	..	..	..	..	..
55. Other general dis- eases .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
56. Alcoholism, acute and chronic .....	83	..	..	..	..	..	..	..	..	..	6	6	22	17	16	6	6	1	2	1	..	..	..	..	..	..	..
57. Lead poisoning .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
58. Other chronic poison- ings of occupation.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
59. Other chronic poison- ings .....	4	..	..	..	..	..	..	..	..	1	..	1	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..
II. Diseases of Nervous System and Or- gans of Sense.																											
60. Encephalitis .....	3	..	..	..	..	..	..	..	..	..	..	..	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..
61. Simple meningitis ....	328	82	62	24	21	9	198	42	28	19	9	7	7	2	4	3	3	2	2	1	1	..	..	..	..	10	..
61a. (of which) cerebro- spinal meningitis...	241	46	45	18	16	7	132	37	25	18	7	6	7	1	2	2	1	1	1	..	1	..	..	..	..	9	..
62. Locomotor Ataxia....	9	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2	2	1	2	..	..	..	..	..	..	..	..
63. Other diseases of spinal cord .....	23	..	..	..	..	..	..	1	..	..	1	2	..	1	3	3	3	2	3	3	..	1	..	..	..	..	..
64. Apoplexy, congestion of brain .....	611	5	2	1	..	..	8	..	1	2	2	2	11	21	30	43	72	69	78	85	81	60	33	13	29	..	..
65. Softening of brain...	13	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	..	1	3	2	1	2	1	..	1	..	..
66. Paralysis unspecified.	57	..	2	..	..	..	2	..	..	..	..	1	1	..	2	3	5	7	7	6	9	6	6	2	..	..	..
67. General paresis .....	41	..	..	..	..	..	..	1	..	..	..	3	4	6	8	6	1	3	3	2	..	..	3	1	3	..	..
68. Other forms of in- sanity .....	12	..	..	..	..	..	..	..	..	..	1	1	4	4	..	..	..	..	..	1	1	..	..	..	..	..	..
69. Epilepsy .....	27	..	1	..	..	1	2	1	2	2	3	5	2	3	4	1	..	..	1	..	1	..	..	..	..	..	..
70. Convulsions (not puerperal) .....	2	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
71. Convulsions of infants	192	156	23	8	3	2	192	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	..
72. Tetanus, trismus ....	13	4	1	1	..	..	6	1	..	..	..	1	1	..	..	..	1	2	1	..	..	..	..	..	..	..	..
73. Chorea .....	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
74. Other nervous dis- eases .....	42	..	..	..	1	2	3	3	2	1	2	6	4	2	6	4	3	..	2	2	1	1	..	..	1	..	..
75. Diseases of the eyes..	3	1	1	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
76. Diseases of the ears..	60	15	9	4	2	..	30	3	4	2	6	2	3	1	2	3	1	1	1	1	..	..	..	..	..	..	..
III. Diseases of Cir- culatory System.																											
77. Pericarditis .....	9	..	1	..	..	..	1	2	1	..	..	..	1	..	1	2	..	..	..	..	..	1	..	..	1	..	..
78. Acute endocarditis...	50	2	..	1	..	1	4	7	3	3	4	3	2	7	2	1	3	2	3	3	..	1	1	1	..	..	..
79. Organic heart diseases	1,596	6	2	2	3	3	16	34	43	41	69	65	82	95	98	100	145	131	186	164	142	88	52	45	58	1	..
80. Angina pectoris .....	27	..	..	..	..	..	..	..	..	..	..	..	1	2	..	1	2	4	3	4	5	4	1	..	..	..	..
81. Diseases of arteries, aneurism, etc.....	93	..	..	..	..	..	..	..	..	..	..	1	1	2	3	2	3	6	12	16	16	9	12	10	3	..	..
82. Embolism, thrombosis	41	2	1	..	..	..	3	..	..	..	..	..	..	5	2	5	2	8	6	3	2	3	2	..	1	..	..
83. Diseases of veins (hemorrhoids, va- rices, phlebitis, etc.)	6	..	..	..	..	..	..	1	..	..	..	..	..	1	1	..	1	1	1	..	..	..	..	..	..	..	..
84. Diseases of lymphatics (lymphangitis, etc.)	8	5	2	1	..	..	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
85. Hemorrhage .....	30	23	..	..	..	1	24	..	..	2	..	..	1	1	..	2	..	..	..	..	..	..	..	..	..	..	..
86. Other diseases of cir- culatory system ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
IV. Diseases of Respi- ratory System.																											
87. Diseases of nasal fossæ .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
88. Diseases of the larynx .....	9	3	1	1	1	..	6	1	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
89. Diseases of thyroid gland .....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
90. Acute bronchitis ....	336	168	65	14	5	2	254	1	1	3	..	..	1	1	1	3	3	4	11	16	7	11	13	6	5	..	..
91. Chronic bronchitis...	19	..	..	..	..	..	..	..	1	..</																	



Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col.-Chin- ored. ese.
99. Other diseases of respiratory system (phthisis excepted)	..	9	..	..	..	..	..	..	..	..	..	1	..	1	..	1	1	1	2	2	..	..	..	..	..	1
V. Diseases of Digestive System.																										
100. Diseases of mouth and adnexa	..	2	..	..	1	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
101. Diseases of pharynx..	..	11	1	1	..	..	..	2	3	..	..	..	3	1	1	..	..	1	..	..	..	..	..	..	..	..
102. Diseases of œsophagus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
103. Ulcer of the stomach..	..	25	..	..	..	..	..	..	..	..	3	2	2	4	2	6	1	..	1	2	..	1	..	1	..	1
104. Other diseases of stomach (cancer excepted)	..	64	4	..	..	1	1	6	1	..	..	1	1	3	2	4	3	5	4	6	6	5	6	5	6	2
105. Diarrhœa and enteritis (under two years) (Of which) chronic diarrhœa	..	1,352	1,144	208	..	..	..	1,352	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	26
106. Diarrhœa and enteritis (two years and over)	..	181	..	..	24	10	8	42	10	4	1	3	6	5	5	3	5	16	13	12	16	16	7	10	7	1
107. Intestinal parasites...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
108. Hernia, intestinal obstruction	..	160	18	1	..	..	1	20	3	..	..	5	10	8	12	15	13	11	12	13	14	13	8	2	1	4
109. Other diseases of intestines	..	2	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	1
110. Acute yellow atrophy of liver	..	5	..	..	..	1	..	1	..	..	..	3	..	..	..	..	..	..	1	..	..	..	..	..	..	..
111. Hydatid tumor of liver	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
112. Cirrhosis of liver....	..	176	..	..	..	..	..	..	1	1	..	4	9	11	24	33	25	19	13	11	13	6	1	..	5	3
113. Biliary calculi	..	58	..	..	..	..	..	..	..	..	..	1	2	3	7	4	9	8	7	8	2	3	1	1	2	1
114. Other diseases of liver	..	29	..	1	..	..	..	1	1	..	..	..	1	..	2	6	4	4	2	3	..	2	..	2	1	1
115. Diseases of spleen...	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
116. Simple peritonitis (non-puerperal)	..	22	2	..	..	..	..	2	4	1	..	..	4	4	3	3	..	..	1	..	..	..	..	..	..	..
117. Other diseases of digestive system (except tuberculosis and cancer)	..	6	..	..	..	1	..	1	..	..	..	2	1	1	..	..	..	..	..	1	..	..	..	..	..	..
118. Appendicitis and iliac abscess	..	117	..	..	..	..	..	..	10	20	10	13	10	9	12	10	7	5	4	3	1	2	1	..	..	4
VI. Diseases of Genito-urinary System.																										
119. Acute nephritis.....	..	177	16	10	6	6	1	39	8	6	5	12	11	9	13	20	11	7	16	10	6	4	4	1	1	11
120. Bright's disease	..	1,234	1	..	..	..	..	1	6	4	9	29	53	68	86	119	100	120	127	120	126	107	81	45	33	34
121. Other diseases of kidneys and adnexa..	..	23	..	..	..	1	..	1	..	..	..	3	1	3	2	2	4	1	1	1	1	..	2	1	..	..
122. Urinary calculus	..	2	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..
123. Diseases of bladder..	..	11	..	..	..	1	..	1	..	..	..	..	..	1	..	1	..	1	1	..	1	..	2	2	1	2
124. Diseases of urethra, urinary abscess, etc.	..	9	..	..	..	..	..	..	..	..	..	2	..	1	2	..	3	1	..	..	..	..	..	..	..	2
125. Diseases of the prostate	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
126. Non-venereal diseases of male genital organs	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
127. Metritis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
128. Uterine hæmorrhage (not puerperal)	..	3	..	..	..	..	..	..	..	..	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	1
129. Uterine tumor (not cancer)	..	58	..	..	..	..	..	..	..	..	..	..	2	8	10	17	10	4	4	1	..	1	..	1	..	4
130. Other diseases of uterus	..	16	..	..	..	..	..	..	..	..	1	3	4	1	3	3	..	1	..	..	..	..	..	..	..	2
131. Ovarian cysts and tumors	..	19	..	..	..	..	..	..	..	..	2	4	4	..	2	..	..	3	2	2	..	..	..	..	..	1
132. Other diseases of female genital organs	..	80	..	..	..	..	..	..	..	..	6	22	13	15	13	10	1	..	..	..	..	..	..	..	..	9
133. Diseases of breast (not puerperal, nor cancer)	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1
VII. Puerperal Diseases.																										
134. Accidents of Pregnancy	..	100	..	..	..	..	..	..	..	..	2	19	31	25	16	4	2	1	..	..	..	..	..	..	..	3
135. Puerperal hæmorrhage	..	28	..	..	..	..	..	..	..	..	1	2	7	7	7	4	..	..	..	..	..	..	..	..	..	1
136. Other accidents of labor	..	71	..	..	..	..	..	..	..	..	2	10	15	12	25	6	1	..	..	..	..	..	..	..	..	2
137. Puerperal septicæmia.	..	132	..	..	..	..	..	..	..	..	11	33	30	31	16	9	1	1	..	..	..	..	..	..	..	3
138. Puerperal albuminuria and convulsions	..	65	..	..	..	..	..	..	..	..	4	21	16	14	5	5	..	..	..	..	..	..	..	..	..	1
139. Puerperal phlegmasia alba dolens	..	2	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
140. Other accidents of parturition, sudden death	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
141. Puerperal diseases of breast	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
VIII. Diseases of Skin and Cellular Tissue.																										
142. Gangrene	..	28	..	..	1	1	..	2	..	..	..	1	..	..	..	1	..	1	3	7	6	2	1	..	4	..
143. Carbuncle	..	4	3	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
144. Phlegmon, acute abscess	..	27	8	..	1	..	..	9	..	1	2	1	..	1	3	..	3	1	1	1	3	..	..	1	..	..
145. Other diseases of skin and adnexa	..	17	12	1	..	..	..	13	..	..	..	1	..	1	..	..	..	1	..	..	..	1	..	..	..	..
IX. Diseases of Locomotory System.																										
146. Diseases of Bones (non-tuberculous)..	..	12	5	3	..	..	..	8	..	..	2	..	1	..	..	..	..	1	..	..	..	..	..	..	..	1
147. Arthritis, other diseases of joints (except tuberculosis and rheumatism)..	..	4	1	..	..	..	1	2	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..
148. Amputation	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
149. Other diseases of organs of locomotion.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
X. Malformations.																										
150. Congenital malformations	..	120	114	5	..	..	..	119	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
XI. Diseases of Infancy.																										
151. Congenital debility, icterus and sclerema	..	1,027	1,024	2	..	1	..	1,027	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	45
151a. Injury during birth..	..	57	57	..	..	..	..	57	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
152. Other diseases peculiar to infancy	..	4	4	..	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
153. Neglect	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
XII. Diseases of Old Age.																										
154. Senile debility	..	228	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	8	22	43	47	43	64	4	..
XIII. External Causes.																										
155. Suicide by poison....	..	26	..	..	..	..	..	..	..	1	6	3	5	1	4	2	1	1	2	..	..	..	..	..	..	..
156. Suicide by asphyxia..	..	34	..	..	..	..	..	..	..	..	..	2	7	5	6	6	1	3	2	..	1	1	..	..	..	..



Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col.-Chin- ored. ese.
157. Suicide by hanging or strangulation .....	..	4	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	1	..	..	..	..	..	..	..
158. Suicide by drowning..	..	2	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..
159. Suicide by firearms..	..	8	..	..	..	..	..	..	..	..	..	..	2	2	1	2	..	1	..	..	..	..	..	..	..	..
160. Suicide by cutting in- struments .....	..	3	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	2	..	..	..	..	..	..	..	..
161. Suicide by precipita- tion from height..	..	11	..	..	..	..	..	..	..	..	1	1	1	1	3	..	2	..	1	..	..	1	..	..	..	..
162. Suicide by crushing..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
163. Suicide by other meth- ods .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
164. Fractures .....	..	19	..	..	1	..	..	1	1	1	..	..	..	..	..	3	2	..	..	1	4	1	..	5	..	..
165. Dislocations .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
166. Other accidental in- juries .....	..	208	2	3	12	7	10	34	24	3	9	3	6	12	15	12	11	11	10	19	12	12	6	4	5	5
167. Burn, by fire, scald..	..	96	3	8	12	6	4	33	17	5	3	3	5	5	2	2	5	4	2	..	3	3	1	3	..	1
168. Burning by corrosive substances .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
169. Sunstroke .....	..	32	6	1	..	..	..	7	1	..	..	2	3	..	..	2	1	1	1	3	3	2	2	2	2	..
170. Freezing .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
171. Electrical shock .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
172. Accidental drowning.	..	14	..	..	..	..	..	..	..	2	..	..	4	4	..	2	1	1	..	..	..	..	..	..	..	..
173. Inanition (starvation)	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..
174. Inhalation of noxious gas, not suicidal..	..	47	..	1	1	..	1	3	4	..	4	2	6	2	1	6	4	6	1	4	2	..	1	1	..	3
175. Other acute poisoning	..	23	1	..	..	1	1	3	..	1	1	4	5	4	2	1	..	1	..	..	1	..	..	..	..	..
176. Other external vio- lence .....	..	84	16	1	1	1	..	19	..	..	4	17	7	14	6	5	3	1	4	2	..	2	..	..	..	7
(Of which)																										
a. Homicide, by blows .....	..	6	2	..	..	1	..	3	..	..	..	..	..	..	1	1	..	..	..	1	..	..	..	..	..	..
b. Homicide, by sharp instruments	..	3	1	..	..	..	..	1	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	1
c. Homicide, by gunshot .....	..	23	..	..	..	..	..	..	..	1	6	5	6	2	1	1	..	1	..	..	..	..	..	..	..	4
d. Homicide, by poison .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
e. Homicide, by other methods...	..	7	3	..	..	..	..	3	..	..	..	1	1	..	..	..	1	..	1	..	..	..	..	..	..	..
XIV. Ill-defined or Not Specified Causes.																										
177. Dropsy .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
178. Sudden death, not puerperal .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
179. Ill-defined causes ...	..	265	233	26	3	1	..	263	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	12
I.—General diseases .....	..	4,498	381	279	173	94	75	1,002	158	110	198	304	348	330	316	292	295	272	235	242	158	110	75	30	23	175
a. Tuberculous diseases	..	1,888	81	62	53	21	16	233	48	56	148	252	277	229	200	138	98	64	64	43	18	12	7	1	..	130
b. cancer .....	..	953	2	..	1	2	1	6	..	1	6	8	14	36	56	108	131	143	123	123	80	55	34	17	12	10
II.—Diseases of nervous sys- tem and organs of sense .....	..	1,437	263	101	38	27	14	443	54	38	26	24	30	37	45	61	69	91	88	104	103	95	70	43	16	48
III.—Diseases of circulatory system .....	..	1,860	38	6	4	3	5	56	44	47	46	73	69	88	113	107	113	156	152	211	190	165	106	68	56	63
IV.—Diseases of respiratory system .....	..	3,204	950	528	152	62	32	1,724	50	25	27	53	74	74	84	97	93	99	132	155	171	124	94	69	59	107
V.—Diseases of digestive system .....	..	2,211	1,169	211	25	13	10	1,428	34	26	14	34	50	50	71	84	67	69	56	60	53	48	24	21	22	44
VI.—Diseases of genito- urinary system....	..	1,633	17	10	6	8	1	42	14	10	24	76	90	107	132	172	129	138	145	134	134	112	89	50	35	66
VII.—Puerperal diseases ..	..	398	..	..	..	..	..	..	..	..	20	85	101	89	69	28	4	2	..	..	..	..	..	..	..	10
VIII.—Diseases of skin and cellular tissue....	..	76	23	1	2	1	..	27	..	1	2	3	..	2	3	1	3	2	5	8	10	2	2	1	4	..
IX.—Diseases of Locomo- tory system .....	..	16	6	3	..	..	1	10	..	..	2	..	1	1	..	..	1	..	..	..	..	..	..	1	..	1
X.—Malformations .....	..	120	114	5	..	..	..	119	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
XI.—Diseases of infancy..	..	1,088	1,085	2	..	1	..	1,088	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	45
XII.—Diseases of old age..	..	228	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	8	22	43	47	43	64	4	..
XIII.—External causes ....	..	613	28	14	27	15	16	100	47	12	23	41	46	57	36	46	37	31	24	33	25	22	11	15	7	16
a. Suicide .....	..	88	..	..	..	..	..	..	..	2	10	10	16	10	12	10	5	6	4	..	2	1	..	..	..	..
b. Homicide .....	..	39	6	..	..	1	..	7	..	..	1	7	6	7	3	3	2	..	2	1	..	..	..	..	..	5
c. Accident .....	..	486	22	14	27	14	16	93	47	12	20	24	30	34	23	31	25	26	16	28	25	20	10	15	7	11
XIV.—Causes ill-defined....	..	265	233	26	3	1	..	263	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	12
Total males .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total females .....	..	17,647	4,307	1,186	430	225	154	6,302	402	269	383	693	809	835	869	888	810	862	838	955	866	721	518	341	286	588
Total both sexes....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

## BOROUGH OF THE BRONX.

Deaths of Males, by Age, and Cause of Death, for the Year Ending December 31, 1906.

[illegible]



Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col- ored.	Chin- ese.
16. Yellow fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
17. Leprosy .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
18. Erysipelas .....	12	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	I	..	..	..	..	I	..	
19. Other epidemic diseases ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
20. Pyæmia, septicæmia....	4	3	I	I	..	..	..	2	..	..	..	..	I	..	..	..	..	..	..	..	..	..	..	..	..	..	
21. Glanders .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
22. Malignant pustule....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
23. Hydrophobia .....	3	2	..	..	..	..	..	..	I	..	I	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
24. Actinomycosis .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
24a. Trichinosis .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
25. Pellagra .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
26. Tuberculosis of larynx	5	4	..	..	..	..	..	..	..	..	..	..	..	I	..	I	..	..	..	I	..	..	I	..	..	..	
27. Tuberculosis of lungs.	1,450	927	2	3	I	I	I	8	I	9	42	73	122	168	163	116	91	65	35	18	10	5	I	..	29	..	
28. Tubercular meningitis.	58	33	3	8	3	6	5	25	I	3	I	..	I	..	2	..	..	..	..	..	..	..	..	..	I	..	
29. Abdominal tuberculosis	13	7	I	I	..	..	I	3	I	..	..	..	2	..	..	..	..	I	..	..	..	..	..	..	3	..	
30. Potts' disease.....	3	2	..	..	..	..	..	..	..	I	I	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
31. Cold abscess.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
32. White swelling .....	4	2	..	..	..	..	..	..	I	I	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
33. Tuberculosis of other organs .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
34. General tuberculosis..	3	2	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	
35. Scrofula .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
36. Syphilis .....	18	11	4	..	..	..	..	4	..	..	..	..	2	..	I	2	I	I	..	..	..	..	..	..	..	I	
37. Gonorrhœa (adults)..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
38. Gonorrhœa (children)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
39. Cancers, etc., of the mouth .....	9	7	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	4	I	..	..	..	..	..	
40. Cancer of stomach, liver .....	93	44	..	..	..	..	..	..	..	..	..	..	..	I	5	4	5	7	8	5	3	5	I	..	..	..	
41. Cancer of intestines, rectum .....	35	16	..	..	I	..	..	I	I	..	..	..	..	I	..	2	I	2	4	2	I	I	..	..	..	..	
42. Cancer of female gen- ital organs .....	31	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
43. Cancer of the breast.	26	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
44. Cancer of the skin...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
45. Cancer of other or- gans and unspecified	32	22	..	..	..	..	..	..	..	..	..	2	..	..	2	2	2	3	3	4	3	I	..	..	I	..	
46. Other tumors (except of female genital organs) .....	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
47. Acute articular rheu- matism .....	26	16	I	..	..	..	..	I	4	I	..	I	..	I	2	2	..	..	..	2	..	I	I	..	..	..	
48. Chronic rheumatism and gout.....	20	4	..	..	..	..	..	..	..	..	..	..	..	I	I	..	..	..	I	I	..	..	..	..	..	..	
49. Scurvy .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
50. Diabetes .....	39	13	..	..	..	..	..	..	..	..	..	I	..	..	..	I	I	2	2	4	I	I	..	..	I	..	
51. Exophthalmic goitre..	I	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
52. Addison's disease....	I	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
53. Leukæmia .....	9	6	..	..	..	..	..	..	..	..	..	..	..	I	..	2	..	2	..	I	..	..	..	..	..	..	
54. Anæmia, chlorosis ...	9	2	..	..	..	..	..	..	..	..	..	..	..	..	..	I	..	..	I	..	..	..	..	..	..	..	
55. Other general diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
56. Alcoholism, acute and chronic .....	33	29	..	..	..	..	..	..	..	..	..	2	I	2	7	5	6	2	3	I	..	..	..	..	..	..	
57. Lead poisoning.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
58. Other chronic poison- ings of occupation.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
59. Other chronic poison- ings .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
II. Diseases of Nervous System and Or- gans of Sense.																											
60. Encephalitis .....	I	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
61. Simple meningitis....	94	52	14	7	..	3	7	31	3	3	5	5	I	..	..	2	..	..	..	I	I	..	..	..	..	3	
Of which																											
61a. Cerebro-spinal menin- gitis .....	55	31	9	3	..	2	4	18	2	2	3	5	..	..	..	I											



Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col.-Chin- ored. etc.	
IV. Diseases of Res- piratory System.																											
87. Diseases of nasal fos- sae .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
88. Diseases of the larynx .....	7	5	1	2	..	..	..	3	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	
89. Diseases of thyroid gland .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
90. Acute bronchitis ....	78	40	25	5	..	..	..	30	1	..	..	1	..	..	..	1	..	1	..	3	1	2	..	..	1	..	
91. Chronic bronchitis...	18	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2	1	1	2	..	
92. Broncho-pneumonia...	238	110	46	26	5	2	..	79	1	1	..	..	2	3	2	2	1	2	..	8	3	1	..	1	4	4	
93. Pneumonia .....	453	247	20	22	5	1	2	50	5	2	4	8	13	14	18	20	23	16	22	18	11	9	8	2	4	5	
94. Pleurisy .....	22	11	1	..	1	..	..	2	..	..	1	..	..	1	..	2	1	2	..	..	1	1	..	..	..	..	
95. Congestion of lungs, pulmonary, apoplexy	9	5	1	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	2	1	..	..	..	..	
96. Gangrene of lung....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
97. Asthma .....	8	3	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	1	..	..	..	..	
98. Pulmonary emphysema	7	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	1	..	..	..	1	
99. Other diseases of res- piratory system (phthisis excepted).	10	5	..	1	..	..	..	1	..	..	..	..	..	..	..	1	1	..	..	1	1	..	..	..	..	..	
V. Diseases of Digestive System.																											
100. Diseases of mouth and adnexa .....	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
101. Diseases of pharynx.	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	
102. Diseases of oesophagus	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	
103. Ulcer of the stomach. Other diseases of stom- ach (cancer except- ed) .....	5	4	..	..	..	..	..	..	..	..	..	..	..	2	..	2	..	..	..	..	..	..	..	..	..	..	
104. Diarrhoea and enteritis (under two years).	33	14	3	2	1	1	..	7	..	1	..	..	..	1	..	3	..	1	..	..	..	1	..	..	..	..	
105. Of which Chronic diarrhoea....	332	174	152	22	..	..	..	174	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	
106. Diarrhoea and enteritis (Two years and over) .....	52	25	..	..	9	2	1	12	..	..	..	..	3	..	2	..	..	..	1	3	2	1	1	..	..	..	
107. Intestinal parasites...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
108. Hernia, intestinal ob- struction .....	41	22	9	..	..	..	..	9	3	2	..	..	..	..	..	1	1	1	1	1	1	1	2	..	..	..	
109. Other diseases of in- testines .....	4	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	
110. Acute yellow atrophy of liver .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
111. Hydatid tumor of liver	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
112. Cirrhosis of liver....	69	47	..	..	..	..	..	..	..	..	..	..	1	2	7	6	8	6	5	8	4	..	..	..	..	..	
113. Biliary calculi.....	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
114. Other diseases of liver	10	6	..	..	..	1	..	1	..	..	..	..	..	1	2	..	..	2	..	..	..	..	..	..	..	..	
115. Diseases of spleen...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
116. Simple peritonitis (non- puerperal) .....	18	8	..	..	..	..	..	1	1	..	1	..	..	3	..	1	1	..	..	..	..	..	..	..	..	..	
117. Other diseases of di- gestive system (ex- cept tuberculosis and cancer).....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
118. Appendicitis and iliac abscess .....	22	15	..	..	..	1	..	1	1	3	..	2	3	..	1	1	2	1	..	..	..	..	..	..	..	1	
VI. Diseases of Gen- ito-urinary System.																											
119. Acute nephritis ....	50	31	3	..	1	..	..	4	1	1	..	1	2	2	1	4	2	2	6	2	2	..	1	..	..	..	
120. Bright's disease.....	421	234	..	..	..	..	..	..	2	1	3	7	9	6	14	21	17	27	11	27	31	25	20	9	4	15	
121. Other diseases of kid- neys and adnexa...	2	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
122. Urinary calculus.....	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
123. Diseases of bladder...	7	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	1	1	..	
124. Diseases of urethra, urinary abscess, etc.	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	
125. Diseases of the pros- tate .....	4	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	..	1	..	..	..	
126. Non-venereal diseases of male genital or- gans .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
127. Metritis .....	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
128. Uterine hemorrhage (not puerperal)...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
129. Uterine tumor (not cancer) .....	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
130. Other diseases of uterus .....	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
131. Ovarian cysts and tumors .....	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
132. Other diseases of fe- male genital organs	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
133. Diseases of breast (not puerperal, nor can- cer) .....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
VII. Puerperal Diseases.																											
134. Accidents of pregnancy	12	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
135. Puerperal hæmorrhage	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
136. Other accidents of la- bor .....	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
137. Puerperal septicæmia.	25	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
138. Puerperal albuminuria and convulsions...	12	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
139. Puerperal phlegmasia alba dolens.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
140. Other accidents of par- turation, sudden death .....	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
141. Puerperal diseases of breast .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
VIII. Diseases of Skin and Cellular Tissue.																											
142. Gangrene .....	11	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	
143. Carbuncle .....	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	
144. Phlegmon, acute ab- scess .....	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	
145. Other diseases of skin and adnexa .....	5	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
IX. Diseases of Loco- motory System.																											
146. Diseases of bones (non- tuberculous) .....	12	8	..	1	2	..	..	3	..	..	2	1	..	1	..	..	..	1	..	..	..	..	..	..	..	2	
147. Arthritis, other dis- eases of joints (ex- cept tuberculosis and rheumatism)...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
148. Amputation .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
149. Other diseases of or- gans of locomotion.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	







[illegible]



Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col.-Chin- ored. etc.	
III. Diseases of Circulatory System.																											
77. Pericarditis .....	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	
78. Acute endocarditis..	..	15	2	..	..	..	..	2	1	..	1	..	..	1	2	2	..	1	1	2	..	..	2	..	..	2	
79. Organic heart diseases .....	..	192	2	..	..	..	1	3	2	7	6	4	3	5	15	8	22	20	14	22	16	14	16	11	4	5	
80. Angina pectoris.....	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..		
81. Diseases of arteries, aneurism, etc.....	..	10	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	2	..	1	1	2	..	3	..		
82. Embolism, thrombosis .....	..	12	..	..	..	..	..	..	..	..	..	..	..	2	2	..	..	1	2	1	3	1	..	..	..		
83. Diseases of veins (hemorrhoids, varices, phlebitis, etc.) .....	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..		
84. Diseases of Lymphatics (lymphangitis, etc.) .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
85. Hemorrhage .....	..	2	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..		
86. Other diseases of circulatory system....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
IV. Diseases of Respiratory System.																											
87. Diseases of nasal fossae .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
88. Diseases of the larynx .....	..	2	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..		
89. Diseases of thyroid gland .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
90. Acute bronchitis.....	..	38	13	6	3	..	..	22	..	..	..	..	..	..	..	2	1	..	2	3	3	1	2	2	1		
91. Chronic bronchitis...	..	10	..	1	..	..	..	1	..	..	..	..	..	..	1	..	..	1	3	..	..	..	3	1	..		
92. Broncho-pneumonia .	..	128	64	21	6	3	1	95	1	..	..	1	3	..	1	3	4	2	..	2	1	3	4	6	2		
93. Pneumonia .....	..	206	25	17	8	4	1	55	4	3	2	4	11	9	12	12	9	13	15	13	12	13	11	6	2		
94. Pleurisy .....	..	11	1	1	..	..	..	2	..	..	..	2	1	2	1	1	..	1	..	1	..	..	..	..	..		
95. Congestion of lungs, pulmonary, apoplexy .....	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	1	..	..	..		
96. Gangrene of lung...	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1		
97. Asthma .....	..	5	..	..	..	..	..	..	..	..	..	..	..	2	..	..	1	..	1	1	..	..	..	..	..		
98. Pulmonary emphysema .....	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	1	1	..	..		
99. Other diseases of respiratory system (phthisis excepted) ..	..	5	..	1	..	..	..	1	..	..	..	1	..	..	1	..	..	1	1	1	..	..	..	..	..		
V. Diseases of Digestive System.																											
100. Diseases of mouth and adnexa.....	..	2	..	..	1	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..		
101. Diseases of pharynx.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
102. Diseases of Oesophagus .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
103. Ulcer of the stomach.	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..		
104. Other diseases of stomach (cancer excepted) .....	..	19	1	2	..	2	..	5	..	..	2	..	1	1	..	..	1	1	..	..	1	1	3	3	..		
105. Diarrhoea and enteritis (under two years) .....	..	158	128	30	..	..	..	158	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4		
Of which	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
106. Chronic diarrhoea...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
107. Diarrhoea and enteritis (two years and over).....	..	27	..	..	4	2	1	7	1	..	..	..	..	3	1	..	3	1	2	..	2	1	2	4	..		
108. Intestinal parasites..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
109. Hernia, intestinal obstruction .....	..	19	2	..	..	..	..	2	..	..	..	..	1	..	3	4	1	1	3	2	1	1	..	..	1		
110. Other diseases of intestines .....	..	2	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..		
111. Acute yellow atrophy of liver.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
112. Hydatid tumor of liver .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
113. Cirrhosis of liver...	..	22	..	..	..	..	..	..	..	..	..	..	..	2	4	4	2	4	..	4	2	..	..	..	..		
114. Biliary calculi.....	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..		
115. Other diseases of liver .....	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..	..	1	..	..	..	..		
116. Diseases of spleen..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
117. Simple peritonitis (non-puerperal) ..	..	10	..	..	..	..	..	..	..	..	2	1	..	1	3	1	..	..	..	1	..	..	1	..	..		
118. Other diseases of digestive system (except tuberculosis and cancer).....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
119. Appendicitis and iliac abscess .....	..	7	..	..	..	..	..	..	..	1	..	..	..	2	1	1	1	..	..	..	1	..	..	..	..		
VI. Diseases of Genito-urinary System.																											
120. Acute nephritis.....	..	19	1	..	1	..	1	3	1	1	1	2	3	2	2	..	1	1	2	..	..	..	..	..	..		
121. Bright's disease.....	..	187	..	..	..	..	..	..	1	..	2	6	6	11	13	16	12	21	22	25	13	21	16	2	..		
122. Other diseases of kidneys and adnexa..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..		
123. Urinary calculus....	..	2	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..		
124. Diseases of bladder.	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..		
125. Diseases of urethra, urinary abscess, etc. ....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
126. Diseases of the prostate .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
127. Non-venereal diseases of male genital organs .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
128. Metritis .....	..	2	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1		
129. Uterine hemorrhage (not puerperal)...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
130. Uterine tumor (not cancer) .....	..	5	..	..	..	..	..	..	..	..	..	2	..	..	1	1	..	..	1	..	..	..	..	..	..		
131. Other diseases of uterus .....	..	3	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	1	..	..	..	..	..		
132. Ovarian cysts and tumors .....	..	2	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	1		
133. Other diseases of female genital organs .....	..	4	..	..	..	..	..	..	..	..	..	1	2	..	..	1	..	..	..	..	..	..	..	..	..		
134. Diseases of breast (not puerperal, nor cancer).....	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..		
VII. Puerperal Diseases.																											
135. Accidents of pregnancy .....	..	12	..	..	..	..	..	..	..	..	..	1	5	3	2	1	..	..	..	..	..	..	..	..	..		
136. Puerperal hemorrhage .....	..	2	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..		
137. Other accidents of labor .....	..	4	..	..	..	..	..	..	..	..	..	..	1	2	1	..	..	..	..	..	..	..	..	..	..		
138. Puerperal septicaemia .....	..	25	..	..	..	..	..	..	..	2	5	7	5	5	..	1	..	..	..	..	..	..	..	..	..		
139. Puerperal albuminuria and convulsions .....	..	12	..	..	..	..	..	..	..	..	3	3	4	1	1	..	..	..	..	..	..	..	..	..	..		



Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	6.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col.-Chin- ored. ese.	
139. Puerperal phlegmasia alba dolens .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
140. Other accidents of parturition, sudden death .....	..	5	..	..	..	..	..	..	..	..	..	..	1	2	2	..	..	..	..	..	..	..	..	..	..	..	
141. Puerperal diseases of breast .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
VIII. Diseases of Skin and Cellular Tissue.																											
142. Gangrene .....	..	8	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	1	..	1	..	2	2	1	..
143. Carbuncle .....	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	
144. Phlegmon, acute ab- scess .....	..	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
145. Other diseases of skin and adnexa..	..	4	1	..	..	..	..	1	..	..	..	1	..	..	..	1	..	..	..	1	..	..	..	..	..	..	
IX. Diseases of Lo- comotory System.																											
146. Diseases of bones (non-tuberculous)..	..	4	2	..	1	..	..	3	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
147. Arthritis, other dis- eases of joints (ex- cept tuberculosis and rheumatism)..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
148. Amputation .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
149. Other diseases of or- gans of locomotion	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
X. Malformations.																											
150. Congenital malforma- tions .....	..	12	11	1	..	..	..	12	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
XI. Diseases of In- fancy.																											
151. Congenital debility, icterus and sclere- ma .....	..	106	106	..	..	..	..	106	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	..
151a. Injury during birth.	..	2	2	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
152. Other diseases peculiar to in- fancy .....	..	4	4	..	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
153. Neglect .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
XII. Diseases of Old Age.																											
154. Senile debility.....	..	36	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	6	2	15	10	..	..	
XIII. External Causes.																											
155. Suicide by poison...	..	5	..	..	..	..	..	..	..	..	..	..	1	..	..	1	2	..	1	..	..	..	..	..	..	..	
156. Suicide by asphyxia.	..	6	..	..	..	..	..	..	..	..	..	1	..	..	..	2	..	1	2	..	..	..	..	..	..	..	
157. Suicide by hanging or strangulation..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	
158. Suicide by drowning.	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	
159. Suicide by firearms..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	
160. Suicide by cutting in- struments .....	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	
161. Suicide by precipita- tion from height..	..	3	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	
162. Suicide by crushing.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
163. Suicide by other methods .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
164. Fractures .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
165. Dislocations .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
166. Other accidental in- juries .....	..	26	1	2	3	1	1	8	2	..	..	1	2	2	2	2	1	..	3	1	..	2	..	..	..	..	
167. Burn, by fire, scald.	..	15	1	1	3	1	1	7	1	1	..	..	..	1	..	1	1	1	..	1	..	..	1	..	1	..	
168. Burning by corrosive substances .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
169. Sunstroke .....	..	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
170. Freezing .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
171. Electrical shock.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
172. Accidental drowning.	..	3	..	..	..	..	..	..	..	..	..	..	1	..	2	..	..	..	..	..	..	..	..	..	..	..	
173. Inanition (starvation)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
174. Inhalation of noxious gas, not suicidal..	..	6	..	..	..	..	1	1	..	..	..	..	..	1	..	1	..	2	..	..	1	..	..	..	..	..	
175. Other acute poison- ing .....	..	5	..	..	..	..	..	1	..	..	1	..	1	1	..	..	1	..	..	..	..	..	..	..	..	..	
176. Other external vio- lence .....	..	8	2	..	..	..	..	2	1	..	..	..	..	..	2	1	1	..	1	..	..	..	..	..	..	..	
Of which:																											
a. Homicide, by blows .....	..	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	
b. Homicide, by sharp instru- ments .....	..	2	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	
c. Homicide, by gunshot .....	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	
d. Homicide, by poison .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
e. Homicide, by other methods	..	2	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
XIV. Ill-defined or Not Specified Causes.																											
177. Dropsy .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
178. Sudden death, not puerperal .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
179. Ill-defined causes....	..	24	18	6	..	..	..	24	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
I.—General diseases.....	..	1,087	79	89	54	40	16	278	32	21	45	95	118	113	87	69	47	45	39	35	24	19	12	5	3	51	..
a. Tuberculous dis- eases .....	..	559	10	6	4	7	1	28	7	13	40	85	109	91	72	46	24	19	8	8	4	4	1	..	..	36	..
b. Cancer .....	..	137	..	..	..	..	..	..	..	1	..	1	2	7	7	15	16	20	22	20	11	5	6	2	2	4	..
II.—Diseases of nervous system and organs of sense.....	..	230	27	9	4	3	1	44	9	4	3	2	6	4	4	6	15	17	13	22	26	30	11	10	4	5	..
III.—Diseases of circula- tory system.....	..	235	5	..	..	..	1	6	3	7	7	4	3	9	19	10	22	22	20	26	21	18	20	11	7	7	..
IV.—Diseases of respira- tory system.....	..	414	103	47	17	7	2	176	5	3	2	7	15	11	17	19	15	19	18	23	19	22	18	18	7	16	..
V.—Diseases of digestive system .....	..	273	131	32	5	4	1	173	1	1	4	1	3	10	12	10	8	12	5	7	6	6	7	7	..	5	..
VI.—Diseases of genito- urinary system....	..	228	1	..	1	..	1	3	2	1	4	9	16	14	17	18	14	22	25	27	14	22	16	3	1	18	..
VII.—Puerperal diseases..	..	60	..	..	..	..	..	..	..	2	..	9	16	16	13	3	1	..	..	..	..	..	..	..	..	1	..
VIII.—Diseases of skin and cellular tissue.	..	14	2	..	..	..	..	2	..	..	..	1	1	..	..	1	..	1	2	1	1	..	2	2	1	..	
IX.—Diseases of loco- motory system.....	..	4	2	..	1	..	..	3	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
X.—Malformations .....	..	12	11	1	..	..	..	12	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
XI.—Diseases of infancy..	..	112	112	..	..	..	..	112	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	..
XII.—Diseases of old age.	..	36	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	6	2	15	10	..	..	



Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col.-Chin- ored. ese.
XIII.—External causes...	82	5	3	6	2	3	19	5	1	..	5	4	6	7	5	7	5	5	7	2	..	3	1	..	1	..
a. Suicide .....	18	..	..	..	..	..	..	..	..	..	..	3	1	2	1	..	3	2	2	4	..	..	..	..	..	..
b. Homicide .....	7	1	..	..	..	..	1	1	..	..	..	..	..	..	2	1	1	..	..	1	..	..	..	..	..	..
c. Accident .....	57	4	3	6	2	3	18	4	1	..	2	3	4	6	3	3	2	3	3	1	..	3	1	..	1	..
XIV.—Causes ill-defined...	24	18	6	..	..	..	24	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Total, females....	2,811	1,196	187	88	56	25	852	57	39	67	133	182	183	176	140	130	142	126	150	115	124	89	72	34	111	..

Deaths of Males, by Age, and Cause of Death, for the Year Ending December 31, 1906.  
BOROUGH OF BROOKLYN.

Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col.-Chin- ored. ese.	
I. General Diseases.																											
1. Typhoid fever .....	230	135	..	1	..	1	1	3	2	6	20	25	18	19	12	16	3	5	4	..	..	1	1	..	..	3	..
2. Typhus fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3. Relapsing fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
4. Malarial fever .....	29	16	2	..	..	1	1	4	..	1	1	1	1	2	1	..	1	3	..	..	1	..	..	..	..	1	..
5. Smallpox .....	6	4	..	..	..	..	..	..	..	..	..	..	1	..	2	1	..	..	..	..	..	..	..	..	..	..	..
6. Measles .....	446	226	70	72	42	23	8	215	9	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..
7. Scarlet fever .....	258	126	13	15	24	31	6	89	23	6	1	4	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..
8. Whooping cough.....	132	49	29	11	7	1	..	48	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
9. Diphtheria and croup.	793	433	37	98	82	76	40	333	82	9	5	2	1	..	..	..	1	..	..	..	..	..	..	..	..	3	..
10. Influenza .....	114	45	7	5	..	..	1	13	1	1	1	1	3	1	2	2	..	2	1	7	4	2	2	1	1	4	..
11. Miliary fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
12. Asiatic cholera .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
13. Cholera nostras .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
14. Dysentery .....	71	35	6	3	2	3	1	15	1	..	..	..	1	..	3	3	2	2	1	1	..	4	2	..	..	..	..
15. Plague .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
16. Yellow fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
17. Leprosy .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
18. Erysipelas .....	81	43	11	..	..	1	..	12	1	..	..	..	2	2	4	5	3	3	6	2	3	..	..	..	..	1	..
19. Other epidemic dis- eases .....	9	5	2	2	..	..	..	4	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
20. Pyæmia septicæmia...	7	6	..	..	..	..	..	..	..	..	..	..	1	1	..	1	..	..	..	..	..	..	..	2	1	1	..
21. Glanders .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
22. Malignant pustule....	2	2	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..
23. Hydrophobia .....	2	2	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..
24. Actinomycosis .....	1	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
24a. Trichinosis .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
25. Pellagra .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
26. Tuberculosis of larynx .....	30	22	..	..	..	1	..	1	..	..	1	1	1	6	3	3	4	2	..	..	..	..	..	..	..	..	..
27. Tuberculosis of lungs	2,557	1,504	8	5	2	2	2	19	3	14	84	147	189	242	253	194	145	101	42	35	22	11	2	1	..	34	1
28. Tubercular meningitis	207	120	35	22	10	15	5	87	8	6	6	2	..	2	2	3	3	1	..	..	..	..	..	..	..	4	..
29. Abdominal tuberculosis	68	38	9	5	1	1	1	17	1	1	2	1	2	2	2	2	2	3	3	..	..	..	..	..	..	..	..
30. Potts' disease.....	19	7	..	1	..	1	..	2	1	..	1	..	1	..	1	1	..	..	..	..	..	..	..	..	..	..	..
31. Cold abscess .....	3	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
32. White swelling .....	16	9	..	1	..	..	..	1	2	2	..	3	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
33. Tuberculosis of other organs.....	15	10	1	..	..	..	..	1	..	1	..	1	1	..	1	3	..	1	1	..	..	..	..	..	..	1	..
34. General tuberculosis..	31	21	5	3	1	..	..	9	..	..	3	1	2	1	3	2	..	..	..	..	..	..	..	..	..	..	..
35. Scrofula .....	5	5	3	1	1	..	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
36. Syphilis .....	51	37	18	2	..	..	2	22	..	..	..	1	2	2	3	3	1	1	1	..	1	..	..	..	..	2	..
37. Gonorrhœa (adults)..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
38. Gonorrhœa (children)	1	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
39. Cancer, etc., of the mouth .....	42	35	..	..	..	..	..	..	..	..	..	..	1	..	1	2	3	3	3	8	4	6	1	3	..	..	..
40. Cancer of stomach, liver .....	434	194	..	..	..	..	..	..	..	..	..	2	2	3	9	17	24	35	23	24	21	17	12	4	1	3	..
41. Cancer of intestines, rectum .....	113	41	..	..	..	..	..	..	..	..	1	..	1	..	4	6	2	4	8	3	4	5	2	1	..	1	..
42. Cancer of female genital organs ....	145	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
43. Cancer of the breast.	99	4	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	1	1	..	1	..
44. Cancer of the skin..	13	10	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	2	..	..	1	3	1	1	1	..	..
45. Cancer of other or- gans and unspecified	129	59	..	..	..	1	..	1	2	..	2	2	1	1	3	7	5	6	9	3	5	7	3	1	1	..	..
46. Other tumors (except of female genital organs) .....	10	2	1	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
47. Acute articular rheu- matism .....	141	54	3	2	1	..	..	6	3	3	4	4	3	2	3	5	3	3	4	4	2	2	..	1	..	..	..
48. Chronic rheumatism and gout .....	40	19	2	..	..	..	..	2	1	..	1	1	1	2	..	..	..	2	..	2	4	1	1	1	..	..	..
49. Scurvy .....	3	2	2	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
50. Diabetes .....	207	85	..	..	..	..	..	..	2	..	1	2	..	4	2	5	6	17	12	12	9	7	4	2	..	..	..
51. Exophthalmic goitre..	5	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..
52. Addison's disease....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
53. Leukæmia .....	18	12	..	..	..	..	..	..	1	1	1	..	1	..	1	1	3	1	..	1	1	..	..	..	..	1	..
54. Anæmia, chlorosis ...	27																										



Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col.-Chin- ored. etc.
61a. (Of which) cerebro- spinal meningitis..	184	105	14	13	13	7	5	52	15	12	7	6	4	3	3	1	1	1	..	..	..	..	..	..	..	1
62. Locomotor ataxia.....	30	24	..	..	..	..	..	..	..	..	..	..	..	3	5	2	4	4	3	2	1	..	..	..	..	..
63. Other diseases of spinal cord .....	60	35	..	..	2	..	..	2	3	..	..	..	..	2	3	1	2	..	5	6	5	3	3	..	..	2
64. Apoplexy, congestion of brain .....	1,048	499	1	..	1	1	..	3	..	..	2	3	3	11	9	21	30	56	59	70	64	67	57	33	11	7
65. Softening of brain...	26	14	..	..	..	..	1	1	..	..	..	..	..	1	1	2	1	1	1	..	3	..	2	1	..	..
66. Paralysis unspecified..	55	24	..	..	..	..	..	..	..	..	1	1	..	..	1	..	1	2	2	3	2	3	4	3	1	3
67. General paresis .....	56	40	..	..	..	..	..	..	..	..	..	..	2	6	7	5	5	4	2	4	3	2	..	..	1	..
68. Other forms of in- sanity .....	26	14	..	..	..	..	..	..	..	..	1	3	1	..	2	1	..	1	1	1	1	2	..	..	..	..
69. Epilepsy .....	51	29	1	1	..	1	..	3	3	..	2	2	6	2	2	1	2	2	..	4	..	..	..	..	..	..
70. Convulsions (not puerperal) .....	1	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
71. Convulsions of in- fants .....	214	124	98	19	4	1	2	124	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6
72. Tetanus, trismus ....	34	25	8	..	..	..	..	8	4	6	1	1	..	..	..	..	1	1	3	..	..	..	..	..	..	..
73. Chorea .....	3	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
74. Other nervous dis- eases .....	61	36	1	2	1	..	..	4	2	..	1	3	4	5	6	2	4	1	1	1	2	..	..	..	..	2
75. Diseases of the eyes..	2	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
76. Diseases of the ears.	33	20	4	3	2	1	..	10	1	1	2	1	..	1	1	1	..	..	1	1	..	..	..	..	..	1
III. Diseases of Cir- culatory System.																										
77. Pericarditis .....	20	13	..	..	..	..	..	..	2	2	..	..	1	1	2	..	2	1	..	2	..	..	..	..	..	..
78. Acute endocarditis...	333	160	2	..	1	1	..	4	4	1	2	7	10	14	6	7	13	10	17	18	14	21	6	4	2	6
79. Organic heart diseases	1,651	846	9	2	..	1	1	13	11	14	16	21	27	32	47	60	59	78	101	96	106	79	55	24	7	14
80. Angina pectoris .....	93	61	..	..	..	..	..	..	..	..	..	..	1	3	2	5	4	7	12	9	10	4	3	1	..	1
81. Diseases of arteries, aneurism, etc.....	75	45	..	..	..	..	..	..	..	..	..	..	1	1	1	..	..	4	6	5	9	9	2	5	2	4
82. Embolism, thrombosis	60	22	..	..	..	..	..	..	..	..	..	..	1	1	..	..	2	5	1	2	2	4	2	1	1	1
83. Diseases of veins (hemorrhoids, vari- ces, phlebitis, etc.)..	11	3	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	1	..	..	..	..	..	..	..
84. Diseases of lymphatics (lymphangitis, etc.)..	4	3	1	1	..	1	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
85. Hemorrhage .....	13	8	4	..	..	..	..	4	1	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..
86. Other diseases of cir- culatory system....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
IV. Diseases of Respi- ratory System.																										
87. Diseases of nasal fossae .....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
88. Diseases of the larynx	24	13	6	15	..	..	..	11	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
89. Diseases of thyroid gland .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
90. Acute bronchitis.....	524	263	181	28	7	7	2	225	5	1	1	1	..	..	2	1	4	2	1	1	6	3	4	4	2	8
91. Chronic bronchitis....	175	73	4	1	..	..	..	5	1	..	1	..	2	1	..	1	5	6	6	8	13	8	6	6	4	..
92. Broncho-pneumonia...	1,460	743	304	173	66	21	13	577	23	5	8	3	10	9	16	8	12	7	7	16	9	14	15	2	2	9
93. Pneumonia .....	2,097	1,216	171	118	37	23	12	361	37	13	24	46	47	87	85	89	86	59	57	79	53	50	26	9	8	26
94. Pleurisy .....	78	49	1	6	1	1	1	10	1	1	3	2	6	3	4	1	3	3	1	2	2	4	1	2	..	..
95. Congestion of lungs, pulmonary, apoplexy	27	15	3	1	..	..	..	4	..	1	..	1	..	..	..	2	..	..	..	1	..	2	1	1	2	1
96. Gangrene of lung....	8	5	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	4	..	..	..	..	..	..
97. Asthma .....	61	33	..	..	..	..	..	..	1	..	..	..	1	..	1	..	4	..	4	4	8	6	2	2	..	1
98. Pulmonary emphysema	8	5	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	..	1	..	1	..	..	..	..
99. Other diseases of res- piratory system (phthisis excepted)	52	35	..	..	..	..	..	..	..	..	1	2	1	7	6	2	8	1	3	1	1	1	..	..	1	3
V. Diseases of Diges- tive System.																										
100. Diseases of mouth and adnexa .....	5	4	1	1	..	..	..	2	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..
101. Diseases of pharynx..	17	10	1	2	1	..	..	4	..	..	1	1	1	2	..	..	1	..	..	..	..	..	..	..	..	..
102. Diseases of Oesophagus	4	3	..	..	..	..	1	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..
103. Ulcer of the stomach	50	29	1	..	..	..	..	1	1	..	..	2	2	4	4	4	5	1	..	1	1	3	..	..	..	..
104. Other diseases of stomach (cancer ex- cepted) .....	181	104	31	6	5	2	1	45	1	1	..	3	3	2	5	2	4	6	7	7	1	2	7	5	3	4
105. Diarrhoea and enteritis (under two years).	2,007	1,139	976	163	..	..	..	1,139	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	21
(Of which)																										
106. Chronic diarrhoea..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
106. Diarrhoea and enteritis (two years and over) .....	259	128	..	..	34	10	6	50	8	3	..	4	6	4	3	4	3	3	4	7	4	6	10	7	2	3
107. Intestinal parasites ..	2	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
108. Hernia, intestinal ob- struction .....	162	71	10	1	2	..	..	13	..	1	2	4	2	1	3	2	3	8	2	6	12	6	3	1	2	1
109. Other diseases of in- testines .....	32	15	4	..	2	..	..	6	2	..	1	..	..	..	..	1	..	..	2	1	..	2	..	..	..	2
110. Acute yellow atrophy of liver .....	6	2	..	..	..	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
111. Hydatid tumor of liver .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
112. Cirrhosis of liver....	384	231	..	..	..	..	1	1	..	..	..	3	9	18	21	30	37	29	22	29	13	12	3	3	1	3
113. Biliary calculi .....	27	6	..	..	..	..	..	..	..	..	..	..	..	..	1	2	..	..	..	1	1	..	..	..	1	..
114. Other diseases of liver	47	22	..	..	..	..	..	..	..	..	..	2	1	2	3	2	3	3	1	..	1	1	1	2	..	..
115. Diseases of spleen...	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
116. Simple peritonitis (non-puerperal) ...	10	4	..	..	..	..	..	..	2	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..
117. Other diseases of di- gestive system (ex- cept tuberculosis and cancer) .....	3	3	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1	..	..	..	..	..	..
118. Appendicitis and iliac abscess .....	171	105	1	1	1	..	2	5	6	8	16	11	11	15	4	6	8	5	5	3	..	1	1	..	..	1
VI. Diseases of Gen- ito-urinary System.																										
119. Acute nephritis .....	228	120	10	1	7	3	1	22	8	2	6	3	8	11	17	7	9	10	3	5	2	4	2	1	..	..
120. Bright's disease .....	1,848	958	1	5	..	4	..	10	11	8	14	20	37	50	77	85	76	102	92	107	119	66	44	31	9	14
121. Other diseases of kid- neys and adnexa..	22	12	..	..	..	..	..	..	..	..	..	..	2	2	2	..	..	..	2	2	1	1	..	..	..	..
122. Urinary calculus ....	4	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..
123. Diseases of bladder..	45	35	..	..	1	..	..	1	..	..	..	..	..	2	..	1										



Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col-Chin- ored. ese.
128. Uterine hæmorrhage (not puerperal)...	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
129. Uterine tumor (not cancer) .....	26	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
130. Other diseases of uterus .....	15	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
131. Ovarian cysts and tumors .....	25	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
132. Other diseases of fe- male genital organs	44	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
133. Diseases of breast (not puerperal, nor cancer) .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
VII. Puerperal Dis- eases.																										
134. Accidents of preg- nancy .....	54	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
135. Puerperal hæmorrhage	12	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
136. Other accidents of labor .....	56	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
137. Puerperal septicæmia.	79	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
138. Puerperal albuminuria and convulsions...	38	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
139. Puerperal phlegmasia alba dolens .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
140. Other accidents of parturition, sudden death .....	10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
141. Puerperal diseases of breast .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
VIII. Diseases of Skin and Cellular Tissue.																										
142. Gangrene .....	32	13	..	..	1	..	..	1	1	..	..	..	..	..	..	1	..	1	..	..	2	1	4	1	1	..
143. Carbuncle .....	11	8	..	..	..	..	..	..	..	..	..	..	1	..	..	2	..	..	..	2	2	..	1	..	..	..
144. Phlegmon, acute abscess .....	19	13	1	..	..	..	..	1	..	..	..	..	..	3	..	3	1	1	..	2	..	2	..	..	..	..
145. Other diseases of skin and adnexa .....	8	4	2	..	..	..	..	2	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..
IX. Diseases of Loco- motory System.																										
146. Diseases of bones (non-tuberculous)...	48	24	6	3	2	..	1	12	1	2	1	1	..	..	1	1	1	1	2	..	1	..	..	..	..	2
147. Arthritis, other dis- eases of joints (ex- cept tuberculosis and rheumatism)...	5	3	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
148. Amputation .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
149. Other diseases of or- gans of locomotion.	1	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
X. Malformations.																										
150. Congenital malforma- tions .....	309	165	151	7	1	1	2	162	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3
XI. Diseases of In- fancy.																										
151. Congenital debility, icterus and sclerema	926	559	558	1	..	..	..	559	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10
151a. Injury during birth..	106	60	60	..	..	..	..	60	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
152. Other diseases pecu- liar to infancy....	49	36	35	1	..	..	..	36	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
153. Neglect .....	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
XII. Diseases of Old Age.																										
154. Senile debility .....	393	150	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	3	13	11	35	40	46	1
XIII. External Causes.																										
155. Suicide by poison...	41	34	..	..	..	..	..	..	..	..	1	4	3	3	8	4	2	2	4	1	2	..	..	..	..	..
156. Suicide by asphyxia..	49	34	..	..	..	..	..	..	..	1	..	2	1	5	3	4	1	1	5	6	..	3	2	..	..	..
157. Suicide by hanging or strangulation .....	21	17	..	..	..	..	..	..	..	..	..	1	1	1	2	3	3	..	2	4	..	..	..	..	..	..
158. Suicide by drowning.	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
159. Suicide by firearms..	70	66	..	..	..	..	..	..	..	1	4	3	9	5	8	3	6	9	7	2	5	2	..	1	1	1
160. Suicide by cutting in- struments .....	16	15	..	..	..	..	..	..	..	..	..	..	1	1	2	1	..	2	4	2	1	1	..	..	..	..
161. Suicide by precipita- tion from height..	5	2	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..
162. Suicide by crushing..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
163. Suicide by other meth- ods .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
164. Fractures .....	29	24	..	..	..	..	..	..	1	2	1	2	1	6	3	1	2	..	..	3	..	1	..	1	..	..
165. Dislocations .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
166. Other accidental in- juries .....	571	469	2	4	8	8	9	31	49	16	15	49	37	42	44	55	26	33	17	25	14	8	3	3	2	5
167. Burn, by fire, scald..	122	48	6	7	7	4	3	27	3	..	1	1	..	3	2	1	1	3	4	1	..	..	1	..	..	..
168. Burning by corrosive substances .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
169. Sunstroke .....	28	18	1	..	..	..	..	1	..	1	1	1	2	3	2	2	1	1	..	2	..	..	1	..	..	..
170. Freezing .....	4	4	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	1	1	..	..	..	..	..	..
171. Electrical shock.....	10	10	..	..	..	..	..	..	..	1	..	2	2	3	..	1	1	..	..	..	..	..	..	..	..	..
172. Accidental drowning..	134	125	..	..	..	..	..	..	7	13	14	14	9	9	15	15	12	4	4	4	2	1	1	1	..	5
173. Inanition (starvation)	1	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
174. Inhalation of noxious gas, not suicidal..	91	62	1	..	..	..	1	2	..	1	5	5	6	10	6	8	3	2	5	4	2	2	1	..	..	3
175. Other acute poisoning	34	16	2	1	..	..	1	4	3	..	2	..	1	2	..	..	2	..	..	1	..	1	..	..	..	1
176. Other external violence (Of which)	102	81	4	..	..	..	1	5	..	2	6	12	11	6	20	5	6	6	1	1	..	..	..	..	..	1
a. Homicide, by blows .....	12	12	..	..	..	..	1	1	..	..	..	2	3	1	3	..	..	1	1	..	..	..	..	..	..	..
b. Homicide, by sharp instru- ments .....	20	17	..	..	..	..	..	..	..	3	2	4	1	3	1	1	2	..	..	..	..	..	..	..	..	..
c. Homicide, by gunshot .....	46	41	..	..	..	..	..	..	..	1	3	7	4	3	12	4	4	2	..	1	..	..	..	..	..	1
d. Homicide, by poison .....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
e. Homicide, by other methods...	2	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
XIV. Ill-defined or Not Specified Causes.																										
177. Dropsy .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
178. Sudden death, not puerperal .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
179. Ill-defined causes....	283	153	131	18	1	1	..	151	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	7
I.—General diseases .....	6,804	3,599	268	250	173	158	68	917	147	51	136	206	258	330	353	318	232	210	129	105	83	67	32	19	6	62
a. Tubercular diseases.	2,946	1,732	59	37	14	20	8	138	15	24	97	156	197	253	265	208	154	108	46	35	22	11	2	1	..	39
b. Cancer .....	975	343	..	..	..	1	..	1	2	..	3	4	5	5	17	33	34	50	44	38	35	38	20	11	13	5



Deaths of Females, by Age, and Cause of Death, for the Year Ending December 31, 1906.

[illegible]



Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col.-Chin- ored. etc.	
47. Acute articular rheumatism .....	87	1	1	..	3	6	11	10	5	5	3	6	5	3	4	6	7	3	3	8	3	2	..	1	2	..	
48. Chronic rheumatism and gout .....	21	..	..	..	..	1	1	3	1	..	..	..	2	2	..	2	..	..	..	5	2	3	..	..	..	..	
49. Scurvy .....	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
50. Diabetes .....	122	..	..	..	..	..	..	4	..	3	4	4	7	6	8	10	12	16	24	13	8	3	..	1	..	..	
51. Exophthalmic goitre .....	3	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	
52. Addison's disease .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
53. Leukæmia .....	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
54. Anæmia, chlorosis .....	23	1	..	..	..	..	1	1	..	3	2	5	2	1	2	1	1	2	1	1	..	..	..	..	2	..	
55. Other general diseases .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
56. Alcoholism, acute and chronic .....	24	..	..	..	..	..	..	..	..	..	..	..	3	3	6	6	3	3	..	..	..	..	..	..	..	..	
57. Lead poisoning .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
58. Other chronic poisonings of occupation .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
59. Other chronic poisonings .....	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	
II. Diseases of Nervous System and Organs of Sense.																											
60. Encephalitis .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
61. Simple meningitis.... Of which .....	135	29	24	11	11	8	83	17	11	4	5	9	2	1	1	..	1	1	..	..	..	..	..	..	..	5	..
61a. Cerebro-spinal meningitis .....	79	8	11	8	7	8	42	10	9	3	5	7	1	1	..	..	1	..	..	..	..	..	..	..	..	2	..
62. Locomotor ataxia .....	6	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	3	..	..	1	..	..	..	..	..	..	
63. Other diseases of spinal cord .....	25	..	..	..	1	..	1	2	..	1	1	1	2	1	..	2	2	4	2	4	1	1	..	..	..	..	
64. Apoplexy, congestion of brain .....	549	3	..	..	..	..	3	..	1	..	1	2	9	11	25	32	56	64	85	65	80	60	30	25	13	..	
65. Softening of brain....	12	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	1	1	..	1	3	4	..	..	
66. Paralysis, unspecified.	31	..	..	..	..	..	..	..	..	1	..	1	1	1	1	1	3	1	5	4	3	5	1	4	1	..	
67. General paresis .....	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	2	2	4	1	3	2	1	..	
68. Other forms of insanity .....	12	..	..	..	..	..	..	..	..	1	..	2	1	1	..	1	1	2	1	1	1	..	..	..	..	..	
69. Epilepsy .....	22	..	1	..	1	..	2	2	1	..	2	1	3	..	4	2	1	1	1	1	1	..	..	..	..	..	
70. Convulsions (not puerperal) .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
71. Convulsions of infants .....	90	75	10	2	2	1	90	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
72. Tetanus, trismus.....	9	6	..	..	..	..	6	..	..	..	..	..	1	..	1	..	1	..	..	..	..	..	..	..	..	..	
73. Chorea .....	2	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	
74. Other nervous diseases .....	25	1	..	..	1	..	2	..	2	2	1	2	2	4	2	2	1	1	1	1	2	..	..	..	1	..	
75. Diseases of the eyes..	1	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
76. Diseases of the ears..	13	2	1	1	..	..	4	1	1	1	..	1	..	2	..	..	2	..	..	..	..	..	..	1	..	..	
III. Diseases of Circulatory System.																											
77. Pericarditis .....	7	..	..	..	..	..	..	1	1	1	..	..	1	..	..	1	..	..	..	..	1	..	1	..	..	..	
78. Acute endocarditis....	173	2	..	1	2	1	6	3	4	4	5	8	11	11	13	8	12	15	14	18	19	14	5	3	4	..	
79. Organic heart diseases .....	805	4	2	1	..	..	7	15	15	16	18	29	30	42	46	51	75	80	94	101	79	58	33	17	17	..	
80. Angina pectoris.....	32	..	..	..	..	..	..	..	..	..	..	..	..	1	2	5	..	2	5	7	2	1	..	..	..	..	
81. Diseases of arteries, aneurism, etc.....	29	..	..	..	..	..	..	..	..	..	..	1	1	..	..	2	2	2	2	6	4	3	2	4	1	..	
82. Embolism, thrombosis .....	38	..	..	..	..	..	..	1	..	1	2	2	..	3	3	1	1	5	4	6	6	3	..	..	..	..	
83. Diseases of veins (hemorrhoids, varices, phlebitis, etc.) .....	8	1	..	..	..	..	1	..	..	..	..	..	2	..	..	1	1	..	..	..	2	1	..	..	..	..	
84. Diseases of lymphatics (lymphangitis, etc.) .....	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
85. Hemorrhage .....	5	1	..	..	..	..	1	1	2	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	
86. Other diseases of circulatory system....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
IV. Diseases of Respiratory System.																											
87. Diseases of nasal fossæ .....	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
88. Diseases of the larynx .....	11	2	4	2	..	..	8	..	..	..	..	..	..	1	..	..	1	..	..	1	..	..	..	..	..	..	
89. Diseases of thyroid gland .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
90. Acute bronchitis.....	261	147	38	13	3	6	207	5	..	1	..	..	..	..	..	1	..	4	7	6	10	7	9	3	6	..	
91. Chronic bronchitis....	102	1	2	3	..	1	7	..	3	..	3	..	2	3	4	..	7	6	14	18	8	13	10	4	2	..	
92. Broncho-pneumonia....	717	289	156	50	21	14	530	24	7	3	7	4	1	8	3	5	9	20	19	17	24	15	16	5	8	..	
93. Pneumonia .....	881	106	71	44	20	18	259	27	16	17	31	27	43	33	39	48	49	63	66	55	43	36	15	14	20	..	
94. Pleurisy .....	29	1	2	2	1	..</																					



Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col-Chin- ored. ese.
113. Biliary calculi.....	21	..	..	..	..	..	..	..	..	..	..	1	1	1	3	..	4	3	3	1	2	1	1	..	..	..
114. Other diseases of liver ..	25	2	..	..	..	..	..	2	..	..	..	1	1	3	1	3	..	2	2	3	3	1	3	..	..	1
115. Diseases of spleen....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	
116. Simple peritonitis (non- <i>puerperal</i> ).....	6	..	..	..	..	..	..	..	..	1	..	..	..	2	2	..	..	..	..	..	1	..	1	..	..	
117. Other diseases of di- gestive system (ex- cept tuberculosis and cancer).....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
118. Appendicitis and iliac abscess .....	66	..	..	..	..	1	2	3	5	12	10	3	8	3	5	5	3	4	3	..	2	..	..	..	..	1
VI. Diseases of Gen- ito-urinary System.																										
119. Acute nephritis.....	108	4	1	4	3	2	14	3	8	3	7	12	8	11	9	2	2	6	5	8	6	2	1	1	2	..
120. Bright's disease.....	890	4	..	1	1	1	7	7	8	11	28	44	48	63	63	69	81	75	94	108	69	64	34	17	12	..
121. Other diseases of kid- neys and adnexa..	10	1	..	..	..	..	1	..	..	..	..	..	..	1	1	1	..	1	3	1	..	..	1	..	..	..
122. Urinary calculus.....	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..
123. Diseases of bladder..	10	1	..	..	..	..	1	..	..	..	..	..	1	1	..	..	2	1	..	2	1	1	..	..	..	..
124. Diseases of urethra, urinary abscess, etc.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
125. Diseases of the pros- tate .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
126. Non-venereal diseases of male genital or- gans .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
127. Metritis .....	6	..	..	..	..	..	..	..	..	..	1	1	2	1	..	..	1	..	..	..	..	..	..	..	..	..
128. Uterine hemorrhage (not <i>puerperal</i> )....	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
129. Uterine tumor (not cancer) .....	26	..	..	..	..	..	..	..	..	..	..	1	1	..	11	4	2	2	3	1	1	..	..	..	..	2
130. Other diseases of uterus .....	15	..	..	..	..	..	..	..	..	2	1	1	5	1	2	1	1	1	..	..	..	..	..	..	..	..
131. Ovarian cysts and tumors .....	25	..	..	..	..	..	..	..	..	..	1	1	6	2	..	4	3	4	2	1	..	..	..	..	1	..
132. Other diseases of fe- male genital organs	44	..	..	..	..	..	..	..	..	2	9	11	6	10	4	..	2	..	..	..	..	..	..	..	..	3
133. Diseases of breast (not <i>puerperal</i> , nor can- cer) .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
VII. Puerperal Diseases.																										
134. Accidents of pregnancy	54	..	..	..	..	..	..	..	..	1	7	13	23	8	2	..	..	..	..	..	..	..	..	..	..	..
135. Puerperal hemorrhage ..	12	..	..	..	..	..	..	..	..	..	3	1	2	2	2	2	..	..	..	..	..	..	..	..	..	..
136. Other accidents of la- bor .....	56	..	..	..	..	..	..	..	2	8	11	11	15	7	2	..	..	..	..	..	..	..	..	..	..	1
137. Puerperal septicæmia.	79	..	..	..	..	..	..	..	3	24	17	21	9	5	..	..	..	..	..	..	..	..	..	..	..	2
138. Puerperal albuminuria and convulsions....	38	..	..	..	..	..	..	..	2	7	8	12	6	2	1	..	..	..	..	..	..	..	..	..	..	..
139. Puerperal phlegmasia alba dolens.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
140. Other accidents of par- tition, sudden death .....	10	..	..	..	..	..	..	..	..	..	2	3	2	3	..	..	..	..	..	..	..	..	..	..	..	..
141. Puerperal diseases of breast .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
VIII. Diseases of Skin and Cellular Tissue.																										
142. Gangrene .....	19	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	1	2	6	4	3	..	..	..
143. Carbuncle .....	3	..	..	1	..	..	1	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..
144. Phlegmon, acute ab- scess .....	6	..	..	1	..	..	1	2	..	..	..	..	2	..	..	..	..	1	..	..	..	..	..	..	..	..
145. Other diseases of skin and adnexa.....	4	2	..	..	..	..	2	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..
IX. Diseases of Loco- motory System.																										
146. Diseases of bones (non- tuberculous) .....	24	8	4	2	..	..	14	2	3	2	1	1	..	..	..	1	..	..	..	..	..	..	..	..	..	4
147. Arthritis, other dis- eases of joints (ex- cept tuberculosis and rheumatism)...	2	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..
148. Amputation .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
149. Other diseases of or- gans of locomotion	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
X. Malformations.																										
150. Congenital malforma- tions .....	144	137	5	..	..	..	142	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
XI. Diseases of Infancy.																										
151. Congenital debility, ic- terus and sclerema ..	367	367	..	..	..	..	367	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	15
151a. Injury during birth.	46	46	..	..	..	..	46	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
152. Other diseases peculiar to infancy.....	13	13	..	..	..	..	13	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
153. Neglect .....	3	3	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
XII. Diseases of Old Age.																										
154. Senile debility.....	243	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	2	10	41	56	65	66	3	..
XIII. External Causes.																										
155. Suicide by poison...	7	..	..	..	..	..	..	..	..	..	2	1	1	..	1	..	1	..	..	1	..	..	..	..	..	..
156. Suicide by asphyxia.	15	..	..	..	..	..	..	..	1	..	..	2	2	2	..	2	2	2	1	1	..	..	..	..	..	..
157. Suicide by hanging or strangulaion ...	4	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	1	..	..	1	..	..	..	..	..
158. Suicide by drowning.	2	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
159. Suicide by firearms..	4	..	..	..	..	..	..	..	1	1	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
160. Suicide by cutting in- struments .....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
161. Suicide by precipita- tion from height..	3	..	..	..	..	..	..	..	..	..	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..
162. Suicide by crushing.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
163. Suicide by other meth- ods .....	..	..	..																							



Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col-Chin- ored. ese.
175. Other acute poisoning ..	..	18	..	3	2	..	..	5	..	..	I	4	3	..	2	I	2	..	..	..	..	..	..	..	..	..
176. Other external violence ..	..	21	3	..	..	..	..	3	..	..	I	6	3	2	I	2	I	I	..	I	..	..	..	..	..	..
a. Of which blows ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
b. Homicide by sharp instruments ..	..	3	..	..	..	..	..	..	..	..	..	I	..	..	I	..	..	..	..	I	..	..	..	..	..	..
c. Homicide by gunshot ..	..	5	..	..	..	..	..	..	..	..	..	I	..	I	..	I	I	..	..	..	..	..	..	..	..	..
d. Homicide by poison ..	..	I	..	..	..	..	..	..	..	..	..	..	..	..	..	I	..	..	..	..	..	..	..	..	..	..
e. Homicide by other methods. ....	..	I	..	..	..	..	..	..	..	..	..	..	..	I	..	..	..	..	..	..	..	..	..	..	..	..
XIV. Ill-defined or Not Specified Causes.....																										
177. Dropsy ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
178. Sudden death, not puerperal ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
179. Ill-defined causes....	..	130	116	12	..	I	I	130	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10
I.—General diseases.....	..	3,205	223	211	177	116	79	806	165	82	149	208	237	213	194	212	154	156	158	149	136	93	51	21	21	88
a. Tuberculous dis-eases ..	..	1,214	34	21	15	16	4	90	27	40	114	176	184	161	130	95	56	45	40	19	20	10	3	..	4	53
b. Cancer ..	..	632	..	..	..	I	..	I	I	..	I	I	12	17	30	80	67	77	85	95	70	50	26	11	8	9
II.—Diseases of Nervous system and organs of sense.....	..	948	116	36	15	16	9	192	24	16	9	11	18	22	21	36	40	69	79	98	79	93	68	37	36	22
III.—Diseases of circula-tory system ..	..	1,098	9	2	2	2	I	16	21	22	22	25	40	45	56	64	70	91	104	119	138	118	81	42	24	22
IV.—Diseases of respira-tory system.....	..	2,065	548	273	114	45	39	1,019	60	28	21	46	37	51	50	51	57	71	103	111	104	100	74	54	28	38
V.—Diseases of digestive system ..	..	1,491	755	154	28	20	10	967	22	20	12	12	34	35	38	49	42	44	51	40	47	22	28	17	11	22
VI.—Diseases of genito-urinary system....	..	1,137	10	I	5	4	3	23	10	16	19	47	76	74	89	94	79	96	91	104	119	78	67	36	19	19
VII.—Puerperal diseases... ..	..	249	..	..	..	..	..	..	..	..	8	51	53	71	43	18	5	..	..	..	..	..	..	..	..	3
VIII.—Diseases of skin and cellular tissue. .	..	32	2	..	2	..	..	4	2	..	I	..	..	2	I	..	..	I	2	3	2	6	4	3	I	..

BOROUGH OF QUEENS.

Deaths of Males, by Age, and Cause of Death for the Year Ending December 31, 1906.

[illegible]



Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col-Chin- ored. etc.	
34. General tuberculosis..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	
35. Scrofula .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
36. Syphilis .....	3	3	1	..	..	..	..	1	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	
37. Gonorrhœa (adults)..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
38. Gonorrhœa (children)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
39. Cancers, etc., of the mouth .....	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
40. Cancer of stomach, liver .....	57	25	..	..	..	..	..	..	..	..	..	..	1	1	2	1	3	4	5	4	4	..	..	..	..	..	
41. Cancer of intestines, rectum .....	12	6	..	..	..	..	..	..	..	..	..	..	..	..	2	..	1	..	1	1	1	..	..	..	..	..	
42. Cancer of female gen- ital organs.....	19	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
43. Cancer of the breast..	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
44. Cancer of the skin...	5	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	
45. Cancer of other organs and unspecified....	15	9	..	..	..	..	..	..	..	..	..	1	..	1	..	1	..	1	1	..	1	2	..	1	..	..	
46. Other tumors (except of female genital organs) .....	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
47. Acute articular rheu- matism .....	2	2	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	
48. Chronic rheumatism and gout.....	1	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	
49. Scurvy .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
50. Diabetes .....	32	14	..	..	..	..	..	..	..	..	1	1	2	1	..	1	1	..	..	3	1	2	1	..	..	..	
51. Exophthalmic goitre..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
52. Addison's disease....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
53. Leukæmia .....	2	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	
54. Anæmia, chlorosis....	4	2	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	1	..	..	..	..	..	..	
55. Other general diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
56. Alcoholism, acute and chronic .....	19	18	..	..	..	..	..	..	..	..	..	..	..	2	1	6	5	2	1	1	..	..	..	..	..	..	
57. Lead poisoning.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
58. Other chronic poison- ings of occupation.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
59. Other chronic poison- ings .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
II. Diseases of Nervous System and Organs of Sense.																											
60. Encephalitis .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
61. Simple meningitis.... (Of which)	49	23	7	5	2	1	1	16	3	1	1	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	
61a. Cerebro-spinal menin- gitis .....	16	7	1	2	..	1	1	5	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	
62. Locomotor ataxia....	4	4	..	..	..	..	..	..	..	..	..	..	1	1	1	..	..	..	..	1	..	..	..	..	..	..	
63. Other diseases of spinal cord.....	10	2	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	
64. Apoplexy, congestion of brain.....	157	86	..	..	..	..	..	..	..	..	..	..	..	1	2	5	3	3	7	19	12	13	12	6	3	..	
65. Softening of brain...	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
66. Paralysis unspecified.	5	3	1	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	
67. General paresis.....	14	7	..	..	..	..	..	..	..	..	..	..	..	1	2	3	1	..	..	..	..	..	..	..	..	..	
68. Other forms of in- sanity .....	7	4	..	..	..	..	..	..	..	..	..	1	1	..	..	1	1	..	..	..	..	..	..	..	..	..	
69. Epilepsy .....	6	2	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	
70. Convulsions (not puer- peral) .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
71. Convulsions of infants	46	22	16	6	..	..	..	22	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	
72. Tetanus, trismus....	6	3	2	..	..	..	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	
73. Chorea .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
74. Other nervous diseases	3	2	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	
75. Diseases of the eyes.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
76. Diseases of the ears.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
III. Diseases of Circulatory System.																											
77. Pericarditis .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
78. Acute endocarditis...	9	5	2	..	..	..	..	2	1	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	
79. Organic heart diseases	289	149	..	..	..	..	..	..	5	6	6	3	8	4	8	7	8	11	15	16	26	11	10	3	2	2	
80. Angina pectoris.....	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	
81. Diseases of arteries, aneurism, etc.....	15	10	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1	..	4	..	1	2	..	..	
82. Embolism, thrombosis	8	6	..	..	..	..	..	..	1	..	..	..	..	1	1	..	1	..	..	..	..	2	..	..	..	..	
83. Diseases of veins ( hæmorrhoids, var- ices, phlebitis, etc.)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
84. Diseases of lymphatics (lymphangitis, etc.)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
85. Hæmorrhage .....	3	2	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	
86. Other diseases of cir- culatory system....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
IV. Diseases of Respiratory System.																											
87. Diseases of nasal fossæ .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
88. Diseases of the larynx	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
89. Diseases of thyroid gland .....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
90. Acute bronchitis.....	62	33	16	5	3	1	..	25	2	..	..	..	..	..	..	..	..	1	..	1	1	1	1	1	..	..	
91. Chronic bronchitis....	7	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	2	..	..	..	..	
92. Broncho-pneumonia .	212	115	59	20	2	4	4	89	5	..	2	2	2	..	..	1	2	1	2	4	2	1	1	1	1	6	
93. Pneumonia .....	271	147	35	7	6	3	..	51	6	..	2	1	5	8	8	10	18	12	5	6	6	5	1	1	2	5	
94. Pleurisy .....	20	15	1	..	..	..	..	1	..	..	2	1	2	1	..	3	1	1	1	1	..	..	..	..	1	..	
95. Congestion of lungs, pulmonary, apoplexy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
96. Gangrene of lung.....	2	2	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	
97. Asthma .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
98. Pulmonary emphysema	4	2	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	
99. Other diseases of re- spiratory system (phthisis excepted)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
V. Diseases of Digestive System.																											
100. Diseases of mouth and adnexa .....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
101. Diseases of pharynx..	3	3	..	..	..	..	1	1	1	..	..	..															







Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col-Chin- ored. ese.
162. Suicide by crushing..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
163. Suicide by other methods .....	1	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	
164. Fractures .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
165. Dislocations .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
166. Other accidental in- juries .....	155	128	3	1	1	2	2	9	5	..	11	17	17	7	14	17	15	6	2	3	1	2	..	1	1	4
167. Burn, by fire, scald..	31	14	..	3	3	1	2	9	1	..	..	1	..	..	..	1	1	..	1	..	..	..	..	..	..	
168. Burning by corrosive substances .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
169. Sunstroke .....	7	6	..	..	..	..	..	..	..	..	..	1	..	..	2	2	1	..	..	..	..	..	..	..	..	
170. Freezing .....	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	
171. Electrical shock.....	3	3	..	..	..	..	..	..	..	..	..	..	1	..	1	1	..	..	..	..	..	..	..	..	..	
172. Accidental drowning..	59	51	..	..	1	..	..	1	1	7	5	7	8	4	5	3	7	..	2	..	1	..	..	..	..	
173. Inanition (starvation)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
174. Inhalation of noxious gas, not suicidal...	18	14	..	..	..	..	..	..	..	..	1	..	..	1	2	2	..	1	1	2	2	1	1	..	1	
175. Other acute poisoning	7	6	..	1	..	..	2	3	..	..	..	..	1	..	..	1	..	..	1	..	..	..	..	..	1	
176. Other external vio- lence .....	15	10	1	..	..	..	..	1	..	1	1	2	..	2	..	2	..	..	..	..	..	..	..	1	1	
(Of which)																										
a. Homicide, by blows .....	2	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
b. Homicide, by sharp instru- ments .....	3	3	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	1	..	..	
c. Homicide, by gunshot .....	4	4	..	..	..	..	..	..	..	..	1	1	..	1	..	1	..	..	..	..	..	..	..	..	..	
d. Homicide, by poison .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
e. Homicide, by other methods.	1	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	
XIV. Ill-defined or Not Specified Causes.																										
177. Dropsy .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
178. Sudden death, not puerperal .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
179. Ill-defined causes....	50	34	30	2	1	1	..	34	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
I.—General diseases.....	763	413	21	21	17	7	16	82	19	9	16	33	27	41	29	33	35	22	19	18	13	13	2	2	..	5
a. Tuberculous dis- eases .....	349	204	5	4	1	..	1	11	3	..	12	28	22	30	21	17	26	10	9	7	4	3	1	..	..	4
b. Cancer .....	119	42	..	..	..	..	..	..	..	..	..	1	..	2	1	5	1	6	5	7	6	7	..	1	..	..
II.—Diseases of nervous sys- tem and organs of sense .....	310	158	26	11	2	1	1	41	4	2	1	2	3	3	5	8	10	5	7	20	12	13	13	6	3	2
III.—Diseases of circulatory system .....	326	173	2	..	..	..	..	2	7	6	6	3	8	6	9	9	9	13	15	17	28	15	12	4	4	2
IV.—Diseases of respiratory system .....	581	318	111	32	11	8	5	162	13	..	6	4	9	9	8	14	20	16	8	11	11	8	7	3	4	11
V.—Diseases of digestive system .....	555	304	194	24	6	2	3	229	2	1	2	4	3	3	9	8	10	4	10	7	2	5	1	2	2	4
VI.—Diseases of genito- urinary system....	323	179	4	1	1	1	..	7	1	1	..	2	6	10	13	17	20	15	16	20	19	14	6	10	2	5
VII.—Puerperal diseases...	40	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
VIII.—Diseases of skin and cellular tissue.....	15	7	..	..	1	..	..	1	..	..	..	..	..	..	..	..	1	2	1	..	2	..	..	..	..	
IX.—Diseases of locomotory system .....	6	2	1	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	
X.—Malformations .....	19	8	8	..	..	..	..	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
XI.—Diseases of infancy...	183	106	106	..	..	..	..	106	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	
XII.—Diseases of old age..	68	25	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	6	5	11	1	
XIII.—External causes....	344	274	4	5	5	3	6	23	7	8	19	31	31	20	28	34	31	10	13	6	5	3	2	2	1	7
a. Suicide .....	48	41	..	..	..	..	..	..	..	..	1	3	4	6	4	5	6	3	6	1	1	..	1	..	..	..
b. Homicide .....	10	9	..	..	..	..	..	..	..	1	1	2	..	2	..	2	..	..	..	..	..	..	1	..	..	..
c. Accident .....	286	224	4	5	5	3	6	23	7	7	17	26	27	12	24	27	25	7	7	5	4	3	1	1	1	7
XIV.—Causes ill-defined...	50	34	30	2	1	1	..	34	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total males.....	..	2,001	507	96	44	23	31	701	53	27	50	80	87	92	101	123	135	86	90	100	91	75	49	34	27	38
Total females.....	..	1,582	396	80	24	26	26	552	57	28	31	38	68	69	82	60	73	68	61	81	88	79	69	50	28	42
Total both sexes	..	3,583	903	176	68	49	57	1,253	110	55	81	118	155	161	183	183	208	154	151	181	179	154	118	84	55	80

## BOROUGH OF QUEENS.

Deaths of Females, by Age, and Cause of Death for the Year Ending December 31, 1906.

Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col. Chin- ored. ese.	
I. General Diseases.																											
1. Typhoid fever.....	..	9	..	..	..	..	..	..	2	..	2	1	1	..	1	1	1	..	..	..	..	..	..	..	..	..	
2. Typhus fever.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
3. Relapsing fever.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
4. Malarial fever.....	..	3	..	..	..	1	..	1	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	
5. Smallpox .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
6. Measles .....	..	16	2	6	4	1	2	15	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	
7. Scarlet fever.....	..	6	..	1	..	2	..	3	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
8. Whooping cough....	..	9	6	3	..	..	..	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
9. Diphtheria and croup	..	44	1	5	5	10	6	27	17	..	..	..	..	..	..	..	..	..	2	..	2	..	2	..	..	..	
10. Influenza .....	..	7	..	..	..	..	..	..	..	..	1	..	..	..	..	1	1	..	..	..	2	..	2	..	..	..	
11. Miliary fever.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
12. Asiatic cholera.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
13. Cholera nostras.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	
14. Dysentery .....	..	4	2	..	..	..	..	2	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	
15. Plague .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
16. Yellow fever.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
17. Leprosy .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
18. Erysipelas .....	..	3	2	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	



Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col.-Chin- ored. ese.	
19. Other epidemic dis- eases .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
20. Pymia, septicæmia...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
21. Glanders .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
22. Malignant pustule...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
23. Hydrophobia .....	..	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
24. Actinomycosis .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
24a. Trichinosis .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
25. Pellagra .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
26. Tuberculosis of lar- ynx .....	..	2	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	
27. Tuberculosis of lungs	..	124	1	1	..	..	..	2	3	4	9	17	22	18	17	10	9	4	3	3	2	1	..	..	..	2	
28. Tubercular meningi- tis .....	..	14	6	3	1	1	1	12	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	3	
29. Abdominal tuberculo- sis .....	..	3	1	..	..	..	..	1	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	
30. Potts' disease.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
31. Cold abscess.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
32. White swelling.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
33. Tuberculosis of other organs .....	..	2	..	..	..	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	
34. General tuberculosis..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
35. Scrofula .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
36. Syphilis .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
37. Gonorrhœa (adults)..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
38. Gonorrhœa (children)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
39. Cancers, etc., of the mouth .....	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	
40. Cancer of stomach, liver .....	..	32	..	..	..	..	..	..	..	..	..	..	..	1	2	2	4	4	6	7	4	..	1	1	..	..	
41. Cancer of intestines, rectum .....	..	6	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	1	..	..	2	..	..	..	..	..	
42. Cancer of female genital organs....	..	19	..	..	..	..	..	..	..	..	..	..	..	4	3	3	3	1	1	1	2	1	..	..	..	..	
43. Cancer of the breast.	..	9	..	..	..	..	..	..	..	..	..	..	..	2	..	..	2	1	..	1	3	..	..	..	..	..	
44. Cancer of the skin..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	2	..	..	..	..	
45. Cancer of other or- gans and unspeci- fied .....	..	6	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	..	1	..	2	..	..	..	..	
46. Other tumors (except of female genital organs) .....	..	2	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	1	
47. Acute articular rheu- matism .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
48. Chronic rheumatism and gout.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
49. Scurvy .....	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	1	2	..	2	5	1	3	1	..	..	..	
50. Diabetes .....	..	18	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	
51. Exophthalmic goitre..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
52. Addison's disease....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
53. Leukæmia .....	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	
54. Anæmia, chlorosis...	..	2	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	
55. Other general dis- eases .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
56. Alcoholism, acute and chronic .....	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	
57. Lead poisoning.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
58. Other chronic poison- ings of occupation.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
59. Other chronic poison- ings .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
II. Diseases of Nervous System and Organs of Sense.																											
60. Encephalitis .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
61. Simple meningitis...	..	26	10	4	1	1	2	18	1	3	..	..	..	1	..	..	1	2	..	..	..	..	..	..	..	..	
Of which:																											
61a. Cerebro-spinal menin- gitis .....	..	9	2	1	1	1	..	5	1	1	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	
62. Locomotor ataxia....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
63. Other diseases of spinal cord.....	..	8	..	..	..	1	..	1	1	..	..	1	1	..	..	2	1	..	..	..	..	..	..	1	..	..	
64. Apoplexy, congestion of brain.....	..	71	..	1	..	..	..	1	..	..	..	..	1	2	2	3	6	5	7	12	14	7	8	3	..	1	
65. Softening of brain..	..	3	..	..																							



Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col.-Chin- ored. ese.	
IV. Diseases of Re- spiratory System.																											
87. Diseases of nasal fossae .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
88. Diseases of the larynx ..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	
89. Diseases of thyroid gland .....	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	
90. Acute bronchitis.....	..	29	17	3	1	..	..	21	1	..	..	..	..	..	..	..	..	2	..	2	1	2	..	..	2	..	
91. Chronic bronchitis...	..	3	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	2	..	..	
92. Broncho-pneumonia..	..	97	33	20	3	2	3	61	4	1	..	..	1	1	..	3	..	3	5	5	2	3	2	4	2	3	
93. Pneumonia .....	..	124	19	9	4	1	3	36	3	4	2	2	4	4	5	6	6	7	4	8	10	12	9	1	1	5	
94. Pleurisy .....	..	5	1	..	..	..	..	1	..	..	..	..	1	1	..	..	..	..	..	1	1	..	..	..	..	..	
95. Congestion of lungs, pulmonary, apo- plexy .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
96. Gangrene of lung...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
97. Asthma .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
98. Pulmonary emphyse- ma .....	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	
99. Other diseases of respiratory system (phthisis excepted) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
V. Diseases of Di- gestive System.																											
100. Diseases of mouth and adnexa.....	..	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
101. Diseases of pharynx..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
102. Diseases of Oesoph- agus .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
103. Ulcer of the stomach ..	..	5	..	..	..	..	..	..	..	..	..	1	..	1	..	1	..	1	..	..	..	1	..	..	..	..	
104. Other diseases of stomach (cancer excepted) .....	..	5	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	1	..	..	1	..	..	1	..	..	
105. Diarrhoea and en- teritis (under two years) .....	..	170	156	14	..	..	..	170	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	
Of which:	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Chronic diarrhoea....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
106. Diarrhoea and en- teritis (two years and over).....	..	18	..	..	1	3	..	4	3	..	..	..	..	..	..	..	1	..	3	..	3	2	1	1	..	..	
107. Intestinal parasites..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
108. Hernia, intestinal ob- struction .....	..	17	3	..	..	..	..	3	..	..	..	..	..	1	2	..	2	1	..	3	2	..	..	3	..	..	
109. Other diseases of in- testines .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
110. Acute yellow atrophy of liver .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
111. Hydatid of liver....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
112. Cirrhosis of liver...	..	13	..	..	..	..	..	..	..	..	..	..	..	2	2	..	..	1	1	2	2	2	1	..	..	..	
113. Biliary calculi.....	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	
114. Other diseases of liver .....	..	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
115. Diseases of spleen..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
116. Simple peritonitis (non-puerperal) ..	..	3	..	..	..	..	1	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	
117. Other diseases of di- gestive system (ex- cept tuberculosis and cancer).....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
118. Appendicitis and iliac abscess .....	..	17	..	..	..	..	..	..	3	3	..	1	..	3	..	..	1	1	4	..	..	1	..	..	..	..	
VI. Diseases of Gen- ito-urinary System.																											
119. Acute nephritis.....	..	18	..	..	..	1	..	1	1	1	..	1	1	4	4	2	..	1	..	1	..	1	..	..	..	..	
120. Bright's disease.....	..	118	..	..	..	..	..	..	..	1	3	1	6	4	9	8	15	11	9	10	14	4	10	11	2	7	
121. Other diseases of kid- neys and adnexa..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
122. Urinary calculus.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
123. Diseases of bladder..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
124. Diseases of urethra, urinary abscess, etc. ....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
125. Diseases of the prostate .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
126. Non-venereal diseases of male genital or- gans .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
127. Metritis .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
128. Uterine hæmorrhage (not puerperal)..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
129. Uterine tumor (not cancer) .....	..	4	..	..	..	..	..	..	..	..	..	..	..	1	..	3	..	..	..	..	..	..	..	..	..	1	
130. Other diseases of uterus .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
131. Ovarian cysts and tumors .....	..	2	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	
132. Other diseases of fe- male genital organs	..	2	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	
133. Diseases of breast (not puerperal, nor cancer) .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
VII. Puerperal Dis- eases.																											
134. Accidents of preg- nancy .....	..	5	..	..	..	..	..	..	..	..	..	2	..	3	..	..	..	..	..	..	..	..	..	..	..	..	
135. Puerperal hæmorrhage ..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	
136. Other accidents of labor .....	..	3	..	..	..	..	..	..	..	..	..	2	..	1	..	..	..	..	..	..	..	..	..	..	..	..	
137. Puerperal septicæmia..	..	20	..	..	..	..	..	..	..	..	2	3	7	6	2	..	..	..	..	..	..	..	..	..	..	1	
138. Puerperal albuminuria and convulsions...	..	3	..	..	..	..	..	..	..	..	..	1	1	..	1	..	..	..	..	..	..	..	..	..	..	..	
139. Puerperal phlegmasia alba dolens.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
140. Other accidents of parturition, sudden death .....	..	8	..	..	..	..	..	..	..	..	..	1	3	3	1	..	..	..	..	..	..	..	..	..	..	..	
141. Puerperal diseases of breast .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
VIII. Diseases of Skin and Cellular Tissue.																											
142. Gangrene .....	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	3	1	..	..	..	1	
143. Carbuncle .....	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
144. Phlegmon, acute ab- scess .....	..	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
145. Other diseases of skin and adnexa.....	..	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
IX. Diseases of Lo- comotory System.																											
146. Diseases of bones (non-tuberculous)..	..	4	1	1	..	..	1	3	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	



Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col.-Chin- ored. etc.
147. Arthritis, other dis- eases of joints (ex- cept tuberculosis and rheumatism)...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
148. Amputation .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
149. Other diseases of or- gans of locomotion .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
X. Malformations.																										
150. Congenital malforma- tions .....	..	11	10	..	..	..	1	11	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
XI. Diseases of In- fancy.																										
151. Congenital debility, icterus and sclere- ma .....	..	72	72	..	..	..	..	72	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
151a. Injury during birth...	..	3	3	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
152. Other diseases peculiar to infancy .....	..	2	2	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
153. Neglect .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
XII. Diseases of Old Age.																										
154. Senile debility .....	..	43	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	3	7	7	13	9	1
XIII. External Causes.																										
155. Suicide by poison...	..	2	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..
156. Suicide by asphyxia.	..	2	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..
157. Suicide by hanging or strangulation .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
158. Suicide by drowning.	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
159. Suicide by firearms..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
160. Suicide by cutting in- struments .....	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
161. Suicide by precipita- tion from height..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
162. Suicide by crushing.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
163. Suicide by other methods .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
164. Fractures .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
165. Dislocations .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
166. Other accidental in- juries .....	..	27	3	..	1	..	..	4	3	1	1	1	1	..	1	1	1	3	1	2	1	2	1	..	3	2
167. Burn, by fire, scald.	..	17	2	..	2	1	4	9	6	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
168. Burning by corrosive substances .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
169. Sunstroke .....	..	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
170. Freezing .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
171. Electrical shock....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
172. Accidental drowning.	..	8	..	1	..	..	..	1	..	..	1	1	..	1	2	..	..	..	..	2	..	..	..	..	..	1
173. Inanition (starvation)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
174. Inhalation of noxious gas, not suicidal..	..	4	..	1	..	..	..	1	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
175. Other acute poisoning	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
176. Other external vio- lence .....	..	5	1	..	..	..	..	1	..	..	..	..	2	2	..	..	..	..	..	..	..	..	..	..	..	..
Of which:																										
a. Homicide, by blows .....	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
b. Homicide, by sharp instru- ments .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
c. Homicide, by gunshot .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
d. Homicide, by poison .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
e. Homicide, by other methods.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
XIV. Ill-defined or Not Specified Causes.																										
177. Dropsy .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
178. Sudden death, not puerperal .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
179. Ill-defined causes....	..	16	13	3	..	..	..	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
I.—General diseases.....	..	350	21	19	10	16	10	76	26	6	12	18	26	22	33	19	23	17	13	16	15	18	6	3	1	7
a. Tuberculous dis- eases .....	..	145	8	4	1	2	1	16	4	4	9	17	23	20	20	10	9	4	3	3	2	1	..	..	..	5
b. Cancer .....	..	77	..	..	..	..	..	..	..	..	..	..	..	..	8	6	7	11	8	8	11	11	5	1	1	..
II.—Diseases of nervous system and organs of sense .....	..	152	33	7	1	2	2	45	3	3	2	1	3	3	5	6	12	7	11	13	15	7	10	5	1	2
III.—Diseases of circula- tory system.....	..	153	2	1	..	1	1	5	4	6	4	3	3	5	9	5	11	14	13	11	19	14	15	7	5	3
IV.—Diseases of respiratory system .....	..	263	70	32	8	3	6	119	8	5	2	2	7	7	6	9	7	10	11	13	16	18	14	5	5	10
V.—Diseases of digestive system .....	..	251	160	15	1	3	1	180	6	3	..	2	1	7	4	3	4	4	6	8	5	6	5	6	1	4
VI.—Diseases of genito- urinary system....	..	144	..	..	..	1	..	1	1	2	3	3	8	9	13	15	15	12	9	11	14	5	10	11	2	8
VII.—Puerperal diseases...	..	40	..	..	..	..	..	..	..	..	2	7	13	12	6	..	..	..	..	..	..	..	..	..	..	1
VIII.—Diseases of skin and cellular tissue....	..	8	2	..	..	..	..	2	..	..	1	..	..	..	..	..	..	..	..	1	..	3	1	..	..	1
IX.—Diseases of locomo- tory system.....	..	4	1	1	..	..	1	3	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
X.—Malformations .....	..	11	10	..	..	..	1	11	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
XI.—Diseases of infancy..	..	77	77	..	..	..	..	77	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
XII.—Diseases of old age..	..	43	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	3	7	7	13	9	1
XIII.—External causes....	..	70	6	2	3	1	5	17	9	3	5	2	7	4	5	2	1	3	1	4	1	2	1	..	3	3
a. Suicide .....	..	7	..	..	..	..	..	..	..	..	..	..	3	1	2	1	..	..	..	..	..	..	..	..	..	..
b. Homicide .....	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
c. Accident .....	..	62	6	2	3	1	5	17	9	3	5	2	4	2	3	1	1	3	1	4	1	2	1	..	3	3
XIV.—Causes ill-defined...	..	16	13	3	..	..	..	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Total, females..	..	1,582	395	80	23	27	27	552	57	28	31	38	68	69	81	59	73	67	64	81	88	80	69	50	27	42



## BOROUGH OF RICHMOND.

Deaths of Males, by Age, and Cause of Death for the Year Ending December 31, 1906.

Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col.-Chin- ored. etc.	
I. General Diseases.																											
1. Typhoid fever.....	10	9	..	..	..	..	..	..	..	..	..	3	3	..	1	1	1	..	..	..	..	..	..	..	..	..	
2. Typhus fever.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
3. Relapsing fever.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
4. Malarial fever.....	1	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	
5. Smallpox .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
6. Measles .....	12	5	1	2	..	1	..	4	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
7. Scarlet fever.....	6	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
8. Whooping cough.....	10	4	3	1	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
9. Diphtheria and croup.	28	15	2	2	..	4	1	9	3	..	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	
10. Influenza .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
11. Miliary fever.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
12. Asiatic cholera .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
13. Cholera nostras.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
14. Dysentery .....	4	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	
15. Plague .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
16. Yellow fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
17. Leprosy .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
18. Erysipelas .....	3	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	
19. Other epidemic dis- eases .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
20. Pyæmia, septicæmia..	2	2	1	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	
21. Glanders .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
22. Malignant pustule ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
23. Hydrophobia .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
24. Actinomycosis .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
24a. Trichinosis .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
25. Pellagra .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
26. Tuberculosis of larynx	2	2	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	
27. Tuberculosis of lungs	190	139	3	2	..	..	..	5	..	1	2	13	14	19	28	22	15	7	6	3	2	2	..	..	4	1	
28. Tubercular meningitis	8	4	..	1	1	..	..	2	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	
29. Abdominal tuberculosis	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	
30. Potts' disease.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
31. Cold abscess .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
32. White swelling.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
33. Tuberculosis of other organs .....	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	
34. General tuberculosis.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
35. Scrophula .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
36. Syphilis .....	4	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	
37. Gonorrhœa (adults)..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
38. Gonorrhœa (children)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
39. Cancers, etc., of the mouth .....	3	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	1	..	..	
40. Cancer of stomach, liver .....	18	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	3	2	1	..	..	..	..	
41. Cancer of intestines, rectum .....	8	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	..	..	..	1	..	..	..	..	
42. Cancer of female gen- ital organs .....	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
43. Cancer of the breast.	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
44. Cancer of the skin..	3	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	1	..	..	..	..	
45. Cancer of other or- gans and unspecified	7	3	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	1	1	..	..	..	
46. Other tumors (except of female genital organs) .....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
47. Acute articular rheu- matism .....	8	5	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	1	1	..	1	..	..	..	..	
48. Chronic rheumatism and gout .....	1	..	..	..	..	..	..</																				



Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col-Chin- ored. ese.
71. Convulsions of infants .....	4	2	2	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
72. Tetanus, trismus ....	3	3	1	..	..	..	..	1	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
73. Chorea .....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
74. Other nervous diseases .....	3	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
75. Diseases of the eyes..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
76. Diseases of the ears.	2	2	..	..	1	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
III. Diseases of Circulatory System.																										
77. Pericarditis .....	1	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
78. Acute endocarditis...	6	6	..	..	..	..	..	..	..	..	..	..	1	1	..	1	..	1	..	..	..	..	1	1	..	..
79. Organic heart diseases .....	111	57	..	..	..	..	..	..	..	..	..	3	..	..	1	2	3	4	6	10	6	9	6	6	1	2
80. Angina pectoris .....	4	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..
81. Diseases of arteries, aneurism, etc. ....	15	11	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	..	..	1	3	4	..	..	..	..
82. Embolism, thrombosis	4	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
83. Diseases of veins (hæmorrhoids, varices, phlebitis, etc.)	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
84. Diseases of lymphatics (lymphangitis, etc.)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
85. Hæmorrhage .....	1	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
86. Other diseases of circulatory system...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
IV. Diseases of Respiratory System.																										
87. Diseases of nasal fossæ .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
88. Diseases of the larynx	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
89. Diseases of thyroid gland .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
90. Acute bronchitis.....	13	8	5	..	..	..	..	5	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1	..	..	..
91. Chronic bronchitis...	5	3	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	1	..	..	..
92. Broncho-pneumonia...	50	31	8	6	1	..	..	15	4	..	..	..	..	..	1	..	1	1	1	2	2	1	1	2	1	..
93. Pneumonia .....	96	56	3	5	1	2	..	11	..	..	1	..	4	4	6	5	6	3	4	4	3	2	1	3	..	1
94. Pleurisy .....	4	2	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
95. Congestion of lungs, pulmonary, apoplexy	6	3	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..
96. Gangrene of lung....	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	
97. Asthma .....	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..
98. Pulmonary emphysema	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
99. Other diseases of respiratory system (phthisis excepted)	2	2	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
V. Diseases of Digestive System.																										
100. Diseases of mouth and adnexa.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
101. Diseases of pharynx.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
102. Diseases of œsophagus	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
103. Ulcer of the stomach	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
104. Other diseases of stomach (cancer excepted) .....	7	4	..	..	1	..	..	1	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..
105. Diarrhœa and enteritis (under two years). Of which	161	85	76	9	..	..	..	85	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
106. Chronic diarrhœa.... Diarrhœa and enteritis (two years and over) .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
107. Intestinal parasites..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	1	..	..	..
108. Hernia, intestinal obstruction .....	10	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	..	1	..	..	..	..
109. Other diseases of intestines .....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
110. Acute yellow atrophy of liver.....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
111. Hydatid tumor of liver	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
112. Cirrhosis of liver....	24	15	..	..	..	..	..	..	..	..	..	..	..	1	2	1	3	3	1	1	1	2	..	..	..	..
113. Biliary calculi.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
114. Other diseases of liver	6	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	..	1	..	..	..	..	..	..
115. Diseases of spleen...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
116. Simple peritonitis (non-puerperal)....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
117. Other diseases of digestive system (except tuberculosis and cancer).....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
118. Appendicitis and iliac abscess .....	12	8	..	..	..	..	..	..	..	..	..	2	1	..	..	2	..	..	..	..	..	..	..	..	..	..
VI. Diseases of Genito-urinary System.																										
119. Acute nephritis.....	9	3	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1	..	..	..	..	..	..
120. Bright's disease.....	95	46	..	..	..	..	..	..	..	..	..	3	1	2	2	4	3	2	6	4	6	6	3	4	1	..
121. Other diseases of kidneys and adnexa..	3	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..
122. Urinary calculus.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
123. Diseases of bladder..	3	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	..	..	..
124. Diseases of urethra, urinary abscess, etc.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
125. Diseases of the prostate .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
126. Non-venereal diseases of male genital organs .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
127. Metritis .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
128. Uterine hæmorrhage (not puerperal)....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
129. Uterine tumor (not cancer) .....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
130. Other diseases of uterus .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
131. Ovarian cysts and tumors .....	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
132. Other diseases of female genital organs .....	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
133. Diseases of breast (not puerperal, nor cancer) .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..												



Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col.-Chin- ored. etc.	
136. Other accidents of la- bor .....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
137. Puerperal septicæmia.	7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
138. Puerperal albuminuria and convulsions...	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
139. Puerperal phlegmasia alba dolens .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
140. Other accidents of parturition, sudden death .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
141. Puerperal diseases of breast .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
VIII. Diseases of Skin and Cellular Tissue.																											
142. Gangrene .....	4	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	
143. Carbuncle .....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
144. Phlegmon, acute ab- scess .....	1	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
145. Other diseases of skin and adnexa.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
IX. Diseases of Lo- comotory System.																											
146. Diseases of bone (non-tuberculous)..	7	4	1	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	1	1	..	..	..	..	..	
147. Arthritis, other dis- eases of joints (ex- cept tuberculosis and rheumatism)...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
148. Amputation .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
149. Other diseases of or- gans of locomotion	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
X. Malformations.																											
150. Congenital malforma- tions .....	6	5	3	1	..	1	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	
XI. Diseases of In- fancy.																											
151. Congenital debility, ic- terus and sclerema	86	47	47	..	..	..	..	47	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	
151a. Injury during birth..	2	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
152. Other diseases pecu- liar to infancy....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
153. Neglect .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
XII. Diseases of Old Age.																											
154. Senile debility.....	41	35	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	4	4	5	9	..	
XIII. External Causes.																											
155. Suicide by poison...	3	2	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	
156. Suicide by asphyxia.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
157. Suicide by hanging or strangulation .....	2	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	
158. Suicide by drowning.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
159. Suicide by firearms..	8	8	..	..	..	..	..	..	..	..	..	..	1	1	2	..	1	1	..	..	1	..	..	1	..	..	
160. Suicide by cutting in- struments .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
161. Suicide by precipita- tion from height..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
162. Suicide by crushing..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
163. Suicide by other meth- ods .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
164. Fractures .....	6	6	..	..	..	..	..	..	..	..	..	..	..	1	..	2	1	1	..	1	..	..	..	..	..	..	
165. Dislocations .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
166. Other accidental in- juries .....	32	31	..	..	..	..	..	..	2	1	..	1	2	7	5	1	4	2	4	2	..	..	..	..	..	..	
167. Burn, by fire, scald..	5	3	..	..	1	..	..	1	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	
168. Burning by corrosive substances .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..							



Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col.-Chin- ored. ese.	
X.—Malformations .....	6	5	3	1	..	1	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
XI.—Diseases of infancy..	89	48	48	..	..	..	..	48	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..
XII.—Diseases of old age.	41	25	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	4	4	5	9	..	..
XIII.—External causes....	112	103	2	1	1	..	..	4	5	2	2	7	8	13	11	12	10	9	6	7	4	1	..	2	..	..	..
a. Suicide .....	13	11	..	..	..	..	..	..	..	..	..	..	1	1	3	2	1	1	..	..	1	..	..	1	..	..	..
b. Homicide .....	4	4	..	..	..	..	..	..	..	..	..	1	1	..	..	1	..	1	..	..	..	..	..	..	..	..	..
c. Accident .....	95	88	2	1	1	..	..	4	5	2	2	6	6	12	8	9	9	7	6	7	3	1	..	1	..	..	..
XIV.—Causes, ill-defined..	40	15	15	..	..	..	..	15	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total, males.....	..	874	179	30	8	9	2	228	20	11	12	35	39	46	59	59	51	44	37	47	51	51	35	29	20	13	1
Total, females....	..	614	161	36	4	6	8	215	14	10	10	16	21	32	32	20	25	25	16	44	26	36	34	17	21	5	..
Total, both sexes..	..	1,488	340	66	12	15	10	443	34	21	22	51	60	78	91	79	76	69	53	91	77	87	69	46	41	18	1

## BOROUGH OF RICHMOND.

Deaths of Females, by Age, and Cause of Death for the Year Ending December 31, 1906.

[illegible]



Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col. Chin- ored. etc.	
57. Lead poisoning .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
58. Other chronic poison- ings of occupation .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
59. Other chronic poison- ings .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
II. Diseases of Nervous System and Or- gans of Sense.																											
60. Encephalitis .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
61. Simple meningitis....	..	8	2	2	..	..	1	5	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
61a. (Of which) cerebro- spinal meningitis..	..	4	..	1	..	..	..	1	1	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
62. Locomotor ataxia....	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	
63. Other diseases of spinal cord .....	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	
64. Apoplexy, congestion of brain .....	..	31	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	5	2	2	5	5	6	2	2	..	
65. Softening of brain...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
66. Paralysis unspecified.	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	1	..	..	..	
67. General paresis.....	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	
68. Other forms of in- sanity .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	
69. Epilepsy .....	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
70. Convulsions (not puerperal) .....	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
71. Convulsions of in- fants .....	..	2	2	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	
72. Tetanus, trismus ....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
73. Chorea .....	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
74. Other nervous dis- eases .....	..	2	..	1	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	
75. Diseases of the eyes.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
76. Diseases of the ears.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
III. Diseases of Cir- culatory System.																											
77. Pericarditis .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
78. Acute endocarditis...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
79. Organic heart diseases	..	54	..	..	..	..	1	1	..	..	..	2	1	3	2	3	3	4	1	9	5	11	3	4	2	2	..
80. Angina pectoris.....	..	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	
81. Diseases of arteries, aneurism, etc.....	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	1	..	
82. Embolism, thrombosis.	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	
83. Diseases of veins (hemorrhoids, varic- es, phlebitis, etc).	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	
84. Diseases of lymphatics (lymphangitis, etc)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
85. Hemorrhage .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
86. Other diseases of cir- culatory system....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
IV. Diseases of Respi- ratory System.																											
87. Diseases of nasal fossae .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
88. Diseases of the larynx	..	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
89. Diseases of thyroid gland .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
90. Acute bronchitis.....	..	5	1	1	..	..	..	2	..	..	..	..	..	..	..	..	1	..	..	..	..	2	..	..	..	..	
91. Chronic bronchitis...	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
92. Broncho-pneumonia ..	..	19	8	7	..	..	..	15	..	..	..	..	..	..	..	..	..	..	..	4	..	..	..	..	..	..	
93. Pneumonia .....	..	40	4	2	..	1	..	7	2	2	1	1	1	2	1	2	4	..	1	5	3	4	2	2	..	..	
94. Pleurisy .....	..	2	1	1	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
95. Congestion of lungs, pulmonary, apoplexy	..	3	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	1	..	..	..	..	
96. Gangrene of lung....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
97. Asthma .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
98. Pulmonary emphysema	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
99. Other diseases of res- piratory system (phthisis excepted)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
V. Diseases of Digestive System.																											
100. Diseases of mouth and adnexa .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
101. Diseases of pharynx.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
102. Diseases of oesophagus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
103. Ulcer of the stomach.	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	
104. Other diseases of stomach (cancer ex- cepted) .....	..	3	1	1	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
105. Diarrhoea and enteritis (under two years). (Of which)	..	76	69	7	..	..	..	76	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
106. Chronic diarrhoea.. Diarrhoea and enteritis (two years and over) .....	..	6	..	..	1	..	1	2	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	
107. Intestinal parasites...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	
108. Hernia, intestinal ob- struction .....	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	2	..	..	..	..	..	..	
109. Other diseases of in- testines .....	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
110. Acute yellow atrophy of liver .....	..	3	..	..	..	..	..	..	..	..	..	..	1	..	2	..	..	..	..	..	..	..	1	..	..	..	
111. Hydatid tumor of liver .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
112. Cirrhosis of liver....	..	9	..	..	..	..	..	..	..	..	..	..	..	2	2	..	..	..	1	1	1	1	..	1	..	..	
113. Biliary calculi.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
114. Other diseases of liver	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	
115. Diseases of spleen...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
116. Simple peritonitis (non-puerperal)....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
117. Other diseases of di- gestive system (ex- cept tuberculosis and cancer).....	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	
118. Appendicitis and iliac abscess .....	..	4	..	..	..	..	..	..	2	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	
VI. Diseases of Genito- urinary System.																											
119. Acute nephritis.....	..	6	..	..	..	..	..	..	..	1	1	1	..	..	1	1	..	..	..	..	..	1	..	..	..	..	
120. Bright's disease.....	..	49	..	..	..	..	..	..	..	..	1	..	8	4	3	1	2	2	7	3	6	6	3	3	..	..	
121. Other diseases of kid- neys and adnexa...	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	
122. Urinary calculus ....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	



[illegible]



Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col.-Chin- ored. ese.		
I.—General diseases .....	137	6	10	4	4	5	29	8	4	4	6	7	11	16	8	9	10	6	7	3	4	3	..	2	..	..		
a. Tuberculous diseases ..	56	1	1	2	..	..	4	1	2	2	3	6	9	12	4	4	3	2	..	..	2	2	..	..	..	..		
b. Cancer .....	32	..	..	..	..	..	..	..	..	..	1	..	..	4	3	4	4	4	7	1	2	1	..	1	..	..		
II.—Diseases of nervous system and organs of sense .....	53	4	3	..	..	1	8	1	2	1	..	..	1	1	..	3	5	3	4	5	7	8	2	2	..	..		
III.—Diseases of Circula- tory system .....	64	..	..	..	..	1	1	..	..	..	2	1	4	3	3	3	5	1	9	6	12	6	5	3	2	..		
IV.—Diseases of respiratory system .....	72	15	11	..	1	..	27	2	2	1	1	2	2	1	2	4	1	1	10	3	4	7	2	..	..	..		
V.—Diseases of Digestive system .....	110	70	8	1	..	1	80	..	2	..	2	1	3	5	..	3	1	2	4	2	2	1	2	..	1	..		
VI.—Diseases of Genito- urinary system....	63	..	..	..	..	..	..	..	..	1	4	3	8	4	5	3	2	2	9	3	6	7	3	3	..	..		
VII.—Puerperal diseases ..	16	..	..	..	..	..	..	..	..	2	1	7	2	2	2	..	..	..	..	..	..	..	..	..	..	1	..	
VIII.—Diseases of skin and cellular tissue .....	4	2	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..		
IX.—Diseases of locomotory system .....	3	..	1	..	..	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
X.—Malformations .....	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
XI.—Diseases of infancy...	41	41	..	..	..	..	41	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
XII.—Diseases of old age..	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	1	2	10	..	..		
XIII.—External causes.....	9	..	..	..	1	..	1	..	..	1	..	..	1	..	..	..	1	1	1	1	1	..	1	1	..	1	..	
a. Suicide .....	2	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	
b. Homicide .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
c. Accident .....	7	..	..	..	1	..	1	..	..	..	..	..	1	..	..	..	1	..	1	1	..	1	1	..	1	..	1	..
XIV.—Causes ill-defined....	25	23	2	..	..	..	25	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Total females .....	614	161	35	5	6	8	215	14	10	10	16	21	32	32	20	25	25	16	44	26	36	34	17	21	5	..		

## CITY OF NEW YORK.

Deaths of Males, by Age, and Cause of Death for the Year Ending December 31, 1906.

Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col.-Chin- ored. ese.	
I. General Diseases.																											
1. Typhoid fever .....	639	392	1	3	2	1	3	10	11	19	42	75	52	53	48	35	13	13	9	2	4	4	2	..	..	11	..
2. Typhus fever.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3. Relapsing fever.. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
4. Malarial fever.....	64	43	6	1	1	2	2	12	..	1	2	4	2	4	5	3	4	3	..	..	2	..	..	1	..	1	..
5. Smallpox .....	6	4	..	..	..	..	..	..	..	..	..	..	1	..	2	1	..	..	..	..	..	..	..	..	..	..	..
6. Measles .....	1,145	566	162	209	97	45	19	532	25	..	2	4	1	1	1	..	..	..	..	..	..	..	..	..	..	7	..
7. Scarlet fever.....	491	246	17	32	46	51	16	162	53	16	5	4	3	2	1	..	..	..	..	..	..	..	..	..	..	..	..
8. Whooping cough....	367	162	90	41	20	7	..	158	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	..
9. Diphtheria and croup	1,898	1,057	104	280	212	149	90	835	167	27	8	7	6	4	..	1	1	..	1	..	..	..	..	..	..	6	..
10. Influenza .....	241	101	11	6	1	1	2	21	3	1	2	3	4	4	4	7	4	6	5	11	9	4	7	4	2	6	..
11. Miliary fever.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
12. Asiatic cholera.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
13. Cholera nostras.....	1	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
14. Dysentery .....	142	70	12	5	5	3	2	27	1	..	1	1	3	2	3	4	2	6	3	4	1	6	5	..	1	..	1
15. Plague .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
16. Yellow fever.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
17. Leprosy .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
18. Erysipelas .....	292	149	44	..	..	1	..	45	1	4	1	2	6	9	16	10	9	14	11	7	10	1	1	1	1	2	..
19. Other epidemic dis- eases .....	16	7	3	2	..	..	..	5	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	1	..
20. Pyæmia septicæmia..	63	44	11	2	2	..	..	15	..	..	..	4	2	3	4	3	4	3	1	2	..	..	..	2	1	2	..
21. Glanders .....	6	6	..	..	..	..	..	..	..	..	..	1	..	..	3	1	..	..	1	..	..	..	..	..	..	..	..
22. Malignant pustule....	3	3	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	1	..	..	..	..	..	..	..	..	..
23. Hydrophobia .....	12	8	..	..	..	..	1	1	1	2	1	..	..	1	1	..	..	1	..	..	..	..	..	..	..	..	..
24. Actinomycosis .....	4	2	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..
24a. Trichinosis .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
25. Pellagra .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
26. Tuberculosis of larynx	67	48	..	..	..	1	..	1	..	..	1	2	1	13	9	6	6	4	2	2	..	..	1	..	..	1	..
27. Tuberculosis of lungs	8,955	5,641	39	37	19	7	5	107	17	40	247	492	696	886	908	668	587	402	256	164	103	46	16	3	3	201	40
28. Tubercular meningitis	765	414	113	82	48	41	19	303	36	15	7	11	10	7	8	5	8	2	2	..	..	..	..	..	..	14	..
29. Abdominal tubercu- losis .....	196	109	22	11	5	2	3	43	9	2	4	5	8	8	5	5	7	6	3	2	3	..	..	..	..	3	..
30. Potts' disease.....	58	29	..	1	..	4	1	6	2	2	3	3	3	..	1	4	2	1	1	..	..	..	..	..	1	1	..
31. Cold abscess.....	8	4	2	..	..	..	1	3	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
32. White swelling.....	43	24	..	1	..	..	..	1	10	3	..	4	1	..	1	1	2	..	1	..	..	..	..	..	..	..	..
33. Tuberculosis of other organs .....	46	29	1	..	1	..	..	2	2	1	..	5	2	3	3	5	..	1	4	1	..	..	..	..	..	2	..
34. General tuberculosis..	56	34	7	4	1	..	..	12	2	2	5	1	2	3	4	2	..	..	..	..	..	..	..	..	..	1	..
35. Scrofula .....	7	5	3	1	1	..	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
36. Syphilis .....	275	172	84	4	2	1	2	93	1	..	1	4	12	10	12	9	11	9	6	3	1	..	..	..	..	9	1
37. Gonorrhœa (adults)..	5	3	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	..	..	..	..	..	..	..	..	..	..
38. Gonorrhœa (children)	6	3	2	1	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
39. Cancers, etc., of the mouth .....	113	93	..	..	..	..	..	..	..	..	..	1	2	..	8	7	6	12	9	16	16	10	1	5	..	1	1
40. Cancer of stomach, liver .....	1,235	591	1	..	..	..	..	1	..	1	..	2	5	11	28	48	64	90	93	81	58	56	38	12	3	11	..
41. Cancer of intestines, rectum .....	427	183	..	..	1	..	..	1	1	..	1	2	3	5	6	17	20	18	33	24	23	20	5	3	1	1	..
42. Cancer of female gen- ital organs.....	447	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
43. Cancer of the breast.	273	5	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	1	1	1	..	1	..
44. Cancer of the skin..	68	47	..	..	..	..	..	..	2	1	..	1	1	1	1	3	2	7	6	6	7	5	2	1	1	..	..
45. Cancer of other organs and unspecified...	442	255	1	1	..	1	..	3	4	2	7	10	7	12	13	25	18	25	34	28	29	22	9	5	2	2	1
46. Other tumors (except of female genital organs) .....	39	13	2	..	..	..	..	2	1	2	1	..	..	..	3	..	1	..	1	..	1	1	..	..	..	..	..







Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col.-Chin- ored. etc.	
114. Other diseases of liver	136	75	2	..	..	1	..	3	..	1	..	7	5	4	7	6	7	12	7	3	6	3	1	2	1	3	..
115. Diseases of spleen...	6	4	..	..	..	..	..	..	..	..	..	..	2	2	..	..	..	..	..	..	..	..	..	..	..	..	
116. Simple peritonitis(non- puerperal)	77	36	4	..	..	2	1	7	3	1	1	2	4	2	4	1	5	2	..	..	1	2	1	..	..	..	
117. Other diseases of di- gestive system (ex- cept tuberculosis and cancer).....	17	10	..	..	..	..	..	..	..	..	..	..	2	1	..	1	2	..	3	..	1	..	..	..	..	..	
118. Appendicitis and iliac abscess .....	544	333	1	2	1	2	3	9	23	29	42	36	40	40	24	23	22	15	12	12	2	2	2	..	..	..	
VI. Diseases of Genito- urinary System.																											
119. Acute nephritis.....	670	342	33	5	13	9	1	61	20	6	12	14	25	26	40	20	24	24	26	14	11	11	7	1	..	6	..
120. Bright's disease.....	5,438	2,960	3	6	2	7	..	18	13	13	23	51	110	143	229	275	284	321	304	346	335	238	135	86	36	62	5
121. Other diseases of kid- neys and adnexa..	75	40	1	..	..	..	..	1	..	..	..	1	2	3	7	3	1	4	4	3	3	5	1	1	1	..	..
122. Urinary calculus....	23	17	..	..	..	..	..	..	..	..	..	..	1	1	1	..	2	1	2	2	2	1	3	1	..	..	..
123. Diseases of bladder..	98	75	1	1	1	..	..	3	1	..	..	..	..	2	1	1	..	7	5	3	7	14	14	13	4	1	..
124. Diseases of urethra, urinary abscess, etc. etc. ....	36	27	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
125. Diseases of the pros- tate .....	36	27	..	..	..	..	..	..	..	..	..	..	1	2	3	5	3	5	3	1	2	1	..	1	..	..	..
126. Non-venereal diseases of male genital or- gans .....	86	86	..	..	..	..	..	..	..	..	..	..	1	1	3	1	2	1	4	14	16	18	12	9	4	..	..
Metritis .....	2	2	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
127. Uterine hemorrhage (not puerperal)....	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
128. Uterine tumor (not cancer) .....	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
129. Other diseases of uterus .....	94	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
130. Ovarian cysts and tumors .....	34	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
131. Other diseases of fe- male genital organs .....	50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
132. Diseases of breast (not puerperal, nor can- cer) .....	133	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
VII. Puerperal Dis- eases.	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
134. Accidents of preg- nancy .....	173	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
135. Puerperal hemorrhage	43	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
136. Other accidents of labor .....	135	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
137. Puerperal septicaemia.	263	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
138. Puerperal albuminuria and convulsions...	123	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
139. Puerperal phlegmasia alba dolens.....	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
140. Other accidents of parturition, sudden death .....	24	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
141. Puerperal diseases of breast .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
VIII. Diseases of Skin and Cellular Tissue.																											
142. Gangrene .....	201	38	..	..	1	..	..	1	1	..	..	1	..	..	..	1	1	1	1	2	8	7	6	6	2	..	..
143. Carbuncle .....	32	22	1	..	..	..	..	1	..	..	..	..	1	1	1	2	..	2	5	3	3	1	2	..	..	..	..
144. Phlegmon, acute ab- scess .....	100	65	15	..	..	..	..	15	1	2	3	2	2	8	6	5	7	4	2	5	..	2	1	..	..	3	..
145. Other diseases of skin and adnexa.....	46	20	12	2	1	..	..	15	..	..	..	..	..	..	..	..	1	1	1	1	..	..	..	1	..	..	..
IX. Diseases of Loco- motory System.																											
146. Diseases of bones (non-tuberculous)..	121	74	18	10	5	..	2	35	1	4	6	5	1	5	2	3	2	1	4	2	2	1	..	..	..	7	..
147. Arthritis, other dis- eases of joints (ex- cept tuberculosis and rheumatism...	15	9	1	..	..	..	..	1	..	1	2	..	1	..	..	1	1	..	1	1	..	..	..	..	..	..	..
148. Amputation .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
149. Other diseases of or- gans of locomotion	1	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
X. Malformations.																											
150. Congenital malforma- tions .....	670	382	349	14	5	7	2	377	1	3	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	7	..
XI. Diseases of In- fancy.																											
151. Congenital debility, icterus and sclere- ma .....	3,666	2,055	2,051	3	1	..	..	2,055	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	67	..
151a. Injury during birth...	264	155	..	..	..	..	..	155	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
152. Other diseases pecu- liar to infancy...	75	51	50	1	..	..	..	51	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..
153. Neglect .....	4	1	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
XII. Diseases of Old Age.																											
154. Senile debility.....	890	324	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	10	30	37	68	83	90	2	..
XIII. External Causes.																											
155. Suicide by poison...	131	90	..	..	..	..	..	..	..	2	9	8	13	16	13	10	4	7	3	5	..	..	..	..	..	1	1
156. Suicide by asphyxia..	193	36	..	..	..	..	..	..	..	1	..	11	10	12	15	17	17	10	18	12	5	5	3	..	..	..	..
157. Suicide by hanging or strangulation .....	69	59	..	..	..	..	..	..	..	..	..	3	3	6	13	9	4	5	6	6	2	..	1	1	..	..	1
158. Suicide by drowning.	15	9	..	..	..	..	..	..	..	..	..	1	1	1	1	..	2	1	1	..	..	1	..	..	..	..	..
159. Suicide by firearms..	212	198	..	..	..	..	..	..	..	2	9	18	29	20	21	13	21	21	15	11	8	5	2	2	1	1	..
160. Suicide by cutting in- struments .....	45	39	..	..	..	..	..	..	..	..	..	..	2	5	5	4	4	5	7	4	1	1	..	1	..	..	1
161. Suicide by precipita- tion from height...	40	23	..	..	..	..	..	..	..	..	..	2	3	2	6	1	4	..	..	1	3	..	1	..	..	2	1
162. Suicide by crushing..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
163. Suicide by other meth- ods .....	1	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
164. Fractures .....	113	89	..	..	..	..	..	..	2	2	4	7	4	12	11	15	6	8	3	5	5	2	1	2	..	1	..
165. Dislocations .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
166. Other accidental in- juries .....	2,176	1,812	11	17	24	27	41	120	164	67	94	169	185	192	184	179	121	103	61	77	48	28	8	7	5	40	..
167. Burn, by fire, scald.	355	151	13	25	26	20	10	94	12	2	1	4	4	8	4	3	3	5	8	1	..	..	..	..	..	..	..
168. Burning by corrosive substances .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
169. Sunstroke .....	112	66	9	2	..	1	..	12	..	1	1	3	4	9	9	9	8	6	..	3	..	..	..	..	..	..	..
170. Freezing .....	11	11	..	..	..	..	..	..	..	..	1	..	..	..	..	..	3	2	1	4	..	..	..	..	..	..	..
171. Electrical shock.....	25	25	..	..	..	..	..	..	..	1	..	3	5	6	3	4	1	2	..	..	..	..	..	..	..	..	..
172. Accidental drowning.	497	463	2	2	2	..	..	6	30	38	43	40	49	41	43	54	41	21	28	13	9	3	1	2	1	9	..
173. Inanition (starvation).	3	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
174. Inhalation of noxious gas, not suicidal..	282	194	6	..	..	1	1	8	..	1	9	23	16	23	22	22	9	12	14	11	8	8	6	1	1	10	..



Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col.- In- ored.	Ch- red.	ese.
175. Other acute poisoning	96	49	3	3	4	2	4	16	5	..	2	..	6	3	3	2	4	3	1	3	..	1	..	..	..	3	..	
176. Other external violence	364	246	23	2	1	..	1	27	2	3	13	40	33	29	34	20	17	13	4	6	2	2	..	1	..	13	4	
(Of which)																												
a. Homicide, by blows	45	36	..	..	..	..	1	1	..	1	1	7	5	3	4	3	5	2	3	1	..	..	..	..	..	..	..	
b. Homicide, by sharp instruments	56	48	..	..	..	..	..	..	1	..	4	9	9	7	5	6	2	3	..	1	..	..	..	1	..	2	..	
c. Homicide by gunshot	135	106	..	..	..	..	..	..	..	1	8	23	17	12	20	10	8	4	1	2	..	..	..	..	..	..	..	
d. Homicide by poison	3	2	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	
e. Homicide by other methods.	14	4	1	..	..	..	..	1	..	1	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	
XIV. Ill-defined or Not Specified Causes.																												
177. Dropsy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
178. Sudden death, not puerperal	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
179. Ill-defined causes...	969	509	446	49	4	6	..	505	..	..	1	..	..	..	2	1	..	..	..	..	..	..	..	..	..	19	..	
I.—General diseases.....	20,970	11,693	752	726	468	320	169	2,435	386	157	367	675	900	1,160	1,230	1,003	907	736	575	442	328	216	107	50	19	206	46	
a. Tuberculosis diseases	10,194	6,332	184	136	74	55	29	478	78	65	267	522	724	920	939	696	612	416	269	169	106	47	17	3	4	223	40	
b. Cancer	3,005	1,174	2	1	1	1	..	5	7	4	8	16	18	30	56	100	110	152	176	155	133	114	56	27	7	16	2	
II.—Diseases of nervous systems and organs of sense	6,046	3,226	541	146	81	41	38	847	138	65	72	84	73	90	121	174	169	217	221	254	252	189	144	79	37	74	4	
III.—Diseases of circulatory system	6,951	3,541	65	10	4	9	4	92	52	65	67	93	131	166	216	258	271	325	369	388	371	314	202	105	55	97	7	
IV.—Diseases of respiratory system	13,361	7,343	2,056	1,037	319	140	70	3,622	168	43	90	149	230	282	325	351	365	288	280	338	278	230	145	80	79	217	9	
V.—Diseases of digestive system	9,663	5,327	2,849	454	108	43	21	3,475	59	46	58	75	102	134	155	181	218	185	164	161	101	92	63	36	22	110	3	
VI.—Diseases of genito-urinary system...	6,754	3,549	39	12	16	16	1	84	34	19	35	66	140	178	284	305	316	364	348	383	376	288	172	112	45	69	5	
VII.—Puerperal diseases...	763	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
VIII.—Diseases of skin and cellular tissue....	279	145	28	2	2	..	..	32	2	2	3	3	3	9	7	8	9	8	9	11	11	10	9	7	2	3	..	
IX.—Diseases of locomotory system	137	84	19	10	5	..	2	36	1	6	8	5	2	5	2	4	3	1	5	3	2	1	..	..	..	7	..	
X.—Malformations	670	382	349	14	5	7	2	377	1	3	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	7	..	
XI.—Diseases of infancy...	4,009	2,262	2,257	4	1	..	..	2,262	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	..	
XII.—Diseases of old age.	890	324	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	10	30	37	68	83	90	2	..		
XIII.—External causes...	4,741	3,663	67	52	57	51	57	284	215	118	179	333	362	383	390	365	275	222	174	160	96	56	24	18	9	84	8	
a. Suicide	707	556	..	..	..	..	..	..	..	3	11	44	56	60	77	57	62	47	54	37	24	12	7	4	1	4	4	
b. Homicide	253	196	1	..	..	..	1	2	1	3	13	40	31	23	30	19	15	9	4	5	..	..	1	..	8	2		
c. Accident	3,781	2,911	66	52	57	51	56	282	214	112	155	249	275	300	283	289	198	166	116	118	72	44	17	13	8	72	2	
XIV.—Causes ill-defined...	969	509	446	49	4	6	..	505	..	..	1	..	..	..	2	1	..	..	..	..	..	..	..	..	..	19	..	
Total males.....	..	42,048	9,468	2,516	1,070	633	364	14,051	1,056	524	880	1,484	1,943	2,407	2,732	2,650	2,533	2,346	2,151	2,150	1,845	1,433	934	571	358	1,056	82	
Total females.....	..	34,155	7,720	2,197	905	532	372	11,726	878	541	743	1,307	1,593	1,649	1,665	1,648	1,497	1,644	1,643	1,868	1,739	1,524	1,150	761	579	1,000	4	
Total, both sexes.	..	76,203	17,188	4,713	1,975	1,165	736	25,777	1,934	1,065	1,623	2,791	3,536	4,056	4,397	4,298	4,030	3,990	3,794	4,018	3,584	2,957	2,084	1,332	937	2,056	86	

## CITY OF NEW YORK.

Deaths of Females, by Age, and Cause of Death for the Year Ending December 31, 1906.

[illegible]



Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col-Chin- ored. etc.
32. White swelling.....	19	..	..	..	..	1	2	3	4	2	6	..	..	1	..	1	..	..	2	..	..	..	..	..	..	..
33. Tuberculosis of other organs .....	17	1	2	1	1	..	..	5	1	2	1	2	2	2	1	1	..	..	..	..	..	..	..	..	..	1
34. General tuberculosis.	22	6	2	..	1	..	..	9	..	1	1	4	4	..	1	..	..	1	1	..	..	..	..	..	..	..
35. Scrofula .....	2	2	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
36. Syphilis .....	103	79	4	..	1	1	85	..	..	..	..	2	2	2	5	1	3	3	..	..	..	..	..	..	..	8
37. Gonorrhoea (adults)...	2	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..
38. Gonorrhoea (children)	3	3	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
39. Cancers, etc., of the mouth .....	20	..	..	..	..	..	..	..	..	..	..	1	..	..	1	1	4	1	2	4	4	..	1	1	..	..
40. Cancer of stomach, liver .....	644	..	..	..	..	..	1	1	..	..	..	2	7	9	19	59	59	98	94	104	90	56	30	7	9	4
41. Cancer of intestines, rectum .....	244	..	..	..	..	1	..	1	..	..	2	2	8	6	12	27	25	37	29	37	21	17	10	7	3	2
42. Cancer of female gen- ital organs.....	447	..	..	..	..	..	..	..	..	1	2	2	7	26	40	60	77	62	50	57	25	18	11	6	3	11
43. Cancer of the breast.	268	..	..	..	..	..	..	..	..	..	..	1	1	9	22	40	35	32	42	27	19	20	8	7	5	5
44. Cancer of the skin...	21	1	..	..	..	..	..	1	..	..	1	..	..	..	1	1	1	2	2	3	2	3	2	1	1	..
45. Cancer of other or- gans and unspecified	187	1	..	1	2	..	4	1	1	2	3	5	10	10	24	24	23	23	21	12	9	10	2	3	1	..
46. Other tumors (except of female genital organs) .....	26	1	..	..	..	..	1	..	..	..	..	2	2	2	2	2	4	4	..	3	2	..	..	2	1	..
47. Acute articular rheu- matism .....	222	1	2	3	3	7	16	30	25	15	7	16	13	9	11	13	13	10	14	14	6	8	..	2	8	..
48. Chronic rheumatism and gout.....	85	1	..	..	..	1	2	3	5	2	..	3	3	7	3	7	2	3	7	12	11	8	4	3	..	..
49. Scurvy .....	5	1	..	1	..	..	2	1	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
50. Diabetes .....	371	..	..	..	..	1	1	1	5	4	8	11	6	17	11	26	44	42	62	58	42	25	5	3	3	..
51. Exophthalmic goitre..	27	..	..	..	..	..	..	..	..	3	1	1	3	2	3	3	2	5	3	1	..	..	..	..	1	..
52. Addison's disease....	4	..	..	..	..	..	..	..	..	..	1	..	1	1	..	1	..	..	..	..	..	..	..	..	..	..
53. Leukemia .....	23	1	..	..	..	1	2	2	2	..	..	2	4	2	1	2	2	..	1	1	2	..	..	..	1	..
54. Anaemia, chlorosis....	63	5	1	..	1	..	7	1	2	4	4	7	5	3	6	5	5	5	3	2	2	1	1	..	3	..
55. Other general diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
56. Alcoholism, acute and chronic .....	113	..	..	..	..	..	..	..	..	..	6	9	28	25	23	9	9	1	2	1	..	..	..	..	..	..
57. Lead poisoning.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
58. Other chronic poison- ings of occupation.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
59. Other chronic poison- ings .....	6	..	..	..	..	..	..	..	..	1	..	1	1	..	..	..	..	1	1	..	..	1	..	..	..	..
II. Diseases of Nervous System and Or- gans of Sense.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
60. Encephalitis .....	4	..	..	..	..	..	..	1	..	..	..	..	..	2	1	..	..	..	..	..	..	..	..	..	..	..
61. Simple meningitis.... (Of which)	539	130	100	40	35	21	326	67	46	26	15	18	12	3	6	4	7	4	2	2	1	..	..	..	15	..
61a. Cerebro-spinal menin- gitis .....	357	60	63	31	25	15	194	59	38	24	12	14	10	2	3	3	2	1	1	..	1	..	..	..	11	..
62. Locomotor ataxia....	22	..	..	..	..	..	..	..	..	..	..	..	1	3	2	4	3	4	3	..	2	..	..	..	..	..
63. Other diseases of spinal cord.....	71	..	..	..	2	..	2	4	1	1	3	4	2	3	7	9	6	7	10	7	2	2	1	..	2	..
64. Apoplexy, congestion of brain.....	1,371	8	3	1	..	..	12	..	2	2	3	6	23	35	59	90	147	150	190	191	199	143	76	43	44	..
65. Softening of brain...	31	..	..	..	..	..	..	..	..	..	..	..	1	1	1	1	1	3	5	3	1	5	4	5	1	..
66. Paralysis unspecified.	109	..	2	..	..	..	2	1	..	..	1	1	2	1	4	6	10	11	14	13	13	14	9	7	2	..
67. General paresis.....	68	..	..	..	..	..	..	1	..	..	..	3	4	7	9	11	2	5	5	5	5	2	6	3	4	..
68. Other forms of in- sanity .....	27	..	..	..	..	..	..	..	..	1	1	4	5	5	..	1	1	3	2	1	2	..	1	..	..	..
69. Epilepsy .....	62	..	2	..	1	1	4	5	3	3	5	8	5	5	9	4	1	3	2	2	3	..	..	..	1	..
70. Convulsions (not puer- peral) .....	3	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
71. Convulsions of infants	326	272	36	10	5	3	326	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	..
72. Tetanus, trismus.....	31	14	1	1	..	..	16	1	..	1	..	1	2	2	1	..	3	2	2	..	..	..	..	..	1	..
73. Chorea .....	4	..	..	..	..	..	..	2	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
74. Other nervous diseases	73	1	1	..	2	2	6	3	4	4	4	8	7	6	8	6	5	1	4	3	3	1	..	..	2	..
75. Diseases of the eyes.	4	1	1	1	..	..	3	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
76. Diseases of the ears.	75	17	10	5	3	..	35	4	5	3	6	4	3	3	2	3	3	1	1	1	..	..	..	1	..	..
III. Diseases of Cir- culatory System.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
77. Pericarditis .....	17	..	1	..	..	..	1	3	2	1	..	..	2	..	1	3	..	1	..	..	1	1	1	..	1	..
78. Acute endocarditis...	242	6	..	2	2	2	12	11	7	9	9	12	14	21	17	9	16	18	19	22	19	17	6	4	6	..
79. Organic heart diseases	2,787	13	5	3	4	6	31	55	70	66	96	100	124	161	159	187	257	239	322	303	260	178	107	72	85	1
80. Angina pectoris.....	64	..	..	..	..	..	..	..	1	..	..	..	1	4	2	6	2	6	8	12	14	6	2	..	..	..
81. Diseases of arteries, aneurism, etc.....	141	..	..	..	..	..	..	..	..	..	..	2	3	2	4	4	5	10	14	24	21	18	15	19	4	..
82. Embolism, thrombosis	96	2	1	..	..	..	3	1	..	1	2	2	3	10	5	6	6	15	11	12	10	7	2	..	1	..
83. Diseases of veins (haemorrhoids, var- ices, phlebitis, etc.)	16	1	..	..	..	..	1	1	..	..	..	..	3	1	1	1	2	1	1	1	2	1	..	..	..	..
84. Diseases of lymphatics (lymphangitis, etc.)	9	6	2	1	..	..	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
85. Haemorrhage .....	38	26	..	..	..	1	27	1	2	2	..	..	1	1	..	3	..	..	1	..	..	..	..	..	..	..
86. Other diseases of cir- culatory system...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
IV. Diseases of Re- spiratory System.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
87. Diseases of nasal fossae .....	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
88. Diseases of the larynx	24	5	5	3	1	..	14	1	..	..	..	1	..	1	1	2	..	1	..	..	2	1	..	..	..	..
89. Diseases of thyroid gland .....	3	1	..	..	..	..	1	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..
90. Acute bronchitis.....	669	346	113	31	8	8	506	7	1	4	1	..	1	1	1	6	5	10	20	27	21	23	24	11	14	..
91. Chronic bronchitis...	136	1	3	3	..	1	8	..	4	..	3	..	2	5	5	..	7	9	19	20	10	20	17	7	2	..
92. Broncho-pneumonia ..	2,432	1,045	553	153	62	40	1,853	46	13	7	17	19	12	21	27	27	30	45	63	67	61	48	49	27	71	..
93. Pneumonia .....	2,423	265	199	92	41	29	626	62	42	39	73	95	117	116	126	130	139	177	182	170	139	100	47	43	76	..
94. Pleurisy .....	114	13	17	9	6	1	46	6	2	..	11	8														



Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col-Chin- ored. etc.
102. Diseases of oesophagus ..	1	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
103. Ulcer of the stomach ..	53	..	..	..	..	..	..	..	1	3	5	6	7	3	11	4	1	3	4	..	1	1	2	1	1	..
104. Other diseases of stomach (cancer excepted) ..	168	30	4	2	5	1	42	3	1	2	1	4	8	4	6	9	10	10	8	16	8	14	15	7	3	..
105. Diarrhoea and enteritis (under two years) ..	2,623	2,214	409	..	..	..	2,623	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	51	..
(Of which)																										
106. Chronic diarrhoea... ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
106. Diarrhoea and enteritis (two years and over) ..	364	..	..	56	28	18	102	24	6	2	6	6	8	12	7	12	24	18	26	30	28	19	19	15	2	1
107. Intestinal parasites... ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
108. Hernia, intestinal obstruction ..	291	29	2	..	1	1	33	3	..	1	6	15	17	23	30	22	22	27	27	24	19	13	8	1	6	..
109. Other diseases of intestines ..	22	4	1	..	..	..	5	1	..	..	..	5	2	1	..	1	1	1	..	1	2	..	2	..	1	..
110. Acute yellow atrophy of liver.....	12	..	1	..	1	..	2	..	..	..	..	3	2	1	2	..	..	..	1	..	..	..	..	1	..	..
111. Hydatid tumor of liver ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
112. Cirrhosis of liver....	373	..	..	..	1	..	1	2	2	..	6	17	27	44	59	47	39	35	31	31	12	10	4	6	4	..
113. Biliary calculi.....	82	..	..	..	..	..	..	..	..	..	2	3	4	10	4	13	12	10	10	4	4	3	1	2	1	..
114. Other diseases of liver ..	61	2	2	..	..	..	4	1	..	..	1	2	3	3	9	4	9	5	6	3	5	3	2	1	2	..
115. Diseases of spleen... ..	2	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..
116. Simple peritonitis (non-puerperal) ..	41	2	..	..	..	1	3	4	2	2	1	5	8	8	4	..	..	..	2	..	1	1	..	..	..	..
117. Other diseases of digestive system (except tuberculosis and cancer).....	7	..	..	..	1	..	1	..	..	..	2	1	1	..	..	..	..	..	1	1	..	..	..	..	..	..
118. Appendicitis and iliac abscess ..	211	..	..	..	1	2	3	18	38	20	18	18	18	18	16	12	10	11	3	3	4	1	..	..	5	..
VI. Diseases of Genito-urinary System.																										
119. Acute nephritis.....	328	21	11	11	10	4	57	13	16	10	23	28	23	30	32	15	11	18	16	14	11	7	2	2	13	..
120. Bright's disease.....	2,478	5	..	1	1	1	8	14	13	25	65	109	139	175	209	197	235	235	256	264	207	177	95	55	69	..
121. Other diseases of kidneys and adnexa..	35	1	..	..	1	..	2	..	..	..	3	1	4	3	3	4	2	4	3	1	1	2	2	..	..	..
122. Urinary calculus.....	6	..	..	..	..	..	..	..	..	..	1	2	..	..	..	..	2	..	..	1	..	..	..	..	..	..
123. Diseases of bladder..	23	1	..	..	1	..	2	..	..	..	..	..	2	1	1	..	3	2	..	3	1	3	3	2	2	..
124. Diseases of urethra, urinary abscess, etc.	9	..	..	..	..	..	..	..	..	..	2	..	1	2	..	3	1	..	..	..	..	..	..	..	2	..
125. Diseases of the prostate ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
126. Non-venereal diseases of male genital organs ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
127. Metritis ..	8	..	..	..	..	..	..	..	..	1	1	2	2	1	..	..	1	..	..	..	..	..	..	..	1	..
128. Uterine hemorrhage (not puerperal).....	5	..	..	..	..	..	..	..	..	1	..	2	..	2	..	..	..	..	..	..	..	..	..	..	1	..
129. Uterine tumor (not cancer) ..	94	..	..	..	..	..	..	..	..	..	..	5	10	10	32	16	6	6	5	1	2	..	1	..	7	..
130. Other diseases of uterus ..	34	..	..	..	..	..	..	..	3	4	5	7	5	5	1	2	1	..	1	..	..	..	..	..	2	..
131. Ovarian cysts and tumors ..	50	..	..	..	..	..	..	..	3	7	10	2	3	5	3	7	4	5	..	..	..	..	..	1	2	..
132. Other diseases of female genital organs ..	133	..	..	..	..	..	..	..	8	33	28	21	23	17	1	2	..	..	..	..	..	..	..	..	12	..
133. Diseases of breast (not puerperal, nor cancer) ..	2	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..
VII. Puerperal Diseases.																										
134. Accidents of pregnancy ..	173	..	..	..	..	..	..	..	3	29	49	55	26	8	2	1	..	..	..	..	..	..	..	..	4	..
135. Puerperal hemorrhage ..	43	..	..	..	..	..	..	..	1	5	8	10	11	6	2	..	..	..	..	..	..	..	..	..	1	..
136. Other accidents of labor ..	135	..	..	..	..	..	..	..	4	18	28	25	23	14	3	..	..	..	..	..	..	..	..	..	3	..
137. Puerperal septicemia..	263	..	..	..	..	..	..	..	19	66	65	63	33	14	2	1	..	..	..	..	..	..	..	..	7	..
138. Puerperal albuminuria and convulsions...	123	..	..	..	..	..	..	..	7	32	30	30	14	9	1	..	..	..	..	..	..	..	..	..	1	..
139. Puerperal phlegmasia alba dolens.....	2	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
140. Other accidents of parturition, sudden death ..	24	..	..	..	..	..	..	..	..	3	8	7	6	..	..	..	..	..	..	..	..	..	..	..	..	..
141. Puerperal diseases of breast ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
VIII. Diseases of Skin and Cellular Tissue.																										
142. Gangrene ..	63	1	..	1	1	..	3	..	..	..	1	1	..	..	1	..	2	6	10	9	12	6	5	7	2	..
143. Carbuncle ..	10	4	..	1	..	..	5	..	..	1	..	..	..	1	..	..	..	2	1	..	..	..	..	..	..	..
144. Phlegmon, acute abscess ..	35	10	..	2	..	..	12	2	1	2	1	..	3	3	..	3	1	1	2	3	..	..	1	..	..	..
145. Other diseases of skin and adnexa.....	26	16	1	..	..	..	17	..	..	1	2	..	1	..	..	1	..	1	..	1	..	1	..	1	..	..
IX. Diseases of Locomotory System.																										
146. Diseases of bones (non-tuberculous)...	47	16	9	3	..	1	29	4	4	4	1	2	1	..	..	1	1	..	..	..	..	..	..	..	5	..
147. Arthritis, other diseases of joints (except tuberculosis and rheumatism)...	6	1	..	..	..	1	2	..	..	..	..	..	2	..	..	..	..	..	..	..	1	..	1	..	..	..
148. Amputation ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
149. Other diseases of organs of locomotion ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
X. Malformations.																										
150. Congenital malformations ..	288	272	11	..	..	1	284	3	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
XI. Diseases of Infancy.																										
151. Congenital debility, icterus and sclerema ..	1,611	1,608	2	..	1	..	1,611	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	66	..
151a. Injury during birth..	109	109	..	..	..	..	109	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
152. Other diseases peculiar to infancy....	24	24	..	..	..	..	24	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
153. Neglect ..	3	3	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
XII. Diseases of Old Age.																										
154. Senile debility.....	566	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	15	39	98	113	138	159	8	..	..
XIII. External Causes.																										
155. Suicide by poison....	41	..	..	..	..	..	..	..	2	8	5	7	2	5	3	4	1	3	1	..	..	..	..	..	..	..
156. Suicide by asphyxia..	57	..	..	..	..	..	..	1	..	1	5	9	8	6	10	3	6	5	1	1	1	..	..	..	..	..
157. Suicide by hanging or strangulation ..	10	..	..	..	..	..	..	..	..	3	..	..	1	..	2	..	2	1	..	..	1	..	..	..	..	..
158. Suicide by drowning..	6	..	..	..	..	..	..	..	..	1	3	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..
159. Suicide by firearms..	14	..	..	..	..	..	..	..	1	2	2	2	2	4	..	1	..	..	..	..	..	..	..	..	..	..
160. Suicide by cutting instruments ..	6	..	..	..	..	..	..	..	..	..	1	1	..	..	..	2	..									



Cause of Death.	Total, Both Sexes.	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col-Chin- ored. ese.
162. Suicide by crushing..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
163. Suicide by other methods .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
164. Fractures .....	..	24	..	..	1	1	..	2	3	1	..	..	1	..	..	3	2	..	..	1	4	1	1	5	..	..
165. Dislocations .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
166. Other accidental in- juries .....	..	364	7	10	21	11	20	69	44	7	12	7	10	18	22	21	15	22	16	27	18	20	15	9	12	7
167. Burn, by fire, scald..	..	204	7	12	24	19	15	77	45	9	4	7	7	9	5	3	7	8	2	1	5	6	4	4	1	2
168. Burning by corrosive substances .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
169. Sunstroke .....	..	46	9	1	..	..	2	12	2	..	..	2	4	..	1	3	1	2	2	4	3	2	3	3	2	1
170. Freezing .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
171. Electrical shock.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
172. Accidental drowning.	..	34	..	1	..	..	..	1	..	2	3	2	5	7	6	4	1	1	..	2	..	..	..	..	..	1
173. Inanition (starvation)	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..
174. Inhalation of noxious gas, not suicidal...	..	88	1	2	1	..	2	6	5	3	7	6	10	3	3	7	7	8	5	9	3	2	2	2	..	5
175. Other acute poisoning	..	47	1	3	2	1	1	8	1	1	3	9	8	5	3	3	1	4	..	..	1	..	..	..	..	..
176. Other external vio- lence .....	..	118	22	1	1	1	..	25	1	..	5	23	12	18	7	9	5	3	4	3	1	2	..	..	..	7
(Of which)																										
a. Homicide, by blows .....	..	9	2	..	..	1	..	3	..	..	..	..	..	1	1	2	..	1	..	1	..	..	..	..	..	..
b. Homicide, by sharp instru- ments .....	..	8	1	..	..	..	..	1	..	..	..	1	..	1	1	2	1	..	..	1	..	..	..	..	1	..
c. Homicide, by gunshot .....	..	29	..	..	..	..	..	..	..	2	7	5	7	2	2	2	..	1	..	1	..	..	..	..	..	4
d. Homicide, by poison .....	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
e. Homicide, by other methods.	..	10	4	..	..	..	..	4	1	..	..	1	1	1	..	..	1	..	1	..	..	..	..	..	..	..
XIV. Ill-defined or Not Specified Causes.																										
177. Dropsy .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
178. Sudden death, not puerperal .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
179. Ill-defined causes....	..	460	403	49	3	2	1	458	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	24
I.—General diseases.....	..	9,277	710	608	418	270	185	2,191	389	223	408	631	736	689	646	600	528	500	451	449	336	244	147	59	50	321
a. Tuberculous dis- eases .....	..	3,862	134	94	75	46	22	371	87	115	313	533	599	510	434	293	191	135	117	73	44	29	13	1	4	224
b. Cancer .....	..	2,831	2	..	1	3	1	7	1	2	7	11	28	60	105	212	225	255	242	253	173	123	72	31	24	23
II.—Diseases of nervous sys- tem and organs of sense .....	..	2,820	443	156	58	48	27	732	91	63	41	38	57	67	76	109	139	189	194	241	228	232	167	97	59	77
III.—Diseases of circulatory system .....	..	3,410	54	9	6	6	9	84	72	82	79	107	116	151	200	189	219	288	290	376	374	327	228	133	95	97
IV.—Diseases of respiratory system .....	..	6,018	1,686	891	291	118	79	3,065	125	63	53	109	135	144	158	178	176	200	265	312	313	268	207	148	99	171
V.—Diseases of digestive system .....	..	4,336	2,285	420	60	40	23	2,828	63	52	30	51	89	105	130	146	124	130	120	119	113	84	65	53	34	76
VI.—Diseases of genito- urinary system....	..	3,205	28	11	12	13	5	69	27	29	51	139	193	212	255	304	240	270	272	285	284	223	189	103	60	111
VII.—Puerperal diseases...	..	763	..	..	..	..	..	..	..	34	153	190	190	133	51	10	2	..	..	..	..	..	..	..	..	16
VIII.—Diseases of skin and cellular tissue....	..	134	31	1	4	1	..	37	2	1	4	4	1	4	4	1	4	3	8	14	14	12	7	6	8	2
IX.—Diseases of locomotory system .....	..	53	17	9	3	..	2	31	4	4	4	1	2	3	..	..	1	1	..	..	..	1	..	1	..	5
X.—Malformations .....	..	288	272	11	..	..	1	284	3	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
XI.—Diseases of infancy..	..	1,747	1,744	2	..	1	..	1,747	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	68
XII.—Diseases of old age..	..	566	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	3	15	39	98	113	138	159	8
XIII.—External causes....	..	1,078	47	30	50	33	40	200	101	24	38	74	74	84	63	70	56	59	40	..	..	..	..	..	..	23
a. Suicide .....	..	151	..	..	..	..	..	..	..	1	4	18	17	24	16	16	17	10	11	10	3	2	2	..	..	..
b. Homicide .....	..	57	7	..	..	1	..	8	1	..	2	9	6	10	4	7	4	1	2	2	1	..	..	..	..	5
c. Accident .....	..	870	40	30	50	32	40	192	100	23	32	47	51	50	43	47	35	48	27	45	34	33	25	23	15	18
XIV.—Causes ill-defined...	..	460	403	49	3	2	1	458	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	24
Total females.....	..	34,155	7,720	2,197	905	532	372	11,726	878	541	743	1,307	1,593	1,649	1,665	1,648	1,497	1,644	1,643	1,868	1,739	1,524	1,150	761	579	1,000

## Total Deaths, According to Sex and Age, by Boroughs and City, Year 1906.

	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col.-Chin- ored. ese.
Borough of Manhattan—																									
Males .....	22,184	5,157	1,337	533	288	161	7,476	528	255	416	756	1,033	1,289	1,460	1,412	1,417	1,320	1,225	1,138	940	707	409	241	162	660
Females .....	17,647	4,307	1,186	430	225	154	6,302	402	269	383	693	809	835	869	888	810	862	838	955	866	721	518	341	286	591
Total, both sexes.....	39,831	9,464	2,523	963	513	315	13,778	930	524	799	1,449	1,842	2,124	2,329	2,300	2,227	2,182	2,063	2,093	1,806	1,428	927	582	448	1,251
Borough of The Bronx—																									
Males .....	3,466	533	191	96	51	33	904	82	54	96	153	227	247	287	258	225	186	165	181	151	96	87	40	27	93
Females .....	2,811	496	187	88	56	25	852	57	39	67	133	182	183	176	140	130	142	126	150	115	124	89	72	34	111
Total, both sexes.....	6,277	1,029	378	184	107	58	1,756	139	93	163	286	409	430	463	398	355	328	291	331	266	220	176	112	61	204
Borough of Brooklyn—																									
Males .....	13,523	3,092	862	389	262	137	4,742	373	177	306	460	557	733	825	798	705	710	634	684	612	504	354	227	122	252
Females .....	11,501	2,361	709	359	218	158	3,805	348	195	252	427	513	530	507	541	459	548	599	638	644	563	440	281	211	251
Total, both sexes.....	25,024	5,453	1,571	748	480	295	8,547	721	372	558	887	1,070	1,263	1,332	1,339	1,164	1,258	1,233	1,322	1,256	1,067	794	508	333	503
Borough of Queens—																									
Males .....	2,001	507	96	44	23	31	701	53	27	50	80	87	92	101	123	135	86	90	100	91	75	49	34	27	38
Females .....	1,582	396	80	24	26	26	552	57	28	31	38	68	69	82	60	73	68	61	81	88	79	69	50	28	42
Total, both sexes.....	3,583	903	176	68	49	57	1,253	110	55	81	118	155	161	183	183	208	154	151	181	179	154	118	84	55	80



	All Ages.	Under 1 Year.	1.	2.	3.	4.	Total, Under 5.	5.	10.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	Col.-Chin- ored. etc.
Borough of Richmond—																									
Males .....	874	179	30	8	9	2	228	20	11	12	35	39	46	59	59	51	44	37	47	51	51	35	29	20	13
Females .....	614	161	36	4	6	8	215	14	10	10	16	21	32	32	20	25	25	16	44	26	36	34	17	21	5
Total, both sexes.....	1,488	340	66	12	15	10	443	34	21	22	51	60	78	91	79	76	69	53	91	77	87	69	46	41	18
City of New York—																									
Males .....	42,048	9,468	2,516	1,070	633	364	14,051	1,056	524	880	1,484	1,943	2,407	2,732	2,650	2,533	2,346	2,151	2,150	1,845	1,433	934	571	358	1,056
Females .....	34,155	7,720	2,197	905	532	372	11,726	878	541	743	1,307	1,593	1,649	1,665	1,648	1,497	1,644	1,643	1,868	1,739	1,524	1,150	761	579	1,000
Total, both sexes.....	76,203	17,188	4,713	1,975	1,165	736	25,777	1,934	1,065	1,623	2,791	3,536	4,056	4,397	4,298	4,030	3,990	3,794	4,018	3,584	2,957	2,084	1,332	937	2,056

## Deaths According to Nativity of Deceased and Parents of Deceased.

Country.	Nativity of Deceased.						Nativity of Parents of Deceased.						
	Borough of					City of New York.	Borough of					City of New York.	
	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.		Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.		
United States .....	24,266	3,801	16,184	2,326	975	47,552	6,678	1,273	6,041	893	437	15,322	
Ireland .....	5,049	746	2,811	320	178	9,104	8,671	1,378	4,967	531	304	15,851	
Germany .....	3,185	781	2,337	547	96	6,946	4,545	1,177	3,497	864	152	10,235	
Italy .....	1,680	226	824	84	36	2,850	5,087	524	2,409	228	93	8,341	
Russia .....	1,594	151	728	34	9	2,516	3,338	287	1,551	84	34	5,294	
England .....	715	137	586	77	52	1,567	686	127	670	88	56	1,627	
Austria-Hungary .....	1,123	104	248	35	11	1,521	2,360	163	496	62	38	3,119	
Scotland .....	236	40	179	25	10	490	290	51	214	33	17	605	
British America .....	193	46	147	11	9	406	125	31	94	10	10	270	
Switzerland .....	124	33	54	8	7	226	116	28	52	11	6	213	
France .....	231	25	60	20	10	346	277	28	71	25	15	416	
Bohemia .....	190	14	1	14	1	220	315	23	....	20	....	358	
Roumania .....	159	12	14	....	1	186	278	21	41	....	2	342	
Poland .....	65	14	68	25	13	185	110	28	157	85	18	398	
Syria .....	18	3	10	....	....	31	29	3	28	....	....	60	
Sweden .....	188	37	224	7	15	471	252	61	343	18	14	688	
Norway .....	55	18	183	5	20	281	70	24	282	11	20	407	
Denmark .....	34	7	54	8	6	109	43	7	65	10	8	133	
Finland .....	35	9	27	3	5	79	54	17	43	3	3	120	
Holland .....	36	5	31	1	5	78	42	5	35	....	4	86	
Cuba .....	17	4	9	3	....	33	19	5	8	1	....	33	
Other West Indies.....	75	18	51	4	2	150	138	20	59	7	1	225	
Belgium .....	15	3	5	1	....	24	17	3	8	....	....	28	
Spain .....	23	....	14	1	....	38	27	1	18	1	....	47	
Greece .....	54	3	8	1	....	66	69	5	12	1	....	87	
China .....	77	....	8	1	1	87	71	....	6	....	1	78	
Australia .....	3	1	6	....	....	10	3	....	....	....	....	3	
Other foreign .....	97	13	52	5	4	171	70	16	40	2	4	132	
Unknown .....	294	26	101	17	22	460	2,887	340	1,084	134	118	4,563	
Mixed nationalities .....	....	....	....	....	....	....	3,164	631	2,733	461	133	7,122	
Total.....	39,831	6,277	25,024	3,583	1,488	76,203	39,831	6,277	25,024	3,583	1,488	76,203	

## Deaths by Accident and Negligence.

	Borough of					City of New York.
	Man- hattan.	The Bronx.	Brook- lyn.	Queens.	Rich- mond.	
Fractions and Contusions.						
Crushed by boats, etc.....	5	..	..	..	..	5
Crushed by derricks, etc.....	5	3	1	2	1	12
Crushed by diving.....	3	..	3	1	..	7
Crushed by elevators.....	43	2	5	..	2	52
Crushed by machinery.....	15	3	9	1	1	29
Crushed by falling buildings.....	9	..	5	1	..	15
Crushed by falling rocks, stones, etc.	31	4	9	5	..	49
Crushed by falling bodies.....	44	7	26	4	3	84
Crushed by explosions.....	9	7	7	6	..	29
Other causes .....	15	3	8	1	1	28
Not specified by Coroners.....	93	3	29	6	2	133
Falls.						
Down airshafts .....	4	2	..	..	..	6
Down areaways .....	3	..	..	..	..	3
Down elevator shafts.....	37	4	4	..	..	45
Down stairs .....	71	8	53	6	..	138
From buildings .....	88	8	15	1	3	115
From fire escapes.....	22	..	4	..	..	26
From roofs .....	34	2	5	1	..	42
From scaffolds .....	21	4	17	1	2	45
Borough of						
	Man- hattan.	The Bronx.	Brook- lyn.	Queens.	Rich- mond.	City of New York.
From windows .....	91	6	30	..	..	127
On shipboard .....	13	..	22	1	..	36
On streets and sidewalks.....	25	3	21	..	..	49
Others .....	70	9	68	7	4	158
Not specified by Coroners.....	101	1	8	3	..	113
Street Vehicles.						
Run over by wagons, trucks, etc.	157	12	45	9	..	223
Falls from wagons, trucks, etc....	34	3	20	1	2	60
Run over by automobiles.....	27	7	20	8	2	64
Run over by other vehicles.....	5	1	2	..	..	8
Railroads.						
Electric .....	81	19	130	13	5	248
Elevated .....	12	2	4	..	..	18
Steam .....	38	72	8	57	10	185
Subways .....	17	2	..	..	..	19
Horse cars .....	2	..	..	..	..	2
Falls from cars.....	35	3	4	2	..	44
Not specified by Coroners.....	..	..	2	..	..	2
Wounds.						
Gunshot .....	11	5	4	5	3	28
Incised .....	2	..	..	..	..	2
Lacerated .....	5	..	6	2	..	13



	Borough of					City of New York.
	Man- hattan.	The Bronx.	Brook- lyn.	Queens.	Rich- mond.	
Others .....	6	1	6	5	..	18
Not specified by Coroners.....	1	..	..	..	..	1
Burns and Scalds.						
From lamps .....	5	1	9	..	..	15
From stoves—oil, gas, etc.....	27	6	16	3	1	53
Playing with matches.....	18	2	11	3	..	34
Others .....	24	3	33	12	..	72
Not specified by Coroners.....	43	..	7	4	2	56
Scalds.						
By fluids .....	56	11	32	9	..	108
By steam .....	2	..	5	..	2	9
Not specified by Coroners.....	..	..	2	..	..	2
Conflagrations .....	16	2	17	1	1	37
Sunstroke .....	70	5	28	7	2	112
Electric current .....	8	3	10	3	..	24
Drowning .....	219	42	134	59	42	496
Illuminating gas .....	125	14	75	12	1	227
Other gases, smoke, etc.....	17	3	5	5	..	30
Neglect and exposure.....	3	2	5	1	3	14
Poisons.						
Asectanilis .....	1	..	..	..	..	1
Alcohol .....	2	..	2	1	..	5
Ammonia .....	..	..	1	..	..	1
Arsenic .....	..	..	2	..	..	2
Atropine .....	1	..	..	..	..	1
Bichloride of mercury.....	2	..	..	..	..	2
Bromide .....	..	..	1	..	..	1
Camphorated oil .....	..	..	1	..	..	1
Carbolic acid .....	5	..	6	2	..	13
Caustic soda .....	..	..	..	1	..	1
Chloral .....	2	..	..	..	..	2
Chlorate of potash.....	..	..	1	..	..	1
Cream of soda.....	..	..	1	..	..	1
Cresoline .....	..	..	1	..	..	1
Cyanide of potassium.....	..	..	1	..	..	1
Ergot .....	..	1	..	..	..	1
Hydrochloric acid .....	..	1	..	..	..	1
Jamaica rum .....	..	..	..	1	..	1
Linament .....	..	..	1	..	..	1
Lysol .....	1	..	..	..	..	1
Mercury .....	1	..	..	..	..	1
Morphine .....	1	1	1	..	..	3
Nitrous acid .....	1	..	..	..	..	1
Oleum gaultheris .....	1	..	..	..	..	1
Oil of wintergreen.....	..	..	1	..	..	1
Opium .....	4	2	1	..	..	7
Oxalic acid .....	..	..	1	..	..	1
Peraldehyde .....	1	..	..	..	..	1

	Borough of					City of New York.
	Man- hattan.	The Bronx.	Brook- lyn.	Queens.	Rich- mond.	
Phosphorus .....	..	..	1	..	..	1
Potash lye .....	..	..	..	1	..	1
Ptomaines .....	10	1	6	1	..	18
Roach powder .....	1	..	1	..	..	2
Strychnine .....	1	..	1	..	..	2
Veronol .....	1	..	..	..	..	1
Wood alcohol .....	1	..	3	..	..	4
Unknown poisons .....	8	1	..	..	..	9
Suffocation.						
Cave in of embankments.....	4	2	3	5	..	14
Food in larynx.....	5	..	2	..	..	7
Foreign body in larynx.....	2	2	..	..	..	4
Overlaid by mother.....	5	1	2	2	..	10
Other causes .....	12	1	5	..	..	18
Not specified by Coroners.....	3	..	1	..	..	4
Circumcision .....	7	..	3	..	..	10
Criminal abortion .....	19	..	6	3	..	28
Surgical operations.....	22	..	..	..	..	22
Caisson disease.....	..	..	..	1	..	1

## RECAPITULATION.

	Borough of					City of New York.
	Man- hattan.	The Bronx.	Brook- lyn.	Queens.	Rich- mond.	
Fractures and contusions.....	272	32	102	27	10	443
Falls .....	580	47	247	20	9	903
Vehicles .....	223	23	87	18	4	355
Railroads .....	185	98	148	72	15	518
Wounds .....	25	6	16	12	3	62
Burns and scalds.....	175	23	115	31	5	349
Conflagrations .....	16	2	17	1	1	37
Sunstroke .....	70	5	28	7	2	112
Electric current .....	8	3	10	3	..	24
Drowning .....	219	42	134	59	42	496
Illuminating gas .....	125	14	75	12	1	227
Other gases, smoke, etc.....	17	3	5	5	..	30
Neglect and exposure.....	3	2	5	1	3	14
Poison .....	45	7	34	7	..	93
Suffocation .....	31	6	13	7	..	57
Circumcision .....	7	..	3	..	..	10
Criminal abortion .....	19	..	6	3	..	28
Surgical operation .....	22	..	..	..	..	22
Caisson disease.....	..	..	..	1	..	1
Total.....	2,042	313	1,045	286	95	3,781

## Deaths by Suicide in the Borough of Manhattan.

	Nativity.																								Total, Both Sexes.
	Austria- Hungary.		Bohemia.		England.		France.		Germany.		Ireland.		Italy.		Russia.		Other Foreign Countries.		United States.		Unknown.		Total by Sexes.		
	Male.	Fe- male.	Male.	Fe- male.	Male.	Fe- male.	Male.	Fe- male.	Male.	Fe- male.	Male.	Fe- male.	Male.	Fe- male.	Male.	Fe- male.	Male.	Fe- male.	Male.	Fe- male.	Male.	Fe- male.	Male.	Fe- male.	
Cuts and stabs.....	..	1	..	..	3	..	..	..	2	1	2	..	1	..	..	..	1	..	8	1	2	..	19	3	22
Drowning .....	..	..	..	..	..	..	..	1	..	..	1	..	..	..	1	..	..	1	..	1	..	3	2	5	
Gunshot .....	6	..	1	..	4	..	3	1	22	1	1	..	7	..	4	..	8	1	35	5	8	..	99	8	107
Hanging .....	4	1	1	..	1	..	1	..	3	1	..	..	2	..	5	2	4	..	3	..	2	..	26	4	30
Leaps .....	..	1	..	1	..	..	..	..	3	..	2	..	2	..	2	2	1	..	8	6	..	1	18	11	29
Railroads .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1	
Aconite .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1	
Ammonia .....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	
Arsenic .....	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	1	2	
Belladonna .....	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	1	
Bichloride of mercury.....	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	1	..	..	2	1	3	
Carbolic acid.....	1	1	..	..	..	..	..	3	..	..	5	..	..	4	..	2	1	9	6	2	..	21	13	34	
Chloride of potassium.....	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1	
Chloroform .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	1	
Cyanide of potassium.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	..	..	3	..	3		
Hydrochloric acid.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	1	1	2		
Hydrocyanic acid.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	2	..	2		
Illuminating gas.....	5	..	1	2	1	..	1	26	7	8	..	2	..	7	1	12	2	23	16	1	5	86	34	120	
Lysol .....	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	2	2	
Morphine .....	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	1	2	..	..	..	4	1	5		
Opium .....	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	1	..	..	..	2	2	4		
Oxalic acid.....	..	..	..	..	..	1	..	..	..	1	1	..	..	..	..	..	..	1	..	..	2	2	4		



	Nativity.																						Total, Both Sexes.		
	Austria-Hungary.		Bohemia.		England.		France.		Germany.		Ireland.		Italy.		Russia.		Other Foreign Countries.		United States.		Unknown.			Total by Sexes.	
	Male.	Fe. male.	Male.	Fe. male.	Male.	Fe. male.	Male.	Fe. male.	Male.	Fe. male.	Male.	Fe. male.	Male.	Fe. male.	Male.	Fe. male.	Male.	Fe. male.	Male.	Fe. male.	Male.	Fe. male.		Male.	Fe. male.
Paris green.....	..	..	..	..	..	..	..	..	I	..	..	..	..	..	..	..	..	..	..	..	..	..	I	I	
Prussic acid.....	I	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	I	..	I	
Strychnine .....	..	..	..	..	..	..	..	..	I	..	..	..	..	..	..	..	..	..	..	..	..	I	..	I	
Unknown poison.....	..	..	..	..	..	..	..	..	I	..	..	..	..	..	..	..	..	..	I	..	..	I	I	2	
Total by sexes.....	18	5	3	3	9	..	5	2	63	12	17	7	15	..	22	7	30	7	99	39	16	6	297	88	385
Total, both sexes...	23		6		9		7		75		24		15		29		37		138		22		385		

## Deaths by Suicide in City of New York.

	Nativity.																								Total by Sexes.	Total, Both Sexes.
	Austria-Hungary.		Bohemia.		England.		France.		Germany.		Ireland.		Italy.		Russia.		Other Foreign Countries.		United States.		Unknown.					
	Male.	Fe. male.	Male.	Fe. male.	Male.	Fe. male.	Male.	Fe. male.	Male.	Fe. male.	Male.	Fe. male.	Male.	Fe. male.	Male.	Fe. male.	Male.	Fe. male.	Male.	Fe. male.	Male.	Fe. male.				
Cuts and stabs.....	1	1	1	..	5	..	..	..	11	1	3	1	2	..	..	..	1	..	13	3	2	..	39	6	45	
Drowning .....	..	..	..	..	1	..	..	..	2	..	..	1	1	..	..	1	1	1	3	2	1	1	9	6	15	
Gunshot .....	7	..	1	..	7	..	4	1	48	2	5	..	18	..	7	..	10	2	75	9	16	..	198	14	212	
Hanging .....	5	1	1	..	1	..	1	..	20	5	..	..	3	..	6	2	8	..	10	2	4	..	59	10	69	
Leaps .....	..	1	..	1	..	..	..	1	6	..	2	1	2	..	2	3	2	2	9	7	..	1	23	17	40	
Railroads .....	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	2	..	2	
Aconite .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1	
Ammonia .....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	
Arsenic .....	..	1	..	..	..	..	..	..	2	1	1	..	..	..	..	1	..	..	2	..	..	..	5	3	8	
Belladonna .....	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1	
Bichloride of mercury.....	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	1	1	..	..	2	2	4	
Carbolic acid.....	2	1	..	..	..	..	..	..	11	3	4	6	..	1	7	..	2	2	20	10	4	..	50	23	73	
Chloride of potassium.....	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	1	
Chloroform .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	1	
Cyanide of ammonia.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1	
Cyanide of potassium.....	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	5	..	..	..	..	6	..	6	
Hydrochloric acid.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	1	1	2	
Hydrocyanic acid.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	2	..	2	
Illuminating gas.....	7	1	1	2	4	..	1	1	48	18	10	1	3	..	10	1	17	3	34	25	1	5	136	57	193	
Lysol .....	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	2	2	
Morphine .....	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	1	2	..	1	..	5	1	6	
Muriatic acid.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1	
Opium .....	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	1	1	3	..	..	..	5	2	7	
Oxalic acid.....	..	..	..	..	..	..	1	..	..	..	1	1	..	..	..	..	..	1	2	..	..	..	3	3	6	
Paris green.....	1	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	1	..	..	..	1	2	3	
Prussic acid.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	1	
Strychnine .....	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	
Unknown poison.....	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	1	..	..	2	1	3	
Total by sexes.....	24	6	4	3	19	..	7	3	153	33	28	11	30	1	32	9	44	13	186	65	29	7	556	151	707	
Total, both sexes...	30		7		19		10		186		39		31		41		57		251		36		707			

The 707 suicides occurred in the boroughs as follows: Manhattan, 385; The Bronx, 57; Brooklyn, 204; Queens, 48; Richmond, 13.

## Deaths in Institutions, Year of 1906.

## BOROUGH OF MANHATTAN.

Babies' Hospital .....	315	Reception Hospital .....	151
Bellevue Hospital .....	2,711	Roosevelt Hospital .....	505
Beth Israel Hospital.....	211	St. Francis' Hospital.....	121
City Hospital .....	328	St. Luke's Hospital.....	348
Columbus Hospital .....	66	St. Mark's Hospital.....	70
Flower Hospital .....	176	St. Mary's Free Hospital for Children.....	49
Foundling Hospital .....	1,142	St. Vincent's Hospital.....	471
French Hospital .....	94	Skin and Cancer Hospital.....	17
General Memorial Hospital.....	37	Sloane Maternity Hospital.....	79
German Hospital .....	263	Sydenham Hospital .....	82
Gouverneur Hospital .....	254	Trinity Hospital .....	12
Hahneman Hospital .....	54	Willard Parker Hospital.....	235
Harlem Hospital .....	377	Work House Hospital.....	46
Home for the Aged (Little Sisters of the Poor).....	45	J. Hood Wright Hospital.....	209
Home for Aged Hebrews.....	31	Other institutions .....	777
House of Relief.....	320	Total .....	14,866
Immigration Hospital (Ellis Island).....	59		
Italian Hospital .....	29	BOROUGH OF THE BRONX.	
Lying-in Hospital .....	259	Fordham Hospital .....	167
Manhattan Eye and Ear Hospital.....	28	Home for Incurables.....	83
Manhattan State Hospital.....	399	Lebanon Hospital .....	343
Maternity Hospital .....	136	Lincoln Hospital and Home.....	412
Metropolitan Hospital .....	1,120	Odd Fellows' Home.....	10
Montefiore Home .....	96	Riverside Hospital .....	461
Mount Sinai Hospital.....	697	St. Francis' Hospital.....	102
New York City Home for Aged and Infirm.....	641	St. Joseph's Hospital.....	591
New York Hospital.....	431	Seton Hospital .....	359
New York Eye and Ear Hospital.....	26	Work House Hospital.....	62
New York City Schools and Hospital.....	80	Other Institutions .....	49
New York Infant Asylum.....	171	Total .....	2,639
New York Infirmary for Women and Children.....	17		
Nursery and Child's Hospital.....	104	BOROUGH OF BROOKLYN.	
Polyclinic Hospital .....	52	Angel Guardian Home.....	226
Post Graduate Hospital.....	397	Bradford Street Hospital.....	15
Presbyterian Hospital .....	528	Bethesda Home .....	11
		Brooklyn Hospital .....	207



Bushwick Hospital .....	74
Bethany Deaconess' Home.....	32
Cumberland Street Hospital.....	307
Eastern District Hospital.....	95
German Hospital .....	241
German Evangelical Home.....	48
Home for Aged (Little Sisters of the Poor).....	70
Home for Consumptives.....	136
House of Good Shepherd.....	11
Infants' Hospital .....	30
Jewish Hospital .....	2
Kings County Hospital.....	901
Kings County Jail.....	3
Kings County Penitentiary.....	7
Kings County Emergency Hospital.....	15
Kingston Avenue Hospital.....	469
Long Island College Hospital.....	315
Long Island State Hospital.....	133
Lutheran Hospital .....	40
Memorial Hospital .....	15
Methodist Episcopal Hospital.....	170
New York City Home for Aged and Infirm.....	345
Norwegian Hospital .....	146
Prospect Heights Hospital.....	27
Swedish Hospital .....	4
St. Catherine's Hospital.....	318
St. Christopher's Hospital.....	81
St. John's Hospital.....	99
St. Mary's Hospital.....	287
St. Mary's Maternity Hospital.....	41
St. Peter's Hospital.....	511
Samaritan Hospital .....	9
Williamsburg Hospital .....	133
Other institutions .....	237
Total .....	5,811

## BOROUGH OF QUEENS.

Flushing Hospital .....	88
Jamaica Hospital .....	51
River Crest Sanitarium.....	16
St. John's Hospital.....	235
St. Joseph's Hospital.....	43
St. Mary's Hospital.....	71
Other institutions .....	35
Total .....	539

## BOROUGH OF RICHMOND.

Almshouse .....	18
Mount Loretto .....	16
Sailors' Snug Harbor.....	83
Seaside Hospital .....	104
S. R. Smith Infirmary.....	141
St. Vincent's Hospital.....	185
United States Marine Hospital.....	33
Other institutions .....	9
Total .....	589

## Recapitulation.

Almshouses .....	1,005
Homes for Aged.....	600
Hospitals .....	20,261
Institutions for children.....	1,741
Institutions for insane.....	532
Prisons .....	155
Other institutions .....	150
Total .....	22,444

## Disposition of the Dead, and of Still-born Infants in The City of New York.

Cemetery.	Boroughs of					City of New York.
	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.	
Acacia .....				204		204
Almshouse .....					77	77
A. M. E. Zion.....					12	12
Aqueduct .....				3		3
Bayside .....				492		492
Baron Hirsch .....					208	208
Bethel .....						
Calvary .....				21,763		21,763
Canarsie .....			62			62
Cedar Grove .....				772		772
City .....		5,060				5,060
Colored Burying Grounds, Elmhurst.....				2		2
County Farms .....			1,155			1,155
Cypress Hills .....			597	1,289		1,886
Elmhurst .....				3		3
Evergreens .....			843	3,944		4,787
Fairview .....					94	94
Flatlands .....			7			7
Flushing .....				238		238
Fountain .....					27	27
Friends .....			21			21
Gravesend .....			19			19
Greenwood .....			3,906			3,906
Grace Church .....				12		12
Hillside .....					7	7
Holy Cross .....			6,269			6,269
Holy Trinity .....			1,710			1,710
Little Neck .....				3		3
Lake .....					51	51
Linden Hill .....				2,401		2,401
Long Island State Hospital.....			6			6
Lutheran .....				5,764		5,764
Machpelah .....				197		197
Maimonides .....			113			113
Maple Grove .....				197		197
Marble .....	4					4
Methodist .....		1				1
Methodist Episcopal .....				3		3
Moravian .....					306	306
Mount Carmel .....				1		1
Mount Zion .....				3,387		3,387
Mount Nebo .....				198		198
Mount Olivet .....				1,905		1,905
Mount Loretto .....					11	11
Mount Hope .....			111			111
Mount St. Mary's.....				268		268
National .....			89			89
New Lots .....			4			4
New Springfield .....					12	12
New Union Fields .....				229		229
Ocean View .....						
Parsons .....				1		1
Pelham Bay .....		21				21
Prospect .....				48		48
Sailors' Snug Harbor.....					54	54
Salem Fields .....			176			176
Sandy Hill .....						
St. Andrews .....						
St. George's .....				3		3
St. John's .....				1,746		1,746
St. James .....				2		2
St. Joseph's .....						
St. Luke's .....						
St. Mary's, Astoria.....				7		7
St. Mary's Carmelite.....						
St. Mary's, Third Ward.....					47	47
St. Mary's, Fourth Ward.....					138	138
St. Michael's .....				1,698		1,698
St. Monica's .....				123		123
St. Peter's .....		43			314	357
St. Raymond's .....		2,257				2,257
Silver Lake .....					1,824	1,824
Silver Mount .....					106	106
Springfield .....				53		53
Staten Island .....					30	30
Sylvan .....						
Trinity .....		38				38
Trinity Churchyard .....		1				1
Union Fields .....				533		533
United Jewish Congregational.....			51			51
United States Crematory.....				942		942
Vaughn .....					4	4
Washington .....			2,811			2,811
Woodland .....					163	163
Woodlawn .....		2,217				2,217
Woodrow Church .....						
West Baptist .....						
Zion Douglaston .....				10		10
Total.....	43	9,599	17,950	48,441	3,485	79,518



The following tables present statistics relating to the present City of New York, showing the growth of population since 1800 in the territory now comprised within the  
Population of the Former City of  
BOROUGH OF MANHAT

Ward.	Year of Formation.	From What Taken.	1800.	1810.	1814.	1820.	1825.	1830.	1835.	1840.
First .....	1791	.....	4,320	7,941	7,630	12,085	9,929	11,331	10,380	10,629
Second .....	1791	.....	5,167	8,493	7,439	8,214	9,315	8,203	7,549	6,394
Third .....	1791	.....	6,449	7,426	7,495	9,201	10,801	9,599	10,884	11,581
Fourth .....	1791	.....	6,935	10,226	9,856	10,736	12,240	12,705	15,439	15,770
Fifth .....	1791	.....	9,148	14,744	14,523	12,421	15,093	17,722	18,495	19,159
Sixth .....	1791	.....	13,076	11,286	11,821	13,309	20,061	13,570	14,827	17,198
Seventh .....	1791	.....	15,394	12,120	10,886	13,006	14,192	15,873	21,481	22,982
Eighth .....	1803	Seventh Ward.....	.....	9,128	10,702	13,766	24,285	20,729	28,570	29,073
Ninth .....	1803	Seventh Ward.....	.....	4,719	4,343	11,162	10,956	17,333	20,618	24,795
Tenth .....	1808	Seventh Ward.....	.....	10,290	10,824	17,806	23,932	16,438	20,926	29,026
Eleventh .....	1825	Ninth and Tenth Wards.....	.....	.....	.....	.....	7,344	14,915	26,845	17,053
Twelfth .....	1825	Ninth and Tenth Wards.....	.....	.....	.....	.....	7,938	11,808	24,437	11,652
Thirteenth .....	1827	Tenth Ward.....	.....	.....	.....	.....	.....	12,598	17,130	18,517
Fourteenth .....	1827	Sixth and Eighth Wards.....	.....	.....	.....	.....	.....	14,288	17,306	20,235
Fifteenth .....	1832	Ninth Ward.....	.....	.....	.....	.....	.....	.....	13,202	17,755
Sixteenth .....	1836	Twelfth Ward.....	.....	.....	.....	.....	.....	.....	.....	22,723
Seventeenth .....	1837	Eleventh Ward.....	.....	.....	.....	.....	.....	.....	.....	18,619
Eighteenth .....	1846	Sixteenth Ward.....	.....	.....	.....	.....	.....	.....	.....	.....
Nineteenth .....	1850	Twelfth Ward.....	.....	.....	.....	.....	.....	.....	.....	.....
Twentieth .....	1851	Sixteenth Ward.....	.....	.....	.....	.....	.....	.....	.....	.....
Twenty-first .....	1853	Eighteenth Ward.....	.....	.....	.....	.....	.....	.....	.....	.....
Twenty-second .....	1853	Nineteenth Ward.....	.....	.....	.....	.....	.....	.....	.....	.....
Twenty-third .....	1874	Westchester County.....	.....	.....	.....	.....	.....	.....	.....	.....
Twenty-fourth .....	1874 and 1895	Westchester County.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....			60,489	96,373	95,519	123,706	166,086	197,112	268,089	312,710

NOTE.—In this and the four following tables, the columns headed by decade years give the results of the United States census, and the others, excepting when otherwise stated, the results of the figures, for years prior to 1870, for this and the following tables, are taken from the official report of the New York State census of 1865. The totals at the foot of the columns for totals, that for 1840 being 313,161; for 1850, 515,557, and for 1860, 813,668.

The city was originally divided into seven wards in 1686, by Governor Dongan's charter. They were not numbered at that time, but were called the West, South, Dock, East, North and

\* The New York State census of New York City (Boroughs of Manhattan and The Bronx) was not taken by wards, but by assembly districts, so that only the total is available for this table.

N. B.—The Twenty-third and Twenty-fourth Wards constitute the present Borough of The Bronx. They were formed from a part of Westchester County, and owing to the division of

represented above, which afterward became a part of New York, was separated from Westchester County as a whole, and formed into the towns of West Farms (1846) and Morrisania, formed from

A. On June 6, 1895, a portion of Westchester County, comprising a part of the present Twenty-fourth Ward, was annexed to The City of New York; the population of this annexed

#### Deaths of Persons 100 Years of Age and Over.

Date of Death.	Name.	Age.			Nativity.	Cause of Death.	Borough of					City of New York.
		Years.	Months.	Days.			Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.	
Mar. 7, 1906	Joseph O'Donnell .....	102	..	..	Ireland.....	Bright's disease .....	1	..	..	..	..	1
Mar. 9, 1906	Elizabeth Jackson .....	100	..	..	United States....	Heart disease .....	1	..	..	..	..	1
Mar. 16, 1906	Johanna Smiddy.....	102	..	..	Ireland.....	Old age .....	..	..	1	..	..	1
May 31, 1906	Rebecca Mochalei .....	101	..	..	Hungary.....	Old age.....	1	..	..	..	..	1
June 12, 1906	Rose Lafeyine .....	103	..	..	Italy.....	Endocarditis .....	1	..	..	..	..	1
July 4, 1906	Mary Fay .....	105	..	..	England.....	Endocarditis .....	1	..	..	..	..	1
July 28, 1906	Catherine Ross .....	100	..	..	Ireland.....	Senility .....	1	..	..	..	..	1
Aug. 13, 1906	Louis Perlstein.....	101	..	..	Russia.....	Senility .....	1	..	..	..	..	1
Sept. 1, 1906	Donato Migliano .....	101	..	..	Italy.....	Disease of prostate.....	1	..	..	..	..	1
July 19, 1906	Ellen Green .....	101	..	..	United States....	Old age .....	..	..	..	1	..	1
Oct. 4, 1906	Mary Murphy .....	100	..	..	Ireland.....	Old age .....	..	..	1	..	..	1
Oct. 16, 1906	Fanny Deufski .....	104	..	..	Russia.....	Gangrene .....	1	..	..	..	..	1
Dec. 9, 1906	Anna Teski .....	101	..	..	Germany.....	Gangrene .....	..	1	..	..	..	1
Dec. 25, 1906	Izrael Freedman .....	101	..	..	Russia.....	Pulmonary oedema .....	1	..	..	..	..	1
Dec. 28, 1906	Leibe Solomonson .....	100	..	..	Germany.....	Old age .....	1	..	..	..	..	1
Total.....							11	1	2	1	..	15

#### OFFICE OF THE SECRETARY OF THE DEPARTMENT OF HEALTH.

##### Quarter ending.....

The following official reports, communications and applications, summarized and classified as to the subject matter, were received in the office of the Assistant Chief Clerk and submitted to the Board, through the Secretary, for consideration and final action:

Special reports and communications submitted to the Board of Health for action .....	.....
Premises declared a public nuisance.....	.....
Premises ordered vacated.....	.....
Lodging-house permits granted.....	.....
Cow permits granted .....	.....
Mercantile permits granted .....	.....
Miscellaneous permits granted .....	.....
Permits denied .....	.....
Permits revoked .....	.....
Board orders extended or modified .....	.....
Extension or modification of Board orders denied.....	.....
Board orders rescinded .....	.....
Delayed and imperfect certificates of birth, marriages and deaths approved and ordered filed .....	.....
Corrected certificates of births, marriages and deaths approved and ordered filed .....	.....
Certificates of registration issued to master plumbers.....	.....

#### Summaries for Years 1790 to 1906 Inclusive.

The following tables have been compiled from the records of the Health Departments of New York and Brooklyn before consolidation into the present City of New York. The New York tables, therefore, present the statistics of the present boroughs of Manhattan and The Bronx, and the Brooklyn tables those of the present Borough of Brooklyn. It has been found impossible to prepare similar tables for the boroughs of Queens and Richmond:

##### FORMER NEW YORK (BOROUGH OF MANHATTAN AND THE BRONX).

##### Estimated Population, Deaths, Births and Marriages, from 1790 to 1906 Inclusive.

Year.	Popula- tion.	Deaths.	*Births.	*Mar- riages.
1790.....	32,962	.....	.....	.....
1791.....	35,009	.....	.....	.....
1792.....	37,182	.....	.....	.....
1793.....	39,491	.....	.....	.....
1794.....	41,943	.....	.....	.....
1795.....	44,548	.....	.....	.....



limits of that city, so far as the same can be ascertained, together with the development and successive segregation of the smaller civil divisions thereof:

New York, by Census, Since 1800.

TAN AND THE BRONX.

1845.	1850.	1855.	1860.	1865.	1870.	1875.	1880.	United States Census, 1890.	Police Census, 1890.	*New York State Census, 1892.	Police Census, 1895.	United States Census, 1900.	*New York State Cen- sus, 1905.
12,230	19,754	13,486	18,148	9,852	14,463	14,298	17,939	11,122	12,075	.....	12,508	9,516	.....
6,962	6,665	3,249	2,506	1,194	1,312	1,012	1,608	929	1,510	.....	1,038	1,488	.....
11,900	10,355	7,909	3,757	3,867	3,715	2,874	3,582	3,765	3,418	.....	4,014	1,797	.....
21,000	23,250	22,895	21,994	17,352	23,748	20,828	20,996	17,809	19,337	.....	18,405	19,554	.....
20,362	22,686	21,617	22,337	18,205	17,150	15,951	15,845	12,385	12,949	.....	10,603	8,298	.....
19,343	24,698	25,562	26,696	19,754	21,153	19,861	20,196	23,119	23,058	.....	22,897	20,004	.....
25,556	32,690	34,422	39,982	36,962	44,818	45,636	50,066	57,366	62,139	.....	74,227	89,237	.....
30,900	34,612	34,052	39,406	30,098	34,913	32,465	35,879	31,220	41,890	.....	31,374	29,059	.....
30,907	40,657	39,982	44,385	38,504	47,609	49,403	54,596	54,425	60,243	.....	60,987	59,650	.....
20,993	23,316	26,378	29,004	31,537	41,431	41,757	47,554	57,596	64,076	.....	70,168	71,879	.....
27,259	43,758	52,979	59,571	58,953	64,230	63,855	68,778	75,426	83,337	.....	86,722	99,144	.....
13,378	10,451	17,656	30,651	28,259	47,497	60,510	81,800	245,046	275,587	.....	364,412	476,602	.....
22,411	28,246	26,597	32,917	26,388	33,364	34,013	37,797	45,884	51,649	.....	58,802	64,117	.....
21,103	25,196	24,754	28,080	23,382	26,456	26,453	30,171	28,094	30,752	.....	31,904	34,035	.....
19,422	22,564	24,046	27,587	25,572	27,587	25,529	31,882	25,399	32,707	.....	26,216	24,066	.....
40,350	52,882	39,823	45,176	41,972	48,359	48,235	52,188	49,134	61,419	.....	57,430	52,808	.....
27,147	43,766	59,548	72,953	79,563	95,365	101,075	104,837	103,158	107,737	.....	114,727	130,796	.....
.....	31,546	39,415	57,462	47,613	59,593	61,195	66,611	63,270	70,299	.....	67,469	61,325	.....
.....	18,465	17,866	32,795	39,945	86,090	118,727	158,191	234,846	257,766	.....	267,076	257,448	.....
.....	.....	47,055	67,519	61,884	75,407	79,764	86,015	84,327	93,844	.....	94,969	89,798	.....
.....	.....	27,914	49,017	38,669	56,703	58,831	66,536	63,019	78,689	.....	72,144	60,211	.....
.....	.....	22,605	61,725	47,361	71,349	83,420	111,606	153,877	184,979	.....	194,893	189,261	.....
.....	4,436	12,436	16,343	19,024	28,981	24,320 11,874	28,338 13,288	53,948 20,137	60,445 20,810	.....	81,567 26,508	132,413 A 68,094	.....
371,223	519,983	642,246	830,012	745,410	971,273	1,041,886	1,206,299	1,515,301	1,710,715	1,801,739	1,851,060	2,050,600	2,384,326

the New York State census.

1840, 1850 and 1860 are the true totals, as given in the reports of the United States census for those years. The actual figures of the columns, however, when summed up, do not give the same Montgomerie Wards, the rest of Manhattan Island forming the Out Ward.

townships and villages, correct figures cannot be given previous to the census of 1875, the population, as given in the table for previous years, being the minimum, but not the true total. The portion West Farms (1855).  
district June 1, 1900, according to the United States census, was 25,085.

Year.	Popula- tion.	Deaths.	*Births.	*Mar- riages.	Year.	Popula- tion.	Deaths.	*Births.	*Mar- riages.
1796.....	47,314	.....	.....	.....	1834.....	255,230	8,937	.....	.....
1797.....	50,252	.....	.....	.....	1835.....	270,089	7,096	.....	.....
1798.....	53,372	.....	.....	.....	1836.....	278,275	8,068	.....	.....
1799.....	56,686	.....	.....	.....	1837.....	286,719	8,626	.....	.....
1800.....	60,206	.....	.....	.....	1838.....	295,400	7,911	.....	.....
1801.....	63,081	.....	.....	.....	1839.....	304,353	7,910	.....	.....
1802.....	66,094	.....	.....	.....	1840.....	313,578	8,469	.....	.....
1803.....	69,250	.....	.....	.....	1841.....	324,342	9,093	.....	.....
1804.....	72,557	2,084	.....	.....	1842.....	335,474	9,154	.....	.....
1805.....	76,023	2,297	.....	.....	1843.....	346,991	8,659	.....	.....
1806.....	79,653	2,174	.....	.....	1844.....	358,902	8,890	.....	.....
1807.....	83,456	2,236	.....	.....	1845.....	371,223	10,122	.....	.....
1808.....	87,442	1,950	.....	.....	1846.....	396,686	11,411	.....	.....
1809.....	91,618	2,038	.....	.....	1847.....	423,896	14,844	317	185
1810.....	95,993	2,073	.....	.....	1848.....	452,972	14,892	170	199
1811.....	95,957	2,431	.....	.....	1849.....	484,043	22,605	.....	.....
1812.....	95,920	2,503	.....	.....	1850.....	517,246	15,826	.....	.....
1813.....	95,884	2,335	.....	.....	1851.....	538,490	20,738	.....	.....
1814.....	95,848	1,884	.....	.....	1852.....	560,607	20,196	.....	.....
1815.....	99,952	2,511	.....	.....	1853.....	583,632	21,979	10,157	3,203
1816.....	104,232	3,000	.....	.....	1854.....	607,603	28,473	17,979	5,595
1817.....	108,695	2,409	.....	.....	1855.....	632,559	24,448	14,145	4,199
1818.....	113,350	3,106	.....	.....	1856.....	664,980	21,748	16,199	3,633
1819.....	118,204	3,178	.....	.....	1857.....	699,062	22,811	18,427	3,710
1820.....	123,266	3,522	.....	.....	1858.....	734,892	23,269	13,340	3,942
1821.....	130,840	3,422	.....	.....	1859.....	772,558	22,745	9,035	3,100
1822.....	138,879	3,212	.....	.....	1860.....	812,154	24,760	12,454	4,241
1823.....	147,413	3,551	.....	.....	1861.....	794,905	24,525	10,004	2,993
1824.....	156,471	4,224	.....	.....	1862.....	778,023	23,150	7,612	2,896
1825.....	166,086	4,920	.....	.....	1863.....	761,500	26,617	6,426	3,272
1826.....	172,978	4,961	.....	.....	1864.....	745,327	25,792	5,877	2,675
1827.....	180,157	5,139	.....	.....	1865.....	729,498	25,767	5,332	2,733
1828.....	187,634	4,843	.....	.....	1866.....	767,979	26,815	10,006	5,792
1829.....	195,421	4,734	.....	.....	1867.....	808,489	23,159	12,535	7,144
1830.....	203,532	5,522	.....	.....	1868.....	851,137	24,889	12,590	6,926
1831.....	215,381	6,347	.....	.....	1869.....	896,034	25,167	13,947	8,695
1832.....	227,920	10,257	.....	.....	1870.....	943,300	27,175	14,524	7,985
1833.....	241,188	5,689	.....	.....	1871.....	955,921	26,976	20,821	8,646



Year.	Popula- tion.	Deaths.	*Births.	*Mar- riages.
1873.....	981,671	29,084	22,683	8,871
1872.....	968,710	32,647	22,068	9,008
1874.....	1,030,607	28,727	25,747	8,397
1875.....	1,044,396	30,709	23,813	7,565
1876.....	1,075,532	29,152	23,744	7,099
1877.....	1,107,597	26,203	25,569	7,129
1878.....	1,140,617	27,008	25,729	7,629
1879.....	1,174,621	28,342	25,573	8,446
1880.....	1,209,196	31,937	27,536	9,002
1881.....	1,244,511	38,624	26,130	10,077
1882.....	1,280,857	37,924	27,321	11,085
1883.....	1,318,264	34,011	28,972	11,556
1884.....	1,356,764	35,034	30,527	11,805
1885.....	1,396,388	35,682	30,030	11,716
1886.....	1,437,170	37,351	31,319	12,216
1887.....	1,479,143	38,933	34,023	13,740
1888.....	1,522,341	40,175	36,136	14,533
1889.....	1,566,801	39,679	37,527	14,400
1890.....	1,612,559	40,103	39,250	14,972
1891.....	1,659,654	43,659	46,904	15,764
1892.....	1,708,124	44,329	49,447	16,001
1893.....	1,758,010	44,486	51,529	16,144
1894.....	1,809,353	41,175	55,636	17,388
1895.....	1,873,201	43,420	53,731	20,612
1896.....	1,906,139	41,622	55,623	20,513
1897.....	1,940,553	38,877	54,089	20,365
1898.....	1,976,572	40,438	53,359	20,769
1899.....	2,014,330	39,911	52,068	21,740
1900.....	2,055,714	43,227	54,616	22,927
1901.....	2,118,209	43,304	54,013	23,962
1902.....	2,182,836	41,704	57,511	25,993
1903.....	2,249,680	41,776	62,131	27,265
1904.....	2,318,831	48,743	65,229	27,965
1905.....	2,390,382	45,199	66,862	30,228
1906.....	2,484,432	46,108	70,311	34,369

\*Incomplete.

†First year of registration of births and marriages.

‡Births and marriages from July 1 to December 2.

Population of Former City of New York, from 1628 to 1900, with Dates and Numbers of Censuses.

Year.	Population.	Authority.
1628.....	270	City Inspector's Report, 1861.
1656.....	1,000	City Inspector's Report, 1861.
1664.....	1,500	City Inspector's Report, 1861.
1697.....	4,302	Census (Noah Webster in "American Magazine," New York, March, 1788).
1703.....	4,375	City Inspector's Report, 1861.
1712.....	5,841	City Inspector's Report, 1861.
1723.....	7,248	City Inspector's Report, 1861.
1731.....	8,622	City Inspector's Report, 1861.
1737.....	10,664	City Inspector's Report, 1861.
1746.....	11,717	City Inspector's Report, 1861.
1749.....	13,294	City Inspector's Report, 1861.
1756.....	13,046	Noah Webster, loc. cit.
1771.....	21,862	Noah Webster, loc. cit.
1786.....	23,614	Noah Webster, loc. cit.
1790.....	33,131	United States Census, August 1.
1800.....	60,515	United States Census, August 1.

Year.	Population.	Authority.
1810.....	96,373	United States Census, August 1.
1814.....	95,519	New York State Census, June 1.
1820.....	123,706	United States Census, August 1.
1825.....	166,086	New York State Census, July 1. (?)
1830.....	202,589	United States Census, June 1.
1835.....	270,089	New York State Census, July 1. (?)
1840.....	312,710	United States Census, June 1.
1845.....	371,223	New York State Census, July 1.
1850.....	515,547	United States Census, June 1.
1855.....	629,904	New York State Census, June 1.
1860.....	813,669	United States Census, June 1.
1865.....	726,386	New York State Census, June 1.
1870.....	942,292	United States Census, June 1.
1875.....	*1,041,886	New York State Census, June 1.
1880.....	1,206,299	United States Census, June 1.
1890.....	1,513,501	United States Census, June 1.
1900.....	†2,050,600	United States Census, June 1.
1905.....	2,384,326	New York State Census, June 1.

Note—A city census, taken by order of the Common Council in 1805 (date uncertain), gave the population as 75,770; a second, taken under similar auspices in 1816 (date uncertain), gave the population variously at 93,634 and 100,619.

\*On January 1, 1874, a portion of Westchester County, comprising the present Twenty-third and Twenty-fourth Wards, was annexed to The City of New York; the population of this annexed district June 1, 1875, according to the New York State Census, was 36,194.

†On June 6, 1895, a portion of Westchester County, comprising a part of the present Twenty-fourth Ward, was annexed to The City of New York; the population of this annexed district June 1, 1900, according to the United States Census, was 25,085.

## Population of Former New York City by Wards.

	1860.	1865.	1870.	1875.	1880.	1890.	1900.
						*U. S. Census.	†Police Census.
First .....	18,148	9,852	14,463	14,298	17,939	11,105	12,075
Second .....	2,506	1,194	1,312	1,012	1,608	922	1,510
Third .....	3,757	3,367	3,715	2,874	3,582	3,757	3,418
Fourth .....	21,994	17,352	23,748	20,828	20,996	17,764	19,337
Fifth .....	22,337	18,205	17,150	15,951	15,845	12,351	12,949
Sixth .....	26,696	19,754	21,153	19,861	20,196	22,993	23,058
Seventh .....	39,982	36,962	44,818	45,636	50,066	57,231	62,139
Eighth .....	39,406	30,098	34,913	32,465	35,879	31,169	41,890
Ninth .....	44,385	38,504	47,609	49,403	54,596	54,654	60,243
Tenth .....	29,004	31,537	41,431	41,757	47,554	57,514	64,076
Eleventh .....	59,571	58,953	64,230	63,855	68,778	75,708	83,337
Twelfth .....	30,651	28,259	47,497	60,510	81,800	244,793	275,587
Thirteenth .....	32,917	26,388	33,364	34,013	37,797	45,882	51,649
Fourteenth .....	28,080	23,382	26,436	26,453	30,171	28,038	30,752
Fifteenth .....	27,587	25,572	27,587	25,529	31,882	25,185	32,707
Sixteenth .....	45,176	41,972	48,359	48,235	52,188	49,250	61,419
Seventeenth .....	72,954	79,563	95,365	101,075	104,837	102,668	107,737
Eighteenth .....	57,462	47,613	59,593	61,195	66,611	63,100	70,299
Nineteenth .....	32,795	39,945	86,090	118,727	158,191	232,978	257,766
Twentieth .....	67,519	61,884	75,407	79,764	86,015	84,218	93,844
Twenty-first .....	49,017	38,669	56,703	58,831	66,536	62,295	78,689
Twenty-second .....	61,725	47,361	71,349	83,420	111,606	156,526	184,979
Twenty-third .....				24,320	28,338	53,621	60,445
†Twenty-fourth .....				11,874	13,288	19,779	20,810
Total.....	813,669	726,386	942,292	1,041,886	1,206,299	1,513,501	1,710,715

\* June 1, 1890.

† October, 1890.

‡ Twenty-third and Twenty-fourth Wards annexed January 1, 1874.

A. On June 6, 1895, a portion of Westchester County, comprising a part of the present Twenty-fourth Ward, was annexed to The City of New York; the population of this annexed district, June 1, 1900, according to the United States Census, was 25,085.

## Former New York.

## BOROUGH OF MANHATTAN AND THE BRONX.

## Annual Number of Deaths from Prominent Causes for Thirty-nine Years.

Year.	Cerebro-spinal Meningitis.	Diphtheria.	Croup.	b Typhoid Fever.	Typhus Fever.	Measles.	Scarlet Fever.	c Smallpox.	Malarial Fever.	Whooping Cough.	g Diarrhoeal Diseases.	g Diarrhoeal Diseases of Children Under Five Years of Age.	Cancer.	Pulmonary Tuberculosis.	Other Tuberculous Diseases.	Heart Diseases.	e Diseases of Nervous System.	Bronchitis.	Pneumonia.	Bright's Disease.	Puerperal Fever.	Other Puerperal Diseases.	Sunstroke.	Accidents.	Homicide.	Suicide.
1868.....	34	277	342	329	137	200	861	26	132	217	4,150	3,526	315	3,414	727	615	3,364	803	1,668	534	101	121	196	733	46	98
1869.....	42	328	483	378	125	526	966	203	128	358	3,463	2,884	304	3,364	846	686	2,950	877	2,100	557	108	116	26	797	37	102
1870.....	32	308	421	422	96	298	975	293	213	201	4,483	3,917	355	4,030	926	699	3,037	855	1,836	787	150	128	238	834	45	101
1871.....	48	238	466	251	65	409	791	805	279	465	3,869	3,353	335	4,186	886	813	2,656	964	1,834	947	193	188	21	21,071	65	114
1872.....	782	446	675	386	86	463	990	929	326	565	5,538	4,915	392	4,274	999	894	3,159	1,040	2,150	949	284	192	320	1,108	69	144
1873.....	290	1,151	732	313	39	306	1,045	117	263	268	4,475	3,903	425	4,134	905	860	2,777	1,068	2,328	876	258	169	34	968	73	118



Year.	Cerebro-spinal Meningitis.	Diphtheria.	Croup.	<i>b</i> Typhoid Fever.	Typhus Fever.	Measles.	Scarlet Fever.	<i>c</i> Smallpox.	Malarial Fever.	Whooping Cough.	<i>g</i> Diarrhical Diseases.	<i>g</i> Diarrhical Diseases of Children Under Five Years of Age.	Cancer.	Pulmonary Tuberculosis.	Other Tuberculous Diseases.	Heart Diseases.	<i>e</i> Diseases of Nervous System.	Bronchitis.	Pneumonia.	Bright's Disease.	Puerperal Fever.	Other Puerperal Diseases.	Stroke.	Accidents.	Homicide.	Suicide.
1874.....	158	1,665	594	305	14	319	879	484	265	489	3,900	3,468	416	4,034	817	883	2,432	1,065	2,398	828	232	161	19	1,008	59	180
1875.....	146	2,329	758	376	28	167	514	1,280	246	407	4,047	3,575	424	4,172	773	985	2,417	1,111	2,802	909	222	148	19	967	62	155
1876.....	127	1,750	527	325	20	362	891	315	195	406	4,077	3,632	459	4,194	776	992	2,457	1,214	2,542	958	190	152	206	902	55	150
1877.....	116	951	472	343	17	155	983	14	250	440	3,893	3,397	495	4,044	647	880	2,357	1,033	2,148	923	185	113	21	820	57	148
1878.....	97	1,007	499	321	4	272	1,099	2	285	382	3,213	2,785	570	4,466	721	1,068	2,358	1,184	2,288	919	172	128	52	809	58	142
1879.....	108	671	522	268	4	244	1,477	25	300	537	3,271	3,826	572	4,343	728	1,164	2,445	1,263	2,554	1,027	216	143	41	837	48	117
1880.....	170	1,390	910	372	3	479	618	31	336	277	4,405	3,815	659	4,706	736	1,153	2,672	1,375	2,822	1,029	224	183	116	1,007	58	152
1881.....	461	2,249	1,038	594	160	429	1,964	451	457	286	4,821	4,159	706	5,312	811	1,289	3,140	1,511	3,261	1,187	244	182	134	1,059	65	166
1882.....	238	1,525	729	516	65	913	2,066	259	386	658	4,654	3,959	732	5,247	805	1,477	2,865	1,583	3,472	1,241	236	171	103	1,099	76	199
1883.....	223	1,009	644	625	15	716	744	12	371	327	3,905	3,297	678	5,290	653	1,693	2,727	1,435	3,409	1,195	254	162	83	1,100	62	161
1884.....	210	1,090	748	476	27	762	608	308	490	4,356	3,722	731	5,235	804	1,662	2,911	1,485	3,159	1,163	241	197	107	1,055	55	229	
1885.....	202	1,325	855	405	15	736	559	26	297	495	4,146	3,482	754	5,196	749	1,800	3,095	1,605	3,650	1,188	213	181	146	1,078	59	207
1886.....	223	1,727	968	433	14	668	371	31	286	575	4,264	3,595	779	5,477	742	1,894	3,081	1,701	3,656	1,210	186	185	42	1,176	63	223
1887.....	203	2,167	889	421	767	589	99	290	188	4,620	3,947	832	5,260	747	2,018	3,373	1,838	3,707	1,128	198	157	216	1,288	70	235	
1888.....	173	1,914	639	364	4	591	1,361	81	270	573	4,367	3,648	870	5,260	813	1,880	3,529	1,892	4,288	1,147	246	196	96	1,085	57	247
1889.....	145	1,686	605	397	470	1,242	1	228	647	4,500	3,889	848	5,179	862	1,970	3,491	1,814	4,075	1,763	226	167	32	1,148	72	244	
1890.....	136	1,262	521	352	730	408	2	176	487	4,304	3,779	954	5,492	917	1,978	3,210	1,987	4,989	2,024	208	173	62	1,449	61	239	
1891.....	189	1,361	609	384	663	1,220	2	185	352	4,629	4,044	902	5,160	949	2,285	3,341	1,836	5,818	2,116	249	171	95	1,597	56	300	
1892.....	230	1,436	670	400	45	864	977	81	161	371	4,824	4,177	996	5,033	1,028	2,330	3,655	1,754	5,841	1,991	277	140	320	1,900	38	241
1893.....	489	1,970	588	381	200	393	551	102	133	542	4,487	3,890	993	5,124	1,039	2,379	3,750	1,577	6,487	2,071	237	147	43	1,607	47	314
1894.....	213	2,359	511	326	584	541	154	126	272	4,266	3,757	1,022	4,658	1,062	2,170	3,466	1,329	4,725	1,879	193	165	115	1,728	61	331	
1895.....	204	1,634	342	322	793	468	10	90	496	4,621	4,061	1,030	5,205	1,078	2,297	3,429	1,636	5,751	2,019	218	191	85	2,045	76	376	
1896.....	178	1,555	208	297	714	402	1	112	435	4,282	3,776	1,141	4,994	932	2,396	3,358	1,292	5,383	2,195	198	218	765	2,641	71	384	
1897.....	232	1,376	214	299	391	500	24	118	308	3,956	3,559	1,217	4,843	948	2,346	3,345	1,089	4,621	2,059	169	234	39	1,782	65	436	
1898.....	258	788	135	376	446	523	1	126	442	4,321	3,847	1,260	4,957	944	2,379	3,155	1,127	5,301	2,426	157	219	388	1,860	93	463	
1899.....	287	940	145	294	379	332	18	80	350	3,292	2,935	1,321	5,238	971	2,203	3,190	1,132	5,418	2,739	138	247	95	1,808	97	433	
1900.....	201	1,121	155	372	470	315	12	104	318	3,809	3,340	1,473	5,278	910	2,276	3,091	1,093	6,747	2,924	169	259	205	2,198	92	500	
1901.....	201	1,227	412	272	635	399	93	159	3,695	3,296	1,575	5,233	816	3,088	3,404	934	5,792	2,951	155	246	898	2,579	82	470		
1902.....	190	1,142	399	462	635	218	67	385	3,356	2,985	1,536	4,893	851	3,133	3,399	1,020	5,841	2,814	162	247	25	1,927	89	477		
1903.....	208	1,232	350	321	465	3	39	187	3,086	2,761	1,683	5,263	839	3,064	3,241	859	6,308	2,951	141	234	76	2,032	78	521		
1904.....	1,083	1,272	309	556	534	1	38	120	3,759	3,390	1,740	5,511	783	3,188	4,442	1,044	8,029	3,146	169	278	22	3,033	119	567		
1905.....	1,110	860	310	314	271	1	19	239	3,822	3,349	1,834	5,678	670	3,072	4,591	864	6,139	3,175	189	396	134	2,283	103	422		
1906.....	600	983	369	662	212	27	202	3,652	3,354	1,856	5,900	796	3,506	3,612	720	6,682	3,231	157	301	75	2,280	158	442			

a Exclusive of 53 killed in riot July 12.      b Including typho-malarial fever.  
c The vaccinating corps was organized as a separate branch of the Department on September 29, 1874, in accordance with chapter 635, Laws of 1874, passed June 15.  
d Including croup since 1901.  
e Number given in annual report for 1873, 2,702; discrepancy caused by transfer of deaths of simple cerebro-spinal meningitis from zymotic to nervous causes.  
f The figures on diarrheal diseases have been revised so as to agree with the Bertillon classification of diseases, with the addition of dysentery.

Deaths from All Causes in Former New York City, by Age and Sex, Since 1865.

Year.	Total.		Under 1 Year.		1 Year and Under 2 Years.		2 Years and Under 5 Years.		Total Under 5 Years.		5 Years and Under 15 Years.		15 Years and Under 25 Years.		25 Years and Under 45 Years.		45 Years and Under 65 Years.		65 Years and Over.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1866.....	14,287	12,528	4,260	3,576	1,434	1,254	1,154	993	6,848	5,823	766	679	936	1,044	2,916	2,544	1,947	1,418	874	1,020
1867.....	12,281	10,878	4,099	3,298	1,446	1,382	1,056	971	6,601	5,651	604	491	722	771	2,169	2,046	1,530	1,108	655	811
1868.....	13,300	11,589	4,394	3,763	1,480	1,408	1,035	987	6,909	6,158	651	538	767	799	2,532	2,045	1,665	1,140	776	909
1869.....	13,369	11,798	4,002	3,403	1,504	1,402	1,345	1,203	6,851	6,008	728	567	704	798	2,496	2,131	1,822	1,291	768	1,003
1870.....	14,475	12,700	4,534	3,849	1,429	1,274	1,156	1,091	7,119	6,214	661	525	839	888	2,871	2,506	2,067	1,493	918	1,074
1871.....	14,452	12,574	4,287	3,707	1,459	1,248	1,148	1,222	6,894	6,077	682	588	924	893	2,990	2,516	2,048	1,458	914	992
1872.....	17,327	15,320	5,260	4,531	1,754	1,588	1,620	1,435	6,834	7,554	980	916	1,109	1,058	3,384	2,893	2,260	1,688	960	1,211
1873.....	15,313	13,771	4,649	4,029	1,444	1,289	1,439	1,332	7,532	6,650	922	819	869	970	2,928	2,565	2,093	1,580	969	1,187
1874.....	15,060	13,667	4,445	3,834	1,479	1,339	1,508	1,351	7,432	6,524	880	903	822	845	2,781	2,512	2,172	1,603	973	1,280
1875.....	15,979	14,730	4,569	3,971	1,628	1,508	1,596	1,576	7,793	7,055	916	987	916	1,010	3,025	2,624	2,280	1,660	1,049	1,394
1876.....	15,432	13,720	4,506	3,664	1,659	1,416	1,544	1,421	7,709	6,501	830	762	825	927	2,869	2,433	2,133	1,712	1,066	1,385
1877.....	13,624	12,579	3,986	3,433	1,301	1,194	1,232	1,161	6,519	5,788	721	619	763	893	2,496	2,273	2,082	1,656	1,043	1,350
1878.....	13,997	13,011	3,828	3,272	1,387	1,229	1,378	1,316	6,593	5,817	716	708	743	890	2,600	2,402	2,274	1,800	1,071	1,394
1879.....	14,807	13,535	4,145	3,425	1,319	1,199	1,415	1,274	6,879	5,898	789	701	794	944	2,807	2,591	2,339	1,891	1,199	1,510
1880.....	16,831	15,106	4,810	3,915	1,581	1,420	1,521	1,403	7,912	6,738	815	788	941	969	3,213	2,880	2,618	2,122	1,332	1,609
1881.....	20,671	17,953	5,358	4,333	1,915	1,769	2,235	2,127	9,508	8,229	1,327	1,310	1,212	1,171	3,981	3,205	3,114	2,290	1,529	1,748
1882.....	20,096	17,828	5,378	4,489	1,864	1,722	2,075	1,992	9,317	8,203	1,089	1,051	1,145	1,169	3,978	3,072	3,066	2,477	1,501	1,856
1883.....	18,174	15,837	4,700	3,968	1,459	1,201	1,305	1,223	7,464	6,392	871	833	1,186	1,218	3,919	3,168	3,202	2,405	1,532	1,821
1884.....	18,401	16,633	5,206	4,430	1,578	1,411	1,366	1,281	8,150	7,122	786	782	1,137	1,126	3,652	3,218	3,154	2,526	1,522	1,859
1885.....	18,916	16,766	5,035	4,268	1,584	1,420	1,540	1,420	8,159	7,108	832	796	1,078	1,167	3,932	3,243	3,320	2,649	1,595	1,803
1886.....	20,269	17,082	5,529	4,301	1,712	1,476	1,607	1,496	8,848	7,273	853	791	1,172	1,112	4,269	3,195	3,520	2,660	1,607	2,051
1887.....	20,997	17,936	5,578	4,505	1,686	1,552	1,767	1,678	9,031	7,735	942	922	1,277	1,116	4,462	3,343	3,542	2,828	1,743	1,992
1888.....	21,558	18,617	5,648	4,763	1,750	1,573	1,879	1,745	9,277	8,081	1,003	973	1,284	1,256	4,590	3,394	3,644	2,857	1,760	2,056
1889.....	21,289	18,390	5,730	4,797	1,716	1,594	1,719	1,596	9,165	7,987	935	882	1,200	1,273	4,555	3,371	3,692	2,879	1,742	1,998
1890.....	21,435	18,668	5,598	4,690	1,647	1,605	1,414	1,351	8,659	7,646	745	722	1,270	1,232	4,947	3,699	3,935	3,197	1,879	2,172
1891.....	23,104	20,555	6,119	5,122	1,840	1,683	1,773	1,687	9,732	8,492	957	972	1,352	1,316	4,977	3,799	4,014	3,427	2,072	2,549
1892.....	24,044	20,285	6,222	5,174	1,983	1,740	1,894	1,671	10,099	8,585	1,004	970	1,397	1,346	5,260	3,770	4,290	2,336	1,994	2,278
1893.....	24,146	20,340	6,024	5,082	1,746	1,575	1,768	1,670	9,538	8,327	997	1,019	1,532	1,358	5,473	3,860	4,527	3,410	2,079	2,366
1894.....	22,216	18,959	5,911	4,913	1,777	1,517	1,754	1,686	9,442	8,116	909	916	1,240	1,212	4,779	3,515	3,946	3,043	1,900	2,157
1895.....	23,224	20,196	6,186	5,081	1,975	1,845	1,621	1,513	9,782	8,439	770	798	1,294	1,276	5,106	3,862	4,182	3,313	2,090	2,508



Year.	Total.		Under 1 Year.		1 Year and Under 2 Years.		2 Years and Under 5 Years.		Total Under 5 Years.		5 Years and Under 15 Years.		15 Years and Under 25 Years.		25 Years and Under 45 Years.		45 Years and Under 65 Years.		65 Years and Over.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1896.....	22,592	19,030	5,926	4,751	1,695	1,516	1,446	1,473	9,067	7,740	766	780	1,222	1,251	5,194	3,597	4,286	3,250	2,057	2,412
1897.....	20,749	18,128	5,406	4,608	1,524	1,360	1,312	1,185	8,242	7,153	758	749	1,994	1,165	4,561	3,446	3,950	3,211	2,044	2,404
1898.....	21,799	18,639	5,555	4,608	1,652	1,459	1,157	1,160	8,364	7,227	704	699	1,246	1,165	4,934	3,613	4,258	3,316	2,293	2,619
1899.....	21,588	18,323	5,032	4,123	1,488	1,349	1,212	1,187	7,732	6,659	748	722	1,158	1,223	5,231	3,753	4,333	3,368	2,386	2,598
1900.....	23,489	19,738	5,549	4,459	1,648	1,416	1,347	1,129	8,544	7,104	819	818	1,251	1,234	5,629	4,017	4,683	3,701	2,563	2,864
1901.....	23,570	19,734	5,100	4,248	1,531	1,416	1,303	1,211	7,934	6,875	882	800	1,275	1,185	6,003	4,049	4,952	3,803	2,524	3,022
1902.....	22,677	19,027	5,182	4,299	1,584	1,430	1,300	1,222	8,066	6,951	897	835	1,157	1,254	5,472	3,933	4,735	3,442	2,350	2,612
1903.....	22,691	19,085	4,833	4,089	1,343	1,247	1,133	1,096	7,309	6,432	872	830	1,264	1,180	5,611	4,050	5,044	3,804	2,591	2,789
1904.....	26,618	22,125	5,529	4,598	1,620	1,597	1,454	1,338	8,603	7,533	1,234	1,244	1,521	1,516	6,549	4,421	5,888	4,213	2,823	3,198
1905.....	24,844	20,355	5,625	4,693	1,467	1,247	1,196	1,059	8,288	6,999	992	975	1,457	1,306	6,005	4,100	5,343	3,961	2,759	3,014
1906.....	25,650	20,458	5,690	4,803	1,528	1,373	1,162	978	8,380	7,154	919	767	1,421	1,276	6,213	4,082	5,857	4,013	2,860	3,166

Note—These ages have been selected as representing approximately the progressive stages of human life, viz., infancy, childhood, youth, maturity, decline and old age.

#### Deaths from Typhoid Fever in Former New York City, by Age and Sex.\*

Year.	Total.		Under 1 Year.		1 Year and Under 2 Years.		2 Years and Under 5 Years.		Total Under 5 Years.		5 Years and Under 15 Years.		15 Years and Under 25 Years.		25 Years and Under 45 Years.		45 Years and Under 65 Years.		65 Years and Over.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1866.....	286	228	2	2	2	3	18	18	22	23	45	43	72	57	103	67	34	32	10	6
1867.....	172	175	2	2	8	3	16	14	26	19	21	26	27	38	48	56	36	28	14	8
1868.....	181	148	..	..	3	3	9	11	12	14	31	27	47	38	57	39	26	21	8	9
1869.....	210	168	1	..	2	..	14	11	17	11	32	25	50	45	62	51	36	28	13	8
1870.....	225	197	2	3	..	2	9	11	11	16	27	28	54	43	85	73	39	21	9	16
1871.....	164	87	1	2	2	1	5	1	8	4	22	19	47	30	60	26	22	6	5	2
1872.....	220	166	1	1	6	2	7	9	14	12	44	30	55	56	76	43	25	18	6	7
1873.....	181	132	2	1	3	..	12	7	17	8	13	20	50	37	67	37	27	25	7	5
1874.....	159	146	..	4	1	3	5	1	6	8	29	24	50	42	46	40	22	25	6	7
1875.....	199	177	1	..	5	1	5	5	11	6	27	38	42	47	75	55	36	20	8	11
1876.....	180	145	1	2	3	2	13	6	17	10	19	21	53	40	64	44	18	21	9	9
1877.....	171	172	..	1	4	3	13	7	17	11	28	27	47	40	50	60	23	24	6	10
1878.....	163	158	1	..	2	2	10	12	13	14	24	28	50	36	49	53	21	22	6	5
1879.....	125	143	2	..	4	2	9	8	15	10	25	23	29	32	35	45	17	25	4	8
1880.....	202	170	1	3	2	3	10	12	13	18	23	32	60	39	73	45	23	28	10	8
1881.....	350	244	..	..	2	1	15	19	17	20	40	32	103	85	125	67	50	28	15	12
1882.....	267	249	2	..	1	4	9	11	12	15	29	33	82	80	102	90	35	22	7	9
1883.....	356	269	1	4	2	2	11	15	14	21	46	42	121	91	127	78	39	25	9	12
1884.....	267	209	1	..	3	1	9	7	13	8	31	23	76	60	110	83	32	29	5	6
1885.....	229	176	1	1	1	4	7	7	9	12	29	18	68	59	87	57	32	27	4	3
1886.....	237	196	4	2	2	..	18	8	24	10	21	29	72	55	85	62	29	32	6	8
1887.....	235	186	1	..	1	2	5	13	7	15	15	26	79	42	101	69	25	25	8	9
1888.....	235	129	..	1	1	..	9	2	10	3	18	21	80	44	97	43	26	14	4	4
1889.....	228	169	1	1	1	1	10	4	12	6	22	19	70	54	95	64	25	18	4	8
1890.....	201	151	1	..	2	2	5	4	8	6	19	21	53	43	87	59	25	19	9	3
1891.....	221	163	1	1	3	2	9	8	13	11	21	31	75	50	82	48	19	18	11	5
1892.....	230	170	1	2	4	2	7	2	12	6	25	19	66	59	106	59	16	23	5	4
1893.....	234	147	1	..	2	2	4	4	7	6	17	13	75	39	103	64	27	22	5	3
1894.....	194	132	2	1	1	1	2	3	5	5	20	19	49	35	95	51	23	21	2	1
1895.....	207	115	2	..	3	1	3	3	8	4	16	14	55	36	103	41	19	19	6	1
1896.....	180	117	2	2	..	..	7	3	9	5	20	22	36	31	98	42	14	16	3	1
1897.....	188	111	..	2	..	2	5	5	5	9	12	19	53	26	91	45	27	9	..	3
1898.....	253	123	..	..	1	1	4	3	5	4	27	13	89	35	105	52	23	16	4	3
1899.....	173	121	..	..	1	..	2	2	3	2	10	16	39	26	96	65	23	12	2	..
1900.....	234	138	2	..	2	2	5	6	9	8	21	11	53	34	124	65	24	19	3	1
1901.....	246	166	..	1	3	1	8	7	11	9	14	19	58	52	133	61	24	19	6	6
1902.....	262	137	..	..	4	1	4	3	8	4	12	22	61	36	150	58	27	11	4	6
1903.....	211	139	1	..	2	..	4	7	7	7	24	28	60	30	95	61	19	9	6	4
1904.....	195	114	2	2	1	3	7	7	10	12	9	13	52	30	95	43	24	13	5	3
1905.....	179	131	1	..	2	..	3	4	6	4	13	18	54	35	82	60	23	10	1	4
1906.....	227	142	1	..	1	3	4	4	6	7	20	23	65	42	110	53	19	13	7	4

\* Including typho-malarial fever.

#### Deaths from Typhoid Fever, Former New York City, by Months.\*

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1871.....	18	13	15	15	14	8	16	28	29	33	24	26	239
1872.....	18	15	26	21	21	21	34	57	51	30	40	30	364
1873.....	22	15	19	14	26	16	16	43	48	25	29	21	294
1874.....	24	16	24	16	10	16	13	25	32	33	39	27	275
1875.....	26	16	19	23	19	18	22	40	68	42	34	20	347
1876.....	21	19	16	20	18	16	21	35	41	29	28	19	283
1877.....	14	21	6	8	26	12	16	33	43	32	35	29	275
1878.....	14	13	6	9	13	7	20	38	35	40	25	25	245
1879.....	18	10	7	11	9	9	10	30	18	28	9	19	178
1880.....	10	17	17	16	12	14	23	22	32	30	29	19	241
1881.....	17	10	27	38	30	18	33	42	72	59	53	47	446
1882.....	23	18	20	17	18	10	29	44	50	70	38	25	362
1883.....	19	18	24	22	15	22	31	63	79	90	66	22	471
1884.....	16	22	16	10	16	18	25	49	62	66	54	35	389
1885.....	16	11	10	14	16	17	19	32	49	50	34	26	294
1886.....	12	9	28	13	9	5	22	37	55	59	43	33	325
1887.....	28	13	21	11	11	16	33	51	53	38	26	22	323
1888.....	12	13	14	17	17	11	35	42	81	52	37	33	364
1889.....	27	15	21	18	17	19	31	71	57	57	40	24	397
1890.....	20	28	14	12	11	11	31	49	64	49	34	29	352
1891.....	14	11	17	13	20	23	28	57	65	56	51	29	384
1892.....	15	25	17	19	23	23	52	53	57	55	31	30	400
1893.....	22	18	29	25	29	23	21	35	42	70	41	26	381



Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1894.....	22	11	17	18	11	14	28	42	57	46	32	28	326
1895.....	17	16	8	14	13	23	27	37	46	48	37	36	322
1896.....	20	17	11	12	10	13	25	42	38	39	34	36	297
1897.....	19	15	9	10	14	19	29	40	32	40	28	44	299
1898.....	8	12	14	8	11	19	20	56	96	59	42	31	376
1899.....	15	9	14	15	18	11	21	30	40	52	43	26	294
1900.....	27	19	10	10	18	20	30	37	56	52	42	51	372
1901.....	41	19	21	22	18	14	31	40	64	64	39	39	412
1902.....	24	10	17	22	18	20	32	47	42	70	55	42	399
1903.....	25	16	19	23	23	22	23	39	43	48	35	34	350
1904.....	16	15	21	12	18	17	21	41	37	39	30	42	309
1905.....	19	15	17	15	11	16	25	43	49	44	28	28	310
1906.....	13	21	8	25	17	16	27	39	46	64	55	38	369

\*Exclusive of typho-malarial fever, excepting 1888 to 1906, when it was included.

#### Deaths from Malarial Fevers Former New York City, by Months.

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1881.....	26	35	64	56	52	33	50	59	76	66	48	40	605
1882.....	36	28	34	49	39	28	45	63	81	56	44	37	540
1883.....	22	37	54	41	52	31	70	63	44	50	39	22	525
1884.....	27	37	25	18	31	23	37	44	34	57	39	23	395

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1885.....	24	39	37	33	36	37	34	41	41	35	24	27	408
1886.....	26	34	37	37	43	25	19	33	29	44	35	32	394
1887.....	25	22	25	23	22	32	32	36	43	33	25	30	348
1888.....	23	23	23	24	22	18	21	21	29	20	26	20	270
1889.....	21	11	11	19	10	15	15	35	26	30	19	16	228
1890.....	17	10	9	8	15	20	12	23	16	15	12	19	176
1891.....	14	8	13	11	11	19	19	23	25	21	13	8	185
1892.....	8	10	15	11	12	16	17	12	21	13	16	10	161
1893.....	7	7	17	11	8	13	12	22	10	7	8	11	133
1894.....	10	3	8	10	15	18	11	15	10	11	9	6	126
1895.....	4	2	7	8	9	9	5	5	11	10	12	8	90
1896.....	7	5	8	9	10	11	9	9	12	22	6	4	112
1897.....	7	6	5	8	12	17	16	8	8	18	5	8	118
1898.....	6	5	5	8	12	7	5	22	27	14	10	5	126
1899.....	1	6	2	7	6	6	14	7	5	10	9	7	80
1900.....	5	5	9	7	12	5	9	12	10	16	11	3	104
1901.....	3	5	2	5	2	6	5	11	23	13	8	10	93
1902.....	4	5	6	4	5	9	10	6	7	9	1	1	67
1903.....	1	2	3	1	10	7	3	2	2	3	4	1	39
1904.....	2	1	3	4	7	5	4	3	2	3	2	2	38
1905.....	1	..	1	..	..	3	5	4	2	..	2	1	19
1906.....	1	..	3	2	..	..	6	5	2	5	2	1	27

In this table typho-malarial fever is included, excepting in 1888 to 1906, during which years it is included in tables of typhoid fever.

#### Deaths from Measles in Former New York City, by Age and Sex.

Year.	Total.		Under 1 Year.		1 Year and Under 2 Years.		2 Years and Under 5 Years.		Total Under 5 Years.		5 Years and Under 15 Years.		15 Years and Under 25 Years.		25 Years and Under 45 Years.		45 Years and Under 65 Years.		65 Years and Over.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1866.....	93	60	15	13	45	21	24	20	84	54	9	5	..	..	..	1	..	..	..	..
1867.....	272	227	66	42	113	97	70	75	249	214	22	12	1	..	..	1	..	..	..	..
1868.....	98	102	38	27	31	35	23	30	92	92	6	8	..	2	..	..	..	..	..	..
1869.....	271	255	74	62	102	95	83	74	259	231	11	20	..	4	1	..	..	..	..	..
1870.....	165	133	42	22	57	51	54	49	153	122	11	10	..	..	1	1	..	..	..	..
1871.....	213	196	60	42	78	76	61	67	199	185	14	8	..	3	..	..	..	..	..	..
1872.....	244	219	68	61	84	72	79	69	231	202	12	15	1	1	..	1	..	..	..	..
1873.....	141	165	40	50	46	59	43	46	129	155	10	7	1	1	1	2	..	..	..	..
1874.....	167	152	49	46	60	49	45	40	154	135	11	12	2	1	..	4	..	..	..	..
1875.....	76	91	12	22	31	35	25	26	68	83	8	8	..	..	..	..	..	..	..	..
1876.....	194	168	44	40	68	61	59	55	171	156	22	9	..	1	1	2	..	..	..	..
1877.....	87	68	34	14	27	25	20	20	81	59	6	8	..	..	..	1	..	..	..	..
1878.....	134	138	39	42	45	38	41	44	125	124	8	11	..	1	1	2	..	..	..	..
1879.....	139	114	33	16	48	47	36	38	117	101	12	12	..	1	1	..	..	..	..	..
1880.....	256	223	82	53	86	81	75	74	243	205	13	17	..	..	..	1	..	..	..	..
1881.....	210	219	52	62	71	73	70	67	193	202	16	14	..	2	1	1	..	..	..	..
1882.....	443	470	113	131	149	150	145	147	407	428	33	33	3	3	..	6	..	..	..	..
1883.....	371	345	109	83	131	136	91	90	331	309	35	28	3	3	2	5	..	..	..	..
1884.....	415	347	108	105	163	120	119	99	390	324	23	19	..	2	1	2	1	..	..	..
1885.....	375	361	103	107	145	140	99	86	347	333	26	24	..	3	1	1	1	..	..	..
1886.....	346	322	93	77	156	127	76	95	325	299	16	22	2	1	3	..	..	..	..	..
1887.....	387	380	119	110	138	140	109	101	366	351	16	22	3	4	2	2	..	1	..	..
1888.....	325	266	100	87	116	103	87	63	303	253	19	8	..	2	3	2	..	1	..	..
1889.....	234	236	66	55	95	89	51	76	212	220	18	14	4	..	..	2	..	..	..	..
1890.....	385	345	121	99	139	141	105	87	365	327	16	16	..	..	3	1	1	..	..	1
1891.....	316	347	82	94	116	138	95	102	293	334	18	12	3	..	2	1	..	..	..	..
1892.....	451	413	151	111	166	150	113	122	430	383	18	27	1	1	1	2	1	..	..	..
1893.....	202	191	57	54	85	67	47	59	189	180	9	11	1	..	3	..	..	..	..	..
1894.....	298	286	96	88	108	94	73	85	277	267	20	15	..	3	1	1	..	..	..	..
1895.....	374	419	84	108	167	157	105	132	356	397	15	20	1	1	2	1	..	..	..	..
1896.....	355	359	99	88	119	133	118	116	336	337	16	16	2	3	1	2	..	1	..	..
1897.....	192	199	53	55	80	79	52	50	185	184	6	12	..	2	1	1	..	..	..	..
1898.....	252	194	76	48	112	88	58	49	246	185	6	5	..	2	..	2	..	..	..	..
1899.....	202	177	60	35	81	90	45	46	186	171	16	5	..	..	..	1	..	..	..	..
1900.....	238	232	60	56	95	101	67	55	222	212	15	15	..	..	..	2	1	1	..	..
1901.....	150	122	37	24	53	48	48	40	138	112	11	7	..	1	..	2	1	..	..	..
1902.....	240	222	76	50	87	82	61	73	224	205	13	11	1	2	1	2	1	2	..	..
1903.....	167	154	58	43	69	62	32	41	159	146	5	8	2	..	1	..	..	..	..	..
1904.....	282	274	79	66	103	121	76	75	258	262	17	9	3	2	4	1	..	..	..	..
1905.....	170	144	60	37	72	61	31	34	163	132	5	10	..	2	1	..	1	..	..	..
1906.....	326	336	88	98	133	132	84	91	305	321	14	13	4	..	3	2	..	..	..	..

#### Deaths from Measles, Former New York City, by Months.

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1871.....	108	80	53	44	38	24	28	17	4	..	9	4	409
1872.....	13	48	45	46	65	83	84	41	3	14	17	14	463

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1873.....	25	29	20	17	36	40	56	23	5	21	13	21	306
1874.....	28	28	38	41	43	43	45	18	15	8	6	6	319
1875.....	8	3	7	6	16	23	27	18	8	5	13	33	167



Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.	Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1876.....	42	63	67	55	45	34	27	2	5	14	5	3	362	1892.....	50	47	77	119	168	160	98	32	25	11	25	52	864
1877.....	4	1	4	8	26	28	24	17	7	12	4	20	155	1893.....	38	27	25	27	31	49	36	35	17	11	43	54	393
1878.....	36	38	54	56	33	18	10	5	8	2	5	7	272	1894.....	105	106	118	85	45	36	26	5	11	13	10	24	584
1879.....	..	1	4	12	11	26	28	24	20	13	31	74	244	1895.....	26	33	65	85	115	156	93	51	20	20	46	83	793
1880.....	100	92	69	73	70	21	21	9	7	1	6	10	479	1896.....	93	95	118	126	79	69	44	29	12	14	12	23	114
1881.....	18	21	38	35	63	93	38	29	12	5	15	62	429	1897.....	25	33	46	25	40	35	31	21	10	24	51	50	391
1882.....	149	142	122	101	140	79	69	25	8	22	21	44	913	1898.....	71	58	82	67	47	33	25	12	11	6	12	22	446
1883.....	60	50	81	108	103	92	77	46	16	21	21	41	716	1899.....	33	20	23	30	41	47	39	19	14	22	45	46	379
1884.....	36	29	35	41	93	117	124	57	36	26	70	98	762	1900.....	79	103	86	64	42	35	27	16	1	6	2	9	470
1885.....	150	119	119	98	84	73	52	17	5	2	11	6	736	1901.....	7	7	13	16	21	21	36	11	8	11	26	95	272
1886.....	5	2	8	10	17	26	58	36	21	48	166	271	668	1902.....	87	103	73	57	32	40	24	9	2	6	10	19	462
1887.....	293	181	96	43	33	23	29	6	7	10	22	24	767	1903.....	28	36	38	36	39	29	37	13	9	8	26	22	321
1888.....	26	23	18	29	54	86	86	55	36	38	42	98	591	1904.....	65	56	92	103	85	53	31	16	12	9	17	17	556
1889.....	117	87	73	60	29	29	18	8	3	5	18	23	470	1905.....	17	13	36	31	42	65	40	20	10	7	15	18	314
1890.....	24	32	50	109	129	107	63	45	20	28	48	75	730	1906.....	51	79	131	127	98	71	44	13	12	7	14	15	662
1891.....	105	63	67	84	82	79	59	26	15	24	14	45	663														

## Deaths from Scarlet Fever in Former New York City, by Age and Sex.

Year.	Total.		Under 1 Year.		1 Year and Under 2 Years.		2 Years and Under 5 Years.		Total Under 5 Years.		5 Years and Under 15 Years.		15 Years and Under 25 Years.		25 Years and Under 45 Years.		45 Years and Under 65 Years.		65 Years and Over.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1866.....	420	386	36	32	76	94	210	178	322	304	96	77	2	3	..	2	..	..	..	..
1867.....	328	327	25	27	54	48	179	182	258	257	63	68	4	1	3	1	..	..	..	..
1868.....	417	444	34	29	73	68	200	205	307	302	103	119	3	10	4	10	..	3	..	..
1869.....	488	478	36	47	105	92	246	223	387	362	88	106	10	5	3	5	..	..	..	..
1870.....	499	476	39	43	102	88	235	246	376	377	116	88	5	8	2	3	..	..	..	..
1871.....	397	394	28	22	69	51	205	225	302	293	85	91	5	7	5	3	..	..	..	..
1872.....	521	469	43	31	91	69	249	242	383	342	122	109	4	6	12	12	..	..	..	..
1873.....	570	475	37	39	99	72	297	224	433	335	127	124	7	11	3	5	..	..	..	..
1874.....	476	403	34	29	79	56	234	181	347	266	119	117	5	11	4	9	1	..	..	..
1875.....	262	252	30	19	52	39	115	117	197	175	55	64	8	9	2	4	..	..	..	..
1876.....	447	444	32	27	84	76	222	208	338	311	103	122	2	7	4	4	..	..	..	..
1877.....	489	494	32	34	85	75	236	253	353	362	131	123	4	4	..	5	1	..	..	..
1878.....	516	583	24	36	106	100	265	290	395	426	111	143	4	7	6	4	..	2	..	1
1879.....	782	695	52	34	145	134	404	351	601	519	173	161	8	7	..	8	..	..	..	..
1880.....	323	295	18	15	66	54	180	152	264	221	54	70	2	2	3	2	..	..	..	..
1881.....	956	1,008	47	50	164	152	467	492	678	694	258	278	9	19	10	15	1	1	..	1
1882.....	1,072	994	63	53	196	142	529	480	788	684	240	262	24	25	18	23	2	..	..	..
1883.....	367	377	36	31	68	63	167	174	271	268	88	84	5	16	2	9	1	..	..	..
1884.....	314	294	30	25	67	55	133	125	230	205	64	72	11	14	9	2	..	1	..	..
1885.....	295	264	29	21	67	52	129	118	225	191	63	64	3	6	4	3	..	..	..	..
1886.....	198	173	14	10	46	34	101	96	161	140	33	30	2	..	1	3	..	..	1	..
1887.....	297	292	13	12	57	58	169	151	239	221	52	66	4	3	2	1	..	1	..	..
1888.....	689	672	48	39	113	100	347	351	508	490	163	173	11	3	7	6	..	..	..	..
1889.....	622	620	23	43	131	95	325	298	479	436	118	147	14	23	10	14	1	..	..	..
1890.....	201	207	9	14	35	40	99	102	143	156	55	45	2	2	1	4	..	..	..	..
1891.....	616	604	40	26	105	95	319	302	464	423	136	165	11	10	5	5	..	..	..	1
1892.....	482	495	39	29	63	74	244	235	346	338	118	131	12	16	6	7	..	2	..	1
1893.....	285	266	24	23	40	40	142	127	206	190	69	68	6	4	4	4	..	..	..	..
1894.....	263	278	17	14	50	39	127	136	194	189	58	72	7	11	3	6	1	..	..	..
1895.....	248	220	16	12	34	41	149	105	199	158	42	57	4	1	3	4	..	..	..	..
1896.....	203	199	8	12	34	25	106	105	148	142	53	52	..	1	2	4	..	..	..	..
1897.....	265	235	10	15	56	33	127	124	193	172	69	59	..	4	1	..	2	..	..	..
1898.....	248	275	18	18	48	40	119	151	185	209	56	56	2	7	5	3	..	..	..	..
1899.....	161	171	10	8	27	32	83	81	120	121	38	48	3	2	..	..	..	..	..	..
1900.....	186	129	22	6	40	22	77	62	139	90	38	32	2	6	7	1	..	..	..	..
1901.....	322	313	11	18	47	39	151	138	209	195	100	102	7	7	5	8	1	1	..	..
1902.....	337	298	20	15	47	48	169	130	236	193	88	90	8	8	5	6	..	1	..	..
1903.....	231	234	9	10	41	35	91	101	141	146	77	72	7	7	6	9	..	..	..	..
1904.....	259	275	15	12	37	43	123	111	175	166	66	90	11	12	7	6	..	1	..	..
1905.....	137	134	12	4	19	16	64	58	95	78	32	45	8	5	2	5	..	1	..	..
1906.....	110	102	4	11	16	9	48	43	68	63	35	33	4	5	3	1	..	..	..	..

## Deaths from Scarlet Fever, Former New York City, by Months.

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.	Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1871.....	107	77	86	73	72	52	66	55	20	47	65	71	791	1884.....	53	60	64	68	68	54	48	21	25	19	50	78	608
1872.....	95	107	103	126	131	113	75	27	25	47	65	76	990	1885.....	72	73	77	77	71	53	35	16	4	14	24	43	559
1873.....	80	86	78	83	110	86	99	55	49	71	102	146	1,045	1886.....	49	43	42	49	44	29	25	15	11	18	23	23	371
1874.....	116	100	114	80	78	81	58	51	52	48	45	56	879	1887.....	46	41	54	55	56	55	33	21	30	44	55	99	589
1875.....	71	66	49	55	60	46	34	14	15	20	33	51	514	1888.....	109	116	123	136	145	138	84	79	66	65	112	188	1,361
1876.....	65	80	100	134	108	99	56	26	25	33	74	91	891	1889.....	221	208	249	229	150	69	30	9	12	19	17	29	1,242
1877.....	105	93	95	120	92	102	68	54	52	60	60	82	983	1890.....	47	41	58	36	32	37	24	14	15	12	40	52	408
1878.....	111	96	110	97	93	87	57	54	35	60	102	197	1,099	1891.....	88	115	100	169	155	121	118	64	42	50	73	125	1,220
1879.....	251	225	254	186	159	119	90	36	50	31	41	35	1,477	1892.....	145	134	138	132	144	92	33	20	24	27	36	52	977
1880.....	34	33	25	38	46	30	20	27	24	54	119	168	613	1893.....	58	69	79	86	85	53	33	19	11	15	14	29	551
1881.....	178	176	150	185	194	139	152	108	95	125	145	317	1,964	1894.....	44	66	70	78	64	67	34	18	15	15	30	40	541
1882.....	403	401	337	291	234	154	69	44	26	26	37	44	2,066	1895.....	68	65	78	59	53	46	15	13	10	10	16	35	468
1883.....	80	65	94	95	129	87	37	27	28	32	35	35	744	1896.....	74	53	37	41	46	26	25	9	12	20	28	31	402



Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.	Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1897.....	39	51	50	51	51	58	36	14	22	32	42	54	500	1902.....	82	82	70	80	99	70	45	20	16	24	19	28	635
1898.....	88	66	78	56	71	48	35	9	10	16	13	33	523	1903.....	46	52	67	73	57	40	26	13	10	9	22	47	465
1899.....	39	41	52	34	39	41	15	7	9	9	15	31	332	1904.....	79	84	73	81	66	34	20	11	7	17	31	31	534
1900.....	32	64	46	47	34	15	17	11	9	8	8	24	315	1905.....	42	42	51	36	35	22	7	2	3	10	10	11	271
1901.....	55	61	102	106	100	64	43	19	8	12	33	32	635	1906.....	21	23	32	19	37	14	11	6	7	6	12	24	212

## Deaths from Small-pox in Former New York City by Age and Sex.

Year.	Total.		Under 1 Year.		1 Year and Under 2 Years.		2 Years and Under 5 Years.		Total Under 5 Years.		5 Years and Under 15 Years.		15 Years and Under 25 Years.		25 Years and Under 45 Years.		45 Years and Under 65 Years.		65 Years and Over.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1866.....	29	15	6	1	3	4	1	2	10	7	1	1	4	2	10	4	4	1	..	..
1867.....	12	7	3	3	..	..	2	..	5	3	..	2	3	1	3	1	1	..	..	..
1868.....	15	11	4	4	..	2	5	1	9	7	..	..	1	5	2	1	1	..	..	..
1869.....	104	99	19	28	18	13	22	27	59	68	9	11	6	13	23	7	6	..	1	..
1870.....	167	126	32	37	17	10	26	24	75	71	16	14	21	12	44	22	11	6	..	1
1871.....	454	351	74	58	34	33	53	43	161	134	58	58	84	63	131	77	19	17	1	2
1872.....	548	381	85	60	40	38	60	52	185	150	54	52	111	76	168	83	24	16	6	4
1873.....	67	50	15	16	1	4	2	3	18	23	7	3	10	9	26	14	5	1	1	..
*1874.....	281	203	57	42	33	31	45	28	135	101	25	26	39	28	72	39	8	7	2	2
1875.....	709	571	114	110	86	70	110	108	310	288	71	70	110	70	181	108	34	30	3	5
1876.....	179	136	25	25	13	11	19	26	57	62	12	12	28	28	64	26	17	8	1	..
1877.....	10	4	..	1	1	..	1	..	2	1	..	..	..	1	5	..	2	2	1	..
1878.....	1	1	..	1	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..
1879.....	13	12	2	1	2	3	5	1	9	5	1	3	..	1	2	2	1	1	..	..
1880.....	19	12	3	2	2	3	..	..	5	5	1	..	1	3	10	3	2	1	..	..
1881.....	262	189	25	39	28	22	34	34	87	95	26	26	50	30	78	30	18	7	3	1
1882.....	142	117	21	18	10	14	32	21	63	53	12	16	15	21	40	21	11	5	1	1
1883.....	8	4	..	1	1	..	..	..	1	1	1	..	1	3	3	..	2	..	..	..
1884.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1885.....	16	10	3	1	..	1	5	4	8	6	4	1	..	1	3	2	1	..	..	..
1886.....	22	9	4	4	1	..	3	3	8	7	3	2	1	..	8	..	2	..	..	..
1887.....	62	37	11	7	4	6	7	9	22	22	4	8	14	4	15	1	6	2	1	..
1888.....	58	23	8	5	4	3	4	4	16	12	3	3	10	1	27	4	2	2	..	1
1889.....	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
1890.....	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..
1891.....	2	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..
1892.....	48	33	10	10	4	3	7	5	21	18	1	2	5	5	14	6	6	2	1	..
1893.....	60	42	7	10	6	4	7	7	20	21	2	2	9	6	25	11	3	2	1	..
1894.....	97	57	9	13	9	9	7	16	25	38	1	5	14	3	41	9	14	1	2	1
1895.....	7	3	1	..	1	..	..	..	2	..	..	..	1	..	4	3	..	..	..	..
1896.....	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
1897.....	14	10	..	3	4	..	3	3	7	6	1	1	3	1	2	2	1	..	..	..
1898.....	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
1899.....	11	7	2	2	1	1	..	1	3	4	..	..	4	2	2	1	2	..	..	..
1900.....	6	6	1	1	..	1	..	1	1	3	..	..	1	..	2	2	1	1	1	..
1901.....	244	155	36	37	19	26	42	31	97	94	16	14	19	6	85	27	23	13	4	1
1902.....	139	79	9	11	5	5	16	14	30	30	7	9	12	9	68	23	21	7	1	1
1903.....	1	2	..	..	..	..	..	..	..	1	..	..	..	..	1	1	..	..	..	..
1904.....	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
1905.....	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
1906.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

\* Vaccinating corps organized September 29, 1874, in accordance with act of Legislature passed June 15, 1874.

## Deaths from Smallpox, Former New York City, by Months.

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.	Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1871.....	24	64	115	110	97	98	88	57	23	23	36	70	805	1889.....	..	1	..	..	..	..	..	..	..	..	..	..	1
1872.....	105	105	116	149	185	124	48	14	7	12	31	33	929	1890.....	..	..	2	..	..	..	..	..	..	..	..	..	2
1873.....	39	22	7	6	17	12	3	1	..	2	6	2	117	1891.....	..	..	1	1	..	..	..	..	..	..	..	..	2
*1874.....	4	7	11	28	34	27	34	34	43	44	78	140	484	1892.....	1	6	3	9	9	8	7	14	5	10	7	2	81
1875.....	150	121	101	104	180	178	157	65	42	50	64	68	1,280	1893.....	3	7	11	11	9	7	2	2	19	9	9	13	102
1876.....	72	72	50	48	26	26	9	3	2	4	..	3	315	1894.....	13	27	21	20	20	15	10	4	8	2	10	4	154
1877.....	1	..	4	4	1	3	1	..	..	..	..	..	14	1895.....	3	4	..	..	1	..	..	..	..	2	..	..	10
1878.....	..	..	1	..	1	..	..	..	..	..	..	..	2	1896.....	..	..	..	..	1	..	..	..	..	..	..	..	1
1879.....	..	..	2	1	8	9	4	..	..	1	..	..	25	1897.....	..	..	2	7	6	6	3	..	..	..	..	..	24
1880.....	..	..	..	2	..	2	..	2	2	4	19	31	31	1898.....	..	..	..	..	..	..	..	..	..	1	..	..	1
1881.....	31	20	44	52	77	67	32	30	11	22	20	45	451	1899.....	1	1	1	1	5	7	1	..	1	..	..	..	13
1882.....	61	65	51	30	26	18	6	1	..	..	1	..	259	1900.....	1	..	..	1	1	1	..	2	..	1	5	..	12
1883.....	..	..	3	5	4	..	..	..	..	..	..	..	12	1901.....	9	32	37	38	62	71	80	33	9	11	7	10	399
1884.....	..	..	..	..	..	..	..	..	..	..	..	..	..	1902.....	35	39	28	38	20	39	15	4	..	..	..	..	218
1885.....	..	..	..	..	3	2	..	5	3	8	5	26	26	1903.....	2	..	..	1	..	..	..	..	..	..	..	..	3
1886.....	5	6	6	6	5	2	..	..	..	1	..	31	31	1904.....	..	..	..	..	1	..	..	..	..	..	..	..	1
1887.....	10	15	10	12	26	5	7	4	5	2	2	1	99	1905.....	..	..	..	..	..	..	..	1	..	..	..	..	1
1888.....	4	3	14	28	18	10	1	1	..	1	1	..	81	1906.....	..	..	..	..	..	..	..	..	..	..	..	..	..

\* Vaccinating Corps organized September 27, 1874, under act of Legislature passed June 15, 1874.



## Deaths from Whooping Cough in Former New York City, by Age and Sex.

Year.	Total.		Under 1 Year.		1 Year and Under 2 Years.		2 Years and Under 5 Years.		Total Under 5 Years.		5 Years and Under 15 Years.		15 Years and Under 25 Years.		25 Years and Under 45 Years.		45 Years and Under 65 Years.		65 Years and Over.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1866.....	48	66	23	27	16	22	8	15	47	64	1	2	..	..	..	..	..	..	..	..
1867.....	65	90	39	45	18	26	8	16	65	87	..	3	..	..	..	..	..	..	..	..
1868.....	89	128	53	64	27	43	8	18	88	125	1	3	..	..	..	..	..	..	..	..
1869.....	152	206	74	98	46	63	26	39	146	200	6	6	..	..	..	..	..	..	..	..
1870.....	79	122	44	61	16	38	18	22	78	121	1	1	..	..	..	..	..	..	..	..
1871.....	196	269	103	136	65	78	26	49	194	263	2	6	..	..	..	..	..	..	..	..
1872.....	261	304	135	143	66	75	50	72	251	290	10	14	..	..	..	..	..	..	..	..
1873.....	117	151	56	79	29	41	31	29	116	149	1	1	..	..	..	..	1	..	..	..
1874.....	214	275	110	151	58	69	45	49	213	269	1	4	..	..	..	..	1	..	1	..
1875.....	185	222	114	123	50	55	19	40	183	218	2	4	..	..	..	..	..	..	..	..
1876.....	178	228	97	113	49	59	35	49	172	221	5	6	..	1	1	..	..	..	..	..
1877.....	189	251	98	112	47	75	39	53	184	240	5	11	..	..	..	..	..	..	..	..
1878.....	159	223	86	113	37	63	33	42	156	218	3	4	..	..	..	..	1	..	..	..
1879.....	253	284	128	132	69	87	49	55	246	274	7	10	..	..	..	..	..	..	..	..
1880.....	134	143	64	60	38	53	30	26	132	139	2	4	..	..	..	..	..	..	..	..
1881.....	135	151	73	63	33	54	23	30	129	147	6	4	..	..	..	..	..	..	..	..
1882.....	289	369	155	187	80	90	46	78	281	355	8	13	..	1	..	..	..	..	..	..
1883.....	169	158	80	88	45	37	35	28	160	153	8	3	1	1	..	..	1	..	..	..
1884.....	226	264	131	139	56	68	30	50	217	257	9	7	..	..	..	..	..	..	..	..
1885.....	216	279	118	127	57	81	39	62	214	270	2	9	..	..	..	..	..	..	..	..
1886.....	261	314	144	159	70	88	40	57	254	304	7	10	..	..	..	..	..	..	..	..
1887.....	87	101	49	48	23	30	13	18	85	96	2	4	..	..	..	1	..	..	..	..
1888.....	238	335	119	163	58	89	47	65	224	317	14	17	..	..	..	1	..	..	..	..
1889.....	285	362	167	173	67	97	49	81	283	351	2	11	..	..	..	..	..	..	..	..
1890.....	213	274	115	133	49	79	40	56	204	268	7	6	1	..	1	..	..	..	..	..
1891.....	168	184	95	96	42	44	28	39	165	179	3	4	..	..	..	1	..	..	..	..
1892.....	156	215	71	104	51	58	32	45	154	207	2	8	..	..	..	..	..	..	..	..
1893.....	249	293	122	126	83	95	39	59	244	280	5	12	..	..	..	1	..	..	..	..
1894.....	103	169	57	76	17	45	26	43	100	164	3	5	..	..	..	..	..	..	..	..
1895.....	216	280	114	127	58	92	38	50	210	269	5	10	..	1	1	..	..	..	..	..
1896.....	189	246	112	113	42	66	29	57	183	236	6	10	..	..	..	..	..	..	..	..
1897.....	132	176	73	87	26	52	31	31	130	170	2	6	..	..	..	..	..	..	..	..
1898.....	198	244	105	116	62	70	28	51	195	237	3	..	..	6	..	..	..	..	..	1
1899.....	158	192	74	99	58	40	25	46	157	185	1	6	..	..	..	..	1	..	..	..
1900.....	143	175	69	78	38	45	32	41	139	164	4	9	..	..	..	1	..	1	..	..
1901.....	65	94	31	43	22	29	11	19	64	91	1	2	..	..	..	..	..	..	..	1
1902.....	175	210	100	111	43	49	28	44	171	204	4	6	..	..	..	..	..	..	..	..
1903.....	76	111	41	57	22	29	13	22	76	108	..	3	..	..	..	..	..	..	..	..
1904.....	50	70	28	31	10	22	8	15	46	68	3	2	1	..	..	..	..	..	..	..
1905.....	105	134	51	70	31	33	20	27	102	130	3	3	..	..	..	1	..	..	..	..
1906.....	95	107	51	54	25	25	17	23	93	102	2	5	..	..	..	..	..	..	..	..

## Deaths from Whooping Cough, Former New York City, by Months.

														Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.	1888.....	25	21	29	28	26	40	70	81	82	60	41	70	573
1871.....	17	14	22	24	27	15	26	53	81	71	49	66	465	1889.....	53	53	83	85	67	53	57	61	41	33	28	33	647
1872.....	84	95	74	81	64	43	33	25	24	21	9	12	565	1890.....	46	42	36	30	26	46	61	57	50	37	26	30	487
1873.....	14	22	35	24	19	14	23	27	26	25	18	21	268	1891.....	52	36	43	47	40	25	18	21	21	19	13	17	352
1874.....	26	38	43	36	28	38	47	59	57	46	35	36	489	1892.....	22	16	21	33	26	25	52	58	31	32	29	26	371
1875.....	49	43	40	36	31	31	42	31	37	25	19	23	407	1893.....	39	64	90	65	55	35	45	44	34	19	16	36	542
1876.....	37	56	46	44	36	18	25	46	33	21	24	20	406	1894.....	19	24	29	39	27	16	26	34	14	18	6	20	272
1877.....	23	30	39	35	24	26	55	68	61	39	16	24	440	1895.....	27	30	33	48	30	44	69	64	60	39	22	30	496
1878.....	25	18	20	18	35	35	44	50	44	43	24	26	382	1896.....	33	16	44	50	51	33	51	50	49	26	14	18	435
1879.....	67	61	91	59	54	40	32	25	37	27	23	21	537	1897.....	22	27	38	36	24	22	29	29	25	17	10	19	308
1880.....	33	24	25	22	20	26	25	23	23	21	18	17	277	1898.....	13	23	42	37	38	38	74	66	44	24	22	21	442
1881.....	15	19	19	16	13	17	22	36	37	30	29	33	286	1899.....	25	32	28	20	22	28	42	44	36	24	21	28	350
1882.....	39	44	76	72	67	56	75	75	56	33	35	30	658	1900.....	34	38	34	38	31	21	31	27	21	16	14	13	318
1883.....	25	32	25	31	27	19	36	43	28	21	16	14	327	1901.....	10	12	14	11	12	8	13	23	13	13	14	16	159
1884.....	22	26	23	32	44	28	64	55	72	51	42	31	490	1902.....	29	37	30	47	37	39	44	39	37	15	21	10	385
1885.....	28	27	35	26	24	22	49	81	56	35	36	76	495	1903.....	24	16	12	16	24	15	8	22	20	10	10	10	187
1886.....	70	69	87	71	44	35	60	48	37	30	13	11	575	1904.....	4	10	15	11	9	9	15	13	10	5	8	11	120
1887.....	32	11	16	10	12	11	25	24	22	8	7	10	188	1905.....	10	18	25	38	26	19	29	34	15	13	3	9	239
														1906.....	10	5	10	11	19	14	18	33	22	27	11	22	202

## Deaths from Diphtheria and Croup in Former New York City, by Age and Sex.

Year.	Total.		Under 1 Year.		1 Year and Under 2 Years.		2 Years and Under 5 Years.		Total Under 5 Years.		5 Years and Under 15 Years.		15 Years and Under 25 Years.		25 Years and Under 45 Years.		45 Years and Under 65 Years.		65 Years and Over.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1866.....	416	387	92	71	113	100	168	156	373	327	33	44	4	5	2	5	3	4	1	2
1867.....	299	284	64	61	79	88	123	105	266	254	26	25	..	3	4	2	3	..	..	..
1868.....	327	292	73	43	87	73	125	134	285	250	35	39	1	1	3	1	3	1	..	..



Year.	Total.		Under 1 Year.		1 Year and Under 2 Years.		2 Years and Under 5 Years.		Total Under 5 Years.		5 Years and Under 15 Years.		15 Years and Under 25 Years.		25 Years and Under 45 Years.		45 Years and Under 65 Years.		65 Years and Over.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1869.....	413	398	66	68	110	101	192	176	368	345	40	47	1	1	1	4	3	1	..	..
1870.....	364	365	48	50	106	86	160	170	316	306	42	50	3	2	2	5	1	1	..	1
1871.....	359	345	47	37	106	93	168	157	321	287	33	52	2	4	2	1	..	..	1	1
1872.....	557	465	72	57	142	132	263	270	477	459	75	97	3	2	2	3	..	1	..	2
1873.....	949	934	95	96	187	163	433	421	715	680	211	242	9	3	11	3	1	5	2	1
1874.....	1,092	1,167	107	90	227	212	510	509	844	811	225	333	8	9	10	8	4	4	1	2
1875.....	1,516	1,571	145	106	339	330	715	723	1,199	1,159	297	388	8	10	9	9	3	5	..	..
1876.....	1,176	1,101	121	103	321	228	528	530	970	861	187	213	9	11	4	12	5	3	1	1
1877.....	761	662	80	61	173	168	371	300	624	529	123	125	6	5	6	2	1	1	1	..
1878.....	767	739	91	53	179	164	353	356	623	573	135	156	3	3	4	1	2	4	..	2
1879.....	598	595	68	53	153	133	284	290	505	476	86	104	2	7	5	6	..	1	..	1
1880.....	1,154	1,146	101	77	280	251	576	571	957	899	189	238	1	3	6	4	1	2	..	..
1881.....	1,673	1,614	165	131	371	344	790	758	1,326	1,233	324	347	14	19	7	10	2	4	..	1
1882.....	1,136	1,118	113	102	291	244	510	533	914	879	200	219	11	6	7	8	3	4	1	2
1883.....	836	817	97	77	224	174	356	373	677	624	148	165	4	15	7	9	..	4	..	..
1884.....	939	899	103	69	230	215	424	436	757	720	163	166	10	5	5	7	2	1	2	..
1885.....	1,078	1,102	104	94	256	246	530	551	890	891	176	200	6	4	5	4	1	2	..	1
1886.....	1,393	1,302	159	117	329	291	650	614	1,138	1,022	242	261	4	6	8	10	1	2	..	1
1887.....	1,617	1,439	164	99	383	302	772	726	1,319	1,127	272	276	15	19	9	13	2	2	..	2
1888.....	1,321	1,232	120	118	325	284	626	577	1,071	979	224	236	12	11	10	4	2	2	2	..
1889.....	1,181	1,110	136	104	287	273	544	499	967	876	200	213	5	11	5	8	..	2	4	..
1890.....	920	863	99	71	233	188	430	432	762	691	151	152	1	9	4	9	1	2	1	..
1891.....	1,017	953	111	85	232	202	494	465	837	752	163	182	6	11	8	4	3	4	..	..
1892.....	1,119	987	92	67	269	222	580	494	941	783	160	185	9	10	6	5	2	4	1	..
1893.....	1,253	1,305	98	110	300	273	617	612	1,015	995	226	283	5	12	2	8	3	5	2	2
1894.....	1,464	1,406	125	109	351	301	731	701	1,207	1,111	249	275	4	5	3	11	1	3	..	1
1895.....	1,017	959	130	84	247	232	477	449	854	765	146	181	5	5	9	6	3	2	..	..
1896.....	888	875	96	65	241	197	405	430	742	692	130	167	2	8	11	7	3	1	..	..
1897.....	770	820	82	74	196	213	350	354	628	641	128	170	8	3	5	5	1	1	..	..
1898.....	475	448	52	35	150	101	193	203	395	339	65	103	4	1	6	5	4	..	1	..
1899.....	525	560	62	52	133	149	240	257	435	458	83	86	1	4	6	9	..	3	..	..
1900.....	669	607	72	64	147	108	297	279	516	451	131	138	9	7	11	10	2	..	..	1
1901.....	620	607	64	77	172	123	275	283	511	483	95	115	5	6	5	3	3	..	1	..
1902.....	633	509	71	53	179	130	256	213	506	396	113	98	5	9	8	6	1	..	..	..
1903.....	628	604	73	56	151	147	275	264	499	467	109	131	8	4	8	2	3	..	1	..
1904.....	661	611	85	49	183	169	273	264	541	482	103	101	6	8	8	13	2	5	1	2
1905.....	436	424	69	54	111	106	181	180	361	340	68	73	3	5	4	5	..	..	..	1
1906.....	559	424	63	55	172	119	223	171	458	345	85	66	6	7	9	3	1	3	..	..

## Deaths from Diphtheria and Croup, Former New York City, by Months.

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1871.....	83	63	74	68	52	35	29	35	41	63	81	80	704
1872.....	105	94	99	67	76	54	39	51	90	124	160	162	1,121
1873.....	151	144	116	115	108	116	124	123	176	223	245	242	1,883
1874.....	201	172	163	177	134	127	132	135	133	253	320	312	2,259
1875.....	321	272	269	251	215	243	201	173	220	283	299	340	3,087
1876.....	350	298	271	210	222	154	96	95	97	161	142	181	2,277
1877.....	108	120	134	116	105	71	84	65	121	161	175	163	1,423
1878.....	197	154	175	144	121	98	65	61	76	119	144	152	1,506
1879.....	143	113	108	67	78	66	44	60	69	122	173	150	1,193
1880.....	142	149	135	149	130	114	133	140	182	307	373	346	2,300
1881.....	328	254	288	273	271	289	257	236	227	283	268	313	3,287
1882.....	323	248	289	234	226	179	126	102	79	137	149	162	2,254
1883.....	180	140	153	149	140	114	96	114	115	136	151	165	1,653
1884.....	128	147	131	147	145	136	100	109	97	209	237	252	1,838
1885.....	178	209	190	181	181	177	151	117	135	155	213	293	2,180
1886.....	252	236	236	196	198	194	193	153	133	254	314	336	2,695
1887.....	321	263	285	271	323	275	181	125	190	228	279	315	3,056
1888.....	310	248	308	213	289	221	183	145	97	132	174	233	2,553

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1889.....	269	254	277	289	247	206	137	110	100	123	122	157	2,291
1890.....	156	176	188	186	167	141	125	92	85	112	160	195	1,783
1891.....	156	185	194	166	131	133	134	111	139	176	209	236	1,970
1892.....	214	182	202	229	203	121	158	106	125	158	191	217	2,106
1893.....	239	198	241	193	206	204	188	146	148	214	279	302	2,558
1894.....	350	260	278	275	336	272	212	159	142	170	204	212	2,870
1895.....	219	175	190	187	204	171	155	137	105	112	145	176	1,976
1896.....	208	187	158	146	192	165	126	104	105	87	127	158	1,763
1897.....	162	133	167	159	195	164	127	94	89	85	107	108	1,590
1898.....	91	108	111	94	88	56	69	39	41	67	71	88	923
1899.....	97	85	98	95	94	99	82	74	53	86	104	118	1,085
1900.....	143	151	131	137	152	106	82	58	42	56	103	115	1,276
1901.....	130	99	136	137	123	117	70	55	59	78	97	126	1,227
1902.....	122	119	100	129	106	99	87	66	45	64	89	116	1,142
1903.....	128	103	120	120	132	108	95	66	67	72	88	133	1,232
1904.....	147	130	126	178	143	110	73	62	65	59	55	124	1,272
1905.....	100	95	79	100	95	65	62	50	43	46	47	78	860
1906.....	107	127	141	116	119	79	65	20	27	41	69	72	983

## Deaths from Pulmonary Tuberculosis in Former New York City by Sex and Age.

Year.	Total.		Under 1 Year.		1 Year and Under 2 Years.		2 Years and Under 5 Years.		Total Under 5 Years.		5 Years and Under 15 Years.		15 Years and Under 25 Years.		25 Years and Under 45 Years.		45 Years and Under 65 Years.		65 Years and Over.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1866.....	1,791	1,690	41	37	27	30	45	24	113	91	46	65	318	360	813	771	412	289	89	114
1867.....	1,648	1,608	45	32	31	30	21	39	97	101	46	37	269	324	779	775	368	294	89	77
1868.....	1,812	1,602	21	11	34	32	24	25	79	68	37	45	301	344	869	766	426	292	100	87
1869.....	1,748	1,616	2	4	22	21	28	29	52	54	42	40	270	334	857	796	419	286	108	106
1870.....	2,097	1,933	22	16	32	21	30	31	84	68	40	52	314	393	995	927	533	382	131	111
1871.....	2,233	1,953	39	35	40	29	32	29	111	93	47	47	343	350	1,130	988	494	359	108	116
1872.....	2,176	2,098	26	18	29	29	36	34	91	81	37	56	366	378	1,108	1,074	474	385	100	124
1873.....	2,121	2,013	28	19	15	23	30	32	73	74	26	52	348	418	1,039	992	507	357	128	120



Year.	Total.		Under 1 Year.		1 Year and Under 2 Years.		2 Years and Under 5 Years.		Total Under 5 Years.		5 Years and Under 15 Years.		15 Years and Under 25 Years.		25 Years and Under 45 Years.		45 Years and Under 65 Years.		65 Years and Over.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1874.....	2,096	1,938	19	23	21	23	25	21	65	67	35	61	338	344	1,059	966	497	387	102	113
1875.....	2,200	1,972	22	28	22	21	32	25	76	74	49	65	368	439	1,084	932	515	345	108	117
1876.....	2,192	2,007	23	21	26	22	22	32	71	75	48	68	380	434	1,099	941	483	375	111	109
1877.....	2,051	1,993	27	20	23	24	22	39	72	74	32	42	343	450	974	937	516	376	114	114
1878.....	2,256	2,210	44	34	29	26	31	28	104	88	25	45	381	456	1,060	1,062	573	431	113	128
1879.....	2,280	2,063	36	28	31	20	28	18	95	66	28	44	389	472	1,127	1,006	538	369	103	106
1880.....	2,446	2,260	48	30	23	22	29	19	100	71	43	63	432	486	1,196	1,133	561	378	114	129
1881.....	2,913	2,399	39	29	24	28	26	19	89	76	47	66	478	499	1,472	1,259	674	385	153	114
1882.....	2,841	2,406	43	48	20	29	28	40	91	117	34	59	471	507	1,431	1,117	667	471	147	135
1883.....	2,847	2,443	33	32	26	26	26	29	85	87	33	56	487	528	1,416	1,189	698	440	128	143
1884.....	2,835	2,400	57	56	22	18	24	30	103	104	36	55	498	460	1,399	1,221	662	428	137	132
1885.....	2,802	2,394	50	41	29	24	36	20	115	85	36	63	441	493	1,444	1,213	655	435	111	105
1886.....	3,149	2,328	68	40	35	21	28	24	131	85	38	48	488	505	1,618	1,173	721	389	153	128
1887.....	3,000	2,260	55	44	28	41	23	15	106	100	43	52	520	476	1,565	1,133	643	378	123	121
1888.....	3,013	2,247	39	40	16	18	23	18	78	76	34	66	480	523	1,631	1,111	682	379	108	92
1889.....	2,990	2,189	32	19	30	23	17	17	79	59	44	66	462	511	1,599	1,105	700	332	106	116
1890.....	3,160	2,332	30	31	24	23	22	21	76	75	22	70	503	498	1,710	1,199	725	405	124	85
1891.....	2,994	2,166	27	25	15	16	19	16	61	57	30	62	489	481	1,635	1,116	640	355	139	95
1892.....	2,917	2,116	32	29	29	21	24	23	85	73	34	61	479	466	1,547	1,088	654	336	118	92
1893.....	3,075	2,049	31	29	27	17	26	27	84	73	35	67	574	469	1,584	1,012	675	337	123	91
1894.....	2,821	1,837	31	20	18	15	24	20	73	55	35	47	456	430	1,520	977	636	258	101	70
1895.....	3,113	2,092	45	26	29	27	22	16	96	69	21	53	482	488	1,738	1,077	660	318	116	87
1896.....	2,991	2,003	24	21	26	15	13	21	63	57	24	56	469	496	1,684	1,014	636	291	115	89
1897.....	2,878	1,965	28	23	24	17	13	23	65	63	28	41	484	443	1,573	1,012	633	318	95	83
1898.....	2,990	1,967	29	13	18	12	9	19	56	44	28	48	449	393	1,643	1,037	692	344	122	101
1899.....	3,247	1,991	37	28	16	13	24	26	77	67	33	50	438	440	1,879	1,051	675	288	145	95
1900.....	3,223	2,055	28	11	22	10	27	18	77	39	29	48	415	409	1,830	1,172	734	308	138	79
1901.....	3,306	1,927	25	18	19	17	20	18	64	53	29	53	442	380	1,934	1,054	723	302	114	85
1902.....	3,025	1,868	14	12	15	13	18	16	47	41	25	48	374	441	1,796	1,029	700	248	83	61
1903.....	3,245	2,018	17	8	9	14	15	16	41	38	30	59	436	461	1,896	1,128	759	267	83	65
1904.....	3,485	2,026	26	17	16	20	25	18	67	55	46	68	466	498	2,054	1,083	772	268	80	54
1905.....	3,596	2,082	36	12	18	24	25	23	79	59	30	78	480	477	2,082	1,114	840	303	85	51
1906.....	3,814	2,086	28	20	29	17	24	22	81	59	38	67	454	486	2,110	1,113	1,006	318	125	43

## Deaths from Pulmonary Tuberculosis, Former New York City, by Months.

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1871.....	403	375	407	371	345	292	347	306	328	345	308	359	4,186
1872.....	343	390	434	380	359	310	351	345	319	346	324	373	4,274
1873.....	388	354	405	385	371	300	295	307	333	318	343	335	4,134
1874.....	313	340	356	375	350	270	284	322	331	364	344	385	4,034
1875.....	386	374	428	428	333	274	325	309	317	333	303	362	4,172
1876.....	358	350	415	344	339	309	373	324	347	358	337	340	4,194
1877.....	356	337	361	357	342	297	338	323	318	341	329	345	4,044
1878.....	391	355	417	353	355	345	354	384	342	393	374	403	4,466
1879.....	417	389	408	393	332	301	346	286	334	367	389	381	4,343
1880.....	402	375	412	394	365	351	385	380	376	408	399	459	4,706
1881.....	494	424	468	484	450	357	407	396	428	465	477	462	5,312
1882.....	456	437	479	491	474	376	443	383	400	464	404	440	5,247
1883.....	463	440	553	493	473	363	450	396	371	406	409	473	5,290
1884.....	412	432	470	447	433	416	406	419	397	467	470	466	5,235
1885.....	475	450	530	475	443	376	401	415	415	439	380	397	5,196
1886.....	490	412	521	511	495	423	439	443	374	432	459	478	5,477
1887.....	522	438	486	504	437	411	390	386	404	425	419	438	5,260
1888.....	412	445	588	520	463	351	413	408	350	461	398	451	5,260
1889.....	445	430	485	426	417	376	422	440	422	412	384	520	5,179
1890.....	797	512	476	418	422	368	428	413	424	400	394	440	5,492
1891.....	468	378	521	508	478	344	387	399	421	414	407	435	5,160
1892.....	468	415	511	516	451	363	407	362	389	360	364	427	5,033
1893.....	412	402	567	554	474	394	393	418	333	386	367	424	5,124
1894.....	421	389	438	368	388	366	395	381	350	358	384	420	4,658
1895.....	489	464	502	458	414	365	389	442	401	450	412	419	5,205
1896.....	460	415	466	468	495	409	364	404	408	383	326	396	4,994
1897.....	422	459	406	400	381	363	392	420	390	444	369	397	4,843
1898.....	387	358	443	416	439	376	423	379	410	413	437	476	4,957
1899.....	493	475	514	465	435	394	416	416	353	410	433	434	5,238
1900.....	440	442	509	527	508	420	423	399	370	427	386	427	5,278
1901.....	529	440	492	477	435	421	410	410	398	428	412	381	5,233
1902.....	412	430	468	436	406	401	404	366	357	434	394	385	4,893
1903.....	502	481	494	482	454	374	391	406	379	409	418	473	5,263
1904.....	453	487	553	550	534	397	439	436	382	416	444	420	5,511
1905.....	485	449	580	531	502	449	427	416	440	444	465	490	5,678
1906.....	502	487	560	510	520	486	460	479	428	486	467	515	5,900

## Deaths from Cancer in Former City of New York, by Age and Sex.

Year.	Total.		Under 1 Year.		1 Year and Under 2 Years.		2 Years and Under 5 Years.		Total Under 5 Years.		5 Years and Under 15 Years.		15 Years and Under 25 Years.		25 Years and Under 45 Years.		45 Years and Under 65 Years.		65 Years and Over.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1866.....	74	195	..	2	..	..	..	2	..	4	3	2	1	5	13	58	36	96	21	30
1867.....	89	204	1	..	..	..	..	..	1	..	..	2	2	..	26	73	46	97	14	32
1868.....	84	231	..	..	..	..	1	1	1	1	..	1	3	3	20	68	44	109	16	49
1869.....	78	226	..	..	..	..	1	1	1	1	..	..	1	1	21	76	37	111	18	37
1870.....	110	245	..	..	..	..	..	..	..	..	1	2	1	4	23	72	70	122	15	45
1871.....	93	242	..	..	..	..	..	1	..	1	..	3	..	2	22	79	56	127	15	30
1872.....	114	278	..	1	..	1	2	1	2	3	1	..	3	3	23	98	61	131	24	43
1873.....	138	287	1	..	2	..	..	2	3	2	1	..	5	6	38	93	68	142	23	44
1874.....	124	292	..	..	1	..	2	..	3	..	4	1	5	5	23	92	63	149	26	45
1875.....	147	277	..	..	..	..	..	..	..	..	2	1	3	4	25	84	81	149	36	39
1876.....	152	307	..	..	1	1	..	1	1	2	..	1	5	5	31	86	90	149	25	64
1877.....	153	342	1	..	..	..	..	..	1	..	2	1	5	6	33	102	77	163	35	70
1878.....	182	388	2	..	..	..	..	..	2	..	1	1	3	2	37	102	104	209	35	74
1879.....	193	379	..	..	..	..	2	..	2	..	2	1	4	5	39	106	102	184	44	83



Year.	Total.		Under 1 Year.		1 Year and Under 2 Years.		2 Years and Under 5 Years.		Total Under 5 Years.		5 Years and Under 15 Years.		15 Years and Under 25 Years.		25 Years and Under 45 Years.		45 Years and Under 65 Years.		65 Years and Over.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1880.....	219	440	..	..	1	1	3	1	4	2	3	..	4	4	45	119	117	235	46	80
1881.....	244	462	..	1	..	1	2	3	2	5	1	1	7	4	49	127	129	239	56	86
1882.....	265	467	..	1	1	..	2	1	3	2	2	..	10	5	58	141	137	235	55	84
1883.....	221	457	1	..	..	1	2	1	3	2	3	2	4	5	36	144	128	219	47	85
1884.....	263	468	1	1	..	..	1	2	2	3	..	1	7	3	46	124	152	237	56	100
1885.....	228	526	..	1	..	1	2	..	2	2	..	5	4	2	45	146	124	287	53	84
1886.....	257	522	..	1	..	1	4	2	4	4	1	2	4	9	53	136	145	262	50	109
1887.....	278	554	..	..	..	..	1	..	1	..	1	3	10	6	63	148	137	309	66	88
1888.....	284	586	..	..	1	1	1	1	2	2	1	1	1	9	57	160	157	304	66	110
1889.....	276	572	..	..	1	..	1	..	2	..	4	1	4	8	52	164	149	297	65	102
1890.....	356	598	1	1	..	..	3	2	4	3	3	1	6	7	70	171	186	298	87	113
1891.....	318	584	1	..	1	..	1	..	3	..	4	4	2	9	70	148	172	306	67	117
1892.....	356	640	..	..	..	2	3	2	3	4	6	..	8	6	60	177	197	337	82	116
1893.....	383	610	1	1	2	1	2	2	5	4	1	4	3	4	87	152	191	319	96	127
1894.....	362	660	..	1	..	..	4	2	4	3	2	4	5	5	65	158	208	345	78	145
1895.....	391	639	1	3	2	..	3	4	6	7	2	5	4	7	65	164	216	316	98	140
1896.....	449	692	..	3	1	1	3	2	4	6	1	2	7	9	93	168	238	350	106	157
1897.....	474	743	..	1	..	..	5	1	5	2	1	2	8	5	83	160	266	407	111	167
1898.....	497	763	..	..	..	3	..	4	..	7	6	..	6	11	90	198	290	389	105	158
1899.....	509	812	1	2	..	..	4	..	5	2	2	6	9	9	81	200	283	428	129	167
1900.....	558	915	1	2	1	..	1	1	3	3	8	1	17	9	93	222	305	465	132	215
1901.....	629	946	..	1	..	1	7	2	7	4	4	..	11	15	129	241	336	487	142	199
1902.....	590	946	1	1	2	1	3	6	6	8	5	3	9	11	122	225	325	491	123	208
1903.....	655	1,028	3	1	1	1	3	3	7	5	6	3	9	12	118	237	343	551	172	220
1904.....	710	1,030	1	4	2	2	5	6	8	12	3	4	11	13	126	249	405	519	157	233
1905.....	768	1,066	1	2	1	..	2	3	4	5	5	5	18	10	143	266	385	544	213	236
1906.....	766	1,090	2	2	1	..	1	4	4	6	9	2	16	15	135	245	399	598	203	224

## Deaths from Cancer, Former New York City, by Months.

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1871.....	28	20	35	26	34	20	34	24	26	24	40	24	335
1872.....	30	34	31	26	44	37	26	34	34	29	32	35	392
1873.....	40	29	32	35	31	32	50	38	45	30	29	34	425
1874.....	41	33	37	39	38	32	30	32	36	40	31	27	416
1875.....	36	30	45	40	36	40	38	33	37	29	33	26	423
1876.....	32	36	37	27	42	45	36	36	40	34	37	57	459
1877.....	40	39	42	38	41	33	46	52	40	38	39	47	495
1878.....	44	47	51	45	48	55	56	41	58	46	40	39	570
1879.....	44	42	48	50	44	47	57	57	50	41	43	49	572
1880.....	45	54	67	55	62	55	61	49	52	50	56	53	659
1881.....	66	58	44	60	73	60	46	59	56	70	55	59	706
1882.....	75	48	63	66	51	68	69	57	53	67	52	63	732
1883.....	50	52	56	50	71	63	57	62	57	51	58	51	678
1884.....	58	57	74	65	69	61	61	46	53	61	65	731	
1885.....	55	68	67	46	62	69	66	60	56	68	69	68	754
1886.....	53	73	78	62	65	70	62	67	49	69	64	67	779
1887.....	82	49	59	70	63	80	68	73	66	92	56	74	832
1888.....	75	67	80	89	78	78	46	62	73	84	64	74	870
1889.....	58	51	76	68	72	72	77	85	68	73	70	78	848
1890.....	92	61	80	78	102	80	78	72	81	65	79	86	954
1891.....	60	63	102	79	81	60	65	68	81	86	59	98	902
1892.....	76	83	90	82	82	81	87	85	84	86	83	77	996
1893.....	63	80	92	89	86	66	98	96	70	84	77	92	993
1894.....	78	75	86	92	85	89	104	93	69	79	79	93	1,022
1895.....	99	78	86	86	74	68	106	105	81	95	67	85	1,030
1896.....	97	96	91	103	93	94	93	101	79	93	105	96	1,141
1897.....	107	118	105	88	109	83	98	114	88	113	95	99	1,217
1898.....	90	83	105	107	110	101	120	113	98	115	117	101	1,260
1899.....	96	88	112	114	106	120	112	111	101	119	118	124	1,321
1900.....	135	133	120	133	122	121	119	125	121	119	122	103	1,473
1901.....	149	114	142	124	140	147	147	111	117	125	122	137	1,575
1902.....	116	100	123	130	168	127	124	138	115	117	136	142	1,536
1903.....	165	125	153	147	128	140	147	141	124	132	123	158	1,683
1904.....	143	134	157	137	153	113	131	146	174	145	159	148	1,740
1905.....	145	132	165	169	143	150	157	143	141	164	166	159	1,834
1906.....	156	154	142	160	144	136	161	167	159	157	147	173	1,856

## Deaths from Bronchitis in Former City of New York, by Sex and Age.

Year.	Total.		Under 1 Year.		1 Year and Under 2 Years.		2 Years and Under 5 Years.		Total Under 5 Years.		5 Years and Under 15 Years.		15 Years and Under 25 Years.		25 Years and Under 45 Years.		45 Years and Under 65 Years.		65 Years and Over.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1866.....	301	256	163	123	46	29	18	24	227	176	6	9	2	2	13	20	27	20	26	29
1867.....	375	320	184	140	81	53	34	25	229	218	8	6	3	6	23	23	25	25	17	42
1868.....	403	400	186	176	63	58	36	45	285	279	10	10	5	1	28	18	33	39	42	53
1869.....	465	412	231	155	71	76	56	48	358	279	7	11	1	1	22	16	39	29	38	76
1870.....	413	442	243	186	52	60	31	44	326	290	7	11	4	5	12	21	29	33	35	82
1871.....	492	472	259	238	79	67	35	44	373	349	12	6	3	5	15	12	30	36	59	64
1872.....	504	536	269	234	75	89	41	36	385	359	5	13	2	4	20	18	40	44	52	93
1873.....	525	543	295	258	79	75	33	42	407	375	8	11	4	6	19	16	34	38	53	97
1874.....	533	532	278	238	68	71	41	47	387	356	5	10	1	5	28	16	50	37	62	108
1875.....	585	526	307	233	97	54	45	44	449	331	6	9	1	1	16	19	48	44	65	122
1876.....	629	585	331	241	89	71	44	44	464	356	8	8	2	4	15	16	47	53	93	148
1877.....	462	571	238	234	64	61	30	39	332	334	11	9	1	1	22	24	36	49	60	154
1878.....	610	574	334	268	97	67	49	42	480	377	10	10	1	3	20	18	37	54	62	112
1879.....	593	670	305	292	75	73	42	43	422	408	13	12	3	2	18	24	53	49	84	175
1880.....	704	671	352	283	84	93	46	48	482	424	12	11	7	2	31	31	68	69	104	134
1881.....	778	733	404	311	108	103	68	69	580	483	17	15	7	4	27	23	46	73	101	135
1882.....	787	796	426	344	110	123	61	80	597	547	11	15	4	6	23	20	62	60	90	148
1883.....	763	672	386	279	100	96	49	37	535	412	13	6	5	4	30	28	59	82	121	140
1884.....	723	762	377	304	99	101	41	40	517	445	10	19	8	6	27	29	64	97	97	166



Year.	Total.		Under 1 Year.		1 Year and Under 2 Years.		2 Years and Under 5 Years.		Total Under 5 Years.		5 Years and Under 15 Years.		15 Years and Under 25 Years.		25 Years and Under 45 Years.		45 Years and Under 65 Years.		65 Years and Over.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1885.....	801	804	388	327	129	92	52	47	569	466	11	11	8	16	38	28	71	78	104	205
1886.....	872	829	413	324	122	112	77	68	612	504	14	9	8	9	53	43	81	91	104	173
1887.....	926	912	453	361	114	102	63	79	630	542	12	21	15	15	48	47	99	110	122	177
1888.....	955	937	518	398	102	115	49	63	669	576	14	13	13	8	36	47	106	101	117	192
1889.....	908	906	459	362	137	120	62	55	658	538	13	11	15	23	46	50	73	114	103	170
1890.....	965	1,022	498	447	145	154	78	65	721	666	19	14	11	16	49	53	86	118	79	155
1891.....	924	912	494	403	147	122	59	67	700	592	15	17	8	9	46	39	74	111	81	144
1892.....	930	824	500	385	138	139	78	64	716	588	17	12	12	10	50	42	70	79	65	93
1893.....	756	821	425	408	106	108	62	65	593	581	7	13	7	14	44	35	54	75	51	103
1894.....	675	654	358	307	141	99	61	62	560	468	7	15	7	11	16	27	40	53	45	80
1895.....	790	846	461	406	124	158	63	65	648	629	11	15	5	3	26	20	47	74	53	105
1896.....	656	636	398	323	102	117	55	57	555	497	10	9	5	4	17	14	37	49	32	63
1897.....	537	552	328	258	83	87	40	44	451	389	6	16	1	4	13	15	30	45	36	83
1898.....	553	574	327	283	94	92	29	36	450	411	7	14	3	5	12	24	37	41	44	79
1899.....	582	550	377	279	90	82	38	45	505	406	9	18	5	4	6	19	28	46	29	57
1900.....	545	548	298	261	96	81	45	45	439	387	8	13	7	6	20	16	26	39	45	87
1901.....	433	501	262	244	69	81	34	38	365	363	8	5	5	8	15	13	13	33	27	79
1902.....	498	522	320	280	68	74	34	46	422	400	5	4	5	3	13	10	25	29	28	76
1903.....	413	446	222	206	77	84	34	32	333	322	6	8	1	5	5	15	33	33	35	63
1904.....	505	539	283	250	95	97	39	44	417	391	6	10	2	2	11	14	34	34	35	88
1905.....	411	453	251	229	72	65	26	26	349	320	4	15	2	4	3	4	20	32	33	78
1906.....	346	374	219	181	54	71	15	24	288	276	2	2	1	3	6	3	13	26	36	64

## Deaths from Bronchitis, Former New York City, by Months.

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1871.....	93	88	97	89	101	59	53	52	69	81	81	101	964
1872.....	95	101	135	134	87	64	59	38	57	73	80	117	1,040
1873.....	122	123	107	110	98	54	54	58	44	56	114	128	1,068
1874.....	111	111	127	108	94	52	47	51	67	76	101	120	1,065
1875.....	149	110	137	110	93	55	57	44	69	90	90	107	1,111
1876.....	120	139	178	107	81	65	58	82	63	89	99	133	1,214
1877.....	115	127	129	94	72	59	50	42	56	88	90	111	1,033
1878.....	119	130	142	123	113	67	57	49	69	95	122	98	1,184
1879.....	159	130	145	114	95	63	64	51	71	111	126	134	1,263
1880.....	106	122	140	138	131	102	43	82	78	112	126	195	1,375
1881.....	166	169	153	159	120	93	81	69	86	106	135	174	1,511
1882.....	218	169	188	152	167	103	78	67	76	92	133	140	1,583
1883.....	155	132	183	174	145	79	59	68	77	87	110	166	1,435
1884.....	158	131	148	137	124	84	79	78	75	118	160	193	1,485
1885.....	157	180	210	163	137	105	93	76	89	93	124	178	1,605
1886.....	203	178	190	127	119	88	85	76	101	142	164	228	1,701
1887.....	218	168	206	180	159	109	81	98	132	151	142	194	1,838
1888.....	191	200	227	181	168	120	111	97	111	144	158	184	1,892
1889.....	182	217	234	159	133	107	96	104	105	120	129	128	1,814
1890.....	391	190	229	201	163	116	94	98	96	121	136	152	1,987
1891.....	174	127	195	333	179	120	82	82	107	124	117	196	1,836
1892.....	221	179	206	195	185	125	106	57	107	104	132	137	1,754
1893.....	181	135	241	229	134	80	68	76	82	93	101	157	1,577
1894.....	175	156	128	136	97	103	62	63	71	95	107	136	1,329
1895.....	229	195	180	167	126	86	66	70	74	118	144	181	1,636
1896.....	142	131	179	177	125	67	58	80	72	88	76	97	1,292
1897.....	100	124	125	109	103	77	51	54	72	86	83	105	1,089
1898.....	112	135	147	102	90	55	45	50	72	91	90	138	1,127
1899.....	134	123	110	105	88	68	53	46	66	101	124	114	1,132
1900.....	137	169	177	145	85	43	39	32	36	69	84	77	1,093
1901.....	112	97	115	104	69	49	27	43	44	68	74	132	934
1902.....	153	119	104	103	92	40	43	51	61	71	93	90	1,020
1903.....	88	97	93	96	91	49	37	37	53	53	76	89	859
1904.....	135	129	137	113	85	59	51	33	60	67	79	96	1,044
1905.....	104	93	110	105	74	62	45	43	35	52	69	72	864
1906.....	112	90	116	73	58	39	38	23	25	48	45	53	720

## Deaths from Pneumonia in Former New York City, by Age and Sex.

Year.	Total.		Under 1 Year.		1 Year and Under 2 Years.		2 Years and Under 5 Years.		Total Under 5 Years.		5 Years and Under 15 Years.		15 Years and Under 25 Years.		25 Years and Under 45 Years.		45 Years and Under 65 Years.		65 Years and Over.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1866.....	764	624	219	194	102	87	75	62	396	343	19	17	47	41	123	87	126	79	53	57
1867.....	773	661	270	182	112	119	79	85	461	386	33	24	37	30	95	80	109	77	38	64
1868.....	870	798	303	263	127	144	78	89	508	496	26	27	29	48	139	93	121	80	47	54
1869.....	1,144	956	318	302	168	152	146	127	632	581	64	39	48	30	164	116	181	97	55	93
1870.....	1,046	790	295	225	146	118	86	69	527	412	31	26	44	33	183	137	183	100	78	82
1871.....	1,022	812	251	228	153	116	102	102	506	446	28	39	35	32	183	106	177	105	93	84
1872.....	1,238	912	320	221	171	122	124	100	615	443	37	57	54	31	224	131	221	142	87	108
1873.....	1,357	971	367	295	170	123	100	100	637	518	41	42	72	44	277	139	228	127	102	101
1874.....	1,335	1,063	356	277	167	135	92	105	615	517	44	45	58	42	252	151	263	165	103	143
1875.....	1,558	1,244	356	299	201	181	106	117	663	597	46	42	65	56	334	179	319	177	131	193
1876.....	1,359	1,183	352	294	194	168	141	114	687	576	57	43	51	58	234	177	229	168	101	161
1877.....	1,171	977	292	268	165	125	103	91	560	484	41	38	59	49	206	128	209	160	96	118
1878.....	1,204	1,084	310	280	200	179	139	126	649	585	43	42	46	35	170	133	192	149	104	140
1879.....	1,411	1,143	351	239	161	161	126	120	638	520	56	51	69	42	261	163	246	194	141	173
1880.....	1,552	1,270	370	293	184	188	150	126	704	607	53	59	77	52	293	188	289	211	136	153
1881.....	1,836	1,425	400	307	232	203	191	157	823	667	67	72	77	53	360	213	357	227	152	193
1882.....	1,976	1,496	441	329	250	210	192	168	883	707	61	69	114	61	429	219	322	261	167	179
1883.....	1,947	1,462	370	305	210	175	146	143	726	623	66	73	112	74	448	243	438	251	157	198
1884.....	1,767	1,392	378	328	216	215	161	124	755	667	61	66	82	67	388	209	338	234	143	149
1885.....	2,043	1,607	398	323	252	196	170	164	820	683	51	57	123	82	454	277	396	315	199	193
1886.....	2,063	1,593	456	353	259	193	148	150	863	696	66	70	126	79	463	256	389	268	156	224
1887.....	2,059	1,648	448	352	232	198	169	177	849	727	61	69	119	81	472	268	377	283	181	220
1888.....	2,422	1,866	480	435	286	232	218	177	984	844	87	81	150	76	537	305	481	334	183	226
1889.....	2,306	1,769	502	422	266	230	187	160	955	812	82	59	136	114	581	279	406	313	146	192



Year.	Total.		Under 1 Year.		1 Year and Under 2 Years.		2 Years and Under 5 Years.		Total Under 5 Years.		5 Years and Under 15 Years.		15 Years and Under 25 Years.		25 Years and Under 45 Years.		45 Years and Under 65 Years.		65 Years and Over.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1890.....	2,759	2,230	552	435	310	325	207	209	1,069	969	84	69	183	127	720	416	516	393	187	256
1891.....	3,258	2,560	739	504	384	343	287	249	1,410	1,096	121	84	182	137	719	416	552	484	274	343
1892.....	3,363	2,478	730	598	440	362	274	243	1,444	1,203	113	102	191	122	816	378	570	407	229	266
1893.....	3,692	2,795	721	591	371	323	261	243	1,353	1,157	99	106	233	145	985	485	769	557	253	345
1894.....	2,712	2,013	660	496	356	286	243	203	1,259	987	72	78	139	100	601	319	435	318	206	211
1895.....	3,146	2,605	802	609	484	433	272	268	1,558	1,310	93	97	163	124	638	367	463	383	231	324
1896.....	3,046	2,337	802	620	445	370	259	246	1,506	1,236	82	79	147	91	594	301	508	368	209	262
1897.....	2,585	2,036	736	595	386	307	236	167	1,358	1,069	70	73	108	90	482	259	374	275	193	270
1898.....	2,861	2,440	759	607	428	406	259	229	1,446	1,242	76	95	118	97	562	349	415	380	244	277
1899.....	2,936	2,482	800	637	441	398	256	259	1,497	1,294	77	80	122	115	536	312	463	366	241	315
1900.....	3,715	3,032	953	689	544	491	327	323	1,824	1,503	100	128	180	120	693	384	604	499	314	398
1901.....	3,137	2,655	783	631	432	441	242	236	1,457	1,308	93	93	122	115	650	373	541	431	274	335
1902.....	3,081	2,760	930	756	502	510	258	290	1,690	1,556	90	115	102	113	487	323	470	336	242	317
1903.....	3,437	2,871	841	696	462	405	257	259	1,560	1,360	99	106	137	93	631	377	657	516	353	419
1904.....	4,629	3,400	877	763	560	496	299	245	1,736	1,504	122	144	167	108	1,095	428	1,038	668	471	548
1905.....	3,395	2,744	866	679	469	423	248	214	1,583	1,316	86	89	123	91	674	308	622	514	307	426
1906.....	3,705	2,977	1,000	851	577	487	272	233	1,849	1,571	88	73	122	72	653	345	655	462	338	454

Deaths from Pneumonia, Former New York City, by Months.

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1871.....	227	195	213	188	170	94	79	63	108	157	148	192	1,834
1872.....	198	267	316	264	228	124	89	81	87	134	149	213	2,150
1873.....	224	228	280	248	269	155	116	109	105	146	229	219	2,328
1874.....	239	245	279	323	242	160	110	97	107	128	214	254	2,398
1875.....	410	297	364	278	265	149	138	113	135	174	225	254	2,802
1876.....	255	321	370	282	241	149	114	105	118	156	195	236	2,542
1877.....	263	212	278	243	194	115	105	108	109	154	176	191	2,148
1878.....	280	247	306	249	222	143	84	103	106	141	181	226	2,288
1879.....	341	251	330	274	214	126	103	92	114	171	268	270	2,554
1880.....	261	248	266	375	340	163	127	108	134	205	246	349	2,822
1881.....	366	371	391	393	282	176	151	134	157	200	254	386	3,261
1882.....	376	370	453	393	464	234	169	103	135	191	225	359	3,472
1883.....	357	361	526	472	345	213	133	122	127	182	240	331	3,409
1884.....	348	339	349	304	268	186	167	150	156	209	298	385	3,159
1885.....	376	486	587	512	337	229	150	139	149	160	217	308	3,650
1886.....	387	354	506	374	256	184	176	160	125	258	376	500	3,656
1887.....	480	370	394	466	390	164	137	119	205	260	347	375	3,707
1888.....	460	505	648	426	409	222	175	168	203	335	318	419	4,288
1889.....	405	394	534	508	352	229	147	161	205	270	308	562	4,075
1890.....	1,111	434	487	465	412	276	205	223	196	285	362	533	4,989
1891.....	502	478	646	1,112	563	352	237	208	242	296	508	674	5,818
1892.....	648	609	685	691	711	385	301	255	254	340	464	498	5,841
1893.....	687	613	1,089	1,082	653	359	252	223	234	287	379	629	6,487
1894.....	680	551	525	512	425	314	230	206	224	286	333	439	4,725
1895.....	835	609	618	681	541	311	231	268	267	366	449	575	5,751
1896.....	633	619	739	803	522	284	257	218	298	340	324	346	5,383
1897.....	422	494	627	489	401	303	228	236	259	358	353	451	4,621
1898.....	497	543	560	536	496	317	264	244	309	376	447	712	5,301
1899.....	623	584	580	556	478	324	292	231	298	365	438	648	5,418
1900.....	713	893	1,117	938	634	374	297	240	247	380	405	509	6,747
1901.....	790	493	724	612	500	336	245	231	267	391	498	705	5,792
1902.....	859	776	659	574	571	322	285	257	306	366	407	459	5,841
1903.....	692	745	742	645	616	370	321	263	268	351	548	747	6,308
1904.....	1,011	1,043	1,154	1,119	754	381	291	275	281	382	525	813	8,029
1905.....	804	684	737	701	553	375	299	261	237	340	523	625	6,139
1906.....	749	679	883	822	668	412	276	279	314	410	505	685	6,682

\* Deaths from Diseases of Nervous System, Former New York City, by Months.

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1871.....	227	201	246	240	246	215	248	252	188	208	179	206	2,656
1872.....	207	274	350	337	342	273	348	242	198	184	184	220	3,159
1873.....	279	227	314	253	234	194	257	224	227	208	166	194	2,777
1874.....	218	209	215	210	209	207	226	213	172	193	179	181	2,432
1875.....	209	188	227	218	199	196	252	219	204	157	151	197	2,417
1876.....	209	218	222	227	181	169	319	209	177	172	170	184	2,457
1877.....	189	178	200	193	218	204	260	198	197	190	170	160	2,357
1878.....	207	167	227	206	154	196	288	210	180	176	163	184	2,358
1879.....	245	192	230	175	203	213	250	194	186	190	162	205	2,445
1880.....	218	199	229	221	271	259	236	217	198	207	211	206	2,672
1881.....	277	269	312	334	276	225	270	248	224	234	215	256	3,140
1882.....	265	241	252	273	244	250	305	218	211	194	191	221	2,865
1883.....	229	226	267	249	234	213	267	205	221	182	206	228	2,727
1884.....	238	222	267	275	232	274	256	258	222	217	203	247	2,911
1885.....	261	281	304	269	256	260	311	233	222	213	242	243	3,095
1886.....	258	253	290	293	266	251	296	247	204	240	217	266	3,081
1887.....	261	277	300	286	318	292	348	263	253	269	228	278	3,373
1888.....	212	267	286	327	298	337	296	338	319	264	256	329	3,529
1889.....	300	303	369	302	289	300	322	255	243	243	257	308	3,491
1890.....	303	262	305	313	271	272	296	251	218	246	204	269	3,210
1891.....	282	258	313	336	221	333	233	315	260	249	251	290	3,341
1892.....	293	298	372	333	336	317	397	265	245	254	246	299	3,655
1893.....	306	300	405	404	348	306	353	303	233	275	236	281	3,750
1894.....	323	303	330	315	300	319	326	226	253	238	252	281	3,466
1895.....	316	282	322	322	300	310	297	292	274	235	241	238	3,429
1896.....	268	272	324	301	297	277	316	355	238	249	218	243	3,358
1897.....	273	291	340	324	259	290	283	240	270	253	228	294	3,345
1898.....	314	285	283	300	271	250	250	249	239	228	222	264	3,155
1899.....	311	272	320	274	258	270	244	242	231	242	233	293	3,190
1900.....	274	297	348	326	292	213	242	181	203	229	227	259	3,091
1901.....	303	245	362	329	306	289	326	251	232	240	232	289	3,404
1902.....	311	327	325	349	258	242	281	242	228	282	260	294	3,399
1903.....	299	275	284	327	313	257	226	216	210	272	271	291	3,241
1904.....	352	307	415	549	572	416	326	263	266	286	299	391	4,442
1905.....	435	435	619	621	500	347	312	229	268	261	246	318	4,591
1906.....	330	345	330	404	375	264	233	245	259	287	261	279	3,612



Year.	Total.		Under 1 Year.		1 Year and Under 2 Years.		2 Years and Under 5 Years.		Total Under 5 Years.		5 Years and Under 15 Years.		15 Years and Under 25 Years.		25 Years and Under 45 Years.		45 Years and Under 65 Years.		65 Years and Over.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1877.....	493	430	2	..	2	..	9	5	13	5	18	15	22	31	173	166	194	142	73	71
1878.....	499	420	2	1	2	1	15	3	19	5	17	14	29	37	158	130	196	157	80	77
1879.....	526	501	3	..	1	1	10	8	14	9	14	14	36	35	181	185	208	183	73	75
1880.....	540	489	2	..	2	..	6	1	10	1	15	10	24	28	179	180	233	186	79	84
1881.....	655	532	6	1	2	..	9	4	17	5	15	13	31	28	204	179	275	208	113	99
1882.....	640	601	2	4	1	2	10	11	13	17	12	12	28	41	239	204	259	218	98	109
1883.....	661	534	2	..	4	4	6	2	12	6	14	16	28	28	229	172	266	211	112	101
1884.....	609	554	3	2	3	2	9	8	15	12	14	12	23	44	190	175	259	210	108	101
1885.....	658	530	4	4	1	1	6	2	11	7	14	12	26	45	197	159	278	220	132	87
1886.....	627	583	3	2	2	1	4	6	9	9	6	8	27	24	191	175	266	229	128	138
1887.....	581	547	1	2	2	2	4	5	7	9	13	8	28	27	182	187	227	204	124	112
1888.....	585	562	1	4	2	1	10	7	13	12	18	14	33	41	171	178	244	222	106	95
1889.....	969	794	4	2	4	1	10	5	18	8	11	13	36	49	313	241	408	305	183	178
1890.....	1,089	935	1	2	1	..	8	7	10	9	10	6	33	57	366	269	450	391	219	203
1891.....	1,153	963	5	2	2	1	12	8	19	11	14	20	49	38	388	318	468	371	215	205
1892.....	1,078	913	6	3	4	1	8	8	18	12	23	16	39	61	349	310	460	352	189	161
1893.....	1,140	931	1	1	1	1	9	5	11	7	13	17	44	40	373	280	463	397	236	190
1894.....	1,023	856	1	1	1	1	10	3	12	5	18	15	46	47	305	275	438	337	204	177
1895.....	1,082	937	2	1	1	3	1	7	4	11	8	5	30	35	290	248	493	401	257	237
1896.....	1,173	1,022	1	3	5	3	3	3	9	9	8	12	35	39	308	270	513	406	300	286
1897.....	1,054	1,005	2	..	1	..	4	6	7	6	9	12	38	49	268	239	454	412	278	287
1898.....	1,304	1,122	1	2	3	1	5	1	9	4	4	15	47	44	323	289	579	464	342	306
1899.....	1,496	1,243	5	3	2	1	9	3	16	7	14	22	44	49	393	334	654	538	375	293
1900.....	1,521	1,493	6	6	8	3	15	7	29	16	9	21	44	45	416	388	678	581	345	352
1901.....	1,601	1,350	22	10	6	6	19	15	47	31	26	20	43	47	464	362	653	508	368	382
1902.....	1,542	1,272	14	7	4	2	16	10	34	19	15	17	45	51	446	316	666	554	336	315
1903.....	1,522	1,296	1	3	2	2	8	2	11	7	15	18	40	40	386	332	651	547	419	352
1904.....	1,665	1,481	4	6	1	1	3	4	8	11	5	15	47	50	413	368	749	609	443	428
1905.....	1,690	1,485	2	5	..	1	2	..	4	6	10	10	40	38	381	340	744	615	511	476
1906.....	1,811	1,421	1	1	..	..	4	..	5	1	7	11	39	46	466	372	802	547	492	444

## Deaths from Bright's Diseases and Nephritis, Former New York City, by Months.

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1871.....	77	86	101	100	102	89	82	82	82	79	77	73	1,030
1872.....	72	75	99	113	100	76	81	78	89	73	75	98	1,029
1873.....	83	72	99	86	91	74	88	87	71	68	90	76	985
1874.....	85	60	111	70	88	58	65	86	77	83	100	92	975
1875.....	109	97	90	94	86	81	92	85	82	85	83	113	1,107
1876.....	86	111	130	106	92	83	106	86	72	83	84	93	1,132
1877.....	93	65	112	106	104	81	90	85	97	105	107	94	1,139
1878.....	86	88	108	106	104	96	94	99	76	90	97	117	1,161
1879.....	144	113	119	111	120	101	125	85	92	102	120	116	1,348
1880.....	107	106	87	127	123	127	114	117	106	128	113	163	1,418
1881.....	144	134	135	165	143	136	157	121	119	161	142	144	1,701
1882.....	161	173	161	165	168	146	139	146	146	163	142	146	1,856
1883.....	157	159	156	143	175	146	157	150	154	155	153	149	1,854
1884.....	148	168	164	170	164	160	177	141	160	165	160	151	1,928
1885.....	196	173	183	192	196	170	176	150	164	164	165	166	2,095
1886.....	179	156	212	191	192	142	173	208	186	185	178	212	2,214
1887.....	196	177	207	231	202	216	221	184	176	188	175	202	2,375
1888.....	189	208	238	197	233	179	188	186	138	185	186	215	2,342
1889.....	225	250	216	229	179	171	215	198	151	189	182	232	2,437
1890.....	241	163	219	200	218	207	217	172	162	205	193	213	2,410
1891.....	220	204	235	270	216	198	202	194	164	196	176	226	2,501
1892.....	211	205	209	231	218	157	211	186	180	189	191	207	2,395
1893.....	208	180	286	248	250	194	212	191	186	203	186	227	2,571
1894.....	244	202	221	214	207	192	191	211	156	200	234	207	2,479
1895.....	256	231	258	244	232	222	230	178	186	228	223	209	2,697
1896.....	269	260	265	231	223	204	225	238	169	189	200	212	2,685
1897.....	235	186	256	250	234	207	172	188	169	189	203	210	2,499
1898.....	276	266	278	282	260	237	210	220	207	211	242	272	2,961
1899.....	268	248	267	276	264	257	267	274	221	297	275	280	3,194
1900.....	326	312	341	293	288	249	264	214	240	274	305	288	3,394
1901.....	341	273	304	310	233	230	243	179	247	292	313	326	3,291
1902.....	303	285	295	293	263	254	219	250	224	283	226	303	3,198
1903.....	344	282	297	276	293	239	232	214	205	244	280	294	3,200
1904.....	347	337	322	325	304	246	291	270	261	267	328	312	3,610
1905.....	334	305	369	310	282	284	280	258	249	308	320	295	3,594
1906.....	311	333	344	313	320	258	258	292	281	272	266	370	3,618

This table includes all acute and chronic forms of nephritis.

## Deaths from Heart Diseases, Former New York City, by Months.

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1871.....	79	58	69	80	84	54	57	60	54	58	73	87	813
1872.....	95	77	86	75	84	77	62	64	57	69	77	71	894

## Deaths from Puerperal Diseases, Former New York City, by Months.

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1871.....	29	36	37	36	45	28	23	30	15	30	30	42	381
1872.....	34	52	52	52	44	33	36	45	22	24	33	49	476
1873.....	54	50	55	52	45	31	23	26	18	23	27	23	427
1874.....	34	47	35	49	44	37	30	32	22	13	17	33	393



Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.	Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1875.....	39	38	58	44	30	24	26	21	17	18	24	31	370	1891.....	39	49	41	36	44	42	24	29	27	25	24	40	420
1876.....	35	28	34	34	28	27	32	21	24	25	27	27	342	1892.....	52	51	51	51	38	33	30	19	26	25	17	24	417
1877.....	29	32	42	23	20	19	21	19	22	21	21	29	298	1893.....	48	32	44	43	35	28	31	33	22	19	18	31	384
1878.....	28	25	36	33	20	32	26	20	14	14	28	24	300	1894.....	44	35	39	31	40	34	21	22	25	27	16	24	358
1879.....	30	47	44	53	34	22	27	30	21	10	24	17	359	1895.....	37	41	42	35	33	24	40	22	28	30	37	40	409
1880.....	40	33	37	49	42	42	24	24	27	24	20	45	407	1896.....	38	44	47	44	37	31	30	30	21	28	33	33	416
1881.....	61	67	48	40	36	18	32	33	25	25	14	27	426	1897.....	39	34	43	31	32	34	39	28	26	41	27	29	403
1882.....	35	43	51	50	59	29	21	29	23	18	28	21	407	1898.....	36	25	28	36	36	45	27	29	25	33	26	30	376
1883.....	45	36	51	39	40	33	27	26	19	23	39	38	416	1899.....	40	28	44	37	34	36	29	31	23	25	25	33	385
1884.....	46	54	56	47	42	35	29	25	28	20	33	23	438	1900.....	46	41	61	36	36	40	30	38	22	24	29	25	428
1885.....	41	33	51	38	36	35	44	17	25	23	25	26	394	1901.....	45	41	47	40	23	28	28	21	37	28	28	35	401
1886.....	41	44	46	33	33	28	26	30	23	18	25	24	371	1902.....	38	38	45	47	38	32	33	30	29	20	27	32	409
1887.....	29	37	31	44	28	30	32	24	21	19	25	35	355	1903.....	30	36	36	39	40	26	35	23	21	31	31	27	375
1888.....	30	49	60	35	37	37	29	35	25	32	30	43	442	1904.....	50	58	42	62	41	31	36	30	22	23	21	31	447
1889.....	27	43	56	52	37	25	24	32	27	25	21	24	393	1905.....	39	44	52	48	43	31	39	35	36	37	36	45	485
1890.....	29	31	40	38	35	41	29	24	14	27	43	32	383	1906.....	42	39	55	43	48	33	36	31	21	32	26	52	458

## Deaths from Sunstroke in Former New York City, by Age and Sex.

Year.	Total.		Under 1 Year.		1 Year and Under 2 Years.		2 Years and Under 5 Years.		Total Under 5 Years.		5 Years and Under 15 Years.		15 Years and Under 25 Years.		25 Years and Under 45 Years.		45 Years and Under 65 Years.		65 Years and Over.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1866.....	221	89	..	1	1	..	..	1	1	2	..	..	24	12	139	50	48	18	9	7
1867.....	4	1	..	..	..	..	..	..	..	7	1	..	23	4	99	18	34	6	2	2
1868.....	159	37	..	4	..	..	..	..	1	..	1	1	2	..	16	1	4	..	..	..
1869.....	24	2	..	..	1	..	..	..	11	5	2	..	15	6	99	29	50	11	4	6
1870.....	181	57	9	4	1	1	1	..	1	2	1	..	1	..	9	1	4	1	1	..
1871.....	17	4	..	1	..	1	1	..	17	9	6	3	16	11	118	49	59	18	4	10
1872.....	220	100	10	6	4	1	3	2	6	6	1	..	5	1	10	1	3	1	..	..
1873.....	25	9	2	3	1	2	3	1	1	..	..	..	1	1	8	2	5	..	..	1
1874.....	15	4	1	..	..	..	..	..	1	3	1	1	..	1	4	2	3	..	2	1
1875.....	11	8	1	1	..	..	..	2	17	4	1	4	5	6	99	16	28	13	5	8
1876.....	155	51	11	2	3	1	3	1	2	3	2	..	1	1	4	..	5	..	2	1
1877.....	16	5	1	1	..	1	1	1	7	5	2	..	2	..	18	3	8	2	3	2
1878.....	40	12	7	2	..	1	..	2	3	2	4	..	..	..	20	2	6	2	1	1
1879.....	34	7	2	2	1	..	..	..	15	12	2	2	8	5	38	5	12	11	3	3
1880.....	78	38	11	10	2	2	2	..	14	9	3	2	12	..	52	4	24	6	3	5
1881.....	108	26	8	6	2	1	4	2	8	13	1	..	7	3	44	4	16	4	2	1
1882.....	78	25	5	8	1	3	2	2	8	9	1	1	5	5	31	3	11	3	4	2
1883.....	60	23	3	9	..	..	5	..	11	7	2	..	8	2	36	9	17	5	1	9
1884.....	75	32	5	5	4	1	2	1	13	6	2	2	4	2	60	11	26	11	3	6
1885.....	108	38	10	5	1	1	2	..	2	3	1	1	4	1	14	1	9	4	1	1
1886.....	31	11	1	2	..	1	1	..	16	14	2	..	14	4	105	10	33	11	3	4
1887.....	173	43	11	10	3	2	2	2	13	12	1	3	5	1	31	4	11	5	5	5
1888.....	66	30	9	10	2	1	2	1	7	7	2	..	2	..	7	..	4	1	2	..
1889.....	24	8	5	5	1	1	1	1	2	8	..	..	5	..	27	2	8	5	5	..
1890.....	47	15	1	4	1	2	..	2	14	7	3	..	7	2	34	2	15	3	5	3
1891.....	78	17	13	6	1	1	..	..	15	11	2	1	11	8	106	32	85	35	7	7
1892.....	226	94	9	9	3	1	3	1	4	5	2	..	3	1	14	3	8	2	1	..
1893.....	32	11	3	2	1	3	..	..	6	8	1	4	9	3	59	4	12	6	2	1
1894.....	89	26	4	4	..	1	2	3	15	14	..	..	4	1	16	6	16	7	2	4
1895.....	53	32	9	9	2	2	4	3	22	18	4	..	20	9	301	58	174	87	28	44
1896.....	549	216	17	13	4	4	1	1	11	3	2	..	2	2	11	2	4	2	..	..
1897.....	30	9	7	1	3	2	1	..	37	42	1	1	5	3	141	22	68	32	18	18
1898.....	270	118	31	32	5	7	1	3	20	14	2	3	4	..	16	7	6	10	7	6
1899.....	55	40	16	9	2	3	2	2	17	31	3	..	9	3	66	3	32	21	13	7
1900.....	140	65	14	22	2	4	1	5	90	63	2	11	10	9	176	66	163	135	65	108
1901.....	506	392	67	38	16	20	7	5	1	4	..	1	1	..	10	..	1	..	2	5
1902.....	15	10	1	3	..	..	..	1	9	16	1	2	2	..	7	4	16	7	6	6
1903.....	41	35	6	11	2	2	1	3	4	3	1	..	1	..	7	1	..	4	..	1
1904.....	13	9	3	3	..	..	1	..	27	16	3	1	5	3	29	8	25	9	11	14
1905.....	100	51	18	13	3	1	6	2	11	8	..	1	1	2	18	5	12	6	..	11
1906.....	42	33	8	7	2	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..

## Deaths from Sunstroke, Former New York City, by Months.

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.	Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1871.....	..	..	..	1	4	5	7	4	..	..	..	..	21	1879.....	..	..	..	..	..	7	18	16	..	..	..	..	41
1872.....	..	..	..	..	2	13	236	63	6	..	..	..	320	1880.....	..	..	..	..	23	35	39	10	9	..	..	..	116
1873.....	..	..	..	..	2	6	24	2	..	..	..	..	34	1881.....	..	..	..	..	9	1	18	49	55	2	..	..	134
1874.....	..	..	..	..	..	4	12	3	..	..	..	..	19	1882.....	..	..	..	..	..	12	79	11	1	..	..	..	103
1875.....	..	..	..	..	..	9	7	..	3	..	..	..	19	1883.....	..	..	..	..	..	1	12	65	5	..	..	..	83
1876.....	..	..	..	..	1	6	187	11	1	..	..	..	206	1884.....	..	..	..	..	1	9	5	17	75	..	..	..	107
1877.....	..	..	..	..	3	..	8	10	..	..	..	..	21	1885.....	..	..	..	..	..	6	127	13	..	..	..	..	146
1878.....	..	..	..	..	..	5	43	2	2	..	..	..	52	1886.....	..	..	..	..	..	4	23	15	..	..	..	..	42
														1887.....	..	..	..	..	..	1	4	152	..	..	..	..	216
														1888.....	..	..	..	..	..	65	11	19	1	..	..	..	96



Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1889.....	..	..	..	..	7	14	10	1	..	..	..	..	32
1890.....	..	..	..	..	7	29	25	1	..	..	..	..	62
1891.....	..	..	..	..	35	5	51	4	..	..	..	..	95
1892.....	..	..	..	..	29	252	39	..	..	..	..	..	320
1893.....	..	..	..	..	12	20	10	1	..	..	..	..	43
1894.....	..	..	..	..	27	78	7	3	..	..	..	..	115
1895.....	..	..	..	..	5	45	4	18	13	..	..	..	85
1896.....	..	..	..	1	4	5	30	725	..	..	..	..	765
1897.....	..	..	..	..	3	28	2	6	..	..	..	..	39

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1898.....	..	..	..	..	..	14	75	46	253	..	..	..	388
1899.....	..	1.	..	..	..	80	10	5	..	..	..	..	95
1900.....	..	..	..	..	..	10	106	79	10	..	..	..	205
1901.....	..	..	..	..	1	47	826	24	..	..	..	..	898
1902.....	..	..	..	..	3	4	14	4	..	..	..	..	25
1903.....	..	..	..	..	10	..	62	3	1	..	..	..	76
1904.....	..	..	..	..	1	7	13	1	..	..	..	..	22
1905.....	..	..	..	..	..	4	126	4	..	..	..	..	134
1906.....	..	..	..	..	1	3	27	41	3	..	..	..	75

## Deaths from Suicide in Former New York City, by Age and Sex.

Year.	Total.		Under 1 Year.		1 Year and Under 2 Years.		2 Years and Under 5 Years.		Total Under 5 Years.		5 Years and Under 15 Years.		15 Years and Under 25 Years.		25 Years and Under 45 Years.		45 Years and Under 65 Years.		65 Years and Over.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1866.....	40	14	..	..	..	..	..	..	..	..	..	..	6	2	21	8	12	4	1	..
1867.....	63	19	..	..	..	..	..	..	..	..	..	..	8	7	37	8	14	3	4	1
1868.....	69	29	..	..	..	..	..	..	..	..	3	..	4	5	35	15	25	9	2	..
1869.....	76	26	..	..	..	..	..	..	..	..	..	..	7	2	34	19	31	4	4	1
1870.....	79	22	..	..	..	..	..	..	..	..	..	..	6	2	39	11	29	8	5	1
1871.....	85	29	..	..	..	..	..	..	..	..	2	..	15	5	40	13	26	6	4	3
1872.....	111	33	..	..	..	..	..	..	..	..	1	..	17	6	56	19	30	7	7	1
1873.....	82	36	..	..	..	..	..	..	..	..	1	..	8	7	54	17	13	10	6	2
1874.....	140	40	..	..	..	..	..	..	..	..	1	..	11	9	77	17	47	12	4	2
1875.....	123	32	..	..	..	..	..	..	..	..	..	..	12	10	60	12	45	6	6	4
1876.....	114	36	..	..	..	..	..	..	..	..	..	..	8	4	52	20	48	11	6	1
1877.....	123	25	..	..	..	..	..	..	..	..	..	..	20	3	62	16	32	6	9	..
1878.....	116	26	..	..	..	..	..	..	..	..	..	..	8	6	53	9	49	7	6	4
1879.....	100	17	..	..	..	..	..	..	..	..	..	..	10	1	53	8	31	7	6	1
1880.....	120	32	..	..	..	..	..	..	..	..	..	..	15	3	58	20	38	7	9	2
1881.....	133	33	..	..	..	..	..	..	..	..	1	..	9	6	78	11	37	12	9	3
1882.....	161	38	..	..	..	..	..	..	..	..	2	..	16	10	75	17	57	11	11	..
1883.....	134	27	..	..	..	..	..	..	..	..	..	..	15	7	27	7	70	11	22	2
1884.....	189	40	..	..	..	..	..	..	..	..	..	..	17	8	94	20	57	10	21	2
1885.....	167	40	..	..	..	..	..	..	..	..	..	..	26	9	74	18	60	7	7	6
1886.....	172	51	..	..	..	..	..	..	..	..	..	..	13	10	82	22	64	17	13	2
1887.....	183	52	..	..	..	..	..	..	..	..	..	..	23	15	94	22	50	15	16	..
1888.....	202	45	..	..	..	..	..	..	..	..	1	..	22	14	87	21	80	8	12	2
1889.....	200	44	..	..	..	..	..	..	..	..	1	..	31	13	81	18	71	11	16	2
1890.....	190	49	..	..	..	..	..	..	..	..	..	..	21	7	100	32	62	9	7	1
1891.....	239	61	..	..	..	..	..	..	..	..	..	..	24	15	116	29	84	12	15	5
1892.....	202	39	..	..	..	..	..	..	..	..	1	..	17	9	100	18	70	8	15	3
1893.....	256	58	..	..	..	..	..	..	..	..	..	..	28	18	120	27	84	7	24	6
1894.....	268	63	..	..	..	..	..	..	..	..	..	..	23	14	136	35	90	10	19	4
1895.....	286	90	..	..	..	..	..	..	..	..	..	..	23	21	128	49	115	18	20	2
1896.....	295	89	..	..	..	..	..	..	..	..	2	..	31	20	136	47	105	17	21	5
1897.....	322	114	..	..	..	..	..	..	..	..	..	..	20	30	148	72	127	12	27	..
1898.....	337	126	..	..	..	..	..	..	..	..	1	..	40	41	164	55	107	25	25	5
1899.....	315	118	..	..	..	..	..	..	..	..	1	..	30	32	156	56	104	23	24	7
1900.....	382	118	..	..	..	..	..	..	..	..	..	..	32	34	196	60	128	19	26	5
1901.....	327	143	..	..	..	..	..	..	..	..	..	..	38	30	158	73	106	30	25	10
1902.....	354	123	..	..	..	..	..	..	..	..	..	..	39	26	177	60	108	30	30	7
1903.....	384	137	..	..	..	..	..	..	..	..	..	..	30	27	192	78	140	23	22	9
1904.....	417	150	..	..	..	..	..	..	..	..	..	..	42	36	205	77	141	30	29	7
1905.....	331	91	..	..	..	..	..	..	..	..	..	..	38	18	161	49	107	22	25	2
1906.....	336	106	..	..	..	..	..	..	..	..	1	..	36	15	155	52	119	36	25	3

## Deaths from Suicide in the Former New York City, by Months.

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1871.....	4	6	11	10	6	14	12	9	12	12	8	10	114
1872.....	14	10	14	11	18	8	21	11	14	14	6	3	144
1873.....	10	11	8	14	13	6	4	11	14	11	6	10	118
1874.....	7	8	14	11	25	19	18	16	19	10	17	16	180
1875.....	19	4	8	12	20	24	19	12	12	9	8	8	155
1876.....	12	7	13	12	16	18	16	18	8	9	12	9	150
1877.....	11	6	6	15	18	11	18	11	9	12	16	15	148
1878.....	14	6	13	12	5	12	14	17	10	11	13	15	142
1879.....	8	12	9	12	16	12	8	8	7	9	10	6	117
1880.....	9	8	9	18	20	18	18	9	10	8	17	8	152
1881.....	8	5	13	13	27	6	16	17	15	16	13	17	166
1882.....	14	18	20	26	18	19	17	14	15	14	14	10	199
1883.....	14	8	10	11	15	7	20	20	13	18	11	14	161
1884.....	9	23	22	23	20	24	22	14	23	13	17	19	229
1885.....	11	11	16	24	27	22	18	13	19	14	14	18	207
1886.....	22	18	20	21	21	19	23	14	16	12	17	20	223
1887.....	10	16	22	18	24	15	29	23	19	20	21	18	235
1888.....	18	16	21	25	28	22	19	14	15	24	24	21	247

Year.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1889.....	22	18	17	33	22	21	22	13	16	19	20	21	244
1890.....	28	22	21	21	15	21	18	17	23	14	26	13	239
1891.....	15	26	20	34	33	37	21	18	22	27	18	29	300
1892.....	14	17	14	21	27	23	24	30	20	15	17	19	241
1893.....	24	20	20	17	27	28	26	22	42	33	27	28	314
1894.....	25	22	34	33	33	27	25	30	26	40	18	18	331
1895.....	29	29	32	29	35	43	30	34	20	34	32	29	376
1896.....	42	32	22	26	28	29	41	34	33	25	38	34	384
1897.....	38	24	25	39	47	39	42	42	36	38	29	37	436
1898.....	39	33	33	47	42	45	35	39	27	39	40	44	463
1899.....	43	33	43	41	37	32	26	44	40	44	22	28	433
1900.....	44	36	44	42	47	39	45	41	43	37	35	47	500
1901.....	47	34	42	35	35	46	41	41	42	31	36	40	470
1902.....	32	23	39	43	56	39	39	36	55	41	49	25	477
1903.....	34	36	36	45	51	55	46	40	54	40	49	35	521
1904.....	40	43	63	59	57	71	43	47	39	35	35	35	567
1905.....	36	28	43	44	44	37	25	24	32	30	41	38	422
1906.....	49	39	44	43	41	25	34	37	28	36	31	35	442



Deaths by Chloroform, Ether, Illuminating Gas, Railroad, Elevated Railroads, Horse, Cable and Electric Cars, Street Vehicles and Electric Current, in Former New York City From 1870 to 1906, Inclusive.

Year.	Chloroform.	Ether.	*Illuminating Gas.	Steam Railroads.	Elevated Railroads.	Horse, Cable and Electric Cars.	Subway Cars.	Street Vehicles.	Electric Current.
1870.....	1	..	1	26	..	45	..	18	..
1871.....	1	..	7	24	..	52	..	37	..
1872.....	1	2	1	29	..	54	..	33	..
1873.....	1	..	1	31	..	46	..	39	..
1874.....	1	..	1	22	..	33	..	26	..
1875.....	..	1	..	28	..	31	..	30	..
1876.....	1	1	..	22	..	26	..	24	..
1877.....	..	..	..	28	..	20	..	22	..
1878.....	2	2	2	25	1	34	..	42	..
1879.....	2	2	..	22	23	24	..	35	..
1880.....	1	1	9	22	9	26	..	45	..
1881.....	1	1	12	34	10	28	..	29	1
1882.....	..	..	16	38	15	29	..	41	1
1883.....	..	..	11	26	10	24	..	35	..
1884.....	2	2	18	21	9	30	..	33	..
1885.....	1	1	13	26	14	23	..	27	..
1886.....	4	4	27	27	10	25	..	31	..
1887.....	1	1	22	22	15	21	..	39	3
1888.....	..	..	32	39	6	14	..	55	5
1889.....	1	1	30	59	4	24	..	57	8
1890.....	4	4	36	58	3	12	..	44	2
1891.....	1	2	35	53	12	47	..	54	2
1892.....	7	1	52	56	8	49	..	73	..
1893.....	5	4	38	44	7	44	..	54	2
1894.....	2	1	31	48	10	43	..	85	1
1895.....	1	2	47	58	7	47	..	100	1
1896.....	3	1	42	47	9	56	..	109	4
1897.....	1	3	48	49	8	55	..	86	3
1898.....	3	1	60	39	11	64	..	104	3
1899.....	5	..	65	41	9	91	..	118	4
1900.....	5	6	103	44	9	99	..	117	6
1901.....	4	2	114	31	7	116	..	114	9
1902.....	4	1	154	60	23	111	..	158	7
1903.....	6	2	176	30	19	97	..	189	8
1904.....	10	7	215	44	14	98	..	204	8
1905.....	2	7	218	82	33	104	21	204	7
1906.....	8	4	139	110	14	140	19	246	11

\* Previous to 1880, most of the deaths caused by illuminating gas were supposed to be intentional, and were classed with suicides. Since that year the deaths believed to be accidental have been separated from the others.

Deaths from Smallpox, Cholera, Yellow Fever and Hydrophobia, in Former New York City, from 1804 to 1906, Inclusive.

Year.	† Small-pox.	Cholera.	* Yellow Fever.	† Hydrophobia.
1804.....	169	..	..	..
1805.....	62	..	270	..
1806.....	48	..	..	..
1807.....	29	..	..	..
1808.....	62	..	..	..
1809.....	66	..	13	..
1810.....	4	..	..	..
1811.....	117	..	..	..
1812.....	21	..	..	..
1813.....	2	..	..	..
1814.....	2	..	..	2
1815.....	94	..	..	..
1816.....	179	..	..	..
1817.....	14	..	1	..
1818.....	19	..	..	..
1819.....	..	..	23	..
1820.....	..	..	..	1
1821.....	..	..	3	..
1822.....	..	..	166	..
1823.....	18	..	1	..
1824.....	394	..	..	..
1825.....	40	..	..	..
1826.....	58	..	..	..
1827.....	149	..	..	..
1828.....	93	..	..	..
1829.....	16	..	..	..
1830.....	176	..	..	1
1831.....	224	..	..	1
1832.....	89	3,513	..	..

Year.	† Small-pox.	Cholera.	* Yellow Fever.	† Hydrophobia.
1833.....	25	..	..	1
1834.....	233	971	..	..
1835.....	351	..	..	2
1836.....	173	..	..	3
1837.....	170	..	..	3
1838.....	91	..	..	2
1839.....	69	2	2	2
1840.....	234	1	..	..
1841.....	220	..	..	1
1842.....	181	..	..	..
1843.....	119	..	..	..
1844.....	20	15	..	1
1845.....	425	6	..	..
1846.....	141	..	..	..
1847.....	53	..	..	..
1848.....	585	2	..	7
1849.....	372	5,071	..	2
1850.....	241	57	..	4
1851.....	586	..	..	..
1852.....	516	374	1	1
1853.....	681	33	5	1
1854.....	624	2,509	6	..
1855.....	107	19	2	4
1856.....	396	8	13	3
1857.....	434	11	..	2
1858.....	511	5	5	..
1859.....	62	9	4	2
1860.....	289	18	2	..
1861.....	616	12	..	5
1862.....	269	9	..	1
1863.....	78	9	..	3
1864.....	394	12	2	1
1865.....	674	10	..	3
1866.....	44	1,137	..	2
1867.....	19	82	3	4
1868.....	26	9	1	1
1869.....	203	6	1	5
1870.....	293	1	3	3
1871.....	805	6	2	7
1872.....	929	4	..	6
1873.....	117	1	3	..
1874.....	484	2	..	5
1875.....	1,280	..	..	..
1876.....	315	..	1	5
1877.....	14	2	1	4
1878.....	2	..	..	2
1879.....	25	..	2	..
1880.....	31	..	1	..
1881.....	451	..	..	3
1882.....	259	..	..	2
1883.....	12	..	..	1
1884.....	..	..	3	1
1885.....	26	..	1	..
1886.....	31	..	1	..
1887.....	99	..	..	1
1888.....	81	..	3	..
1889.....	1	..	..	1
1890.....	2	..	..	1
1891.....	2	..	..	..
1892.....	81	9	1	..
1893.....	102	..	..	2
1894.....	154	..	..	3
1895.....	10	..	..	3
1896.....	1	..	..	..
1897.....	24	..	..	1
1898.....	1	..	1	3
1899.....	18	..	..	1
1900.....	12	..	..	4
1901.....	399	..	..	5
1902.....	218	..	..	4
1903.....	3	..	..	3
1904.....	1	..	..	..
1905.....	1	..	..	2
1906.....	..	..	..	..

\* The number of deaths from Yellow Fever in the year 1798, as reported to Mayor Varick, was 714.

† In 1874 there was a death reported as due to Hyssophobia in addition to the 5 deaths from Hydrophobia.

‡ Vaccinating Corps organized September 27, 1874, under act of Legislature passed June 15, 1874.

Note.—These diseases have been selected from the confessedly imperfect records of the years preceding the organization of the Health Department, as being diseases of such bold characteristics and exciting so great public interest as to make it probable that the record of them is complete.



## Marriages Reported, by Months, Since 1866, Former New York City.

Year. Jan. Feb. Mar. April. May. June. July. Aug. Sept. Oct. Nov. Dec. Total.

Births by Sex and Race Since 1847, the First Year of Registration, Former New York City (Record Incomplete).												
Year.	Total.	Male.	Female.	Unknown.	White.	Colored.	Not Stated.					
1847.	314	169	145	1	313	1						
1848.	174	96	78		173	1						
1849.												
1850.												
1851.	5	3	2		5							
1852.												
1853.	9,287	4,899	4,379	9	9,174	112	1					
1854.	17,076	8,816	8,246	14	16,858	218						
1855.	13,371	6,961	6,399	11	13,210	161						
1856.	15,603	8,182	7,400	21	15,417	186						
1857.	17,680	9,063	8,602	15	17,558	122						
1858.	12,132	6,380	5,739	13	12,069	63						
1859.	8,128	4,219	3,881	28	8,080	48						
1860.	5,998	3,154	2,833	11	5,961	37						
1861.	9,869	5,072	4,748	49	9,798	71						
1862.	7,633	3,927	3,693	13	7,607	26						
1863.	6,373	3,287	3,071	15	6,335	38						
1864.	5,689	2,968	2,708	13	5,661	28						
1865.	5,332											
1866.	10,117	5,202	4,905	10	10,025	87	5					
1867.	12,569	6,397	6,164	8	12,405	164						
1868.	12,672	6,331	6,136	5	12,564	108						
1869.	13,947	7,096	6,835	16	13,755	192						
1870.	14,524	7,560	6,910	54	14,353	169	2					
1871.	20,231	10,749	10,032	40	20,595	226						
1872.	22,068	11,282	10,763	23	21,769	299						
1873.	22,683	11,707	10,917	59	22,465	218						
1874.	25,747	13,276	12,387	84	25,514	233						

## Births by Sex and Race Since 1847, the First Year of Registration, Former New York City (Record Incomplete).

Year. Total. Male. Female. Unknown. White. Colored. Stated. Not Stated.

1847.	314	169	145	1	1	1	1
1848.	174	96	78	1	1	1	1
1849.	174	96	78	1	1	1	1
1850.	174	96	78	1	1	1	1
1851.	174	96	78	1	1	1	1
1852.	174	96	78	1	1	1	1
1853.	174	96	78	1	1	1	1
1854.	174	96	78	1	1	1	1
1855.	174	96	78	1	1	1	1
1856.	174	96	78	1	1	1	1
1857.	174	96	78	1	1	1	1
1858.	174	96	78	1	1	1	1
1859.	174	96	78	1	1	1	1
1860.	174	96	78	1	1	1	1
1861.	174	96	78	1	1	1	1
1862.	174	96	78	1	1	1	1
1863.	174	96	78	1	1	1	1
1864.	174	96	78	1	1	1	1
1865.	174	96	78	1	1	1	1
1866.	174	96	78	1	1	1	1
1867.	174	96	78	1	1	1	1
1868.	174	96	78	1	1	1	1
1869.	174	96	78	1	1	1	1
1870.	174	96	78	1	1	1	1
1871.	174	96	78	1	1	1	1
1872.	174	96	78	1	1	1	1
1873.	174	96	78	1	1	1	1
1874.	174	96	78	1	1	1	1
1875.	174	96	78	1	1	1	1
1876.	174	96	78	1	1	1	1
1877.	174	96	78	1	1	1	1
1878.	174	96	78	1	1	1	1
1879.	174	96	78	1	1	1	1
1880.	174	96	78	1	1	1	1
1881.	174	96	78	1	1	1	1
1882.	174	96	78	1	1	1	1
1883.	174	96	78	1	1	1	1
1884.	174	96	78	1	1	1	1
1885.	174	96	78	1	1	1	1
1886.	174	96	78	1	1	1	1
1887.	174	96	78	1	1	1	1
1888.	174	96	78	1	1	1	1
1889.	174	96	78	1	1	1	1
1890.	174	96	78	1	1	1	1
1891.	174	96	78	1	1	1	1
1892.	174	96	78	1	1	1	1
1893.	174	96	78	1	1	1	1
1894.	174	96	78	1	1	1	1
1895.	174	96	78	1	1	1	1
1896.	174	96	78	1	1	1	1
1897.	174	96	78	1	1	1	1
1898.	174	96	78	1	1	1	1
1899.	174	96	78	1	1	1	1
1900.	174	96	78	1	1	1	1
1901.	174	96	78	1	1	1	1
1902.	174	96	78	1	1	1	1
1903.	174	96	78	1	1	1	1
1904.	174	96	78	1	1	1	1
1905.	174	96	78	1	1	1	1
1906.	174	96	78	1	1	1	1

## Cases of Contagious and Infectious Diseases Reported from 1874 to 1906, Inclusive.

## BOROUGH OF MANHATTAN AND THE BRONX.

## Old New York.

\* Includes 14 Chinese.

Year.	Total.	Male.	Female.	Unknown.	White.	Colored.	Stated.	Not Stated.
1875.	23,813	12,054	11,669	90	23,559	253	1	1
1876.	23,744	12,114	11,550	80	23,403	341	1	1
1877.	25,569	13,074	12,495	100	25,266	303	1	1
1878.	25,729	13,154	12,575	100	25,381	348	1	1
1879.	25,573	13,269	12,303	100	25,236	337	1	1
1880.	27,536	14,356	13,179	100	27,174	362	1	1
1881.	26,130	13,359	12,771	100	25,761	369	1	1
1882.	27,321	14,065	13,256	100	26,992	329	1	1
1883.	28,972	14,894	14,078	100	28,617	355	1	1
1884.	30,527	15,495	15,032	100	30,109	418	1	1
1885.	30,030	15,524	14,506	100	29,678	352	1	1
1886.	31,319	16,191	15,127	100	30,935	384	1	1
1887.	34,023	17,515	16,507	100	33,661	362	1	1
1888.	36,136	18,538	17,598	100	35,744	392	1	1
1889.	37,527	19,269	18,258	100	37,097	430	1	1
1890.	39,250	20,298	18,952	100	38,818	432	1	1
1891.	46,904	23,993	22,911	100	46,331	573	1	1
1892.	49,447	25,291	24,156	100	48,890	557	1	1
1893.	51,529	26,451	25,078	100	50,930	599	1	1
1894.	55,636	28,369	27,267	100	54,931	705	1	1
1895.	53,731	27,580	26,151	100	53,027	704	1	1
1896.	55,623	28,244	27,379	100	54,822	751	1	1
1897.	54,089	27,538	26,551	100	53,285	804	1	1
1898.	53,359	27,271	26,088	100	52,275	784	1	1
1899.	52,068	26,224	25,245	100	51,273	795	1	1
1900.	54,616	28,157	26,459	100	53,667	949	1	1
1901.	54,013	27,492	26,521	100	53,047	966	1	1
1902.	57,511	29,314	28,197	100	56,492	1,019	1	1
1903.	62,131	31,613	30,518	100	60,976	1,155	1	1
1904.	65,229	32,926	32,303	100	64,026	1,203	1	1
1905.	66,862	34,176	32,686	100	65,592	1,270	1	1
1906.	70,311	36,043	34,268	100	69,011	1,300	1	1

\* Including Group since 1900.

1874.	3,684	1,407	3,051	1,462	488	48	56</
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## CITY AND BOROUGH OF BROOKLYN.

Estimated Population on July 1 in Each Year, from 1790 to 1906, Inclusive.

Year.	Popula- tion.	Year.	Popula- tion.	Year.	Popula- tion.	Year.	Popula- tion.
1790.....	1,598	1819.....	6,418	1848.....	80,130	1877.....	515,927
1791.....	1,662	1820.....	7,114	1849.....	88,452	1878.....	532,789
1792.....	1,729	1821.....	7,742	1850.....	97,534	1879.....	550,202
1793.....	1,798	1822.....	8,412	1851.....	106,279	1880.....	568,155
1794.....	1,871	1823.....	9,140	1852.....	115,810	1881.....	586,365
1795.....	1,946	1824.....	9,931	1853.....	126,195	1882.....	605,160
1796.....	2,024	1825.....	10,791	1854 a.....	189,113	1883.....	624,556
1797.....	2,106	1826.....	11,600	1855.....	206,147	1884.....	644,574
1798.....	2,190	1827.....	12,469	1856.....	217,227	1885.....	665,234
1799.....	2,279	1828.....	13,403	1857.....	228,901	1886 b.....	695,648
1800.....	2,366	1829.....	14,407	1858.....	241,204	1887.....	732,129
1801.....	2,516	1830.....	15,512	1859.....	254,167	1888.....	756,727
1802.....	2,676	1831.....	17,001	1860.....	267,131	1889.....	782,205
1803.....	2,846	1832.....	18,633	1861.....	272,836	1890.....	808,258
1804.....	3,027	1833.....	20,421	1862.....	278,663	1891.....	833,133
1805.....	3,219	1834.....	22,381	1863.....	284,614	1892.....	858,772
1806.....	3,423	1835.....	24,529	1864.....	290,692	1893.....	885,201
1807.....	3,641	1836.....	26,554	1865.....	297,814	1894 c.....	952,344
1808.....	3,872	1837.....	28,747	1866.....	315,600	1895.....	984,390
1809.....	4,118	1838.....	31,121	1867.....	334,448	1896 d.....	1,023,769
1810.....	4,379	1839.....	33,691	1868.....	354,421	1897.....	1,058,475
1811.....	4,251	1840.....	36,530	1869.....	375,588	1898.....	1,094,365
1812.....	4,093	1841.....	40,283	1870.....	397,404	1899.....	1,131,467
1813.....	3,940	1842.....	44,423	1871.....	413,399	1900.....	1,169,553
1814.....	3,838	1843.....	48,988	1872.....	430,038	1901.....	1,205,790
1815.....	4,254	1844.....	54,022	1873.....	447,347	1902.....	1,243,162
1816.....	4,714	1845.....	59,574	1874.....	465,352	1903.....	1,281,683
1817.....	5,225	1846.....	65,761	1875.....	483,788	1904.....	1,321,403
1818.....	5,791	1847.....	72,591	1876.....	499,600	1905.....	1,362,352

a. Williamsburg and Bushwick annexed.

b. New Lots annexed.

c. Flatbush, Gravesend and New Utrecht annexed.

d. Flatlands annexed.

NOTE.—The population for intercensal years has been calculated by the geometrical method, that for the various annexed towns separately, as described elsewhere.

## CITY AND BOROUGH OF BROOKLYN.

Population by Census from 1790 to 1905, Inclusive.

Years.	Population.	Authority.	Date.
1790.....	1,603	United States Census.....	Aug. 1
1800.....	2,378	United States Census.....	Aug.
1810.....	4,402	United States Census.....	Aug. 1
1814.....	3,805	New York State Census.....	June 1
1820.....	7,175	United States Census.....	Aug. 1
1825.....	10,791	New York State Census.....	July 1
1830.....	15,394	United States Census.....	June 1
1835.....	24,529	New York State Census.....	July 1
1840.....	36,233	United States Census.....	June 1
1845.....	59,574	New York State Census.....	July 1
1850.....	96,838	United States Census.....	June 1
1855.....	205,250	New York State Census.....	June 1
1860.....	266,661	United States Census.....	June 1
1865.....	296,378	New York State Census.....	June 1
1870.....	396,099	United States Census.....	June 1
1875.....	482,493	New York State Census.....	June 1
1880.....	566,663	United States Census.....	June 1
1890.....	806,343	United States Census.....	June 1
1892.....	957,958	New York State Census.....	Feb. 1
1900.....	1,166,582	United States Census.....	June 1
1905.....	1,358,891	New York State Census.....	June 1

Note—The population given in this table is that of the City of Brooklyn, which was not made  
conterminous with Kings County until 1896.

Population, by Census, of Various Towns Annexed to Brooklyn, from 1854 to 1896  
With Dates of Annexation.

Town.	Ward.	Date of Annexation.	Population.			Estimated at Time of Annexation.
			United States Census.	New York State Census.		
Williamsburg .....	13 to 16	} ..... 1854	1850	34,519	1855	56,476
Bushwick .....	17 and 18					
New Lots .....	26	Aug. 1, 1886	1880	13,655	1892	38,541
Flatbush .....	29	April 25, 1894	1880	7,634	1892	12,625
Gravesend .....	31	May 3, 1894	1880	3,674	1892	8,418
New Utrecht.....	30	July 1, 1894	1880	4,742	1892	9,129
Flatlands .....	32	Jan. 1, 1896	1880	3,127	1892	4,234

The intercensal population of these towns has been calculated by the geometrical method, using the census populations given above as the basis.

## Population of the Borough of Brooklyn, by Wards.

Ward.	Date of Formation.	From What Taken.	1800.	1810.	1814.	1820.	1825.	1830.	1835.	1840.	1845.	1850.	1855.	1860.	1865.	1870.	1875.	1880.	United States Census, 1890.	New York State Census, 1892.	United States Census, 1900.
1.....	1834	Village and Town of Brooklyn.....							1,523	2,148	4,622	6,062	6,441	6,967	6,128	6,476	16,084	18,729	20,040	22,784	20,327
2.....	1834								4,674	5,447	6,903	9,357	8,383	9,817	8,760	9,117	8,860	9,254	8,986	10,529	8,565
3 a.....	1834								2,764	3,834	5,936	8,749	8,900	10,084	8,890	9,984	15,809	18,271	18,754	24,140	17,949
4.....	1834								5,724	6,827	8,819	11,032	12,282	11,766	11,506	12,087	12,616	12,819	12,324	15,580	12,568
5.....	1834			2,378	4,402	3,805	7,175	10,791	15,394	4,510	7,415	9,419	13,682	16,352	17,400	17,820	20,490	18,591	18,517	20,175	19,175
6.....	1834	Town of Brooklyn..							2,139	4,043	10,651	11,536	18,490	22,710	26,407	28,296	34,072	35,437	37,693	48,939	42,485
7.....	1834								2,042	4,521	9,958	6,371	12,523	12,096	15,968	22,312	26,488	31,663	35,726	39,490	40,471
8 b.....	1834								487	944	1,369	2,585	5,318	9,190	9,829	9,592	12,127	17,388	31,239	42,758	52,414
9 b.....	1834								666	1,054	1,897	3,261	9,133	17,342	23,443	15,279	13,643	15,044	17,696	21,081	42,876
10 b.....	1850											11,782	21,749	25,258	28,668	34,592	24,866	27,140	34,031	50,318	39,100
11.....	1863	Fifth Ward.....										12,421	22,213	28,821	18,242	21,243	21,629	21,680	22,693	25,007	22,608
12.....	1863	Sixth Ward.....											6,990	11,083	13,085	18,302	17,525	22,201	27,368	31,734	30,354
13.....	1854	Williamsburgh .....								5,094	11,338	30,780	14,044	17,958	17,791	18,711	19,547	21,029	21,628	24,282	24,029
14.....	1854												12,414	15,475	15,425	20,649	23,925	25,559	27,246	32,629	31,483
15.....	1854												6,559	10,566	11,449	18,406	21,255	23,654	27,630	30,319	30,269
16.....	1854												15,350	21,181	24,379	26,438	39,206	42,712	45,720	51,152	56,550
17.....	1854	Bushwick .....	656	798	759	930	958	1,620	3,325	1,295	1,857	3,739	5,508	7,934	10,234	17,353	23,998	30,088	41,424	46,315	57,309
18.....	1854												2,601	4,316	6,319	11,607	17,459	23,926	74,960	22,267	25,133
19.....	1856	Seventh and Thirteenth Wards.....												6,697	8,055	16,321	21,908	27,661	36,244	38,187	37,645
20.....	1863	Fifth Ward.....													13,980	19,179	21,430	24,188	24,136	26,120	25,446
21.....	1868	Seventh Ward.....														27,904	24,834	31,956	50,118	57,362	58,957
22.....	1868	Eighth Ward.....														11,761	17,736	25,473	50,250	57,807	66,575
23.....	1873	Seventh Ward.....															10,005	14,396	29,348	33,292	61,813
24.....	1873	Ninth Ward.....															5,799	8,823	16,771	17,888	31,767
25.....	1873	Seventh Ward.....															13,081	19,055	44,638	56,682	48,328
26.....	1886	New Lots.....											2,261	3,271	5,009	9,800	11,047	13,655	29,505	38,541	66,086
27.....	1892	Eighteenth Ward....																		34,695	43,961
28.....	1892																				38,882



Ward.	Date of Formation.	From What Taken.	1800.	1810.	1814.	1820.	1825.	1830.	1835.	1840.	1845.	1850.	1855.	1860.	1865.	1870.	1875.	1880.	United States Census, 1890.	New York State Census, 1892.	United States Census, 1900.
29.....	1894	Flatbush .....	946	1,159	1,062	1,027	1,049	1,143	1,537	2,099	2,225	3,177	3,280	3,471	2,778	6,309	6,940	7,634	12,338	12,625	27,188
30.....	1894	New Utrecht.....	778	907	970	1,009	982	1,217	1,287	1,283	1,863	2,129	2,730	2,781	3,394	3,296	3,843	4,742	8,854	9,129	24,700
31.....	1894	Gravesend .....	489	520	552	534	408	565	695	799	898	1,064	1,256	1,286	1,627	2,131	2,180	3,674	6,937	8,418	14,609
32.....	1896	Flatlands .....	493	517	507	512	491	596	684	810	936	1,155	1,578	1,652	1,904	2,286	2,651	3,127	4,075	4,234	8,243
Total..	.....	.....	5,740	8,303	7,655	11,187	14,679	20,535	32,057	47,613	78,691	138,882	216,355	279,122	311,090	419,921	509,154	599,495	838,547	{ *3,707 } 996,071	1,166,582

Note—Flatbush, New Utrecht, Gravesend and Flatlands were formed in 1878; New Lots was formed from Flatbush in 1852.

\* Inmates of institutions, Kings County at large, not included in ward figures.

a Present Third Ward formed from Tenth in 1878; old Third Ward is now part of First.

b Present Eighth, Ninth and Tenth wards formed in 1868; the Ninth took in part of the Twenty-second in 1891.

## CITY AND BOROUGH OF BROOKLYN.

Deaths, Births, Marriages and Still-births Reported, from 1866 to 1906, Inclusive.

Year.	Deaths.	Births.	Marriages.	Still-births.
1866.....	8,683	*3,124	*853	.....
1867.....	8,389	5,224	1,677	.....
1868.....	8,750	4,802	2,130	.....
1869.....	8,759	5,349	2,461	.....
1870.....	9,546	4,817	2,367	.....
1871.....	10,259	4,424	2,447	.....
1872.....	10,648	4,216	2,561	.....
1873.....	10,968	5,027	2,520	1,033
1874.....	11,011	7,668	2,675	1,033
1875.....	12,470	8,576	2,734	978
1876.....	12,334	9,723	2,850	986
1877.....	11,362	10,507	3,047	819
1878.....	11,075	10,747	3,091	844
1879.....	11,569	10,462	3,322	885
1880.....	13,222	11,975	3,814	880
1881.....	14,533	10,906	3,948	923
1882.....	15,014	10,801	4,584	1,076
1883.....	13,758	11,050	4,150	1,011
1884.....	14,116	11,718	4,510	1,659
1885.....	15,369	11,588	4,364	1,184
1886.....	15,790	12,132	4,910	1,193
1887.....	17,078	12,750	5,700	1,299
1888.....	16,061	11,562	4,763	1,277
1889.....	18,480	17,075	9,606	1,279
1890.....	19,827	15,000	7,500	1,305
1891.....	21,349	16,500	7,500	1,733
1892.....	20,807	18,000	7,800	1,682
1893.....	21,017	19,250	7,350	1,550
1894.....	21,183	19,419	5,935	1,673
1895.....	22,568	20,465	6,779	1,770
1896.....	22,501	21,424	7,116	1,807
1897.....	20,674	21,109	7,254	1,919
1898.....	21,989	21,395	7,129	1,888
1899.....	21,649	21,203	7,612	1,688
1900.....	23,507	22,572	8,124	1,813
1901.....	23,271	22,182	8,303	1,776
1902.....	22,344	23,507	9,014	1,829
1903.....	22,192	27,292	9,616	1,838
1904.....	24,831	28,859	10,019	1,922
1905.....	23,935	30,972	10,782	1,991
1906.....	25,024	34,538	11,966	2,071

\*Marriages and births were first recorded in the last eight months of the year 1866.

## CITY OF BROOKLYN.

Annual Number of Deaths from Prominent Causes, for Thirty-nine Years.

Year.	Diphtheria.	Croup.	Scarlet Fever.	Measles.	Typhoid Fever.	Smallpox.	Typhus Fever.	Whooping Cough.	Malarial Fever.	Bronchitis.	Pulmonary Tuberculosis.	Pneumonia.	*Diarrhoeal.	*Diarrhoeal, Under 5 Years.	Cancer.	Bright's Disease and Nephritis.	All Nervous.	Puerperal Diseases.	Violence.	Sunstroke and Heat.	Suicide.
1868.....	133	126	487	30	103	2	20	191	98	182	1,098	449	1,699	1,530	112	106	1,054	34	262	36	27
1869.....	139	176	348	262	96	21	12	193	99	212	1,136	577	1,249	1,130	131	157	1,028	36	229	4	19
1870.....	110	200	220	62	111	135	7	71	143	184	1,281	520	1,473	1,289	134	..	1,528	88	269	..	25
1871.....	157	255	522	67	92	373	8	110	138	231	1,355	613	952	855	155	..	1,596	108	320	..	28
1872.....	184	327	327	59	149	737	12	96	146	239	1,465	778	1,718	1,550	147	216	1,943	141	338	..	31
1873.....	252	325	314	69	103	116	3	136	153	243	1,376	745	1,564	1,411	168	211	1,388	131	312	5	31
1874.....	580	318	479	90	81	53	7	130	124	285	1,267	744	1,400	1,272	197	228	1,231	157	303	6	34
1875.....	965	440	304	6	102	619	9	161	137	369	1,522	892	1,395	1,262	200	..	1,292	157	312	..	39
1876.....	812	412	352	159	97	309	8	190	137	397	1,539	883	1,546	1,367	192	..	1,225	128	622	..	59
1877.....	778	325	730	10	82	5	3	118	154	314	1,587	724	1,569	1,332	200	328	1,123	156	299	6	50
1878.....	544	317	363	67	59	..	..	195	184	365	1,509	829	1,298	1,084	233	332	1,297	149	294	13	52
1879.....	689	250	344	38	59	2	..	204	145	479	1,665	975	1,364	1,127	231	318	1,238	182	316	22	37
1880.....	1,118	420	222	156	71	2	..	111	256	495	1,736	972	1,738	1,498	221	327	1,387	155	420	36	31
1881.....	1,169	438	651	56	99	142	3	118	306	471	1,754	1,022	1,864	1,573	254	414	1,512	162	402	48	55
1882.....	631	334	892	168	93	65	1	249	289	684	1,806	1,204	2,082	1,717	285	481	1,498	172	433	36	62
1883.....	409	318	505	69	92	3	..	132	258	573	1,847	1,245	1,799	1,482	262	485	1,427	148	414	29	58
1884.....	385	280	218	114	107	2	..	222	272	622	1,913	1,118	2,081	1,743	323	507	1,357	208	440	41	66
1885.....	519	313	363	175	153	3	2	157	242	675	1,965	1,446	2,113	1,807	301	614	1,483	216	477	57	53
1886.....	782	403	340	106	123	52	3	260	241	764	2,085	1,468	1,651	1,398	293	675	1,549	167	422	8	46
1887.....	950	503	271	172	143	109	1	59	256	790	2,026	1,418	1,969	1,672	349	657	1,897	154	485	32	61
1888.....	984	301	475	59	153	90	..	194	199	786	2,051	1,663	2,249	1,938	345	867	2,198	163	517	34	75
1889.....	1,101	366	273	205	161	..	..	281	182	392	2,055	1,814	1,860	1,606	356	827	2,298	159	488	14	86
1890.....	902	381	227	182	182	..	1	238	168	1,010	2,169	2,325	2,240	1,968	414	892	2,438	166	570	23	94
1891.....	766	414	485	203	180	..	..	140	120	1,015	2,117	2,537	2,413	2,133	416	993	2,430	201	492	18	73
1892.....	775	362	412	168	162	51	..	192	195	987	2,128	2,357	2,569	2,277	418	1,039	2,619	240	582	94	79
1893.....	607	271	7	111	179	200	..	261	140	960	2,174	2,569	2,514	2,234	441	1,060	2,649	173	601	14	120
1894.....	1,279	381	188	204	159	102	..	243	127	832	2,260	2,181	2,595	2,235	457	1,199	2,292	168	757	52	165
1895.....	1,139	315	124	192	173	1	..	263	138	832	2,299	2,624	2,721	2,382	572	1,387	2,322	188	864	43	161
1896.....	1,063	247	150	333	163	1	..	179	148	871	2,245	2,553	2,486	2,130	534	1,448	2,215	237	1,247	333	160



Year.	Diphtheria.	Croup.	Scarlet Fever.	Measles.	Typhoid Fever.	Smallpox.	Typhus Fever.	Whooping Cough.	Malaria Fever.	Bronchitis.	Pulmonary Tuberculosis.	Pneumonia.	*Diarrheal.	*Diarrheal, Under 5 Years.	Cancer.	Bright's Disease and Nephritis.	All Nervous.	Puerperal Diseases.	Violence.	Stroke and Heat.	Suicide.
1897.....	795	203	187	190	173	3	..	164	107	802	2,164	2,232	2,124	1,853	561	1,443	2,132	194	992	22	197
1898.....	595	150	159	194	270	..	..	234	90	699	2,394	2,384	2,821	2,489	632	1,503	2,137	164	990	141	189
1899.....	583	161	175	197	205	..	..	143	59	761	2,435	2,682	2,457	2,090	701	1,624	1,981	152	902	38	153
1900.....	673	190	130	310	301	..	..	235	58	775	2,445	3,216	2,707	2,361	695	1,717	1,853	260	1,008	103	198
1901.....	732	..	495	162	272	9	..	110	67	670	2,479	2,891	2,916	2,447	760	1,897	1,917	213	1,199	331	189
1902.....	762	..	275	239	322	91	..	188	46	815	2,317	3,001	2,207	1,890	791	1,976	1,668	197	975	9	242
1903.....	830	..	244	167	267	2	..	118	36	653	2,396	2,910	1,854	1,583	778	2,123	1,724	228	1,144	59	234
1904.....	706	..	282	333	303	6	..	69	42	630	2,634	3,670	2,427	2,140	817	2,253	2,054	236	1,136	14	223
1905.....	594	..	182	193	297	8	..	138	29	408	2,420	3,099	2,274	2,078	899	1,984	2,413	275	1,167	71	174
1906.....	793	..	258	446	230	6	..	132	29	524	2,557	3,557	2,266	2,104	975	2,076	1,998	249	1,330	28	204

\*The figures on diarrhoeal diseases since 1877 have been revised so as to agree with the Bertillon classification of causes of death, with the addition of dysentery.  
†Including croup since 1901.

## CITY OF BROOKLYN.

## Cases of Contagious and Infectious Diseases Reported from 1873 to 1906, Inclusive.

Year.	Croup.	Diphtheria.	Measles.	Scarlet Fever.	Smallpox.	Typhoid Fever.	Typhus.	Tuberculosis.
1873.....	..	319	..	930	426	207	10	..
1874.....	..	1,651	..	2,448	268	214	9	..
1875.....	..	2,669	..	1,269	2,519	263	12	..
1876.....	..	2,329	..	1,657	1,131	191	11	..
1877.....	..	2,280	..	2,930	87	180	5	..
1878.....	..	1,744	..	1,988	3	168	..	..
1879.....	..	1,801	219	2,208	6	137	..	..
1880.....	..	3,058	2,572	1,727	10	143	..	..
1881.....	..	3,218	906	4,554	498	181	9	..
1882.....	..	4,599	2,670	4,599	185	148	2	..
1883.....	..	1,185	1,604	3,167	12	202	..	..
1884.....	..	976	1,225	1,990	14	194	..	..
1885.....	..	1,348	3,441	2,288	16	435	..	..
1886.....	..	1,602	923	1,645	125	343	..	..
1887.....	..	1,995	2,479	1,877	215	444	..	..
1888.....	..	2,297	674	2,675	374	394	..	..
1889.....	..	2,798	4,723	2,668	2	399	..	..

Year.	Croup.	Diphtheria.	Measles.	Scarlet Fever.	Smallpox.	Typhoid Fever.	Typhus.	Tuberculosis.
1890.....	..	2,241	1,821	1,657	..	313	..	..
1891.....	..	1,850	2,892	2,701	..	418	..	..
1892.....	..	1,829	3,118	3,078	184	243	..	..
1893.....	..	1,672	2,272	2,961	449	216	..	..
1894.....	..	3,812	4,688	2,119	459	284	..	..
1895.....	411	4,276	3,438	1,991	11	285	..	..
1896.....	319	4,912	7,074	2,471	3	245	..	..
1897.....	285	3,862	4,695	2,924	7	312	..	..
1898.....	208	3,008	2,933	2,136	..	581	..	..
1899.....	206	2,688	3,098	2,308	31	422	..	..
1900.....	..	*3,856	5,111	1,878	12	697	..	..
1901.....	..	3,942	3,511	5,188	410	644	..	..
1902.....	..	4,236	5,506	3,529	503	961	..	2,838
1903.....	..	5,705	4,862	2,921	15	1,003	..	3,426
1904.....	..	5,026	10,321	4,037	29	1,050	..	4,339
1905.....	..	4,307	7,053	2,884	34	1,913	..	4,897
1906.....	..	5,211	13,827	2,760	52	1,215	..	5,324

Reporting of measles was begun in the latter part of 1879; croup in 1895; typhoid fever not fully reported.  
\* Croup included in diphtheria since 1900.

## Population of Borough of Queens, by Wards.

Ward.	Date of Formation.	Formerly Known as	1800.	1810.	1814.	1820.	1825.	1830.	1835.	1840.	1845.	1850.	1855.	1860.	1865.	1870.	1875.	1880.	United States Census, 1890.	New York State Census, 1892.	United States Census, 1900.
1.....	1898	*Long Island City	..	..	..	..	..	..	..	..	..	..	..	..	..	..	15,587	17,129	30,506	35,745	48,272
2.....	1898	Newtown	2,312	2,437	2,472	..	2,478	2,610	3,505	5,054	5,521	7,208	4,694	13,725	13,891	20,274	10,614	9,804	17,549	19,776	40,903
3.....	1898	Flushing	1,818	2,230	2,271	..	2,325	2,820	3,643	4,124	3,918	5,376	7,970	10,189	10,813	14,650	15,357	15,906	19,803	20,816	25,878
4.....	1898	Jamaica	1,661	2,119	1,880	..	2,401	2,376	2,885	3,781	3,883	4,247	5,632	6,515	6,777	7,745	8,983	10,088	14,441	17,654	30,761
5.....	1898	†Hempstead	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7,193
Total.....			5,791	6,777	6,623	..	7,204	7,806	10,033	12,959	13,322	16,831	18,296	30,429	31,481	42,669	50,547	52,927	82,299	93,991	152,999

\* Formed in 1870 from Newtown. The other towns were formed in 1788.

† Only part of Hempstead was consolidated with the other towns forming Greater New York, and the population previous to consolidation cannot be given.

‡ In this year the aggregate of the county alone was taken.

## Population of Borough of Richmond, by Wards.

Ward.	Date of Formation.	Formerly Known as	1800.	1810.	1814.	1820.	1825.	1830.	1835.	1840.	1845.	1850.	1855.	1860.	1865.	1870.	1875.	1880.	United States Census, 1890.	New York State Census, 1892.	United States Census, 1900.	New York State Census, 1905.
1.....	1898	Castleton	1,056	1,301	1,348	1,527	1,786	2,216	2,868	4,275	5,203	5,389	8,252	6,678	7,683	9,504	10,957	12,679	16,423	17,261	21,441	23,659
2.....	1898	*Middletown	..	..	..	..	..	..	..	..	..	..	..	6,243	6,866	7,589	8,332	9,029	10,557	11,477	13,200	14,035
3.....	1898	Northfield	1,377	1,595	1,710	1,980	1,984	2,162	2,297	2,745	3,343	4,020	4,187	4,841	5,201	5,949	6,619	7,014	9,811	9,641	13,701	15,347
4.....	1898	Southfield	932	1,007	998	1,012	719	971	845	1,619	2,631	2,709	5,449	3,645	4,407	5,082	4,426	4,980	6,644	6,324	9,516	9,481
5.....	1898	Westfield	1,198	1,444	1,446	1,616	1,443	1,773	1,681	2,326	2,497	2,943	3,501	3,985	4,052	4,905	4,862	5,289	8,258	8,648	9,163	10,198
Total.....			4,563	5,347	5,502	6,135	5,932	7,122	7,691	10,965	13,674	15,061	21,389	25,392	28,209	33,029	35,196	38,991	51,693	53,351	67,021	72,846

\* Formed in 1860, from Castleton and Southfield. The other towns were formed in 1788.

† Includes 126 inmates of institutions not credited to wards.



City of

Boroughs.	1800.	1810.	1814.	1820.	1825.	1830.	1835.	1840.
Manhattan .....	60,489	96,373	95,519	123,706	160,686	197,112	268,089	312,710
The Bronx .....	.....	.....	.....	.....	.....	.....	.....	.....
Brooklyn .....	5,740	8,303	7,655	11,187	14,679	20,535	32,057	47,613
Queens .....	5,791	6,777	6,623	*6,914	7,204	7,806	10,033	12,959
Richmond .....	4,563	5,347	5,502	6,135	5,932	7,122	7,691	10,965
Entire City.....	76,583	116,800	115,299	147,942	193,901	232,575	317,870	384,247

\* Arithmetical mean between previous and following census (see note to Queens table).

NOTE.—The census population, as given in this table, is somewhat less than the true population of the territory now comprised within the limits of The City of New York, for the reasons given in

Table of Maximum, Minimum and Mean Temperature and Rainfall in the Vicinity of The City of New York, at Fort Columbus, from 1822 to 1854; Deaf and Dumb Asylum, from 1855 to 1868, and New York Observatory, Central Park, from 1869 to Date.

## Temperature—Fahr.

(Figures furnished by Daniel Draper, Ph. D., Director of Central Park Observatory.)

Year.	Maximum.	Month.	Minimum.	Month.	Mean.
1822.....	100	July.....	—1	January....	54.2
1823.....	91	July.....	3	{ February... March..... }	50.5
1824.....	96	July.....	2	February....	52.1
1825.....	104	July.....	—3	December....	54.4
1826.....	97	July.....	—1	January....	52.5
1827.....	96	July.....	0	January....	51.8
1828.....	99	July.....	9	January....	54.0
1829.....	95	July.....	7	January....	52.5
1830.....	98	July.....	5	January....	54.8
1831.....	98	August....	8	January....	51.6
1832.....	97	August....	1	January....	51.5
1833.....	94	July.....	8	March.....	51.5
1834.....	94	{ July..... August.... }	6	December....	51.0
1835.....	89	{ July..... August.... }	—1	January....	49.6
1836.....	89	{ July..... September.. }	0	February....	47.6
1837.....	86	{ July..... August.... }	10	{ January.... February.... }	49.1
1838.....	94	{ July..... August.... }	13	February....	50.3
1839.....	86	July.....	6	January....	51.2
1840.....	91	June.....	2	January....	51.2
1841.....	92	June.....	9	January....	51.2
1842.....	85	{ July..... September.. }	16	{ January.... February.... }	53.4
1843.....	93	{ June..... July..... }	9	February....	51.4
1844.....	92	June.....	3	January....	52.0
1845.....	99	July.....	6	February....	53.3
1846.....	95	July.....	5	February....	52.3
1847.....	94	June.....	12	{ February.... November.... December.... }	52.3
1848.....	91	{ June..... July..... }	3	January....	52.3
1849.....	94	July.....	0	January....	50.2
1850.....	94	July.....	9	February....	50.9
1851.....	93	July.....	4	December....	52.1
1852.....	93	July.....	—2	January....	51.4
1853.....	98	June.....	9	January....	52.2
1854.....	93	July.....	5	December....	50.7
1855.....	93	July.....	—7	February....	50.7
1856.....	95	July.....	—5	January....	50.5
1857.....	90	August....	0	January....	52.1
1858.....	93	June.....	—3	February....	53.1
1859.....	96	July.....	—5	January....	53.1
1860.....	89	July.....	—7	February....	52.9
1861.....	92	August....	—3	February....	53.8
1862.....	95	August....	8	December....	53.2
1863.....	90	June.....	6	February....	54.2
1864.....	97	June.....	8	February....	55.4
1865.....	95	July.....	6	January....	55.5
1866.....	98	July.....	—13	January....	52.1
1867.....	91	June.....	4	January....	49.8
1868.....	92	July.....	0	February....	48.6
1869.....	94	August....	4	March.....	51.4

Year.	Maximum.	Month.	Minimum.	Month.	Mean.
1870.....	94	June.....	9	{ February.... December.... }	53.5
1871.....	92	May.....	—2	December....	51.1
1872.....	95	July.....	3	{ March..... December.... }	51.0
1873.....	94	July.....	—1	{ January..... February.... }	50.9
1874.....	98	June.....	3	February....	51.3
1875.....	93	June.....	—3	January....	49.4
1876.....	98	July.....	3	December....	51.8
1877.....	92	July.....	10	March.....	52.7
1878.....	94	July.....	7	{ January..... February.... }	53.5
1879.....	98	July.....	—4	January....	52.3
1880.....	96	May.....	—6	December....	53.2
1881.....	101	September..	—3	February....	52.3
1882.....	93	July.....	—6	January....	51.9
1883.....	95	July.....	—1	December....	50.4
1884.....	91	{ June..... August..... September.. }	—3	December....	52.4
1885.....	99	July.....	—2	February....	51.1
1886.....	94	July.....	—4	February....	51.0
1887.....	96	July.....	4	January....	50.9
1888.....	96	June.....	0	January....	49.3
1889.....	91	{ May..... June..... }	3	February....	52.7
1890.....	98	July.....	7	March.....	52.7
1891.....	98	August....	9	March.....	58.8
1892.....	97	July.....	9	January....	51.8
1893.....	95	June.....	1	January....	50.4
1894.....	96	July.....	1	February....	52.7
1895.....	97	September..	—4	February....	52.6
1896.....	98	August....	—5	February....	53.4
1897.....	93	{ July..... September.. }	6	January....	53.4
1898.....	100	July.....	8	February....	54.5
1899.....	95	July.....	—6	February....	53.5
1900.....	97	July.....	5	February....	53.7
1901.....	100	July.....	8	January....	52.0
1902.....	90	July.....	8	December....	52.8
1903.....	95	July.....	4	February....	52.4
1904.....	94	July.....	—4	January....	50.6
1905.....	96	July.....	4	January....	53.2
1906.....	95	August....	8	February....	54.6

Table of Maximum, Minimum and Mean Temperature and Rainfall in the Vicinity of The City of New York at Fort Columbus, from 1822 to 1854; Deaf and Dumb Asylum, from 1855 to 1868, and New York Observatory, Central Park, from 1869 to Date.

## Rainfall, in Inches (Including Snow Water).

(Figures furnished by Daniel Draper, Ph. D., Director of Central Park Observatory.)

Year.	Maximum.	Month.	Minimum.	Month.	Total.	Depth of Snow. (Inches.)
1822.....	.....	.....	.....	.....	.....	.....
1823.....	.....	.....	.....	.....	.....	.....
1824.....	.....	.....	.....	.....	.....	.....
1825.....	.....	.....	.....	.....	.....	.....
1826.....	.....	.....	.....	.....	.....	.....
1827.....	.....	.....	.....	.....	.....	.....
1828.....	.....	.....	.....	.....	.....	.....



## New York.

1845.	1850.	1855.	1860.	1865.	1870.	1875.	1880.	United States Census, 1890.	New York State Census, 1892.	United States Census, 1900.	New York State Cen- sus, 1905.
371,223	515,547	629,810	813,669	726,386	942,292	1,005,692	1,164,673	1,441,216	1,801,739	1,850,093	2,112,697
.....	4,436	12,436	16,343	19,024	28,981	36,194	41,626	74,085		200,507	271,629
78,691	138,882	216,355	279,122	311,090	419,921	509,154	599,495	838,547	996,071	1,166,582	1,358,891
13,322	16,831	18,296	30,429	31,481	42,669	50,541	52,927	82,299	93,991	152,999	198,241
13,674	15,061	21,389	25,392	28,209	33,029	35,196	38,991	51,693	53,351	67,021	72,846
476,910	690,757	898,286	1,164,955	1,116,190	1,466,892	1,636,777	1,897,712	2,487,840	2,945,152	3,437,202	4,014,304

the foot notes to the tables for Manhattan and The Bronx and Queens.

Year.	Maximum.	Month.	Minimum.	Month.	Total.	Depth of Snow. (Inches.)
1829.....	.....	.....	.....	.....	.....	.....
1830.....	.....	.....	.....	.....	.....	.....
1831.....	.....	.....	.....	.....	.....	.....
1832.....	.....	.....	.....	.....	.....	.....
1833.....	.....	.....	.....	.....	.....	.....
1834.....	.....	.....	.....	.....	.....	.....
1835.....	.....	.....	.....	.....	.....	.....
1836.....	6.46	June.....	.63	May.....	27.57	.....
1837.....	9.50	May.....	2.10	September..	65.51	.....
1838.....	4.96	September..	1.83	July.....	41.90	.....
1839.....	7.61	December..	.69	January.....	42.97	.....
1840.....	4.59	October.....	1.00	December..	29.80	.....
1841.....	5.30	January.....	.80	February....	42.08	.....
1842.....	4.30	October.....	1.07	January.....	33.98	.....
1843.....	15.26	August.....	.76	June.....	41.37	.....
1844.....	6.00	July.....	.55	April.....	36.38	.....
1845.....	4.87	January.....	1.22	April.....	34.08	.....
1846.....	9.70	May.....	.48	September..	48.91	.....
1847.....	6.93	August.....	1.53	April.....	64.85	.....
1848.....	7.28	May.....	1.16	April.....	36.80	.....
1849.....	5.63	October.....	.61	January.....	31.74	.....
1850.....	9.20	May.....	2.33	November....	54.53	.....
1851.....	6.94	April.....	.90	June.....	40.88	.....
1852.....	6.20	August.....	2.06	October.....	43.84	.....
1853.....	6.80	November....	1.04	December..	52.20	.....
1854.....	8.80	April.....	.70	March.....	45.18	.....
1855.....	7.37	October.....	1.57	September..	51.76	.....
1856.....	6.73	August.....	.66	February....	41.92	.....
1857.....	9.05	April.....	1.30	November....	53.88	.....
1858.....	6.42	June.....	1.47	March.....	52.87	.....
1859.....	8.21	March.....	1.75	October.....	57.28	.....
1860.....	7.57	November....	1.43	June.....	45.17	.....
1861.....	8.09	November....	1.73	December..	56.52	.....
1862.....	9.03	June.....	1.91	December..	53.98	.....
1863.....	8.60	July.....	1.05	September..	57.03	.....
1864.....	5.90	December..	2.04	February....	48.01	.....
1865.....	10.42	June.....	2.23	August.....	62.86	.....
1866.....	10.09	February....	1.67	July.....	51.68	.....
1867.....	10.18	June.....	.78	September..	54.61	.....
1868.....	9.60	September..	2.01	October.....	64.02	.....
1869.....	6.87	February....	1.39	April.....	46.47	30.67
1870.....	5.11	April.....	1.83	May.....	42.12	25.49
1871.....	7.50	October.....	2.07	January.....	51.26	34.22
1872.....	7.83	July.....	1.29	February....	42.49	40.37
1873.....	9.56	August.....	1.28	June.....	47.99	40.93
1874.....	8.77	April.....	1.70	October.....	45.83	35.62
1875.....	8.97	August.....	1.33	May.....	40.90	48.25
1876.....	8.79	March.....	.94	January.....	41.77	30.74
1877.....	8.14	October.....	.68	December..	40.18	27.37
1878.....	7.97	August.....	1.97	April.....	48.66	13.74
1879.....	7.95	August.....	.43	October.....	39.03	37.62
1880.....	8.53	July.....	.62	May.....	36.64	27.62
1881.....	5.81	March.....	.86	August.....	36.26	23.75
1882.....	16.85	September..	1.14	August.....	45.30	20.14
1883.....	4.53	October.....	1.49	March.....	35.77	52.50
1884.....	6.17	December..	.21	September..	52.25	31.50
1885.....	5.67	August.....	.41	September..	38.34	23.25
1886.....	5.40	May.....	.95	August.....	39.38	31.00
1887.....	7.76	June.....	.34	May.....	43.99	31.87
1888.....	8.16	September..	1.53	July.....	53.32	37.75
1889.....	11.89	July.....	1.10	December..	57.16	21.00
1890.....	6.56	October.....	.71	November....	45.63	29.63

Year.	Maximum.	Month.	Minimum.	Month.	Total.	Depth of Snow. (Inches.)
1891.....	6.12	January....	1.48	June.....	39.55	17.37
1892.....	7.14	November....	.59	October.....	35.60	34.63
1893.....	8.72	August.....	1.13	July.....	48.26	45.62
1894.....	8.68	September..	.98	June.....	41.01	35.25
1895.....	5.01	January....	.46	February....	35.27	22.75
1896.....	7.41	July.....	.96	January....	41.96	64.00
1897.....	9.56	July.....	.72	October.....	44.55	31.75
1898.....	6.72	May.....	1.25	June.....	47.90	35.25
1899.....	6.12	September..	1.09	May.....	38.57	35.37
1900.....	5.38	February....	2.01	December..	41.19	13.37
1901.....	7.64	July.....	.55	February....	48.69	10.62
1902.....	7.16	October.....	1.28	November....	52.77	42.74
1903.....	13.31	October.....	.30	May.....	58.32	20.50
1904.....	7.85	August.....	1.88	May.....	41.64	47.99
1905.....	5.84	September..	.72	May.....	37.44	26.87
1906.....	5.90	April.....	1.06	November....	40.18	20.25

## THE RESULTS OF THE USE OF REFINED DIPHTHERIA ANTITOXIN, GIBSON'S "GLOBULIN PREPARATION," IN THE TREATMENT OF DIPHTHERIA.

By William H. Park, M. D., Director of the Research Laboratory, Assisted by Binford Thorne, M. D., Resident Physician, Hospital for Contagious Diseases, Department of Health.

All who use diphtheria antitoxin serum extensively are aware that in from 10 to 30 per cent. of the injected cases of diphtheria, pronounced rashes, of an urticarial or erythematous type, occur. In the majority of cases these serum effects are disagreeable rather than harmful, but occasionally the rash is accompanied by constitutional disturbance presenting, in the most severe cases, high temperature, vomiting, prostration, and sometimes other symptoms. These marked constitutional reactions are especially likely to follow very large injections of from 10,000 to 20,000 units in young children who have high temperatures due to broncho pneumonia or other complications. In these cases the serum reaction is distinctly harmful, for by lowering the general resistance of the body to other infections it neutralizes to some extent the good done by the neutralization of the diphtheria toxin by the antitoxin. Furthermore, the rashes, especially those of a scarlatinal type, are puzzling in a diagnostic sense.

There have been many attempts made to separate diphtheria antitoxin from the non-antitoxic portions of the accompanying serum. Those interested in the chemical side of these investigations are referred to the recent article by Gibson.\* In 1900, Atkinson, working in his laboratory, eliminated all but the globulins from the antitoxic serum. This partially refined antitoxic serum was tried in thirty-six cases. The results,† both as to antitoxic effect and serum reactions, were so nearly identical with those in an equal number of cases treated with the whole serum from the same horse that it did not seem to be worth while to go to the expense of preparing such an antitoxic solution. Attempts to effect a practical separation of the antitoxin from a greater portion of the proteid non-antitoxic substances of the serum were continued. In August, 1905, we began trials with an antitoxic solution from which much more of the serum proteids had been eliminated than in the Atkinson preparation. Dr. R. B. Gibson, bacteriologist in the Research Laboratory, placed the half-saturation ammonium sulphate precipitate derived from the antitoxic serum in saturated sodium chloride solution, and found that along with a portion of the globulins all the antitoxin passed into solution. In this way the nucleoproteids and the insoluble globulins present in the Atkinson preparation were eliminated. The soluble globulins precipitated by acetic acid were filtered, partially dried and finally placed in a sac of parchment membrane and dialyzed in running water. This antitoxic solution of soluble globulins was then rendered neutral, and sufficient sodium chloride was added to make it isotonic.

In carrying out the process there is a loss of about 30 per cent. of antitoxin units, because of retention upon filters, loss in dialyzing, etc. On testing this solution on a number of children we found that the results were favorable, except that more local pain was produced than with the whole serum. Stricter attention to the neutralization soon overcame this, so that when the serum was injected on one side and the globulin solution on the other the patient was unable to tell the one from the other. In October, 1905, the antitoxic globulin solution was administered by the Medical Inspectors not only in the hospitals for diphtheria, but also in private homes. Since December it has been gradually distributed throughout New York City, and is now the only form of antitoxin supplied by the Health Department.

Results from the Use of Antitoxic Globulin Solution.—The antitoxic effect was identical with that of the whole serum. Our tests have shown that not only the toxins and the so-called toxones produced in media by diphtheria bacilli, but also those produced in the animal by injections with living diphtheria bacilli are neutralized completely by the globulin solution. We could not detect the slightest evidence that any desirable substance in the antitoxic serum is lost by the refining process. Not only we ourselves, but the resident and attending physicians watching the cases in the contagious disease hospitals noted that the rashes following the injections of the globulin solution seemed to be less severe than those which followed the injection of whole serum. It was especially noted that there were very few who had any constitutional disturbances even when the rashes did appear.

As the serum supplied by different horses, or from the same horse at different times, is known to vary in the rashes and other after effects it produces, and as it is, therefore, difficult accurately to compare the globulin solution and the whole serum derived from different bleedings, it was decided to make a decisive test by collecting

\* Journal of Biological Chemistry, Vol. I, Nos. 2 and 3.  
† Archives of Pediatrics, November, 1900.



a quantity of serum from four different horses, mixing it thoroughly, and then after precipitating one-half, to treat an equal number of patients simultaneously with the whole serum and with the globulin solution. These tests were carried out chiefly in the Willard Parker Hospital, but a few also in the Riverside Hospital. We are indebted to Drs. Lynah and Watson, the resident physicians in charge of these two hospitals, for their interest and aid.

It soon became evident that the serum we had chosen for the test was of such a character that eruptions and constitutional disturbances usually appeared in those injected with the whole serum. Whether it was because the serum from four long-treated horses had been mixed, or whether because of some other reason, it is certain that this serum produced more after effects than any lot we had used in the hospital since 1899. These after effects were so marked and occurred in such a large proportion of the children that we had to abandon the use of the whole serum. The rashes in those given the globulin preparation were much less severe. In persons over ten years of age almost no rashes occurred after either preparation. The patients treated with the whole serum and the antitoxic globulins were most carefully watched by us, and the course of the disease, as well as the after effects, noted.

TABLE I.

Results of Injecting the Mixed Antitoxic Horse Serum in Fifty Cases of Diphtheria Occurring in Children under Ten Years of Age.

Case.	Age in Years.	Antitoxin Units Given.	Deleterious Effects.	
			Constitutional Disturbances.	Rash.
*1.....	0.9	10,000 M	Marked, 5 degrees rise of temperature .....	Eighth day, general erythema lasting six days.
2.....	1	3,000 S	Slight .....	Tenth day, urticaria general.
3.....	1	14,000 M	High temperature, due partly to pneumonia....	Fourteenth day, urticaria lasting five days.
†4.....	1.3	15,000 M	Moderate, 2 degrees rise of temperature .....	Eighth day, general erythema.
*5.....	1.9	5,000 S	Absent .....	
†6.....	1.5	35,000 S	High temperature and marked disturbance.....	Sixth day, urticaria; eighth day, general erythema of very severe type.
*7.....	1.3	10,000 M	Absent .....	
*8.....	1.3	13,500 M	Moderate, with 1 degree rise of temperature.....	Fourth day, severe general urticaria lasting three days.
*9.....	1.6	10,000 M	Masked by pneumonia having 106 degrees temperature .....	Seventh day, severe general erythema.
10.....	1.7	10,000 M	Moderate, with 2 degrees rise of temperature.....	Sixth day, severe general erythema lasting three days.
*11.....	1.9	10,000 M	Marked, with 3 degrees rise of temperature .....	Third day, morbilliform; eleventh day, severe general urticaria.
12.....	1.5	7,000 M	Slight .....	Fourteenth day, erythema and urticaria general for two days.
*13.....	1.5	10,000 S	Slight, with 1.5 degrees rise of temperature.....	Second day, quite severe erythema lasting one day.
*14.....	2	17,000 M	Slight, with 1.5 degrees rise of temperature.....	Third day, very severe urticaria for two days.
*15.....	2	10,000 M	Marked, but possibly due to sepsis.....	Third day, urticaria and erythema very severe, lasting fifteen days.
16.....	2	3,500 S	Absent .....	
†17.....	2.5	7,000 M	Moderate, 2 degrees rise of temperature .....	Fifth day, severe urticaria for six days.
*18.....	2.5	14,000 M	Slight .....	Thirteenth day, severe urticaria for three days.
*19.....	2	3,000 S	Slight .....	Twelfth day, general urticaria for two days.
20.....	2	10,000 M	Slight .....	Sixth day, general urticaria for three days.
21.....	1.5	7,000 S	Absent .....	
22.....	2.5	7,000 S	Extremely severe, 3 degrees to 6 degrees for ten days.	Eighth day, morbilliform continued and intense for ten days.
23.....	2	7,000 S	Extremely severe, 2 degrees to 4 degrees for one week .....	Fifteenth day; morbilliform continued and intense for eight days.
*24.....	2.5	8,000 S	Severe, 4 degrees rise of temperature .....	Tenth day, erythema for two days; seventeenth, second lasted six days.
*25.....	2.5	7,000 M	Severe, 4 degrees rise of temperature .....	Seventh day, erythema for two days; twelfth day, second lasted five days.
26.....	2.8	12,500 M	Slight .....	Twenty-second day, general erythema.
*27.....	3	10,000 M	Severe, but possibly due to pneumonia .....	Fourteenth day, erythema for five days.
*28.....	3	10,000 M	Absent .....	
†29.....	3	8,000 M	None, except 1.50 rise of temperature .....	Sixth day, urticaria for two days.
*30.....	3	7,500 M	Absent .....	
†31.....	3	10,000 M	Severe, 5 degrees rise of temperature for one week .....	Thirteenth day, severe erythema for one week until death.
*32.....	3	3,000 S	Absent .....	
*33.....	3	14,000 S	Absent .....	
34.....	3	7,500 S	Severe, for ten days 4 degrees rise of temperature.	Thirteenth day, severe erythema lasting ten days.
35.....	3	14,000 M	Very severe, with 4 degrees to 7 degrees rise of temperature for ten days.	Eighth day, general erythema over whole body for ten days.
36.....	4	3,750 S	Absent .....	
*37.....	4	10,000 M	Absent .....	Twelfth day, severe erythema.
38.....	4	10,000 S	Absent .....	
*39.....	4	10,000 M	Moderate, 2 degrees rise of temperature .....	Sixth day, general erythema lasting three days.
*40.....	4	5,000 S	Absent .....	Fifth day, general erythema lasting three days.
*41.....	4	10,000 M	Marked, 4 degrees to 6 degrees rise of temperature .....	Tenth day, very severe, lasting five days until death.
42.....	4.5	12,000 S	Absent .....	
43.....	5	10,000 M	Moderate, 3 degrees rise of temperature .....	Fifth day, very severe, urticaria lasting five days.
*44.....	6	5,000 S	Absent .....	
45.....	6	10,000 M	Moderate, 2 degrees rise of temperature .....	Sixth day, general erythema lasting three days.
46.....	7.5	7,500 M	Marked, 4 degrees rise of temperature .....	Fifth day, general erythema.

Case.	Age in Years.	Antitoxin Units Given.	Deleterious Effects.	
			Constitutional Disturbances.	Rash.
47.....	9	10,000 S	Slight .....	Eighth day, general urticaria.
*48.....	8	3,750 S	Absent .....	
*49.....	8	3,750 S	Absent .....	
*50.....	9	3,750 S	Absent .....	
50	a 3.24	b ....	Thirty-five developed constitutional disturbances...	Thirty-six developed rashes.

\* Intubated.

† Croup.

M Marked severity (of which eighteen were intubated).

S Slight severity.

a. Years average.

b. Average units per case, 9,250. M equals 28; S equals 22.

TABLE II.

Results of Injecting Refined Antitoxin (Antitoxic Globulins) Made from Serum Obtained from the Same Horses and at the Same Bleedings as the Antitoxic Serum Used in the Cases Given in Table I.

No.	Age.	No. Units of Antitoxin. Severity.	Deleterious Effects Due to Antitoxin.	
			Constitutional Disturbances.	Rash.
1.....	0.5	7,000 S	Absent .....	Sixth day, moderate urticaria and erythema lasting four days.
2.....	*0.9	15,000 M	Absent .....	Second day, general erythema lasting two days.
3.....	†1	10,000 M	Masked by pneumonia....	Ninth day, general erythema lasting five days until death.
4.....	1.5	5,000 S	Absent .....	
5.....	*1.5	12,000 M	Rise of 1 degree of temperature .....	Third day, urticaria for one day.
6.....	*0.3	7,000 S	Absent .....	Second day, general erythema for three days.
7.....	1.5	12,000 M	Absent .....	
8.....	.4	3,000 S	Absent .....	
9.....	*1.2	10,000 M	Absent .....	Tenth day, urticaria lasting four days.
10.....	1.2	15,000 M	Absent .....	Eighth day, urticaria lasting two days.
11.....	*1.5	12,000 M	Absent .....	Eighth day, urticaria, pretty severe, lasting three days.
12.....	*1.3	12,000 M	Absent .....	
13.....	0.9	5,000 M	Absent .....	Fourth day, erythema lasting thirty-six hours.
14.....	.5	7,000 M	Absent .....	
15.....	*1.5	12,000 M	Absent .....	Fifth day, urticaria for one day.
16.....	2	10,000 M	Absent .....	
17.....	†2	12,000 M	Absent .....	
18.....	†2	10,000 M	Absent .....	Seventh day, mild urticaria for one day.
19.....	†2	12,000 S	Absent .....	
20.....	2	24,000 M	Absent .....	
21.....	†2	7,000 S	Absent .....	
22.....	2	7,000 S	Absent .....	
23.....	*2	10,000 S	Masked by pneumonia....	Thirteenth day, general erythema lasting three days.
24.....	2	10,000 M	Absent .....	Tenth day, general erythema lasting three days.
25.....	*2.5	12,000 M	Rise of 1 degree of temperature .....	Fifth day, urticaria, then erythema— together lasting five days.
26.....	*2.5	12,000 M	Rise of 3 degrees of temperature for 12 hours; then normal.....	Seventh day, urticaria for two days.
27.....	*3	17,000 M	Absent .....	
28.....	*3	10,000 M	Absent .....	Eleventh day, erythema for two days.
29.....	†3	12,000 M	Absent .....	
30.....	*3	20,000 M	Absent .....	Sixth day, urticaria lasting two days.
31.....	*3	12,000 M	Absent .....	Second day, slight general erythema lasting twenty-four hours.
32.....	4	7,000 S	Absent .....	Sixth day, urticaria lasting two days.
33.....	*4.5	8,000 M	Absent .....	
34.....	†4	12,000 S	Absent .....	
35.....	†4.5	12,000 M	Absent .....	
36.....	*4	12,000 M	Absent .....	
37.....	4	12,000 M	Rise of 2 degrees of temperature for one day....	Eighth day, severe urticaria, traces lasting five days.
38.....	4	12,000 S	Absent .....	
39.....	5	5,000 S	Absent .....	
40.....	5	12,000 M	Absent .....	
41.....	5	3,000 S	Absent .....	
42.....	5	19,000 M	Rise of 2 degrees of temperature for one day....	Sixth day, severe erythema, traces lasting seven days.
43.....	5.5	3,000 S	Absent .....	
44.....	6	10,000 S	Absent .....	
45.....	6	3,000 S	Absent .....	Sixth day, urticaria and erythema for three days.
46.....	6	4,000 S	Absent .....	Seventh day, urticaria for two days.
47.....	*7	12,000 M	Absent .....	
48.....	*8.5	24,000 M	Absent .....	
49.....	9	7,000 S	Absent .....	
50.....	9	3,500 S	Absent .....	
50.....	a 3.18	b ....	Constitutional disturbances 5; possibly 7.....	Rashes in 23.

\* Intubated.

† Croup.

M Marked severity.

S Slight severity.

a. Years average.

b. 10,600 units average injections. M equals 31; S equals 19.

Of the fifty cases there were thirty-one of marked severity; eighteen of these were intubated.



TABLE III.

Comparative Table Giving a Summary of the Constitutional and Local Reactions Obtained in the Treatment of Fifty Cases of Diphtheria in Young Children with a lot of Antitoxic Serum Derived from Four Horses and of an Equal Number of Similar Cases Treated with a Solution of the Antitoxic Globulins Derived from a Portion of the Same Lot of Serum:

	Children Who Were Treated With the Whole Serum.	Children Who Were Treated With the Antitoxic Globulins.
	Per Cent.	Per Cent.
Marked constitutional symptoms accompanied by severe and persistent rash in.....	28	..
Moderate constitutional symptoms accompanied by a well-developed erythema or urticaria.....	18	4
Very slight constitutional disturbance accompanied by a more or less general rash.....	20	..
No appreciable constitutional disturbance, but a more or less general urticaria or erythema.....	4	34
No appreciable after effects whatever.....	30	54

TABLE IV.

Duration of Rashes.

	Days.								Total Rashes.
	1	2	3	4	5	6	7	8 and Over.	
Antitoxic globulin cases.....	4	7	5	3	3	..	2	..	23
Whole serum cases.....	1	4	10	1	10	3	2	5	36

After all the tested patients had become fully convalescent or had left the hospital, the histories were finally gone over and compared. It was found that fifty children under ten years of age treated with the whole serum had lived at least nine days, or long enough for the development of serum effects. The first fifty consecutive cases in children under ten years treated with the antitoxic globulins precipitated from the same lot of serum and living nine days or over were taken to compare with these. Table I. gives the salient points for each case treated with the whole serum and Table II. the same for those treated with the solution of antitoxic globulins. Tables III. and IV. summarize these points.

It is noticeable that not only were the rashes more frequent, but also much more persistent in the patients who received the whole serum. Twenty-three rashes following the use of the whole serum lasted over three days in this series, as against only six in the antitoxic globulin cases.

Summary and Conclusions.—The results obtained in these series of one hundred cases are so definite that it seems safe to conclude that the removal of a considerable portion of the non-antitoxic globulins, as well as the albumins from the serum by the Gibson method, has eliminated much of the deleterious matter from the serum, so that severe rashes, joint complications, fever, and other constitutional disturbances are less likely to occur from the antitoxic globulins than from the antitoxic serum from which it was obtained. The globulin preparation when tested by animal experiments appears to retain all the antitoxic properties of the whole serum. The portion of the globulins still accompanying the antitoxin in the Gibson preparation is shown to be capable of exciting rashes and occasionally constitutional disturbances, although, as stated above, to a less extent than the serum. It is almost certain that methods will be devised to refine antitoxin still farther, and so possibly eliminate all appreciable deleterious effects of the antitoxic serum.

Whether this globulin solution will be much less likely than the serum to cause collapse in the rare cases of peculiar susceptibility, such as in a certain percentage of those suffering from status lymphaticus, is still undetermined. It has now been used in several thousand cases of diphtheria without accident.

The concentration of antitoxin made possible by the elimination of the non-antitoxic substances is not only a convenience, but of distinct clinical importance, as it tends to encourage large doses.

The antitoxic globulin solution, like the serum, tends to become slightly cloudy when kept at moderate or high temperature, and substances such as solutions of carbolic acid and trikresol are especially likely to cause a precipitate to develop. The antitoxin in the globulin preparation retains its potency about as long as that in the whole serum.

### THE ETIOLOGY AND DIAGNOSIS OF HYDROPHOBIA.

Anna Wessels Williams, Assistant Director, and May Murray Lowden, Assistant Bacteriologist.

#### Introduction.

During the spring of 1904 the "Negri bodies" were demonstrated by one of us in smears from the central nervous system of animals dead from hydrophobia. At that time, however, the technique was poor and the stains were unsatisfactory, so the use of the method in diagnosis was not begun. Many of the cases reported by Dr. Poor were studied by us in this way, the "bodies" being demonstrated in smears from three horses and from several dogs and guinea pigs, while they were not found in normal dogs, guinea pigs or rabbits, or in guinea pigs dead from tetanus or diphtheria toxin.

Last fall, in connection with the study of smears from vaccinia and variola stained by Giemsa's method, smears from hydrophobia cases were again tried and it was found that the "bodies" were brought out very clearly and characteristically by the Giemsa solution; and, as a consequence, the present work was planned.

Some of the most interesting material used by us has been obtained through the kindness of Dr. R. J. Wilson and of a number of veterinarians of New York City, to all of whom we wish to express our thanks. Most of the sections have been prepared by Miss C. R. Gurley. All of the work has been done with the help and encouragement of Dr. Wm. H. Park, to whom thanks are due.

#### Historical Review.

Investigations on hydrophobia have been carried on from three principal standpoints; first, the therapeutic; second, the diagnostic, and third, the etiological. Since the establishment of the Pasteur treatment, the importance of making a quick diagnosis has become so evident that the efforts of many workers have been directed toward this end, and only occasionally has the purely etiological standpoint been considered.

Pasteur and his immediate followers relied for their diagnosis entirely upon rabbit inoculations, and this meant a fifteen to twenty days' wait before the patient knew whether or not the treatment he was receiving was necessary. In 1898 this time was shortened to about nine days in our laboratory by Wilson, who found that guinea pigs came down with the disease much more quickly than rabbits. From time to time it has been thought that certain histological findings were diagnostic; for instance, the "rabid tubercles" of babes, and the areas of "round and oval-celled accumulation in the cerebrospinal and sympathetic ganglia" of Van Gehuchten and Nelis, were said to be specific, but further study has shown that they are not absolutely specific for rabies. In many cases the whole picture of the grosser histological changes is sufficiently characteristic to warrant the diagnosis of rabies, but often it is not so. Bailey, in his studies on the ganglion cells in normal and hydrophobic rabbits gives a good bibliography of the histological findings up to 1901.

It was not until Negri, in 1903, described certain bodies seen by him in the large nerve cells in sections of the central nervous system that anything was found which seemed absolutely specific for hydrophobia. Negri claims that these bodies are

not only specific for rabies, but that they probably are animal parasites, and the cause of the disease.

He describes them as usually round or oval bodies from 1  $\mu$  to 23  $\mu$  long, and containing vacuoles in some of which are granules of varying size and number; generally there is a central larger structure surrounded by smaller ones. By Mann's method of staining, the organism generally takes a brilliant eosin-red, with the exception of the granules, some of which stain a light blue, and the others a faint red. The central structure gives the appearance of being a nucleus. The bodies are sometimes in touch with the nucleus of the host cell, sometimes far from it, often in the cell branches where they are more elliptical in shape. There are irregular, pear-shaped and three-cornered forms, all of which special shapes Negri thinks due to the position of the organism within the host cell. He speaks of multiplying forms but does not describe any definite division forms. He says he is able to identify the bodies in the hanging-drop fresh, and in a weak acetic acid solution; but does not recommend this method for general use in diagnosis, as it is difficult to differentiate the bodies under these conditions from the nerve-tissue elements. He finds his organism generally in greatest numbers in the large nerve cells of Ammon's horn, less frequently in those of the cerebral cortex, the cerebellum, the medulla, the spinal cord, and the cerebrospinal ganglia. The organisms vary greatly in numbers in the different cases. In some cases he could find only an occasional one, while in others they were innumerable.

He says very little about the bodies in animals dying of fixed virus, merely stating that they have been found in rabbits that have died on the seventh day after inoculation with fixed virus, but they are very tiny, infrequent and found with difficulty. He finds the largest forms in dogs inoculated subdurally with street virus.

Negri's work was soon corroborated by many Italian observers. Volpino, Bertarelli, D'Amato, Daddi, Di Vestea, Guarnieri and Martinotti published almost immediately after Negri's first publication. They were soon followed by Celli and De Blasi, Pace and Bosc. The "bodies" have been found by these authors, and later by others in all varieties of animals which are susceptible to hydrophobia, i. e., in dogs, cats, rabbits, rats, mice, guinea pigs, birds, cattle, horses and human beings.

In 1904 Luzzani published a report of 179 cases, and in all but nine of those which were proven by animal inoculation to be rabies, the "Negri bodies" were found.

In our own laboratory in the same year, Poor examined 19 cases of street rabies and many cases of experimental rabies, and in all except those inoculated with fixed virus the "bodies" were found. In fixed virus animals he found an occasional homogeneous eosinophilic granule in the cerebellar cells, about which he expressed no opinion. Similar granules were also seen by various other observers, some of whom consider them possibly tiny forms of the organism; but nothing definite has been observed about them, and as indefinite granules have also been seen in other conditions, their significance is uncertain.

In 1904 Negri's work, so far as the presence of these "bodies" in hydrophobia is concerned, was further corroborated by the following workers: Dominici, Marzocchi, Bandini, Fasoli and Schuder. There was no dissenting voice as to their presence, and as to their diagnostic value. Many controls were made by the different observers, especially by Volpino, Marzocchi, Dominici and Poor. They examined tetanus, strychnin, pneumococcus, staphylococcus, alcohol, formalin, tubercle bacillus, diphtheria toxin, and of human beings who had died from epilepsy, syphilis, alcohol poisoning, tuberculosis and various nervous affections. Many normal animals were also examined, all with negative results so far as the "Negri bodies" were concerned.

During this time the "bodies" were tested for their resistance to various physical and chemical agents, such as heat, cold, drying, immersion in glycerin, etc., and they were found to retain their characteristic appearance and virulence after more or less manipulation. It does not necessarily follow, however, that the "bodies," even if they are living organisms, need to retain their characteristic appearance in order to be virulent. We know, for instance, that trypanosomes may seem to disappear from blood which continues to be infective. (Laveran and Mesnil.)

Remlinger showed that the medulla of rabbits inoculated subdurally with fixed virus may be virulent on the third day, but he did not work out the exact degree of virulence—that is, the approximate number of organisms in the material inoculated. The fact that it is virulent after inoculation, and that no "Negri bodies" have been found at this early period, he thinks is another indication that they are not organisms. He does not consider the possibility of there being tinier forms than those so far seen, but believes that the organism in its whole life-cycle is ultra-microscopic in size.

In regard to the significance of the "bodies," up to 1905 all of these authors, with two exceptions, agree with Negri in considering them probably Protozoa and the cause of hydrophobia. The two exceptions are Remlinger and Schuder.

These latter investigators consider the fact that the virus can be filtered through a filter practically impervious to ordinary bacteria, a proof that the "Negri bodies," which they say are too large to pass such a filter, are not the cause of hydrophobia. Bertarelli, however, showed that the residue after filtration was also virulent, and he and others expressed the opinion that besides forms too large to pass the filter, there might be forms tiny enough to do so. We know that in a medium containing a growing protozoan we find both large and small forms, the limits in size of the smallest forms not being known in some cases; the fact, therefore, that the filtered portion and unfiltered solid residue both possess virulence is an added indication that we are dealing with Protozoa. MacNeal has shown with the trypanosomes that besides the large forms, there are forms tiny enough to pass a Berkefeld.

Practically nothing has been done with regard to the exact degree of virulence possessed by filtered and unfiltered portions of the emulsions of rabies virus. Late in 1905, Di Vestea showed that the filtered virus possesses characteristics different from unfiltered, thus indicating that the forms in each may be different in character. He thinks that the undiscovered extracellular forms may be tiny enough to pass the filter.

Quite recently Volpino elaborates more fully an hypothesis advanced by him in 1904, in regard to the filterable forms. He thinks that the real organism is very tiny, that probably only the inner bodies in the so-called "Negri body"—the tiny bodies which he had shown to be definite basophilic forms—are the parasites, and that the homogeneous-appearing substance in which they are imbedded and which makes up the rest of the "Negri body" as Negri describes it, is derived from the host cell, caused by the reaction of it to the parasite. He gives a number of drawings arranged in the form of a life-cycle to illustrate this idea.

Negri's latest article, appearing in June, 1905, states that the central body shows more characteristically as a nucleus in sections from rabid cattle which he had stained in a special way by hematoxylin, and that in the same animals there appear bodies presenting characteristics of cysts. These later studies confirm all of his previous work and emphasize the fact that some of the bodies contain a central complex characteristic mass of chromatin, sometimes appearing solidly stained, sometimes as a distinct network, and sometimes encircled by smaller solidly staining masses of chromatin. Each chromatin mass is surrounded by a clear, unstained ring.

The bodies which he interprets as cysts, he describes as similar in dimensions, shapes and general staining characteristics to the other forms, but different in minute structure. By the staining method of Mann they seem to be filled with tiny, refractive, somewhat elongated granules. Some seem to be surrounded by a membrane which is occasionally notched as if about to break. The iron-hematoxylin stain brings out the structure of these bodies very clearly. They seem to be filled with numerous black-staining "spores" less than 1  $\mu$  long and narrower, which appear as tiny filaments slightly curved with a small swelling near the centre.

In 1905 still other workers corroborated Negri's work, among them Abba and Bormans, Way, Zaccaria, Maresch, Schiffmann, Galli-Valerio and Bohne. Only one author failed to corroborate the work. Maas, in sections from a case of human rabies, could find no "Negri bodies." Luzzani in this year published another collection of cases. Out of 457, 297 proved by the biological test to be hydrophobia, and in only nine of these were the "bodies" not found in sections. The bodies were not found in any other animal.

Maresch, by Bielschowsky's staining method, claims to have brought out the structure more distinctly.

Schiffmann, after studying the "Negri bodies" as they appear in street rabies and examining many controls, confirming fully the diagnostic value of the "bodies," studied the changes which they seemed to undergo in passage from animal to animal of the same species and of one species to another. He states that the greater number of passages through a single species of animal, the smaller the "bodies," until in "fixed virus" in the rabbit no forms appear. He also says that he did not find any "bodies" in dogs inoculated with rabbit-fixed virus.



Bohne describes the shortest method so far published for examination of sections. The whole process lasts only three hours, and the author states that it is very satisfactory. The method is as follows: Small pieces of the nerve tissue are placed in 15 c.c. of pure acetone and kept at 37° C. for about 30 to 45 minutes. They are then put in 55° paraffin and left from 60 to 75 minutes, boxed, cut at 6 m, dried at 60°, and stained with a modified Mann's method in 4 minutes. The "bodies" show a vacuolated and granular structure and some of the elliptical forms seem to be dividing. On the whole, they take more of a magenta stain than the "bodies" do in sections prepared in the regular way. The author considers their parasitic nature still doubtful.

During 1905 a good review of recent studies on hydrophobia came out in the "Bulletin de l'Institut Pasteur," and in 1906 Bertarelli published a good review in the "Referate" of the "Centralblatt für Bakteriologie."

We may sum up the results obtained from the foregoing studies as follows:

1. In nearly 100 per cent. of definite cases of street rabies characteristic "bodies" are found in the large nerve cells of sections from all or from a part of the central nervous system and the connected ganglia.

2. The general characteristics of most of these "bodies" are as follows: Rounded or oval forms varying in size from 1 m to 25 m, with a homogeneous acidophilic ground substance containing a central body surrounded by granules; these inner bodies vary in structure and staining qualities, but are principally basophilic and may be in the form of reticular masses, rings, rods, or points; they are usually situated within vacuoles.

3. The "bodies" vary also in number, being very few in some cases and numerous in others. According to one author, they become fewer the greater the number of passages through a single species of animal, and are not found in fixed virus. Others have found occasional small forms in fixed virus, but not in large enough numbers to account for the infectivity of the nerve tissue.

4. No "bodies" have been found before the appearance of symptoms, although the central nervous system is infective before this time.

5. No "bodies" have been found in the peripheral nerves or in the salivary or other glands, although these organs have been shown to possess a certain amount of infectivity.

6. The most rapid satisfactory method of demonstrating the "bodies" for diagnosis is a complicated section process which takes at least three hours.

7. The filtered virus is infective, therefore some forms of the causative agent must be extremely tiny.

8. In no other disease have bodies similar in appearance to the "Negri bodies" been found.

9. When the "bodies" are found in sections, the diagnosis of hydrophobia is certain and the biological test need not be made; when they are not found, the case may have been one of hydrophobia and the biological test must be made.

10. The significance of the "bodies" is still in doubt for the following reasons: (a) They have not been found in all cases of hydrophobia, notably not in fixed virus, neither have they been found in all parts of nervous tissue proved to be virulent, especially before the beginning of symptoms; (b) forms small enough to pass the coarser Berkefeld filters have not been seen; (c) the structure has not been shown definitely to be analogous to that of known living organisms; (d) no definite series of forms indicating growth and multiplication have been demonstrated; (e) the staining qualities, contrary to those of known Protozoa, are more acidophilic than basophilic.

In January of 1906 one of the writers made a preliminary communication of part of the work reported in the following pages. Emphasis was placed upon the fact that the demonstration of the "Negri bodies" by the "smear method" which was recommended by the writer in 1904 (see discussion under Poor's first article), had, by better technique, proved to be wonderfully successful. By this method the structure of the "bodies" is brought out more definitely than by the section method, and the whole process is much simplified and may be completed within half an hour after removal of the nerve tissue from the animal.

The method of examining the central nervous system, especially the brain, by smears has been used by several pathologists, among whom may be mentioned Ewing, who obtained interesting results by this method in his studies on the pathology of ganglion cells.\*

#### Original Work.

The work may be divided into two parts:

- I. The value of the "Negri bodies" in diagnosis and their rapid identification
- II. A study of the "bodies" with a view to determining their nature.

In all, 141 animals, including seven varieties, have been studied with these two points in view. The following table gives a classified list of these animals:

Street rabies cases.....	Dogs .....	25
	Cat .....	1
	Human beings.....	3
Animals inoculated with street rabies.....	Dogs .....	7
	Rabbits .....	12
	Guinea-pigs .....	32
	Mice .....	5
Animals inoculated with fixed virus.....	Dog .....	1
	Rabbits .....	27
	Guinea-pigs .....	7
	Mouse .....	1
Control animals.....	Dogs .....	12
	Rabbits .....	4
	Guinea-pigs .....	2
	Calf .....	1
	Human being.....	1

#### I.

In the first part of the work we have tried to determine: (1) Whether the "bodies" seen in the smears are similar to those seen in the sections, (2) the correspondence between the smear method, the section method, and the biological test, (3) the comparative value of each method in diagnosis, and (4) the specificity of the "bodies."

It was decided that these points might be brought out by using all three diagnostic tests in a series of street rabies animals and of a number of controls. Therefore with each animal chosen for this purpose the following routine was carried out: (1) the brain, medulla, and parts of the spinal cord and connected ganglia were removed; (2) small pieces from each part were fixed in Zenker's fluid; (3) smears were made from corresponding parts; and (4) animals were inoculated subcutaneously with an emulsion of corresponding parts, and from the animals that died either smears or sections or both were made.

The technic of the smear work is as follows:

1. Glass slides and cover-glasses are washed thoroughly with soap and water, then heated in the flame to get rid of oily substances.

2. A small bit of the gray substance of brain chosen for examination is cut out with a small sharp pair of scissors and placed about one inch from the end of the slide, so as to leave enough room for a label. The cut in the brain should be made at right angles to its surface and a thin slice taken, avoiding the white matter as much as possible.

3. A cover-slip placed over the piece of tissue is pressed upon it until it is spread out in a moderately thin layer, then the cover-slip is moved slowly and evenly

\*Just after this paper went to press the article by Frothingham appeared. His work corroborates the results obtained by the smear method of diagnosing rabies. We have tried the impression method which he describes, as well as a number of other methods of making smears of the central nervous system and find the results obtained by them all good in some particulars, but the method we describe has so far given us uniformly better results in the diagnosis work.

over the slide to the end opposite the label. Only slight pressure should be used in making the smear, but slightly more should be exerted on the cover-glass toward the label side of the slide, thus allowing more of the nerve tissue to be carried farther down the smear and producing more well-spread nerve cells. If any thick places are left at the edge of the smear, one or two of them may be spread out toward the side of the slide with the edge of the cover-glass. If the first smear does not seem to be well spread out others should be made until a satisfactory one is obtained.

4. For diagnosis work such a smear should be made from at least three different parts of gray matter of the central nervous system: first, from the cortex in the region of the fissure of Rolando or in the region corresponding to it (in the dog the convolution around the crucial sulcus), second, from Ammon's horn, third, from the cerebellum. In many of the animals reported here smears were made from the gray matter of the cerebral cortex, around the fissures of Rolando and Sylvius, from the olfactory bulb, Ammon's horn, cerebellum, medulla in the region of the roots of the cranial nerves, spinal cord in the dorsal and lumbar regions, spinal and Gasserian ganglia, salivary glands, suprarenals pancreas, and some of the peripheral nerves. From the last four-named structures the smears were not very successful, so only a few were made.

5. The smears are dried in air† and subjected to one or both of the two following staining methods:

(a) Giemsa's solution. The smears are fixed in methyl alcohol (commercial is just as good as pure) for about 5 minutes. The staining solution recommended last by Giemsa‡ (1 drop of the stain to every c.c. of distilled water made alkaline by the previous addition of one drop of a 1 per cent. solution of potassium carbonate to 10 c.c. of the water) is poured over the slide and allowed to stand for one-half to three hours. The longer time brings out the structure better, and in 24 hours well-made smears are not overstained. After the stain is poured off, the smear is washed in running tap water for one to three minutes, and dried with filter paper. If the smear is thick, the "bodies" may come out a little more clearly by dipping in 50 per cent. methyl alcohol before washing in water, then the washing need not be as thorough. By this method of staining, the cytoplasm of the "bodies" stains blue and the central bodies and chromatoid granules stain a blue-red or azur. Generally the larger "bodies" are a darker blue than the smaller, the smallest of all may be very light (Plate 19, Journ. Infect. Diseases, 1906). The stain varies somewhat according to the thickness of the smear. Some have a robin's-egg blue tint, but this is after a longer fixation in the methyl alcohol. In this case the red blood cells may have a greenish tint. (See Part II. for full description of "bodies" stained by this method.) The cytoplasm of the nerve cells stains blue also, but with a successfully made smear the cytoplasm is so spread out that the outline and structure of most of the "bodies" are seen distinctly within it. The nuclei of the nerve cells are stained red with the azur, the nucleoli a dull blue, the red blood cells a pink-yellow, more pink if the decolorization is used. The "bodies" have an appearance of depth, due to their slightly refractive qualities.

For diagnostic purposes this method of staining may be shortened as follows: Methyl alcohol, 5 minutes, equal parts of the Giemsa solution and distilled water, 10 minutes. In this way "bodies" are generally brought out well enough for diagnosis, and sometimes the structure shows distinctly. It is always well, however, to make smears enough for the longer method of staining, in case the shorter one should prove unsatisfactory.

(b) The eosin-methylene blue method recommended by Mallory. The smears are fixed in Zenker's solution for one-half hour; after being rinsed in tap water they are placed successively in 95 per cent. alcohol+iodine one-quarter hour, 95 per cent. alcohol one-half hour, absolute alcohol one-half hour, eosin solution 20 minutes, rinsed in tap water, methylene-blue solution 15 minutes; differentiated in 95 per cent. alcohol lasting from one to five minutes, and dried with filter paper. With this method of staining the cytoplasm of the "bodies" is a magenta, light in the small bodies darker in the larger; the central bodies and chromatoid granules are a very dark blue, the nerve cell cytoplasm, a light blue, the nucleus a darker blue, and the red blood cells a brilliant eosin pink (Plate 18, Journ. Infect. Dis., 1906). With more decolorization in the alcohol the "bodies" are not such a deep magenta and the difference in color between them and the red blood cells is not so marked.

The "bodies" and the structure are often more clearly defined with this method and perhaps on the whole it is better to use it for making diagnoses;§ but when there are only tiny "bodies" present, or when the brain tissue is old and soft, the Giemsa stain seems to be the more successful; above all, when one wishes to study the nature of the central tuctures and granules the Giemsa stain must be used. We therefore recommend strongly the use of both methods. Even if both are used and one has to wait for the longer method, the technic is far simpler than any so far published.||

Not only do the "bodies" come out more distinctly by the smear method, but the pathological changes accompanying them are well demonstrated. For instance, the swellings of the neuro-fibrils described by Ramon y Cajal, the collections of the lymphoid cells, the increase of the endothelioid cells, the degenerated nerve cells are all clearly seen.

The technic of the section work is as follows: (1) The small pieces are left in Zenker's fluid for three to four hours; (2) washed in tap water for five minutes; (3) placed in 80 per cent. alcohol+iodine (enough tincture of iodine added to give port wine color) for about 24 hours; (4) 95 per cent. alcohol+iodine 24 hours; (5) 95 per cent. alcohol 24 hours; (6) absolute alcohol from four to six hours; (7) cedar oil until cleared; (8) cedar oil+paraffin 52° aa, two hours; (9) paraffin 52° two hours in each of two baths; (10) boxing; (11) sections are cut at 3 to 6 m, dried in thermostat at 36° C. for about 24 hours protected from the dust, and stained according to the eosin and methylene blue method recommended by Malloy. The most important point in the technic is the time the material is allowed to remain in Zenker. According to our experience, two hours' fixation is not enough, three to four hours is very good, and with every hour after five hours the results become less satisfactory. Left in Zenker over night the tissue is granular and takes the eosin stain more or less deeply, both of which results interfere with the appearance of the tiniest "bodies," especially of the very delicate, tiny forms found by us in sections from fixed virus. Another point in favor of the short fixation in Zenker is that the precipitate formed by the mercury is not so great and is more easily got rid of, which is a very great help in the identification of the tiniest forms. Schiffmann recommends short fixation in Zenker, but he does not state the time he finds best.

It is thought, also, that washing for any great length of time in water after fixation does not help the specimens, the few that were left for a much longer time than the five minutes are not as satisfactory as the others.

In regard to the rest of the technic, it is sufficient to say that the changes to the different fluids were made with great regularity, and the final differentiation in alcohol of the stained sections was done most carefully.

In the sections made in this way we have been able to demonstrate clearly very tiny forms as well as good structure in the larger forms, a description of which will be given in Part II.

†This method has proved so practical in our hands that an effort is being made to extend its usefulness.

The Board of Health of New York City is preparing a circular containing a description of the foregoing technic, with more explicit directions in regard to the regions from which the smears are to be made, with the added information that such smears, as well as the fresh material, may be sent to the nearest laboratory familiar with the appearance of the "Negri bodies" or to the Research Laboratory of the New York Health Department. If the smears have been made successfully and the "Negri bodies" are found, the sender may receive word almost immediately, and no sections or inoculations of the material need be made.

‡Azur II—Eosin ..... 3.0 g.  
Azur II ..... 0.8  
Glycerin (Merk. chem. pure) ..... 250.0 c.c.  
Methyl alcohol (chem. pure) ..... 250.0

Both glycerin and alcohol are heated to 60° C. The dyes are put into the alcohol and the glycerin is added slowly, stirring. The mixture is allowed to stand at room temperature over night, and after filtration is ready for use.

The solution is prepared ready for use by Grüber, Leipzig.

§Dr. Poor recommends it strongly for diagnostic purposes.

||Van Gieson working in our laboratory, suggests a staining method which differentiates the "Negri bodies" more quickly than either of the two methods described above. So far, the best proportion of the stains used have not been determined, but satisfactory results have been obtained from the following mixture: To 10 drops of distilled water three drops of a sat. alc. sol. of rose anilin violet and six drops of Löffler's solution of methylene blue are added. The smears are fixed while moist in methyl alcohol for one minute. The stain is then poured on, warmed until it steams, poured off, and the smear is rinsed in water and allowed to dry. The cytoplasm of the "bodies" is a deep and distinctive red, their inner structures are a dark blue, the nerve cells are a light blue and the blood cells a pale salmon-red. The staining mixture remains good for about an hour.



TABLE I.

Results of Examination of Rabies Material by Means of Smears, Sections and Animal Inoculations.

No.	Species.	Date of Autopsy.	Clinical Diagnosis.	Presence of Negri Bodies in Smears.	Presence of Negri Bodies in Sections.	Result of Animal Inoculation.	Presence of Negri Bodies in Smears from Animals Inoculated.	Presence of Negri Bodies in Sections from Animals Inoculated.
1905.								
1.	Dog.	11-10	Rabies	+	..	+	..	..
2.	Dog.	11-23	Rabies	+	+	..	..	..
3.	Dog.	12-2	Doubtful	+	+	..	..	..
4.	Dog.	12-4	Rabies	+	+	..	..	..
5.	Dog.	12-9	Suspicious	—	—	—	..	..
6.	Dog.	12-9	Suspicious	—	—	—	..	..
7.	Dog.	12-9	Suspicious	—	—	—	..	..
8.	Dog.	12-15	Rabies	+	..	+	+	+
1906.								
9.	Dog.	1-4	Rabies	+	+	+	+	+
10.	Dog.	1-10	Rabies	+	+	..	..	..
11.	Dog.	1-18	Doubtful	—	..	—	..	..
12.	Dog.	1-22	Rabies	+	+	+	+	+
13.	Dog.	1-26	Rabies	+	+	+	+	+
14.	Dog.	1-29	Rabies	+	+	..	..	..
15.	Dog.	2-20	Rabies	+	+	+	+	..
16.	Dog.	2-23	Rabies	+	+	+	+	+
17.	Dog.	2-26	Rabies	..	+	+	+	+
18.	Dog.	2-26	Doubtful	—	—	—	..	..
19.	Dog.	2-27	Rabies	+	..	+	..	..
20.	Dog.	3-2	Rabies	+	+	+	+	+
21.	Dog.	3-3	Rabies	+	+	+	+	+
22.	Dog.	3-6	Distemper or Rabies	+	+	..	..	..
23.	Dog.	3-12	Rabies	+	+	+	+	+
24.	Dog.	3-13	Rabies	+	+	+	+	+
25.	Dog.	3-26	Rabies	+	+	..	..	..
1905.								
26.	Cat.	12-5	Rabies	+	..	+	..	..
27.	Human.	11-10	Rabies	+	+	+	+	..
28.	Child.	11-16	Rabies	+	+	+	+	..
1906.								
29.	Child.	1-16	Rabies	+	+	+	+	+
30.	Human.	1-9	Alcoholic neuritis	—	—	—	..	..
31.	Dog.	1-4	Inoculated with human rabies. No symptoms.	—	..	..	..	..
32.	Dog.	1-16	Inoculated with human rabies. No symptoms.	—	—	..	..	..
33.	Dog.	1-30	Inoculated with human rabies. Typical symptoms.	+	+	..	..	..
34.	Dog.	1-31	Inoculated with human rabies. Typical symptoms.	+	+	+	..	..
35.	Dog.	2-6	Inoculated with human rabies. Typical symptoms.	+	+	+	..	..
36.	Dog.	2-15	Inoculated with human rabies. Typical symptoms.	+	+	+	+	+
37.	Dog.	3-6	Inoculated with street rabies. Typical symptoms.	+	..	+	+	+
1905.								
38.	Calf.	11-5	Normal	—	..	..	..	..
39.	Dog.	11-13	Normal	—	..	..	..	..
40.	Dog.	11-14	Normal	—	..	..	..	..
41.	Dog.	11-14	Normal	—	..	..	..	..
42.	Dog.	12-1	Normal	—	..	..	..	..
43.	Dog.	12-1	Normal	—	..	..	..	..
44.	Dog.	.....	Normal	—	—	—	..	..

\* Brain in bad condition. Two days old.

† A few tiny "bodies" found.

In Table I we have given the results of the animals studied with a view of determining the four points mentioned at the beginning of this section. In some of them the full examination as planned was carried out, in others, besides the smears, only sections or animal inoculations were made. The controls are not as many as we might have made had not so much control work been done previously by us and by so many others.

The results are as follows:

1. No control animal shows appearances similar to the "Negri bodies," either in smears or in sections. The various suspicious cases, especially the case of the dog with filaria, we consider among the best controls, because here we are dealing with animals dead after symptoms similar to those of hydrophobia.
2. In all of the cases proved by the biological test to be hydrophobia, "Negri bodies" are found in either smears or sections or in both.
3. In the animals which had been inoculated from these animals "Negri bodies" are found in either smears or sections or in both.
4. The general characteristics of the "bodies" seen in the smears are similar to those of the "bodies" seen in sections.
5. The three tests correspond as to diagnostic results.
6. The smear method is much better than the section method in demonstrating the "bodies" for diagnostic purposes.
7. When the "bodies" are present in the smears the diagnosis of hydrophobia is certain, even if the biological test is negative. When they are not found the diagnosis is uncertain.
8. In a very few cases of street rabies, only extremely tiny forms are found. These may be easier to find in sections than in smears.
9. In doubtful or negative cases both the section method and animal inoculations should be tried.

## II.

In studying the nature of these bodies many points have only been touched upon and others are still being investigated, but we believe that enough new knowledge has been gained to warrant this publication.\* The plan of this part of the work is as follows:

1. The comparison of the general characteristics of the "bodies"
  - (a) Size
  - (b) Shape
  - (c) Number
  - (d) Site
  - (e) Structure
2. Detailed characteristics of structure.
  - (a) Cytoplasm.
  - (b) Central bodies.
  - (c) Chromatoid granules.
  - (d) Different shapes.
  - (e) Division forms
  - (f) Conjugation forms.
  - (g) Stages at which different forms appear.
3. Relation between the time the central nervous tissue becomes infected and the time the bodies appear.
4. Spread of the bodies to different parts of the host.
5. Significance of the bodies and comparison with known organisms.
6. Summary.

## I. General Characteristics of Bodies in Smears Compared with those in Sections:

**Size**—The majority of the forms seem larger in smears than they do in sections from the same case. The largest forms measured are about 18  $m$  and the smallest structured forms about 0.5  $m$ . We can easily see that a form appearing as 0.5  $m$  in a smear might scarcely be visible in a section, and that such tiny forms, considering their extreme plasticity (see under structure), might easily pass the coarser Berkefeld filters. We have found that the size varies more with the course of the disease (which includes the question of accustoming the virus to the host, e. g. fixed virus), than it does merely with different species of animals. This means that the bodies may vary greatly in different animals of the same species, in different parts of the same animal and at different stages of the disease. We may say in general that no very large forms are found in the early stages of the disease or in any stage in certain varieties of especially susceptible animals to which the virus has become accustomed (fixed virus). While in later stages of the disease in animals inoculated with virus from another species, or in varieties of animals that are not fully susceptible to the disease, both large and small forms are found.

We have not yet had the opportunity of examining smears from rabid cattle, so we are not able to corroborate the statement of Negri that the largest forms are found in this variety of animal; but if it holds, it would seem that the reasons for the fact might be that cattle are among the less susceptible animals, and that they are generally inoculated with a virus from a different species of animal. Of course, other things being equal, we should expect a certain amount of variation in size and structure of an organism growing in different species of animals, just as we get variations in the same variety of bacteria and of other low forms of life grown in different culture media.

**Shape**—The shape of the bodies appears more varied in smears than in sections, due partly to the fact that there is a certain amount of distortion. The distortion, however, is very slight, because within narrow limits of disturbance (i. e., too much or too unequal pressure in making the smears) the bodies are broken up and their identity lost. The principal types of shapes seen in smears are given in the accompanying plates. Plate 19, Figs. 3 to 56, inclusive, and the photographs may be studied in this connection. The same types of shapes are seen in all varieties of animals studied.

**Number**—Generally more bodies are seen in smears than in sections from similar parts of the same case. Since we have learned to identify many tiny bodies, we have found that there are more in all cases, including fixed-virus cases, than have hitherto been reported. In any case we feel that we are able to demonstrate enough forms, or, at least, to account for enough forms, to correspond to the degree of infectivity of the part.

**Site**—As is shown in Plate 18, Fig. 2, in the "Journal of Infectious Diseases," 1906, page 484, the topography of the bodies may be well preserved in smears. Their situation in the cytoplasm of the body and branches of the larger nerve cells is well shown. In parts of the smear which are more broken up the bodies may appear as if lying free, and it is these bodies, if the pressure has not been too great, that show the structure best. Such bodies have for the most part been chosen for the photographs (especially 1, 2, 4 and 5). There are often many tiny "bodies" in degenerating nerve cells, but these show better in sections than in smears. The tiny forms which we have seen in the nuclei of the host cells also appear more distinct in sections than in smears.†

**Structure**—The principal point in favor of the smear method of examination is that the structure of the bodies comes out so clearly and so characteristically that it is easy to draw a close analogy between it and that of known Protozoa. In the first place, as has been shown by Negri and most of the other investigators, the following fact holds true: Wherever the variety or species of animal infected, the bodies preserve their same general characteristic structure, i. e., a hyaline cytoplasm with an entire margin, and with one or more inner bodies having a more or less complicated and regular structure. This fact alone, that by such an entirely different method of examination the bodies show the same characteristic structure in so many different varieties of animals, is a very strong point in favor of their not being degeneration forms.

In general we may say the same things in regard to the relation between structure of the "bodies" and the variety, etc., of the animal, that we did when discussing size, because their structure varies to a certain extent with their size. The tiny forms, rounded, with a more or less centrally-situated chromatin-staining granule, slightly larger forms with three to several such granules (often four), elongated forms with a central chromatin line, and tiny forms in two or in groups of three or more (Plate 19, Figs. 3-8) are the only types found in fixed virus (with an occasional slightly larger form containing a larger central body and a few tiny granules). The tiny forms found in fixed virus seem to be far more delicate than apparently equally tiny forms seen in other lesions, that is, they take the stain more delicately, the central structure is not so distinct, and the whole body is more easily destroyed by pressure in the former than in the latter case. Hence, it is only in the best made smears that these fixed-virus forms are seen, and then only after the eye has been accustomed to their very delicate coloring and outline.

The forms found in fixed virus animals are the only ones which are better preserved or at least which are more distinctly seen in sections than in smears. This is due probably to their extreme delicacy. The fact that we have found very many forms in all cases (15) of developed fixed-virus infection studied makes it probable that they are present in every case and that they come out better with the technic described in Part I. than with the technic followed by other investigators. In regard to their specificity, we would say that we have made few controls, for the following reason: As slight alterations in technic seem to interfere with their demonstration, and as, therefore, their non-appearance might not mean that they are not present, large numbers of animals would have to be examined before one could be sure that forms simulating them might not be present in certain cases. The facts, however, that in our four controls and in the first two days after inoculation of a series of ten experimental rabbits (see below for details of this experiment), they are not found, and that when they do appear they possess certain characteristics in structure, site and number corresponding to the course of the disease, makes it pretty evident that we are dealing with the specific organism. These bodies have the following characteristics: They are tiny rounded forms, sometimes wavy in outline, as if possessing slight amoeboid

\* [The editor regrets being unable to reproduce the plates accompanying the original article. They will be found on page 483 of the "Journal of Infectious Diseases," Chicago, 1906.]

† With van Gieson's new staining method these tiny forms are well differentiated in smears.



motion; sometimes elongated, extending along the rim of the host-cell nucleus, or along one of the nerve fibrils, as if moving there; they take a delicate, light magenta stain, very similar to that taken by the small serum globules in the blood vessels, and it would be difficult, if not impossible, to distinguish some of them from these serum globules if they were in the blood vessels. Many of the organisms, however, show a small chromatin granule, situated more or less eccentrically, sometimes on the very rim of the body. In the larger forms the granule is large; in the smaller it cannot always be seen (Plate 18, Fig. 1, "Journal of Infectious Diseases," 1906); some of the larger forms show from two to several granules, and occasionally there is a body with the definite central body and the small granules about it. In these fixed-virus sections we have found certain tiny bodies in some of the nerve-cell nuclei, especially in the smaller of those cells which show decided degenerative changes of the cytoplasm. These intranuclear forms seem to stand out quite distinctly from the rounded, acid-staining degenerative masses. The latter are not so refractive as the former. The intranuclear forms have not yet been studied sufficiently to allow a decided opinion in regard to their place in the life-history of the organism. They are quite frequent in the olfactory bulbs of guinea pigs after inoculation with rabbit-fixed virus.

The fact that none of the larger forms of the "bodies" are found in animals dying after fixed-virus inoculations is an added indication that the bodies are not products of degeneration of the host cells.

That the development of only these tiny forms with their simple structure in fixed-virus animals is due to the fact that the special strain inoculated is accustomed to the one variety of host is shown by the result obtained by inoculating the strain into another variety of animal. We have inoculated one dog and several guinea pigs subdurally and three mice subcutaneously with fixed virus from the rabbit, and in each case (in only one case in mice, as only one of the three died) besides the tiny forms there have been numerous large forms with the characteristic, definite, more or less complicated structure (corresponding to Plate 19, Figs. 17-34, "Journal of Infectious Diseases," 1906). This is contrary to the results obtained by Schiffmann upon inoculating rabbit-fixed virus into dogs. In his cases he could find no bodies whatever. On the other hand, we have had delayed fixed-virus action in one rabbit (inoculated with 2 c.c. of a thin emulsion into the ear vein, with death on the 11th day after typical symptoms of paralytic rabies), and in this animal we found only the tiny, delicate forms found in the other fixed-virus rabbits.

In regard to variations in structure at different stages of the disease, most of our study has been made upon animals inoculated with fixed virus, and the forms and structure in these cases seem to be about the same in the early stages as in later ones. It would seem that under these favorable conditions for the organism it grows and divides so rapidly from the beginning and infects so many of the host cells, that the animal is overwhelmed before the parasite has a chance to develop the larger forms. The results are different in the animals inoculated with street virus.

We inoculated one series of seven rabbits with street virus from a dog, killed the first animal on the seventh day after and the others, respectively, on the ninth, eleventh, twelfth, fourteenth, sixteenth and seventeenth days. The results as to number and structure of the bodies are briefly as follows:

Seventh-day Rabbit—In the bodies of the large nerve cell of Ammon's horn and cerebral cortex an occasional tiny form and an occasional one of the intermediate grades were seen. (Forms corresponding to Plate 19, Figs. 3-16, "Journal of Infectious Diseases," 1906.)

No definite extracellular forms were seen, but neither sections nor smears have yet been studied minutely. This is the earliest day reported for forms found after inoculations with street virus. Negri reports finding them on the tenth day in a dog. In our series of animals those that were allowed to remain alive did not begin to have visible symptoms until the thirteenth and fourteenth days.

Ninth-day Rabbit—Many very definitely structured forms were seen in the large nerve cells of practically all parts of the cerebral nervous system, smears and sections showing equally well. The forms corresponding to Plate 19, Figs. 3-12, were in the majority, those corresponding to Figs. 13-16 in moderate numbers, and those corresponding to Figs. 17-32 occasionally.

Eleventh-day Rabbit—Practically no difference between it and ninth day one.

In the twelfth, fourteenth, sixteenth and seventeenth-day rabbits the larger forms appeared in gradually larger numbers, and many more division forms were seen.

So far most of the study in this series has been made on the earlier stages.

There are no marked differences in the "bodies" found in different parts of the central nervous system of one animal dead twenty-five days after inoculation into the sciatic nerve. The general histological lesions are more intense in the cord, and there is a larger number of the larger "bodies" there than usual, but the "bodies" in the brain are about the same in number and structure as in animals dying from subdural inoculations.

Appearance of "Bodies" in Hanging Drop—So far we have done only enough work with the hanging drop to make us realize that it is an extremely difficult method of study, and needs most careful control at each step. There is no doubt that certain forms of the organism can be recognized; but the nerve tissue elements change so quickly, assuming flagellated and delicately granular form which simulate those of known organisms, that the control must be at one's side before one realizes that the object studied is not a living organism.

Detailed Characteristics of Structure.—In smears as well as in sections, the cytoplasm appears quite homogeneous, there is no evidence of a reticulum, or of a granular structure outside of the definite chromatoid granules. The smears, however, have brought out one important point in regard to the cytoplasm more clearly than the sections, and that is that it is more basophilic than acidophilic in staining qualities. With the Giemsa stain, as we have seen in Part I, it takes the methylene-blue stain more than the eosin-red, and even with the simple eosin methylene-blue stain the protoplasm appears as a deep magenta unless much decolorized.

One of the points, then, which has been brought up against the protozoan theory falls to the ground. The cytoplasm takes the stain as does that of many well-known protozoa—the malarial organism, for instance.

In studying the central bodies of these organisms, as they appear in the smears, one of the first things noticeable is that they are not surrounded by a clear space—that there is no sign of a vacuolar appearance in the whole body. This is a very different appearance from that given in the sections, and it shows that the vacuoles described in the sections are artefacts due to the technic. We notice next that in the great majority of the organisms the central body stands out clearly, as decidedly different in structure, and slightly so in staining qualities, from the chromatoid granules which surround it. The general type of the structure of the central body is that of well-known protozoan nuclei; for example, Prowazek gives a description of the nucleus in certain stages of the Plasmodiophora brassicae, which might be used here to describe the most typical appearance of these central bodies.

The chromatin is arranged in a more or less granular ring around the periphery of the central body or nucleus leaving an achromatic or more acid-staining centre in which is situated, generally eccentrically, a varying-sized karyosome (Plate 19, Fig. 37, "Journal Infect. Diseases," 1906). There are a number of variations from this principal type, according to stage of development. Often the whole nucleus answers to the description of the compound karyosome given by Calkins in his description of the protozoan nucleus. In the tiny "bodies" the chromatin can only be seen as a dot, in those a little larger it may be a large solidly staining granule, or a ring or rod, the latter often hour-glass shaped. In forms large enough for the characteristic structure to be developed and to be clearly seen, the central body may show evidence of fragmentation (Plate 19, Fig. 18, 38, 51, etc., "Journal Infect. Diseases," 1906). Just such evidence of fragmentation is shown in many protozoan nuclei preparatory to division. It is interesting that forms showing this phase, and, moreover, very similar in general appearance to some of the forms seen here, have been depicted by Doflein in the early stages of the life-cycle of Glugea lophii, a myxosporidium, parasitic in the ganglion cells of a fish (Lophius piscatorius).<sup>\*</sup> The staining of the nucleus will be considered with that of the chromatoid granules.

The chromatoid granules are most frequently arranged in a more or less complete circle about the nucleus. They are somewhat irregular in outline and size, being occasionally ring-shaped, sometimes elongated, often in twos, due probably to active

changes of growth and division. They take generally a more mixed chromatin stain than the chromatin of the nucleus. This fact is brought out in the Giemsa-stained smears. Here the nuclear chromatin takes generally a definite azure tint, while the chromatoid granules are more of a blue, though sometimes they may appear more red. That the red in the central body and granules is not an eosin-red, is shown first by its peculiar magenta tint, and second by the fact that when partly decolorized by methyl alcohol, the red color disappears from these structures, leaving them a dark blue, while the cytoplasm is a pale blue-pink and the red blood cells are a definite eosin-pink. If a dilute methyl alcohol is used, an interesting series of differentiations in color may be obtained. Such a more or less regular arrangement of chromatoid granules in the cytoplasm of Protozoa is of frequent occurrence (Calkins, Minchin). It is a marked feature, according to the observations of one of us, in certain stages of the Plasmodiophora brassicae. The further changes in the central bodies and granules will be considered under division forms.

Different Shapes.—We agree with Negri in considering many of the different shapes due to the position of the organism in the host cell. There is no doubt that the substance of these bodies is extremely delicate and plastic, easily adapting itself to the position in which it is found and easily destroyed by artificial means. Many of the elongated forms are forms growing and dividing in this way because of position between the fibrils. The triangular forms (Plate 19, Figs. 26, 50, and Plate 21, Fig. 7, "Journal Infect. Diseases," 1906) are probably forms that have grown in the angle made by the giving off of a nerve cell branch. They have been placed by us, in Plate 19, underneath the much elongated forms as possible division forms of the latter; but they probably are not. The principal cause of most of the different shapes, however, is the rapid growth and division of the organism.

Division Forms.—The whole picture is one of rapid growth and multiplication, and this corresponds with the clinical history. The elongated forms containing from two to five or even six nuclei are the result of rapid nuclear division without corresponding cell division. This condition is found quite frequently in Protozoa (Thelohania Mulleri, Minchin, p. 292). The elongation in this way is probably due, as we have said, to the position of these bodies between the nerve fibrils, and to their great plasticity.

Under the most favorable conditions (fixed virus), growth and division occur most rapidly and simply, the tiny forms dividing and redividing apparently indefinitely. Whether there is simple conjugation, or fusion of unequally divided forms during this condition, it is difficult to say. It would probably take much study to settle this question. Small mulberry masses are found during this stage, but whether they are the result of the breaking up of a larger form or of the rapid division of a tiny form it is impossible for us to say as yet. We have also seen appearances which suggest plasmodial phases. There seems to be distinct evidence of an intranuclear invasion also in fixed-virus infection.

In cases where there has been an inoculation of comparatively small quantities of the virus, i.e., a small number of forms of the parasite capable of immediate infection, or in cases where there has been an infection of less susceptible animals (dogs, cattle, human beings, etc.), or with a less accustomed virus (fixed virus of rabbits into guinea-pigs or mice), we get a slower growth with its larger structures and different division forms. The chromatin accumulation in the form of a definite nucleus, apparently undergoes fragmentation very easily, and so we have forms containing two to several central bodies, some rounded (Plate 19, Figs. 12, 13, 14, 19, etc., "Journal Infect. Diseases," 1906), some elongated (Fig. 15), some of unequal division, similar to budding (Fig. 29). Then we find forms with bodies apparently differentiated within one membrane (Figs. 20, 31, 53), and bodies with practically all stages of hour-glass constriction, indicating transverse division (Fig. 32). Many pairs, unequal in size, apparently fusing or dividing, have been seen (Figs. 33, 45), and finally, we have large bodies with the chromatin scattered throughout the whole organism in the form of tiny, unevenly rounded or elongated masses, one or two larger, indicating the remains of the nucleus, and in these forms we get all stages of apparent budding (Figs. 40, 41, 42, 54, 55). The buds vary somewhat in size, some being very tiny. The formation of buds accounts for the appearance in the same cell of both large and small forms. It also helps to account for the rapid spread of the organisms. These tiny budded forms similar to "swarm spores" are probably motile and pass quickly to other host cells.

We have also found a number of more or less indefinite masses, taking the stain a little more deeply than the other bodies, and apparently made up of large numbers of tiny bodies, but so far they have been too indefinite for us to be sure that we have cystlike structures. We have not studied the sections minutely enough yet to find out how such structures appear there, or whether they are similar to the "cysts" described by Negri.

Conjugation Forms.—At first sight "the buds" were thought by us to be possibly conjugating individuals, but when on further study they were found to be principally, if not entirely, in forms which showed marked fragmentation of the chromatin, they were interpreted as budding forms. Such unequal forms as are represented in Plate 19, Figs. 33 and 45, may be conjugating forms, but so far we have not been able to decide as to their significance.

The Relation Between the Time the Central Nervous Tissue Becomes Infective and the Time the Bodies Appear.—Our principal work on this point has been done with fixed virus. After finding that tiny, characteristic forms were found in two rabbits dying on the eighth and ninth days after subdural inoculation with fixed virus, we inoculated ten rabbits subdurally with fixed virus (629th passage), killed one every day by chloroform, and examined the central nervous system in the following way: One-half of the brain and medulla, including the olfactory bulb, was cut into slices, and with slices from the dorsal and lumbar spinal cord, including one or two spinal ganglia, was placed in Zenker and subjected to the technic for sections mentioned in Part I. From the other half of the brain and corresponding parts of the cord, two sets of smears were made, and each stained respectively by the two methods mentioned in Part I. Unfortunately, with this series of animals, we did not test the virulence of the nerve tissues, so we do not know at exactly what period it became distinctly virulent. However, in an earlier series of eight rabbits inoculated in the same way and from which only smears were made, Dr. Poor tested the virulence roughly, as follows: One animal was killed each day, with the exception of the eighth, which died on the ninth day. From the lumbar cord and from Ammon's horn pieces of about the same size, so far as we could judge from eye measurement, were cut. Two dilutions were made from each piece, a stronger one, by the addition of 3 c.c. of normal salt solution, making an emulsion; and a weaker one, by making a 1:1,000 dilution of the stronger. Two guinea pigs were inoculated with the weak dilution ½ c.c. each; two with the strong dilution, ½ c.c. each.

Of the animals inoculated with the weak dilutions of the cord, none died; of those inoculated with weak dilutions of the brain, none died from the first or second day rabbits, one died from the third day and one from the fourth day animal, none from the fifth day, one from the sixth day, two from the seventh day and none from the ninth day animal. Of the animals inoculated with the strong dilutions of the cord, none died from first, second, third and fourth day rabbits; one from the fifth day, one from the sixth day and none from the seventh day animal. Eighth and ninth day animals were not inoculated. Of the animals inoculated with the strong dilutions of the brain, none died from first and second day rabbits, two died from the third, fourth, fifth, sixth and seventh day rabbits; eighth and ninth day animals not inoculated.

In this experiment, then, the weak dilution of the cord was not infective in the doses used; the strong dilution was not infective until the fifth day, and then not regularly so; while both dilutions of the brain became infective on the third day, the weaker one less so, and continued so to the end. These results corroborate the work of Remlinger, who found the medulla virulent on the third or fourth day after subdural inoculations of fixed virus.

In neither of these sets of experiments has the approximate number of organisms present been shown, and until we know this we cannot say that in any measured amount of infective material there may be more than an occasional tiny form, which it might be very difficult, perhaps impossible, to find in sections or smears of such material.

In the examination of the ten rabbits mentioned first in this connection, although we have so far studied only a comparatively few sections, we have found the bodies appearing as follows: On the first and second days, none; on the third day an occasional one in the large lymphoid cells of the perivascular lymph spaces at the base of Ammon's horn; on the fourth day a few tiny undoubted ones in the large nerve cells of the olfactory bulb, of the lower curve of Ammon's horn, and of the motor area of the cerebral cortex; on the fifth, a moderate number in the same areas and in

<sup>\*</sup>In Doflein's later classification (1901) he names this species Nosema lophii and places in the suborder Microsporidia under the order Cnidosporidia.



scattered cells throughout the whole brain; on the sixth, many in the same areas and in the medulla; on the seventh (two animals), on the eighth and on the ninth, very many, as in the other fixed virus animals studied (Plate 18, Fig. 1, "Journ. Infect. Diseases," 1906).

From this series of experiments it seems that the bodies may be found soon enough and in practically large enough numbers to account for the beginning infectivity of the nerve tissue, and that with only a little more careful experimenting this may be brought out clearly.

Four control rabbits were studied in this connection, two normal rabbits, one which had died from pneumococcus infection and one from yeast infection.

Spread of the Bodies to Different Parts of the Host.—This point is now being studied by us. It is taken up under two heads: first, the spread of the organisms from the point of inoculation, and second, its spread from the site of infection.

In whatever way the virus enters the body, so far as we know, there is no development of the organism, or none, to any appreciable extent, until it reaches the central nervous system, and not until after a certain amount of development there does it infect the peripheral organs. Before the disease was well studied it was thought that the salivary glands were the chief site of the infection. But it has been shown that these glands are not always infective, and when they are, not until comparatively late in the disease and that when the virus is inoculated into them, the animal seldom comes down with the disease and probably never if the centripetal nerves are cut (Bertarelli). This means that the parasite does not grow in the salivary glands, that it is only carried there incidentally by its spread from the central nervous system along the nerve branches. That the organisms escape into the blood and are carried in this way in small numbers is shown by the fact that the blood in large quantities has been found infective (Marie). Principally by the nerve channels, secondarily by the blood and lymph channels, the organisms are carried in small numbers to all parts of the body. With other investigators, we have found the suprarenal capsules infective (in one out of two street-rabies dogs). One of the three guinea-pigs inoculated died after typical symptoms of rabies, and the central nervous system showed many good-sized bodies and was infective for other animals. If it is true that the organisms pass in such comparatively small numbers to the various peripheral organs, and especially if only the smaller forms pass, then our chances of identifying them in the salivary and other glands are very slight. Smears from these parts are unsatisfactory, and we have not yet been able to study the sections.

In regard to the spread of the organisms from the point of inoculation, the parasites are probably carried to the central nervous system along channels similar to those by which they are carried away, and unless enough of them can quickly reach the nerve cells, they are probably destroyed by the macrophages. We have found, as we have said, what appear to be tiny bodies in the large lymph cells on the third day after inoculation with fixed virus. In one fixed-virus rabbit, found dead on the morning of the seventh day after inoculation, an animal which had been used before, and whose resistance was probably lessened, the central nervous system was loaded with large lymphoid cells, many of which were apparently filled with tiny organisms. This question is still being studied.

Significance of the "Bodies" and Comparison with known Organisms.—Although it may be questioned whether enough forms have been found to account for every stage in a life-cycle, it is certain that the great majority of the bodies stand out so clearly as organisms with such definite, constant, characteristic, structure and staining reactions and show so many forms similar to division forms of known Protozoa, that the picture is difficult to explain in any other way than as that of a developing organism belonging to the group Protozoa. It seems unnecessary further to consider the possibility of their being changed red blood cells or any other form of degeneration of the host tissue; and this alone is evidence in favor of their being organisms.

From time to time cases have occurred in which the "bodies" are seen in such numbers and in such stages of development that we are as sure of their being organisms as we are that the bodies photographed by Wright from Delhi boil, are organisms. As we study the picture further and find at almost every step analogies in the life-cycle of known Protozoa, the evidence is so overwhelming that there seems no reason to doubt that they are living organisms; the small single forms with their tiny chromatin central bodies rounded, elongated, or in twos and more, as in *Nosema lophii* and other Microsporidia (Doflein); the groups of small forms in twos and more (multiplicative reproduction of Doflein); the appearances of the central body in the larger forms similar to that of many protozoan nuclei at corresponding stages of development (Calkins, Prowazek); the many evidences of division of these larger forms such as fragmentation of the nucleus (Calkins), two nuclei, all stages in hour-glass constriction of the body; and finally, the distribution of the nuclear material throughout the whole organism with evidences of its fragmentation and of budding, a phenomenon which has been described as occurring in all classes of Protozoa (Calkins, Minchin)—all these and more make a collection of evidence which amounts to proof.

The parasite seems to possess more points of resemblance to organisms belonging to the sub-order Microsporidia, than to those of any other order.

#### Summary and Conclusions.

1. The smear method of examining the Negri bodies is superior to any other method so far published for the following reasons: (a) It is simpler, shorter, and less expensive; (b) The Negri bodies appear much more distinct and characteristic. For this reason and the preceding one, its value in diagnostic work is great; (c) The minute structure of the Negri bodies can be demonstrated more clearly; (d) Characteristic staining reactions are brought out.

2. The Negri bodies as shown by the smears as well as by the sections are specific to hydrophobia.

3. Numerous "bodies" are found in fixed virus.

4. "Bodies" are found before the beginning of visible symptoms—i. e., on the fourth day in fixed virus, on the seventh day in street virus, and evidence is given that they may be found early enough to account for the appearance of infectivity in the host tissues.

5. Forms similar in structure and staining qualities to the others, but just within the limits of visible structure at (1,500 diam, magnification) have been seen. Such tiny forms, considering the evidence they give of plasticity, might be able to pass the coarser Berkefeld filters.

6. The Negri bodies are organisms belonging to the class Protozoa. The reasons for this conclusion are: (a) They have a definite, characteristic morphology; (b) This morphology is constantly cyclic, i. e., certain forms always predominate in certain stages of the disease, and a definite series of forms indicating growth and multiplication can be demonstrated; (c) The structure and staining qualities as shown especially by the smear method of examination resemble that of certain known Protozoa, notably of those belonging to the sub-order Microsporidia.

7. The proof that the "Negri bodies" are living organisms is sufficient proof that they are the cause of hydrophobia; a single variety of living organisms found in such large numbers in every case of a disease, and only in that disease, appearing at the time the host tissue becomes infective in regions that are infective, and increasing in these infective areas with the course of the disease can be no other, according to our present views, than the cause of that disease.

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## THE ELECTRICAL CHARGE OF TOXIN AND ANTITOXIN.

By Cyrus W. Field and Oscar Teague.

(From the Research Laboratory of the Department of Health, New York City.)

Soon after the discovery of diphtheria antitoxin, several investigators attempted to convert diphtheria toxin into antitoxin by the electrical current, and some went so far as to suppose that this method would supersede the costly and time-consuming process of immunizing animals. Smirnow<sup>a</sup> inoculated rabbits with half a cubic centimeter of a two to three days old broth culture of diphtheria bacilli, and twenty-four hours later, when the animals were sick, injected to cubic centimeters of the anodal fluid, obtained by passing a current for eighteen hours through diphtheria toxin. According to him, the animals were saved by the injections. Bolton and Pease<sup>b</sup> stated that two cubic centimeters of the anodal fluid obtained from diphtheria toxin neutralized ten minimal lethal doses of the toxin. It is a well-established fact that acids destroy diphtheria toxin more readily than alkalies, and hence it is to be considered that it was the acid at anode which in Bolton and Pease's experiments neutralized the toxin. The latter investigators believed that the electric current caused a rearrangement of the constituent atoms of the toxin molecule, so that antitoxin resulted; but they did not determine whether the toxin molecule moved with or against the current by virtue of the charge which it carried.

The first to undertake the determination of the electro-positive or electro-negative nature of diphtheria toxin and antitoxin was Romer.<sup>c</sup> Romer used a U-shaped tube and allowed the electrodes to dip into the toxin and antitoxin to be investigated. After the current had been passed for a stated interval of time, the fluid was pipetted from both branches of the tube simultaneously and tested on guinea-pigs for toxic or antitoxic properties. The results were entirely negative, since he was unable to determine whether the toxin or antitoxin particles traveled toward the cathode or anode. This failure was due primarily, we believe, to the destruction of the toxin and antitoxin by the products of electrolysis, brought about by the strong current employed, for Romer states that he used oil to get rid of the bubbles at the electrodes. Furthermore, the method of simultaneous pipetting very likely caused some mixing of the different portions of the fluid.

To avoid these errors in technique and to eliminate the effects of electrolytic products, we first used a modification of Biltzer's cells, as shown in Diagram 1. The

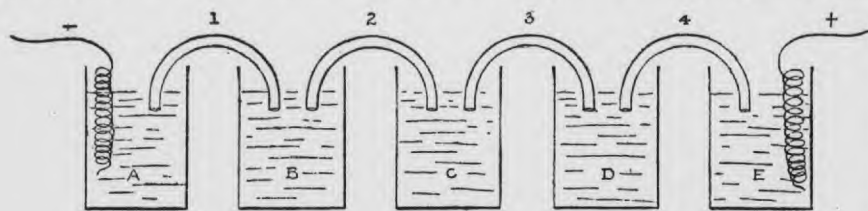


FIG. 1.

cells and connecting tubes were of glass; the electrodes consisted of coils of platinum wire. The cells A, B, D and E were filled with distilled water, which was brought to the same level in all of them by means of water-filled connecting tubes. The central cell, C, was then filled to a slightly lower level than the others with the toxin or antitoxin to be tested. The small connecting tubes 1 and 4 being in place, and the direct lighting current turned on, the tubes 2 and 3 were filled with distilled water and simultaneously placed in position, thus completing the circuit. After the current had been passed for the desired length of time, the connecting tubes 2 and 3 were removed at the same moment, care being taken that they remained filled. Then 1 and 4 were removed. Under the influence of the current, the fluid in A became alkaline, that in E, acid, while B and D remained almost neutral. Hence, only the fluid in the two latter cells was tested on guinea-pigs for toxic or antitoxic value. The results were unsatisfactory and contradictory, probably owing to the fact that some of the test fluid passed into the neighboring cells along the outside surface of the connecting tubes, being drawn up by capillarity. When we used longer connecting tubes, the internal resistance became too great for the passage of an appreciable amount of current. This method was therefore discarded.

The following apparatus yielded decisive results. Two semi-circular glass tubes, each 1 cm. in diameter and 20 cm. long, were filled with melted agar (2 per cent. agar in distilled water) and allowed to cool to the temperature of the room. These were then arranged as in Diagram 2, the same platinum electrodes being used as in the previous experiments. The toxin or antitoxin to be tested was placed in the middle beaker, distilled water, in the other two. The direct Edison street lighting

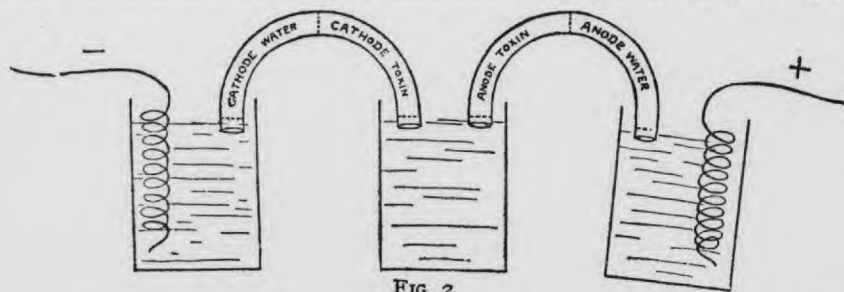


FIG. 2.

current, 110 volts, was passed for from four to five hours, the distilled water in the end beakers being siphoned off and renewed every half hour to eliminate the disturbing influence of the products of electrolysis. The agar tubes were now removed and the ends thoroughly rinsed in distilled water. The agar mass was then forced from that portion of the tube which dipped into the toxin or antitoxin out through the other end. About a quarter of an inch was removed from each end of the mass, and the remainder divided approximately in half. Each of these portions was rinsed in distilled water, chopped into fine pieces, and allowed to stand for one hour in about 6 c.c. of distilled water. At the end of this time the agar was removed by filtering through gauze, and the filtrate was tested on guinea-pigs for toxic or antitoxic properties. The accompanying table gives the results of these experiments.

TABLE I.

Substance Tested by Passage of Electric Current.	Acidity or Alkalinity.	Cathode Water.	Cathode Toxin or Antitoxin.	Anode Toxin or Antitoxin.	Anode Water.
Diphtheria toxin.....	Acid....	No reaction.	† in 20 hours.	No reaction.	No reaction.
	Alkaline.	No reaction.	† in 28 hours.	No reaction.	No reaction.
Tetanus toxin.....	Acid....	No reaction.	† in 48 hours.	No reaction.	No reaction.
	Alkaline.	No reaction.	† in 40 hours.	No reaction.	No reaction.
Diphtheria antitoxic serum. Tested against 35 M. L. D's.....	Acid....	Protected.	Protected.	† in 22 hours.	† in 24 hours.
	Alkaline.	Protected.	Protected.	† in 42 hours.	† in 38 hours.
Diphtheria antitoxin globulins. Tested against 35 M. L. D's.....	Acid....	† in 36 hours.	Protected.	† in 36 hours.	† in 36 hours.
	Alkaline.	† in 24 hours.	Protected.	† in 36 hours.	† in 36 hours.

<sup>a</sup> Smirnow, Berl. klin. Woch., 1892, xxxii., 645.<sup>b</sup> Bolton and Pease, Jour. of Exper. Med., 1896, i., 537.<sup>c</sup> Romer, Berl. klin. Woch., 1904, xli., 209.<sup>d</sup> The current was passed for only four or five hours because the risk of a disturbance due to products of electrolysis increased with the time; moreover, Bredig, Hardy, Pauli, and others found that the passage of a current for twenty-four hours or more would often cause a reversal of the charge carried by particles which would then necessarily be driven back in the opposite direction, thus obscuring the nature of the charge which they originally carried.<sup>e</sup> Gibson, Jour. of Biol. Chem., 1905, i., 161.

Substance Tested by Passage of Electric Current.	Acidity or Alkalinity.	Cathode Water.	Cathode Toxin or Antitoxin.	Anode Toxin or Antitoxin.	Anode Water.
Tetanus antitoxic serum. Tested against 35 M. L. D's.....	Acid....	Protected.	Protected.	† in 50 hours.	† in 68 hours.
	Alkaline.	Protected.	Protected.	† in 48 hours.	† in 48 hours.
Normal broth. No toxin....	Acid....	No reaction.	No reaction.	No reaction.	No reaction.
	Alkaline.	No reaction.	No reaction.	No reaction.	No reaction.
Normal horse serum. No antitoxin. Tested against 35 M. L. D's.....	Acid....	† in 36 hours.	† in 36 hours.	† in 36 hours.	† in 36 hours.
	Alkaline.	† in 40 hours.	† in 42 hours.	† in 40 hours.	† in 40 hours.
Test without the electric current. Diphtheria toxin..			Water-half negative		Toxin-half negative
Diphtheria antitoxin. Tested against 35 M. L. D's..			† in 40 hours.		† in 41 hours.

The first .5 cm. of the agar dipping into the toxin or antitoxin was removed, as was always done in our experiments with the electric current. There was always a slight trace of toxin or antitoxin in the first half centimeter, but it was never found beyond this point. A similar phenomenon was observed by Flexner and Noguchi, <sup>f</sup> in relation to the diffusion of tetanus toxin into agar.

In order that the table may be more readily understood, a detailed explanation of one of the experiments (No. 6, for example) contained in it may not be superfluous.

Diphtheria antitoxic serum was made slightly alkaline to phenol-phthalein by the addition of a small amount of 0.1 normal sodium hydrate. The agar tubes were placed in position, as in Diagram 2, and the current was passed through it for four hours. The four portions of agar, which we shall designate as cathode water, cathode-antitoxin, anode water and anode-antitoxin, were then cut into fine pieces and extracted in water for one hour, and to each of these extracts was added 35 m. l. d. of diphtheria toxin. These four portions of fluid were now injected subcutaneously into the abdominal walls of four guinea pigs, each weighing about 250 grams.

The two guinea pigs receiving the fluid from the anode water and anode-antitoxin portions of agar died in thirty-eight and forty-two hours, respectively; hence, these portions must have contained no antitoxin. Those receiving the fluid from the cathode water and cathode-antitoxin portions showed no induration at the point of injection and no loss of weight for five days, after which they were discharged. Hence, they were fully protected against the 35 m. l. d. of toxin.

The table shows that under the influence of an electric current, the particles of both toxin and antitoxin travel toward the cathode, and that a change in the reaction of the solvent does not cause a reversal of the charge carried by the particles.

Blitz, Much and Siebert <sup>g</sup> claim that both tetanus toxin and tetanus antitoxin are precipitated by electro-positive inorganic colloids and conclude, therefore, that they are electro-negative and should, under the influence of an electric current, pass toward the anode. However, neither they nor Romer were able to demonstrate this fact experimentally. It is probable that the precipitates which they obtained were due either to the action of electrolytes contained in the toxin or antitoxin on their inorganic colloids, or to the action of these colloids on non-toxic or non-antitoxic protein substances, or to a combination of both. It is worthy of note that their non-toxic broth gave precipitates with practically the same inorganic colloids as did the toxin.

Hardy <sup>h</sup> states that proteins are amphoteric; that is, in an acid medium they travel toward the cathode and in an alkaline medium toward the anode, while in a neutral medium they do not move toward either pole. He worked with an albumen coagulated by heat. Pauli, <sup>i</sup> using a protein solution obtained by dialyzing serum from eight to ten weeks and filtering off the euglobulin, found, in agreement with Hardy, that the protein was electro-positive in an acid solution and electro-negative in an alkaline one. <sup>j</sup> We have shown that alteration of the reaction of the solvent does not change the character of the charge carried by particles of toxin or antitoxin. If proteins are amphoteric, as is generally believed, then this observation of ours would point to the non-protein nature of toxin and antitoxin. In one series of experiments, however, we have found that the portion of agar containing the toxin or antitoxin, that is, the cathode portion, was the only one to give the biuret reaction and this occurred when the test substance was in either an acid or an alkaline solution. If experiments which we have under way should verify the last results, it would indicate that native proteins may not be amphoteric and then the argument that we have advanced as to the non-protein nature of toxin and antitoxin would be invalidated. <sup>k</sup>

If the combination of toxin with antitoxin is a true chemical reaction, one would expect that under the influence of an electric current toxin would travel in one direction and antitoxin in the opposite direction. Such, however, was not found to be the case, and we are, therefore, inclined to believe that this union is not a true chemical reaction, but a matter of absorption, as was first suggested by Bordet, and has since been claimed by others.

## Conclusions.

1. Both diphtheria and tetanus toxin and their antitoxins are electro-positive, that is, they pass to the cathode under the influence of an electric current.
2. The character of the charge is not altered by a change in the reaction of the solvent.
3. The combination of toxin and antitoxin would seem to represent not a true chemical reaction but the absorption of one colloid by another.

## ON THE ELECTRICAL CHARGE OF THE NATIVE PROTEINS AND THE AGGLUTININS.

By Cyrus W. Field<sup>a</sup> and Oscar Teague.

(From the Research Laboratory, Department of Health, New York City.)

In a previous paper <sup>b</sup> it was shown that the particles of both toxin and antitoxin wandered under the influence of an electric current toward the cathode and that the reaction (acidity or alkalinity) of the solvent did not influence the direction of migration. Since Hardy <sup>c</sup> and Pauli <sup>d</sup> demonstrated that the proteins which they used were amphoteric, i. e., that they pass toward the anode in an alkaline medium and to the cathode in an acid one, there has been a tendency to generalize by assuming that all proteins behave in this manner. If such were the case, we pointed out, it would follow from our experiments that toxin and antitoxin are not true proteins. At the same time, however, we mentioned that from the few experiments in which this question had been considered, the protein matter of the broth or serum seemed in every instance to travel with the toxin or antitoxin toward the cathode. Further experiments have confirmed this result. It was also shown that the protein of normal horse serum and of non-toxic broth travels toward the cathode. Hence our work offers as yet no evidence either for or against the view that toxin and antitoxin are non-protein in nature.

We maintain that the results which Hardy and Pauli obtained, working with denaturalized proteins, are in no wise applicable to the native proteins, but that these carry a distinct electrical charge and are not amphoteric. We are here in accord with Iscovesco <sup>e</sup> and his co-workers, who investigated the charge of colloids con-

<sup>f</sup> Flexner and Noguchi, Jour. of Exper. Med., 1906, viii., 547.<sup>g</sup> Blitz, Much and Siebert, "Beit. zu exper. Therapie," 1905.<sup>h</sup> Hardy, "Jour. of Physiology," 1899, xxiv., 288.<sup>i</sup> Pauli, "Hofmeister's Beit.," 1906, vii., 531.<sup>j</sup> Pauli denaturalized his proteins by the prolonged dialysis.<sup>k</sup> Oppenheimer (Toxin and Antitoxin, 1903) in summing up the work on this subject concluded that toxin and antitoxins are of non-protein nature. Quite recently Osborn, Mendel and Harris ("Amer. Jour. Physiol.," 1905, xiv., 259), working with ricin, have taken issue with him, having found that their purest product still gave protein reactions. As a matter of fact, nothing definite is known at present of the chemical nature of these various substances.<sup>a</sup> Assisted by a grant from the Rockefeller Institute for Medical Research.<sup>b</sup> Field and Teague, "Journal of Exper. Med.," 1907, viii.<sup>c</sup> "Jour. of Physiol.," 1899, xxiv., 288.<sup>d</sup> "Hofmeister's Beit.," 1906, vii., 531.<sup>e</sup> Compt. rend. Soc. biol., 1906, lxi., 195, 355, 378, 470, 568.



tained in various body fluids. Their method consisted in treating the fluid with electro-negative (arsenic sulphide) and electro-positive (ferric hydrate) inorganic colloids and their conclusions were based upon the fact that colloids of opposite sign when brought together form precipitates. Thus they found that the peritoneal fluid of the horse contains only electro-positive colloids, while the pericardial fluid contains those of both signs; that blood plasma contains both positive and negative albumins with positive and negative globulins, whereas the serum contains only the positive globulin along with albumins of both signs; that the fluid of a tubercular abscess deprived of its leucocytes contains only electro-negative colloids; that the amniotic fluid contains both positive and negative albumins, but only negative globulins. From these experiments Iscovesco concludes that there are no colloids which do not bear a distinct electrostatic charge.

Since our method gave no indication of the presence of an electro-negative albumin in normal serum, we are inclined to believe that Iscovesco by his manipulations produced a change in sign of the charge carried by certain proteins and that all of his findings are therefore not applicable to the proteins originally present in the fluids he investigated.

In our previous work with tetanus toxin we investigated only the tetanospasmin and its antibody; we have since shown by testing the agar extracts for their lytic or antilytic action on horse cells that both tetanolysin and antitetanolysin travel toward the cathode under the influence of an electric current. Having determined the electrical charge of toxin and antitoxin, we next applied the same method to an investigation of the agglutinins.

The agar was divided into one-centimeter lengths; the agglutinin was found to have traveled seven centimeters into the cathode agar, the anode agar remaining free of agglutinin. The first centimeter length was extracted with five cubic centimeters of water and this extract would still agglutinate at a dilution of 1-100.

The specific agglutinins investigated travel toward the cathode. These results are diametrically opposed to those of Biltz, Much and Siebert,<sup>f</sup> who are the only workers, so far as we know, who have investigated this subject. They passed a current through lacto-serum contained in a U-shaped tube for from one-half to one hour, and found that the fluid around the anode agglutinated at 1-20, that around the cathode not at all, and that from the middle of the U-shaped tube at 1-8. Normally the serum agglutinated at 1-4. They state that after the passage of the current the fluid from around the anode was 1-10 normal acid. We would expect this amount of acid to agglutinate at approximately 1-20, since 1-200 represents about the flocking limit of hydrochloric acid for bacteria.

As stated in a previous article, we took special precautions to eliminate the products of electrolysis. However, to show conclusively that it was the specific agglutinin, and that alone, which was responsible for the agglutination in our experiments, the extracts were also tested against other bacilli than those which were agglutinated by the serum under investigation.

TABLE I.

Strength of Electric Current 110 Volts;  $\frac{1}{2}$  to 1 Milli-ampere.

Serum Agglutinating the Typhoid Bacillus at 1-2000. Current Passed for Six Hours.

Organism.	Cathode Agar cm. Lengths.										Anode Agar.		
	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11 to 20.	11 to 20.	11 to 20.
B. typhosus.....	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	o	o	o	o	o
B. coli.....	o	o	o	o	o	o	o	o	o	o	o	o	o
Shiga's bacillus.....	o	o	o	o	o	o	o	o	o	o	o	o	o
Para typhoid b.....	o	o	o	o	o	o	o	o	o	o	o	o	o
Biuret react.....	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	trace		

Note—As one-centimeter lengths of the anode agar showed no agglutinin in repeated experiments we have here tested extracts from ten-centimeter lengths.

If the agglutination were due to the presence of products of electrolysis we would expect the other bacilli to be agglutinated as well as typhoid. Such, however, was not the case. Hence, we believe that we have shown conclusively that the agglutinins travel toward the cathode.

It has been shown by Bachhold,<sup>g</sup> by Buxton, Schaeffer, and Teague<sup>h</sup> and others that bacteria move toward the anode under the influence of an electric current, that is, they carry a negative charge.<sup>i</sup> Our findings with regard to the agglutinins is therefore especially interesting, since it shows that in the phenomenon of agglutination we have the combination of an electro-negative suspension with an electro-positive colloidal solution. Since ions of opposite sign are essential for a chemical reaction and colloids of opposite sign when brought together form precipitates, our results harmonize with both the chemical and the colloidal view of the phenomenon.

Bacteria which have been saturated with agglutinin and then washed in a number of changes of water until the wash water contains no more agglutinin were placed in the cell and after eight hours the agar was tested for agglutinin. A small amount was found in the cathode agar showing that under the influence of the electric current the agglutinin bacteria combination was disassociated and that the agglutinins passed to the cathode. Bacteria have been disassociated from agglutinins by other means,<sup>j</sup> but so far as we are aware, this is the first time that disassociation has been affected by means of the electric current.

## Conclusions.

1. Tetanolysin and antitetanolysin travel toward the cathode under the influence of an electric current.
2. The specific agglutinins are electro-positive.
3. The proteid matter of serum is not amphoteric but travels toward the cathode whether its reaction be acid, neutral, or alkaline.
4. The bacteria-agglutinin combination may be disassociated by means of the electric current.

## EXPERIMENTS ON THE PRODUCTION OF ANTIRABIC SERUM.

By Daniel W. Poor, M. D.

The objects of this work were to determine (1) if it was possible to produce a serum bactericidal against the rabies organism, and (2) if such a serum could be combined with the Pasteur treatment to hasten the production of immunity in severe head bites, a class of cases in which the Pasteur treatment alone occasionally failed on account of the shortness of the incubation.

This combination of vaccine and serum has been used successfully in rinderpest and anthrax.

Most of the work on antirabic serum has been done by A. Marie, of the Pasteur Institute in Paris. In 1902 he stated: "We know that the serum of mammals vaccinated against rabies possesses the power of neutralizing the rabic virus 'in vitro.'" Marie further states that for the production of such a serum the animal must be injected with strong virus during a long period of time.

<sup>f</sup> Zeit. für diätet. und physikal. Ther., 1905, viii, 19.

<sup>g</sup> Zeit. physik. Chem., 1, 1904, xlviii, 385.

<sup>h</sup> Ibid., 1906, lviii, 47.

<sup>i</sup> Cernovodeanu and Henri (Compt. rend. Soc. de Biol., 1906, lxi, 200) claim that dysentery bacilli travel toward the cathode, but we have not found this to be the case.

<sup>j</sup> Quoted by Eisenberg in Cent. f. Bakt., 1906, xxxi, 549, are the following: Joos (if fresh bacilli are added to agglutinated bacilli, which had been previously washed free from serum, the former are agglutinated). Landsteiner and Jagic (dissociation at high temperatures) and Landsteiner and Reich.

In 19—Victor Babes reported a series of patients severely bitten by rabid wolves, in which he gave a combination of the Pasteur treatment and the serum of an immunized dog. The number of cases thus treated was not sufficiently large to judge of the advisability of adding the serum to the treatment.

Our work along this line may be tabulated as follows:

1. Animals used for the production of the serum. The dog, sheep, rabbit and horse, all of these have produced a strong immune serum; no others have been tried.

2. The treatment of the animal supplying the serum. The animals have been treated for variable lengths of time, usually a number of months. The treatment of a horse, which produced a strong serum in a short time, is appended.

Date.	Dose.	Virus.
Sept. 19.	40 c.c.	Filtered emulsion of brain of fixed virus rabbit heated to 65 degrees for twenty minutes.
Sept. 20.	40 c.c.	Filtered emulsion of brain of fixed virus rabbit heated to 65 degrees for twenty minutes.
Sept. 24.	60 c.c.	Filtered emulsion of brain of fixed virus rabbit heated to 60 degrees for twenty minutes.
Sept. 25.	60 c.c.	Filtered emulsion of brain of fixed virus rabbit heated to 65 degrees for twenty minutes.
Sept. 26.	30 c.c.	Six-day dried cord.
Sept. 28.	30 c.c.	Four-day dried cord.
Sept. 29.	30 c.c.	Three-day dried cord.
Sept. 30.	30 c.c.	Two-day dried cord.
Oct. 1.	30 c.c.	Four-day dried cord.
Oct. 2.	30 c.c.	Three-day dried cord.
Oct. 3.	30 c.c.	Two-day dried cord.
Oct. 9.	30 c.c.	Three-day dried cord.
Oct. 10.	30 c.c.	One-day dried cord.
Oct. 11.	30 c.c.	Two-day dried cord.
Oct. 15.	30 c.c.	Two and Three day dried cord.
Oct. 17.	30 c.c.	Fresh cord.
Oct. 18.	30 c.c.	Two-day dried cord.
Oct. 22.	10 c.c.	Fresh brain.
Oct. 28.	30 c.c.	Fresh brain.

It may be said that two sheep are at present under treatment which receive the relatively large doses of 20 c.c. of fresh brain emulsion without apparent detriment.

November 12, two litres of blood drawn from the jugular and tested November 13.

3. Technique of the treatment of the serum in vitro. Where it is desired to compare the strength of different animal sera, or that of the same sera at different times, it is evident that a virus of uniform strength is desirable. This virus is prepared by us in the following way: A rabbit is autopsied on the eighth day after subdural inoculation with fixed virus—one gram of the right hemisphere (taken from before backwards) is emulsified with 12 c.c. of normal salt solution. This emulsion is then centrifuged for three minutes under fixed conditions of rate of speed, tube, etc. A fixed amount of the top layer of the supernatant fluid is then drawn off and used as the test virus. This gives a virus sufficiently strong to kill a guinea pig in 5 to 6 days, and sufficiently dilute to be free from particles of brain tissues of sufficient size to interfere with the action of the serum. It seems to me that such a virus would be of about as constant a strength as it is practicable to use.

This virus is mixed with the serum, to be tested in various proportions, and allowed to stand at room temperature 30 to 45 minutes. At the end of this time equal doses of these mixtures and of a control virus are inoculated into guinea pigs subdurally, and at the end of a week the test is complete.

The following test, which was made on the horse serum referred to above, serves as an example. On November 15 the following mixtures were inoculated, each pig receiving four drops subdurally from a fine needle:

1. Virus 1 c.c. + serum  $\frac{1}{4}$  c.c. + salt sol.  $\frac{3}{4}$  c.c.; Pig No. 1, Ok., November; discharged. Pig No. 2, first symptoms of rabies November 22; dead November 23.
2. Virus 1 c.c. + serum  $\frac{1}{2}$  c.c. + salt sol.  $\frac{1}{2}$  c.c.; Pig No. 1, Ok., November 30; discharged. Pig No. 2, Ok., November 30; discharged.
3. Virus 1 c.c. + serum 1 c.c.; Pig No. 1, Ok., November 30; discharged. Pig No. 2, Ok., November 30; discharged.
4. Virus 1 c.c. + salt sol. 1 c.c. (control): Pig No. 1, died of rabies, November 20. Pig No. 2, died of rabies, November 21.

From this test it is evident that this serum in the proportion of 1 to 4 of virus is hardly sufficient to kill all of the organisms, one of the pigs inoculated with this mixture dying of rabies, with a prolonged incubation, and the other escaping. That the killing effect in such a serum is due to specific properties in it, caused by the treatment, has been proved by numerous experiments with the sera of normal dogs, horses and rabbits, which are entirely without effect.

It has been difficult to prove that this serum obeyed the same laws in its action as other bactericidal sera, owing to the fact that the living animal must be used for its test. The serum inactivated by heat may be reactivated by the blood of the animal used in the test. This question will be studied in the future by applying the method of Bordet-Gengon.

4. The question as to whether the increase in immune body caused by the Pasteur treatment was confined to the blood serum alone, or whether the central nervous system was involved, gave rise to the following experiment.

A rabbit was treated at intervals from January 2 to April 15. On April 24 it was bled to death. A thick emulsion of the brain and cord was made, and after standing the supernatant fluid was pipetted off to be tested. The same was done with the brain and cord of a normal rabbit. The virus used was a thin emulsion of fixed virus. The virus and brain emulsions of the normal and treated rabbits were then mixed in like proportions of the virus, and sera of the treated rabbit were kept under the same conditions. Guinea pigs were then inoculated as follows:

1. (Brain emulsion) 1 c.c. + fresh rabbit serum 1 c.c. + virus 1 c.c. (normal rabbit); Pig No. 1 died April 30. Pig No. 2 died May 1.
2. (Brain emulsion) 1 c.c. + fresh rabbit serum 1 c.c. + virus 1 c.c. (immune rabbit); Pig No. 1 died April 30. Pig No. 2 died May 1.
3. (Series of immune rabbit) 1 c.c. + fresh salt sol. 1 c.c. + virus 1 c.c.; Pig No. 1 discharged, well, May 16. Pig No. 2 discharged, well, May 16.
4. Salt sol. 2 c.c. + virus 1 c.c.; Pig No. 1 died April 30.

This experiment appears to indicate that the effect of immunization is to increase the immune body in the blood to such an extent that development of the rabic organs in the nervous system does not occur, and not that the nervous system itself takes any active part. The above experiment is, of course, merely a rough indication, as the brain emulsions used may not have contained all the properties of the brain cells.

Loss of Strength of Serum Due to Standing—The following observations have some bearing on these questions:

To test the loss of strength of sera kept in the ice box two samples of sheep serum were used, one which had been kept one month and the other three and

\* These emulsions were made in the proportion of one-fifth of an inch of cord to 3 c.c. of physiological salt solution.







Free from Glanders.						Glanders.					
1-300	400	500	600	800	1000	500	600	800	1000	1500	2000
5	4	2	1	4	1	..	2	2	4	9	2
17						19					
36 horses.											

Disease.	100	200	300	400	500	600	800	1000
Druse (glands or strangles).....	1	3	1	..	..	..	..	..
Catarrh of superior maxillary sinuses...	..	1	1	1	1	2	..	..
Lymphangitis .....	..	1	2	1	1	..	..	..
Various skin diseases.....	..	1	..	1	..	..	1	..
Lymphosarcon .....	..	1	1	1	..	..	1	..
Pleurisy .....	..	..	..	..	..	1	2	1
Foci in the lungs.....	2	4	4	..	..	..	..	..

Schnurrer and Bonome verified these results. Hutya, of Budapest, in experimental glanders in horses found that the agglutination index raised from 1:100 to 300 before injection to 1:1000 to 1:2000 several days after inoculation.

Moore, Taylor and Giltner found the index of normal horses tested to range from 1:100 to 1:500; while in twelve horses with diseases other than glanders, the index did not exceed 1:500 and in thirty-seven horses suspected of having glanders, all cases reported as positive by the Veterinarians in charge agglutinated in dilutions of 1:600 and above.

For the past several months the work carried on in this laboratory has been for the purpose of ascertaining to what extent this test can be relied upon in the diagnosis of glanders.

Since August 14, 1906, the sera from four hundred and fifty-seven horses have been tested. In many instances a series of observations have been made from time to time upon the same horse. The field work has been carried on by Dr. H. D. Gill, Veterinarian for the State Department of Health, and Dr. A. D. Silkman, Veterinarian for the Health Department of New York City, and we are indebted to them for the collection of sera, clinical observations and autopsies. Dr. R. H. Kingston, Veterinarian of New York City, has also aided us in supplying cases other than glanders that have been of interest and value in the work.

In making the test for agglutination a culture of *B. Mallei* has been used which was obtained from Dr. Moore, of Cornell University. Other cultures obtained from different sources (two from human cases), have been tested from time to time, but the one culture, as stated, has been relied upon throughout as a standard culture.

Schutz and Meissner state that in order to obtain a culture whose agglutinability does not vary the organism must be passed through an animal every two weeks.

This assertion is in direct contradiction to our experience with other organisms, it being a well known fact that recently isolated dysentery and typhoid bacilli are poor agglutinators, but after long growth upon artificial media may have their agglutinability increased. The possibility of this being due to the contact of the organisms with the serum elements of the body, which, as has been shown, may contain some normal agglutinins is indicated by the experience of Marshall and Knox and Park and Collins, in which they demonstrate that dysentery bacilli and typhoid bacilli grown for some time in the presence of a specific serum lose entirely their agglutinability, but this loss can be recovered after a long period by the withdrawal of the serum from the media. Bearing in mind, however, that this might not be true for the *B. mallei*, the original culture has been controlled from time to time by one recently passed through the guinea-pig; thus far no difference has been noticeable except that the recent culture at times shows a lower agglutinability than the original stock.

Hanging drops have been chiefly relied upon, being frequently controlled by the tube method. The *B. Mallei* forms in twenty-four hours a light growth which gives about the right number of bacilli for testing with the hanging drop, but not sufficient to be recognized microscopically, hence a much heavier growth, about three days is requisite for the latter method. As old cultures are liable to lose their agglutinability, to some extent, the younger cultures are preferable and more reliable, therefore the hanging drop offers the best means of carrying out the test. An additional advantage is the fact that contaminations and anomalous conditions that have sometimes been met with are quickly detected. Federowsky has also found the microscopical method to be the more delicate and reliable.

The hanging drop, controlled by the tube, with a young culture, shows no practical difference examined microscopically. The hanging drop, where the young culture is used, and the tube where the older culture is used, will show a difference due to the diminished agglutinability of the old culture, and to the greater number of organisms in the latter (a condition necessary to get a reaction visible macroscopically), and hence the index where the old culture is used will be lowered.

The twenty-four hours' broth culture is heated to 60° C. for one minute, this proving sufficient to check the growth of the bacteria and yet not affecting their agglutinability.

The reaction does not occur as quickly as with some other organisms, such as the typhoid and dysentery bacilli, but like the pneumococcus, requires from twelve to eighteen hours for completion.

In October the blood was tested of thirteen horses from a stable where a case of glanders had developed a few weeks previously. Mallein was then given to eight of them. Nine days later three of the number were tested again for the agglutination reaction and with mallein. Four days later blood tests were again made for the three, and about five weeks later the blood was again tested.

The following table gives the result of these tests.

TABLE IV.

	October 30.		November 8.		November 12.	
	Agglutination.	Mallein Reaction.	Agglutination.	Mallein Reaction.	Agglutination.	Mallein Reaction.
1.....	5000	Negative	.....	.....	.....	.....
2.....	2000	Negative	.....	.....	.....	.....
3.....	.....	.....	.....	.....	.....	.....
4.....	2000	Negative	.....	.....	.....	.....
5.....	1000	Good	10,000	Positive	20,000	*.....
6.....	5000	.....	.....	.....	.....	.....
7.....	200	.....	.....	.....	.....	.....
8.....	2000	Partial	.....	.....	.....	.....
9.....	5000	Partial	.....	.....	.....	.....
10.....	5000	Partial	.....	.....	.....	.....
11.....	1000	.....	.....	.....	.....	.....
12.....	2000	Good	10,000	Good	10,000	*.....
13.....	2000	.....	.....	.....	.....	.....

\* These were destroyed because of the glanders infection.

† Died of pneumonia.

Unfortunately autopsies could not be obtained in these cases on account of lack of facilities, and we have not been able to make further observations upon this stable.

Bonome and others claim that the agglutination reaction increases after the administration of mallein. This, however, has not been my experience, and the above table shows, in two horses, a decrease after mallein, while in the two horses that died the increase in index may well be attributed to the progress of the disease, as the repeated mallein reaction follow the same curve.

The blood of thirty horses from a stable where glanders had existed was tested and mallein was given in six cases one month later. The results were as follows:

Three horses agglutinated at 1:5000, one of the three tested a month later with mallein gave no reaction, one died of glanders. Two agglutinated at 1:2000 and were negative to mallein. Two agglutinated at 1:1000, and one tested with mallein gave a negative reaction. Four agglutinated at 1:500. One that agglutinated at 1:200 gave a slight reaction to mallein a month later. One agglutinating at 1:200 was negative to mallein, the remainder agglutinated at 1:200 and below, and were not tested with mallein.

Sixty-three horses were tested from one stable for the agglutination reaction with *B. mallei* and fourteen were tested with mallein.

TABLE V.

The sera from sixty horses taken from a stable where glanders had occurred agglutinated as follows:

9 agglutinated at 1:500	3 tested with mallein	2 reacted
9 agglutinated at 1:1000	6 tested with mallein	3 reacted
7 agglutinated at 1:2000	4 tested with mallein	4 reacted
25 agglutinated below 1:500	2 tested with mallein	2 negative

In sera from thirty horses from another stable, where glanders had occurred, were tested the same as above.

4 agglutinated at 1:500	2 reacted to mallein
12 agglutinated between 1:1000 and 1:2000	6 reacted to mallein
7 agglutinated between 1:5000 and 1:10,000	3 reacted to mallein
9 agglutinated below 1:500	None reacted to mallein

Three normal mules tested gave the following reactions:

One reacted at 1:1000.

Two reacted at 1:1000.

Three reacted at 1:100.

One mule condemned for glanders on physical signs gave a reaction in 1:20000. The normal agglutinous present in the blood of the mule may show a higher average than in horses.

A series of tests made upon four horses show the variation in the agglutination reaction that may sometimes occur. A regular increase is observed in three while the third shows an irregular rise and fall. This condition occurs constantly in experimental animals immunized with various organisms.

No. 1. Glanders—Agglutinated at 1:500 mallein positive; later, agglutinated at 1:2000 mallein positive; later, agglutinated at 1:10000 mallein positive.

No. 2. Glanders—Agglutinated at 1:5000 mallein positive; later, agglutinated at 1:10000 mallein positive.

No. 3. Suspicious—Agglutinated at 1:2000 mallein good; 5 weeks later, agglutinated at 1:5000 mallein good; 10 days later, agglutinated at 1:2000 mallein good; 2 days later, agglutinated at 1:5000 mallein good.

No. 3. Suspicious—Agglutinated at 1:2000 mallein good; 5 weeks later, agglutinated at 1:5000 mallein good; 5 weeks later, agglutinated at 1:5000 mallein good.

From a stable of horses that were supposed to be normal the sera from seven agglutinated below 1:500; three agglutinated at 1:500; four agglutinated at 1:1000 and above.

One horse with an index below 1:500 and one with an index above 1:500 were tested with mallein and both gave a negative reaction. This stable continues under observation.

One horse from this stable reacted at 1:200, four months later a test was made and the index was 1:5000. The horse at this time had two ulcers on the legs. An organism recovered from the pus morphologically resembled glanders and was quite virulent for guinea pigs but failed to develop agglutinins for glanders in the animal or to give any of the reactions peculiar to the *B. mallei*.

Schutz and Meissner found that the blood of one horse with lymphangitis out of four tested agglutinated at 1:1000 and two at 1:800; they state that this is the only condition not glanders that will give such a high reaction.

Nine horses with lymphangitis were tested by us and mallein given to four.

Two agglutinated at 1:2000; mallein not given.

One agglutinated at 1:1000; mallein not given.

One agglutinated at 1:5000; mallein not given.

One agglutinated at 1:100; mallein not given.

One agglutinated at 1:5000; mallein negative.

One agglutinated at 1:1000; mallein negative.

Two agglutinated at 1:2000; mallein positive.

The question that might arise here is whether or not there was a latent glanders in those cases where the reaction is high. More extensive research is necessary before any conclusions can be reached; but the fact that two horses, apparently healthy, reacted to mallein, is suggestive. The mallein was not given until the horses had fully recovered from the attack of lymphangitis.

In one stable under observation the horses were tested at different periods, with the results as shown in the table below.

The horses were apparently normal when the tests were made in October and most of them up to the time they were destroyed. They were tested with mallein and were destroyed and autopsied within a few days after the tests.

The following list of horses were tested for the agglutination, and finally killed because of glanders:

Condition Reported.	Agglutination.	Mallein.	Disposition.
1. Enlarged submaxillary .....	5,000	.....	Destroyed.
2. Eruption .....	500	.....	Destroyed.
3. Septic condition .....	1,000	.....	Destroyed.
Sixteen days later.....	5,000	Positive...	Destroyed.
4. Farcy .....	2,000	Positive...	Destroyed.
5. Suspicious .....	1,000	.....	Destroyed.
6. Continued high temperature.....	1,000	.....	Destroyed.
7. Enlarged submaxillary .....	5,000	.....	Destroyed.
8. Suspicious .....	2,000	.....	Destroyed.
9. Suspicious .....	10,000	Positive...	Destroyed.
10. Glanders .....	20,000	Positive...	Destroyed.



Condition Reported.	Agglutination.	Mallein.	Disposition.
11. Ulcer of septum .....	5,000	Negative..	Destroyed.
12. Mule glanders .....	20,000	.....	Destroyed.
13. Nasal discharge .....	1,000	.....	Destroyed.
14. Glanders .....	2,000	.....	Destroyed.
15. Suspicious .....	2,000	Good.....	Destroyed.
16. Suspicious .....	2,000	Positive..	Destroyed.
17. Suspicious .....	2,000	Good.....	Destroyed.
18. Suspicious .....	500	.....	Destroyed.
19. Suspicious .....	2,000	.....	Destroyed.
20. Continued high temperature for weeks.....	20,000	.....	Destroyed, but no re- port made.
21. Suspicious .....	500	Good.....	Destroyed.
22. Enlarged submaxillary .....	1,000	.....	Destroyed.
23. Suspicious .....	5,000	.....	Destroyed.
24. Glanders .....	2,000	.....	Destroyed.

The following list is comprised of horses that were tested with mallein and for the agglutination reaction. The horses are still working:

Condition.	Agglutination.	Mallein.
1. Glanders .....	5,000	Positive.
2. Enlarged submaxillary .....	5,000	Good.
3. Suspicious .....	2,000	Good.
4. Enlarged submaxillary .....	10,000	Good.
5. Eruption .....	2,000	Negative.
6. Suspicious .....	5,000	Negative.
7. Exposed to glanders .....	500	Negative.
8. Suspicious .....	10,000	Good.
9. Suspicious .....	2,000	Good.
10. Suspicious .....	5,000	Positive.
11. Suspicious .....	5,000	Good.
12. Suspicious .....	5,000	Positive.
13. Suspicious .....	5,000	Positive.
14. Suspicious .....	2,000	Good.
15. Suspicious .....	2,000	Good.
16. Suspicious .....	500	Negative.
17. Suspicious .....	1,000	Positive.
18. Suspicious .....	2,000	Positive.
19. Suspicious .....	2,000	Negative.
20. Suspicious .....	2,000	Questionable.
21. Suspicious .....	2,000	Good.
22. Suspicious .....	10,000	Good.
23. Suspicious .....	1,000	Good.
24. Suspicious .....	200	Negative.
25. Suspicious .....	Negative.	Negative.

The following list consists of horses tested for the agglutination reaction only:

Condition.	Agglutination.
1. Swollen leg .....	1,000
2. Suspicious .....	500
3. Abscess on hip.....	1,000
4. Suspicious .....	10,000
5. Suspicious .....	2,000
6. Suspicious .....	500
7. Suspicious .....	1,000
8. Abscess over eye.....	5,000
9. Suspicious .....	500
10. Suspicious .....	1,000
11. Suspicious .....	500
12. Suspicious .....	2,000
13. Suspicious .....	5,000
14. Suspicious .....	10,000
15. Suspicious .....	500
16. Suspicious .....	1,000
17. Suspicious .....	2,000
18. Suspicious .....	200
19. Suspicious .....	Negative
20. Suspicious .....	5,000
21. Suspicious .....	2,000
22. Suspicious .....	5,000
23. Enlarged submaxillary .....	5,000
24. Suspicious .....	5,000

Serum of a Horse Immune to B. Typhi, to Which Fresh Normal Horse Serum Has Been Added and Tested With B. Typhi.

I.

Index of Immune Serum before treatment.	Index of Fresh Normal Serum.	Index of Immune Serum + B. Typhi; after half hour Fresh Normal Serum added in dilution 1:25.	Index of Immune Serum + Fresh Normal Horse Serum 1:25; after half hour B. Typhi added.	Index of Immune Serum + Fresh Normal Horse + B. Typhi added at once.
1:1000 ++	1:10 —	1:1000 ++	1:1000 ++	1:1000 ++

Condition.	Agglutination.
25. Suspicious .....	1,000
28. Suspicious .....	2,000
29. Suspicious .....	5,000
30. Suspicious .....	10,000
31. Suspicious .....	1,000
32. Suspicious .....	Negative
33. Suspicious .....	1,000
34. Suspicious .....	2,000
35. Pyaemia .....	*200
36. Chronic catarrh .....	200
37. Blood disorder .....	100
38. Enlarged submaxillary.....	100
39. Azoturia .....	2,000
40. Infected muscle .....	Negative
41. Maxillary abscess .....	Negative
42. Nasal discharge .....	500
43. Normal .....	100
44. Normal .....	100
45. Normal .....	200
46. Normal .....	200
47. Normal .....	Negative
48. Normal .....	200

\* Died.

#### Summary.

It is not possible to draw definite conclusions as to the specificity of the agglutination reaction in glanders until the findings in questionable cases have been confirmed by careful autopsies.

The facts are suggestive, however, and tend to substantiate the views of all who have investigated the subject that high reactions indicate the presence of glanders, and reaction even as low as 1:500 must be looked upon with suspicion. Further research will help to establish the reliability of the reaction, careful autopsies and systematic observation of the same horses over an extended period of time being the requirements best calculated to furnish definite and satisfactory provings.

At present the value of the test lies in its use as an indicator for the mallein test. In our hands, since the technique has become uniform, only one horse, as far as tested, has failed to give an agglutination reaction where it has responded to the mallein test; as a second testing was not practical at the time, this one negative case, with so many positive cases, becomes a negligible quantity.

The presence of the agglutination reaction before the mallein reaction is accounted for by the fact that agglutinins are, as a rule, very quickly raised in the animal body, other antibodies oftentimes not appearing until late. A slight infection would then be sufficient to induce this reaction. This has been shown with some horses, which gave only an agglutination reaction at first. Several weeks later they showed an increase in the agglutinating index and reacted to mallein, and then either exhibited the physical signs of glanders before death or the characteristic lesions on autopsy.

A few human cases of glanders have been studied. The blood of these patients has agglutinated in dilutions of 1:1000 and 1:2000. In two cases the B. mallei has been recovered from the pus, from an abscess in one case and from the blood in a second case.

The sera from patients having diphtheria, scarlet fever and tuberculosis have been tested with the B. mallei. In some instances they have agglutinated the bacillus in dilutions of 1:50, and once as high as 1:100. In cases of glanders, as far as tested, the reactions occur in much higher dilutions, so that the chances for confusion of any of these conditions with glanders, at least as far as the agglutination reaction is concerned, is very slight. In all cases of apparently irregular typhoid the blood should be tested with the B. mallei.

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#### AGGLUTININS AS RECEPTORS OF THE THIRD ORDER.

Katherine R. Collins, M. D., Bacteriologist.

The following limited number of experiments were undertaken not with the intention of making an exhaustive study of this possible phase of the reaction of agglutinins, but for the purpose of determining to what extent the results of the work on agglutinins being carried out at the time might be affected by the more recent views advanced by some observers that agglutinins may sometimes be receptors of the third order and require the addition of complement or a corresponding substance to bring about a reaction.

Joos (a) believes that the agglutination reaction resembles the formation of a double salt thus requiring the presence of a third substance. Bail (b) places the agglutinins in the third order while Eisenberg and Volk (c) are uncertain whether they are in the second or third. Formerly Ehrlich (e) believed agglutinins to be of the second order, but has in a recent general review (f) on the work on immunity suggested the possibility of the precipitins and agglutinins behaving at times in a similar manner to the immune bodies.

Muir and Browning (g) found in the process of some haemolytic experiments that agglutination of the stromata occurred upon the addition of a complementary serum: This agglutination passed off after several hours, but partially returned upon further addition of the fresh serum. This led the authors to the view that agglutinins might sometimes be of the third order; they state, however, that they made only one observation.

The foregoing opinions have been based chiefly upon results obtained from red blood cells. Ohwada (h), however, found that an old typhoid serum which had lost its agglutinating power was reactivated by the addition of fresh normal rabbit serum, but not by fresh horse, dog, guinea-pig, cat, or chicken serum. He names the substance in the fresh serum "add-agglutinins."

The following experiments have given negative results in every combination except where the amount of complementary serum added would alone agglutinate the organism used.



2.

Index of Immune Serum before treatment.	Index of Fresh Normal Horse Serum.	Index of Immune Serum + B. Typhi; after half hour Fresh Normal Horse Serum added 1:50.	Index of Immune Serum + Fresh Normal Horse Serum 1:50; after half hour B. Typhi added.	Immune Serum + Fresh Normal Horse Serum + B. Typhi added at once.
1:1000 ++	1:50 +1	1:1000 ++	1:2000 +1	1:5000 +1

The same immune serum as above, heated to 56° for 30' shows a diminution in the amount of agglutinins which the addition of fresh normal horse serum does not restore.

The serum of a second horse immune to B. Typhi was tested in the same manner with fresh normal rabbit serum added as complement the results were the same as above.

A rabbit serum immune to the B. Dysentery (Shiga Type), heated to 56° for 30', and fresh normal rabbit serum used as complement also failed to show increase or restoration of agglutinins.

Finally a rabbit serum immune to B. Dysentery, two years old and showing partial loss of agglutinins, was tested, fresh normal rabbit serum being used as a complement. Here again the results were negative.

Since this paper was written Shibayama has made a series of tests with immune horse serum heated to varying degrees for different periods of time and to which he added fresh normal rabbit serum in amounts above the normal index of the serum. In this way he restored to the immune serum the agglutinins that had been destroyed by heat.

These results I have failed in repeated instances to bring about, and where changes occur they would seem to me to be of a pure physical nature. I cannot share the rather more prevalent view, that the agglutinin in such instances acts as a receptor of the third order, according to Ehrlich.

#### Conclusions.

The above experiments are not sufficient in number or latitude to refute, in the case of bacterial agglutinins, the findings of the several observers, that agglutinins may act like receptors of the third order. They demonstrate, however, that the phenomenon is not frequent and they suggest several possible sources of error that might readily lead to erroneous conclusions.

1. The technique of the agglutination reaction as it stands at present, is of necessity variable within narrow limits but uniform in the wider readings; hence, if the readings are taken within too narrow limits the results may be misleading.

2. The possibility of the normal serum containing agglutinins for the organism tested must be kept very definitely in view.

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#### THE FRACTIONAL PRECIPITATION OF ANTITOXIC SERUM.

By E. J. Banzhaf, Assistant Chemist, and R. B. Gibson, Bacteriologist.

Comparatively little attention has been paid to the fractional precipitation of antitoxin. Brodie in 1897 separated antitoxic horse serum into four fractions by the progressive addition of ammonium sulphate to half saturation; all four contained, however, relatively equal amounts of antitoxin. Atkinson in the Research Laboratory of the Department saturated with sodium chloride a solution of the moist serum globulin precipitate obtained with magnesium sulphate, and by then employing heat differentiated the globulin into several fractions containing antitoxin. The protective properties corresponded roughly to the quantities of serum globulin in the precipitates. In some unpublished experiments he found that alterations of the amounts of coagulated proteid in the several fractions resulted if more magnesium sulphate was added before heating; there were proportionate changes in the distribution of the antitoxin. Owing to the destruction of a portion of the antitoxin at the higher temperature and possible injury by exposing it to heat of less degree, this fractionation must be considered as incomplete and does not exclude a purification of the antitoxin by salt fractionation. The work of E. P. Pick on the ammonium sulphate fractioning of the anti-bodies has been referred to in the preceding communication. Our own experiments have resulted somewhat differently from either those reported by Atkinson or by Pick, and have developed some important new and suggestive facts.\*

On the basis of the solubility of the antitoxin proteids in saturated Na Cl solution, one of us (Gibson) recently devised a method for the partial purification and concentration of antitoxin. This consisted in precipitating the diluted plasma with an equal volume of saturated ammonium sulphate and separating the antitoxin proteids by extracting the precipitate with saturated sodium chloride solution. We now have employed the method of salt fractionation to study further the concentration of antitoxin.

Twenty liters of plasma (475 units per c. c.) were diluted with 20 liters of water; by fractioning with ammonium sulphate, the three proteid precipitates were obtained which separated at concentrations corresponding to 3.3 c. c., 3.3 to 3.8 c. c. and 3.8 to 5.0 c. c. of the saturated salt solution in 10 c. c. The Na Cl soluble (antitoxic) globulins of these fractions and of the 5.0 saturation precipitate of a second, 20 liters of the plasma were prepared as usual.

#### Prep. 77.

	A	B	C	D
Fractions .....	0.0—5.0	0.0—3.3	3.3—3.8	3.8—5.0
Volume c.c. ....	5,200	1,440	1,400	2,050
Units per c.c. ....	1,450	1,150	1,350	1,750
Times concentrated .....	3.05	2.42	2.84	3.68
Per cent. recovered.....	79.3	17.4	19.9	37.8
Proteid, gms. per 100 c.c. ....	11.66	11.51	9.87	9.70
Units, per gm. proteid.....	12,436	10,000	13,666	18,000

Brodie: Journal of Path. and Bact. iv., p. 460, 1897.

Atkinson: Journal of Exper. Med. v., p. 67, 1901.

\* The literature on the purification and chemical characters of anti-bodies has been briefly reviewed in a paper on the "Practical Concentration of Diphtheria Antitoxin for Therapeutic Use" in the report of the Department for 1905.

A second experiment with a 450 unit plasma gave the following results:

#### Prep. 82.

	A	B	C	D
Fractions .....	0.0—5.0	0.0—3.3	3.3—3.8	3.8—5.0
Volume c.c. ....	6,240	1,350	1,640	2,550
Units per c.c. ....	1,050	900	1,300	1,600
Times concentrated .....	2.34	2.00	2.89	3.56
Per cent. recovered.....	72.8	13.9	22.6	45.3
Proteid, gms. per 100 c.c. ....	10.59	12.06	13.46	13.41
Units, per gm. proteid.....	9,914	7,464	9,655	11,930

These observations show that the antitoxic globulins of the higher fractions are much more potent than those of the less soluble proteids.

Both the preparations, by the original method and by fractioning when precipitated from the Na Cl solution and dialyzed, contained a probably partially denaturalized antitoxic globulin; this has a diminished solubility and antitoxic potency (per gm.) and is precipitated on slight acidification by diluting at least twenty times. The filtrates from the acid water precipitable globulin coagulated at 73° while saline solutions of these precipitates showed varying and much lower coagulating temperatures. The following results were obtained on progressively fractioning (in two experiments) by the addition of the dry salt, a liter of about 400 units antitoxic plasma. The initial dilution was 1:5. The precipitates were pressed between filters and extracted with saturated Na Cl solution. The determinations on the filtered extracts are given per c. c. of the original plasma.

#### Fractioning of Plasma 306, August 1, 1906.

Fractions.	Proteid per c.c.	Units per c.c.	Units per gm. Proteid.
A			
0.0—3.4.....	0.00321	25	7,800
3.4—3.6.....	0.00223	20	8,960
3.6—3.8.....	0.00450	45	10,000
3.8—4.0.....	0.00416	52	12,480
4.0—4.2.....	0.00408	60	14,700
4.2—4.4.....	0.00272	50	18,390
4.4—4.6.....	0.00191	40	20,890
4.6—4.8.....	0.00163	30	18,410
4.8—5.0.....	0.00111	20	18,016
5.0—5.6.....	0.00428	15	6,175
B			
0.0—3.4.....	0.00394	25	6,345
3.4—3.6.....	0.00219	20	9,114
3.6—3.8.....	0.00392	45	14,440
3.8—4.0.....	0.00335	52	15,530
4.0—4.2.....	0.00326	60	17,850
4.2—4.4.....	0.00255	55	21,600
4.4—4.6.....	0.00181	40	22,100
4.6—4.8.....	0.00147	30	20,380
4.8—5.0.....	0.00090	20	22,320
5.0—5.6.....	.....	15	.....

Further fractioning after complete removal of the water precipitable globulin was done on 50 c.c. of the globulin solution Prep. 77 A. The fractioning was with a dilution of the original preparation of 1:20. The results are expressed per c.c. of the original undiluted preparation.

#### Refractionation of Prep. 77 A.

Fractions.	Proteid per c.c.	Units per c.c.	Units per gm. Proteid.
0.0—4.0.....	0.0408	400	9,791
4.0—4.4.....	0.0165	225	13,667
4.4—5.0.....	0.0176	375	21,306
5.0 + .....	0.0018	75	41,722
4.8—5.5*.....	0.0046	150	34,783

\* Made on a second 50 c.c. of the same preparation.

Prep. 82 D. was refractioned without removing the acid-water precipitable globulin. The dilution was 1:10.



## Refractionation of Prep. 82 D.

Fractions.	Proteid per c.c.	Units per c.c.	Units per gm. Proteid.
0.0—4.0.....	0.07318	600	8,136
4.0—4.2.....	0.01779	240	13,490
4.2—4.4.....	0.02197	260	11,840
4.4—4.6.....	0.01232	160	12,990
4.6—4.8.....	0.00708	90	12,711
4.8—5.0.....	0.00511	80	15,670
5.0—5.6.....	0.00197	90	45,690
	0.13941	1,510	
For 82 D.....	0.1341	1,600	

This shows a globulin of rather uniform potency per gm. from fractions 4.0—4.8, and then a marked jump from 5.0—5.6 to about three times the original potency per gram. The proportion of antitoxin in the highest fractions is less than 6 per cent. of the total units. Prepared for administration as is the ordinary antitoxin globulin, the resulting product would have a potency of from 5000-6000 units per c.c.

From the data presented it appears that the saturated NaCl soluble serum globulins of the higher fractions of plasma are uniformly much more potent per gm. proteid than are those precipitated by lower concentrations of ammonium sulphate. Between concentrations of the sulphate of 5.0 and 5.6 a small proportion of the total NaCl soluble globulin preparation (or of a higher fraction of the same) is precipitated; the solution of the globulin has a protective power of from 40,000-45,000 units per gm. proteid.

Further investigations directed towards the purification and concentration of antitoxins are now in progress.

## THE PRODUCTION OF DIPHTHERIA ANTITOXIN DURING THE YEAR 1906.

By Edwin J. Banzhaf, Research Laboratory, Department of Health.

The amount of diphtheria antitoxic serum and citrated-plasma produced during the year 1906 was 1,680,685 c.c., of which 165,355 c.c. was serum and 1,515,330 c.c. citrated-plasma.

This amount was produced from twenty-six horses.

The average number of units per c.c. was 355; the highest number of units per c.c. being 1,450, and lowest, 100.

By Gibson's method of concentrating and refining\* we used 1,252 liters citrated-plasma, averaging 400 units per c.c., and recovered 363½ liters, averaging

\*"Journal of Biological Chemistry," 1:161, 1906, and "Studies from the Research Laboratory," vol. I, 1905.

1,000 units per c.c. The highest product recovered was 2,500 units per c.c., and the lowest 400 units per c.c.

Horses 305, 306, 307 and 308, which received toxin precipitated and concentrated by alcohol, are especially interesting, as can be seen from the following table: The first two, after only six weeks' immunization, each receiving in that time 330,750 M. L. D. produced an extremely potent antitoxic serum, each containing 1,200 units per c.c. After receiving an injection of 137,500 M. L. D. additional, and bleeding after a week, horse 305 tested 1,250 units per c.c., and horse 306 tested 1,450 units per c.c. Horse 305, receiving increasing amounts of toxin and bleeding each week, held between 1,200 and 1,250 units per c.c. for six bleedings, dropping to 1,000 units per c.c., and remaining there for three bleedings, and then slowly dropping, until after fourteen more bleedings the serum tested 300 units per c.c.

Horse 306, receiving each week increasing amounts of toxin and bleeding each week, held between 1,300 and 1,450 units per c.c. for six bleedings, dropping to 1,100 units per c.c., and remaining there for four bleedings, and then slowly dropping until after eleven more bleedings the serum tested 400 units per c.c.

Horses 307 and 308, however, with exactly the same treatment, did very poorly.

Horse 307, after receiving as much as 1,108,750 in L. D., tested only 350 units per c.c. This horse, during the next three weeks, received 825,000 M. L. D. additional, testing then only 300 units per c.c. Although receiving increasing amounts of toxin each week and bleeding on the average of once a month, horse 307 continually dropped in potency, and at last bleeding tested a little below 200 units per c.c.

Horse 308, after receiving 617,500 M. L. D., tested only 250 units per c.c. This horse during the next four weeks received 912,500 M. L. D. additional, testing then only 200 units per c.c. Although receiving increasing amounts of toxin each week and bleeding on the average of once a month, horse 305 continually dropped in potency, and at last bleeding tested 100 units per c.c.

It is probable that even under the regular treatment horses 305 and 306 would have produced high antitoxic serum, and horses 307 and 308 low antitoxic serum.

We believe that the smaller amount of deleterious substances introduced in the injections with precipitated and concentrated toxin makes it possible to give the horses larger amounts of toxin without ill effects, and to continue such injections without depressing the animals vitality.

On the whole, the use of precipitated and concentrated toxin does not seem at this time to offer any advantages which are not considerably outweighed by the disadvantages, viz., expense of alcohol, loss of toxin, labor, etc.

Horse 262 shows the enormous capacity for antitoxic production which some animals possess. This horse entered the station in February, 1904, and soon began to produce a high grade antitoxic serum. During the year 1904 he produced 81,010 c.c. serum, averaging 496 units per c.c., the highest potency being 700 units per c.c. and the lowest 300 units. During the year 1905 he produced 69,585 c.c. serum, averaging 400 units per c.c., the highest being 550 units per c.c. and the lowest 250 units. During the year 1906 he produced 165,010 c.c. plasma and serum, averaging 400 units per c.c., the highest being 550 units per c.c. and the lowest 300 units, making the total production up to December 31, 1906, 315,605 c.c. plasma and serum, averaging 435 units per c.c.

Horse 299 is worthy of mention. Although a small horse he produced, from February, 1906, to December, 1906, 180,290 c.c. plasma and serum, with an average of 462 units per c.c., the highest potency being 550 units per c.c. and the lowest 350 units per c.c.

Horse 262, during the year 1906, was bled twenty-five times and horse 299 twenty-seven times, without any apparent ill effects, producing a fairly high grade antitoxic serum, with an average of seven liters per bleeding.

One cannot but marvel at the splendid recuperative power of the animal organism.

Horse Number.	Date of First Injection.	Number of Bleedings During 1906.	Citrated Plasma Produced in c.c. During 1906.	Serum Produced in c.c. During 1906.	Total Plasma and Serum Produced in c.c. During 1906.	Highest Potency in Units Per c.c. During 1906.	Average Units Per c.c. During 1906.	Final Disposition.
234.....	Aug. 21, 1903	11	61,350	20,050	81,400	425	398	Bled to death, April 24, 1906.
262.....	Feb. 15, 1904	25	144,800	20,210	165,010	550	409	Still in use.
264.....	Feb. 28, 1904	2	.....	6,760	6,760	375	350	Died from injection, February 12, 1906.
268.....	Apr. 18, 1904	2	.....	11,190	11,190	300	275	Died, abscess in lungs, February 20, 1906.
271.....	Nov. 2, 1904	6	53,970	.....	53,970	350	230	Bled to death, May 11, 1906.
272.....	Nov. 2, 1904	6	29,000	.....	29,000	350	230	Bled to death, April 3, 1906.
284.....	July 13, 1905	3	12,400	.....	12,400	200	200	Transferred to dystentary.
285.....	July 28, 1905	5	31,860	13,655	45,515	400	370	Died after bleeding, March 8, 1906.
286.....	Aug. 18, 1905	12	73,210	5,370	78,680	300	261	Died from colic, May 3, 1906.
288.....	Aug. 22, 1905	15	96,400	10,015	106,415	600	533	Died while being bled, May 19, 1906.
289.....	Aug. 22, 1905	6	21,590	6,480	28,070	200	200	Destroyed; autopsied December 26, 1906.
291.....	Aug. 22, 1905	12	74,150	.....	74,150	375	290	Bled to death, May 16, 1906.
293.....	Sept. 4, 1905	13	85,330	.....	85,330	375	320	Bled to death, May 16, 1906.
295.....	Sept. 17, 1905	7	46,590	.....	46,590	300	230	Bled to death, April 6, 1906.
296.....	Sept. 17, 1905	12	81,420	.....	81,420	300	240	Bled to death, November 28, 1906.
299.....	Sept. 22, 1905	27	174,830	5,460	180,290	550	462	Destroyed; autopsied December 28, 1906.
302.....	Nov. 8, 1905	4	32,300	.....	32,300	200	200	Bled to death, May 16, 1906.
*305.....	Feb. 14, 1906	23	135,080	14,310	149,390	1,250	513	Died after injection, December 21, 1906.
*306.....	Feb. 14, 1906	21	120,600	18,410	139,010	1,450	587	Still in use.
*307.....	Feb. 14, 1906	7	36,600	2,145	38,745	350	230	Still in use.
*308.....	Mar. 6, 1906	6	31,750	2,750	34,500	250	180	Bled to death, August 28, 1906.
309.....	Sept. 29, 1906	Test	.....	.....	.....	200	....	Still in use.
310.....	Mar. 20, 1906	11	71,000	1,330	72,330	725	597	Bled to death, August 16, 1906.
311.....	June 23, 1906	12	57,000	18,030	75,030	950	783	Died after injection, December 21, 1906.
312.....	June 23, 1906	2	8,000	5,570	13,570	450	400	Died after injection, October 20, 1906.
314.....	July 2, 1906	1	134,000	.....	13,400	250	250	Destroyed; autopsied December 28, 1906.
316.....	.....	5	22,700	3,620	26,320	250	495	Still in use.
317.....	Nov. 13, 1906	..	.....	.....	.....	....	....	Still in use.

\* Horses were injected with concentrated and refined toxin.

The total amount of plasma and serum produced by the older horses since entering the station is as follows:

Horse Number.	Serum Produced During 1903.	Average Units Per c.c. Dur- ing 1903.	Serum Produced During 1904.	Average Units Per c.c. During 1904.	Serum Produced During 1905.	Average Units Per c.c. During 1905.	Plasma and Serum Produced During 1906.	Average Units Per c.c. During 1906.	Total Plasma and Serum Produced in c.c. to Decem- ber 31, 1906.	Average Units Per c.c. to De- cember 31, 1906.
234.....	30,775	475	67,265	472	60,150	375	81,400	398	239,590	430
262.....	.....	....	81,010	496	69,585	400	165,010	409	315,605	435



Horse Number.	Serum Produced During 1903.	Average Units Per c. c. During 1903.	Serum Produced During 1904.	Average Units Per c. c. During 1904.	Serum Produced During 1905.	Average Units Per c. c. During 1905.	Plasma and Serum Produced During 1906.	Average Units Per c. c. During 1906.	Total Plasma and Serum Produced in c. c. to December 31, 1906.	Average Units Per c. c. to December 31, 1906.
264.....	.....	.....	59,305	563	40,760	382	6,760	350	106,825	432
268.....	.....	.....	30,325	525	36,500	440	11,190	275	78,015	413
271.....	.....	.....	.....	.....	42,710	310	53,970	230	96,680	270
272.....	.....	.....	.....	.....	35,615	312	29,000	230	64,615	271
284.....	.....	.....	.....	.....	14,190	290	12,400	200	26,590	245
285.....	.....	.....	.....	.....	24,535	412	45,515	370	70,050	391
286.....	.....	.....	.....	.....	5,010	250	78,680	261	81,690	255
288.....	.....	.....	.....	.....	5,250	400	106,415	533	111,665	466
289.....	.....	.....	.....	.....	3,740	250	28,070	200	31,810	275

## THE RESISTANCE OF DIFFERENT STRAINS OF TYPHOID BACILLI IN CROTON TAP WATER.

By Mary E. Goodwin, M. D., and M. Alice Asserson, M. D., Assistant Bacteriologist, Research Laboratory.

From the Research Laboratory of the Department of Health, Dr. Wm. H. Park, Director.

Jordan,\* Russell and Zeit tested the viability of typhoid bacilli in Lake Michigan water and in the water of the Chicago Drainage Canal. Russell† and Fuller in their work on "The Longevity of the Typhoid Bacillus in Natural Waters and in Sewage," used Lake Mendota water and added sewage. Jordan, Russell and Zeit did fifteen experiments with Lake Michigan water in glass containers. The water contained from 100 to 200 saprophytes. In raw tap water the typhoid bacilli lived six or seven days; in sterile tap water, twenty-five days, and in filtered tap water, only four days. When the typhoid bacilli were put into raw tap water in parchment or celloidin sacs they lived six or seven days. When the sacs were filled with sterile tap water the bacilli still survived at the end of fifteen days, when the experiments were discontinued. These fifteen experiments seem to have been carried on with old cultures from different sources. The same workers did a good deal of work with Chicago river water when they used three recently isolated cultures. In this work the sacs were suspended in running water. In the Chicago river water the typhoid bacilli were isolated for only three days, and in the drainage canal water for only two days, with one exception, where it was found on the tenth day.

Russell and Fuller in 1906, working with one of the same cultures, tested Lake Mendota water pure and with raw sewage added. In the flowing water the typhoid bacilli lived eight or ten days; with the addition of sewage, only three to five days.

The present work was undertaken to find out the effects of Croton tap water on different strains of typhoid bacilli exposed in different ways. The following cultures were used:

Six cultures freshly isolated from the stools of two typhoid cases, in the second week, Stone 1, 3 and 5, and Ruth, 1, 2 and 5, 183 and 167 isolated six months. Mt. Sinai and NYH, isolated two years. Pf., isolated fourteen years.

Where raw water was used the typhoid bacilli were isolated from Conradi-Drigalski plates and identified by specific sera and by sugar media.

The first experiment included tests of sterile distilled, sterile tap and filtered tap water, with the six freshly isolated cultures, and raw tap water with the same cultures and Mt. Sinai, NYH, 183 and 167.

TABLE 1.

The three cultures from the Stone case all died on the fourth day in sterile distilled water, and on the thirtieth day in sterile tap water. In filtered tap water two cultures lived days longer than the third. In sterile distilled water the cultures from Ruth case seemed much more resistant than those from the Stone case, as they lived six, seventeen and eighteen days. In filtered tap water the relation seemed reversed, the Ruth cultures living only twenty-one days, while two of the Stone cultures lived thirty days.

In raw tap water with 470, 37°; 6, 480 at 24° saprophytes per c.c., one of the freshly isolated cultures, Ruth, lived only five days, while all the old laboratory cultures lived more than eleven days.

In the following work with different kinds of sacs filled with sterile tap water the technique was about the same as that used by Russell and Fuller. Gelatin sacs made by covering silk with 40 per cent. gelatin and hardening in 40 per cent. formalin were used instead of agar on fibre sacs. These, after hardening, could be sterilized in the Arnold Sterilizer without injury. Heavy parchment paper was used instead of the parchment tubing, as the only tubing obtainable in New York was found to contain so many small holes that it was unfit for use.

Culture.	Number of Bacilli Put Into the c.c.	Last Day of Isolation.
Sterile Distilled Water in Glass Receptacles—		
Stone 1.....	214,000	4th
Stone 3.....	179,000	4th
Stone 5.....	111,000	4th
Ruth 1.....	153,000	6th
Ruth 2.....	88,000	18th
Ruth 5.....	257,000	17th
Sterile Tap Water in Glass Receptacles—		
Stone 1.....	214,000	30th
Stone 3.....	179,000	30th
Stone 5.....	111,000	30th
Ruth 1.....	153,000	30th
Ruth 2.....	88,000	12th
Ruth 5.....	257,000	30th
Filtered Tap Water in Glass Receptacles—		
Stone 1.....	214,000	21st
Stone 3.....	179,000	30th
Stone 5.....	111,000	30th
Ruth 1.....	153,000	21st
Ruth 2.....	88,000	21st
Ruth 5.....	257,000	21st

\* Journal of Infectious Diseases, 1904, 1, p. 641.

† Journal of Infectious Diseases, Supplement No. 2, 1906.

Culture.	Number of Bacilli Put Into the c.c.	Last Day of Isolation.
Raw Tap Water in Glass Receptacles—		
Stone 1.....	214,000	12th
Stone 3.....	179,000	17th
Stone 5.....	111,000	17th
Ruth 1.....	153,000	13th
Ruth 2.....	88,000	21st
Ruth 5.....	257,000	5th
* Mt. Sinai.....	100,000	17th
* N. Y. H.....	100,000	17th
* 183.....	100,000	17th
* 167.....	100,000	12th

\* Count estimated, the plates having so many colonies that they were uncountable.

TABLE 2.

Parchment and celloidin sacs filled with sterile tap water and placed in running tap water.

Culture.	Parchment Sacs.		Celloidin Sacs.	
	Number of Bacilli Put in Per c.c.	Last Day Isolated.	Number of Bacilli Put in Per c.c.	Last Day Isolated.
First Set of Experiments—				
Stone 1.....	32,000	8th	75,000	8th
Stone 3.....	129,000	8th	86,000	7th
Stone 5.....	194,000	7th	54,000	6th
Ruth 1.....	65,000	8th	86,000	6th
Ruth 2.....	54,000	7th	10,800	6th
Ruth 5.....	108,000	7th	66,400	4th
Mt. Sinai.....	.....	...	10,800	4th
Pf.....	64,800	4th	.....	...
Second Set of Experiments—				
Stone 1.....	300,000	5th	300,000	21st
Stone 3.....	285,000	7th	285,000	11th
Stone 5.....	200,000	6th	200,000	4th
Ruth 1.....	600,000	5th	600,000	21st
Ruth 2.....	121,000	5th	121,000	4th
Ruth 5.....	675,000	7th	675,000	20th
Mt. Sinai.....	531,000	7th	531,000	9th
Pf.....	121,000	5th	121,000	11th

Gelatin Sacs.

Culture.	Number of Bacilli to c.c.	Last Day Isolated.
Experiment 1—		
Mt. Sinai.....	13,500	8th
Stone 1.....	24,000	8th
Stone 3.....	20,000	8th
Ruth 5.....	20,000	8th
Experiment 2—		
Mt. Sinai.....	300,000	8th
Pf.....	300,000	8th
183.....	300,000	8th

TABLE 3.

The last day of isolation of the different typhoid cultures in the different sacs in running tap water.

Culture.	Parchment.	Celloidin.	Gelatin.
Stone 1.....	8th day	21st day	8th day
Stone 3.....	8th day	11th day	8th day



Culture.	Parchment.	Celloidin.	Gelatine.	Conclusions.
Stone 5.....	7th day	6th day	.....	All of the cultures except "Pf." which has been isolated fourteen years, seem to have about the same resistance in running tap water. "Pf." cultures generally died out a day or two earlier than the other cultures.
Ruth 1.....	8th day	21st day	.....	
Ruth 2.....	7th day	6th day	.....	The resistance of typhoid bacilli in Croton tap water corresponds more nearly to the resistance in the comparatively pure water of Lake Mendota than to that in the Chicago river water.
Ruth 5.....	7th day	20th day	8th day	
Mt. Sinai.....	7th day	9th day	8th day	The work throughout was very consistent, with the exception of three cultures in celloidin sacs, which survived twenty days.
Pf.....	5th day	11th day	8th day	
183.....	.....	.....	8th day	

## REPORT OF BACTERIOLOGICAL EXAMINATION OF WATER FOR THE YEAR 1906.

By Mary E. Goodwin, M. D., Bacteriologist, Research Laboratory.

Croton tap water at East Sixteenth Street was placed in agar and tested for the presence of colon bacilli once a week during the year. The colony count at 37 degrees and 24 degrees C. was as follows:

Date.	Source.	1 c.c. Plated in Agar at 37° C. for 24 Hours.	At 24° C. for 72 Hours.	Smallest Quantity of Water Containing Colon Bacilli, as Shown by the Presumptive Test.	Gas Production.	
					Per Cent. Gas.	Proportion.
Jan. 3	Tap at Laboratory.....	250 colonies	3,000 colonies	1 c.c.	30	25% Co <sub>2</sub> ; H present
Jan. 11	Tap at Laboratory.....	76 colonies	141 colonies	10 c.c.	*..	
Jan. 22	Tap at Laboratory.....	200 colonies	4,800 colonies	10 c.c.	30	25% Co <sub>2</sub> ; H present
Jan. 30	Tap at Laboratory.....	27 colonies	46 colonies	1 c.c.	90	35% Co <sub>2</sub> ; H present
Feb. 7	Kisco Brook, above drain.....	22 colonies	848 colonies	1-10 c.c.	25	25% Co <sub>2</sub> ; H present
Feb. 7	Mount Kisco, hotel drain.....	166 colonies	2,640 colonies	1-500 c.c.	60	40% Co <sub>2</sub> ; H present
Feb. 7	Gorham Pond Brook.....	20,000 colonies	40,000 colonies	1-100 c.c.	20	25% Co <sub>2</sub> ; H present
Feb. 7	Outlet from Croton Lake.....	44 colonies	2,160 colonies	1 c.c.	2	
Feb. 8	Tap at Laboratory.....	880 colonies	2,048 colonies	10 c.c.	20	25% Co <sub>2</sub> ; H present
Feb. 15	Tap at Laboratory.....	46 colonies	628 colonies	.....	†..	
Feb. 22	Tap at Laboratory.....	60 colonies	720 colonies	10 c.c.	15	5% Co <sub>2</sub> ; H present
Mar. 2	Tap at Laboratory.....	144 colonies	6,000 colonies	1-10 c.c.	90	60% Co <sub>2</sub> ; H present
Mar. 10	Tap at Laboratory.....	290 colonies	3,140 colonies	1-10 c.c.	5	
Mar. 17	Tap at Laboratory.....	50 colonies	240 colonies	5 c.c.	35	30% Co <sub>2</sub> ; H present
Mar. 23	Tap at Laboratory.....	96 colonies	1,140 colonies	10 c.c.	65	25% Co <sub>2</sub> ; H present
Mar. 29	Tap at Laboratory.....	1,270 colonies	2,250 colonies	10 c.c.	3	
April 13	Tap at Laboratory.....	80 colonies	1,920 colonies	10 c.c.	50	20% Co <sub>2</sub> ; H present
April 18	Tap at Laboratory.....	46 colonies	260 colonies	10 c.c.	1	
April 26	Tap at Laboratory.....	55 colonies	1,680 colonies	1 c.c.	30	30% Co <sub>2</sub> ; H present
May 3	Tap at Laboratory.....	37 colonies	500 colonies	10 c.c.	*..	
May 9	Tap at Laboratory.....	480 colonies	810 colonies	10 c.c.	40	25% Co <sub>2</sub> ; H present
May 17	Tap at Laboratory.....	11 colonies	130 colonies	10 c.c.	40	30% Co <sub>2</sub> ; H present
May 24	Tap at Laboratory.....	22 colonies	114 colonies	10 c.c.	*..	
May 31	Tap at Laboratory.....	22 colonies	.....	10 c.c.	25	25% Co <sub>2</sub> ; H present
June 10	Tap at Laboratory.....	220 colonies	3,500 colonies	1-10 c.c.	20	20% Co <sub>2</sub> ; H present
June 14	Tap at Laboratory.....	28 colonies	530 colonies	1-10 c.c.	25	Co <sub>2</sub> ; H present
June 22	Tap at Laboratory.....	540 colonies	2,380 colonies	1-10 c.c.; 1 c.c.	10, 25	25% Co <sub>2</sub> ; H present
June 28	Tap at Laboratory.....	147 colonies	260 colonies	1-10 c.c.	30	30% Co <sub>2</sub> ; H present
July 5	Tap at Laboratory.....	30 colonies	179 colonies	1-10 c.c.	10	20% Co <sub>2</sub> ; H present
July 12	Tap at Laboratory.....	36 colonies	103 colonies	1-10 c.c.	25	40% Co <sub>2</sub> ; H present
July 19	Tap at Laboratory.....	310 colonies	340 colonies	1-10 c.c.	35	20% Co <sub>2</sub> ; H present
July 26	Tap at Laboratory.....	80 colonies	170 colonies	1-10 c.c.	25	30% Co <sub>2</sub> ; H present
Aug. 1	Tap at Laboratory.....	380 colonies	1,170 colonies	1-10 c.c.	40	30% Co <sub>2</sub> ; H present
Aug. 10	Tap at Laboratory.....	220 colonies	430 colonies	1-10 c.c.	12	30% Co <sub>2</sub> ; H present
Aug. 15	Tap at Laboratory.....	15 colonies	160 colonies	1 c.c.	20	25% Co <sub>2</sub> ; H present
Aug. 22	Tap at Laboratory.....	400 colonies	368 colonies	1-10 c.c.	25	50% Co <sub>2</sub> ; H present
Aug. 30	Tap at Laboratory.....	237 colonies	700 colonies	1-100 c.c.	20	30% Co <sub>2</sub> ; H present
Sept. 6	Tap at Laboratory.....	400 colonies	380 colonies	1-10 c.c.	12	25% Co <sub>2</sub> ; H present
Sept. 15	Tap at Laboratory.....	110 colonies	530 colonies	1-10 c.c.	8	25% Co <sub>2</sub> ; H present
Sept. 20	Tap at Laboratory.....	32 colonies	440 colonies	1 c.c.	90	50% Co <sub>2</sub> ; H present
Sept. 24	Tap at Laboratory.....	45 colonies	780 colonies	1 c.c.	95	70% Co <sub>2</sub> ; H present
Sept. 28	Tap at Laboratory.....	135 colonies	860 colonies	1-10 c.c.	20	25% Co <sub>2</sub> ; H present
Oct. 3	Tap at Laboratory.....	18 colonies	237 colonies	1-10 c.c.	25	33 1-3% Co <sub>2</sub> ; H present
Oct. 12	Tap at Laboratory.....	25 colonies	157 colonies	1-10 c.c.	16	60% Co <sub>2</sub> ; H present
Oct. 19	Tap at Laboratory.....	2,400 colonies	3,000 colonies	1-10 c.c.	95	10% Co <sub>2</sub> ; H present
Oct. 24	Tap at Laboratory.....	560 colonies	2,100 colonies	1-10 c.c.; 1 c.c.	10, 80	40% Co <sub>2</sub> ; H present
Nov. 1	Tap at Laboratory.....	49 colonies	440 colonies	1-10 c.c.	10	25% Co <sub>2</sub> ; H present
Nov. 14	Tap at Laboratory.....	41 colonies	169 colonies	1-10 c.c.	30	25% Co <sub>2</sub> ; H present
Nov. 21	Tap at Laboratory.....	18 colonies	141 colonies	10 c.c.	60	50% Co <sub>2</sub> ; H present
Nov. 28	Tap at Laboratory.....	43 colonies	93 colonies	10 c.c.	90	50% Co <sub>2</sub> ; H present
Dec. 5	Tap at Laboratory.....	22 colonies	320 colonies	10 c.c.	90	40% Co <sub>2</sub> ; H present
Dec. 12	Tap at Laboratory.....	52 colonies	270 colonies	1 c.c.	20	25% Co <sub>2</sub> ; H present
Dec. 20	Tap at Laboratory.....	137 colonies	450 colonies	1-10 c.c.	30	25% Co <sub>2</sub> ; H present

\*Few bubbles.

†No gas in 10 c.c.

## A STUDY OF THE PNEUMOCOCCUS DURING LONG CONTINUED CULTIVATION ON MEDIA, WITH ESPECIAL REFERENCE TO THE INULIN TEST.\*

Dr. Jane L. Berry, Acting Assistant Bacteriologist, Research Laboratory.

The work reported in this paper was carried on under the direction of Drs. William H. Park and A. W. Williams, and consists of a study of some of the pneumococcus strains isolated at the Research Laboratory during the period between November, 1904, and August, 1905. The system of designating the strains is that used by Drs. Park and Williams in the report made to the Pneumonia Commission, a the description of the strains here mentioned being included in that report.

The organisms have been cultivated during the time since isolation upon blood agar, with occasional transfers to serum broth, or calcium broth. The possibility of contamination by similar organisms, during so long a period of cultivation on artificial media, has, of course, to be considered in judging results, but it is not thought that any contamination has taken place; first, because of the care exercised in transferring cultures and watching results; second, because where changes have occurred in the different strains they have been of a similar character, indicating a systematic tendency,

and third, because in some cases, where a change has taken place, it has been possible to observe the different stages leading toward it, in a graduated series.

Very few strains are now found to be typical, morphologically. The majority show very small organisms and increased chain formation, namely, a more or less marked approach toward a streptococcus type. With some strains this change seems to be a permanent one, the organisms having a definite streptococcus morphology in all media; with others the change is but temporary, to be followed in later cultures by a return to a characteristic pneumococcus type, and with a few strains, while an occasional atypical culture is seen, the majority of cultures now show a morphology as typical as when the organisms were first isolated more than a year ago.

Table I gives the results of a study of morphology and inulin coagulation made during January, 1906. Sixty-one strains were studied at this time, selected at random from the laboratory stock. Since but one inulin test was made with each strain in this series of experiments, only general conclusions can be drawn as to inulin coagulation from this part of the work, in view of the great irregularities later observed.

\*This is a continuation of the work reported in the 1905 volume of "Studies from the Research Laboratory."

a Jour. Exper Med. 1905, 7, p. 403.



TABLE 1.

Summary of Inulin Tests Made January, 1906, Upon Strains of Pneumococci Isolated at Different Periods Between November, 1904, and March, 1905, Compared With Similar Tests Made Soon After Isolation. All Positive in Original Tests.

	Coagulated not Later Than in Original Test		Coagulated Later than in Original Test		Not Coagulated This Time Though Coagulated in Original Test.		Total				
	Char.	Not Char.	Characteristic	Not Char.	Char.	Not Char.					
Pneumonia Cases	8 <sub>1001</sub>	18 <sub>1122</sub>	15 <sub>1112</sub>	3d later	22 <sub>1001</sub>	2d later	4 <sub>1001</sub>	20 <sub>1122</sub>	27		
	†9 <sub>1001</sub>	77 <sub>1001</sub>	39 <sub>1001</sub>	2d "				21 <sub>1122</sub>			
	13 <sub>1001</sub>		†47 <sub>1122</sub>	2d "			62 <sub>1112</sub>	36 <sub>1001</sub>			
	46 <sub>1001</sub>		57 <sub>1122</sub>	8d "			67 <sub>1001</sub>	†47 <sub>1001</sub>			
	56 <sub>1112</sub>		83 <sub>1001</sub>	10d "			72 <sub>1001</sub>				
	69 <sub>1001</sub>						75 <sub>1001</sub>	73 <sub>1001</sub>			
	82 <sub>1322</sub>						76 <sub>1001</sub>				
						98 <sub>1122</sub>					
	7	2	5	1	7	5					
	9		6		12						
Normal Cases		N106 <sub>1112</sub>					N23 <sub>1122</sub>	†N10 <sub>1112</sub>		23	
	N4 <sub>1122</sub>	N111 <sub>1001</sub>	N89 <sub>1122</sub>	8d later			N5 <sub>1122</sub>	N11 <sub>1122</sub>			
	N124 <sub>1001</sub>	N127 <sub>1112</sub>					N52 <sub>1122</sub>	N43 <sub>1122</sub>			
	N135 <sub>1122</sub>	N113 <sub>1001</sub>	N99 <sub>1122</sub>	9d later			N59 <sub>1122</sub>	N45 <sub>1001</sub>			
	N3	6 <sub>1212</sub>						N107 <sub>1111</sub>			
							N91 <sub>1222</sub>				
							N100 <sub>1122</sub>				
							N109 <sub>1112</sub>				
							N130 <sub>1112</sub>				
		4	4	2	0	8	5				
		8		2		13					
	Miscellaneous Cases	C & D4 <sub>1001</sub>	C23 <sub>1112</sub>	C5 <sub>1122</sub>	1d later	Me2 <sub>1112</sub>	3d later	C & D8 <sub>1001</sub>	†C4 <sub>1122</sub>		11
			Me1 <sub>1122</sub>					T3 <sub>1122</sub>			
		Q5 <sub>1122</sub>						Q3 <sub>1001</sub>			
							C23 <sub>1122</sub>				
	2	2	1	1	4	1					
	4		2		5						
Total.....									61		



Case	Strain		At Time of Isolation	Date of Culture				Total Results			Total Tests
				January, 1906	March, 1906	May, 1906	June, 1906	—	±	+	
M3.....	{	-	..	..	..	2	2	..	..	5	
		±	..	..	..	2	..	2	..		
		+	..	..	..	4	..	..	4		
M. M. 1.....	{	-	..	..	..	..	..	..	..	8	
		±	..	..	..	..	..	..	..		
		+	..	..	..	8	..	..	8		
M. M. 2.....	{	-	..	..	..	1	1	..	..	7	
		±	..	..	..	2	..	2	..		
		+	..	..	..	4	..	..	4		
M. R. 1 .....	{	-	..	..	..	..	..	..	..	4	
		±	..	..	..	..	..	..	..		
		+	..	..	..	4	..	..	4		
M. R. 2.....	{	-	..	..	..	..	..	..	..	5	
		±	..	..	..	1	..	1	..		
		+	..	..	..	4	..	..	4		
Total.....			..	..	..	..	21	8	41	70	

TABLE 3—Continued.

Case	Strain		At Time of Isolation	Date of Culture				Total Results			Total Tests		
				January, 1906	March, 1906	May, 1906	June, 1906	—	±	+			
41001.....	Original strain.....	{	—	..	1	2	3	6	12	..	..	13	
			±	..	..	..	..	..	..	..	..		
			+	1	..	..	..	..	..	..	1		
	M. A.....		—	..	..	2	..	..	2	..	..	2	
			+	..	..	..	..	..	..	..	..		
	M1.....	{	—	..	..	..	2	2	4	..	..	4	
			±	..	..	..	..	..	..	..	..		..
			+	..	..	..	..	..	..	..	..		..
	M3.....	{	—	..	..	..	..	..	..	..	..	4	
			±	..	..	..	1	1	..	2	..		..
			+	..	..	..	1	1	..	..	2		..
	Total.....			..	..	..	..	..	18	2	3	23	

Case	Strain	Date of Culture	Morphology			Inulin					Total Tests
			Typical	Atypical	Capsule	Total Results					
						-	Sl.	±	+	++	
N621122..	Original .....	Mar., '05	..	+	-	4	..	..	..	..	4
	" .....	Jan., '06	±	..	.....	1	..	..	..	..	1
	" .....	Mar., '06	..	+	.....	1	..	..	..	..	1
	*R. A.....	" '06	±	..	No org.	..	..	..	1	..	1
	R. B.....	" '06	..	+	No org.	1	..	..	..	..	1
	M. A.....	" '06	..	+	+	1	..	..	..	..	1
	Original .....	May, '06	..	+	.....	1	..	..	..	..	1
	" .....	June, '06	..	+	.....	3	1	2	2	..	8
	R. A.....	" '06	..	+	.....	2	..	2	1	..	5
	†M. R. 1.....	" '06	±	..	-	1	1	10	2	..	14
	M. R. 2.....	" '06	..	..	No org.	2	..	3	1	..	6
	M. R. 3.....	" '06	±	..	-	1	..	2	1	..	4
	M. R. 4.....	" '06	..	+	Indic.	1	..	3	1	..	5
	R. R.....	" '06	..	+	..	..	..	..	3	1	4
Total.....						19	2	22	12	1	56

\*Plate atypical; serum broth typical.  
†Plate typical; serum broth atypical.

Of the eleven strains from miscellaneous cases, four coagulated inulin, not later than when first studied, two characteristic, one not characteristic; and five failed to coagulate, although positive in original tests, four of these characteristic, one not characteristic. When first studied six were typical, five not characteristic.

Unless extremely small, size of organisms has not been considered in this division into characteristic and non-characteristic, the classification being based upon the general morphological picture.

In order to ascertain the effect upon the inulin fermenting property produced by passage of the organism through animals, a certain number of strains were selected for further study, and in March and again in June of the present year, these were inoculated into mice and rabbits.

In these experiments no attempt was made to ascertain the smallest lethal dose, but all strains were found to have lost virulence, very large doses being required to kill

the animals. In the last series of mouse inoculations (Mouse 1, Mouse 2, etc.) the organism was passed directly from one animal to another; the heart being divided, the chest cavity then washed with sterile water, and this inoculated intraperitoneally, cultures being made at the same time. By this method, a high degree of virulence was developed in some cases, mice dying within six to eight hours after inoculation, with profuse cultures of the pneumococcus given by the heart's blood.

Table 2 gives a synopsis of morphology and inulin coagulation with the original strains and after passage through a second series of animals.

Table 3 gives the complete record of inulin tests made with four strains, the results in these cases being typical of those given by the other cases studied.

Of the comparatively small number of cultures studied only two have coagulated the inulin medium in recent tests which failed to coagulate it when first isolated. These two, 161122 and N 621122, were not included in the January table.

No. 41001 originally a large, typical pneumococcus, showing capsules and coagulating inulin, has in these tests shown a variable morphology, with loss of capsules and inulin-fermenting power, but after passage through Mouse 3 there is again a typical morphology, with capsules, and two cultures showing complete and two partial inulin coagulation. Of a total of 23 inulin tests, three are positive, two partial and 18 negative. To this list may be added at least six coagulations not recorded, made during the first few months after isolation, when the organism was frequently tested and always gave prompt positive results. The negative tests have all been made since the beginning of January.

No. 161122 which has shown a mixed streptococcus and pneumococcus morphology throughout cultivation, and was negative to inulin when first tested, now gives positive inulin coagulation in cultures, both from the original strain and after passage through Mouse 5. Of the total inulin tests three are positive, eight partial and 20 negative.

No. 361001 has been of special interest. It was originally a very typical pneumococcus, showing capsules, coagulating inulin promptly and very virulent for animals. It now shows in two series of cultures from the same strain, entirely opposite characteristics. The one series consists of later transfers from a series which in the summer of 1905 was carried on for many generations on special media, namely: horse blood agar, rat blood agar, rabbit blood agar and mouse blood agar; cultures being then tested for virulence and inulin coagulation. Originally virulent for mice in doses of 1-1,000,000 c.c., rabbits 1-5,000 and rats 1-10 c.c., all cultures were now found to have decidedly lost in pathogenic power for these animals. Inulin was still promptly coagulated in seven cultures. Tried again in October of the same year, the cultures were found to be non-virulent for rabbits in 4 c.c. doses and no longer killed mice unless given in large doses of a strong emulsion. No further tests of virulence have been made with this series. The cultures are still fairly typical morphologically, have recently coagulated inulin and have given 12 positive coagulations during the past six months.

The contrasting series of 361001 consists of the regular laboratory stock cultures. In these a complete change has taken place, and the organism now grows as a typical streptococcus in all media, is cultivated with difficulty and shows no reaction with inulin serum water. This change has been a gradual one, all degrees of morphology having been observed between the two types of organisms and repeated fishing from atypical colonies have given cultures of a similar mixed growth. Of 56 total inulin tests, 23 have been positive, 33 negative.

No. 471001 is of peculiar interest on account of its morphological changes. Originally a typical pneumococcus mucosus, it has shown in subsequent cultures a varying morphology, sometimes of a typical pneumococcus and again of a streptococcus type, with occasional reversion to the original pneumococcus mucosus, the latter form generally appearing only after passage through animals, especially mice, or when a fresh transfer is made after a long resting period. After persisting for a varying number of transfers (from one or two to eight) the pneumococcus mucosus form is again lost, the organism reverting to the pneumococcus, the streptococcus, or to mixed types. Table 4 shows the variations observed after continued cultivation on various media, according to plan described under 361001. In the transfers following those given in the table all the horse blood agar cultures showed the pneumococcus mucosus form, which persisted for eight weekly transfers, the pneumococcus, the streptococcus, or the mixed form then reappearing. In January last a typical pneumococcus mucosus was again obtained from this series, the form persisting for several transfers.

The changes of form observed in this organism are in unison with the results previously obtained at this laboratory, and are a confirmation of the intimate connection and interchangeable nature of the pneumococcus and pneumococcus mucosus types of organism.

No. 471001 was originally virulent for mice in 1-100,000 c.c., rats, 1-100 c.c. Tested after growth on the various blood agars, a loss of virulence was found in all cultures. Some difference was noticed in cultures according to the media upon which growth had been carried on, but upon the whole the results were irregular, and without further tests no definite conclusion could be drawn upon this point.

The coagulation of inulin, while at first prompt, has since been irregular with this organism. Of 54 inulin tests, 13 are positive, six partial and 35 negative.

No. 761001 is another organism which has shown a marked change. Originally a typical pneumococcus, coagulating inulin promptly, in these tests it has appeared as a characteristic short streptococcus, and with the exception of two positive coagulations from Mouse 1, and four partial reactions from other animals, all recent inulin tests have been negative. Of 31 total inulin tests 3 are positive, 4 partial and 24 negative.

N 621122 has shown features of peculiar interest and in the summary results have been given more in detail. With the exception of a few cultures which more nearly approach the pneumococcus type, this organism has presented the appearance of a typical streptococcus during the entire period of cultivation. It was negative to inulin when first isolated and in many subsequent tests, but in the recent series of experiments coagulations have been obtained with cultures from each animal, and also from the original strain. Of 56 inulin tests, 13 have been positive, 24 partial and 19 negative.

N 231122 and N 91122 were both originally typical pneumococci, showing capsules, coagulating inulin promptly, and virulent for animals. With the exception of an occasional culture showing increased chain formation, both strains have been typical in morphology throughout, N 91122 especially showing the most typical large pneumococci, but the record of inulin tests shows that with both strains many cultures have failed to coagulate inulin. After passage through animals coagulation again occurs, and recently positive inulin tests have also been obtained from the original strain of N 23. N 231122 in 63 inulin tests shows 18 positive, 22 partial and 23 negative; N 91122 in a total of 70 tests gives 41 positive, 8 partial and 21 negative; we have therefore but 35 per cent. and 58.5 per cent. respectively of positive inulin tests for these two very typical strains of pneumococci.



TABLE 4.

Showing Variations in Morphology (*Pneumococcus* and *Pneumococcus Mucosus* Forms), and Inulin Coagulation of 47<sub>1001</sub> in August, 1906, After Continual Cultivation on Special Media. First Series Transferred Daily; Second Series After Interval of Nine Days.

Series.	Date or Culture.	Medium.	Total Transfer No.	Transfers on Special Medium.	Typ. Pneumococcus Mucosus.		Typ. Pneumococcus.		Inulin Coagulation.
					Growth.	Smear.	Growth.	Smear.	
Horse Blood Agar	Transferred daily ...	8/9 Horse bl. agar.	90	90	+	+			
		8/9 Serum broth..	90	....	....	+			
		8/10 Inulin.....	....	....	....	+	....	....	+
		8/11 Bl. agar plate.	....	....	....	....	+	+	
	Transferred 9th day.	8/9 Horse bl. agar.	85	25	+	+			
		8/9 Serum broth..	85	....	....	....	....	+	
		8/10 Inulin.....	....	....	....	+	....	....	+
		8/11 Bl. agar plate.	....	....	+	+			
Rabbit Blood Agar	Transferred daily....	8/9 Rabbit bl. agar	101	41	+	+			
		8/9 Serum broth..	101	....	....	+			
		8/10 Inulin.....	....	....	....	+	....	....	-
		8/11 Bl. agar plate.	....	....	....	....	+	+	
	Transferred 9th day.	8/9 Rabbit bl. agar	96	35	+	+			
		8/9 Serum broth..	96	....	....	+			
		8/10 Inulin.....	....	....	....	+	....	....	+
		8/11 Bl. agar plate.	....	....	....	....	+	+	
Rat Blood Agar.	Transferred daily....	8/9 Rat bl. agar ..	101	40	+	+			
		8/9 Serum broth..	101	....	..	+			
		8/10 Inulin.....	....	....	....	+	....	....	+
		8/11 Bl. agar plate.	....	....	..	....	+	+	
	Transferred 9th day.	8/9 Rat bl. agar ..	96	35	+	+			
		8/9 Serum broth..	96	....	....	+			
		8/10 Inulin.....	....	....	....	+	....	....	+
		8/11 Bl. agar plate.	....	....	....	....	+	+	
Mouse Blood Agar	Transferred daily....	8/9 Mouse bl. agar	102	11	+	+			
		8/9 Serum broth..	102	....	....	+			
		8/10 Inulin.....	....	....	....	+	....	....	+
		8/11 Bl. agar plate.	....	....	+	+			
	Transferred 9th day.	8/9 Mouse bl. agar	97	6	+	+			
		8/9 Serum broth..	97	....	....	+			
		8/10 Inulin.....	....	....	....	+	....	..	+
		8/11 Bl. agar plate.	....	....	....	....	+	+	

Blood agar and serum broth cultures made from blood agar of August 8, in each case. Plates made from inulin cultures.

Considered as a whole it will be seen that the entire series of inulin tests here reported is characterized by a marked irregularity as to coagulation results, this being the case not only with atypical, but also with typical strains.

As the tables show, passage through animals seems generally to have a favorable influence upon the inulin fermenting power of the pneumococcus, an effect best shown in the strain from N 91.

The number of organisms inoculated into the inulin medium is often found to be an important factor, as coagulations have several times been obtained by the use of a strong emulsion of organisms after many negative results with cultures of ordinarily abundant growth. This, however, is not an invariable rule, as good coagulations have been obtained in some cases from cultures showing a very poor growth, while other cultures of the same inulin lot, containing a heavy growth of the same organism, have failed to coagulate.

The growth of the organisms in inulin has been studied in all cases, either in smears or by blood-agar streak plates, whenever possible, by both methods, and no cultures have been included in the report which have not been found to contain an abundant number of organisms; the large number discarded on account of insufficient growth causing the irregularity in the number of tests recorded for each strain. All inulin cultures were incubated for two weeks before being classed as negative.

The inulin serum water used in these tests was made according to the usual method, with one-third ox serum, two-thirds distilled water, and 1 per cent. inulin powder, each lot being tested with laboratory stock cultures before being used in these experiments. The inulin powder used in some of the earlier work was extracted by Dr. Gibson at the Research Laboratory from dandelion roots, a preparation which gave very good results. For all the other tests the medium used was prepared from Merck's inulin (white). Various stocks of this powder, procured at different periods were found to differ greatly, and one whole stock had to be discarded, as no reliable tests could be obtained from it. In all of the work done in March and subsequently but one stock of Merck's white inulin has been employed, 5 c.c. of the inulin serum water being inoculated with  $\frac{1}{2}$  c.c. of culture in each test. The greatest variation has been found between lots of inulin serum water made at different dates from this one inulin powder, and from the same or different lots of ox serum. Tubes inoculated with the same strain show all stages between entirely negative and positive results and an equal irregularity is found in many cases when tubes of the same or different lots of inulin medium are inoculated simultaneously with the contents of the same culture tube. Some difference was noticed between lots of inulin medium according to the supply of ox serum used, but at the end of the time-limit differences based upon this distinction were either very slight or no longer noticeable. Table 5 gives the results of the tests made with N 23<sub>122</sub> and N 91<sub>122</sub> in five lots of inulin medium made of the same inulin powder, and two different lots of ox serum.

TABLE 5.

Results of Tests with Five Lots of Inulin Serum Water. All Made from Same Inulin Powder (Merck's White) from Two Lots of Ox Serum—2 Cases.

[illegible][illegible]



Tests Grouped under Lot of Inulin Medium Used.														
Case.	Strain.	Tubes Inoculated.					Results.					Total Tests.		
		1st Ox. Ser.			2d Ox. Ser.		Coagulation.							
		Lot.			Lot.									
		1	2	3	4	5	—	S	L	+	++			
	MM 1.....	{	..	..	4	..	..	..	..	..	..	3	1	8
		{	..	..	..	3	..	..	..	..	..	3	..	
		{	..	..	..	..	1	..	..	..	..	1	..	
	MM 2.....	{	..	1	..	..	..	..	..	1	..	..	..	6
		{	..	..	2	..	..	..	..	..	..	1	1	
		{	..	..	..	1	..	..	..	1	..	..	..	
		{	..	..	..	..	2	..	..	..	1	1	..	
Total.....			..	..	..	..	..	52	14	1	5	27	5	52
Tests Grouped According to Ox Serum used	2d Ox Serum .....	{	1	..	..	..	..	..	1	..	..	..	..	26
			..	6	..	..	..	..	4	..	1	1	..	
			..	..	19	..	..	..	2	1	1	10	5	
	1st Ox Serum.....	{	..	..	..	..	..	26	7	1	2	11	5	26
			..	..	..	14	..	..	3	..	2	9	..	
			..	..	..	..	12	..	4	..	1	7	..	
			..	..	..	..	..	26	7	..	3	16	..	26

A few cultures of streptococci recently obtained from various pyogenic sources were inoculated into animals, and the morphology and inulin growth in media studied as above. One of these strains resembles a pneumococcus, and one a pneumococcus mucosus in several cultures, and all show capsules after passage through animals. Table 6 gives a summary of results and shows that all inulin cultures remain negative. These experiments are too few to be of any importance, but are given as controls, and because it seems possible that further study in this direction may establish the pneumococcus nature of some organisms now classed as streptococci.

TABLE 6.

Synopsis of Characteristics of Streptococcus Cultures Before and After Passage Through Animals.

Case.	Original Strain.	Rabbits.	Mice, *					
			M.A.	M.B.	M.C.	M.D.	M.E.	M.F.
* Trachoma.....	Morphology	Typ.	+	+	....	+	+	+
		Atyp.	....	....	+	....	....	....
		Caps.	....	+	+	+	+	+
		Inulin	—	—	—	—	—	—
† Empyema.....	Morphology	Typ.	+	+	+	+	....	....
		Atyp.	....	....	....	....	....	....
		Caps.	....	+	+	+	Lived	....
		Inulin	—	—	—	—	....	....
Puerperal Septicæmia	Morphology	Typ.	+	+	+	....	....	....
		Atyp.	....	....	....	....	....	....
		Caps.	....	+	?	Not inoculated	....	....
		Inulin	—	—	—	....	....	....

Tests of the various lots of inulin powder and of the inulin medium before inoculation have so far led to no explanation of the varying coagulation results. No differences could be detected between the several stocks of inulin powder, the rejected stock appearing to be identical with the rest except that coagulations could not be obtained with the medium made from it. Nine lots of the inulin medium made at different dates from good powder were tested for acidity before inoculation with organisms. Five c.c. titrated with N/50 NaOH and phenolphthalein were found to vary between neutral and 1.4 acid, the majority being about 0.2 acid.

Flasks containing 50 c.c. of inulin medium after titration for initial acidity were inoculated each with 5 c.c. of one of the cultures of the strains studied, and inoculated for 10 days. Some of the contents of these flasks was pipetted out every one or two days and tests made of reactions and growth in the inulin medium. Two flasks inoculated with N 91222 showed coagulation nearly complete in 24 hours, with acidity 2.2 and 2.8 respectively, organisms very characteristic, and no further tests possible because of coagulation. All flasks inoculated with other organisms gave a negative coagulation result, and showed practically no increase in acidity, while at the same time the count of plate colonies showed a good growth of organisms present. Table 7 gives the results of these tests with four of the previously mentioned strains and also with one strain of streptococci; the highest acid production being given in each case compared with the reaction before inoculation, and with the highest plate count.

TABLE 7.

Results of Titration and Plate Count with Non-Coagulation of Inulin Flask Cultures—5 c.c. Titrated with N/50 NaOH.

Strain.	Titration.		Plates.
	Before Inoculation.	Highest Acidity.	
161112.....	1.4	1.9	98,102,440
471001.....	1.1	1.7	128,142,000
N231122.....	0.4	0.9	45,896,050
N621122.....	0.2	1.7	73,710,000
Streptococci.....	0.2	1.8	33,015,000

\* Many cultures suggest resemblance to pneumococcus mucosus, most marked in cultures from mouse A.

† Cultures from rabbit and from mouse B suggest resemblance to pneumococcus.

Further work in this direction was contemplated but has not yet been carried out, the same being true of plans to attempt to ascertain the nature of the acid produced by the growth of the pneumococcus in the inulin medium.

## Conclusions.

Many strains of pneumococci, after longer or shorter periods of cultivation on artificial media, are found to undergo decided changes in morphology, virulence, and power to ferment inulin.

These changes may be temporary, disappearing when the organisms are placed under favorable conditions, but in some cases they seem to be permanent, the organisms having apparently undergone a complete change from their original characteristics.

The change in morphology is toward a more or less complete approach to a streptococcus type, some tendency in this direction appearing in certain cultures of every organism studied.

The presence of the pneumococcus and of the pneumococcus mucosus types in organisms of the same strain shows the close relationship and interchangeable character of these two types.

The change in virulence corresponds with that usually found after long artificial cultivation. By transfers directly from animal to animal a rapid increase of virulence is developed.

The change in inulin fermenting power represents a marked irregularity of reaction constituting the chief feature in this series of tests which, including those made at time of isolation, consists of 452 inulin tests made with cultures from 63 strains of organisms.

A large number of negative tests have been given by very typical pneumococci and, on the other hand, many coagulations have been obtained from cultures of a definite streptococcus type.

Great variations have been found between different stocks of inulin powder and also between different lots of inulin medium made from the same powder and inoculated with organisms of the same strain.

Passage through animals seems, in many cases, to have a favorable effect upon the inulin fermenting power of the pneumococcus.

The use of strong emulsions of organisms sometimes produces coagulation, where ordinarily abundant cultures give only negative results.

The conclusion drawn from these experiments is that while coagulation of inulin is thought to be valuable corroborative evidence in favor of the pneumococcus nature of an organism, yet the irregular nature of the reaction may make it a fruitful source of differences and errors in diagnosis if too much reliance is placed upon this test, since it is evident that no organism can be rejected as a pneumococcus because of one, or even of several, non-coagulating inulin cultures. Especially is this true of cultures which have been grown for some time on artificial culture media.

## LABORATORY NOTES ON SPIROCHAETA OBMEIERI FOUND IN NEW YORK.

Adele Oppenheimer, M. A.

(From the Research Library.)

The spirochete studied by us was originally obtained by Dr. Norris from the blood of a patient in the service of Dr. Carlisle (2) in Bellevue Hospital. This organism was grown by Dr. Norris in white rats. Through the kindness of Dr. Flournoy, Pathologist to Bellevue Hospital, we received some spirochetal rat's blood; thereafter the parasite was kept alive by means of passage from rat to rat, according to the method of Dr. Norris (8), Director of Laboratories of Bellevue and Allied Hospitals.

In the proceedings of the New York Pathological Society, December, 1905 (p. 163), Dr. Norris reported that he had succeeded in growing the spirochete in the blood of rats, the first time in history that *Spirillum Obmeieri* a had been grown in this animal. Some of this spirochetal blood he either directly or indirectly kindly gave to various workers, and we herewith wish to report in what respects our observations and conclusions agree and disagree with those not only of Norris and his associates (8), but also with those of Novy and Knapp (9), and of Breinl (Lancet, 1906, June 16, No. 4320, p. 1690).

## Historical Sketch.

The papers of Shaudinn and Hoffman on *Spirochaeta pallida* b aroused a fresh interest in *Spirochaeta Obermeieri*. Investigations of the latter had been carried on ever since Obermeier, in 1873, reported the discovery of this organism in the blood of those suffering from relapsing fever. Through these long years much had been learned concerning this parasite, as can be seen by consulting any test book on bacteriology or by perusing the masterly articles of Wladimiroff (11) and Hodlmoser (4).

Until very recently it was classed with the bacteria, but now, owing to the work of Shaudinn and others, one of the questions to be solved is whether the *Spirillum* of Obermeier is or is not a protozoan.

The *Spirochaeta Obermeieri* (New York) was observed by us in the rat, in vitro, on the slide and in the hanging drop. Under these heads we desire to call attention to such of our observations as we consider have not been sufficiently emphasized by others, such as have not been recorded by others, such as differ from those of others, such as have led us to disagree with the conclusions of others.

The smears were stained with Giemsa's or Wright's or Goldhorn's blood stain.

## In the Rat.

1. It has been claimed by some observers that the length of time that the spirochetes are found in the blood, constitutes one of the chief points of difference between the *Spirochaeta Duttoni* of African tick-fever, and *Spirochaeta Obermeieri*, and indicates that each of the two organisms represents a distinct species.

As a result of subcutaneous injection, according to our method of procedure, the parasites usually appeared in the blood of the tail within ninety-six hours after inoculation; disappeared after twenty-four hours, and did not reappear; and this was true from the very beginning of our work in November and December, 1905. Our work was stopped in March, 1906.

In our rat 26 c the facts on hand might be interpreted as fifteen days' presence of the organism in the peripheral blood; they must be interpreted either as more than three days' presence or as more than two relapses—Norris, Pappenheimer and Flournoy (8), Novy and Knapp (9)—and we do not know that there are relapses in rats infected with *Spirochaeta Obermeieri* (New York); we are not aware of the fact, if it is a fact (see the repeated examination of rat c).

According to Breinl (Lancet, 1906, No. 4320, p. 1690) d there are never more than two relapses in rats inoculated with the New York strain, and the maximum presence is three days for the New York strain, and seventeen days for the African strain.

See our rats 21, 26, 42, 49, in which the parasites were apparently found in the circulating blood for more than three days. Norris and his fellow workers (8), too, state that the New York *Spirochaeta* is in the peripheral blood of rats one to five days. And in May, 1906, Novy and Knapp (9) record that "As a result of the consecutive passage of the spirilla through this long series, increase in virulence, if this expression can be used, was noted. Usually, however, the spirilla now disappear in about sixty hours after inoculation. Exceptionally a rat is met with in which the period of infection lasts three or four days."

However, in January, 1906, Novy made the following statement in the "Journal of the American Medical Association" (Vol. XLVI, No. 2): "The persistence of the spirochetes of tick-fever in the blood of rats for three to eight days, as shown by Dutton and Todd, would indicate that their organism, though closely related, is nevertheless different from that studied by us. It goes to show that the tick-fever of Africa and the relapsing fever of Europe are due to different species of spirochetes."

Either our rats are not like Novy's or our method of passage is unlike his in points that are essential. As a matter of fact he injected intraperitoneally, we sub-

a It is not definitely known whether the New York spirochete is *Spirillum Obermeieri* or not.

b Arbeiten kaiserl. Gesundheitsamte, Berlin, 1905, Apr. 10, xxii., zweites Heft, 527; Deutsche Med. Wochenschr., 1905, May 4, xxxi., p. 711.

c See Table I.

d See also Breinl and Kinghorn, p. 48 (7).



cutaneously *e*; and evidently he injected more organisms than we. That a difference of method can influence the day of appearance of the parasites in the blood is shown by the fact that whenever our blood was not used at once, but kept a day before using it for inoculation, the appearance, too (of the spirilla in the circulating blood of the inoculated rat), was delayed. In the second place, it should be noted that under these conditions the parasite was never found in the peripheral blood more than two days in succession *f*. We have not attempted to learn whether there is a loss in the number of living spirochetes or in their vigor when the diluted blood stands a day. Such an investigation is, of course, difficult to carry out with organisms that one has not succeeded in cultivating on artificial media.

These studies show that more work needs to be done before the relationship between the New York and African strains can be determined (see also No. 8 and No. 3) *g*.

2. The symptoms of the rats were not studied, but it was noted that not a few of the rats were restless when they had spirochetes in the circulating blood, just as they are when affected with other diseases. This restlessness helped us to pick out the rat with spirochetal blood on any one day. *h*

3. Rat 26 apparently died of spirillosis. Novy and Knapp (9) particularly state that they had no such deaths. *i* Of all our rats this was the only one which did not keep itself white.

4. Sometimes the parasites were present in great numbers and at others could only be found by searching several microscopic fields; and these variations were too apparently without any law or order. Such, as well, is the case in European relapsing fever in man.

5. Rats 8 and 25 injected with blood the day after the disappearance of the organisms from that blood did not become infected. (See conclusion 5, p. .)

6. Rats 12 and 15 injected with blood two days before the appearance of the spirochetes in that blood did not become infected. (See conclusion 5, p. .)

7. In rat 47 the inoculation of living organisms did not result in an infection. Was 47 more resistant than the average white rat?

According to Novy and Knapp (9), another plausible explanation for these "resistant" exceptions is the injection of only a few living spirochetes and a large dose of immune bodies. This explanation might hold for our rats 51 and 52, but it does not hold for 47, since though inoculated with the same material on the same day 48 became infected.

8. The presence or absence of the spirochetes in the spleen is particularly important in the light of Metchnikoff's findings in the case of the relapsing fever of Europe. He found phagocytic destruction of the organism in the spleen during the apyrexial period.

At autopsy, judging from smears, the spirilla were present in the peripheral blood and in the heart only. They were never present in the spleen, kidney, supra-renal body, lung or liver (see table 4). Our results here agree with those of Norris, Pappenheimer and Flournoy (8) and disagree with those of Novy and Knapp (9), who found spirochetes in all the organs of the rat.

It should be noted that rat 31 was dissected before and 34 after, the appearance of the parasites in the circulating blood.

Though rat 62 showed organisms in the blood of the tail on February 6, at autopsy on that day no organisms were found in the heart's blood. Perhaps the height of the infection had not yet been reached. Perhaps rats 51 and 52 did not become infected because they were injected with the blood of rat 49 before the climax in 49 was reached.

#### In Vitro.

1. One of the chief aims of workers with *Spirochaeta obermeieri* is to grow these on artificial culture media.

In vitro the organisms remained alive in rat's blood, but as far as our work is concerned the various media have proven themselves to be simply the support on which or in which the rat's blood rested. The spirillum merely held its own in vitro, it increased slightly if at all and we cannot say that we had a culture.

In one instance we moved *j* successfully the blood containing spirochete from the heart to test-tube 1; then on the second day after, the spirochetes from test-tube 1 to test-tube 2 (containing normal rat's heart's blood shaken); again, on the second day after that, the spirochetes from test-tube 2 to test-tube 3; but not to test-tube 4. In another instance, not even the removal to test-tube 3 was successful. In a third case, we moved the blood containing spirilla from the heart to a test-tube containing a slope of sheep-serum glucose agar, then, on the eighth day after that, the organisms to test-tube 2, but as we had a contamination we had to stop short. Finally the removal from potato, test-tube 1, to potato, test-tube 2, but not to potato, test-tube 3, was successful.

Working also with the New York strain, Norris and his collaborators (8) believed they had cultures of the first and second generation, outside the body of the animal. Novy and Knapp (9) report a lack of success on their part outside of the body of the animal but growth of the parasites within capsules in the peritoneal cavity of white rats (10).

2. Incubator temperature seems to be unfavorable to long life of the organism when outside the body of the host. *k*

3. The interpretation of the well-known tangles and interwindings of the organisms varies with different authors.

In smears of material that had been in vitro, the spirillum often appeared more slender. *l* These slender forms suggested the stage of *Spirochaeta pallida* interpreted as premicrogametic by Krzyszalowicz and Siedlecki (6). Here the organism was found in tangled groups as well as singly. Here also one often saw two (or perhaps more) spirochetes interwoven. The tangled masses might be explained as the result of agglutination, especially as the organisms composing them and surrounding them were particularly long, except for the fact that (in the case of 38 sheep-serum glucose agar) no large groups were seen until some days had elapsed.

According to Novy and Knapp (9) the presence of tangles as observed by Koch (in insect and egg) indicates an agglutinated condition and not multiplication. On the other hand, Levaditi is apparently of a different opinion as can be seen from the following quotation: "Dass es sich hier nicht (chicken spirochaeta) um eine agglutination des Spirochats handelt hat Levaditi durch mikroskopische Beobachtung des Blutes bei 38° festgestellt, wobei er die Haufen in 4-35 Minuten sich wieder in einzelne freibewegliche Spirochäten auflösen sah." (Quoted from Wladimiroff, 11.)

Koch suggests in the Berliner klinische Wochenschrift, February, 1906, that chemiotaxis may account for the clumps and recalls the fact that similar plaited masses are to be seen in the flagella of bacteria.

It is not unlikely that the tangles and interwindings are due to the concentration or coagulation of the blood on standing, or the intertwining to fusion or conjugation. One of the intertwined spirochetes is always coarser than the other (or others), though none is as plump as the "bands" mentioned on page 7 (2).

It is unlikely that a longitudinal split should account for these interwindings; for longitudinal fission would probably result in two organisms lying side by side and that for more than a small part of their length. The spirilla in all probability, increase not by longitudinal but by transverse division as is indicated by transverse breaks and faintly stained attenuated areas.

#### On the Slide.

1. Instead of the typical spiral, one not infrequently sees whiplike organisms. Are these whips and individuals with sweeping waves due to the method of fixation?

2. One also sees certain straightened and flattened bands recalling the involution forms of the bacteria and suggesting, because of their shape, the so-called macrogametes of *Spirochaeta pallida* as described by Krzyszalowicz and Siedlecki (6).

*e* Except in cases of rats 3, 4, 5 and 6, which were injected intraperitoneally.

*f* Breinl and Kinghorn (7) state of *Spirochaeta Duttoni*: "The incubation period varied directly with the amount of infected blood injected and with the mode of inoculation. . . . The parasite multiplied more or less rapidly, depending on the dosage."

*g* Breinl (Lancet, 1906) states that the spirochete of the African tick fever is of a species differing from that of the New York spirochete in that each confers a relatively active immunity against itself, but not against the other.

*h* The rats were in charge of Mr. J. Behan, Laboratory Assistant.

*i* So also Breinl and Kinghorn, p. 49 (7).

*j* We use the word "moved" in preference to "transferred," in order to avoid the connotation of growth.

*k* According to L. A. and R. S. Williams, room temperature is also "the best for the continued existence of *Spirochaeta Duttoni*" in vitro?

*l* In cultures of *Spirochaeta Duttoni* made by L. A. and R. S. Williams (7), "the Spirochetes occasionally appeared to be thinner than normal."

In some of these thick forms there was an unstained cleft which might be interpreted as the beginning of the longitudinal division. The "band-like" form as a whole may stain quite intensely, but usually it is pale. Are these "bands" crushed organisms?

3. The spirillum is straight or curved, or more seldom U-shaped or about ring-shaped, or still less frequently tangled or knotted. We do not agree, therefore, with Novy and Knapp (9), who declare that the tendency to figure 8 forms or even perfect circles does not (as in *Sp. Duttoni* and relapsing fever of Bombay) seem to exist in the New York *Spirochaeta obermeieri*. In the hanging drop of the unidentified slender spirillum (mentioned below from the faeces of a dog) the organism was seen to take on tangled shapes.

4. The New York *Spirochaeta* is almost invariably gradually drawn to a point at each of the ends. These two faint terminations resemble the pale attenuated median area mentioned below and do not suggest organoid cilia or flagella, but rather prolongations of the periplast of the organism.

On some few spirilla indications of a flagellum like that described by Novy and Knapp (9) were noted. No flagellum-stain was tried *m*.

5. Generally on the slide the spirochete touches a red blood cell or two, more rarely a white blood cell or a blood plate, broadside or with one or the other or both ends. Sometimes it terminates bluntly against a red blood cell; it is then dipping into the cell. But all these connections may come about in making the film for we have never seen any such in the hanging drop.

Norris and his fellow-workers (8) noted, when immune and spirochetal blood combined were watched in vitro, a marked tendency of the organisms to adhere to the red blood corpuscles.

6. The parasite is often more or less beaded, and then looks as if irregularly stained as bacteria frequently are. The beading may of course, also, be either an artefact or the result of degeneration. *n*

7. A grain-like deeply stained body was seen in one spirillum, which since it occurred in a smear of normal spirochetes may not have been an artefact, but perhaps the result of degenerative processes.

8. The significance of the transverse breaks is a mooted question. The organism is usually  $1\frac{1}{2}$  times the length of a red blood cell, or  $2\frac{1}{2}$  times the length of a red blood corpuscle with a transverse break at about the middle. That we have not here two organisms lying end to end is indicated by the flat surfaces which bound the transverse break. Indeed these long "broken" forms of the parasite predominate in the early stages of the infection and therefore probably before agglutination could be said to bring organisms together. Two organisms lying end to end are not infrequently seen.

In addition to the transverse breaks one sees similarly located, lightly-stained attenuated areas. Such a pale, thin zone resembles the faint tips, the two ends of the spirochetes which fade away to a point.

These forms which are pale and thin or broken at the middle of their length might be interpreted as the final stages in a longitudinal division, but definite corresponding early phases have not been observed, namely the Y shaped and U shaped individuals with the attenuated area at the bend of the U.

Novy and Knapp (9) state that several division zones like those of the Bombay organism and like those present in *Sp. Duttoni* are not to be found in the New York *Sp. obermeieri*. On the other hand we have seen as many as four faint or unstained spots (breaks or attenuated portions) in the course of a single individual, sometimes cutting off from the rest of the spirillum only two, or even only one wave (hinting at vibrio-form or microgametes). These "single" (?) individuals are considered by some a string of individuals.

The modes of reproduction more clearly suggested by these appearances are transverse fission and fragmentation. In support of the view that the mode of reproduction is, not longitudinal, but transverse, is the fact that even in the early stages of the infection, not short thick forms, but long ones predominate.

#### In the Hanging Drop.

1. Ultimately it is in the hanging drop where the process of multiplication must be studied and there we have not yet seen any division.

Novy and Knapp (9) have often actually seen transverse division in the hanging drop, and Norris, Pappenheimer and Flournoy (8) believe they have seen it once; but all these workers point out the fact that these observations are capable of other interpretations.

2. The differences in the description of the motility of the *Spirochaeta obermeieri* are probably due to differences of the conditions under which the parasites are watched. In the mucus of the faeces of a normal dog were found two kinds of spirochetes namely, a slender and a thick one. *o* The slender one moved like a snake, its curves were seen to change; in the smears there were far less and broader curves than in the drop. The thick one moved by means of beating its way through the water and apparently by means of a corkscrew motion, its curves were fixed; in the smears there were as many curves as in the drop. The New York *Sp. obermeieri* is more like this latter organism than like the former; though it is flexible, its coils are permanent. We have never seen it when it was moving as quickly as either of them. We have seen it swing one end *p* and move from place to place seemingly by means of a corkscrew motion. All these three organisms move with either end forward. The *Spirochaeta obermeieri* New York travels in either direction, with the characteristic pauses, gradually or suddenly out of the microscopic field. The corkscrew motions and undulations are more rapid than the progression; indeed the organism often stands still, fastened perhaps to the cover glass, and meanwhile bends slowly and usually undulates rapidly.

Their pass over the *Spirochete obermeieri* undulations which persist in preparations longer than any other of its motions and which may be due to an undulating membrane. Perhaps, on the other hand, this pennant-like waving is a mere appearance and not a reality, for the rotations of a spiral about a long axis would simulate a wave motion in one plane as Norris and his co-workers (8) have pointed out. Perhaps the spiral of *Spirochete obermeieri* is rigid except for the lateral sways. It is impossible to tell which of these phenomena are passive, which locomotor.

#### Conclusions.

1. The New York *Spirochete obermeieri* cannot yet, as has been attempted, be separated from the African *Spirochete* upon the following grounds: (1) the length of its stay in the peripheral blood of the rat, (2) the number of relapses in the rat, (3) the lack of figure eight and circular forms, (4) the absence of several transverse breaks; for the length of stay in the peripheral blood probably varies with the method of passage, relapses are an uncertain quantity since it is perhaps not positively established that they occur at all, figure eight forms and circles and finally several division zones exist in the New York Spirillum as well as in *Sp. Duttoni* and in the Spirillum of Bombay.

2. As far as our work is concerned the parasite merely holds its own in vitro; we cannot say that we had a culture.

3. It is not unlikely that the tangles and interwindings, seen during attempts at cultivation on artificial media, are due to the concentration or coagulation of the blood on standing, or the intertwining to fusion or conjugation.

4. The *Spirochete obermeieri* probably increases by transverse fission and fragmentation.

5. We have seen no evidence of sporulation (no spore stain was used) or of a cycle of development, unless the particularly slender forms, short forms, "bands," and interwindings be considered such evidence.

6. The variations in the description of the motility are in all likelihood due to differences in the conditions under which the parasites are watched. As observed by us its motility is almost precisely like that described by Hoffman (5) for *Spirochaeta pallida*.

*m* See E. Zettnow's demonstration of flagellae like those of bacteria recorded in Deut. Med. Woch. xxxii., 10, March 8, 1906—in the case of *Sp. Duttoni*.

*n* For a note on the frequent occurrence of such granulations in spirochaete-like organisms see Dutton, Todd, and Tobey, p. 91.

*o* These were found by Mr. Thomas Deaken, laboratory assistant.

*p* "The swaying lateral motion from side to side is seen only in the long forms which consist of two or more cells. This is also a secondary condition to the real motion, and although it imparts to the long spirochete the so-called flexible character, the latter feature is hardly of sufficient importance to justify its employment as the basis of a generic difference among the spiral organisms. The long form of the spirillum rubrum or of the cholera vibrio, as is well known, will show similar lateral sways." Novy and Knapp (9).



7. Perhaps the undulations that pass over the organism are merely an appearance and the spiral is in truth rigid except for the lateral swayings.

8. The indication of an undulating membrane in the hanging drop is the only sign of a definite structure which we have seen, except a deeply stain grain (mentioned on page 5). The absence of a complicated structure, the apparent multiplication by transverse division and fragmentation, the rapidity of multiplication, the length of viability outside of the body, and the persistence of the spiral form in death, point to a bacterium. Whereas the flexibility of the parasite, the indication of an undulating membrane, the inability to cultivate the organism on artificial media, and the death at incubator temperature suggest that the New York Spirochaeta Obermeieri may be a protozoan (q).

According to Schaudinn Spirochaeta pallida is not a spirochete and not a spirillum but a treponema. It is not a spirochete because of the permanency of its coils, because of its terminal cilium, and because it has not more or less blunted ends. It is not a spirillum because its spirals are flexible, because it has a single cilium instead of a terminal tuft, because it apparently divides longitudinally. The New York Spirillum Obermeieri is certainly flexible and has permanent coils; if against our better judgment we grant in addition that each of its two ends represents a cilium and that the parasite divides longitudinally, then the New York Spirochaeta Obermeieri must be classed with the Spirochaeta pallida as a treponema (r).

In concluding, I desire to express my thanks to Dr. William H. Park, Director of the Research Laboratory of the Department of Health, for the opportunity to do this work, and to Dr. Anna W. Williams, Assistant Director for her helpful suggestions.

The three tables which follow show the number of examinations made in the case of each rat and the number of days on which spirochetes were found in the blood of the tail of these rats.

For inoculation blood was drawn from the infected rat's tail into a syringe containing 10 per cent. sodium citrate solution.

TABLE I.  
Of Rats Injected with Fresh Blood.

Rats.	The Inoculations Into These Rats Were Made from the Following Rats.	Dates of Inoculation.	Dates on Which the Peripheral Blood Was Examined.	Dates on Which the Spirochetes Were Found.
5.....	Bellevue	Nov. 28	29, 1, 2, 3.....	2.
4.....	5	Dec. 2	From December 3 to January 23, at least four times a week....	December 7 and not thereafter, and 8, again
6.....	4	Dec. 7	8, 9, 10, 11.....	10.
7.....	4	Dec. 7	8, 9, 10, 11, 12, 13....	10 and 11.
8.....	4	Dec. 9	11, 12, 13, 14, 15....	*0.
12.....	11	Dec. 15	16, 18, 19, 20, 21....	*0.
13.....	10	Dec. 15	18 .....	*0.
18.....	11	Dec. 19	21, 22, 23.....	22, 23.
19.....	11	Dec. 19	21, 22, 23, 24, 25....	23 and 24.
20.....	18	Dec. 22	24, 25, 26, 27, 28....	26 and 27.
21.....	18	Dec. 22	24, 25, 26, 27, 28, 29, 30, 31.....	27, 28, 29, 30, 31.
22.....	19	Dec. 23	25, 26, 27, 28, 29....	26, 27, 28.
23.....	19	Dec. 24	26, 27, 28, 29, 30....	28 and 29.
24.....	20	Dec. 26	28, 29, 30, 31.....	29 and 30.
25.....	20	Dec. 28	30, 31, 1, 2, 3, 5....	*0.
26.....	24	Dec. 29	31, 1, 2, 3, 4, 5, 6, 8, 19, 10, 11, 12, 15, 16, 17, 18. Dead on 19th .....	3, 4, 5, 6, 8, 10, 11, 12, 15, 16, 17, 18.
27.....	24	Dec. 30	1, 2, 3, 4, 5.....	3 and 4.
28.....	26	Jan. 3	5, 6, 8, 9.....	8.
29.....	26	Jan. 4	6, 8, 9, 10, 11.....	8, 9, 10.
30.....	26	Jan. 6	8, 9, 10, 11, 12.....	11.
31.....	28	Jan. 8	9 .....	0. Killed on January 9.
32.....	28	Jan. 8	10, 11, 12.....	12. Killed on January 12.
33.....	28	Jan. 8	10, 11, 12, 13, 15, 16.	10.
34.....	29	Jan. 10	12, 13, 15, 16, 17, 18.	15, 16, 17. Killed on January 18.
35.....	32	Jan. 12	15, 17, 18, 19.....	17, 18.
37.....	34	Jan. 15	18, 19, 20, 22, 23....	19, 20.
38.....	35	Jan. 17	19, 20, 22.....	22. Killed on January 22.
39.....	37	Jan. 19	22, 23, 24.....	20.
40.....	36	Jan. 20	22, 23, 24, 25.....	23 and 24.
41.....	38	Jan. 22	24, 25.....	25. Killed on January 25.
42.....	40	Jan. 23	25, 26, 27, 29, 30....	26, 27, 29.
43.....	41	Jan. 25	26, 27, 29, 30.....	29.
44.....	42	Jan. 27	29, 30, 31, 1.....	29, 30, 31.
45.....	42	Jan. 29	31, 1, 2, 3, 5, 6.....	3, 5.
46.....	44	Jan. 31	11, 2, 3, 5, 6.....	3, 5. Dead on November 15.
47.....	46	Nov. 3	5, 6, 7, 8, 9, 10....	10.
48.....	46	Nov. 3	6, 7, 8.....	7, 8. Killed on November 8.
49.....	48	Nov. 7	9, 10, 13, 15, 16....	10, 13.
50.....	48	Nov. 8	10, 13, 15, 16.....	13.
51.....	49	Nov. 10	13, 15, 16.....	10.
53.....	50	Nov. 13	15, 16, 17.....	16, 17. Killed November 17.
54.....	53	Nov. 16	17, 19, 20.....	20.
55.....	53	Nov. 17	19, 20.....	19, 20.
56.....	53	Nov. 17	19, 20, 25.....	10.
57.....	55	Nov. 19	20, 23.....	23. Killed November 23.

q. Hoffman (5) believes that there are now no grounds for separating pallida entirely from the other spirochetes and giving it the specific name of Treponema, since other spirochetes—for instance, balantidis—too have a terminal filament and permanent coils.

r. The transverse mode of division also occurs among the protozoa; indeed, no one of the facts mentioned is in itself a sufficient basis for classification.

\* Rats 8 and 25 were inoculated with blood after the disappearance of spirochetes from that blood; and Rats 12 and 13 were inoculated with blood before the appearance of spirochetes in that blood.

† In the case of Rat 26, the smear of the ninth was poor; after that day the smears were made not from the tail, but from the ear. The smear of the eighteenth was poor.

‡ Rat 33 was not examined on the 14th; Rat 39 not on the 21st; Rat 51 on the 12th and 14th.

§ Rat 56 was not examined on the 21st, 22d, 23d, 24th.

TABLE II.  
Of Rats Injected with Blood One Day Old.

Rats.	The Inoculations Into These Rats Were Made from the Following Rats.	Dates of Inoculation.	Dates on Which the Peripheral Blood Was Examined.	Dates on Which the Spirochetes Were Found.
9.....	6	Dec. 11	12, 13, 14, 15.....	*0.
10.....	7	Dec. 11	12, 13, 14, 15, 16.....	*0.
11.....	7	Dec. 12	13, 14, 15, 16, 18, 19, 20.....	18, 19.
14.....	10	Dec. 16	18.....	*0.
15.....	11	Dec. 16	18, 19, 20, 21.....	*0.
36.....	32	Jan. 13	15, 16, 17, 18, 19, 20, 22.....	19, 20.
52.....	49	Feb. 11	13, 15, 16, 17.....	*0.
58.....	54	Feb. 21	.....	Dead February 23.
59.....	54	Feb. 21	23, 25, 27, 28, 1.....	27, 28.
60.....	57	Feb. 24	.....	Dead February 24.
61.....	57	Feb. 24	27, 28, 1, 2, 3, 4.....	*0.
62.....	59	Mar. 1	2, 3, 4, 5, 6.....	6 killed March 6.

\* Rat 9 was not examined after the 15th, and Rat 10 not after the 16th. Rats 14 and 15 were inoculated with blood before the appearance of spirochetes in that blood. Rat 52 was not examined on the 14th. Rats 58 and 60 were young, but so too was Rat 57. Rat 61 was very large.

TABLE III.  
Of Rats Injected With Blood More Than One Day Old.

Rats.	The Inoculations Into These Rats Were Made from the Following Rats.	Dates of Inoculation.	Dates on Which the Peripheral Blood Was Examined.	Dates on Which the Spirochetes Were Found.
16.....	3+4+6+7	Dec. 18	20, 21, 22, 23.....	0.
17.....	3+4+6+7	Dec. 18	20, 21, 22, 23.....	0.
63.....	59	Mar. 3	5, 6, 7, 8, 9, 10, 12, 13, 14, 15.....	0.
64.....	62	Mar. 10	12, 13, 14, 15, 16, 17..	0.

TABLE IV.  
Of Rats On Which Autopsies Were Made.

Rats.	Autopsy Made On	Peripheral Blood: Spirochetes Present (+) or Absent (—).	Heart: Spirochetes Present (+) or Absent (—).	
*26.....	Jan. 19	..	+	No spirochetes in smears of the spleen, kidney, suprarenal body, lung or liver.
31.....	Jan. 9	—	—	No spirochetes in smears of the spleen, kidney, suprarenal body, lung or liver.
32.....	Jan. 12	+	+	No spirochetes in smears of the spleen, kidney, suprarenal body, lung or liver.
34.....	Jan. 18	—	—	No spirochetes in smears of the spleen, kidney, suprarenal body, lung or liver.
38.....	Jan. 22	+	+	No smears made of any of the organs except the heart.
41.....	Jan. 25	+	+	No smears made of any of the organs except the heart.
46.....	Feb. 15	..	—	No smears made except of the heart. Rat 46 died after not having been examined since the 6th.
53.....	Feb. 17	+	+	No spirochetes in smears of the spleen. No smears made of any of the organs except of the heart and spleen.
57.....	Feb. 23	+	+	No smears made of any of the organs except the heart.
*58.....	Feb. 23	†..	—	No spirochetes in smears of the spleen. No smears made of the organs except of the heart and spleen.
62.....	Mar. 6	+	—	No spirochetes in smears of the spleen. No smears made of any of the organs except of the heart and spleen.

\* Rat 58 was a young rat inoculated on February 22, and found dead on February 23. In the case of Rat 26 the smear of the heart's blood was poor. The blood was coagulated.

† Not examined.

#### Literature.

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- (2) Carlisle, R. J.—“Two Cases of Relapsing Fever with Notes on the Occurrence of this Disease Throughout the World at the Present Day.” Journ. Infect. Dis. 1906, III, No. 3, p. 233.
- (3) Goldhorn, L. B.—“A Simple Clinical Method for the Detection of the Spirochete of Syphilis.” The Post Graduate, N. Y., 1906, XXI, No. 2, p. 155.
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- (7) Memoir XXI, Liverpool School of Tropical Medicine, 1906.
- (8) Norris, C., Pappenheimer, A. M., and Flournoy, T.—“Study of a Spirochete Obtained from a Case of Relapsing Fever in Man, with Notes on Morphology, Animal Reactions, and Attempts at Cultivation.” Journ. Infect. Dis., 1906, III, No. 3, p. 266.
- (9) Novy, F. G., and Knapp, R. E.—“Studies in Spirillum Obermeieri and Related Organisms.” Journ. Infect. Dis., 1906, III, No. 3, p. 291.
- (10) Novy, F. G., and Knapp, R. E.—“The Cultivation of Spirillum Obermeieri.” Journ. Amer. Med. Ass., XLVII, 1906, No. 26, p. 2152.
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## APPROVED PAPERS.

FOR THE WEEK ENDING NOVEMBER 30, 1907.

No. 570.

Resolved, That permission be and the same is hereby given to A. R. Whitney, Jr., & Co. to erect a temporary sidewalk and street bridge over Liberty street, from the outer curb line at the intersection of Maiden lane and Liberty street, running westerly along said Liberty street a distance of about 136 feet, in the Borough of Manhattan; said bridge to be so constructed as not to interfere with pedestrian or vehicular traffic, and being for the purpose of safeguarding against dangers attending building construction; the said A. R. Whitney, Jr., & Co. to save The City of New York free and harmless from any loss or damage that may be occasioned during the erection of said temporary bridge or its continuance, the work to be done at said firm's expense, under the direction of the President of the Borough; said permission to continue only during the pleasure of the Board of Aldermen.

Adopted by the Board of Aldermen, November 19, 1907.

Approved by the Mayor, November 25, 1907.

No. 571.

Resolved, That, in pursuance of the provisions of subdivision 8 of section 188 of the amended Greater New York Charter, the Board of Estimate and Apportionment be and is hereby requested to authorize the Comptroller to issue Special Revenue Bonds to an amount not to exceed twenty thousand dollars (\$20,000), the proceeds whereof to be applied to meet deficiency in appropriation for salaries, Bureau of Public Buildings and Offices, Borough of Brooklyn.

Adopted by the Board of Aldermen, November 12, 1907.

Received from his Honor the Mayor, November 26, 1907, without his approval or disapproval thereof; therefore, as provided in section 40 of The Greater New York Charter, the same took effect as if he had approved it.

No. 572.

Resolved, That, in pursuance of the provisions of subdivision 8 of section 188 of the amended Greater New York Charter, the Board of Estimate and Apportionment be and is hereby requested to authorize the Comptroller to issue Special Revenue Bonds to an amount not to exceed ninety-nine thousand one hundred and seventy-six dollars and eighty-four cents (\$99,176.84), the proceeds whereof to be applied to meet anticipated deficiencies in appropriations of the Department of Public Charities.

Adopted by the Board of Aldermen, November 12, 1907.

Received from his Honor the Mayor, November 26, 1907, without his approval or disapproval thereof; therefore, as provided in section 40 of The Greater New York Charter, the same took effect as if he had approved it.

No. 573.

Resolved, That, in pursuance of the provisions of subdivision 8 of section 188 of the amended Greater New York Charter, the Board of Estimate and Apportionment be and is hereby requested to authorize the Comptroller to issue Special Revenue Bonds to an amount not to exceed twenty-seven thousand dollars (\$27,000), the proceeds whereof to be applied to meet deficiencies in appropriations of the Board of City Record.

Adopted by the Board of Aldermen, November 12, 1907.

Received from his Honor the Mayor, November 26, 1907, without his approval or disapproval thereof; therefore, as provided in section 40 of The Greater New York Charter, the same took effect as if he had approved it.

No. 574.

Resolved, That, in pursuance of the provisions of subdivision 8 of section 188 of the Greater New York Charter, the Board of Estimate and Apportionment be and hereby is requested to authorize the Comptroller to issue Special Revenue Bonds to the amount of three thousand and seventy-five dollars (\$3,075), the proceeds whereof to be applied to meet the increase of the salaries of the twelve Assistant Clerks and the salary of the Interpreter of the City Court of The City of New York, in accordance with the provisions of a resolution adopted by the Board of Estimate and Apportionment March 22, 1907, concurred in by the Board of Aldermen April 2, 1907, and approved by the Mayor April 9, 1907.

Adopted by the Board of Aldermen, November 12, 1907.

Received from his Honor the Mayor, November 26, 1907, without his approval or disapproval thereof; therefore, as provided in section 40 of The Greater New York Charter, the same took effect as if he had approved it.

No. 575.

Resolved, That permission be and the same is hereby given to J. A. Roberts, manager of the Imperial Roller Skating Rink, to parade with one automobile, carrying transparencies and a band of music through the streets, avenues and thoroughfares of The City of New York, under the direction of the Commissioner of Police; such permission to continue only for fourteen days from the date of approval hereof by his Honor the Mayor.

Adopted by the Board of Aldermen, November 12, 1907.

Received from his Honor the Mayor, November 26, 1907, without his approval or disapproval thereof; therefore, as provided in section 40 of the Greater New York Charter, the same took effect as if he had approved it.

No. 576.

Resolved, That permission be and the same is hereby granted to A. W. Mueller to erect and maintain at his own cost and expense, but subject to the approval of the Commissioner of Water Supply, Gas and Electricity, an ornamental lamp-post at No. 1219 Madison avenue, such permission to continue only during the pleasure of the Board of Aldermen.

Adopted by the Board of Aldermen, November 12, 1907.

Received from his Honor the Mayor, November 26, 1907, without his approval or disapproval thereof; therefore, as provided in section 40 of the Greater New York Charter, the same took effect as if he had approved it.

No. 577.

Resolved, That it is recommended to the Commissioner of Water Supply, Gas and Electricity that the watering trough now located at Eastern avenue and Walnut street be removed to and maintained at a point on the northeast corner of Two Hundred and Thirtieth street and Riverdale avenue, in the Borough of The Bronx.

Adopted by the Board of Aldermen, November 12, 1907.

Received from his Honor the Mayor, November 26, 1907, without his approval or disapproval thereof; therefore, as provided in section 40 of the Greater New York Charter, the same took effect as if he had approved it.

No. 578.

Resolved, That it is recommended to the Commissioner of Water Supply, Gas and Electricity that water mains be laid in White Plains road, from Pelham parkway to old Bleeker street, in the Borough of The Bronx.

Adopted by the Board of Aldermen, November 12, 1907.

Received from his Honor the Mayor, November 26, 1907, without his approval or disapproval thereof; therefore, as provided in section 40 of the Greater New York Charter, the same took effect as if he had approved it.

No. 579.

Resolved, That the following named persons be and they are hereby appointed Commissioners of Deeds:

Chas. P. Kleber, No. 171 East Seventy-seventh street, Manhattan.  
Dennis F. Kinnier, Department of Health, Bronx.  
John H. Rogan, No. 625 St. Mark's avenue, Brooklyn.  
Louis F. Hettler, No. 509 Ninth avenue, Manhattan.  
Harry A. Fisher, No. 258 West One Hundred and Thirty-first street, Manhattan.  
John F. Burke, No. 300 Mulberry street, Manhattan.  
Robert B. Saul, No. 452 West One Hundred and Fiftieth street, Manhattan.  
George W. Hurlbut, No. 203 West One Hundred and Thirty-third street, Manhattan.

George Boochever, No. 242 West One Hundred and Twenty-second street, Manhattan.

Wm. D. Leonard, No. 48 West Seventy-third street, Manhattan.  
Adolph Vanrein, No. 1139 Lafayette avenue, Brooklyn.  
Lewis H. May, No. 142 West Seventy-seventh street, Manhattan.  
Geo. W. Forsyth, No. 200 East Twenty-seventh street, Manhattan.  
Newton McGovern, No. 540 West One Hundred and Twelfth street, Manhattan.  
David B. Baum, No. 87 Nassau street, Manhattan.  
Henry Schwed, No. 519 West One Hundred and Twenty-third street, Manhattan.  
W. F. Howe, No. 518 West One Hundred and Sixtieth street, Manhattan.  
Malcolm McKinnon, Jr., No. 8807 Fifth avenue, Brooklyn.  
Nathan Cohan, No. 633 East Fifth street, Manhattan.  
Daisy B. Pieri, care of Louis Lowenstein, No. 350 Broadway, Manhattan.  
Edward H. Chavelle, care of Louis F. Reed, No. 2 Rector street, Manhattan.  
Daniel Volkmar, No. 422 Quincy street, Brooklyn.  
Edward I. Herbst, No. 235 Henry street, Manhattan.  
Julius H. Zieser, No. 265 Broadway, Manhattan.  
Joseph Schwartzberg, No. 2 East One Hundred and Eleventh street, Manhattan.  
Samuel Lesser, No. 33 St. Mark's place, Manhattan.  
James H. Murphy, No. 114 Arlington avenue, Brooklyn.  
Pincus Zucker, No. 1654 St. John's place, Brooklyn.  
Delia Jacobs, No. 201 Christopher street, Brooklyn.  
Charles H. Lindel, No. 154 East Ninety-first street, Manhattan.  
Jerome Eisner, No. 56 East Eighty-seventh street, Manhattan.  
Richard J. Wehren, No. 507 Tenth street, Brooklyn.  
Charles J. Quinlan, No. 666 Park place, Brooklyn.  
Louis H. Stroh, Jr., No. 1012 Lind avenue, Manhattan.  
Dominick B. Buttlng, No. 1829 Bergen street, Brooklyn.  
John C. L. Daly, No. 377 Union street, Brooklyn.  
L. Blumenau, No. 161 Smith street, Brooklyn.  
Ferd. W. Buermeyer, No. 360 Fifty-ninth street, Brooklyn.  
Christy McGuire, No. 414 Second avenue, Manhattan.  
Joseph Rosenberg, No. 412 East Eighty-fifth street, Manhattan.  
Felix P. Goldsmith, No. 257 East Eighty-sixth street, Manhattan.  
Jos. H. Duffy, No. 137 Hays street, Brooklyn.  
Harry J. Rendles, No. 656 Jamaica avenue, Brooklyn.  
William Green, No. 685 Fifth avenue, Brooklyn.  
Jerome A. Kohn, No. 18 East Ninety-fifth street, Manhattan.  
Lawrence Margolis, No. 68 Essex street, Manhattan.  
Lawrence Cohen, No. 2100 Fifth avenue, Manhattan.  
Solomon Goldberg, No. 17 Ludlow street, Manhattan.  
Abraham Miles, Nos. 147 and 149 McKibbin street, Brooklyn.  
Jacob Ornstein, No. 50 Graham avenue, Brooklyn.  
Samuel J. Comfort, No. 64 Devoe street, Brooklyn.  
John A. Davidson, No. 280 Argyle road, Brooklyn.  
Leon W. Barnard, No. 147 Halsey street, Brooklyn.  
W. N. Andree, No. 1140 Manhattan avenue, Brooklyn.  
W. H. French, No. 957 Thirty-ninth street, Brooklyn.  
James D. Clifford, No. 422 Classon avenue, Brooklyn.  
Michael Leahy, No. 521 Court street, Brooklyn.  
Matilda G. Vogel, No. 237 Argyle road, Brooklyn.  
William V. Santacrose, No. 989 East One Hundred and Sixty-seventh street, The Bronx.

Patrick John Power, No. 26 Grove street, Manhattan.  
George Lander, No. 52 West Twelfth street, Manhattan.  
Jerome C. Jackson, No. 20 West Seventy-first street, Manhattan.  
James H. McDermott, No. 1028 Simpson street, The Bronx.  
Charles C. Smith, No. 108 Marion street, Brooklyn.  
H. F. Marker, No. 112 Lee avenue, Brooklyn.  
Robert Miller, No. 450 Bedford avenue, Brooklyn.  
Jane M. Kutscher, No. 61 Fourth avenue, Richmond.  
Charles Slavik, No. 349 East Seventy-second street, Manhattan.  
William Robson, No. 1874 Second avenue, Manhattan.  
Catherine E. Ryan, No. 402 West Fifty-first street, Manhattan.  
Philip Wirth, No. 158 Seventh street, Manhattan.  
Jerome Arnold Kohn, No. 18 East Ninety-fifth street, Manhattan.  
Henry Gutman, No. 30 West One Hundred and Twenty-fifth street, Manhattan.  
William R. Jackson, No. 371 Hancock street, Brooklyn.  
Adopted by the Board of Aldermen, November 26, 1907.

No. 580.

AN ORDINANCE providing for an issue of Corporate Stock in the sum of six thousand dollars (\$6,000), in addition to the amount heretofore authorized, to provide means for all work in connection with the removal of two of the supporting columns of the Brooklyn Bridge station, at the intersection of Sands and Washington streets, Borough of Brooklyn.

Be it Ordained by the Board of Aldermen of The City of New York as follows: Section 1. The Board of Aldermen hereby approves of and concurs in the following resolution, adopted by the Board of Estimate and Apportionment, October 18, 1907, and authorizes the Comptroller to issue Corporate Stock of The City of New York to the amount and for the purposes therein specified:

"Resolved, That, pursuant to the provisions of section 47 of the Greater New York Charter, as amended, the Board of Estimate and Apportionment hereby approves of the issue of Corporate Stock of The City of New York to an amount not exceeding six thousand dollars (\$6,000), in addition to the amount heretofore authorized, to provide means for all work in connection with the removal of two of the supporting columns of the Brooklyn Bridge station at the intersection of Sands and Washington streets, Borough of Brooklyn, and that when authority therefor shall have been obtained from the Board of Aldermen, the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, to an amount not exceeding six thousand dollars (\$6,000), the proceeds whereof to be applied to the purposes aforesaid."

Adopted by the Board of Aldermen, November 19, 1907.

Approved by the Mayor, November 27, 1907.

No. 581.

AN ORDINANCE providing for an issue of Corporate Stock in the sum of thirty-five hundred dollars (\$3,500), to provide means for the acquisition of a site for a public bath located at No. 142 Eighth street, Borough of Queens, and for the payment of the expenses incurred in the examination of title and surveys.

Be it Ordained by the Board of Aldermen of The City of New York as follows: Section 1. The Board of Aldermen hereby approves of and concurs in the following resolution, adopted by the Board of Estimate and Apportionment October 18, 1907, and authorizes the Comptroller to issue Corporate Stock of The City of New York to the amount and for the purposes therein specified:

"Resolved, That, pursuant to the provisions of section 47 of the Greater New York Charter, as amended, the Board of Estimate and Apportionment hereby approves of the issue of Corporate Stock of The City of New York to an amount not exceeding thirty-five hundred dollars (\$3,500), to provide means for the acquisition of a site for a public bath, located at No. 142 Eighth street, Borough of Queens, and for the payment of the expenses incurred in the examination of title and surveys; and that when authority therefor shall have been obtained from the Board of Aldermen the Comptroller is authorized to issue Corporate Stock of The City of New York, in the manner provided by section 169 of the Greater New York Charter, to an amount not exceeding thirty-five hundred dollars (\$3,500), the proceeds whereof to be applied to the purposes aforesaid."

Adopted by the Board of Aldermen, November 19, 1907.

Approved by the Mayor, November 27, 1907.

No. 582.

Resolved, That for the purpose of defraying any incidental expenses contingent to the office of the Commissioners of Accounts said Commissioners of Accounts may by requisition draw upon the Comptroller for a sum not exceeding five hundred dollars (\$500).



The Commissioners of Accounts may, in like manner, renew the draft as often as they may deem necessary to the extent of the appropriation set apart for Contingencies and Supplies in the office of the Commissioners of Accounts, but no such renewals shall be made until the money upon the preceding draft shall be accounted for to the Comptroller by the transmittal of a voucher or vouchers, certified by the Commissioners of Accounts covering the expenditures of money paid thereon.

Adopted by the Board of Aldermen, November 19, 1907.  
Approved by the Mayor, November 27, 1907.

No. 583.

Resolved, That permission be and the same is hereby given to the Sydney Social Club to drive an advertising wagon through the streets and thoroughfares of the Borough of Manhattan, under the direction of the Police Department, such permission to continue only up to and including November 27, 1907.

Adopted by the Board of Aldermen November 19, 1907.  
Approved by the Mayor, November 27, 1907.

JOSEPH F. PRENDERGAST, Acting City Clerk.

## POLICE DEPARTMENT.

Sanitary Company (Boiler Squad), }  
November 20, 1907. }

Hon. THEODORE A. BINGHAM, Police Commissioner:

Sir—In compliance with orders relative to engineer's certificates issued by me under section 312 of chapter 410 of the Laws of 1882, as amended, the following report will show the names of the persons to whom licenses were issued, class of license and location for the same, during the twenty-four hours ending 12 midnight, November 20, 1907:

### First Class.

Robt. J. King, No. 256 Broadway.  
Henry Engelbrecht, No. 100 Church street.  
Joseph Austin, Blackwell's Island.  
Chas. E. Sage, No. 513 West Twenty-second street.  
Wm. J. Downe, No. 565 Smith street, Brooklyn.

### Second Class.

Christopher Sindt, No. 22 Howard street.  
Mathurine Brochard, No. 211 West Thirty-ninth street.  
Jeremiah Foley, No. 52 William street.  
James Judge, No. 60 Front street.  
George V. Wicks, No. 43 West Twenty-third street.  
John Rowley, No. 127 East Seventy-second street.  
Michael Walsh, One Hundred and Eighth street and Columbus avenue.  
John W. Sherman, No. 25 Walker street.  
George McMullen, No. 879 Gates avenue, Brooklyn.  
Chas. Cassstensen, No. 54 Schenectady avenue, Brooklyn.  
Denis Hewitt, No. 547 Fulton street, Brooklyn.  
John Fitzpatrick, No. 303 Washington street, Brooklyn.  
Alexander McEwen, No. 45 York street, Brooklyn.  
John McNamee, foot of North Twelfth street, Brooklyn.

### Third Class.

William Donaghy, No. 130 West Twenty-fourth street.  
Henry Bartlot, No. 447 West Fourteenth street.  
Henry Martin, No. 110 Manhattan avenue.  
John S. Wood, No. 4 Front street.  
Chas. Manley, No. 132 West Third street.  
Michael D. O'Connell, Southern boulevard and Crotona avenue.  
Lawrence Schatzlein, No. 19 West Twenty-second street.  
John McDonald, No. 146 West Thirty-first street.  
James G. Ridgway, No. 10 Washington place.  
John Hill, Pier 25, North river.  
John Geider, No. 214 Sullivan street.  
John J. Morton, No. 73 Mercer street.  
James F. Galligan, No. 528 East Seventeenth street.  
Pietro DeMarco, No. 338 East One Hundred and Ninth street.  
August C. Faulkner, No. 7 East Fifteenth street.  
William Renggli, No. 576 Broadway.  
Thos. Flanagan, No. 201 East Eighty-seventh street.  
Frederick Greer, No. 17 Battery place.  
Jeremiah J. O'Leary, No. 310 West Sixty-fifth street.  
Martin Kraus, No. 5 West One Hundred and Twenty-fifth street.  
Frank Davies, No. 215 West Thirty-third street.  
John Brennan, No. 120 West Fifty-seventh street.  
Chas. Auge, Eighth avenue and One Hundred and Sixteenth street.  
James J. Reilly, No. 122 Fifth avenue.  
Frederick W. Koenig, No. 457 First avenue.  
George B. Walther, No. 621 Broadway.  
James Brannigan, No. 102 Bleecker street.  
William Snyder, No. 43 West Fourth street.  
William Knice, No. 260 Boerum street, Brooklyn.  
Albert Henke, Walcott avenue and Shore road, Brooklyn.  
Henry Roloff, No. 326 Henry street, Brooklyn.  
Patrick Scally, foot of North Eleventh street, Brooklyn.  
Samuel J. Stafford, No. 214 Third street, Brooklyn.  
Maurice Carberry, foot of South Ninth street, Brooklyn.  
Henry Berghauser, No. 71 George street, Brooklyn.  
John Bradley, foot of Broadway, Brooklyn.  
James McMahon, No. 188 Eastern parkway, Brooklyn.  
Patrick Purcell, Eleventh avenue and Twentieth street, Whitestone, L. I.  
Fred. G. Foreman, No. 278 North Henry street, Brooklyn.

### Special.

James H. Van Pelt, No. 407 East Houston street.  
Theodore Hilkeman, No. 3431 White Plains road.  
George Peterson, No. 119 Maiden lane.

Respectfully submitted,

HENRY BREEN, Lieutenant in Command.

## EXECUTIVE DEPARTMENT.

November 25, 1907.

Appointments by the Mayor.

Foster Crowell, No. 188 Franklin place, Flushing, Queens, Street Cleaning Commissioner, in place of Dr. Walter Benschel, resigned.

Henry Smith, No. 243 West Ninety-ninth street, Manhattan, Commissioner of Parks, Boroughs of Manhattan and Richmond, and President of the Park Board, in place of Samuel Parsons, resigned.

Members of the Board of Education.  
Max Katzenberg, No. 911 Park avenue, Manhattan, to succeed Randolph Guggenheimer, deceased.

Frederic R. Coudert, No. 124 East Fifty-sixth street, Manhattan, to succeed William N. Wilmer, deceased.

Dr. Charles E. Bruce, No. 2 East One Hundred and Twenty-seventh street, Manhattan, to succeed Frank L. Polk, resigned.

Francis W. Crowinshield, No. 319 Fifth avenue, Manhattan, to succeed John A. Wilbur, whose term of office expires January 1, 1908.

Arthur Somers, No. 988 Sterling place, Brooklyn, to succeed Grosvenor H. Backus, resigned.

Alexander Ferris, No. 631 Quincy street, Brooklyn, to succeed George D. Hamlin, whose term of office expires January 1, 1908.

M. J. Sullivan, No. 593 East One Hundred and Forty-first street, The Bronx, to succeed John J. Barry, resigned.

Bernard Suydam, Elmhurst, Queens, to succeed George E. Payne, whose term of office expires January 1, 1908.

Reappointments by the Mayor of Members of the Board of Education, whose terms of office expire January 1, 1908:

Francis P. Cunnion, No. 407 East One Hundred and Twentieth street, Manhattan.

A. Leo Everett, No. 134 East Seventieth street, Manhattan.

M. Samuel Stern, No. 2013 Fifth avenue, Manhattan.

George J. Gillespie, No. 146 East Sixty-second street, Manhattan.

John Greene, No. 469 Fifty-fourth street, Brooklyn.

H. H. Sherman, No. 1006 Trinity avenue, The Bronx.

## CHANGES IN DEPARTMENTS, ETC.

### DEPARTMENT OF FINANCE.

November 27—The Comptroller has accepted the resignation of Dr. P. J. Murray, Medical Examiner in the Law and Adjustment Division. Resignation became effective at the close of business November 20, 1907.

### DEPARTMENT OF DOCKS AND FERRIES.

November 27—James H. Clark has been dropped from the list of Water Tenders, he having been transferred to the position of Oiler in the Department of Water Supply, Gas and Electricity.

The Commissioner has transferred Christopher Thompson from the position of Dock Laborer to that of Marine Stoker, with compensation at the rate of \$90 per month while employed, to take effect December 1, 1907.

### DEPARTMENT OF PARKS.

Borough of The Bronx.

November 27—Transfer of James Thornton, No. 286 St. Ann's avenue, Foreman of Park Laborers, from this Department to the office of the President of the Borough of The Bronx, taking effect November 26.



## OFFICIAL DIRECTORY.

STATEMENT OF THE HOURS DURING which the Public Offices in the City are open for business and at which the Courts regularly open and adjourn, as well as the places where such offices are kept and such Courts are held, together with the heads of Departments and Courts.

### CITY OFFICES.

#### MAYOR'S OFFICE.

No. 5 City Hall, 9 a. m. to 4 p. m.; Saturdays 9 a. m. to 12 m.  
Telephone, 8020 Cortlandt.  
GEORGE B. MCCLELLAN, Mayor  
Frank M. O'Brien, Secretary.  
William A. Willis, Executive Secretary.  
James A. Rierdon, Chief Clerk and Bond and Warrant Clerk.

#### BUREAU OF WEIGHTS AND MEASURES.

Room 7, City Hall, 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.  
Telephone, 8020 Cortlandt.  
Patrick Derry, Chief of Bureau.

#### BUREAU OF LICENSES.

9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.  
Telephone, 8020 Cortlandt.  
John P. Corrigan, Chief of Bureau  
Principal Office, Room 1, City Hall. Gaetano D'Amato, Deputy Chief, Boroughs of Manhattan and The Bronx.  
Branch Office, Room 12, Borough Hall, Brooklyn.  
Daniel J. Griffin, Deputy Chief, Borough of Brooklyn.  
Branch Office, Richmond Borough Hall, Room 23, New Brighton, S. I.; William R. Woolfe, Financial Clerk, Borough of Richmond.  
Branch Office, Hackett Building, Long Island City, Borough of Queens.

#### AQUEDUCT COMMISSIONERS.

Room 207, No. 280 Broadway, 5th floor, 9 a. m. to 4 p. m.  
Telephone, 1945 Worth.  
The Mayor, the Comptroller, ex-officio, Commissioners John F. Cowan (President), William H. Ten Eyck, John J. Ryan and John P. Windolph; Harry W. Walker, Secretary; Walter H. Sears, Chief Engineer.

#### ARMORY BOARD.

Mayor George B. McClellan, the President of the Board of Aldermen, Patrick F. McGowan, Brigadier-General James McLeer, Brigadier-General George Moore Smith, the President of the Department of Taxes and Assessments, Lawson Purdy, Harrie Davis, Secretary, Room 6, Basement, Hall of Records, Chambers and Centre streets.  
Office hours, 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.  
Telephone, 3900 Worth.

#### ART COMMISSION.

City Hall, Room 21.  
Telephone call, 1197 Cortlandt.  
Robert W. de Forest, President;  
Vice-President; Howard Mansfield, Secretary; A. Augustus Healy, President of the Brooklyn Institute of Arts and Sciences; George B. McClellan, Mayor of The City of New York; J. Pierpont Morgan, President of Metropolitan Museum of Art; John

Bigelow, President of New York Public Library; R. D. Millet, Painter; John J. Boyle, Sculptor; Arnold W. Brunner, Architect; John B. Pine, John Quincy Adams, Assistant Secretary

#### BELLEVUE AND ALLIED HOSPITALS.

Office, Bellevue Hospital.  
Telephone, 4400 Madison Square.  
Board of Trustees—Dr. John W. Brannan, President; James K. Paulding, Secretary; Arden M. Robins, Samuel Sachs, Leopold Stern, Theodore E. Tack, Myles Tierney, Robert W. Hebbard, ex-officio, General Medical Superintendent, S. T. Armstrong, M. D.

#### BOARD OF ALDERMEN.

No. 11 City Hall, 10 a. m. to 4 p. m.; Saturdays 10 a. m. to 12 m.  
Telephone, 7560 Cortlandt.  
Patrick F. McGowan, President.  
P. J. Scully, City Clerk.

#### BOARD OF ASSESSORS.

Office, No. 320 Broadway, 9 a. m. to 4 p. m.; Saturdays, 12 m.  
Antonio Zucca.  
Paul Weimann.  
James H. Kennedy.  
William H. Jasper, Secretary.  
Telephone, 29, 30 and 47 Worth.

#### BOARD OF ELECTIONS.

Headquarters, General Office, No. 107 West Forty-first street.  
Commissioners—John T. Dooling (President) Charles B. Page (Secretary), John Maguire, Rudolph C. Fuller.  
A. C. Allen, Chief Clerk.

#### BOROUGH OFFICES.

Manhattan.  
No. 112 West Forty-second street.  
William C. Baxter, Chief Clerk.  
The Bronx.  
One Hundred and Thirty-eighth street and Mott avenue (Solingen Building).  
Cornelius A. Bunner, Chief Clerk.

Brooklyn.  
No. 48 Court street (Temple Bar Building).  
George Russell, Chief Clerk.

#### Queens.

No. 46 Jackson avenue, Long Island City.  
Carl Voegel, Chief Clerk.

#### Richmond.

Borough Hall, New Brighton, S. I.  
Alexander M. Ross, Chief Clerk.  
All offices open from 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.

#### BOARD OF ESTIMATE AND APPORTIONMENT.

The Mayor, Chairman; the Comptroller, President of the Board of Aldermen, President of the Borough of Manhattan, President of the Borough of Brooklyn, President of the Borough of The Bronx, President of the Borough of Queens, President of the Borough of Richmond.

#### OFFICE OF THE SECRETARY.

No. 277 Broadway. Room 1406. Telephone, 2280 Worth.  
Joseph Haag, Secretary; William M. Lawrence, Assistant Secretary. Charles V. Adee, Clerk to Board.

#### OFFICE OF THE CHIEF ENGINEER.

Nelson P. Lewis, Chief Engineer, No. 277 Broadway, Room 1408. Telephone, 2281 Worth.  
Arthur S. Tuttle, Engineer in charge Division of Public Improvements, No. 277 Broadway, Room 1408. Telephone, 2281 Worth.  
Harry P. Nichols, Engineer in charge Division of Franchises, No. 277 Broadway, Room 801. Telephone, 2282 Worth.

#### BOARD OF EXAMINERS.

Rooms 6027 and 6028 Metropolitan Building, No. 1 Madison avenue, Borough of Manhattan, 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.  
Telephone, 5840 Gramercy.  
Warren A. Conover, Charles Buek, Lewis Harding, Charles G. Smith, Edward F. Croker, Henry R. Marshall and George A. Just, Chairman.  
Edward V. Barton, Clerk.  
Board meeting every Tuesday at 2 p. m.

#### BOARD OF REVISION OF ASSESSMENTS.

Herman A. Metz, Comptroller.  
Francis K. Pendleton, Corporation Counsel.  
Lawson Purdy, President of the Department of Taxes and Assessments.  
Henry J. Storr, Chief Clerk, Finance Department, No. 280 Broadway.  
Telephone, 1200 Worth.

#### BOARD OF WATER SUPPLY.

Office, No. 299 Broadway.  
J. Edward Simmons, Charles N. Chadwick, Charles A. Shaw, Commissioners.  
Thomas Hassett, Secretary.  
J. Waldo Smith, Chief Engineer.

#### COMMISSIONERS OF ACCOUNTS.

Rooms 114 and 115 Stewart Building, 280 Broadway, 9 a. m. to 4 p. m.  
Telephone 4315 Worth.  
John Furroy Mitchell, Philip B. Gaynor, Commissioners.

#### CHANGE OF GRADE DAMAGE COMMISSION.

TWENTY-THIRD AND TWENTY-FOURTH WARDS.  
Office of the Commission, Room 138, No. 280 Broadway (Stewart Building), Borough of Manhattan, New York City.  
Commissioners—William E. Stillings, George C. Norton, Lewis A. Abrams.  
Lamont McLoughlin, Clerk.  
Regular advertised meetings on Monday, Wednesday and Friday of each week at 2 o'clock p. m.

#### CITY CLERK AND CLERK OF THE BOARD OF ALDERMEN.

City Hall, Rooms 11, 12; 10 a. m. to 4 p. m.; Saturdays, 10 a. m. to 12 m.  
Telephone, 7560 Cortlandt.  
P. J. Scully, City Clerk and Clerk of the Board of Aldermen.  
Joseph F. Prendergast, First Deputy City Clerk.  
Michael F. Blake, Chief Clerk of the Board of Aldermen.  
Joseph V. Sculley, Clerk, Borough of Brooklyn.  
Thomas J. McCabe, Deputy City Clerk, Borough of The Bronx.  
William R. Zimmerman, Deputy City Clerk, Borough of Queens.  
Joseph F. O'Grady, Deputy City Clerk, Borough of Richmond.



## CITY RECORD OFFICE.

BUREAU OF PRINTING, STATIONERY AND BLANK BOOKS.  
 Supervisor's Office, Park Row Building, No. 21 Park Row. Entrance, Room 807, 9 a. m. to 4 p. m. Saturdays, 9 a. m. to 12 m.  
 Telephone, 1505 and 1506 Cortlandt. Supply Room, No. 2 City Hall.  
 Patrick J. Tracy, Supervisor; Henry McMillen, Deputy Supervisor; C. McKemie, Secretary.

## COMMISSIONER OF LICENSES.

Office, No. 277 Broadway.  
 John N. Bogart, Commissioner.  
 James P. Archibald, Deputy Commissioner.  
 John J. Caldwell, Secretary.  
 Office hours, 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.  
 Telephone, 2282 Worth.

## COMMISSIONERS OF SINKING FUND.

George B. McClellan, Mayor, Chairman; Herman A. Metz, Comptroller; James J. Martin, Chamberlain; Patrick F. McGowan, President of the Board of Aldermen; and John R. Davies, Chairman Finance Committee, Board of Aldermen, Members; N. Taylor Phillips, Deputy Comptroller, Secretary.  
 Office of Secretary, Room 12, Stewart Building. Telephone, 1200 Worth.

## DEPARTMENT OF BRIDGES.

Nos. 13-21 Park Row.  
 James W. Stevenson, Commissioner.  
 John H. Little, Deputy Commissioner.  
 Edgar E. Schiff, Secretary.  
 Office hours, 9 a. m. to 4 p. m.  
 Saturdays, 9 a. m. to 12 m.  
 Telephone, 6080 Cortlandt.

## DEPARTMENT OF CORRECTION.

CENTRAL OFFICE.  
 No. 148 East Twentieth street. Office hours from 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.  
 Telephone, 1047 Gramercy.  
 John W. Coggey, Commissioner.  
 George W. Meyer, Deputy Commissioner.  
 John B. Fitzgerald, Secretary.

## DEPARTMENT OF DOCKS AND FERRIES.

Pier "A," N. R., Battery place.  
 Telephone, 300 Rector.  
 John A. Bensel, Commissioner.  
 Denis A. Judge, Deputy Commissioner.  
 Joseph W. Savage, Secretary.  
 Office hours, 9 a. m. to 4 p. m.; Saturdays, 12 m.

## DEPARTMENT OF EDUCATION.

BOARD OF EDUCATION.  
 Park avenue and Fifty-ninth street, Borough of Manhattan, 9 a. m. to 5 p. m. (in the month of August 9 a. m. to 4 p. m.); Saturdays, 9 a. m. to 12 m.  
 Telephone, 480 Plaza.  
 Richard H. Adams, Richard B. Aldcroft, Jr.; Nicholas J. Barrett, Charles E. Bruce, M. D.; Joseph E. Cosgrove, Frederic R. Coudert, Francis P. Cun- nion, Thomas M. DeLaney, Samuel B. Donnelly, Horace E. Dresser, A. Leo Everett, Joseph Nicola Francolini, George Freilich, John Greene, George J. Gillespie, George D. Hamlin, M. D.; Robert L. Harrison, Louis Haupt, M. D.; Thomas J. Higgins, Arthur Hollick, Charles H. Ingalls, Nathan S. Jonas, Hugo Kanzler, Max Katzenberg, John C. Kelley, Alrick H. May, Clement March, Mitchell May, Dennis J. McDonald, M. D.; Thomas J. O'Donohue, Frank H. Partridge, George E. Payne, George W. Schaeffle, Henry H. Sherman, Arthur S. Somers, Abraham Stern, M. Samuel Stern, Cornelius J. Sullivan, M. J. Sullivan, Rupert B. Thomas, John R. Thompson, George A. Vandenhoff, John A. Wilbur, Frank D. Wilsey, George W. Wingate, Egerton L. Winthrop, Jr., members of the Board.  
 Egerton L. Winthrop, Jr., President.  
 John Greene, Vice-President.  
 A. Emerson Palmer, Secretary.  
 Fred H. Johnson, Assistant Secretary.  
 C. B. J. Snyder, Superintendent of School Build- ings.  
 Patrick Jones, Superintendent of School Supplies.  
 Henry R. M. Cook, Auditor.  
 Thomas A. Dillon, Chief Clerk.  
 Henry M. Leipziger, Supervisor of Lectures.  
 Claude G. Leiland, Superintendent of Libraries.

## BOARD OF SUPERINTENDENTS.

William H. Maxwell, City Superintendent of Schools, and George S. Davis, Andrew W. Edson, Clarence E. Meleney, Thomas S. O'Brien, Edward B. Shallow, Edward L. Stevens, Gustave Strauben- muller, John H. Walsh, Associate City Superintend- ents.

## DISTRICT SUPERINTENDENTS.

Darwin L. Bardwell, William A. Campbell, John J. Chickering, John W. Davis, John Dwyer, James M. Edsall, Matthew J. Elgas, Edward D. Farrell, Cornelius D. Franklin, John Griffin, M. D.; John H. Haaren, John L. N. Hunt, Henry W. Jameson, James Lee, Charles W. Lyon, James J. McCabe, William J. O'Shea, Julia Richman, Alfred T. Schaufert, Albert Shields, Edgar Dubs Shimer, Seth T. Stewart, Edward W. Stiff, Grace C. Strachan, Joseph S. Taylor, Evangeline E. Whitney.

## BOARD OF EXAMINERS.

William H. Maxwell, City Superintendent of Schools, and James C. Byrnes, Walter L. Hervey, Jerome A. O'Connell, George J. Smith, Examiners.

## DEPARTMENT OF FINANCE.

Stewart Building, Chambers street and Broadway 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.  
 Telephone, 1200 Worth.  
 Herman A. Metz, Comptroller.  
 John H. McCoey and N. Taylor Phillips, Deputy Comptrollers.  
 Hubert L. Smith, Assistant Deputy Comptroller.  
 Oliver E. Stanton, Secretary to Comptroller.

## MAIN DIVISION.

H. J. Storrs, Chief Clerk, Room 11.

## BOOKKEEPING AND AWARDS DIVISION.

Frank W. Smith, Chief Accountant and Book- keeper, Room 8.

## STOCK AND BOND DIVISION.

James J. Sullivan, Chief Stock and Bond Clerk, Room 85.

## BUREAU OF AUDIT—MAIN DIVISION.

P. H. Quinn, Chief Auditor of Accounts, Room 27.

## LAW AND ADJUSTMENT DIVISION.

Jeremiah T. Mahoney, Auditor of Accounts Room 185.

## BUREAU OF MUNICIPAL INVESTIGATION AND STATISTICS.

Charles S. Hervey, Supervising Statistician and Examiner, Room 180.

## CHARITABLE INSTITUTIONS DIVISION.

Daniel C. Potter, Chief Examiner of Accounts of Institutions, Room 38.

## OFFICE OF THE CITY PAYMASTER.

No. 83 Chambers street and No. 65 Reade street.  
 John H. Timmerman, City Paymaster

## ENGINEERING DIVISION.

Stewart Building, Chambers street and Broadway  
 Chandler Withington, Chief Engineer, Room 55.

## DIVISION OF REAL ESTATE

Thomas F. Byrnes, Mortimer J. Brown, Apprais- ers of Real Estate, Room 157.

## BUREAU FOR THE COLLECTION OF TAXES.

Borough of Manhattan—Stewart Building, Room O.

David E. Austen, Receiver of Taxes.  
 John J. McDonough and William H. Loughran, Deputy Receivers of Taxes.

Borough of The Bronx—Municipal Building, Third and Tremont avenues.

John B. Underhill and Stephen A. Nugent, Dep- uty Receivers of Taxes.

Borough of Brooklyn—Municipal Building, Rooms 2-8.

James B. Bouck and John F. Regan, Deputy Re- ceivers of Taxes.

Borough of Queens—Hackett Building, Jackson avenue and Fifth street, Long Island City.

George H. Creed and Mason O. Smedley, Deputy Receivers of Taxes.

Borough of Richmond—Borough Hall, St. George, New Brighton.

John De Morgan and F. Wilsey Owen, Deputy Receivers of Taxes.

## BUREAU FOR THE COLLECTION OF ASSESSMENTS AND ARREARS.

Borough of Manhattan—Stewart Building, Room 81.

Daniel Moynahan, Collector of Assessments and Arrears.

Richard E. Weldon, Deputy Collector of Assess- ments and Arrears.

Borough of The Bronx—Municipal Building, Rooms 1-3.

James J. Donovan, Jr., Deputy Collector of As- sessments and Arrears.

Borough of Brooklyn—Mechanics' Bank Building, corner Court and Montague streets.

William E. Melody, Deputy Collector of Assess- ments and Arrears.

Borough of Queens—Hackett Building, Jackson avenue and Fifth street, Long Island City.

Patrick E. Leahy, Deputy Collector of Assess- ments and Arrears.

Borough of Richmond—St. George, New Brighton.

George Brand, Deputy Collector of Assessments and Arrears.

## BUREAU FOR THE COLLECTION OF CITY REVENUE AND OF MARKETS.

Stewart Building, Chambers street and Broadway Room 141.

John M. Gray, Collector of City Revenue and Superintendent of Markets.

James H. Baldwin, Deputy Superintendent of Markets.

David O'Brien, Deputy Collector of City Revenue

## BUREAU OF THE CITY CHAMBERLAIN.

Stewart Building, Chambers street and Broadway, Rooms 63 to 67.

James J. Martin, City Chamberlain.

John H. Campbell, Deputy Chamberlain.

## DEPARTMENT OF HEALTH.

Southwest corner of Fifty-fifth street and Sixth avenue, Borough of Manhattan, 9 a. m. to 4 p. m.

Bureau of Health and Contagious Disease Offices all ways open.

Telephone, 4900 Columbus.

Thomas Darlington, M. D., Commissioner of Health and President.

Alvah H. Doty, M. D., Theodore A. Bingham, Commissioners.

Eugene W. Scheffer, Secretary.

Herman M. Biggs, M. D., General Medical Officer.

James McC. Miller, Chief Clerk.

Sanitary Superintendent.

William H. Gullfooy, M. D., Registrar of Records.

## Borough of Manhattan.

Alonzo Blauvelt, M. D., Assistant Sanitary Super- intendent, George A. Roberts, Assistant Chief Clerk.

Charles J. Burke, M. D., Assistant Registrar of Records.

Borough of The Bronx, No. 3731 Third avenue.

Charles F. Spencer, M. D., Acting Assistant San- itary Superintendent; Ambrose Lee, Jr., Assistant Chief Clerk; Arthur J. O'Leary, M. D., Assistant Registrar of Records.

Borough of Brooklyn, Nos. 38 and 40 Clinton street

Traverse R. Maxfield, M. D., Assistant Sanitary Superintendent; Alfred T. Metcalfe, Assistant Chief Clerk; S. J. Byrne, M. D., Assistant Registrar of Records.

Borough of Queens, Nos. 372 and 374 Fulton street, Jamaica.

John P. Moore, M. D., Assistant Sanitary Super- intendent; George R. Crowley, Assistant Chief Clerk; Robert Campbell, M. D., Assistant Registrar of Records.

Borough of Richmond, Nos. 54 and 56 Water street, Stapleton, Staten Island.

John T. Sprague, M. D., Assistant Sanitary Super- intendent; Charles E. Hoyer, Assistant Chief Clerk; J. Walter Wood, M. D., Assistant Registrar of Records.

## DEPARTMENT OF PARKS.

Henry Smith, Commissioner of Parks for the Boroughs of Manhattan and Richmond, and Presi- dent Park Board.

M. F. Loughman, Secretary.

Offices, Arsenal, Central Park.

Telephone, 201 Plaza.

Michael J. Kennedy, Commissioner of Parks for the Boroughs of Brooklyn and Queens.

Offices, Litchfield Mansion, Prospect Park, Brook- lyn.

Telephone, 2300 South.

Joseph I. Berry, Commissioner of Parks for the Borough of The Bronx.

Office, Zbrowski Mansion, Claremont Park

Office hours, 9 a. m. to 4 p. m.; Saturdays, 12 m. Telephone, 998 Tremont.

## DEPARTMENT OF PUBLIC CHARITIES.

## CENTRAL OFFICE.

Foot of East Twenty-sixth street, 9 a. m. to 4 p. m. Saturdays, 12 m.

Telephone, 3350 Madison Square.

Robert W. Hebbard, Commissioner.

Richard C. Baker, First Deputy Commissioner.

James J. McInerney, Second Deputy Commis- sioner for Brooklyn and Queens, Nos. 327 to 331 Schermerhorn street, Brooklyn.

J. McKee Borden, Secretary.

Plans and Specifications, Contracts, Proposals and Estimates for Work and Materials for Building, Re- pairs and Supplies, Bills and Accounts, 9 a. m. to 4 p. m. Saturdays, 12 m.

Bureau of Dependent Adults, foot of East Twenty- sixth street. Office hours, 8.30 a. m. to 4 p. m.

The Children's Bureau, No. 66 Third avenue. Office hours, 8.30 a. m. to 4 p. m.

Jeremiah Connelly, Superintendent for Richmond Borough, Borough Hall, St. George, Staten Island.

## DEPARTMENT OF STREET CLEANING.

Nos. 13 to 21 Park row, 9 a. m. to 4 p. m.  
 Telephone, 3863 Cortlandt.  
 Foster Crowell, Commissioner.  
 William H. Edwards, Deputy Commissioner.  
 John J. O'Brien, Chief Clerk.

## DEPARTMENT OF TAXES AND ASSESSMENTS.

Hall of Records, corner of Chambers and Centre streets. Office hours, 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.

Commissioners Lawson Purdy, President, Frank Raymond, Nicholas Muller, James H. Tully, Charles Putzel, Thomas L. Hamilton, Hugh Hastings.

## DEPARTMENT OF WATER SUPPLY, GAS AND ELECTRICITY.

Nos. 13 to 21 Park row, 9 a. m. to 4 p. m.

Telephones, Manhattan, 8220 Cortlandt; Brook- lyn, 3980 Main; Queens, 439 Greenpoint; Richmond, 94 Tompkinsville; Bronx, 62 Tremont.

John H. O'Brien, Commissioner.

Frank J. Goodwin, Deputy Commissioner.

John F. Garvey, Secretary to Department.

I. M. de Varona, Chief Engineer.

George W. Birdsall, Consulting Hydraulic Engi- neer.

George F. Sever, Consulting Electrical Engineer.

Charles F. Lacombe, Chief Engineer of Light and Power.

Michael C. Padden, Water Register, Manhattan.

William A. Hawley, Secretary to Commissioner.

William C. Cozier, Deputy Commissioner, Bor- ough of Brooklyn, Municipal Building, Brooklyn.

John W. McKay, Acting Chief Engineer, Brook- lyn.

William R. McGuire, Water Register, Brooklyn.

Michael Hecht, Deputy Commissioner, Borough of The Bronx, Crotona Park Building, One Hundred and Seventy-seventh street and Third avenue.

Thomas M. Lynch, Water Register, The Bronx.

Charles C. Wissel, Deputy Commissioner, Bor- ough of Queens, Hackett Building, Long Island City.

Charles J. McCormack, Deputy Commissioner Borough of Richmond, Borough Hall, St. George, S. I.

John W. McKay, Acting Chief Engineer, Bor- ough of Richmond, Borough Hall, St. George, S. I.

## EXAMINING BOARD OF PLUMBERS.

Robert McCabe, President; John J. Moore, Secre- tary; John Todd, Treasurer; ex-officio, Horace Loomis and Matthew E. Healy.

Rooms 14, 15 and 16 Aldrich Building, Nos. 149 and 151 Church street.

Office open during business hours every day in the year except legal holidays. Examinations are held on Monday, Wednesday and Friday after 1 p. m.

## FIRE DEPARTMENT.

Office hours for all, except where otherwise noted, from 9 a. m. to 4 p. m.; Saturdays, 12 m.

## HEADQUARTERS.

Nos. 157 and 159 East Sixty-seventh street, Man- hattan.

Telephone, 2230 Plaza, Manhattan; 2356 Main- Brooklyn.

Francis J. Lantry, Commissioner.

Hugh Bonner, Deputy Commissioner.

Charles C. Wise, Deputy Commissioner, Boroughs of Brooklyn and Queens.

Alfred M. Downes, Secretary; Michael J. Healion, Secretary to the Commissioner; George F. Dobson, Jr., Secretary to the Deputy Commissioner, Bor- oughs of Brooklyn and Queens.

Edward F. Croker, Chief of Department.

Thomas Lally, Deputy Chief of Department in charge, Boroughs of Brooklyn and Queens.

William A. Larney, Inspector of Combustibles, Nos. 157 and 159 East Sixty-seventh street, Man- hattan. Telephone, 640 Plaza.

Franz S. Wolf, Inspector of Combustibles, Bor- oughs of Brooklyn and Queens, Nos. 365 and 367 Jay street, Brooklyn. Telephone, 3520 Main.

Peter Seery, Fire Marshal, Boroughs of Manhat- tan, The Bronx and Richmond.

William L. Beers, Fire Marshal, Boroughs of Brooklyn and Queens.

Andrew P. Martin, Inspector in charge of Fire Alarm Telegraph Bureau.

William T. Beggin, Chief of Battalion in charge Bureau of Violations and Auxiliary Fire Appliances, Boroughs of Manhattan, The Bronx and Richmond, Nos. 157 and 159 East Sixty-seventh street, Manhat- tan. Brooklyn and Queens, Nos. 365 and 367 Jay street, Brooklyn.

Central Office open at all hours.

## LAW DEPARTMENT.

## OFFICE OF CORPORATION COUNSEL.

Hall of Records, Chambers and Centre streets 6th, 7th and 8th floors, 9 a. m. to 4 p. m.; Saturdays 9 a. m. to 12 m.

Telephone, 3900 Worth.

Francis K. Pendleton, Corporation Counsel.

Assistants—Theodore Connolly, George L. Sterling, Charles D. Olendorf, James T. Malone, George S. Coleman, William P. Burr, John L. O'Brien, Terence Farley, Franklin Chase Hoyt, Cornelius F. Collins, Edwin J. Freedman, John C. Breckinridge, Louis H. Hahlo, Frank B. Pierce, Stephen O'Brien, Charles A. O'Neill, John F. O'Brien, Edward S. Malone, William B. Crowell, Richard H. Mitchell, John Widdicombe, Thomas F. Byrne, Andrew T. Campbell, Jr., Arthur Sweeney, George P. Nichol- son, Alfred W. Booraem, William H. King, Thomas F. Noonan, Josiah A. Stover, Curtis A. Peters, Charles McIntyre, Royal E. T. Riggs, Solon Berrick, J. Gabriel Britt, Joll J. Squier, William J. Clarke, Francis J. Byrne, Francis X. McQuade, John W. Goff, Jr., Leonce Fuller, Charles W. Miller, I. Townsend Burden, Jr., William H. Doherty, Francis Martin, Frank E. Smith, Henry W. Mayo.

Secretary to the Corporation Counsel—Law- rason Riggs, Jr.

Chief Clerk—Andrew T. Campbell.

## BROOKLYN OFFICE.

Borough Hall, 2d floor, 9 a. m. to 4 p. m., Satur- days, 9 a. m. to 12 m.

Telephone, 2048 Main.

James D. Bell, Assistant in charge.

## BUREAU OF STREET OPENINGS.

No. 90 West Broadway, 9 a. m. to 4 p. m. Satur- days, 9 a. m. to 12 m.

Telephone, 8190 Cortlandt.

John P. Dunn, Assistant in charge.

## BUREAU FOR THE RECOVERY OF PENALTIES.

No. 119 Nassau street, 9 a. m. to 4 p. m.; Satur- days, 9 a. m. to 12 m.

Telephone, 4526 Cortlandt.

Herman Stiefel, Assistant in charge.

## BUREAU FOR THE COLLECTION OF ARREARS OF PERSONAL TAXES.

No. 280 Broadway, 5th floor. Office hours for pub- lic, 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.

Telephone, 4585 Worth.

Geo. O'Reilly, Assistant in charge.

## TENEMENT HOUSE BUREAU AND BUREAU OF BUILDINGS.

No. 44 East Twenty-third street, 9 a. m. to 4 p. m. Saturdays, 9 a. m. to 12 m.  
 Telephone, 1961 Gramercy.  
 John P. O'Brien, Assistant in charge

## METROPOLITAN SEWERAGE COMMISSION.

Office, No. 17 Battery Place. Daniel Lewis, Presi- dent, Olin H. Landreth, George A. Soper, Andrew J. Provost, Jr., Secretary, James H. Fuertes, Commissioners.  
 Telephone, 1604 Rector.

## MUNICIPAL CIVIL SERVICE COMMISSION.

No. 299 Broadway, 9 a. m. to 4 p. m.  
 William F. Baker, R. Ross Appleton, Frank L. Polk.  
 Frank A. Spencer, Secretary.

## Labor Bureau.

No. 51 Lafayette street (old No. 61 Elm street). Telephone, 2140 Worth.

## MUNICIPAL EXPLOSIVES COMMISSION.

Nos. 157 and 159 East Sixty-seventh street, Head- quarters Fire Department.

Hugh Bonner, Deputy Fire Commissioner and Chairman; William Montgomery, John Sherry, C. Andrade, Jr., Abram A. Breneman.

Franz S. Wolf, Secretary, No. 157 East Sixty- seventh street.

Stated meetings, Tuesday of each week, at 3 p. m. Telephone, 640 Plaza

## POLICE DEPARTMENT.



**BOROUGH OF RICHMOND.**

President's Office, New Brighton, Staten Island.  
George Cronwell, President.  
Maybury Fleming, Secretary.  
Louis Lincoln Tribus, Consulting Engineer and Acting Commissioner of Public Works.  
John Seaton, Superintendent of Buildings.  
H. E. Buel, Superintendent of Highways.  
John T. Fetherston, Superintendent of Street Cleaning.  
Ernest H. Seehusen, Superintendent of Sewers.  
John Timlin, Jr., Superintendent of Public Buildings and Offices.  
George W. Tuttle, Principal Assistant Engineer, Bureau of Engineering—Topographical.  
Theodor S. Oxholm, Principal Assistant Engineer, Bureau of Engineering—Construction.  
Offices—Borough Hall, New Brighton, N. Y., 9 a. m. to 4 p. m. Saturdays, 9 a. m. to 12 m. Telephone, 1000 Tompkinsville.

**CORONERS.**

Borough of The Bronx—Corner of Third avenue and One Hundred and Seventy-seventh street. Telephone, 1250 Tremont and 1402 Tremont.  
Robert F. McDonald, A. F. Schwannecke.  
William T. Austin, Chief Clerk.  
Borough of Brooklyn—Office, Room 11, Borough Hall. Telephone, 404 Main and 405 Main.  
Henry J. Brewer, M. D., John F. Kennedy.  
Joseph McGuinness, Chief Clerk.  
Open all hours of the day and night.  
Borough of Manhattan—Office, Criminal Courts Building, Centre and White streets. Open at all times of the day and night.  
Coroners: Julius Harburger, Peter P. Acritelli, George F. Shady, Jr., Peter Dooley.  
Julius Harburger, President Board of Coroners.  
Jacob E. Bausch, Chief Clerk.  
Telephones, 1004, 5057, 5058 Franklin.  
Borough of Queens—Office, Borough Hall, Fulton street, Jamaica, L. I.  
Samuel D. Nutt, Alfred S. Ambler.  
Martin Mager, Jr., Chief Clerk.  
Office hours, from 9 a. m. to 2 p. m.  
Borough of Richmond—Second street, New Brighton. Open for the transaction of business all hours of the day and night.  
Matthew J. Cahill.

**COUNTY OFFICES.****NEW YORK COUNTY.****COMMISSIONER OF JURORS.**

Room 127, Stewart Building, Chambers street and Broadway, 9 a. m. to 4 p. m.  
Thomas Allison, Commissioner.  
Matthew F. Neville, Assistant Commissioner.  
Frederick P. Simpson, Assistant Commissioner.  
Frederick O'Byrne, Secretary.

**COMMISSIONER OF RECORDS.**

Office, New County Court-house.  
William S. Andrews, Commissioner.

**COUNTY CLERK.**

Nos. 5, 8, 9, 10 and 11 New County Court-house  
Office hours from 9 a. m. to 4 p. m.  
Peter J. Dooling, County Clerk.  
John F. Curry, Deputy.  
Joseph J. Glennen, Secretary.  
Telephone, 870 Cortlandt.

**DISTRICT ATTORNEY.**

Building for Criminal Courts, Franklin and Centre streets.  
Office hours from 9 a. m. to 5 p. m.; Saturdays, 9 a. m. to 12 m.  
Wm. Travers Jerome, District Attorney.  
John A. Henneberry, Chief Clerk.

**PUBLIC ADMINISTRATOR.**

No. 119 Nassau street, 9 a. m. to 4 p. m.  
William M. Hoes, Public Administrator.  
Telephone, 6376 Cortlandt.

**REGISTER.**

Hall of Records. Office hours from 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m. During the months of July and August the hours are from 9 a. m. to 5 p. m.  
Frank Gass, Register.  
William H. Sinnott, Deputy Register.  
Telephone, 3900 Worth.

**SHERIFF.**

No. 209 Broadway, 9 a. m. to 4 p. m.; Saturdays 9 a. m. to 12 m.  
Nicholas J. Hayes, Sheriff.  
A. J. Johnson, Under Sheriff.  
Telephone, 4984 Worth.

**SURROGATES.**

Hall of Records. Court open from 9 a. m. to 4 p. m., except Saturday, when it closes at 12 m. During the months of July and August the hours are from 9 a. m. to 2 p. m.  
Abner C. Thomas, Surrogate; William V. Leary, Chief Clerk.

**KINGS COUNTY.****COMMISSIONER OF JURORS.**

5 County Court-house.  
Jacob Brenner, Commissioner.  
Jacob A. Livingston, Deputy Commissioner.  
Albert B. Waldron, Secretary.  
Office hours from 9 a. m. to 4 p. m.; Saturdays, from 9 a. m. to 12 m.  
Office hours during July and August, 9 a. m. to 2 p. m.; Saturdays, from 9 a. m. to 12 m.  
Telephone, 1454 Main.

**COMMISSIONER OF RECORDS.**

Hall of Records.  
Office hours, 9 a. m. to 4 p. m., excepting months of July and August, then 9 a. m. to 2 p. m.; Saturdays, 9 a. m. to 12 m.  
John K. Neal, Commissioner.  
D. H. Ralston, Deputy Commissioner.  
Thomas D. Mossrop, Superintendent.  
William J. Beattie, Assistant Superintendent.

**COUNTY CLERK.**

Hall of Records, Brooklyn. Office hours, 9 a. m. to 4 p. m.; during months of July and August, 9 a. m. to 2 p. m.; Saturdays, 9 a. m. to 12 m.  
Charles T. Hartzheim, County Clerk.  
Bela Tokaji, Deputy County Clerk.

James P. Kohler, Assistant Deputy County Clerk.  
Robert Stewart, Counsel.  
Telephone call, 4930 Main.

**COUNTY COURT, KINGS COUNTY.**

County Court-house, Brooklyn, Rooms 10, 17, 18, 22 and 23. Court opens at 10 a. m. daily and sits until business is completed. Part I., Room No. 23; Part II., Room No. 10, Court-house. Clerk's Office, Rooms 17, 18 and 22, open daily from 9 a. m. to 4 p. m.; Saturdays, 12 m.  
Norman S. Dike and Lewis L. Fawcett, County Judges.  
Charles S. Devoy, Chief Clerk.  
Telephone, 4154 and 4155 Main.

**DISTRICT ATTORNEY.**

Office, County Court-house, Borough of Brooklyn, Room 9 a. m. to 5 p. m.  
John F. Clarke, District Attorney.

**PUBLIC ADMINISTRATOR.**

No. 44 Court street (Temple Bar), Brooklyn. 9 a. m. to 5 p. m.  
Charles E. Teale, Public Administrator.  
Telephone, 2840 Main.

**REGISTER.**

Hall of Records. Office hours, 9 a. m. to 4 p. m., excepting months of July and August; then from 9 a. m. to 2 p. m., provided for by statute.  
Alfred J. Boulton, Register.

**SHERIFF.**

County Court-house, Brooklyn, N. Y.  
9 a. m. to 4 p. m.; Saturdays, 12 m.  
Michael J. Flaherty, Sheriff.

**SURROGATE.**

Hall of Records, Brooklyn, N. Y.  
James C. Church, Surrogate.  
William P. Pickett, Clerk of the Surrogate's Court.  
Court opens at 10 a. m. Office hours, 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.

**QUEENS COUNTY.****COMMISSIONER OF JURORS.**

Office hours, 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m. Queens County Court-house, Long Island City.  
John P. Balbert, Commissioner of Jurors.  
Rudman Richardson, Assistant Commissioner.

**COUNTY CLERK.**

Jamaica, Fourth Ward, Borough of Queens, City of New York.  
Office open, April 1 to October 1, 8 a. m. to 5 p. m.; October 1 to April 1, 9 a. m. to 5 p. m.; Saturdays throughout year until 12 noon.  
John Niederstein, County Clerk.  
Henry J. Walker, Jr., Deputy County Clerk.  
Charles Mahler, Assistant Deputy County Clerk.  
George Distler, Deputy County Clerk.  
Frank C. Klingenberg, Secretary.  
Telephone, 151 Jamaica.

**COUNTY COURT.**

Temporary County Court-house, Long Island City. County Court opens at 10 a. m. Trial Terms begin first Monday of each month, except July, August and September. Special Terms each Saturday, except during August.  
County Judge's office always open at No. 336 Fulton street, Jamaica, N. Y.  
Burt J. Humphrey, County Judge.

**DISTRICT ATTORNEY.**

Office, Queens County Court-house, Long Island City, 9 a. m. to 5 p. m.  
Ira G. Darrin, District Attorney.

**PUBLIC ADMINISTRATOR.**

No. 17 Cook avenue, Elmhurst.  
John T. Robinson, Public Administrator, County of Queens.  
Telephone, 335 Newtown.

**SHERIFF.**

County Court-house, Long Island City, 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m.  
Herbert S. Harvey, Sheriff.  
John M. Phillips, Under Sheriff.

**SURROGATE.**

Daniel Noble, Surrogate.  
Office at Jamaica.  
Except on Sundays, holidays and half-holidays, the office is open between March 31 and July 1, from 8 a. m. to 5 p. m.; on Saturdays, from 8 a. m. to 12 m.; between July 1 and September 1 from 9 a. m. to 4 p. m.; on Saturday from 9 a. m. to 12 m. The calendar is called on Tuesday of each week at 10 a. m., except during the month of August, when no court is held, and the court sits every day thereafter until all contested cases have been disposed of.

**RICHMOND COUNTY.****COMMISSIONER OF JURORS.**

Village Hall, Stapleton.  
Charles J. Kullman, Commissioner.  
John J. McCaughey, Assistant Commissioner.  
Office open from 9 a. m. until 4 p. m.; Saturdays, from 9 a. m. to 12 m.

**COUNTY CLERK.**

County Office Building, Richmond, S. I., 9 a. m. to 4 p. m.  
C. L. Bostwick, County Clerk.  
County Court-house, Richmond, S. I., 9 a. m. to 4 p. m.

**COUNTY JUDGE AND SURROGATE.**

Terms of Court, Richmond County, 1907.  
County Courts—Stephen D. Stephens, County Judge.  
First Monday of June, Grand and Trial Jury.  
First Monday of December, Grand and Trial Jury.  
Fourth Wednesday of January, without a Jury.  
Fourth Wednesday of February, without a Jury.  
Fourth Wednesday of March, without a Jury.  
Fourth Wednesday of April, without a Jury.  
Fourth Wednesday of July, without a Jury.  
Fourth Wednesday of September, without a Jury.  
Fourth Wednesday of October, without a Jury.  
Surrogate's Court—Stephen D. Stephens, Surrogate.  
Mondays at the Borough Hall, St. George, 10.30 o'clock a. m.

Tuesdays at the Borough Hall, St. George, at 10.30 o'clock a. m.  
Wednesdays at the Surrogate's Office, Richmond, at 10.30 o'clock a. m.

**DISTRICT ATTORNEY.**

No. 400 Richmond Terrace, New Brighton, S. I.  
Office hours, from 9 a. m. to 12 m., and 1 p. m. to 4 p. m.  
John J. Kenney, District Attorney.

**SHERIFF.**

County Court-house, Richmond, S. I.  
Office hours, 9 a. m. to 4 p. m.  
Joseph J. Barth, Sheriff.  
John J. Schoen, Under Sheriff.

**THE COURTS.****APPELLATE DIVISION OF THE SUPREME COURT.****FIRST JUDICIAL DEPARTMENT.**

Court-house, Madison avenue, corner Twenty-fifth street. Court opens at 1 p. m.  
Edward Patterson, Presiding Justice, George L. Ingraham, Chester B. McLaughlin, Frank C. Laughlin, John Proctor Clarke, James W. Houghton, Francis M. Scott and John S. Lambert, Justices; Alfred Wagstaff, Clerk; William Lamb, Deputy Clerk.  
Clerk's Office open at 9 a. m.

**SUPREME COURT—FIRST DEPARTMENT.**

County Court-house, Chambers street. Court open from 10.15 a. m. to 4 p. m.  
Special Term, Part I. (motions), Room No. 15.  
Special Term, Part II. (ex-parte business), Room No. 13.  
Special Term, Part III., Room No. 19.  
Special Term, Part IV., Room No. 20.  
Special Term, Part V., Room No. 33.  
Special Term, Part VI. (Elevated Railroad cases), Room 31.  
Trial Term, Part II., Room No. 34.  
Trial Term, Part III., Room No. 22.  
Trial Term, Part IV., Room No. 21.  
Trial Term, Part V., Room No. 24.  
Trial Term, Part VI., Room No. 35.  
Trial Term, Part VII., Room No. 23.  
Trial Term, Part VIII., Room No. 27.  
Trial Term, Part IX., Room No. 26.  
Trial Term, Part X., Room No. 28.  
Trial Term, Part XI., Room No. 37.  
Trial Term, Part XII., Room No. 26.  
Trial Term, Part XIII., and Special Term, Part VII., Room No. 36.  
Appellate Term, Room No. 29.  
Naturalization Bureau, Room No. 18, third floor.  
Assignment Bureau, room on third floor.  
Clerks in attendance, from 10 a. m. to 4 p. m.  
Clerk's Office, Special Term, Part I. (motions) Room No. 15.  
Clerk's Office, Special Term, Part II. (ex-parte business), room southwest corner, mezzanine floor.  
Clerk's Office, Special Term, Calendar, room southeast corner, second floor.  
Clerk's Office, Trial Term, Calendar, room northeast corner, second floor, east.  
Clerk's Office, Appellate Term, room southwest corner, third floor.  
Trial Term, Part I. (criminal business).  
Criminal Court-house, Centre street.  
Justices—Charles H. Truax, Charles F. MacLean, Henry Bischoff, Jr., Leonard A. Giegerich, P. Henry Dugro, Henry A. Gildersleeve, James Fitzgerald, David Leventritt, James A. O'Gorman, James A. Blanchard, Edward S. Clinch, Samuel Greenbaum, Edward E. McCall, Edward B. Amend, Vernon M. Davis, Victor J. Dowling, Joseph Newburger, M. Linn Bruce, John W. Goff, Samuel Seabury, M. Warley Platzek, Peter A. Hendrick, John Ford, Charles W. Dayton, John J. Brady, Mitchell L. Erlanger, Charles L. Guy.  
Peter J. Dooling, Clerk, Supreme Court.  
Telephone, 4580 Cortlandt.

**SUPREME COURT—SECOND DEPARTMENT.**

Kings County Court-house, Borough of Brooklyn N. Y.  
Court open daily from 10 o'clock a. m. to 5 o'clock p. m. Seven jury trial parts. Special Term for Trials. Special Term for Motions.  
James F. McGee, General Clerk.  
Telephone, 6970 Main.

**CRIMINAL DIVISION—SUPREME COURT.**

Building for Criminal Courts, Centre, Elm, White and Franklin streets.  
Court opens at 10.30 a. m.  
Peter J. Dooling, Clerk; Edward R. Carroll, Special Deputy to the Clerk.  
Clerk's Office open from 9 a. m. to 4 p. m.  
Telephone, 6064 Franklin.

**COURT OF GENERAL SESSIONS.**

Held in the Building for Criminal Courts, Centre Elm, White and Franklin streets.  
Court opens at 10 a. m.  
Thomas C. T. Crain, Francis S. McAvoy, Otto A. Rosalsky, Warren W. Foster, Thomas C. O'Sullivan and Charles S. Whitman, Judges of the Court of General Sessions. Edward K. Carroll, Clerk.  
Clerk's Office open from 9 a. m. to 4 p. m.  
During July and August Clerk's office will close at 2 p. m., and on Saturdays at 12 m.

**CITY COURT OF THE CITY OF NEW YORK.**

No. 32 Chambers street, Brownstone Building City Hall Park, from 10 a. m. to 4 p. m.  
Part I.  
Part II.  
Part III.  
Part IV.  
Part V.  
Special Term Chambers will be held from 10 a. m. to 4 p. m.  
Clerk's Office open from 9 a. m. to 4 p. m.  
Edward F. O'Dwyer, Chief Justice; John Henry McCarty, Lewis J. Conlan, Theodore F. Hascall, Francis B. Delahanty, Joseph I. Green, William H. Wadhams, Justices; Thomas F. Smith, Clerk.  
Telephone, 6142 Cortlandt.

**COURT OF SPECIAL SESSIONS.**

Building for Criminal Courts, Centre street between Franklin and White streets, Borough of Manhattan.  
Court opens at 10 a. m.  
Justices—First Division—John B. McKean, William E. Wyatt, Willard H. Olmsted, Joseph M. Deuel, Lorenz Zeller, John B. Mayo, Charles W. Calkin, Clerk; William M. Fuller, Deputy Clerk.  
Clerk's Office open from 9 a. m. to 4 p. m.  
Second Division—Trial Days—No. 171 Atlantic avenue, Brooklyn, Mondays, Wednesdays and Fridays at 10 o'clock; Town Hall, Jamaica, Borough of Queens, Tuesday at 10 o'clock; Town Hall, New Brighton, Borough of Richmond, Thursday at 10 o'clock.

Justices—Howard J. Forker, Patrick Keady, John Fleming, Morgan M. L. Ryan, Robert J. Wilkin, George J. O'Keefe; Joseph L. Kerrigan, Clerk; John J. Dorman, Deputy Clerk.  
Clerk's Office, No. 171 Atlantic avenue, Borough of Brooklyn, open from 9 a. m. to 4 p. m.

**CHILDREN'S COURT.**

First Division—No. 66 Third avenue, Manhattan Edmund C. Lee, Clerk.  
Second Division—No. 102 Court street, Brooklyn, James F. Sinnott, Clerk.

**CITY MAGISTRATES' COURT.****First Division.**

Court opens from 9 a. m. to 4 p. m.  
City Magistrates—Robert C. Cornell, Leroy B. Crane, Peter T. Barlow, Matthew P. Breen, Joseph F. Moss, James J. Walsh, Henry Steinert, Daniel E. Finn, Charles G. F. Wahle, Frederick B. House, Charles N. Harris, Frederic Kernochan, Arthur C. Butts, Otto H. Droege, Joseph E. Corrigan, Moses Herrman.  
James McCabe, Secretary, No. 125 Sixth avenue.  
First District—Criminal Court Building.  
Second District—Jefferson Market.  
Third District—No. 69 Essex street.  
Fourth District—No. 151 East Fifty-seventh street.  
Fifth District—One Hundred and Twenty-first street, southeastern corner of Sylvan place.  
Sixth District—One Hundred and Sixty-first street and Brook avenue.  
Seventh District—No. 314 West Fifty-fourth street.  
Eighth District—Main street, Westchester.

**Second Division.**

Borough of Brooklyn.  
City Magistrates—Alfred E. Steers, A. V. B. Voorhees, Jr., James G. Tighe, Edward J. Dooley, John Naumer, E. G. Higginbotham, Frank E. O'Reilly, Henry J. Furlong, John F. Hylan, Alexander H. Geismar.  
President of the Board, Frank E. O'Reilly, No. 249 Manhattan avenue.  
Secretary to the Board, William F. Delaney, No. 495 Gates avenue.  
First District—No. 318 Adams street.  
Second District—Court and Butler streets.  
Third District—Myrtle and Vanderbilt avenues.  
Fourth District—Lee avenue and Clymer street.  
Fifth District—Manhattan avenue and Powers street.  
Sixth District—No. 495 Gates avenue.  
Seventh District—No. 31 Snider avenue (Flatbush).  
Eighth District—West Eighth street (Coney Island).  
Ninth District—Fifth avenue and Twenty-third street.  
Tenth District—133 New Jersey avenue.

**Borough of Queens.**

City Magistrates—Matthew J. Smith, Luke I. Connorton, Edmund J. Healy, Eugene C. Gilroy.  
First District—Long Island City.  
Second District—Flushing.  
Third District—Far Rockaway.

**Borough of Richmond.**

City Magistrates—John Croak, Nathaniel Marsh.  
First District—New Brighton, Staten Island.  
Second District—Stapleton, Staten Island.

**MUNICIPAL COURTS.****Borough of Manhattan.**

First District—Third, Fifth and Eighth Wards and all that part of the First Ward lying west of Broadway and Whitehall street, including Governor's Island, Bedloe's Island, Ellis Island and the Oyster Islands. New County Court-house, No. 128 Prince street, corner of Wooster street.  
Wanhope Lynn, Justice. Thomas O'Connell, Clerk.  
Clerk's Office open from 9 a. m. to 4 p. m. Telephone, 1371 Spring.  
Second District—Second, Fourth, Sixth and Fourteenth Wards, and all that portion of the First Ward lying south and east of Broadway and Whitehall street. Court-room, No. 59 Madison street.  
John J. Hoover, Justice. Francis Mangin, Clerk.  
Clerk's Office open from 9 a. m. to 4 p. m.  
Court opens daily at 9 a. m., and remains open until daily calendar is disposed of and close of the daily business, except on Sundays and legal holidays.  
Telephone, 2410 Orchard.  
Third District—Ninth and Fifteenth Wards. Court-room, southwest corner Sixth avenue and West Tenth street. Court opens daily (Sundays and legal holidays excepted), from 9 a. m. to 4 p. m.  
William F. Moore, Justice. Daniel Williams, Clerk.  
Telephone, 2513 Chelsea.

Fourth District—Tenth and Seventeenth Wards. Court-room, No. 30 First street, corner Second avenue. Clerk's Office open daily from 9 a. m. to 4 p. m. Court opens 9 a. m. daily, and remains open to close of business.  
George F. Roesch, Justice. Andrew Lang, Clerk.  
Telephone, 4053 Orchard.

Fifth District—The Fifth District embraces the Eleventh Ward and all that portion of the Thirteenth Ward which lies east of the centre line of Norfolk street and north of the centre line of Grand street and west of the centre line of Pitt street and north of the centre line of Delancey street and northwest of Clinton street to Rivington street, and on the centre line of Rivington street south to Norfolk street. Court-room, No. 154 Clinton street.  
Benjamin Hoffman, Justice. Thomas Fitzpatrick, Clerk.  
Telephone, 2326 Orchard.

Sixth District—Eighteenth and Twenty-first Wards. Court-room, northwest corner Twenty-third street and Second avenue. Court opens at 9 a. m. daily (except legal holidays), and continues open until close of business.  
Henry W. Unger, Justice. Abram Bernard, Clerk.  
Telephone, 4570 Gramercy.

Seventh District—That portion of Nineteenth Ward east of Lexington avenue, bounded on the south by the north side of East Forty-third street and on the north by the south side of East Eighty-sixth street, also that portion bounded on the south by the north side of East Sixty-first street, on the west by the east side of Park avenue, and on the north by the south side of East Sixty-fifth street. Court-room, No. 151 East Fifty-seventh street. Court opens every morning at 9 o'clock (except Sundays and legal holidays), and continues open to close of business.  
Herman Joseph, Justice. Edward A. McQuade, Clerk.  
Telephone, 3860 Plaza.

Eighth District—Sixteenth and Twentieth Wards. Court-room, northwest corner of Twenty-third street and Eighth avenue. Court opens at 9 a. m. and continues open until close of business. Summary proceedings and return causes called at 9 a. m. Calendar causes, 9 a. m.  
Clerk's Office open from 9 a. m. to 4 p. m., and on Saturdays until 12 m.  
Trial days and Return days, each Court day.  
James W. McLaughlin, Justice. Henry Merzbach, Clerk.  
Telephone, 2665 Chelsea.



**Ninth District—Twelfth Ward**, except that portion thereof which lies west of the centre line of Lenox or Sixth avenue and of the Harlem river, north of the terminus of Lenox avenue. Court-room, No. 170 East One Hundred and Twenty-first street, southeast corner of Sylvan place. Court opens every morning at 9 o'clock (except Sundays and legal holidays), and continues open to close of business. Joseph P. Fallon, Justice. William J. Kennedy, Clerk. Clerk's office open from 9 a. m. to 4 p. m. Telephone, 3595 Harlem.

**Tenth District—The Tenth District** embraces that portion of the Twenty-second Ward south of Seventieth street, west of Central Park West to Fifty-ninth street, east on Fifty-ninth street to Seventh avenue, south on Seventh avenue to Fifty-third street, west on Fifty-third street to Eighth avenue, south on Eighth avenue to Fortieth street, north side to Hudson river. Court-room, No. 314 West Fifty-fourth street. Court open from 9 a. m. to 4 p. m., Sundays and legal holidays excepted. Thomas E. Murray, Justice. Michael Skelly, Clerk. Telephone, 1800 Columbus.

**Eleventh District—The Eleventh District** embraces that portion of the Twelfth Ward which lies north of the centre line of West One Hundred and Tenth street, between Lenox avenue and Seventh avenue, north of the centre line of One Hundred and Twentieth street, between Seventh avenue and Broadway, north of the centre line of One Hundred and Nineteenth street, between Broadway and the North or Hudson river, and west of the centre line of Lenox or Sixth avenue and of the Harlem river north of the terminus of Lenox or Sixth avenue. Court-room, No. 70 Manhattan street. Clerk's Office open daily (Sundays and legal holidays excepted), from 9 a. m. to 4 p. m. Court convenes daily at 9 a. m. Francis J. Worcester, Justice. Herman B. Wilson, Clerk. Telephone, 6335 Morningside.

**Twelfth District—The Twelfth District** embraces that portion of the Twenty-second Ward north of Seventieth street, and that portion of the Twelfth Ward which lies north of the centre line of Eighty-sixth street and west of the centre line of Seventh avenue and south of the centre line of One Hundred and Twentieth street, between Seventh avenue and Broadway, and south of the centre line of One Hundred and Nineteenth street, between Broadway and the North or Hudson river. Court-room, No. 2555 Broadway. Alfred P. W. Seaman, Justice. James V. Gilloon, Clerk. Telephone, 4006 Riverside.

**Thirteenth District—South side of Delancey street**, from East river to Pitt street; east side of Pitt street, Grand street, south side of Grand street to Norfolk street, east side of Norfolk street to Division street, south side of Division street to Catharine street, east side of Catharine street to East river. Clerk's Office open daily (Sundays and legal holidays excepted), from 9 a. m. to 4 p. m. Leon Sanders, Justice. James J. Devlin, Clerk. Court-room, No. 264 Madison street. Telephone, 2596 Orchard.

**Fourteenth District—The Fourteenth District** embraces that portion of the Borough of Manhattan bounded as follows: Beginning at West Fortieth street and Eighth avenue, north on Eighth avenue to West Fifty-third street; east on West Fifty-third street to Seventh avenue; north on Seventh avenue to West Fifty-ninth street to Eighth avenue; north on Eighth avenue and west on Central Park West to the Transverse road at Central Park West and to Fifth avenue and East Ninety-seventh street; south on Fifth avenue to East Ninety-sixth street; east on Ninety-sixth street to Lexington avenue; south on Lexington avenue to East Sixty-fifth street; west on East Sixty-fifth street to Park avenue; south on Park avenue to East Sixty-first street; east on East Sixty-first street to Lexington avenue; south on Lexington avenue to East Fortieth street; west on East and West Fortieth streets to the point of beginning at West Fortieth street and Eighth avenue. Edgar J. Lauer, Justice. William J. Chamberlain, Clerk. Court-house, No. 620 Madison avenue. Telephone, 3873 Plaza.

#### Borough of The Bronx.

**First District—All that part of the Twenty-fourth Ward** which was lately annexed to the City and County of New York by Chapter 934 of the Laws of 1895, comprising all of the late Town of Westchester and part of the Towns of Eastchester and Pelham, including the Villages of Wakefield and Williamsbridge. Court-room, Town Hall, Main street, Westchester Village. Court open daily (Sundays and legal holidays excepted), from 9 a. m. to 4 p. m. Trial of causes, Tuesday and Friday of each week. William W. Penfield, Justice. Thomas F. Delahanty, Clerk. Office hours, from 9 a. m. to 4 p. m.; Saturdays, closing at 12 m.

**Second District—Twenty-third and Twenty-fourth Wards**, except the territory described in chapter 934 of the Laws of 1895. Court-room, southeast corner of Washington avenue and One Hundred and Sixty-second street. Office hours, from 9 a. m. to 4 p. m. Court opens at 9 a. m. John M. Tierney, Justice. Thomas A. Maher, Clerk. Telephone, 3043 Melrose.

#### Borough of Brooklyn.

**First District—Comprising First, Second, Third, Fourth, Fifth, Sixth, Tenth and Twelfth Wards** and that portion of the Eleventh Ward beginning at the intersection of the centre lines of Hudson and Myrtle avenues, thence along the centre line of Myrtle avenue to North Portland avenue, thence along the centre line of North Portland avenue to Flushing avenue, thence along the centre line of Flushing avenue to Navy street, thence along the centre line of Navy street to Johnson street, thence along the centre line of Johnson street to Hudson avenue, and thence along the centre line of Hudson avenue to the point of beginning, of the Borough of Brooklyn. Court-house, northwest corner State and Court streets. John J. Walsh, Justice. Edward Moran, Clerk. Clerk's Office open from 9 a. m. to 4 p. m.

**Second District—Seventh Ward** and that portion of the Twenty-first and Twenty-third Wards west of the centre line of Stuyvesant avenue and the centre line of Schenectady avenue, also that portion of the Twentieth Ward beginning at the intersection of the centre lines of North Portland and Myrtle avenues, thence along the centre line of Myrtle avenue to Waverly avenue, thence along the centre line of Waverly avenue to Park avenue, thence along the centre line of Park avenue to Washington avenue, thence along the centre line of Washington avenue to Flushing avenue, thence along the centre line of Flushing avenue to North Portland avenue, and thence along the centre line of North Portland avenue to the point of beginning. Court-room, No. 495 Gates avenue. Gerard B. Van Wart, Justice. Franklin B. Van Wart, Clerk. Clerk's Office open from 9 a. m. to 4 p. m.

**Third District—Embraces the Thirteenth, Fourteenth, Fifteenth, Sixteenth, Seventeenth, Eighteenth and Nineteenth Wards**, and that portion of the Twenty-seventh Ward lying northwest of the centre line of Starr street between the boundary line of Queens County and the centre line of Central

avenue, and northwest of the centre line of Suydam street between the centre lines of Central and Bushwick avenues, and northwest of the centre line of Willoughby avenue, between the centre lines of Bushwick avenue and Broadway. Court-house, Nos. 6, and 8 Lee avenue, Brooklyn. Philip D. Meagher, Justice. John W. Carpenter, Clerk. Clerk's Office open from 9 a. m. to 4 p. m. Court opens at 9 a. m.

**Fourth District—Embraces the Twenty-fourth and Twenty-fifth Wards**, that portion of the Twenty-first and Twenty-third Wards lying east of the centre line of Stuyvesant avenue and east of the centre line of Schenectady avenue, and that portion of the Twenty-seventh Ward lying southeast of the centre line of Starr street between the boundary line of Queens and the centre line of Central avenue, and southeast of the centre line of Suydam street between the centre lines of Central and Bushwick avenues, and south east of the centre line of Willoughby avenue between the centre lines of Bushwick avenue and Broadway. Court-room, No. 14 Howard avenue. Thomas H. Williams, Justice. G. J. Wiederhold, Clerk. Milton I. Williams, Assistant Clerk. Clerk's Office open from 9 a. m. to 4 p. m.

**Fifth District—Contains the Eighth, Thirtieth and Thirty-first Wards**, and so much of the Twenty-second Ward as lies south of Prospect avenue. Court-house, northwest corner of Fifty-third street and Third avenue. Cornelius Furgueson, Justice. Jeremiah J. O'Leary, Clerk. Clerk's Office open from 9 a. m. to 4 p. m. Telephone, 407 Bay Ridge.

**Sixth District—The Sixth District** embraces the Ninth and Twenty-ninth Wards and that portion of the Twenty-second Ward north of the centre line of Prospect avenue; also that portion of the Eleventh and Twentieth Wards beginning at the intersection of the centre lines of Bridge and Fulton streets; thence along the centre line of Fulton street to Flatbush avenue; thence along the centre line of Flatbush avenue to Atlantic avenue; thence along the centre line of Atlantic avenue to Washington avenue; thence along the centre line of Washington avenue to Park avenue; thence along the centre line of Park avenue to Waverly avenue; thence along the centre line of Waverly avenue to Myrtle avenue; thence along the centre line of Myrtle avenue to Hudson avenue; thence along the centre line of Hudson avenue to Johnson street; thence along the centre line of Johnson street to Bridge street, and thence along the centre line of Bridge street to the point of beginning. Justice, Lucien S. Bayliss. Charles P. Bible, Clerk. Court-house, No. 611 Fulton street.

**Seventh District—The Seventh District** embraces the Twenty-sixth, Twenty-eighth and Thirty-second Wards. Alexander S. Rosenthal, Justice. Samuel F. Brothers, Clerk. Court-house, corner Pennsylvania avenue and Fulton street (No. 31 Pennsylvania avenue). Clerk's Office open from 9 a. m. to 4 p. m.; Saturdays, 9 a. m. to 12 m. Trial days, Tuesdays, Wednesdays, Thursdays and Fridays. Jury Days: Wednesdays and Thursdays. Telephone, 904 East New York.

#### Borough of Queens.

**First District—First Ward** (all of Long Island City formerly composing five wards). Court-room, St. Mary's Lyceum, Nos. 115 and 117 Fifth street, Long Island City. Clerk's Office open from 9 a. m. to 4 p. m. each day, excepting Saturdays, closing at 12 m. Trial days, Mondays, Wednesdays and Fridays. All other business transacted on Tuesdays and Thursdays. Thomas C. Kadien, Justice. Thomas F. Kennedy, Clerk. Telephone, 2376 Greenpoint.

**Second District—Second and Third Wards**, which include the territory of the late Towns of Newtown and Flushing. Court-room, in Court-house of the late Town of Newtown, corner of Broadway and Court street, Elmhurst, New York. P. O. Address, Elmhurst, New York. William Rasquin, Jr., Justice. John E. Prendeville, Clerk. William Kopper, Assistant Clerk. James B. Snediker, Stenographer. Clerk's Office open from 9 a. m. to 4 p. m. Telephone, 87 Newtown.

**Third District—Fourth and Fifth Wards**, comprising the territory of the former Towns and Villages of Jamaica, Far Rockaway and Rockaway Beach. James F. McLaughlin, Justice. George W. Damon, Clerk. Court-house, Town Hall, Jamaica. Telephone, 180 Jamaica. Clerk's Office open from 9 a. m. to 4 p. m. Court held on Mondays, Wednesdays and Fridays at 9 a. m.

#### Borough of Richmond.

**First District—First and Third Wards** (Towns of Castleton and Northfield). Court-room, former Village Hall, Lafayette avenue and Second street, New Brighton. Thomas C. Brown, Justice. Anning S. Prall, Clerk. Clerk's Office open from 9 a. m. to 4 p. m. Telephone, 503 Tompkinsville.

**Second District—Second, Fourth and Fifth Ward**, (Towns of Middletown, Southfield and Westfield). Court-room, former Edgewater Village Hall, Stapleton. George W. Stake, Justice. Peter Tiernan, Clerk. Clerk's Office open from 9 a. m. to 4 p. m. Court opens at 9 a. m. Calendar called 10 a. m. Court continued until close of business. Trial days Mondays, Wednesdays and Fridays. Telephone, 313 Tompkinsville.

### OFFICIAL BOROUGH PAPERS.

**BOROUGH OF THE BRONX.**  
"North Side News," "Harlem Reporter and Bronx Chronicle," "Bronx Independent."

**BOROUGH OF RICHMOND.**  
"Staten Islander," "Staten Island Star."

**BOROUGH OF QUEENS.**  
"Long Island Star" (First and Second Wards), "Flushing Evening Journal" (Third Ward), "Long Island Farmer" (Fourth Ward), "Rockaway News" (Fifth Ward).

**BOROUGH OF BROOKLYN.**  
"Brooklyn Eagle," "Brooklyn Times," "Brooklyn Citizen," "Brooklyn Standard-Union," "Brooklyn Free Press."

**BOROUGH OF MANHATTAN.**  
"Tammany Times" (Harlem District), "Manhattan and Bronx Advocate" (Washington Heights, Morningside Heights and Harlem Districts), "New York Daily News."

Designated by Board of City Record June 19, 1906. Amended June 20, 1906; July 1, 1907; September 30, 1907.

### OFFICIAL PAPERS.

Morning—"The Sun," "The New York Times."  
Evening—"The Globe," "The Evening Mail."  
Weekly—"Democracy," "Real Estate Record and Guide."  
German—"Staats-Zeitung."

Designated by the Board of City Record, January 22, 1906. Amended March 1, 1906, November 20, 1906, and February 20, 1907.

### CHANGE OF GRADE DAMAGE COMMISSION.

TWENTY-THIRD AND TWENTY-FOURTH WARDS.

PURSUANT TO THE PROVISIONS OF chapter 537 of the Laws of 1893 and the Acts amendatory thereof and supplemental thereto, notice is hereby given that meetings of the Commissioners appointed under said Acts will be held at the office of the Commission, Room 138, No. 280 Broadway (Stewart Building), Borough of Manhattan, New York City, on Mondays, Wednesdays and Fridays of each week, at 2 o'clock p. m., until further notice.

Dated New York City, October 12, 1907.  
WILLIAM E. STILLINGS,  
GEORGE C. NORTON,  
LEWIS A. ABRAMS,  
Commissioners.

LAMONT McLOUGHLIN,  
Clerk.

### BOROUGH OF BROOKLYN.

NOTICE IS HEREBY GIVEN THAT, IN accordance with the provisions of section 432 of the Charter of The City of New York, the following petitions, on file and ready for inspection, will be considered by the Local Board of the Flatbush District, at a meeting to be held in the office of the President of the Borough of Brooklyn, Room 2, Borough Hall, on

THURSDAY, DECEMBER 12, 1907.

at 2:30 p. m.  
No. 1. Public Park—To alter the map or plan of The City of New York by locating and laying out as a public park the property bounded by Pacific and Dean streets and Saratoga and Hopkinson avenues.

No. 2. East New York Avenue—To alter the map or plan of The City of New York by reducing the width of East New York avenue, between the angle point west of Utica avenue and the eastern boundary line of the Twenty-ninth Ward, from 100 feet to 80 feet, by taking 10 feet from each side thereof.

No. 3. New York Avenue—To alter the map or plan of The City of New York by changing the grade on New York avenue, between President and Carroll streets.

No. 4. Union Street—To alter the map or plan of The City of New York by widening Union street, adding 12½ feet to each side thereof, between New York and Albany avenues, and 25 feet to the southerly side, between Albany avenue and Lincoln Terrace Park, and between Buffalo and East New York avenues; or

No. 4a. Union Street—To alter the map or plan of The City of New York by widening Union street, adding 25 feet to the southerly side thereof, between New York avenue and Lincoln Terrace Park, and between Buffalo and East New York avenues.

No. 5. East Fifth Street—To alter the map or plan of The City of New York by changing the grade of East Fifth street, between Caton avenue and Albemarle road.

No. 6. Change of Grade—To alter the map or plan of The City of New York by changing the grade of Kenmore place, between Woodruff and Caton avenues; of East Twenty-first street, between Caton and Church avenues, and of Caton avenue, between Ocean and Flatbush avenues.

No. 7. Church Avenue, Fourteenth Avenue, etc.—To alter the map or plan of The City of New York by striking therefrom Fourteenth avenue, from the present angle point east of Thirty-sixth street to East Second street; by striking therefrom Story street, from Thirty-sixth street to West street; by locating and laying out Church avenue, 80 feet wide, from Thirty-sixth street to East Fifth street, and 100 feet wide, from East Fifth street to Ocean parkway; by laying out an extension of Fourteenth avenue, from the present angle point east of Thirty-sixth street to Church avenue; by laying out an extension of Church avenue, from Story street to Church avenue; and by laying out an extension of Thirty-sixth street, from Fourteenth avenue to Church avenue.

No. 8. East Sixteenth Street—To alter the map or plan of The City of New York by changing the grade of East Sixteenth street, between Beverley and Cortelyou roads.

No. 9. East Thirty-fourth Street—To construct a sewer in East Thirty-fourth street, from Lenox road to Clarendon road, and from Newkirk avenue to the land of the Flatbush Water Works, and outlet sewers in Linden avenue, north side, from East Thirty-fourth street to East Thirty-fifth street; in Church avenue, from East Thirty-fourth street to East Thirty-fifth street; in Snyder avenue, from East Thirty-fourth street to East Thirty-fifth street; in East Thirty-fifth street, from Linden avenue to Beverley road; and in Beverley road, from East Thirty-fifth street to East Thirty-first street.

No. 10. East Thirty-fourth Street—To pave East Thirty-fourth street, between Lenox road and Avenue F, with asphalt on concrete foundation.

No. 11. East Eighth Street—To open East Eighth street, between Church avenue and Avenue C.

No. 12. East Eighth Street—To regulate, grade, set curb on concrete and lay cement sidewalks on East Eighth street, from Church avenue to Avenue C.

No. 13. East Eighth Street—To pave East Eighth street, between Church avenue and Avenue C, with asphalt on concrete foundation.

No. 14. Canarsie Lane—To alter the map or plan of The City of New York by changing the grade of Canarsie lane, between Flatbush and Schenectady avenues, and intersecting streets.

No. 15. East Ninth Street—To open East Ninth street, between Avenues C and D.

No. 16. Seventeenth Avenue—To open Seventeenth avenue, from West street to the line between the former towns of Flatbush and New Utrecht.

No. 17. Third Street—To open Third street, from Eighteenth avenue to Foster avenue.

No. 18. Robinson Street—To amend resolution of July 6, 1905, initiating proceedings to open Robinson street, between Rogers and New York avenues, by extending the limits of said proceedings to read "Between Flatbush and New York avenues."

No. 19. East Twenty-third Street—To amend resolution of November 1, 1906, initiating proceedings to open East Twenty-third street, from a point about 200 feet north of Beverley road to Flatbush avenue, by excluding from the provisions thereof that portion of East Twenty-third street lying between Canarsie lane and a point about 220 feet north of Beverley road.

No. 20. East Thirty-seventh Street—To amend resolution of January 30, 1907 initiating proceedings to open East Thirty-seventh street, from Paerdegat avenue to Flatlands avenue, by excluding from the provisions thereof that portion of East Thirty-seventh street lying between the southerly side of Avenue H and the southern boundary line of the property of the Long Island Railroad Company.

No. 21. Newkirk Avenue—To amend resolution of May 31, 1906, initiating proceedings to open Newkirk avenue, between Brooklyn avenue and East Twenty-sixth street, by excluding from the provisions thereof that portion of Newkirk avenue lying between East Twenty-sixth street and Nostrand avenue.

No. 22. Canarsie Lane—To open Canarsie lane, from Flatbush avenue to Schenectady avenue.

No. 23. Rockaway Parkway—To open Rockaway parkway, from Buffalo avenue to the bulkhead line of Jamaica Bay, where not already legally open, and excepting the land occupied by the tracks of the Long Island Railroad and of the Brooklyn and Rockaway Beach Railroad.

No. 24. East Seventeenth Street—To open East Seventeenth street, from Caton avenue to Church avenue.

No. 25. Avenue I—To rescind resolution of September 27, 1905, initiating proceedings to open Avenue I, between Flatbush avenue and East Thirty-fifth street.

No. 26. Albemarle Road—To amend resolution of November 1, 1906, initiating proceedings to open Albemarle road, from West street to Ocean parkway, excepting the property occupied by the tracks of the Prospect Park and Coney Island Railroad, by excepting from the provisions thereof that portion of said Albemarle road lying between East Third street and East Fifth street.

No. 27. East Second Street—To amend proceedings pending to open East Second street, from Greenwood avenue to Avenue F, by excluding from the provisions thereof that portion of East Second street lying between Avenue E and Avenue F.

BIRD S. COLER,  
President, Borough of Brooklyn.  
CHARLES FREDERICK ADAMS,  
Secretary.

NOTICE IS HEREBY GIVEN THAT, IN accordance with the provisions of section 432 of the Charter of The City of New York, the following petitions, on file and ready for inspection, will be considered by the Local Board of the Flatbush and Bushwick Districts, at a meeting to be held in the office of the President of the Borough of Brooklyn, Room 2, Borough Hall, on

THURSDAY, DECEMBER 12, 1907.

at 2:30 p. m.:  
Kings Highway—To alter the map or plan of The City of New York by locating and laying out Kings highway for a width of 60, 70, 80 or 100 feet, from Twenty-second avenue to Eastern parkway extension.

BIRD S. COLER,  
President of the Borough.  
CHARLES FREDERICK ADAMS,  
Secretary.

NOTICE IS HEREBY GIVEN THAT, IN accordance with section 432 of the Charter of The City of New York, the following petitions, on file and ready for inspection, will be presented to the Local Board of the Bushwick District, at a meeting to be held in the office of the President of the Borough of Brooklyn, Room No. 2, Borough Hall, on

THURSDAY, DECEMBER 12, 1907.

at 3 p. m.:  
No. 1. Change of Grade—To alter the map or plan of The City of New York by changing the grade of Metropolitan avenue, between Grand Street Bridge and Newtown Creek Bridge; of Gardner avenue, between Meadow street and Grand street; of Ten Eyck street, between Stewart avenue and Newtown creek, and of Grand street, between Grand Street Bridge and Varick avenue.

No. 2. New Lots Road—To alter the map or plan of The City of New York by striking therefrom New Lots road, between Sutter and Blake avenues.

No. 3. Livonia Avenue—To open Livonia avenue, from Stone avenue to Hinsdale street, and from Van Sicken avenue to New Lots avenue, excepting the land occupied by the tracks of the Long Island Railroad and of the Brooklyn and Rockaway Beach Railroad.

No. 4. Fountain Avenue—To open Fountain avenue, from Belmont avenue to Vandalia avenue.

No. 5. Dumont Avenue—To construct a sewer in Dumont avenue, between Hinsdale street and Williams avenue.

No. 6. Halsey Street—To construct sewer basins at the northerly and easterly corners of Halsey street and Irving avenue.

No. 7. Dumont Avenue—To construct a sewer in Dumont avenue, between Van Sinderen and Hinsdale avenues.

No. 8. Ridgewood Avenue—To construct a sewer in Ridgewood avenue, between Norwood and Hale avenues.

No. 9. Blake Avenue—To construct a sewer in Blake avenue, between Hinsdale street and Williams avenue.

No. 10. Miller Avenue—To open Miller avenue, from Riverdale avenue to Vandalia avenue.

No. 11. Miller Avenue—To construct a sewer in Miller avenue, between New Lots and Wortman avenues.

No. 12. Van Sicken Avenue—To open Van Sicken avenue, from New Lots road (avenue) to Vandalia avenue.

No. 13. Van Sicken Avenue—To construct a sewer in Van Sicken avenue, between New Lots road and Wortman avenue.

No. 14. Vermont Street—To open Vermont street, from New Lots road (avenue) to Vandalia avenue.

No. 15. Vermont Street—To construct a sewer in Vermont street, between New Lots and Wortman avenues.

No. 16. Bradford Street—To open Bradford street, from New Lots road (avenue) to Vandalia avenue.

No. 17. Bradford Street—To construct a sewer in Bradford street, between New Lots and Wortman avenues.

No. 18. Stanley Avenue—To open Stanley avenue, between Louisiana and Fountain avenues.

No. 19. Stanley Avenue—To construct a sewer in Stanley avenue, between Alabama avenue and Hendrix street.

No. 20. Vienna Avenue—To construct a sewer in Vienna avenue, between Alabama avenue and Hendrix street.



No. 21. Fanchon Place—To construct a sewer basin at the northwest corner of Fanchon place and Jamaica avenue.

No. 22. Wyona Street—To open Wyona street from New Lots road to Vandalia avenue.

No. 23. Wyona Street—To construct a sewer in Wyona street, between New Lots and Wortman avenues.

No. 24. Van Sinderen Avenue—To construct sewer basins on Van Sinderen avenue, at the northwest corner of Liberty avenue; at the northwest corner of Glenmore avenue and at the northwest corner of Pitkin avenue.

No. 25. Montauk Avenue—To construct sewer basins on Montauk avenue, at the southeast corner of Blake avenue, and at the northwest corner of New Lots road.

No. 26. Montauk Avenue—To pave Montauk avenue with asphalt on concrete foundation, between Pitkin avenue and New Lots road.

No. 27. Suydam Street—To regulate and grade between courtyard lines, set cement curb, lay cement sidewalks and pave with asphalt on concrete foundation, Suydam street, between Irving and St. Nicholas avenues, excepting the portion occupied by the Long Island Railroad.

No. 28. Willoughby Avenue—To construct a sewer in Willoughby avenue, between St. Nicholas avenue and the borough line.

No. 29. Willoughby Avenue—To regulate and grade between courtyard lines, set cement curb, lay cement sidewalks and pave with asphalt on concrete foundation Willoughby avenue, between Irving and St. Nicholas avenues, excepting the portion occupied by the Long Island Railroad.

No. 30. Decatur Street—To regulate and grade between courtyard lines, set bluestone, medina or cement curb, lay cement sidewalks where not already laid on Decatur street, between Knickerbocker avenue and the borough line.

No. 31. Decatur Street—To pave Decatur street with asphalt on concrete foundation, between Knickerbocker avenue and the borough line.

No. 32. Sheffield Avenue—To amend resolution of October 31, 1906, initiating proceedings to open Sheffield avenue, from Pitkin avenue to Blake avenue, by excluding from the provisions thereof that portion of Sheffield avenue lying between Pitkin and Blake avenues.

No. 33. Sackman Street—To regulate, grade, set bluestone, medina or cement curb and lay cement sidewalks on Sackman street, between Livonia avenue and New Lots road.

No. 34. Sackman Street—To pave Sackman street with asphalt on concrete foundation between Livonia avenue and New Lots road.

No. 35. Havens Place (Union Avenue)—To grade to the level of the curb the vacant lot described as follows: Havens place (Union Avenue) and south side of Havens place, between Railroad and Lincoln avenues; east side of Railroad avenue, between Havens place and Ridgewood avenue; north side of Ridgewood avenue, between Railroad and Lincoln avenues; Lincoln avenue and the west side of Lincoln avenue, between Havens place and Ridgewood avenue, known as No. 1, Block 4121.

No. 36. Havens Place (Union Avenue)—To grade to the level of the curb the vacant lot described as follows: Havens place (Union Avenue) and south side of Havens place, between Lincoln and Nichols avenues; Lincoln avenue, east side, between Havens place and Ridgewood avenue; Ridgewood avenue, north side, between Lincoln and Nichols avenues; Nichols avenue, west side, between Havens place and Ridgewood avenue, known as No. 51, Block 4121.

No. 37. Glenmore Avenue—To lay cement sidewalks opposite the lot lying on the north side of Glenmore avenue, between Junius street and Van Sinderen avenue, known as No. 1, Block 3696.

No. 38. Glenmore Avenue—To lay cement sidewalks opposite the lot lying on the south side of Glenmore avenue, between Junius street and Van Sinderen avenue, known as No. 1, Block 3713.

No. 39. Palmetto Street—To lay cement sidewalks opposite the lots lying on the southeast side of Palmetto street, between Knickerbocker and Irving avenues, and on the northeast side of Knickerbocker avenue, between Palmetto street and Putnam avenue, known as Nos. 1, 4, 8, 9, 30, 107 to 112, inclusive; 114, 120, 124, 127, 128, 130, 131 and 132, Block 3362.

No. 40. Liberty Avenue—To lay cement sidewalks opposite the following-described lots on Liberty avenue: On the north side, between Van Sinderen and Snediker avenues, known as Nos. 60 to 67, inclusive, Block 3680, and on the south side, between Van Sinderen and Snediker avenues, known as Nos. 12, 13, 15 and 21, Block 3697.

No. 41. Junius Street—To open Junius street, from Dumont avenue to the bulkhead line of Fresh creek, excepting the land occupied by the tracks of the Long Island Railroad.

No. 42. Stockholm Street—To lay cement sidewalks opposite the lot lying on the southeast side of Stockholm street, between Irving and Wyckoff avenues, known as No. 18, Block 3259.

No. 43. St. Nicholas Avenue—To grade to the surface of the sidewalk a line 10 feet from the building line the lots lying on the northeast side of St. Nicholas avenue, between Bleeker and Ralph streets, known as Nos. 6 and 7, Block 3312.

No. 44. St. Nicholas Avenue—To inclose with a wooden rail fence 6 feet high, the lots lying on the northeast side of St. Nicholas avenue, between Bleeker and Ralph streets, known as Nos. 6 and 7, Block 3312.

No. 45. Fulton Street—To inclose with a wooden rail fence 6 feet high, the lots lying on the south side of Fulton street, between New Jersey avenue and Vermont street, and on the east side of New Jersey avenue, between Fulton street and Liberty avenue, known as Nos. 12, 13, 14, 15 and 17, Block 3671.

No. 46. Palmetto Street—To inclose with a wooden rail fence 6 feet high, the lots lying on the southeast side of Palmetto street, between Knickerbocker and Irving avenues, and on the northeast side of Knickerbocker avenue, between Palmetto street and Putnam avenue, known as Nos. 1, 4, 8, 9, 30, 107, 108, 109, 110, 120, 124, 127, 128, 130, 131 and 132, Block 3362.

No. 47. Myrtle Avenue—To inclose with a wooden rail fence 6 feet high, the lots lying on the north side of Myrtle avenue, between Troutman street and Bushwick avenue, known as Nos. 6 and 8, Block 3182.

No. 48. Milford Street—To inclose with a wooden rail fence 6 feet high, the lots lying on the east side of Milford street, between Glenmore and Pitkin avenues; on the west side of Logan street, between Glenmore and Pitkin avenues, and on the south side of Glenmore avenue, between Milford and Logan streets, known as Nos. 7, 9, 11, 13, 23, 28, 29, 31, 32, 33 and 34, Block 4208.

No. 49. Greene Street—To inclose with a wooden rail fence 6 feet high, the lot lying on the northwest side of Greene avenue, between Hamburg and Myrtle avenues, known as No. 33, Block 3287.

No. 50. Meeker Avenue—To inclose with a wooden rail fence 6 feet high, the lots lying on the southeast side of Meeker avenue, between Kingsland and Morgan avenues, and on the southwest side of Morgan avenue, between

Meeker avenue and Lombardy street, known as Nos. 30, 31 and 32, Block 2817.

No. 51. Meeker Avenue—To inclose with a wooden rail fence 6 feet high, the lots lying on the southeast side of Meeker avenue, between Morgan and Vandervoort avenues, and on the northeast side of Morgan avenue, between Meeker avenue and Anthony street, known as Nos. 1, 2, 3 and 9, Block 2810.

No. 52. Herbert Street—To inclose with a wooden rail fence 6 feet high, the lot lying on the northwest side of Herbert street, between Humboldt and North Henry streets, known as No. 29, Block 2827.

No. 53. Bleeker Street—To inclose with a wooden rail fence 6 feet high, the lot lying on the southeast side of Bleeker street, between Wyckoff and St. Nicholas avenues, known as Nos. 18 and 19, Block 3311.

No. 54. Van Sinderen Avenue—To regulate and grade between courtyard lines, set bluestone, medina or cement curb and lay cement sidewalks on Van Sinderen avenue, between East New York and Pitkin avenues.

BIRD S. COLER,  
President of the Borough.  
CHARLES FREDERICK ADAMS,  
Borough Secretary.

NOTICE IS HEREBY GIVEN THAT, IN accordance with the provisions of section 432 of the Charter of The City of New York, the following petitions, on file and ready for inspection, will be presented to the Local Board of The Heights District, at a meeting to be held in the office of the President of the Borough of Brooklyn, in Room 2, Borough Hall, on

THURSDAY, DECEMBER 12, 1907,

at 2:30 p. m.

No. 1. Public Playground—To alter the map or plan of The City of New York by locating and laying out as a public playground the property fronting on the west side of Columbia street, between Warren and Harrison streets.

No. 2. Public Place—To alter the map or plan of The City of New York by locating and laying out as a public place, the property bounded by Willoughby, Fulton and Pearl streets.

No. 3. Application of Thomas Marmon, of No. 580 Tenth street, Borough of Brooklyn, City of New York, for a stand at the southwest corner of Fulton street and Elm place.

BIRD S. COLER,  
President of the Borough.  
CHARLES FREDERICK ADAMS,  
Borough Secretary.

NOTICE IS HEREBY GIVEN THAT, IN accordance with the provisions of section 432 of the Charter of The City of New York, the following petitions, on file and ready for inspection, will be considered by the Local Board of The Bedford District, at a meeting to be held in the office of the President of the Borough of Brooklyn, Room 2, Borough Hall, on

THURSDAY, DECEMBER 12, 1907,

at 2:30 p. m.

No. 1. Spencer Street—To enclose with a wooden rail fence 6 feet high the lot lying on the east side of Spencer street, between Park and Myrtle avenues, known as No. 48, Block 1735.

No. 2. Emerson Place—To enclose with a wooden rail fence 6 feet high the lot lying on the east side of Emerson place, between Willoughby and DeKalb avenues, known as No. 12, Block 1923.

BIRD S. COLER,  
President of the Borough.  
CHARLES FREDERICK ADAMS,  
Borough Secretary.

OFFICE OF THE PRESIDENT OF THE BOROUGH OF BROOKLYN, ROOM 2, BOROUGH HALL, BOROUGH OF BROOKLYN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the President of the Borough of Brooklyn at the above office until 11 o'clock a. m. on

WEDNESDAY, DECEMBER 11, 1907.

Borough of Brooklyn.

No. 1. FOR REGULATING AND PAVING WITH ASPHALT PAVEMENT ON A CONCRETE FOUNDATION THE ROADWAY OF EIGHTIETH STREET, FROM TWENTY-SECOND AVENUE TO TWENTY-THIRD AVENUE.

The Engineer's estimate of the quantities is as follows:

2,426 square yards of asphalt pavement.  
340 cubic yards of concrete.

Time for the completion of the work and the full performance of the contract is twenty (20) working days.

The amount of security required is Two Thousand Dollars.

No. 2. FOR REGULATING AND PAVING WITH ASPHALT PAVEMENT ON A CONCRETE FOUNDATION THE ROADWAY OF GRAFTON STREET, FROM PITKIN AVENUE TO SUTTER AVENUE.

The Engineer's estimate of the quantities is as follows:

2,965 square yards of asphalt pavement.  
415 cubic yards of concrete.

Time for the completion of the work and the full performance of the contract is twenty-five (25) working days.

The amount of security required is Two Thousand Dollars.

No. 3. FOR REGULATING AND REPAVING WITH ASPHALT PAVEMENT ON PRESENT PAVEMENT AS A FOUNDATION THE ROADWAY OF THROOP AVENUE, FROM WILLOUGHBY AVENUE TO HART STREET.

The Engineer's estimate of the quantities is as follows:

1,060 square yards of asphalt pavement.  
1,060 square yards of old stone pavement to be relaid.

170 linear feet of new curbstone.

300 linear feet of old curbstone, to be reset.

4 noiseless covers and heads complete for sewer manholes.

Time for the completion of the work and the full performance of the contract is twenty (20) working days.

The amount of security required is Eight Hundred Dollars.

No. 4. FOR REGULATING, GRADING AND PAVING WITH GRANITE PAVEMENT ON A CONCRETE FOUNDATION THE ROADWAY OF WOLCOTT STREET, FROM DWIGHT STREET TO OTSEGO STREET.

The Engineer's estimate of the quantities is as follows:

400 square yards of granite block pavement, with tar and gravel joints.

75 cubic yards of concrete.

190 linear feet of new curbstone, to be set in concrete.

170 cubic yards of earth excavation.

30 cubic yards of earth filling, not to be bid for.

780 square feet of cement sidewalk.

315 square feet of new granite bridgestones.

Time for the completion of the work and the full performance of the contract is twenty (20) working days.

The amount of security required is Eight Hundred Dollars.

No. 5. FOR GRADING A LOT ON THE NORTHEAST CORNER OF TENTH AVENUE AND SHERMAN STREET, KNOWN AS LOT NO. 1, BLOCK 1115.

The Engineer's estimate of the quantities is as follows:

389 cubic yards of earth excavation.

163 cubic yards of earth filling, not to be bid for.

Time for the completion of the work and the full performance of the contract is ten (10) working days.

The amount of security required is One Hundred Dollars.

The bidder will state the price of each item or article contained in the specifications or schedules herein contained or hereto annexed, per linear foot, square yard, cubic yard, square foot or other unit of measure, by which the bids will be tested. The bids will be compared and the contract awarded at a lump or aggregate sum for each contract.

Blank forms and further information may be obtained and the plans and drawings may be seen at the office of the Department of Highways, the Borough of Brooklyn, Room 15, Municipal Building.

BIRD S. COLER,  
President.  
Dated November 26, 1907.  
n27,d11

See General Instructions to Bidders on the last page, last column, of the "City Record."

OFFICE OF THE PRESIDENT OF THE BOROUGH OF BROOKLYN, ROOM 2, BOROUGH HALL, BOROUGH OF BROOKLYN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the President of the Borough of Brooklyn at the above office until 11 o'clock a. m. on

WEDNESDAY, DECEMBER 11, 1907.

No. 1. FOR FURNISHING ALL THE LABOR AND MATERIAL REQUIRED FOR CONSTRUCTING SEWER IN FORTY-FOURTH STREET, FROM FORT HAMILTON AVENUE TO FOURTEENTH AVENUE.

Each bidder shall state for what percentage of the standard, as stated below, he will contract to furnish all the materials, and do all the work necessary in the construction of the above named sewers and appurtenances, and upon this percentage the comparison and tests of bids will be made. The following estimate of the Engineer and the unit prices are to be considered and taken as 100 per cent. of the cost. The single percentage as bid shall apply to each unit price as stated in the estimate of the Engineer:

762 linear feet of 36-inch brick sewer, at \$6.50 per linear foot	\$4,953 00
801 linear feet of 15-inch pipe sewer, at \$2.50 per linear foot	2,002 50
895 linear feet of 12-inch pipe sewer, at \$2.25 per linear foot	2,013 75
3,100 linear feet of 6-inch house connection drain, at \$1 per linear foot	3,100 00
23 manholes, at \$60 each	1,380 00
5 sewer basins, at \$150 each	750 00
4,800 feet (B. M.) foundation planking, at \$30 per thousand	144 00
	\$14,343 25

The time allowed for the completion of the work and full performance of the contract will be seventy-five working days.

The amount of security required will be Seven Thousand Five Hundred Dollars.

No. 2. FOR FURNISHING ALL THE LABOR AND MATERIAL REQUIRED FOR CONSTRUCTING SEWER IN EAST FOURTH STREET, FROM AVENUE D TO EIGHT-EENTH AVENUE.

Each bidder shall state for what percentage of the standard, as stated below, he will contract to furnish all the materials, and do all the work necessary for the above named sewers and appurtenances and upon this percentage the comparison and tests of bids will be made. The estimate of the Engineer and unit prices to be considered and taken as 100 per cent. of the cost. The single percentage as bid shall apply to each unit price as stated in the estimate of the Engineer:

180 linear feet of 15-inch pipe sewer, at \$2.75 per linear foot	\$495 00
2,075 linear feet of 12-inch pipe sewer, at \$2.50 per linear foot	5,187 50
2,000 linear feet of 6-inch house connection drain, at \$1 per linear foot	2,000 00
22 manholes, at \$50 each	1,100 00
30,000 feet (B. M.) sheeting and bracing, at \$30 per thousand feet (B. M.)	900 00
	\$9,682 50

The time allowed for the completion of the work and full performance of the contract will be seventy working days.

The amount of security required will be Fifty-five Hundred Dollars (\$5,500).

No. 3. FOR FURNISHING ALL THE LABOR AND MATERIAL REQUIRED FOR CONSTRUCTING SEWER BASINS ON THE NORTHERLY AND SOUTHERLY SIDES OF ALBEMARLE ROAD ON THE WEST SIDE OF THE BRIGHTON BEACH IMPROVEMENT.

Each bidder will state for what percentage of the standard, as stated below, he will contract to furnish all the materials and do all the work necessary in the construction of the above named sewer basins and appurtenances, and upon this percentage the comparison and test of bids will be made. The following estimate of the Engineer and the unit prices are to be considered and taken as 100 per cent. of the cost. The single percentage, as bid, shall apply to each unit price as stated in the estimate of the Engineer:

2 sewer basins, at \$300 each. \$600 00

The time allowed for the completion of the work and full performance of the contract will be twenty working days.

The amount of security required will be Three Hundred Dollars (\$300).

No. 4. FOR FURNISHING ALL THE LABOR AND MATERIAL REQUIRED FOR CONSTRUCTING SEWER BASIN ON THE SOUTHWEST CORNER OF BEVERLEY ROAD AND CONEY ISLAND AVENUE.

Each bidder will state for what percentage of the standard, as stated below, he will contract to furnish all the materials and do all the work necessary in the construction of the above named sewer basin and appurtenances, and upon this

percentage the comparison and test of bids will be made. The following estimate of the Engineer and the unit prices are to be considered and taken as 100 per cent. of the cost. The single percentage, as bid, shall apply to each unit price as stated in the estimate of the Engineer:

1 sewer basin, at \$150. \$150 00

The time allowed for the completion of the work and full performance of the contract will be ten working days.

The amount of security required will be One Hundred Dollars (\$100).

No. 5. FOR FURNISHING ALL THE LABOR AND MATERIAL REQUIRED FOR CONSTRUCTING SEWER BASIN ON THE SOUTHEAST CORNER OF JEWELL STREET AND NORMAN AVENUE.

The bidder shall state for what percentage of the standard, as stated below, he will contract to furnish all the materials and do all the work necessary in the construction of the above named sewer basin and appurtenances, and upon this percentage the comparison and test of bids will be made. The following estimate of the Engineer and the unit prices are to be considered and taken as 100 per cent. of the cost. The single percentage, as bid, shall apply to each unit price as stated in the estimate of the Engineer:

1 sewer basin, at \$150. \$150 00

The time allowed for the completion of the work and full performance of the contract will be ten working days.

The amount of security required will be One Hundred Dollars (\$100).

Blank forms and further information may be obtained and the plans and drawings may be seen at the office of the Bureau of Sewers, the Borough of Brooklyn, No. 215 Montague street, Brooklyn.

BIRD S. COLER,  
President.  
Dated November 26, 1907.  
n27,d4

See General Instructions to Bidders on the last page, last column, of the "City Record."

OFFICE OF THE PRESIDENT OF THE BOROUGH OF BROOKLYN, ROOM 2, BOROUGH HALL, BOROUGH OF BROOKLYN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the President of the Borough of Brooklyn at the above office until 11 o'clock a. m. on

WEDNESDAY, DECEMBER 11, 1907.

FOR FURNISHING AND ERECTING 100 HEADSTONES OVER THE GRAVES OF DECEASED VETERAN UNION SOLDIERS, SAILORS AND MARINES, AS PROVIDED BY LAW, IN THE SEVERAL CEMETERIES SITUATED IN THE COUNTIES OF KINGS AND QUEENS.

The time allowed for making and completing the headstones will be four months.

The amount of security required will be Seven Hundred and Fifty Dollars (\$750).

The bidder will state the price of each item or article contained in the specifications or schedules herein contained or hereto annexed, by which the bids will be tested.

The bids will be compared and the contract awarded at a lump or aggregate sum.

Delivery will be required to be made at the time and in the manner and in such quantities as may be directed.

Blank forms and further information may be obtained and the plans and drawings may be seen at the office of the Bureau of Public Buildings and Offices, Room 29, Municipal Building, Borough of Brooklyn.

BIRD S. COLER,  
President.  
Dated November 26, 1907.  
n27,d11

See General Instructions to Bidders on the last page, last column, of the "City Record."

OFFICE OF THE PRESIDENT OF THE BOROUGH OF BROOKLYN, ROOM 2, BOROUGH HALL, BOROUGH OF BROOKLYN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the President of the Borough of Brooklyn at the above office until 11 o'clock a. m. on

WEDNESDAY, DECEMBER 4, 1907.

Borough of Brooklyn.

No. 1. FOR REGULATING AND REPAVING WITH ASPHALT PAVEMENT ON A CONCRETE FOUNDATION THE ROADWAY OF ENGERT AVENUE, FROM GRAHAM AVENUE TO HUMBOLDT STREET.

The Engineer's estimate of the quantities is as follows:

1,970 square yards of asphalt pavement.  
20 square yards of old stone pavement, to be relaid.

280 cubic yards of concrete.

570 linear feet of new curbstone, to be set in concrete.

500 linear feet of old curbstone, to be reset in concrete.

4 noiseless covers and heads, complete, for sewer manholes.

Time for the completion of the work and the full performance of the contract is twenty (20) working days.

The amount of security required is One Thousand Nine Hundred Dollars.

No. 2. FOR REGULATING AND REPAVING WITH ASPHALT PAVEMENT ON A CONCRETE FOUNDATION THE ROADWAY OF IRVING AVENUE, FROM FLUSHING AVENUE TO STARR STREET; BETWEEN SUYDAM STREET AND HARMAN STREET, AND BETWEEN GREENE AVENUE AND MYRTLE AVENUE.

The Engineer's estimate of the quantities is as follows:

11,860 square yards of asphalt pavement.

100 square yards of old stone pavement, to be relaid.

1,660 cubic yards of concrete.

3,130 linear feet of new curbstone, to be set in concrete.

2,500 linear feet of old curbstone, to be reset in concrete.

39 noiseless covers and heads, complete, for sewer manholes.

Time for the completion of the work and the full performance of the contract is fifty (50) working days.

The amount of security required is Ten Thousand Eight Hundred Dollars.

No. 3. FOR REGULATING AND REPAVING WITH ASPHALT PAVEMENT ON PRESENT PAVEMENT AS A FOUNDATION THE ROADWAY OF KOSSUTH PLACE, FROM BROADWAY TO BUSHWICK AVENUE.

The Engineer's estimate of the quantities is as follows:

1,860 square yards of asphalt pavement.

1,860 square yards of old stone pavement, to be relaid.

780 linear feet of new curbstone, to be set in concrete.

335 linear feet of old curbstone, to be reset in concrete.



5 noiseless covers and heads, complete, for sewer manholes.  
Time for the completion of the work and the full performance of the contract is twenty (20) working days.

The amount of security required is One Thousand Six Hundred Dollars.  
No. 4. FOR REGULATING AND REPAVING WITH ASPHALT PAVEMENT ON A CONCRETE FOUNDATION THE ROADWAY OF MORGAN AVENUE, FROM NASSAU AVENUE TO DRIGGS AVENUE.

The Engineer's estimate of the quantities is as follows:

2,930 square yards of asphalt pavement.  
10 square yards of old stone pavement, to be relaid.  
410 cubic yards of concrete.  
1,360 linear feet of new curbstone, to be set in concrete.  
400 linear feet of old curbstone, to be reset in concrete.

7 noiseless covers and heads, complete, for sewer manholes.  
Time for the completion of the work and the full performance of the contract is thirty (30) working days.

The amount of security required is Two Thousand Eight Hundred Dollars.

No. 5. FOR REGULATING AND REPAVING WITH ASPHALT PAVEMENT ON A CONCRETE FOUNDATION THE ROADWAY OF SKILLMAN STREET, FROM FLUSHING AVENUE TO DEKALB AVENUE.

The Engineer's estimate of the quantities is as follows:

7,370 square yards of asphalt pavement.  
10 square yards of old stone pavement, to be relaid.  
1,020 cubic yards of concrete.  
3,685 linear feet of new curbstone, to be set in concrete.  
1,840 linear feet of old curbstone, to be reset in concrete.

22 noiseless covers and heads, complete, for sewer manholes.

Time for the completion of the work and the full performance of the contract is fifty (50) working days.

The amount of security required is Seven Thousand Five Hundred Dollars.

No. 6. FOR REGULATING AND REPAVING WITH ASPHALT PAVEMENT ON A CONCRETE FOUNDATION THE ROADWAY OF TEN EYCK STREET, FROM UNION AVENUE TO A POINT 130 FEET WEST OF BUSHWICK AVENUE.

The Engineer's estimate of the quantities is as follows:

8,400 square yards of asphalt pavement.  
30 square yards of old stone pavement, to be relaid.  
1,170 cubic yards of concrete.  
3,840 linear feet of new curbstone, to be set in concrete.  
1,200 linear feet of old curbstone, to be reset in concrete.

24 noiseless covers and heads, complete, for sewer manholes.

Time for the completion of the work and the full performance of the contract is forty (40) working days.

The amount of security required is Nine Thousand Dollars.

No. 7. FOR GRADING LOTS ON THE SOUTH SIDE OF FORTY-SEVENTH STREET, BETWEEN SECOND AVENUE AND THIRD AVENUE, KNOWN AS LOTS NOS. 22 AND 23, BLOCK 763.

The Engineer's estimate of the quantities is as follows:

30 cubic yards of earth excavation.  
380 cubic yards of earth filling, to be furnished.

Time for the completion of the work and the full performance of the contract is ten (10) working days.

The amount of security required is One Hundred Dollars.

No. 8. FOR FURNISHING AND DELIVERING FOUR HUNDRED (400) CORDS OF HARD WOOD.

Time for the delivery of the materials and the full performance of the contract is by or before December 31, 1908.

The amount of security required is Eight Hundred Dollars.

No. 9. FOR REGULATING AND REPAVING WITH ASPHALT PAVEMENT ON A CONCRETE FOUNDATION THE ROADWAY OF PROSPECT AVENUE, FROM SEVENTH AVENUE TO A POINT 205 FEET EAST OF THE EASTERLY BUILDING LINE OF SEVENTH AVENUE.

The Engineer's estimate of the quantities is as follows:

1,260 square yards of asphalt pavement.  
210 cubic yards of concrete.

3 noiseless covers and heads, complete, for sewer manholes.

Time for the completion of the work and the full performance of the contract is fifteen (15) working days.

The amount of security required is One Thousand Dollars.

The bidder will state the price of each item or article contained in the specifications or schedules herein contained or hereto annexed, per cubic yard, linear foot, square yard, yard or other unit of measure, by which the bids will be tested.

The bids will be compared and the contract awarded at a lump or aggregate sum for each contract.

Delivery will be required to be made at the time and in the manner and in such quantities as may be directed.

Blank forms and further information may be obtained and the plans and drawings may be seen at the office of the Bureau of Highways, Room No. 14, Municipal Building, the Borough of Brooklyn.

BIRD S. COLER,  
President.

Dated November 18, 1907.

n20,d4

See General Instructions to Bidders on the last page, last column, of the "City Record."

## DEPARTMENT OF DOCKS AND FERRIES.

DEPARTMENT OF DOCKS AND FERRIES, PIER "A," NORTH RIVER, NEW YORK, March 31, 1904.

THE COMMISSIONER HAS FIXED THE amounts of bonds required on contracts awarded by this Department, as follows:

\* On all contracts for supplies, 40 per cent. of the estimated cost;

On all contracts, other than contracts for supplies, where the estimated cost is not over \$200,000, 40 per cent. of the estimated cost;

On all contracts, other than contracts for supplies, where the estimated cost is over \$200,000, but not over \$1,000,000, 25 per cent. of the estimated cost;

On all contracts, other than contracts for supplies, where the estimated cost is over \$1,000,000, 20 per cent. of the estimated cost.

JOSEPH W. SAVAGE,  
Secretary.

## MUNICIPAL CIVIL SERVICE COMMISSION.

MUNICIPAL CIVIL SERVICE COMMISSION, No. 299 BROADWAY, NEW YORK, November 29, 1907.

PUBLIC NOTICE IS HEREBY GIVEN that the time for receiving applications for the position of

GARDENER  
has been extended until MONDAY, DECEMBER 30, 4 P. M.

The examination has been postponed from December 23, 1907, to WEDNESDAY, JANUARY 22, 1908.

F. A. SPENCER,  
Secretary.  
n29,j22

MUNICIPAL CIVIL SERVICE COMMISSION, No. 299 BROADWAY, NEW YORK, November 29, 1907.

NOTICE IS HEREBY GIVEN THAT A public hearing will be had before the Municipal Civil Service Commission on

THURSDAY, DECEMBER 12, 1907

at 2 p. m., in Room 421, fourth floor, No. 299 Broadway, on the question of continuing the practice of giving credit in promotion examinations in the Police and Fire Departments for medals, commendations, honorable mention, roll of merit, etc.

Members of both departments are invited to be present at this hearing.

F. A. SPENCER,  
Secretary.  
n29,d12

MUNICIPAL CIVIL SERVICE COMMISSION, No. 299 BROADWAY, NEW YORK, November 27, 1907.

PUBLIC NOTICE IS HEREBY GIVEN that applications will be received from WEDNESDAY, NOVEMBER 27, UNTIL 4 P. M. WEDNESDAY, DECEMBER 11, 1907, for the position of

AXEMAN.

The examination will be held on

TUESDAY, JANUARY 7, 1908,

at 10 a. m.

The subjects and weights of the examination are as follows:

Technical..... 6  
Experience..... 2  
Mathematics..... 2

The percentage required is 75 on the technical paper and 70 on all.

Vacancies constantly occur.

The salary is \$720 to \$900 per annum.

The minimum age is 18 years.

F. A. SPENCER,  
Secretary.  
n27,j7

MUNICIPAL CIVIL SERVICE COMMISSION, No. 299 BROADWAY, NEW YORK, October 28, 1907.

PUBLIC NOTICE IS HEREBY GIVEN that applications will be received from MONDAY, OCTOBER 28, 1907, UNTIL 4 P. M. MONDAY, NOVEMBER 11, 1907, for the positions of

STATIONARY ENGINEER AND JANITOR-ENGINEER.

The examination will be held on

FRIDAY, DECEMBER 20, 1907,

at 10 a. m.

The subjects and weights of the examination are as follows:

Technical..... 6  
Experience..... 3  
Mathematics..... 1

A percentage of 70 will be required.

The examination for these positions will be identical, and certification for either position will be made from the resulting eligible list.

A medical examination will precede the mental.

Vacancies are constantly occurring.

The salary is \$750 per annum and up.

The minimum age is 21 years.

FRANK A. SPENCER,  
Secretary.  
n2,d20

MUNICIPAL CIVIL SERVICE COMMISSION, No. 299 BROADWAY, NEW YORK, November 1, 1907.

PUBLIC NOTICE IS HEREBY GIVEN that applications will be received from FRIDAY, NOVEMBER 1, UNTIL 4 P. M. MONDAY, DECEMBER 30, 1907, for the position of

GARDENER.

The examination will be held on

WEDNESDAY, JANUARY 22, 1908,

at 10 a. m.

The subjects and weights of the examination are as follows:

Special..... 6  
Experience..... 4

The percentage required is 70.

There are five vacancies in the Department of Parks, Boroughs of Manhattan and Richmond.

The salary is \$2 to \$3 per day.

The minimum age is 21 years.

The provision of clause 12 of Rule VII, to the effect that "no person who has entered any examination for appointment to a competitive position and failed therein or who has withdrawn therefrom, shall be admitted within nine months from the date of such examination to a new examination for the same position," is waived so far as it applies to this examination.

FRANK A. SPENCER,  
Secretary.  
n1,j22

MUNICIPAL CIVIL SERVICE COMMISSION, No. 229 BROADWAY, NEW YORK, October 31, 1907.

PUBLIC NOTICE IS HEREBY GIVEN that applications will be received from THURSDAY, OCTOBER 31, UNTIL 4 P. M. WEDNESDAY, NOVEMBER 27, 1907, for the position of

TOPOGRAPHICAL DRAUGHTSMAN.

The examination will be held on

FRIDAY, DECEMBER 27, 1907,

at 10 a. m.

The subjects and weights of the examination are as follows:

Technical..... 5  
Experience..... 2  
Mathematics..... 2  
Neatness..... 1

The percentage required is 75 on the technical paper and 70 on all.

Vacancies constantly occur.

The salary is \$1,200 per annum and up.

The minimum age is 21 years.

The provision of clause 12 of Rule VII, to the effect that "no person who has entered any examination for appointment to a competitive position and failed therein or who has withdrawn therefrom, shall be admitted within nine months from the date of such examination to a new examination for the same position," is waived so far as it applies to this examination.

FRANK A. SPENCER,  
Secretary.  
031,d19

MUNICIPAL CIVIL SERVICE COMMISSION, No. 299 BROADWAY, NEW YORK, October 29, 1907.

PUBLIC NOTICE IS HEREBY GIVEN that applications will be received from TUESDAY, OCTOBER 29, UNTIL 4 P. M. TUESDAY, NOVEMBER 26, 1907, for the position of

STRUCTURAL STEEL DRAUGHTSMAN.

The examination will be held on

TUESDAY, DECEMBER 17, 1907,

at 10 a. m.

The subjects and weights of the examination are as follows:

Technical..... 5  
Experience..... 2  
Mathematics..... 2  
Neatness..... 1

The percentage required is 75 on the technical paper and 70 on all.

Vacancies exist in the Department of Bridges.

The salary is \$1,500 per annum and up.

The minimum age is 21 years.

Clause 12 of Rule VII, to the effect that "no person who has entered any examination for appointment to a competitive position and failed therein, or who has withdrawn therefrom, shall be admitted within nine months from the date of such examination to a new examination for the same position," is waived so far as it applies to this examination.

FRANK A. SPENCER,  
Secretary.  
029,d17

MUNICIPAL CIVIL SERVICE COMMISSION, No. 299 BROADWAY, CITY OF NEW YORK.

PUBLIC NOTICE WILL BE GIVEN OF all competitive examinations two weeks in advance of the date upon which the receipt of applications for any scheduled examination will close. Applications will be received for only such examinations as are scheduled.

When an examination is advertised, a person desiring to compete in the same may obtain an application blank upon request made in writing or by personal application at the office of the Commission.

All notices of examinations will be posted in the office of the Commission, City Hall, Municipal Building, Brooklyn, and advertised in the City Record for two weeks in advance of the date upon which the receipt of applications will close for any stated position.

Public notice will also be given by advertisement in most of the City papers.

Wherever an examination is of a technical character, due notice is given by advertisement in the technical journals appertaining to the particular profession for which the examination is called.

Such notices will be sent to the daily papers as matters of news, and to the General Post office and stations thereof. The scope of the examination will be stated, but for more general information application should be made at the office of the Commission.

Unless otherwise specifically stated, the minimum age requirement for all positions is 21.

WILLIAM F. BAKER,  
President;

R. ROSS APPLETON,  
FRANK L. POLK,  
Commissioners.

FRANK A. SPENCER,  
Secretary.

## FIRE DEPARTMENT.

HEADQUARTERS OF THE FIRE DEPARTMENT OF THE CITY OF NEW YORK, NOS. 157 AND 159 EAST SIXTY-SEVENTH STREET, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Fire Commissioner at the above office until 10.30 o'clock a. m. on

TUESDAY, DECEMBER 10, 1907.

Borough of Manhattan.

No. 1. FOR FURNISHING AND DELIVERING FOUR HUNDRED TONS OF ANTHRACITE COAL FOR COMPANIES SOUTH OF FIFTY-NINTH STREET.

The time for the delivery of the articles, materials and supplies and the performance of the contract is thirty (30) days.

The amount of security required is fifty per cent. (50%) of the amount of the bid or estimate.

The bidder will state the price of each item or article contained in the specifications or schedules herein contained or hereto annexed, per pound, ton, dozen, gallon, yard or other unit of measure, by which the bids will be tested.

The extensions must be made and footed up, as the bids will be read from the total. The bids will be compared and the contract awarded at a lump or aggregate sum.

Delivery will be required to be made at the time and in the manner and in such quantities as may be directed.

Blank forms and further information may be obtained at the office of the Fire Department, Nos. 157 and 159 East Sixty-seventh street, Manhattan.

FRANCIS J. LANTRY,  
Fire Commissioner.

Dated November 27, 1907.

n29,d10

See General Instructions to Bidders on the last page, last column, of the "City Record."

HEADQUARTERS OF THE FIRE DEPARTMENT OF THE CITY OF NEW YORK, NOS. 157 AND 159 EAST SIXTY-SEVENTH STREET, BOROUGH OF MANHATTAN, NEW YORK, November 22, 1907.

JACOB DOBLIN, AUCTIONEER, ON BEHALF OF THE FIRE DEPARTMENT, CITY OF NEW YORK, will offer for sale at public auction to the highest bidder on

WEDNESDAY, DECEMBER 4, 1907

at the Repair Shops, northeast corner of Twelfth avenue and Fifty-sixth street, Borough of Manhattan, at 10 a. m. on said date, the following condemned property of the Department:

Lot 1—One Hayes hook and ladder truck, registered No. 42.

Lot 2—One two-wheel hand truck (from Engine No. 49).

Lot 3—One second size Amoskeag steam fire engine, registered No. 362.

Lot 4—One two-wheel reel tender, registered No. 8.

Lot 5—One lot of old single ladders.

Lot 6—One lot of old single ladders.

Lot 7—One lot of old extension ladders.

Lot 8—One lot of old wheels.

Lot 9—One lot of old rope (400 pounds, more or less).

Lot 10—One lot of old canvas hose, 25 lengths.

Lot 11—One lot of old canvas hose, 25 lengths.

Lot 12—One lot of old canvas hose, 25 lengths.

Lot 13—One lot of old canvas hose, 25 lengths.

Lot 14—One lot of old canvas hose, 25 lengths.

Lot 15—One lot of old canvas hose, 25 lengths.

Lot 16—One lot of canvas hose, 25 lengths.

Lot 17—One lot of canvas hose, 35 lengths.

Lot 18—One lot of old rubber hose, 30 lengths.

Lot 19—One lot of old rubber hose, 25 lengths.

Lot 20—One lot of old rubber hose, 25 lengths.

Lot 21—One lot of old rubber hose, 31 lengths.

Lot 22—One lot of old suction, 13 lengths.

Lot 23—One lot of old hydrant connections, 8 lengths.

Lot 24—One lot of old rubber tires (3,550 pounds, more or less).

Lot 25—One lot of old rubber valves (205 pounds, more or less).

Lot 26—One lot of old scrap rubber (660 pounds, more or less).

Lot 27—One lot of old harness.

Lot 28—One lot of old horse collars.

Lot 29—One lot of old scrap iron (8,000 pounds, more or less).

Lot 30—One lot of old iron tires (3,000 pounds, more or less).

Lot 31—One lot of old axles (1,000 pounds, more or less).

Lot 32—One lot of old axes.

Lot 33—One lot of old picks.

Lot 34—Three old flywheels.

Lot 35—One lot of old oil barrels.

Lot 36—One two-wheel reel jumper.

Lot 37—One two-wheel reel jumper.

Each lot to be sold separately.

The right to reject all bids is reserved.

The highest bidder for each lot, in case the bid is accepted, will be required to pay for the same in cash at the time of sale (except Lots Nos. 9, 24, 25, 26, 29, 30 and 31, which must be paid for at the time of weighing and delivery), and must remove the same within twenty-four hours after the sale.

The articles may be seen at any time before the day of sale at the place above specified.

FRANCIS J. LANTRY,  
Fire Commissioner.  
n22,d4

## BELLEVUE AND ALLIED HOSPITALS.

BELLEVUE AND ALLIED HOSPITALS DEPARTMENT OF NEW YORK CITY, TWENTY-SIXTH STREET AND FIRST AVENUE, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the President of the Board of Trustees at the above office until 3 p. m. on

MONDAY, DECEMBER 2, 1907

for—

No. 1. MEATS.

No. 2. FISH AND SHELL FISH.

No. 3. MILK AND CREAM.



of the Department of Street Cleaning in the Borough of Manhattan.

Each bid or estimate must be accompanied by a certified check on a solvent banking corporation in The City of New York, payable to the order of the Comptroller of The City of New York for five per centum (5%) of the amount for which the bidder proposes to perform the work for one year.

From the bids or estimates so received the Commissioner may select the bid, the acceptance of which will, in his judgment, best secure the efficient performance of the work, or he may reject any or all of said bids.

Blank forms and further information may be obtained at the office of the Department of Street Cleaning, the Borough of Manhattan, Nos. 13 to 21 Park row.

FOSTER CROWELL,  
Commissioner of Street Cleaning.

Dated November 27, 1907.

n29,d12

See General Instructions to Bidders on the last page, last column, of the "City Record."

MAIN OFFICE OF THE DEPARTMENT OF STREET CLEANING, ROOM 1403, NOS. 13 TO 21 PARK ROW, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Street Cleaning at the above office until 12 o'clock m. on

**MONDAY, DECEMBER 9, 1907.**  
**Boroughs of Manhattan, The Bronx and Brooklyn.**

CONTRACT FOR FURNISHING AND DELIVERING 15 TOP BUGGIES.

The time for the delivery of the articles, materials and supplies and the performance of the contract is by or before December 31, 1907.

The amount of security required is fifty per cent. (50%) of the amount of the bid or estimate.

The bidder will state the price of each top buggy contained in the specifications or schedules herein contained or hereto annexed, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read from the total and awards made to the lowest bidder.

Delivery will be required to be made at the time and in the manner and in such quantities as may be directed.

Blank forms and further information may be obtained at the office of the Department of Street Cleaning, the Borough of Manhattan, Nos. 13 to 21 Park row.

FOSTER CROWELL,  
Commissioner of Street Cleaning.

Dated November 25, 1907.

n26,d9

See General Instructions to Bidders on the last page, last column, of the "City Record."

MAIN OFFICE OF THE DEPARTMENT OF STREET CLEANING, ROOM 1403, NOS. 13 TO 21 PARK ROW, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Street Cleaning at the above office until 12 o'clock m. on

**THURSDAY, DECEMBER 5, 1907.**  
**Boroughs of Manhattan and The Bronx.**

CONTRACT FOR FURNISHING AND DELIVERING 10,000 NORTH RIVER BRICKS (RED), 8,000 SQUARE FIRE BRICKS, 5,000 END WEDGE FIRE BRICKS, 50 BARRELS FIRE CLAY, 30 CUBIC YARDS COW BAY SAND.

The time for the delivery of the articles, materials and supplies and the performance of the contract is fifteen days.

The amount of security required is fifty per cent. (50%) of the amount of the bid or estimate.

The bidder will state the price of each article contained in the specifications or schedules herein contained or hereto annexed, per thousand, per barrel, or other unit of measure, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read from the total, and awards made to the lowest bidder.

Delivery will be required to be made at the incinerator at the foot of Delancey street, at the time and in the manner and in such quantities as may be directed.

Blank forms and further information may be obtained at the office of the Department of Street Cleaning, the Borough of Manhattan, Nos. 13 to 21 Park row.

W. BENSEL,  
Commissioner of Street Cleaning.

Dated November 21, 1907.

n22,d5

See General Instructions to Bidders on the last page, last column, of the "City Record."

MAIN OFFICE OF THE DEPARTMENT OF STREET CLEANING, ROOM 1403, NOS. 13 TO 21 PARK ROW, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Street Cleaning at the above office until 12 o'clock m. on

**MONDAY, DECEMBER 2, 1907.**  
**Boroughs of Manhattan and The Bronx.**

CONTRACT FOR FURNISHING ALL THE LABOR AND MATERIALS REQUIRED FOR THE REMOVAL OF SNOW AND ICE.

The time for the completion of the work and the full performance of the contract is by or before April 15, 1908.

The amount of the security required is Ten Thousand Dollars (\$10,000) for each or any of the eleven (11) districts of the Borough of Manhattan, or for the two (2) districts, taken together, of the Borough of The Bronx, if the bid is for less than all the districts of the Boroughs of Manhattan and The Bronx, taken together, or One Hundred Thousand Dollars (\$100,000) for all the districts of the Borough of Manhattan, taken together, with the Borough of The Bronx.

The compensation will be for the actual amount of snow and ice removed and dumped by the contractor at a price per cubic yard, and each bid or estimate must be for one, or more, or all, of the eleven districts of the Borough of Manhattan or for the Borough of The Bronx, comprising the Twelfth and Thirteenth Districts, which will, for the purpose of this contract, be deemed to constitute one (1) district. Each bid or estimate must distinctly state the price per cubic yard in each separate district, and, in the Borough of The Bronx, one price for the two districts aforesaid.

A contract or contracts, if awarded, will be awarded to the lowest bidder for each district or for the Borough of The Bronx.

Blank forms and further information may be obtained at the office of the Department of Street Cleaning, the Borough of Manhattan, Nos. 13 to 21 Park row.

W. BENSEL,  
Commissioner of Street Cleaning.

Dated November 15, 1907.

n19,d2

See General Instructions to Bidders on the last page, last column, of the "City Record."

MAIN OFFICE OF THE DEPARTMENT OF STREET CLEANING, ROOM 1403, NOS. 13 TO 21 PARK ROW, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Street Cleaning at the above office until 12 o'clock m. on

**MONDAY, DECEMBER 2, 1907.**  
**Borough of Brooklyn.**

CONTRACT FOR FURNISHING ALL THE LABOR AND MATERIALS REQUIRED FOR THE REMOVAL OF SNOW AND ICE.

The time for the completion of the work and the full performance of the contract is by or before April 15, 1908.

The amount of the security required is Ten Thousand Dollars (\$10,000) for each or any of the eight (8) districts of the Borough of Brooklyn, if the bid is for less than all the districts of the Borough of Brooklyn, taken together, or Sixty Thousand Dollars (\$60,000) for all the districts of the Borough of Brooklyn, taken together.

The compensation will be for the actual amount of snow and ice removed and dumped by the contractor at a price per cubic yard, and each bid or estimate must be for one, or more, or all, of the eight (8) districts of the Borough of Brooklyn. Each bid or estimate must distinctly state the price per cubic yard in each separate district.

A contract or contracts, if awarded, will be awarded to the lowest bidder for each district.

Blank forms and further information may be obtained at the office of the Department of Street Cleaning, the Borough of Manhattan, Nos. 13 to 21 Park row.

W. BENSEL,  
Commissioner of Street Cleaning.

Dated November 15, 1907.

n19,d2

See General Instructions to Bidders on the last page, last column, of the "City Record."

DEPARTMENT OF STREET CLEANING OF THE CITY OF NEW YORK, NOS. 13 TO 21 PARK ROW, NEW YORK, BOROUGH OF MANHATTAN.

PUBLIC NOTICE IS HEREBY GIVEN that written applications for non-competitive examinations for the following positions on the steam dusters "Cinderella," "Aschenbroedel" and "Cenerentola," in accordance with the rules of the Municipal Civil Service Commission, will be received at the main office of the Department of Street Cleaning, on the fourteenth floor, Nos. 13 to 21 Park row, Room 1416, on the Wednesday of each week, at 2 p. m., beginning Wednesday, October 2, 1907:

Masters,  
Mates,  
Marine Enginemen,  
Deckhands,  
Firemen.

W. BENSEL,  
Commissioner of Street Cleaning.

ASHES, ETC., FOR FILLING IN LANDS.

PERSONS HAVING LANDS OR PLACES in the vicinity of New York Bay to fill in can procure material for that purpose—ashes, street sweepings, etc., collected by the Department of Street Cleaning—free of charge by applying to the Commissioner of Street Cleaning, Nos. 13 to 21 Park row, Borough of Manhattan.

WALTER BENSEL,  
Commissioner of Street Cleaning.

**BOARD OF ESTIMATE AND APPORTIONMENT.**

NOTICE IS HEREBY GIVEN THAT THE

Board of Estimate and Apportionment of The City of New York, deeming it for the public interest so to do, proposes to change the map or plan of The City of New York so as to change the grade of Centre street, from Chambers street to Canal street, and to change the grade of New Reade street, Duane street, Park street, Pearl street, Leonard street and White street at their intersection with Centre street, Borough of Manhattan, and that a meeting of said Board will be held in the Old Council Chamber, City Hall, Borough of Manhattan, City of New York, on December 6, 1907, at 10.30 o'clock a. m., at which such proposed change will be considered by said Board; all of which is more particularly set forth and described in the following resolutions adopted by the Board on November 8, 1907, notice of the adoption of which is hereby given, viz.:

Resolved, That the Board of Estimate and Apportionment of The City of New York, in pursuance of the provisions of section 442 of the Greater New York Charter as amended, deeming it for the public interest so to do, proposes to change the map or plan of The City of New York by changing the grade of Centre street, from Chambers street to Canal street, and by changing the grade of New Reade street, Duane street, Park street, Pearl street, Leonard street and White street at their intersection with Centre street, in the Borough of Manhattan, City of New York, more particularly described as follows:

**Centre Street.**

1. The elevation at the intersection of the centre line with the easterly prolongation of the southerly curb line of Reade street, as laid out west of Centre street, to be 26.60 feet, to coincide with the present surface of the street as paved.

2. The elevation at the intersection of the centre line with the southerly prolongation of the centre line of Park street to be 25.00 feet.

3. The elevation at the intersection of the centre line with the westerly prolongation of the centre line of Duane street, as laid out immediately east of Centre street, to be 24.60 feet.

4. The elevation on the centre line 140 feet southerly from the intersection of the said centre line with the centre line of Pearl street to be 22.00 feet.

5. The elevation of the platform at the intersection of Centre street with Worth street to be 15.30 feet on the south, 15.20 feet on the west, 15.10 feet on the north, 15.10 feet on the east and 15.20 feet at the centre.

6. The elevation of the platform at the intersection of Centre street with Leonard street to be 13.90 feet on the south, 13.75 feet on the west, 13.60 feet on the north, 13.80 feet on the east and 13.75 feet at the centre.

7. The elevation of the platform at the intersection of Centre street with Duane street to be 13.90 feet on the south, 13.75 feet on the west, 13.60 feet on the north, 13.80 feet on the east and 13.75 feet at the centre.

8. The elevation on the centre line 123 feet southerly from the intersection of the said centre line with the centre line of Franklin street to be 14.30 feet.

9. The elevation of the platform at the intersection of Centre street with Franklin street to be 13.75 feet on the south, centre and north, and 13.70 feet on the west and east.

10. The elevation of the platform at the intersection of Centre street with White street to be 11.90 feet on the south and west, 11.65 feet at the north and east, and 11.80 feet at the centre.

11. The elevation on the centre line 128 feet northerly from the intersection of the said centre line with the centre line of White street to be 12.25 feet.

12. The elevation of the platform at the intersection of Centre street with Walker street to be 11.10 feet on the south, 11.20 feet on the west, 11.50 feet on the north and 11.30 feet on the east and at the centre.

13. The elevation at the intersection of the prolongation of the southerly curb line of Canal street with the centre line of Centre street to be 12.70 feet, to coincide with the surface of the street as at present paved.

**Park Street.**

1. The elevation on the southerly prolongation of the centre line at a point distant 73 feet southerly from the intersection of the said centre line with the centre line of Centre street to be 24.75 feet, to coincide with the present surface of the street as paved.

2. The elevation at the intersection of the said prolongation of the centre line with the centre line of Centre street to be 25.00 feet, as hereinbefore described.

3. The elevation on the centre line 233 feet southerly from the intersection of the said centre line with the centre line of Pearl street to be 23.95 feet.

4. The elevation on the centre line 66 feet northerly from the point last described to be 23.00 feet.

5. The elevation of the platform at the intersection of Park street with Pearl street to be 15.50 feet.

6. The elevation on the centre line 123 feet northerly from its intersection with the centre line of Pearl street to be 12.40 feet, to coincide with the surface of the street as at present paved.

**Pearl Street.**

1. The elevation at the intersection of the centre line with the prolongation of the easterly house line of Lafayette street to be 17.50 feet, to coincide with the present surface of the street as paved.

2. The elevation at the intersection of the centre line with the prolongation of the easterly house line of Centre street to be 17.50 feet.

3. The elevation of the platform at the intersection of Pearl street with Park street to be 15.50 feet.

4. The elevation on the centre line 140 feet easterly from the intersection of the centre line of Park street with the said centre line of Pearl street to be 11.85 feet, to coincide with the present surface of the street as paved.

**Duane Street.**

1. Beginning at the intersection of the centre line with the centre line of City Hall place, the elevation to be 26.50 feet, to coincide with the present surface of the street as paved;

2. Thence westwardly 73 feet along the centre line, the elevation to be 26.15 feet;

3. Thence westwardly 85 feet and still along the centre line, the elevation to be 25.80 feet;

4. Thence westwardly to the intersection of the prolongation of the centre line as laid out immediately easterly from Centre street with the centre line of Centre street, the elevation to be 24.60 feet;

5. Thence westwardly to the intersection of the easterly prolongation of the centre line as laid out immediately westerly from Lafayette street with the centre line of Lafayette street, the elevation to be 22.25 feet, to coincide with the present surface of the street as paved.

**New Reade Street.**

1. Beginning at the intersection of the centre line with the prolongation of the centre line of City Hall place, as laid out immediately northerly from Duane street, the elevation to be 28.25 feet, to coincide with the present surface of the street as paved;

2. Thence westwardly 72 feet along the centre line, the elevation to be 28.90 feet;

3. Thence westwardly to the intersection of the centre line with the southerly prolongation of the easterly curb line of Centre street, the elevation to be 26.20 feet, to coincide with the present surface of the street as paved.

**Leonard Street.**

1. The elevation on the centre line 85 feet westerly from the intersection of the said centre line with the centre line of Centre street to be 13.90 feet, to coincide with the present surface of the street as paved.

2. The elevation of the platform at the intersection of Leonard street and Centre street to be as hereinbefore described.

3. The elevation on the centre line 80 feet easterly from the centre line of Centre street to be 14.25 feet, to coincide with the present surface of the street as paved.

**White Street.**

1. The elevation on the centre line 88 feet easterly from the intersection of the centre line with the centre line of Centre street to be 12.00 feet, to coincide with the present surface of the street as paved.

2. The elevation of the platform at the intersection of White street with Centre street to be as hereinbefore described.

3. The elevation on the centre line 38 feet westerly from the centre line of Centre street to be 11.80 feet, to coincide with the present surface of the street as paved.

All elevations refer to mean high water as established for the Borough of Manhattan.

Resolved, That this Board consider the proposed change at a meeting of the Board, to be held in the City Hall, Borough of Manhattan, City of New York, on the 6th day of December, 1907, at 10.30 o'clock a. m.

Resolved, That the Secretary of this Board cause these resolutions and a notice to all persons affected thereby that the proposed change will be considered at a meeting of the Board, to be held at the aforesaid time and place, to be published in the City Record for ten days continuously, Sundays and legal holidays excepted, prior to the 6th day of December, 1907.

Dated November 22, 1907.  
JOSEPH HAAG,  
Secretary,  
No. 277 Broadway, Room 1406.  
Telephone, 2280 Worth.

n22,d4

NOTICE IS HEREBY GIVEN THAT THE

Board of Estimate and Apportionment of The City of New York, deeming it for the public interest so to do, proposes to change the map or plan of The City of New York so as to close and discontinue Avenue D, from East Fifteenth street to East Sixteenth street, Borough of Manhattan,

and that a meeting of said Board will be held in the Old Council Chamber, City Hall, Borough of Manhattan, City of New York, on December 6, 1907, at 10.30 o'clock a. m., at which such proposed change will be considered by said Board; all of which is more particularly set forth and described in the following resolutions, adopted by the Board on November 8, 1907, notice of the adoption of which is hereby given, viz.:

Resolved, That the Board of Estimate and Apportionment of The City of New York, in pursuance of the provisions of section 442 of the Greater New York Charter, as amended, deeming it for the public interest so to do, proposes to change the map or plan of The City of New York, by closing and discontinuing Avenue D, from East Fifteenth street to East Sixteenth street, in the Borough of Manhattan, City of New York, more particularly shown on map or plan submitted by the President of the Borough of Manhattan.

Resolved, That this Board consider the proposed change at a meeting of the Board, to be held in the City Hall, Borough of Manhattan, City of New York, on the 6th day of December, 1907, at 10.30 o'clock a. m.

Resolved, That the Secretary of this Board cause these resolutions and a notice to all persons affected thereby that the proposed change will be considered at a meeting of the Board, to be held at the aforesaid time and place, to be published in the City Record for ten days continuously, Sundays and legal holidays excepted, prior to the 6th day of December, 1907.

Dated November 22, 1907.  
JOSEPH HAAG,  
Secretary,  
No. 277 Broadway, Room 1406.  
Telephone, 2280 Worth.

n22,d4

NOTICE IS HEREBY GIVEN THAT THE

Board of Estimate and Apportionment of The City of New York, deeming it for the public interest so to do, proposes to change the map or plan of The City of New York so as to lay out as a public place the triangular area bounded by Metropolitan avenue, Meadow street and Scott avenue, Borough of Brooklyn, and that a meeting of said Board will be held in the Old Council Chamber, City Hall, Borough of Manhattan, City of New York, on December 6, 1907, at 10.30 o'clock a. m., at which such proposed change will be considered by said Board; all of which is more particularly set forth and described in the following resolutions, adopted by the Board on November 8, 1907, notice of the adoption of which is hereby given, viz.:

Resolved, That the Board of Estimate and Apportionment of The City of New York, in pursuance of the provisions of section 442 of the Greater New York Charter, as amended, deeming it for the public interest so to do, proposes to change the map or plan of The City of New York, by laying out as a public place the triangular area bounded by Metropolitan avenue, Meadow street and Scott avenue, in the Borough of Brooklyn, City of New York, more particularly described as follows:

Bounded on the north by Metropolitan avenue, on the southeast by Meadow street and on the southwest by Scott avenue.

Resolved, That this Board consider the proposed change at a meeting of the Board, to be held in the City Hall, Borough of Manhattan, City of New York, on the 6th day of December, 1907, at 10.30 o'clock a. m.

Resolved, That the Secretary of this Board cause these resolutions and a notice to all persons affected thereby that the proposed change will be considered at a meeting of the Board, to be held at the aforesaid time and place, to be published in the City Record and the corporation newspapers for ten days continuously, Sundays and legal holidays excepted, prior to the 6th day of December, 1907.

Dated November 22, 1907.  
JOSEPH HAAG,  
Secretary,  
No. 277 Broadway, Room 1406.  
Telephone, 2280 Worth.

n22,d4

NOTICE IS HEREBY GIVEN THAT THE

Board of Estimate and Apportionment of The City of New York, deeming it for the public interest so to do, proposes to change the map or plan of The City of New York so as to change the grade of the following streets: Kenmore place, between Woodruff avenue and Caton avenue; East Twenty-first street, between Caton avenue and Church avenue; Caton avenue, between Ocean avenue and Flatbush avenue, Borough of Brooklyn, and that a meeting of said Board will be held in the Old Council Chamber, City Hall, Borough of Manhattan, City of New York, on December 6, 1907, at 10.30 o'clock a. m., at which such proposed change will be considered by said Board; all of which is more particularly set forth and described in the following resolutions, adopted by the Board on November 8, 1907, notice of the adoption of which is hereby given, viz.:

Resolved, That the Board of Estimate and Apportionment of The City of New York, in pursuance of the provisions of section 442 of the Greater New York Charter, as amended, deeming it for the public interest so to do, proposes to change the map or plan of The City of New York, by changing the grade of the following streets: Kenmore place, between Woodruff avenue and Caton avenue; East Twenty-first street, between Caton avenue and Church avenue; Caton avenue, between Ocean avenue and Flatbush avenue, in the Borough of Brooklyn, City of New York, more particularly described as follows:

**Kenmore Place.**

Beginning at the intersection of Kenmore place and Woodruff avenue, the elevation to be 56.78 feet, as heretofore;

Thence southerly to a point distant 315 feet from the southerly building line of Woodruff avenue at its intersection with the centre line of Kenmore place, the elevation to be 54.90 feet;

Thence southerly to the intersection of Caton avenue, the elevation to be 52.40 feet, as now in use and improved.

**East Twenty-first Street.**

Beginning at the intersection of East Twenty-first street and Caton avenue, the elevation to be 52.40 feet, as now in use and improved;

Thence southerly to the intersection of Church avenue, the elevation to be 47.80 feet, as heretofore.

**Caton Avenue.**

Beginning at the intersection of Caton avenue and Church avenue, the elevation to be 53.50 feet, as heretofore;

Thence easterly to the intersection of Kenmore place and East Twenty-first street, the elevation to be 52.40 feet, as now in use and improved;

Thence easterly to the intersection of Flatbush avenue, the elevation to be 52.39 feet, as heretofore.

All elevations refer to mean high water datum, as determined by the Bureau of Highways, Borough of Brooklyn.

Resolved, That this Board consider the proposed change at a meeting of the Board, to be



held in the City Hall, Borough of Manhattan, City of New York, on the 6th day of December, 1907, at 10.30 o'clock a. m.

Resolved, That the Secretary of this Board cause these resolutions and a notice to all persons affected thereby that the proposed change will be considered at a meeting of the Board, to be held at the aforesaid time and place, to be published in the City Record and the corporation newspapers for ten days continuously, Sundays and legal holidays excepted, prior to the 6th day of December, 1907.

Dated November 22, 1907.

JOSEPH HAAG,  
Secretary,  
No. 277 Broadway, Room 1406.  
Telephone, 2280 Worth.

n22,d4

**NOTICE IS HEREBY GIVEN THAT THE** Board of Estimate and Apportionment of The City of New York, deeming it for the public interest so to do, proposes to change the map or plan of The City of New York so as to change the grade of New York avenue, from President street to Carroll street, Borough of Brooklyn, and that a meeting of said Board will be held in the Old Council Chamber, City Hall, Borough of Manhattan, City of New York, on December 6, 1907, at 10.30 o'clock a. m., at which such proposed change will be considered by said Board; all of which is more particularly set forth and described in the following resolutions, adopted by the Board on November 8, 1907, notice of the adoption of which is hereby given, viz.:

Resolved, That the Board of Estimate and Apportionment of The City of New York, in pursuance of the provisions of section 442, of the Greater New Charter, as amended, deeming it for the public interest so to do, proposes to change the map or plan of The City of New York by changing the grade of New York avenue, from President street to Carroll street, in the Borough of Brooklyn, City of New York, more particularly described as follows:

Beginning at the intersection of President street, the elevation to be 110 feet, as heretofore; thence southerly to a point 145.75 feet south of the south curb line of President street, the elevation to be 110.75 feet;

Thence southerly to the intersection of Carroll street, the elevation to be 110 feet, as heretofore. All elevations refer to mean high-water datum, as determined by the Bureau of Highways, Borough of Brooklyn.

Resolved, That this Board consider the proposed change at a meeting of the Board to be held in the City Hall, Borough of Manhattan, City of New York, on the 6th day of December, 1907, at 10.30 o'clock a. m.

Resolved, That the Secretary of this Board cause these resolutions and a notice to all persons affected thereby that the proposed change will be considered at a meeting of the Board, to be held at the aforesaid time and place, to be published in the City Record and the corporation newspapers for ten days continuously, Sundays and legal holidays excepted, prior to the 6th day of December, 1907.

Dated November 22, 1907.

JOSEPH HAAG,  
Secretary,  
No. 277 Broadway, Room 1406.  
Telephone, 2280 Worth.

n22,d4

**NOTICE IS HEREBY GIVEN THAT THE** Board of Estimate and Apportionment of The City of New York, deeming it for the public interest so to do, proposes to change the map or plan of The City of New York so as to change the grade of Tremont avenue, from Devoe avenue to intersecting streets affected thereby, Borough of The Bronx, and that a meeting of said Board will be held in the Old Council Chamber, City Hall, Borough of Manhattan, City of New York, on December 6, 1907, at 10.30 o'clock a. m., at which such proposed change will be considered by said Board, all of which is more particularly set forth and described in the following resolutions adopted by the Board on November 8, 1907, notice of the adoption of which is hereby given, viz.:

Resolved, That the Board of Estimate and Apportionment of The City of New York, in pursuance of the provisions of section 442 of the Greater New Charter, as amended, deeming it for the public interest so to do, proposes to change the map or plan of The City of New York by changing the grade of Tremont avenue, from Devoe avenue to intersecting streets affected thereby, in the Borough of The Bronx, City of New York, more particularly described as follows:

1. The grade at Devoe avenue to be 20 feet, as heretofore;
2. The grade at Bronx Park avenue to be 35 feet;
3. The grade at the southwest curb intersection of Appleby avenue to be 46.5 feet;
4. The grade at the northeast curb intersection of Appleby avenue to be 47.5 feet;
5. The grade of the bridge across the New York, New Haven and Hartford Railroad tracks to be 49 feet;
6. The grade at the southwest curb intersection of Bronx River avenue to be 48.5 feet;
7. The grade at the northeast curb intersection of Bronx River avenue to be 48 feet;
8. The grade at the northwest curb intersection of Fteley avenue to be 37 feet;
9. The grade at the southeast curb intersection of Fteley avenue to be 36.5 feet;
10. The grade at the northwest curb intersection of Croes avenue to be 25 feet;
11. The grade at the southeast curb intersection of Croes avenue to be 24.6 feet;
12. The grade at Noble avenue to be 26 feet;
13. The grade at Rosedale avenue to be 34 feet, as heretofore.

#### Bronx Park Avenue.

1. The grade at Tremont avenue to be 35 feet;
2. The grade at Wyatt street to be 23.5 feet, as heretofore.

#### Appleby Avenue.

1. The grade at the northeast curb intersection of Tremont avenue to be 47.5 feet;
2. The grade at Morris Park avenue to be 30 feet, as heretofore.

#### Bronx River Avenue.

1. The grade at the northeast curb intersection of Tremont avenue to be 48 feet;
2. The grade at Fteley avenue to be 31.5 feet, as heretofore.

#### Fteley Avenue.

1. The grade at the northwest curb intersection of Tremont avenue to be 37 feet;
2. The grade at Bronx River avenue to be 31.5 feet, as heretofore.

#### Croes Avenue.

1. The grade at the northwest curb intersection of Tremont avenue to be 25 feet;
2. The grade at Bronx River avenue to be 27 feet, as heretofore.

#### Noble Avenue.

1. The grade at the northwest curb intersection of Tremont avenue to be 26 feet;
2. The grade at Mansion avenue to be 29.7 feet, as heretofore.

All grades refer to mean high-water datum as established in the Borough of The Bronx.

Resolved, That this Board consider the proposed change at a meeting of the Board, to be held in the City Hall, Borough of Manhattan, City of New York, on the 6th day of December, 1907, at 10.30 o'clock a. m.

Resolved, That the Secretary of this Board cause these resolutions and a notice to all persons affected thereby that the proposed change will be considered at a meeting of the Board to be held at the aforesaid time and place, to be published in the City Record for ten days continuously, Sundays and legal holidays excepted, prior to the 6th day of December, 1907.

Dated November 22, 1907.

JOSEPH HAAG,  
Secretary,  
No. 277 Broadway, Room 1406.  
Telephone, 2280 Worth.

n22,d4

**NOTICE IS HEREBY GIVEN THAT THE** Board of Estimate and Apportionment of The City of New York, deeming it for the public interest so to do, proposes to change the map or plan of The City of New York so as to change the line of Penfield street, between White Plains road and Wilder avenue, Borough of The Bronx, and that a meeting of said Board will be held in the Old Council Chamber, City Hall, Borough of Manhattan, City of New York, on December 6, 1907, at 10.30 o'clock a. m., at which such proposed change will be considered by said Board; all of which is more particularly set forth and described in the following resolutions adopted by the Board on November 8, 1907, notice of the adoption of which is hereby given, viz.:

Resolved, That the Board of Estimate and Apportionment of The City of New York, in pursuance of the provisions of section 442 of the Greater New Charter, as amended, deeming it for the public interest so to do, proposes to change the map or plan of The City of New York by changing the line of Penfield street, between White Plains road and Wilder avenue, in the Borough of The Bronx, City of New York, more particularly described as follows:

1. The southerly line of Penfield street is to be 5 feet south of and parallel with the southerly line of Penfield street, as heretofore laid out.

2. The northerly line of Penfield street, between the flare just west of Wilder avenue and White Plains road is to be 5 feet south of and parallel with the northerly line of Penfield street, as heretofore laid out.

3. The flare heretofore laid out on the northerly side of Penfield street at its intersection with Wilder avenue is to be continued, and the line forming it prolonged westwardly to meet the northerly line of Penfield street, as described in paragraph 2.

The intent of this change is, in general, to move Penfield street 5 feet south of the location heretofore adopted.

Resolved, That this Board consider the proposed change at a meeting of the Board, to be held in the City Hall, Borough of Manhattan, City of New York, on the 6th day of December, 1907, at 10.30 o'clock a. m.

Resolved, That the Secretary of this Board cause these resolutions and a notice to all persons affected thereby that the proposed change will be considered at a meeting of the Board, to be held at the aforesaid time and place, to be published in the City Record for ten days continuously, Sundays and legal holidays excepted, prior to the 6th day of December, 1907.

Dated November 22, 1907.

JOSEPH HAAG,  
Secretary,  
No. 277 Broadway, Room 1406.  
Telephone, 2280 Worth.

n22,d4

**NOTICE IS HEREBY GIVEN THAT THE** Board of Estimate and Apportionment of The City of New York, deeming it for the public interest so to do, proposes to change the map or plan of The City of New York so as to change the grade of Seventh avenue, between Graham avenue and Broadway, in the First Ward, Borough of Queens, and that a meeting of said Board will be held in the Old Council Chamber, City Hall, Borough of Manhattan, City of New York, on December 6, 1907, at 10.30 o'clock a. m., at which such proposed change will be considered by said Board; all of which is more particularly set forth and described in the following resolutions adopted by the Board on November 8, 1907, notice of the adoption of which is hereby given, viz.:

Resolved, That the Board of Estimate and Apportionment of The City of New York, in pursuance of the provisions of section 442 of the Greater New Charter, as amended, deeming it for the public interest so to do, proposes to change the map or plan of The City of New York by changing the grade of Seventh avenue, between Graham avenue and Broadway, in the First Ward, in the Borough of Queens, City of New York, more particularly described as follows:

1. The grade at the intersection with Broadway to be 51.66 feet, as heretofore.
2. The grade at a point 562.5 feet southwesterly from the southwest house line of Broadway to be 40 feet.
3. The grade at the intersection with Graham avenue to be 34.62 feet, as heretofore.

Note—All elevations refer to mean high-water datum, Borough of Queens.

Resolved, That this Board consider the proposed change at a meeting of the Board, to be held in the City Hall, Borough of Manhattan, City of New York, on the 6th day of December, 1907, at 10.30 o'clock a. m.

Resolved, That the Secretary of this Board cause these resolutions and a notice to all persons affected thereby that the proposed change will be considered at a meeting of the Board, to be held at the aforesaid time and place, to be published in the City Record for ten days continuously, Sundays and legal holidays excepted, prior to the 6th day of December, 1907.

Dated November 22, 1907.

JOSEPH HAAG,  
Secretary,  
No. 277 Broadway, Room 1406.  
Telephone, 2280 Worth.

n22,d4

**NOTICE IS HEREBY GIVEN THAT THE** Board of Estimate and Apportionment of The City of New York, deeming it for the public interest so to do, proposes to change the map or plan of The City of New York so as to lay out an extension of Linton Park by making the boundary Blake avenue, Van Siclen avenue, Livonia avenue and Bradford street, and to close and discontinue Miller avenue, between Blake avenue and Livonia avenue, and Dumont avenue, between Bradford street and Van Siclen ave-

nue, Borough of Brooklyn, and that a meeting of said Board will be held in the Old Council Chamber, City Hall, Borough of Manhattan, City of New York, on December 6, 1907, at 10.30 o'clock a. m., at which such proposed change will be considered by said Board; all of which is more particularly set forth and described in the following resolutions adopted by the Board on November 8, 1907, notice of the adoption of which is hereby given, viz.:

Resolved, That the Board of Estimate and Apportionment of The City of New York, in pursuance of the provisions of section 442 of the Greater New Charter, as amended, deeming it for the public interest so to do, proposes to change the map or plan of The City of New York by laying out an extension of Linton Park by making the boundary Blake avenue, Van Siclen avenue, Livonia avenue and Bradford street, and by closing and discontinuing Miller avenue, between Blake avenue and Livonia avenue, and Dumont avenue, between Bradford street and Van Siclen avenue, in the Borough of Brooklyn, City of New York, more particularly described as follows:

1. Miller avenue is to be closed and discontinued between the southerly line of Blake avenue and the northerly line of Livonia avenue.

2. Dumont avenue is to be closed and discontinued between the easterly side of Bradford street and the westerly side of Van Siclen avenue.

3. The extension of Linton Park is to include the area bounded as follows:

Beginning at the intersection formed by the westerly side line of Van Siclen avenue with the southerly side line of Blake avenue;

Thence westerly along the last-mentioned line 250 feet to its intersection with the westerly side line of Miller avenue;

Thence southerly along the last-mentioned line 500 feet to its intersection with the northerly side line of Dumont avenue;

Thence westerly along the last-mentioned line 200 feet to its intersection with the easterly side line of Bradford street;

Thence southerly along the last-mentioned line 570 feet to its intersection with the northerly side line of Livonia avenue;

Thence easterly along the last-mentioned line 450 feet to its intersection with the westerly side line of Van Siclen avenue;

Thence northerly along the last-mentioned line 1,070 feet to the point of beginning.

Resolved, That this Board consider the proposed change at a meeting of the Board, to be held in the City Hall, Borough of Manhattan, City of New York, on the 6th day of December, 1907, at 10.30 o'clock a. m.

Resolved, That the Secretary of this Board cause these resolutions and a notice to all persons affected thereby that the proposed change will be considered at a meeting of the Board, to be held at the aforesaid time and place, to be published in the City Record and the corporation newspapers for ten days continuously, Sundays and legal holidays excepted, prior to the 6th day of December, 1907.

JOSEPH HAAG,  
Secretary,  
No. 277 Broadway, Room 1406.  
Telephone, 2280 Worth.

n22,d4

**NOTICE IS HEREBY GIVEN THAT AT** the meeting of the Board of Estimate and Apportionment held on November 8, 1907, the following resolutions were adopted:

Whereas, The Board of Estimate and Apportionment of The City of New York is considering the advisability of instituting proceedings to acquire title to the lands and premises required for the opening and extending of Union street, from Washington avenue to Bedford avenue, and from Rogers avenue to New York avenue; President street, from Classon avenue to Bedford avenue; Carroll street, from Washington avenue to Albany avenue; Crown street, from Washington avenue to Albany avenue, in the Borough of Brooklyn, City of New York; and

Whereas, The Board of Estimate and Apportionment is authorized and required at the time of the adoption of the resolution directing the institution of proceedings to acquire title to the lands required for the foregoing improvement to fix and determine upon an area or areas of assessment for benefit for said proceeding.

Resolved, That the Board of Estimate and Apportionment, in pursuance of the provisions of section 980 of the Greater New York Charter, hereby gives notice that the following is the proposed area of assessment for benefit in this proceeding:

First—Beginning at a point on the prolongation of a line midway between Eastern parkway and Union street distant 100 feet westerly from the westerly line of Washington avenue, the said distance being measured at right angles to the line of Washington avenue, and running thence eastwardly along the said line midway between Eastern parkway and Union street, and along the prolongation of the said line to the westerly line of Bedford avenue; thence southwardly along the westerly line of Bedford avenue to the intersection with a line midway between President and Carroll streets as the said streets are laid out east of Bedford avenue; thence eastwardly along the said line midway between President street and Carroll street to a point distant 100 feet east of the easterly line of Albany avenue; thence southwardly and parallel with Albany avenue to the intersection with a line midway between Crown street and Montgomery street to a point distant 100 feet west of the westerly line of Washington avenue, the said distance being measured at right angles to Washington avenue; thence northwardly and parallel with the westerly line of Washington avenue to the point or place of beginning.

Second—Beginning at a point on the easterly line of Rogers avenue where it intersects a line midway between Eastern parkway and Union street, and running thence eastwardly along the said line midway between Eastern parkway and Union street to a point distant 100 feet easterly from the easterly line of New York avenue; thence southwardly along a line parallel with New York avenue to its intersection with a line midway between Union and President streets; thence westwardly along the said line midway between Union and President streets to the easterly line of Rogers avenue, and thence northwardly along the easterly line of Rogers avenue to the point or place of beginning.

Resolved, That this Board consider the proposed area of assessment at a meeting of the Board to be held in The City of New York, Borough of Manhattan, in the City Hall, on the 6th day of December, 1907, at 10.30 a. m., and that at the same time and place a public hearing thereon will then and there be had.

Resolved, That the Secretary of this Board cause these resolutions and a notice to all persons affected thereby to be published in the City Record and the corporation newspapers for ten days prior to the 6th day of December, 1907.

JOSEPH HAAG,  
Secretary,  
No. 277 Broadway, Room 1406.  
Telephone, 2280 Worth.

n22,d4

**NOTICE IS HEREBY GIVEN THAT AT** the meeting of the Board of Estimate and Apportionment held on November 8, 1907, the following resolutions were adopted:

Whereas, The Board of Estimate and Apportionment of The City of New York is considering the advisability of instituting proceedings to acquire title to the lands and premises required for the opening and extending of East Tenth street, from Caton avenue to Church avenue, in the Borough of Brooklyn, City of New York; and

Whereas, The Board of Estimate and Apportionment is authorized and required at the time of the adoption of the resolution directing the institution of proceedings to acquire title to the lands required for the foregoing improvement to fix and determine upon an area or areas of assessment for benefit for said proceeding.

Resolved, That the Board of Estimate and Apportionment, in pursuance of the provisions of section 980 of the Greater New York Charter, hereby gives notice that the following is the proposed area of assessment for benefit in this proceeding:

Bounded on the north by a line distant 100 feet northerly from and parallel with the northerly line of Caton avenue, the said distance being measured at right angles to the line of Caton avenue; on the east by a line distant 100 feet easterly from and parallel with the easterly line of East Tenth street, the said distance being measured at right angles to the line of East Tenth street, and by the prolongation of the said line; on the south by the northerly line of Albemarle road, and on the west by the easterly line of Coney Island avenue.

Resolved, That this Board consider the proposed area of assessment at a meeting of the Board to be held in The City of New York, Borough of Manhattan, in the City Hall, on the 6th day of December, 1907, at 10.30 a. m., and that at the same time and place a public hearing thereon will then and there be had.

Resolved, That the Secretary of this Board cause these resolutions and a notice to all persons affected thereby to be published in the City Record and the corporation newspapers for ten days prior to the 6th day of December, 1907.

JOSEPH HAAG,  
Secretary,  
No. 277 Broadway, Room 1406.  
Telephone, 2280 Worth.

n22,d4

**NOTICE IS HEREBY GIVEN THAT AT** the meeting of the Board of Estimate and Apportionment held on November 8, 1907, the following resolutions were adopted:

Whereas, The Board of Estimate and Apportionment of The City of New York is considering the advisability of instituting proceedings to acquire title to the lands and premises required for the opening and extending of the triangular area bounded by LaFontaine avenue, Quarry road and the south side of Oak Tree place, in the Borough of The Bronx, City of New York; and

Whereas, The Board of Estimate and Apportionment is authorized and required at the time of the adoption of the resolution directing the institution of proceedings to acquire title to the lands required for the foregoing improvement to fix and determine upon an area or areas of assessment for benefit for said proceeding.

Resolved, That the Board of Estimate and Apportionment, in pursuance of the provisions of section 980 of the Greater New York Charter, hereby gives notice that the following is the proposed area of assessment for benefit in this proceeding:

Beginning at the intersection of a line 125 feet distant southerly from and parallel with the southerly line of Oak Tree place, the said distance being measured at right angles to the line of Oak Tree place, with the southeasterly side of Quarry road, and running thence northwardly at right angles to the line of the Quarry road to a point distant 100 feet northwesterly from the northwesterly side of the said road; thence northeastwardly and parallel with the Quarry road to the intersection with a line drawn at right angles to the said road from a point on its northwesterly side where it is intersected by a line distant 200 feet northerly from and parallel with the northerly line of Oak Tree place, the said distance being measured at right angles to the line of Oak Tree place; thence southeastwardly to the last mentioned point on the northwesterly side of the Quarry road; thence eastwardly along a line parallel with the northerly side of Oak Tree place, and along the prolongation of the said line to the intersection with a line 100 feet distant easterly from and parallel with the easterly line of LaFontaine avenue, the said distance being measured at right angles to the line of LaFontaine avenue; thence southwardly along a line parallel with LaFontaine avenue to the intersection with a line distant 125 feet southerly from and parallel with the southerly line of Oak Tree place; thence westwardly along the said line parallel with Oak Tree place to the point or place of beginning.

Resolved, That this Board consider the proposed area of assessment at a meeting of the Board to be held in The City of New York, Borough of Manhattan, in the City Hall, on the 6th day of December, 1907, at 10.30 a. m., and that at the same time and place a public hearing thereon will then and there be had.

Resolved, That the Secretary of this Board cause these resolutions and a notice to all persons affected thereby to be published in the City Record for ten days prior to the 6th day of December, 1907.

JOSEPH HAAG,  
Secretary,  
No. 277 Broadway, Room 1406.  
Telephone, 2280 Worth.

n22,d4

**NOTICE IS HEREBY GIVEN THAT AT** the meeting of the Board of Estimate and Apportionment held on November 8, 1907, the following resolutions were adopted:

Whereas, The Board of Estimate and Apportionment of The City of New York is considering the advisability of instituting proceedings to acquire title to the lands and premises required for the opening and extending of West Two Hundred and Thirty-fourth street, between Albany road and Kingsbridge avenue, in the Borough of The Bronx, City of New York; and

Whereas, The Board of Estimate and Apportionment is authorized and required at the time of the adoption of the resolution directing the institution of proceedings to acquire title to the lands required for the foregoing improvement to fix and determine upon an area or areas of assessment for benefit for said proceeding.

Resolved, That the Board of Estimate and Apportionment, in pursuance of the provisions of section 980 of the Greater New York Charter, hereby gives notice that the following is the proposed area of assessment for benefit in this proceeding:

Beginning at the intersection of a line 290 feet southerly from and parallel with the southerly line of West Two Hundred and Thirty-fourth street, the said distance being measured at right angles to the line of West Two Hundred and



Thirty-fourth street, with a line 120 feet westerly from and parallel with the westerly line of Kingsbridge avenue, the said distance being measured at right angles to the line of Kingsbridge avenue, and running thence northwardly and parallel with the line of Kingsbridge avenue to the intersection with a line passing through a point on the easterly side of Kingsbridge avenue distant 200 feet north of the intersection of the said east line of Kingsbridge avenue with the northerly line of West Two Hundred and Thirty-fourth street, and through a point on the westerly side of Albany road distant 232 feet north of the point where the said westerly line of Albany road intersects the northerly line of West Two Hundred and Thirty-fourth street; thence eastwardly along the said line passing through a point on the easterly side of Kingsbridge avenue distant 200 feet north of its intersection with the northerly line of West Two Hundred and Thirty-fourth street and through a point on the westerly side of Albany road distant 232 feet north of its intersection with the northerly line of West Two Hundred and Thirty-fourth street, and along the prolongation of the said line, to the intersection with a line distant 100 feet easterly from and parallel with the easterly line of Albany road, the said distance being measured at right angles to the line of Albany road; thence southwardly and parallel with Albany road and always distant 100 feet from the easterly line of the said road to the intersection with a line passing through a point on the westerly side of Albany road distant 139 feet southerly from the intersection of the said line with the southerly line of West Two Hundred and Thirty-fourth street, and through a point on the easterly side of Broadway distant 182 feet south of the intersection of the said easterly line of Broadway with the southerly line of West Two Hundred and Thirty-fourth street; thence westwardly and passing through the previously described points located on the westerly side of Albany road distant 139 feet south of the intersection of the said westerly line of Albany road with the southerly line of West Two Hundred and Thirty-fourth street, and through a point on the easterly line of Broadway distant 182 feet south of the intersection of the said easterly line of Broadway with the southerly line of West Two Hundred and Thirty-fourth street, and along the prolongation of the said line, to the intersection with a line distant 200 feet easterly from and parallel with the easterly line of Kingsbridge avenue, the said distance being measured at right angles to the line of Kingsbridge avenue; thence southwardly and parallel with Kingsbridge avenue to the intersection with a line distant 290 feet southerly from and parallel with the southerly line of West Two Hundred and Thirty-fourth street as laid out west of Kingsbridge avenue, the said distance being measured at right angles to the line of West Two Hundred and Thirty-fourth street; thence westwardly and parallel with West Two Hundred and Thirty-fourth street as laid out west of Kingsbridge avenue to the point of place of beginning.

Resolved, That this Board consider the proposed area of assessment at a meeting of the Board, to be held in The City of New York, Borough of Manhattan, in the City Hall, on the 6th day of December, 1907, at 10.30 a. m., and that at the same time and place a public hearing thereon will then and there be had.

Resolved, That the Secretary of this Board cause these resolutions and a notice to all persons affected thereby to be published in the City Record for ten days prior to the 6th day of December, 1907.

Dated November 22, 1907.  
JOSEPH HAAG,  
Secretary,  
No. 277 Broadway, Room 1406.  
Telephone, 2280 Worth.

n22,d4

NOTICE IS HEREBY GIVEN THAT AT the meeting of the Board of Estimate and Apportionment held on November 8, 1907, the following resolutions were adopted:

Whereas, The Board of Estimate and Apportionment of The City of New York is considering the advisability of instituting proceedings to acquire title to the lands and premises required for the opening and extending of the public place bounded by Parkside place and Webster avenue, and also of those portions of Parkside place and East Two Hundred and Seventh street which have not yet been acquired by The City of New York, in the Borough of The Bronx, City of New York; and

Whereas, The Board of Estimate and Apportionment is authorized and required at the time of the adoption of the resolution directing the institution of proceedings to acquire title to the lands required for the foregoing improvement to fix and determine upon an area or areas of assessment for benefit for said proceeding.

Resolved, That the Board of Estimate and Apportionment, in pursuance of the provisions of section 980 of the Greater New York Charter, hereby gives notice that the following is the proposed area of assessment for benefit in this proceeding:

Beginning at a point on the westerly property line of the New York and Harlem Railroad at its intersection with a line perpendicular to the westerly line of Webster avenue and passing through a point on the said westerly line of Webster avenue distant 380 feet southerly from its intersection with the southerly line of East Two Hundred and Fifth street, and running thence westwardly along the said line at right angles to Webster avenue to a point 100 feet west of the said westerly line of Webster avenue; thence northwardly along a line parallel with and always distant 100 feet from the westerly line of Webster avenue to the intersection with a line which bisects the angle formed by the intersection of the prolongation of the centre lines of East Two Hundred and Fifth street and of East Two Hundred and Seventh street as these streets are laid out between Perry avenue and Norwood avenue; thence westwardly along the said bisecting line to its intersection with a line distant 100 feet westerly from and parallel with the westerly line of Perry avenue, the said distance being measured at right angles to the line of Perry avenue; thence northwardly along the said line parallel with Perry avenue to its intersection with the easterly line of Reservoir Oval; thence northwardly along the easterly line of Reservoir Oval to its intersection with a line distant 100 feet westerly from and parallel with the westerly line of Perry avenue as laid out immediately south of Gun Hill road, the said distance being measured at right angles to the line of Perry avenue; thence northwardly along the said line parallel with Perry avenue to its intersection with the prolongation of a line distant 380 feet northerly from and parallel with the northerly line of East Two Hundred and Ninth street as laid out between Perry and Norwood avenues; thence eastwardly along the said line parallel with East Two Hundred and Ninth street to its intersection with a line distant 100 feet westerly from and parallel with the westerly line of Webster avenue, the said distance being measured at right angles to the line of Webster avenue; thence northwardly along the said line always parallel with and distant 100 feet from the westerly line of Webster avenue to the intersection with a line perpendicular to the westerly line of Webster avenue and passing through a point on the said line of Webster avenue distant 295 feet northerly from

its intersection with the northerly line of Gun Hill road; thence eastwardly along the said line at right angles to Webster avenue to the intersection with the westerly property line of the New York and Harlem Railroad, and thence southwardly along the said westerly property line of the New York and Harlem Railroad to the point or place of beginning.

Resolved, That this Board consider the proposed area of assessment at a meeting of the Board, to be held in The City of New York, Borough of Manhattan, in the City Hall, on the 6th day of December, 1907, at 10.30 a. m., and that at the same time and place a public hearing thereon will then and there be had.

Resolved, That the Secretary of this Board cause these resolutions and a notice to all persons affected thereby to be published in the City Record for ten days prior to the 6th day of December, 1907.

Dated November 22, 1907.  
JOSEPH HAAG,  
Secretary,  
No. 277 Broadway, Room 1406.  
Telephone, 2280 Worth.

n22,d4

NOTICE IS HEREBY GIVEN THAT AT the meeting of the Board of Estimate and Apportionment held on November 8, 1907, the following resolutions were adopted:

Whereas, The Board of Estimate and Apportionment of The City of New York is considering the advisability of instituting proceedings to acquire title to the lands and premises required for the opening and extending of Young street, between the Long Island Railroad and Hunter's Point avenue, in the First Ward, in the Borough of Queens, City of New York; and

Whereas, The Board of Estimate and Apportionment is authorized and required at the time of the adoption of the resolution directing the institution of proceedings to acquire title to the lands required for the foregoing improvement to fix and determine upon an area or areas of assessment for benefit for said proceeding.

Resolved, That the Board of Estimate and Apportionment, in pursuance of the provisions of section 980 of the Greater New York Charter, hereby gives notice that the following is the proposed area of assessment for benefit in this proceeding:

Beginning at the intersection of a line midway between Young street and Gilbert street with the easterly line of the lands of the Long Island Railroad, and running thence eastwardly along the said line midway between Young street and Gilbert street, and along the prolongation of the said line, to the intersection with the southerly line of Hunter's Point avenue; thence northwardly at right angles to the southerly line of Hunter's Point avenue to a point distant 100 feet northeasterly from the northeasterly line of Hunter's Point avenue; thence southeasterly and parallel with Hunter's Point avenue to the intersection with a line drawn at right angles to the southerly line of Hunter's Point avenue at the point where the said southerly line of Hunter's Point avenue is intersected by a line midway between Young street and Pearsall street; thence southwardly at right angles to the southerly line of Hunter's Point avenue to the westerly line of Hunter's Point avenue to the said point on its southerly line where it is intersected by the aforesaid line midway between Young street and Pearsall street; thence westwardly and along a line always midway between Young street and Pearsall street to the intersection with the easterly line of the lands of the Long Island Railroad; thence northwardly along the said easterly line of the lands of the Long Island Railroad, to the point or place of beginning.

Resolved, That this Board consider the proposed area of assessment at a meeting of the Board, to be held in The City of New York, Borough of Manhattan, in the City Hall, on the 6th day of December, 1907, at 10.30 a. m., and that at the same time and place a public hearing thereon will then and there be had.

Resolved, That the Secretary of this Board cause these resolutions and a notice to all persons affected thereby to be published in the City Record for ten days prior to the 6th day of December, 1907.

Dated November 22, 1907.  
JOSEPH HAAG,  
Secretary,  
No. 277 Broadway, Room 1406.  
Telephone, 2280 Worth.

n22,d4

NOTICE IS HEREBY GIVEN THAT AT the meeting of the Board of Estimate and Apportionment held on November 8, 1907, the following resolutions were adopted:

Whereas, The Board of Estimate and Apportionment of The City of New York is considering the advisability of instituting proceedings to acquire title to the lands and premises required for the opening and extending of Harman street, between Grand View avenue and Forest avenue, and Himrod street, between Grand View avenue and Metropolitan avenue, in the Borough of Queens, City of New York; and

Whereas, The Board of Estimate and Apportionment is authorized and required at the time of the adoption of the resolution directing the institution of proceedings to acquire title to the lands required for the foregoing improvement to fix and determine upon an area or areas of assessment for benefit for said proceeding.

Resolved, That the Board of Estimate and Apportionment, in pursuance of the provisions of section 980 of the Greater New York Charter, hereby gives notice that the following is the proposed area of assessment for benefit in this proceeding:

Beginning at a point on the southerly line of Metropolitan avenue where the said line is intersected by a line midway between Stanhope street and Himrod street, and running thence southwardly along the said line midway between Stanhope street and Himrod street to the intersection with a line distant 100 feet southwardly from and parallel with the southerly line of Grand View avenue, the said distance being measured at right angles to the line of Grand View avenue; thence southeasterly and parallel with the southerly line of Grand View avenue to the intersection with a line midway between Harman street and Greene avenue; thence northwardly along the said line midway between Harman street and Greene avenue, and along the prolongation of the said line to the intersection with a line distant 100 feet northeasterly from and parallel with the northeasterly line of Forest avenue, the said distance being measured at right angles to the line of Forest avenue; thence northwardly along a course parallel with the northeasterly line of Forest avenue to the intersection with a line distant 100 feet north of and parallel with the northerly line of Metropolitan avenue; thence westwardly and parallel with the northerly line of Metropolitan avenue to a point where the said course is intersected by a line at right angles to the southerly side of Metropolitan avenue at the point herebefore described as the point or place of beginning; thence southwardly to the point or place of beginning.

Resolved, That this Board consider the proposed area of assessment at a meeting of the Board, to be held in The City of New York, Bor-

ough of Manhattan, in the City Hall, on the 6th day of December, 1907, at 10.30 a. m., and that at the same time and place a public hearing thereon will then and there be had.

Resolved, That the Secretary of this Board cause these resolutions and a notice to all persons affected thereby to be published in the City Record for ten days prior to the 6th day of December, 1907.

Dated November 22, 1907.  
JOSEPH HAAG,  
Secretary,  
No. 277 Broadway, Room 1406.  
Telephone, 2280 Worth.

n22,d4

NOTICE IS HEREBY GIVEN THAT AT the meeting of the Board of Estimate and Apportionment held on November 8, 1907, the following resolutions were adopted:

Whereas, The Board of Estimate and Apportionment of The City of New York is considering the advisability of instituting proceedings to acquire title to the lands and premises required for the opening and extending of a new diagonal street, from Jackson avenue, opposite the approach to the Blackwell's Island Bridge, to the northwesterly boundary of the Sunnyside Yard, and from the southeasterly boundary of the Sunnyside Yard to Thomson avenue; and of Van Dam street, from the new diagonal street to Greenpoint avenue, and of Greenpoint avenue, from Review avenue to Newtown creek, in the Borough of Queens, City of New York; and

Whereas, The Board of Estimate and Apportionment is authorized and required at the time of the adoption of the resolution directing the institution of proceedings to acquire title to the lands required for the foregoing improvement to fix and determine upon an area or areas of assessment for benefit for said proceeding.

Resolved, That the Board of Estimate and Apportionment, in pursuance of the provisions of section 980 of the Greater New York Charter, hereby gives notice that the following is the proposed area of assessment for benefit in this proceeding:

Beginning at the point of intersection of the northeasterly bulkhead line of Newtown creek with the centre line of Dutch Kills creek, and running thence eastwardly and northwardly along the centre line of Dutch Kills creek to its intersection with the prolongation of a line midway between Dutch Kills place and Queens place, as laid out south of the Sunnyside Yard; thence northwardly along the said line midway between Dutch Kills place and Queens place and the prolongation thereof to its intersection with the prolongation of a line midway between Dutch Kills street and Queens street, as laid out north of Sunnyside Yard; thence northwardly along the said line midway between Dutch Kills street and Queens street and the prolongation thereof to its intersection with the prolongation of a line 100 feet southwesterly from and parallel with the southerly line of Harris avenue, as laid out immediately west of the Crescent, the said distance being measured at right angles to the line of Harris avenue; thence westwardly along the said line parallel with Harris avenue and the prolongation thereof to its intersection with the prolongation of a line midway between the Crescent and William street, as these streets are laid out north of Harris avenue; thence northwardly along the said line midway between the Crescent and William street to its intersection with a line midway between Paynter avenue and Wilbur avenue; thence southeasterly along the said line midway between Paynter avenue and Wilbur avenue to its intersection with a line midway between Radde street and Academy street; thence northwardly along the said line midway between Radde street and Academy street to its intersection with the prolongation of a line distant 100 feet northeasterly from and parallel with the northeasterly line of South Washington place, the said distance being measured at right angles to the line of South Washington place; thence southeasterly along the said line parallel with South Washington place to its intersection with the northerly line of Jackson avenue; thence southerly and parallel with Honeywell street to its intersection with a line distant 850 feet northerly from and parallel with the northerly line of Skillman avenue, as laid out between the new diagonal street and Honeywell street, the said distance being measured at right angles to the line of Skillman avenue; thence eastwardly along the said line parallel with Skillman avenue, as laid out between the new diagonal street and Honeywell street, to its intersection with a line easterly from and parallel with Honeywell street, and passing through a point on the northerly line of Skillman avenue where the said line of Skillman avenue is intersected by the prolongation of a line midway between Hulst street and Van Pelt street; thence southerly and parallel with Honeywell street to its intersection with Skillman avenue; thence southwardly along a line midway between Hulst street and Van Pelt street and along the prolongation thereof to the northerly bulkhead line of Newtown creek; thence northwardly along the northeasterly bulkhead line of Newtown creek to the point or place of beginning.

Resolved, That this Board consider the proposed area of assessment at a meeting of the Board, to be held in The City of New York, Borough of Manhattan, in the City Hall, on the 6th day of December, 1907, at 10.30 a. m., and that at the same time and place a public hearing thereon will then and there be had.

Resolved, That the Secretary of this Board cause these resolutions and a notice to all persons affected thereby to be published in the City Record for ten days prior to the 6th day of December, 1907.

Dated November 22, 1907.  
JOSEPH HAAG,  
Secretary,  
No. 277 Broadway, Room 1406.  
Telephone, 2280 Worth.

n22,d4

NOTICE IS HEREBY GIVEN THAT AT the meeting of the Board of Estimate and Apportionment held on November 8, 1907, the following resolutions were adopted:

Whereas, The Board of Estimate and Apportionment of The City of New York is considering the advisability of instituting proceedings to acquire title to the lands and premises required for the opening and extending of Jefferson street, from Liberty avenue to Tysen avenue, in the Borough of Richmond, City of New York; and

Whereas, The Board of Estimate and Apportionment is authorized and required at the time of the adoption of the resolution directing the institution of proceedings to acquire title to the lands required for the foregoing improvement to fix and determine upon an area or areas of assessment for benefit for said proceeding.

Resolved, That the Board of Estimate and Apportionment, in pursuance of the provisions of section 980 of the Greater New York Charter, hereby gives notice that the following is the proposed area of assessment for benefit in this proceeding:

Bounded on the north by a line midway between Tysen avenue and Delaware avenue; on the east by a line bisecting the angle formed between the easterly side of Jefferson street and the westerly side of the first unnamed street

east of Jefferson street; on the south by a line distant 100 feet southerly from and parallel with the southerly line of Liberty avenue, and on the west by a line midway between Jefferson street and the first unnamed street west of Jefferson street and by the prolongation of the said line.

Resolved, That this Board consider the proposed area of assessment at a meeting of the Board, to be held in The City of New York, Borough of Manhattan, in the City Hall, on the 6th day of December, 1907, at 10.30 a. m., and that at the same time and place a public hearing thereon will then and there be had.

Resolved, That the Secretary of this Board cause these resolutions and a notice to all persons affected thereby to be published in the City Record for ten days prior to the 6th day of December, 1907.

Dated November 22, 1907.  
JOSEPH HAAG,  
Secretary,  
No. 277 Broadway, Room 1406.  
Telephone, 2280 Worth.

n22,d4

PUBLIC NOTICE IS HEREBY GIVEN that at a meeting of the Board of Estimate and Apportionment held this day, the following proceedings were had:

Whereas, The Seaboard Refrigeration Company has, under date of May 3, 1907, made application to this Board for certain modifications and changes in the contract dated June 22, 1906, granting a franchise to this company to construct, maintain and operate a conduit with the necessary branches and connections therefrom, for the sole purpose of supplying refrigeration to consumers, under and along certain streets in the Borough of Brooklyn, City of New York; and

Whereas, Sections 72, 73 and 74 of the Greater New York Charter, as amended by chapters 629 and 630 of the Laws of 1905, provide for the manner and procedure of making such grants; and

Whereas, In pursuance to such laws this Board adopted resolutions September 20, 1907, fixing the date for public hearing thereon as November 1, 1907, at which citizens were entitled to appear and be heard, and publication was had for at least two days in the New York "Herald" and the New York "Times," newspapers designated by the Mayor, and in the City Record for ten days immediately prior to the date of hearing, and the public hearing was duly held on such day; and

Whereas, This Board has made inquiry as to the modifications of the franchise or right heretofore granted to the Seaboard Refrigeration Company and the adequacy of the compensation proposed to be paid therefor; now, therefore, it is

Resolved, That the following form of resolution for the modifications of the franchise or right applied for by the Seaboard Refrigeration Company, containing the form of proposed contract for the modification of such franchise or right, be hereby introduced and entered in the minutes of this Board as follows, to wit:

Resolved, That the Board of Estimate and Apportionment hereby grants to the Seaboard Refrigeration Company the modifications of the contract dated June 22, 1906, as fully set out and described in the following form of proposed contract, and that the Mayor of The City of New York be and he hereby is authorized to execute and deliver such contract in the name and on behalf of The City of New York, as follows, to wit:

#### PROPOSED FORM OF CONTRACT.

This contract, made the day of 1907, by and between The City of New York (hereinafter called the City), party of the first part, by the Mayor of the said City, acting for and in the name of said City, under and in pursuance of the authority of the Board of Estimate and Apportionment of said City (hereinafter called the Board), and the Seaboard Refrigeration Company, a domestic corporation of the State of New York (hereinafter called the Company), party of the second part, witnesseth:

Whereas, The Board did, on June 15, 1906, adopt a resolution authorizing the Mayor to execute, in the name and on behalf of the City, a contract between the Company and the City, granting to the Company the right or franchise to construct, maintain and operate a conduit, with the necessary branches and connections therefrom, for the sole purpose of supplying refrigeration to consumers, under and along certain streets in the Borough of Brooklyn, City of New York, upon certain conditions therein fully set forth; and

Whereas, On the 6th day of July, 1906, the Acting Mayor did execute, in the name and on behalf of The City of New York, a contract granting to the Company such right, which contract was dated the 22d day of June, 1906; and

Whereas, On September 14, 1906; November 9, 1906; April 26, 1907, and May 10, 1907, by resolutions duly adopted by the Board and subsequently approved by the Mayor, the Company was granted various extensions of time up to and including May 1, 1908, in which to comply with the provisions of "Section 2, Third," and "Section 2, Twenty-second" of the aforesaid contract; and

Whereas, The Company, in a communication dated May 3, 1907, requested that the payments provided for in "Section 2, Third," and "Section 2, Twenty-second" of the aforesaid contract be reduced; that the term of the franchise be extended; and that the various dates for the completion of a certain amount of pipe line be extended; and

Whereas, On the 1st day of November, 1907, the Board held a public hearing upon the proposed modifications, at which citizens were entitled to appear and be heard, such hearing being held after due publication; and

Whereas, On the day of 1907, the Board adopted a resolution consenting to certain changes and modifications in the aforesaid contract and authorizing the Mayor to execute and deliver an amended contract in accordance therewith, in the name and on behalf of the City, which resolution was approved by the Mayor on the day of 1907.

Now, therefore, in consideration of the premises and of the mutual covenants herein contained, the parties do hereby covenant and agree as follows:

Section 1.—All the terms, provisions and conditions contained in said contract between the City and the Company, dated June 22, 1906, shall remain unchanged and in full force and effect except the modifications hereinafter set forth, as follows:

First—Section 2, First, first paragraph, is hereby amended to read as follows:

"The said franchise, right and privilege to lay one conduit line in each of the streets, avenues or highways, and between the limits as hereinbefore described, and the franchise, right and privilege to maintain and operate the same shall be held and enjoyed by the said Company, its lessees or successors, for a term of fifteen years from the date of the signing of this modified contract by the Mayor, with the privilege of renewal of said grant for a further period of ten years, upon a fair revaluation of said franchise, right and privilege."

Second—Section 2, Third, clauses 1 and 2, is hereby amended to read as follows:



"1. Five hundred dollars (\$500) in cash within thirty (30) days after the signing of this contract.

"2. During the first five years of this contract an annual sum which shall in no case be less than two hundred and fifty dollars (\$250), and which shall be equal to two per cent. of the gross receipts of the Company, if such percentage shall exceed the sum of two hundred and fifty dollars (\$250).

"During the second five years of this contract an annual sum which shall be in no case less than seven hundred and fifty dollars (\$750), and which shall be equal to four per cent. of the gross receipts of the Company, if such percentage shall exceed the sum of seven hundred and fifty dollars (\$750).

"During the third and remaining five years of this contract an annual sum which shall in no case be less than twelve hundred dollars (\$1,200), and which shall be equal to five per cent. of the gross receipts of the Company, if such percentage shall exceed the sum of twelve hundred dollars (\$1,200).

Third—Section 2, Seventh, is hereby amended by inserting the date "May 1, 1913," in place of the date "May 1, 1911," therein contained.

Fourth—Section 2, Twenty-second, is hereby amended by substituting the sum of two thousand dollars (\$2,000) for the sum of five thousand dollars (\$5,000), as herein contained.

Section 2—The Company promises, covenants and agrees on its part and behalf to conform to and abide by and perform all the terms, conditions and requirements in the original contract, dated June 22, 1906, fixed and contained, and as modified by this amended contract.

In witness whereof, the party of the first part, by its Mayor, thereunto duly authorized by the Board of Estimate and Apportionment of said City, has caused the corporate name of said City to be hereunto signed, and the corporate seal of said City to be hereunto affixed, and the party of the second part, by its officers, thereunto duly authorized, has caused its corporate name to be hereunto signed, and its corporate seal to be hereunto affixed, the day and year first above written.

THE CITY OF NEW YORK.

By..... Mayor.

(Corporate Seal.)

Attest:

City Clerk.

SEABOARD REFRIGERATION COMPANY,

By..... President.

(Seal.)

Attest:

Secretary.

(Here add acknowledgments.)

Resolved, That the results of the inquiry made by this Board as to the modifications of the franchise or right heretofore granted and the adequacy of the compensation proposed to be paid therefor, and of the terms and conditions, including the provisions as to rates and charges, are as fixed and contained in the contract with the Seaboard Refrigeration Company, dated June 22, 1906, as modified by the foregoing form of proposed contract for the grant of such franchise or right.

Resolved, That these preambles and resolutions, including the said resolution for the modifications applied for by the Seaboard Refrigeration Company and the said form of proposed contract for the grant of such modifications, containing said results of such inquiry, after the same shall be entered in the minutes of this Board, shall be published for at least twenty (20) days immediately prior to December 13, 1907, in the CITY RECORD and at least twice during the ten days immediately prior to December 13, 1907, in the New York "Herald" and the New York "Times," two daily newspapers designated by the Mayor therefor and published in The City of New York, at the expense of the Seaboard Refrigeration Company, together with the following notice, to wit:

"Notice is hereby given that the Board of Estimate and Apportionment, before authorizing any contract for the modifications of the franchise or right heretofore granted to the Seaboard Refrigeration Company and fully set forth and described in the foregoing form of proposed contract, and before adopting any resolutions authorizing any said contract, will, at a meeting of said Board, to be held in the Old Council Chamber, City Hall, Borough of Manhattan, City of New York, on December 13, 1907, at 10.30 o'clock a. m., hold a public hearing thereon, at which citizens shall be entitled to appear and be heard."

JOSEPH HAAG, Secretary.

New York, November 1, 1907.

[On November 10, 1907, the Mayor designated the "Brooklyn Daily Eagle" and the "Brooklyn Citizen" as the daily newspapers in which the foregoing should be published in place of the papers named in the resolution.]

n19,d13

#### PUBLIC NOTICE.

PUBLIC NOTICE IS HEREBY GIVEN that at a meeting of the Board of Estimate and Apportionment held this day in the Old Council Chamber, Room 16, City Hall, Borough of Manhattan, the public hearing on the proposed form of contract consenting to certain modifications and alterations in the line of the route of the New York and Port Chester Railroad Company, in the Borough of The Bronx, as laid down in the contract dated May 31, 1906, granting a franchise to said company, which, by resolution adopted July 8, 1907, was fixed for September 20, 1907, and on that date continued to November 1, 1907, was continued to December 13, 1907.

JOSEPH HAAG, Secretary.

New York, November 1, 1907.

n4,d13

#### BOARD MEETINGS.

The Board of Estimate and Apportionment meets in the Old Council Chamber (Room 16), City Hall, every Friday, at 10.30 o'clock a. m.

JOSEPH HAAG, Secretary.

The Commissioners of the Sinking Fund meet in the Old Council Chamber (Room 16), City Hall, at call of the Mayor.

N. TAYLOR PHILLIPS, Deputy Comptroller, Secretary.

The Board of Revision of Assessments meets in the Old Council Chamber (Room 16), City Hall, every Thursday at 11 a. m., upon notice of the Chief Clerk.

HENRY J. STORRS, Chief Clerk.

The Board of City Record meets in the Old Council Chamber (Room 16), City Hall, at call of the Mayor.

PATRICK J. TRACY, Supervisor, Secretary.

#### BOARD OF ASSESSORS.

PUBLIC NOTICE IS HEREBY GIVEN TO the owner or owners of all houses and lots, improved or unimproved lands affected thereby, that the following proposed assessments have been completed and are lodged in the office of the Board of Assessors for examination by all persons interested, viz:

##### BOROUGH OF THE BRONX.

List 9335, No. 1. Regulating, grading, curbing, flagging a space four feet wide (excepting the easterly sidewalk from Crotona parkway to the entrance to Crotona Park, near East One Hundred and Seventy-fifth street, to Bronx Park, at East One Hundred and Eighty-second street), laying crosswalks, building approaches and placing fences where necessary in Southern boulevard, from Boston road at or about East One Hundred and Seventy-fourth street to the prolongation of the northerly line of St. John's College property eastwardly and crossing Southern boulevard, together with a list of awards for damages caused by a change of grade.

The limits within which it is proposed to lay the said assessments include all the several houses and lots of ground, vacant lots, pieces and parcels of land situated on—

No. 1. Both sides of the Southern boulevard, from Boston road at about East One Hundred and Seventy-fourth street to the northerly line of St. John's College property and crossing Southern boulevard and to the extent of half the block at the intersecting streets and avenues.

All persons whose interests are affected by the above named proposed assessments, and who are opposed to the same, or either of them, are requested to present their objections, in writing, to the Secretary of the Board of Assessors, No. 320 Broadway, New York, on or before December 31, 1907, at 11 a. m., at which time and place the said objections will be heard and testimony received in reference thereto.

ANTONIO ZUCCA,  
PAUL WEIMANN,  
JAMES H. KENNEDY,  
Board of Assessors.

WILLIAM H. JASPER,

Secretary,

No. 320 Broadway.

City of New York, Borough of Manhattan,

November 27, 1907.

n27,d9

PUBLIC NOTICE IS HEREBY GIVEN TO the owner or owners of all houses and lots, improved or unimproved lands affected thereby, that the following proposed assessments have been completed and are lodged in the office of the Board of Assessors for examination by all persons interested, viz:

##### BOROUGH OF BROOKLYN.

List 8922, No. 1. Regulating, grading, curbing and laying sidewalks on Coney Island avenue, from 170 feet south of Plaza at Fort Hamilton avenue to Kings Highway, together with a list of awards for damages caused by a change of grade.

The limits within which it is proposed to lay the said assessments include all the several houses and lots of ground, vacant lots, pieces and parcels of land situated on—

No. 1. Both sides of Coney Island avenue, from a point 170 feet south of the Plaza at Fort Hamilton avenue to Kings Highway and to the extent of half the block at the intersecting streets and avenues.

All persons whose interests are affected by the above named proposed assessments, and who are opposed to the same, or either of them, are requested to present their objections, in writing, to the Secretary of the Board of Assessors, No. 320 Broadway, New York, on or before December 31, 1907, at 11 a. m., at which time and place the said objections will be heard and testimony received in reference thereto.

ANTONIO ZUCCA,  
PAUL WEIMANN,  
JAMES H. KENNEDY,  
Board of Assessors.

WILLIAM H. JASPER,

Secretary,

No. 320 Broadway.

City of New York, Borough of Manhattan,

November 27, 1907.

n27,d9

PUBLIC NOTICE IS HEREBY GIVEN TO all persons claiming to have been injured by a change of grade in the regulating and grading of the following named streets to present their claims in writing to the Secretary of the Board of Assessors, No. 320 Broadway, on or before December 17, 1907, at 11 o'clock a. m., at which place and time the said Board of Assessors will receive evidence and testimony of the nature and extent of such injury. Claimants are requested to make their claims for damages upon the blank form prepared by the Board of Assessors, copies of which may be obtained upon application at the above office.

##### BOROUGH OF MANHATTAN.

List 9444. West Two Hundred and Sixteenth street, from Broadway to the Harlem river.

List 9460. Two Hundred and Thirtieth street, from Tenth avenue to the Harlem river.

##### BOROUGH OF THE BRONX.

List 9449. Kelly street, from Westchester avenue to Intervale avenue, north of One Hundred and Sixty-seventh street.

List 9450. Depot Square South, from Webster avenue to Depot Square East; Depot Square East, from Depot Square South to Depot Square North; Depot Square North, from Depot Square East to Webster avenue.

List 9451. Townsend avenue, from East One Hundred and Seventieth to East One Hundred and Seventy-sixth street.

List 9452. West One Hundred and Sixty-second street, from Ogden to Woodcrest avenue.

List 9453. East One Hundred and Thirtieth street, from a point about 100 feet west of Cypress avenue to Locust avenue.

##### BOROUGH OF QUEENS.

List 9445. Jamaica avenue, from the Boulevard to Steinway avenue.

ANTONIO ZUCCA,  
PAUL WEIMANN,  
JAMES H. KENNEDY,  
Board of Assessors.

WILLIAM H. JASPER,

Secretary,

No. 320 Broadway.

City of New York, Borough of Manhattan,

November 26, 1907.

n26,d7

PUBLIC NOTICE IS HEREBY GIVEN TO the owner or owners of all houses and lots, improved or unimproved lands affected thereby, that the following proposed assessments have been completed and are lodged in the office of the Board of Assessors for examination by all persons interested, viz:

##### BOROUGH OF BROOKLYN.

List 9465, No. 1. Sewers in Tenth avenue, from Seventy-seventh to Sixty-second street; Sixty-second street, from Tenth to Sixth avenue;

Sixth avenue, from Sixty-second street to Sixty-fourth street; Sixty-fourth street, from Sixth avenue to New York Bay; Fort Hamilton avenue, from Sixty-second street to Sixtieth street; Sixtieth street, from Fort Hamilton avenue to Fourteenth avenue; Fourteenth avenue, from Sixtieth street to Forty-first street; Sixtieth street, from Fourteenth avenue to Nineteenth avenue; Nineteenth avenue, from Sixtieth street to Fifty-second street; Nineteenth avenue, from Fifty-second street to West street, crossing West street to Bergen lane; Bergen lane, from West street to Foster avenue; Foster avenue, from Bergen lane to East Ninth street; Foster avenue, from East Ninth street to Flatbush avenue; Flatbush avenue, from Foster avenue to Bedford avenue; East Fifteenth street, from Caton avenue to Foster avenue; Caton avenue, from East Fifteenth street to Parade place; Parade place, from Caton avenue to Ocean parkway; Ocean parkway, from Parade place to St. Paul's place; Bedford avenue, between Montgomery street and Flatbush avenue; First avenue, from Bay Ridge avenue to Wake-man place; Sixtieth street, between Second avenue and Third avenue, and outlet sewers in Sixtieth street, between First avenue and Second avenue, and in First avenue, between Sixtieth street and Sixty-fourth street; Fourteenth avenue, between Thirty-ninth street and Forty-first street; Thirty-ninth street, between Fourteenth avenue and New Utrecht avenue; Fortieth street, between Fourteenth avenue and New Utrecht avenue, and outlet sewers in Tenth avenue, between Fortieth street and New Utrecht avenue, and in New Utrecht avenue, between Fifty-second street and Sixtieth street; Seeley street, between Gravesend avenue and Eighteenth street, and outlet sewers in the following streets: Eighteenth street, between Vanderbilt street and Seeley street; in Vanderbilt street, between Eighteenth street and East Fifth street; in East Fifth street, between Vanderbilt street and Ditmas avenue; Ditmas avenue, between East Fifth street and Ocean parkway; Ocean parkway, westerly side, between Ditmas avenue and Foster avenue, and also to existing sewer in that portion of Vanderbilt street, between Prospect avenue and Eighteenth street; sewer and sewer basins on Coney Island avenue where not already built, from Caton avenue, north side, to summit of Coney Island avenue, south of Avenue G; in Fifteenth avenue, between Sixtieth street and Sixty-sixth street; Franklin avenue, from Montgomery street southerly about 100 feet to existing sewer, and in Montgomery street, from Washington avenue to Franklin avenue, and outlet sewers in Washington avenue, from Montgomery street to Malbone street, and in Malbone street, north side, from Washington avenue to Bedford avenue.

The limits within which it is proposed to lay the said assessments include all the several houses and lots of ground, vacant lots, pieces and parcels of land situated on—

No. 1. Both sides of Bay Ridge parkway, from Sixty-seventh street to First avenue; both sides of Narrows avenue, from Lattin place to Sixtieth street, and from Bay Ridge avenue to Sixty-eighth street; both sides of First avenue, from Bay Ridge avenue to Fifty-seventh street; both sides of Second avenue, from Sixty-eighth street to Sixtieth street; northerly side of Second avenue, from Sixtieth street to Fifty-eighth street; both sides of Third avenue, from Bay Ridge avenue to Sixtieth street; both sides of Fourth avenue, from Ovington avenue to Sixtieth street; both sides of Fifth avenue, from Ovington avenue to Sixtieth street; both sides of Sixth avenue, from Seventy-third street to Fifty-eighth street; both sides of Seventh avenue, from Seventy-fourth street to Forty-first street; both sides of Eighth avenue, from Seventy-third street to Thirty-seventh street; both sides of Ninth avenue, from Bay Ridge avenue to Thirty-seventh street; Tenth avenue, from Fifty-third street to Thirty-seventh street, and from Greenwood Cemetery to Fifteenth street; Tenth avenue, from Seventy-seventh street to Fort Hamilton parkway; both sides of Fort Hamilton parkway, from Seventy-fourth street to Ocean parkway; both sides of Parkside avenue, from Ocean parkway to Flatbush avenue; both sides of Robinson avenue, from Flatbush avenue to New York avenue; both sides of Eleventh avenue, from Nineteenth to Fifteenth street; both sides of Terrace place, from Gravesend avenue to Ocean parkway; both sides of Seeley street, from Gravesend avenue to Coney Island avenue; both sides of Vanderbilt street, from Gravesend avenue to Coney Island avenue; both sides of Greenwood avenue, from Gravesend avenue to Coney Island avenue; both sides of Union street, running about 575 feet east of Classon avenue; both sides of President street, from Washington avenue to Bedford avenue; both sides of Carroll street, from Washington avenue to Brooklyn avenue; both sides of Crown street, from Washington avenue to Brooklyn avenue; both sides of Montgomery street, from Washington avenue to Brooklyn avenue; both sides of Willink street, from University Park (East Side lands) to Franklin avenue; both sides of Washington place, from Flatbush avenue to Franklin avenue; both sides of Sullivan street, from Washington avenue to Nostrand avenue; both sides of Malbone street, from Flatbush avenue to Brooklyn avenue; both sides of Sterling street, from Washington avenue to Nostrand avenue; both sides of Lefferts avenue, from Flatbush avenue to Nostrand avenue; both sides of Lincoln road, from Ocean avenue to Nostrand avenue; both sides of Maple street, from Flatbush avenue to Nostrand avenue; both sides of Midwood street, from Flatbush avenue to Nostrand avenue; both sides of Rutland road, from Flatbush avenue to Nostrand avenue; both sides of Fennimore street, from Ocean avenue to Nostrand avenue; both sides of Hawthorne street, from Flatbush avenue to New West street; both sides of Winthrop street, from Flatbush avenue to New York avenue; both sides of Eleventh avenue, from Seventy-seventh street to Forty-third street; both sides of Twelfth avenue, from Sixty-seventh street to West street; both sides of Minna street, from Thirty-sixth street to West street; both sides of Thirteenth avenue, from Sixty-third street to Thirty-sixth street; both sides of Tehama street, from Thirty-sixth street to West street; both sides of Clara street, from West street to Thirty-sixth street; both sides of Louisa street, from Thirty-sixth street to West street; both sides of Story street, from Thirty-sixth street to West street; both sides of Fourteenth avenue, from Sixty-seventh street to East Second street; both sides of Fifteenth avenue, from New Utrecht avenue to West street; both sides of Sixteenth avenue, from Sixty-sixth street to West street; both sides of Seventeenth avenue, from Sixty-second street to West street; both sides of Eighteenth avenue, from Sixty-second street to West street; both sides of Nineteenth avenue, from Sixty-second street to West street; both sides of Twentieth avenue, from Sixty-second street to West street; both sides of Twenty-first avenue, from Sixty-second street to West street; both sides of Bay parkway (Twenty-second avenue), from Sixty-fifth street to Fifty-eighth street; both sides of Avenue K, from Fifty-eighth street to Ocean parkway; both sides of Twenty-third avenue, from Sixty-fifth street to West street; both sides of Avenue L, from Gravesend avenue to Ocean parkway; both sides of Avenue M, from West street to Ocean parkway; both sides of Caton avenue, from Coney Island avenue to Flatbush avenue, and from Gravesend avenue to Ocean parkway; both sides of Caton place, from Ocean parkway to Coney

Island avenue; both sides of Henry street, from Ocean parkway to East Eighth street; both sides of Johnson street, from Ocean parkway to Coney Island avenue; both sides of Albermarle road, from West street to Ocean parkway and from Coney Island avenue to Flatbush avenue; both sides of Church avenue, from Ocean parkway to Brooklyn avenue; both sides of Church lane, from West street to Ocean parkway; both sides of Beverley road, from East Second street to East Thirty-seventh street; both sides of Avenue C, from West street to Coney Island avenue; both sides of Cortelyou road (Avenue D), from West street to Coney Island avenue; both sides of Cortelyou road, from Coney Island avenue to Flatbush avenue; both sides of Ditmas avenue, from West street to Coney Island avenue, and from Coney Island avenue to Flatbush avenue; both sides of Dorchester road, from Coney Island avenue to Flatbush avenue; both sides of Avenue D, from Flatbush avenue to Bedford avenue; both sides of Avenue F, from West street to Ditmas avenue; both sides of Webster avenue, from Forty-seventh street to Coney Island avenue; both sides of Lawrence avenue, from Forty-seventh street to First street; both sides of Washington avenue, from West street to First street; both sides of Johnson avenue, from First street to Coney Island avenue; both sides of Foster avenue, from Gravesend avenue to Flatbush avenue; both sides of Newkirk avenue, from Coney Island avenue to Twenty-sixth street; both sides of Turner place, from East Eighth street to East Eleventh street; both sides of Hinckley place, from East Eighth street to East Eleventh street; both sides of Lewis place, from Coney Island avenue to East Eleventh street; both sides of Matthew place, from Coney Island avenue to East Eleventh street; both sides of Slocum place, from Coney Island avenue to Westminster road; both sides of Dekoven place, from Rugby road to a point about 335 feet easterly; both sides of Regent place, from East Nineteenth street to Flatbush avenue; both sides of Tennis court, from East Eighteenth street to Ocean avenue; both sides of St. Paul's court, from St. Paul's place to Ocean avenue; both sides of Crook avenue, from Parade avenue to Ocean avenue; both sides of Woodruff avenue, from Parade avenue to Flatbush avenue; both sides of Woodruff avenue (Clarkson street), from Flatbush avenue to New York avenue; both sides of Lenox road, from Flatbush avenue to Brooklyn avenue; both sides of Linden avenue, from Flatbush avenue to Brooklyn avenue; both sides of Martense street, from Flatbush avenue to New York avenue; both sides of Erasmus street, from Bedford avenue to Nostrand avenue; both sides of Snyder avenue, from Flatbush avenue to Brooklyn avenue; both sides of Butler street, from Flatbush avenue to Nostrand avenue; both sides of Tilden street, from Flatbush avenue to East Thirty-seventh street; both sides of Canarsie lane, from Flatbush avenue to East Thirty-seventh street; both sides of Clarendon road, from Flatbush avenue to East Thirty-seventh street; both sides of Vandever place, from Flatbush avenue to East Twenty-third street; both sides of Seventy-seventh street, from Tenth avenue to Eleventh avenue; both sides of Seventy-sixth street, from Fort Hamilton parkway to Eleventh avenue; both sides of Seventy-fifth street, from a point about 205 feet south of Fort Hamilton avenue to Eleventh avenue; both sides of Seventy-fourth street, from Fort Hamilton parkway to Eleventh avenue; both sides of Seventy-third street, from Sixth avenue to Eleventh avenue; both sides of Seventy-second street, from Sixth avenue to Eleventh avenue; both sides of Seventy-first street, from Sixth avenue to Eleventh avenue; both sides of Seventieth street, from Seventh avenue to Eleventh avenue; both sides of Ovington avenue, from Fourth avenue to Seventh avenue; both sides of Sixty-ninth street, from Seventh avenue to Eleventh avenue; both sides of Bay Ridge avenue, from Fourth avenue to Seventh avenue; both sides of Sixty-eighth street, from Narrows avenue to Eleventh avenue; both sides of Sixty-seventh street, from a point about 340 feet south of Bay Ridge parkway to Twelfth avenue, and from Thirteenth avenue to Fifteenth avenue; both sides of Senator street, from First avenue to Fifth avenue; both sides of Sixty-sixth street, from New York Bay to Twelfth avenue, and from Thirteenth avenue to Fifteenth avenue; both sides of Sedgwick place, from Sixty-seventh street to Wakeman street; both sides of Bergen place, from Sixty-seventh street to Wakeman street; both sides of Lattin place, from Narrows avenue to First avenue; both sides of Wakeman street, from First avenue to Third avenue; both sides of Sixty-fifth street, from New York Bay to Twelfth avenue, and from Thirteenth avenue to Sixteenth avenue; both sides of Sixty-fourth street, from New York Bay to Twelfth avenue, and from Thirteenth avenue to Sixteenth avenue; both sides of Sixty-third street, from New York Bay to Twelfth avenue, and from Thirteenth avenue to Sixteenth avenue; both sides of Sixty-second street, from New York Bay to Twelfth avenue, and from Thirteenth avenue to Sixteenth avenue; both sides of Sixty-first street, from New York Bay to Twelfth avenue, and from Thirteenth avenue to Sixteenth avenue; both sides of Sixtieth street, from New York Bay to Gravesend avenue; both sides of Fifty-ninth street, from First avenue to Second avenue, and from a point about 300 feet northerly from Sixth avenue to Twenty-third avenue; both sides of Fifty-eighth street, from First avenue to Second avenue, and from Sixth avenue to Bay parkway (Twenty-second avenue); both sides of Fifty-seventh street, from Sixth avenue to Avenue K; both sides of Fifty-sixth street, from Sixth avenue to Eighteenth avenue; both sides of Fifty-fifth street, from Sixth avenue to Nineteenth avenue; both sides of Fifty-fourth street, from Sixth avenue to Twenty-first avenue; both sides of Fifty-third street, from Sixth avenue to Twenty-first avenue; both sides of Fifty-second street, from Sixth avenue to West street; both sides of Fifty-first street, from Sixth avenue to West street; both sides of Fiftieth street, from Sixth avenue to Twentieth avenue; both sides of Forty-ninth street, from Sixth avenue to West street; both sides of Forty-eighth street, from Sixth avenue to West street; both sides of Forty-seventh street, from Sixth avenue to Gravesend avenue; both sides of Forty-sixth street, from Sixth avenue to Eighteenth avenue; both sides of Forty-fifth street, from Sixth avenue to West street; both sides of Forty-fourth street, from Sixth avenue to West street; both sides of Forty-third street, from Sixth avenue to West street; both sides of Forty-second street, from a point about 350 feet northerly from Seventh avenue to West street; both sides of Forty-first street, from Seventh avenue to West street; both sides of Fortieth street, from Seventh avenue to West street; both sides of Thirty-ninth street, from Seventh avenue to West street; both sides of Thirty-eighth street, from Seventh avenue to West street; both sides of Thirty-seventh street, from Fort Hamilton parkway to West street; both sides of Thirty-sixth street, from Fort Hamilton parkway to West street; both sides of Chester avenue, from Fort Hamilton parkway to Story street; both sides of New Utrecht avenue, from Sixty-sixth street to Thirty-eighth street; both sides of West street, from



Fort Hamilton parkway to Avenue N; both sides of Gravesend avenue, from Fort Hamilton parkway to Avenue N; east side of Gravesend avenue, from Fort Hamilton parkway to Tenth avenue; both sides of East Second street, from Vanderbilt street to Eighteenth avenue; both sides of East Second street, from Foster avenue to Avenue N; both sides of East Third street, from Vanderbilt street to Avenue N; both sides of East Fourth street, from Vanderbilt street to Avenue N; both sides of Elmwood avenue, from Gravesend avenue to Ocean parkway; both sides of East Fifth street, from Vanderbilt street to a point about 450 feet south of Avenue M; both sides of Ocean parkway, from Prospect Park to a point about 250 feet south of Avenue H; west side of Ocean parkway, from Foster avenue to Avenue M; both sides of Montgomery street, from East Seventh street to Coney Island avenue; both sides of East Seventh street, from Henry street to Avenue F; both sides of East Eighth street, from Ocean parkway to Eighteenth avenue, and from Foster avenue to a point about 150 feet southerly therefrom; both sides of East Ninth street, from Beverly road to Eighteenth avenue, and from Foster avenue to a point about 348 feet southerly therefrom; both sides of Coney Island avenue, from Prospect Park to a point about 520 feet south from Foster avenue; west side of Coney Island avenue, from Fifteenth street to Ocean parkway; both sides of East Tenth street, from Coney Island avenue to Church avenue, and from Foster avenue to a point about 613 feet southerly therefrom; both sides of East Eleventh street, from Coney Island avenue to Ditmas avenue; both sides of Westminister road, from Coney Island avenue to Avenue G; both sides of Argyle road, from Coney Island avenue to Avenue G; both sides of Rugby road, from Coney Island avenue to Avenue G; both sides of Marlborough road, from Coney Island avenue to Foster avenue; both sides of Parkside avenue, from Parkside avenue to Coney Island avenue; both sides of St. Paul's place, from Parkside avenue to Church avenue; both sides of East Eleventh street, from Coney Island avenue to Foster avenue; both sides of Nineteenth street, from Church avenue to Foster avenue; both sides of Ocean avenue, from Parkside avenue to Foster avenue; both sides of East Twenty-first street (Kenmore place), from Flatbush avenue to Foster avenue; both sides of East Twenty-second street, from Flatbush avenue to Foster avenue, and from Clarendon road to Butler street; both sides of East Twenty-third street, from Ditmas avenue to Foster avenue, and from Flatbush avenue to Tilden avenue; both sides of East Twenty-fourth street, from Newkirk avenue to Foster avenue; both sides of Bedford avenue, from Flatbush avenue to President street; both sides of Franklin avenue, from Malbone street to Union street; both sides of Cedar place, from Sullivan street to Montgomery street; both sides of Pine place, from Sullivan street to Montgomery street; both sides of Stoddard place, from Sullivan street to Montgomery street; both sides of Ludlam place, from Sullivan street to Montgomery street; both sides of Flatbush avenue, from Malbone street to Foster avenue; both sides of Johnson place, from Snyder avenue to Church avenue; both sides of Snyder avenue, from Church avenue to Erasmus street; both sides of Loti street, from Beverly road to Butler street; both sides of East Twenty-fifth street, from Foster avenue to Beverly road; both sides of East Twenty-sixth street, from Foster avenue to Newkirk avenue, and from Clarendon road to Beverly road; both sides of Prospect street, from Beverly road to Church avenue; both sides of Rogers avenue, from Clarendon road to President street; both sides of East Twenty-eighth street, from Clarendon road to Butler street; both sides of East Twenty-ninth street, from Clarendon road to Butler street; both sides of Nostrand avenue, from Clarendon road to President street; both sides of East Thirty-first street, from Clarendon road to Church avenue; both sides of New York avenue, from Clarendon road to Hawthorne street, and from Malbone street to President street; both sides of East Thirty-fourth street, from Clarendon road to a point about 200 feet northerly from Lenox road; both sides of East Thirty-fifth street, from Clarendon road to a point about 270 feet northerly from Lenox road; both sides of Brooklyn avenue, from Clarendon road to a point about 302 feet northerly from Lenox road, and from Malbone street to President street; both sides of Twentieth street, from Vanderbilt street to Ninth avenue; both sides of Nineteenth street, from Vanderbilt street to Ninth avenue; both sides of Eighteenth street, from Vanderbilt street to Ninth avenue; both sides of Seventeenth street, from Ninth avenue to Eleventh avenue; both sides of Prospect avenue, from Ocean parkway to Ninth avenue; both sides of East Seventh street, from Ocean parkway to Reeve place; both sides of Sherman street, from Ocean parkway to Tenth avenue; both sides of Windsor place, from Coney Island avenue to Ninth avenue; both sides of Sixteenth street, from Coney Island avenue to Ninth avenue; both sides of Bergen lane, from Washington avenue to Gravesend avenue; west side of Fifteenth street, from Ninth avenue to Eleventh avenue; both sides of Reeve place, from Prospect avenue to Coney Island avenue, the East Side Lands, the Paradise Grounds, Greenwood and Washington Cemeteries, being all the lands lying within Sewerage District, "Map T," the detailed maps of which are on file in the office of the Board of Assessors.

All persons whose interests are affected by the above-named proposed assessments, and who are opposed to the same, or either of them, are requested to present their objections, in writing, to the Secretary of the Board of Assessors, No. 320 Broadway, New York, on or before December 23, 1907, at 11 a. m., at which time and place the said objections will be heard and testimony received in reference thereto.

## SPECIAL NOTICE.

The Board will require all objections to be filed on or before the date mentioned, and will proceed with hearings on that day, and from day to day thereafter.

ANTONIO ZUCCA,  
PAUL WEIMANN,  
JAMES H. KENNEDY,  
Board of Assessors.

WILLIAM H. JASPER,  
Secretary,  
No. 320 Broadway,  
City of New York, Borough of Manhattan, November 22, 1907.

**PUBLIC NOTICE IS HEREBY GIVEN TO** the owner or owners of all houses and lots, improved or unimproved lands affected thereby, that the following proposed assessments have been completed and are lodged in the office of the Board of Assessors for examination by all persons interested, viz.:

## BOROUGH OF MANHATTAN.

List 9399, No. 1. Regulating, grading, curbing and flagging West One Hundred and Sixty-ninth street, from Broadway to Fort Washington avenue, together with a list of awards for damages, caused by a change of grade.

## BOROUGH OF THE BRONX.

List 9333, No. 2. Regulating, grading, curbing, flagging, laying crosswalks, building approaches and placing fences in East One Hundred and Seventy-sixth street, from Arthur avenue to the Southern boulevard, together with a list of awards for damages, caused by a change of grade.

List 9360, No. 3. Regulating, grading, curbing, flagging, laying crosswalks, building approaches and placing fences in Vyse avenue, from One Hundred and Seventy-second street to One Hundred and Eighty-second street, together with a list of awards for damages, caused by a change of grade.

List 9362, No. 4. Regulating, grading, curbing, flagging, laying crosswalks, building approaches and placing fences in Heath avenue, from Bailey avenue to Fort Independence street.

The limits within which it is proposed to lay the said assessments include all the several houses and lots of ground, vacant lots, pieces and parcels of land situated on—

No. 1. Both sides of One Hundred and Sixty-ninth street, from Broadway to Fort Washington avenue, and to the extent of half the block at the intersecting and terminating streets and avenues.

No. 2. Both sides of One Hundred and Seventy-sixth street, from Arthur avenue to the Southern boulevard, and to the extent of half the block at the intersecting streets and avenues.

No. 3. Both sides of Vyse avenue, from One Hundred and Seventy-second street to One Hundred and Eighty-second street, and to the extent of half the block at the intersecting and terminating streets and avenues.

No. 4. Both sides of Heath avenue, from Bailey avenue to Fort Independence street, and to the extent of half the block at the intersecting streets and avenues.

All persons whose interests are affected by the above named proposed assessments, and who are opposed to the same, or either of them, are requested to present their objections, in writing, to the Secretary of the Board of Assessors, No. 320 Broadway, New York, on or before December 24, 1907, at 11 a. m., at which time and place the said objections will be heard and testimony received in reference thereto.

ANTONIO ZUCCA,  
PAUL WEIMANN,  
JAMES H. KENNEDY,  
Board of Assessors.

WILLIAM H. JASPER,  
Secretary,  
No. 320 Broadway,  
City of New York, Borough of Manhattan,  
November 21, 1907.

## DEPARTMENT OF HEALTH.

DEPARTMENT OF HEALTH, CORNER OF FIFTY-FIFTH STREET AND SIXTH AVENUE, BOROUGH OF MANHATTAN, CITY OF NEW YORK.

**AT A MEETING OF THE BOARD OF** Health of the Department of Health held November 20, 1907, the following resolution was adopted:

Resolved, That section 5 of the Sanitary Code of the Department of Health be and the same is hereby amended so as to read as follows:

Section 5. The word "physician" shall include every person who practices about the cure of the sick or injured or who has the charge of or professionally prescribes for any person sick, injured or diseased, and the phrase "infectious disease" shall be held to include all diseases of an infectious, contagious or pestilential nature.

A true copy.

EUGENE W. SCHEFFER,  
Secretary,  
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DEPARTMENT OF HEALTH, SOUTHWEST CORNER OF FIFTY-FIFTH STREET AND SIXTH AVENUE, BOROUGH OF MANHATTAN, CITY OF NEW YORK.

**SEALED BIDS OR ESTIMATES WILL BE** received by the Board of Health of the Department of Health until 9.45 a. m., on

WEDNESDAY, DECEMBER 4, 1907.

**FOR FURNISHING AND DELIVERING MEAT, AS REQUIRED, TO THE RIVERSIDE HOSPITAL, AT NORTH BROTHER ISLAND, BOROUGH OF THE BRONX, AND THE KINGSTON AVENUE HOSPITAL, AT KINGSTON AVENUE AND FENIMORE STREET, BOROUGH OF BROOKLYN, CITY OF NEW YORK, DURING THE YEAR 1907.**

The time for the delivery of the supplies and the performance of the contract is during the year 1907.

The amount of security required is fifty per cent. (50%) of the amount of the bid.

Bids will be compared and the contract awarded to the lowest bidder for each class, as indicated by the specifications.

Blank forms and further information may be obtained at the office of the Chief Clerk of the Department of Health, southwest corner of Fifty-fifth street and Sixth avenue, Borough of Manhattan.

THOMAS DARLINGTON, M. D.,  
President;  
ALVAH H. DOTY, M. D.,  
THEODORE A. BINGHAM,  
Board of Health.

Dated November 22, 1907.  
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**See General Instructions to Bidders on the last page, last column, of the "City Record."**

## DEPARTMENT OF PARKS.

OFFICE OF THE DEPARTMENT OF PARKS, ZBROWSKI MANSION, CLAREMONT PARK, BOROUGH OF THE BRONX.

**SEALED BIDS WILL BE RECEIVED BY** the Park Commissioner at the above office of the Department of Parks until 12 o'clock m. on

FRIDAY, DECEMBER 6, 1907.

**FOR THE SOLE PRIVILEGE OF SELLING REFRESHMENTS, SPIRITUOUS LIQUORS EXCEPTED, AND RENTING BATHING SUITS AT BATH HOUSES AT ORCHARD BEACH, PELHAM BAY PARK, FOR ONE YEAR.**

**FOR THE RENTAL OF BUILDING AND PRIVILEGE OF SELLING REFRESHMENTS, SPIRITUOUS LIQUORS EXCEPTED, THEREIN IN ST. MARY'S PARK, FOR ONE YEAR.**

Each of the above places to be bid for separately.

No bids will be considered unless accompanied by a certified check or money to the amount of one-quarter of the sum bid for the rent and privilege per year.

The bids will be compared and the privilege will be awarded to the highest responsible bidder.

The Commissioner reserves the right to reject any or all bids.

Form of proposal and full information as to bidding can be obtained at the office of the Department of Parks, Zbrowski Mansion, Claremont Park, New York City.

JOSEPH I. BERRY,  
Commissioner of Parks, Borough  
of The Bronx.

**See General Instructions to Bidders on the last page, last column, of the "City Record."**

## DEPARTMENT OF FINANCE.

## NOTICE TO PROPERTY OWNERS.

NOTICES OF ASSESSMENTS FOR OPENING STREETS AND PARKS.

**IN PURSUANCE OF SECTION 1005 OF** the Greater New York Charter, the Comptroller of the City of New York hereby gives public notice of the confirmation by the Supreme Court, and the entering in the Bureau for the Collection of Assessments and Arrears, of assessments for OPENING AND ACQUIRING TITLE to the following-named avenues in the BOROUGH OF BROOKLYN:

TWENTY-NINTH, THIRTIETH, THIRTY-FIRST AND THIRTY-SECOND WARDS, SECTION 16.

**FOSTER AVENUE—OPENING,** from westerly line of Flatbush avenue to easterly line of Coney Island avenue. Confirmed June 26, 1906; entered November 27, 1907. Area of assessment includes all those lands, tenements and hereditaments and premises situate, lying and being in the Borough of Brooklyn, in The City of New York, which, taken together, are bounded and described as follows, viz.:

Commencing at a point on the westerly side of Flatbush avenue where the said westerly side of Flatbush avenue is intersected by a line drawn parallel with the northerly side of Foster avenue and distant 225 feet northerly therefrom; running thence westerly along said line drawn parallel with the northerly side of Foster avenue and distant 225 feet northerly therefrom to the easterly side of Coney Island avenue; running thence southerly along the easterly side of Coney Island avenue to a point where the said easterly side of Coney Island avenue is intersected by a line drawn parallel with the southerly side of Foster avenue and distant 225 feet southerly therefrom; running thence easterly along said line drawn parallel with the southerly side of Foster avenue and distant 225 feet southerly therefrom to the westerly side of Flatbush avenue; and running thence northerly along the westerly side of Flatbush avenue to the point or place of beginning.

THIRTIETH WARD, SECTION 17.

**FOURTEENTH AVENUE—OPENING,** from Sixty-fifth street to Sixty-eighth street. Confirmed July 31, 1907; entered November 27, 1907. Area of assessment includes all those lands, tenements and hereditaments and premises situate, lying and being in the Borough of Brooklyn, in The City of New York, which, taken together, are bounded and described as follows, viz.:

Beginning at a point on the southerly side of Sixty-fifth street and distant 100 feet easterly of the easterly side of Fourteenth avenue; running thence southerly and parallel with Fourteenth avenue to the northerly side of Sixty-eighth street; running thence westerly along the northerly side of Sixty-eighth street to a point distant 100 feet westerly of the westerly side of Fourteenth avenue; running thence northerly and parallel with Fourteenth avenue to the southerly side of Sixty-fifth street; running thence easterly and along the southerly side of Sixty-fifth street to the point or place of beginning.

The above entitled assessments were entered on the day hereinafter given in the Record of Titles of Assessments, kept in the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, and unless the amount assessed for benefit on any person or property shall be paid within sixty days after the date of entry of the assessments, interest will be collected thereon, as provided in section 1006 of the Greater New York Charter.

Said section provides, in part, that "If any such assessment shall remain unpaid for the period of sixty days after the date of entry thereof in the said Record of Titles of Assessments, it shall be the duty of the officer authorized to collect and receive the amount of such assessment to charge, collect and receive interest thereon at the rate of seven per centum per annum, to be calculated to the date of payment from the date when such assessment became a lien, as provided by section 159 of this act."

Section 159 of this act provides: "An assessment shall become a lien upon the real estate affected thereby ten days after its entry in the said record."

The above assessments are payable to the Collector of Assessments and Arrears at the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, in the Mechanics Bank Building, Court and Montague streets, Borough of Brooklyn, between the hours of 9 a. m. and 2 p. m., and on Saturdays from 9 a. m. until 12 m., and all payments made thereon on or before January 27, 1907, will be exempt from interest, as above provided, and after that date will be subject to a charge of interest at the rate of seven per centum per annum from the date when such assessments became liens to the date of payment.

HERMAN A. METZ,  
Comptroller.

City of New York, Department of Finance,  
Comptroller's Office, November 27, 1907.

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## NOTICE TO PROPERTY OWNERS.

**IN PURSUANCE OF SECTION 1018 OF** the Greater New York Charter, the Comptroller of the City of New York hereby gives public notice to all persons, owners of property, affected by the following assessments for LOCAL IMPROVEMENTS in the EIGHTH WARD OF THE BOROUGH OF BROOKLYN, pursuant to the provisions of chapter 365 of the Laws of 1889, and the act amendatory thereof, and chapter 378 of the Laws of 1897, and chapter 466 of the Laws of 1901 amendatory thereof, to wit:

**FORTY-FIRST STREET—GRADING AND PAVING,** from Second avenue to Third avenue. Area of assessment: Both sides of Forty-first street, between Second and Third avenues, and to the extent of one-half the blocks on the terminating avenues.

**FORTY-FIRST STREET—GRADING AND PAVING,** from Fifth avenue to Sixth avenue. Area of assessment: Both sides of Forty-first street, between Fifth and Sixth avenues, and to the extent of one-half the blocks on the terminating avenues.

**FORTY-THIRD STREET—GRADING,** from Fifth avenue to the old city line (excepting from Fifth avenue to Seventh avenue). Area of assessment: Both sides of Forty-third street, from Seventh avenue to the old city line, and to the extent of one-half the blocks on Seventh and Eighth avenues.

**FORTY-FOURTH STREET—GRADING AND PAVING,** from Second to Third avenue. Area of assessment: Both sides of Forty-fourth street, between Second and Third avenues, and to the extent of one-half the blocks on the terminating avenues.

**FORTY-FOURTH STREET—GRADING AND PAVING,** from Fifth avenue to Sixth avenue. Area of assessment: Both sides of Forty-fourth street, between Fifth and Sixth avenues, and to the extent of one-half the blocks on the terminating avenues.

**FORTY-FIFTH STREET—GRADING AND PAVING,** from Second to Third avenue. Area of assessment: Both sides of Forty-fifth street, between Second and Third avenues, and to the extent of one-half the blocks on the terminating avenues.

**FORTY-SIXTH STREET—GRADING AND PAVING,** from Second to Third avenue. Area of assessment: Both sides of Forty-sixth street, between Second and Third avenues, and to the extent of one-half the blocks on the terminating avenues.

**FORTY-SIXTH STREET—GRADING AND PAVING,** from Fifth avenue to Sixth avenue. Area of assessment: Both sides of Forty-sixth street, between Fifth and Sixth avenues, and to the extent of one-half the blocks on the terminating avenues.

**FORTY-SEVENTH STREET—GRADING AND PAVING,** from Second to Third avenue. Area of assessment: Both sides of Forty-seventh street, between Second and Third avenues, and to the extent of one-half the blocks on the terminating avenues.

**FORTY-EIGHTH STREET—GRADING AND PAVING,** from Fifth avenue to Sixth avenue. Area of assessment: Both sides of Forty-eighth street, between Fifth and Sixth avenues, and to the extent of one-half the blocks on the terminating avenues; also Lots Nos. 22 to 33, inclusive, of Block 225.

**FORTY-EIGHTH STREET—GRADING,** from Fifth avenue to old city line. Area of assessment: Both sides of Forty-eighth street, between Fifth avenue and the old city line, and to the extent of one-half the blocks on the intersecting and terminating avenues; also Lots Nos. 23 to 33, inclusive, of Block 225; also Lots Nos. 9 to 12, inclusive, of Block 229; also Lot No. 39, of Block 249.

**FIFTIETH STREET—GRADING AND PAVING,** from Second to Third avenue. Area of assessment: Both sides of Fiftieth street, between Second and Third avenues, and to the extent of one-half the blocks on the terminating avenues.

**FIFTY-SECOND STREET—GRADING AND PAVING,** from Fifth avenue to Sixth avenue. Area of assessment: Both sides of Fifty-second street, between Fifth and Sixth avenues, and to the extent of one-half the blocks on the terminating avenues; also Lots Nos. 104 and 111 of Block 222.

**FIFTY-THIRD STREET—GRADING AND PAVING,** from Fifth avenue to Sixth avenue. Area of assessment: Both sides of Fifty-third street, between Fifth and Sixth avenues, and to the extent of one-half the blocks on the terminating avenues.

**FIFTY-FOURTH STREET—GRADING AND PAVING,** from Second to Third avenue. Area of assessment: Both sides of Fifty-fourth street, between Second and Third avenues, and to the extent of one-half the blocks on the terminating avenues.

**FIFTY-FIFTH STREET—GRADING AND PAVING,** from Fifth avenue to Sixth avenue. Area of assessment: Both sides of Fifty-fifth street, between Fifth and Sixth avenues, and to the extent of one-half the blocks on the terminating avenues.

**FIFTY-SEVENTH STREET—GRADING AND PAVING,** between First avenue and Second avenue. Area of assessment: Both sides of Fifty-seventh street, between First and Second avenues, and to the extent of one-half the blocks on the terminating avenues.

**FIFTY-SEVENTH STREET—GRADING AND PAVING,** from Second to Third avenue. Area of assessment: Both sides of Fifty-seventh street, between Second and Third avenues, and to the extent of one-half the blocks on the terminating avenues.

**FIFTY-SEVENTH STREET—GRADING AND PAVING,** from Fifth to Sixth avenue. Area of assessment: Both sides of Fifty-seventh street, between Fifth and Sixth avenues, and to the extent of one-half the blocks on the terminating avenues.

**SIXTH AVENUE—GRADING AND PAVING,** from Thirty-ninth street to Forty-first street. Area of assessment: Both sides of Sixth avenue, between Thirty-ninth and Forty-first streets, and to the extent of one-half the blocks on the intersecting and terminating streets.

**SIXTH AVENUE—GRADING,** from Thirty-ninth street to the old city line. Area of assessment: Both sides of Sixth avenue, from Thirty-ninth street to the old city line, and to the extent of one-half the blocks on the following named intersecting streets, viz.: Fortieth, Forty-first, Forty-fourth to Forty-eighth, inclusive, Fiftieth to Fifty-ninth, inclusive.

**SIXTH AVENUE—GRADING AND PAVING,** from Forty-fourth street to old city line. Area of assessment: Both sides of Sixth avenue, from Forty-fourth street to old city line, and to the extent of one-half the blocks on the intersecting streets, excepting Forty-ninth street.

**SEVENTH AVENUE—GRADING,** from Thirty-ninth street to old city line. Area of assessment: Both sides of Seventh avenue, from Thirty-ninth street to the old city line, and to the extent of one-half the blocks on the intersecting streets west of Seventh avenue; also to the same extent on the intersecting streets between Thirty-ninth and Fifty-second streets east of Seventh avenue; also on the intersecting streets from Fifty-second to Fifty-sixth street, between Seventh avenue and the city line.

—that the same were confirmed by the Supreme Court, Kings County, on November 9, 1900, and that the Board of Assessors of The City of New York thereafter levied and assessed the "Eighth Installment" thereon, and transmitted the same to the Comptroller on November 12, 1907, for entry and collection.

That the "Eighth Installment" in each case is now due and payable, and unless the amount thereof assessed for benefit on any person or property shall be paid within sixty days after December 1, 1907, interest shall be charged, collected and received thereon at the rate of seven per cent. per annum, to be calculated from December 1, 1907, to the date of payment.

The owner of any parcel of land assessed for any of the foregoing assessments may, pursuant to the provisions of chapter 365, Laws of 1889, as amended by chapter 452, Laws of 1899; chapter 520, Laws of 1895, and chapter 736, Laws of 1896, at any time after the first installment be-



comes due and payable, pay all the installments not levied of said assessment, and the same will be thereupon canceled.

The above assessments are payable to the Collector of Assessments and Arrears, at the office of the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, in the Mechanics' Bank Building, Court and Montague streets, Borough of Brooklyn, between the hours of 9 a. m. and 2 p. m., and on Saturdays from 9 a. m. to 12 m., and all payments made thereon on or before January 30, 1908, will be exempt from interest as above provided.

HERMAN A. METZ,  
Comptroller.

City of New York, Department of Finance,  
Comptroller's Office, November 21, 1907.  
n30,d13

#### NOTICE TO PROPERTY OWNERS.

IN PURSUANCE OF SECTION 1018 OF THE Greater New York Charter, the Comptroller of the City of New York hereby gives public notice to all persons, owners of property, affected by the following assessments for LOCAL IMPROVEMENTS in the BOROUGH OF RICHMOND:

##### FIRST WARD.

**RICHMOND TERRACE—CONSTRUCTING AN INTERCEPTING AND COMBINED SEWER,** from Nicholas street to Westervelt avenue. Area of assessment: Blocks bounded by Westervelt avenue, Richmond terrace, Hamilton avenue and St. Mark's place.

—that the same was confirmed by the Board of Assessors November 26, 1907, and entered on November 26, 1907, in the Record of Titles of Assessments, kept in the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, and unless the amount assessed for benefit on any person or property shall be paid within sixty days after the date of said entry of the assessment, interest will be collected thereon, as provided in section 1019 of said Greater New York Charter.

Said section provides that "If any such assessment shall remain unpaid for the period of sixty days after the date of entry thereof on the said Record of Titles of Assessments, it shall be the duty of the officer authorized to collect and receive the amount of such assessment to charge, collect and receive interest thereon at the rate of seven per centum per annum, to be calculated to the date of payment from the date when such assessment became a lien, as provided by section 159 of this act."

Section 159 of this act provides \* \* \* "An assessment shall become a lien upon the real estate affected thereby ten days after its entry in the said record."

The above assessment is payable to the Collector of Assessments and Arrears at the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, at Borough Hall, St. George, Borough of Richmond, between the hours of 9 a. m. and 2 p. m., and on Saturdays from 9 a. m. to 12 m., and all payments made thereon on or before January 25, 1908, will be exempt from interest, as above provided, and after that date will be subject to a charge of interest at the rate of seven per centum per annum from the date when above assessment became a lien to the date of payment.

HERMAN A. METZ,  
Comptroller.

City of New York, Department of Finance,  
Comptroller's Office, November 26, 1907.  
n29,d12

#### NOTICE TO PROPERTY OWNERS.

IN PURSUANCE OF SECTION 1018 OF THE Greater New York Charter, the Comptroller of the City of New York hereby gives public notice to all persons, owners of property, affected by the following assessments for LOCAL IMPROVEMENTS in the BOROUGH OF THE BRONX:

##### TWENTY-FOURTH WARD, SECTION 11.

**VYSE AVENUE—SEWER,** between Boston road and East One Hundred and Seventy-seventh street. Area of assessment: Both sides of Vyse avenue, from Boston road to One Hundred and Seventy-seventh street.

##### TWENTY-FOURTH WARD, SECTIONS 11 AND 12.

**BURNSIDE AVENUE—REGULATING, GRADING, CURBING, FLAGGING, LAYING CROSSLAKES, BUILDING APPROACHES AND PLACING FENCES,** from Tremont avenue to Ryer avenue. Area of assessment: Both sides of Burnside avenue, from Tremont avenue to Ryer avenue, and to the extent of half the block at the intersecting and terminating streets and avenues.

##### TWENTY-FOURTH WARD, SECTION 12.

**VIREO AVENUE—SEWER,** from East Two Hundred and Thirty-fifth to East Two Hundred and Thirty-sixth street. Area of assessment: Both sides of Vireo avenue, from East Two Hundred and Thirty-fifth to East Two Hundred and Thirty-sixth street.

—that the same were confirmed by the Board of Assessors November 26, 1907, and entered November 26, 1907, in the Record of Titles of Assessments, kept in the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, and unless the amount assessed for benefit on any person or property shall be paid within sixty days after the date of said entry of the assessments interest will be collected thereon, as provided in section 1019 of said Greater New York Charter.

Said section provides, in part, that "If any such assessment shall remain unpaid for the period of sixty days after the date of entry thereof in the said Record of Titles of Assessments, it shall be the duty of the officer authorized to collect and receive the amount of such assessment to charge, collect and receive interest thereon at the rate of seven per centum per annum, to be calculated to the date of payment from the date when such assessment became a lien, as provided by section 159 of this act."

Section 159 of this act provides \* \* \* "An assessment shall become a lien upon the real estate affected thereby ten days after its entry in the said record."

The above assessments are payable to the Collector of Assessments and Arrears at the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, in the Municipal Building, corner of One Hundred and Seventy-seventh street and Third avenue, Borough of The Bronx, between the hours of 9 a. m. and 2 p. m., and on Saturdays from 9 a. m. to 12 m., and all payments made thereon on or before January 25, 1908, will be exempt from interest, as above provided, and after that date will be subject to a charge of interest at the rate of seven per centum per annum from the date when the above assessments became liens to the date of payment.

HERMAN A. METZ,  
Comptroller.

City of New York, Department of Finance,  
Comptroller's Office, November 26, 1907.  
n29,d12

#### NOTICE OF ASSESSMENTS FOR OPENING STREETS AND PARKS.

IN PURSUANCE OF SECTION 1005 OF THE Greater New York Charter, the Comptroller of the City of New York hereby gives public notice of the confirmation by the Supreme Court, and the entering in the Bureau for the Collection of Assessments and Arrears of the assessment for OPENING AND ACQUIRING TITLE to the following named street in the BOROUGH OF THE BRONX:

##### TWENTY-FOURTH WARD, ANNEXED TERRITORY.

**THE FIRST STREET (UNNAMED)—OPENING,** east of the Bronx river, extending from Tremont avenue to Bronx Park. Confirmed June 8, 1907; entered November 21, 1907. Area of assessment includes all those lands, tenements and hereditaments and premises situate, lying and being in the Borough of The Bronx, in The City of New York, which, taken together, are bounded and described as follows, viz.:

Beginning at the point of intersection of the southerly prolongation of a line parallel to the easterly side of Tremont avenue and distant 100 feet easterly therefrom (said easterly side of Tremont avenue being the southerly prolongation of the easterly side of First street) with a line parallel to and distant 100 feet southerly from the southerly side of Tremont avenue; running thence westerly along the last mentioned parallel line and its prolongation westwardly to the centre line of the Bronx river; thence northerly along the said centre line of the Bronx river to its intersection with the westerly prolongation of a line parallel to and distant 200 feet northerly from the southerly boundary line of Bronx Park; thence easterly along the last mentioned westerly prolongation and parallel line and its prolongation westwardly to its intersection with a line parallel to and distant 100 feet easterly from the easterly side of Bronx Park avenue; thence southerly along the last mentioned parallel line to its intersection with a line parallel to and distant 100 feet northerly from the northerly side of East One Hundred and Seventy-seventh street; thence westerly along the last mentioned parallel line and its prolongation westwardly to its intersection with a line parallel to and distant 100 feet easterly from the easterly side of Tremont avenue (said easterly side of Tremont avenue being the southerly prolongation of the easterly side of First street); thence southerly along the last mentioned line parallel and its prolongation southwardly to the point or place of beginning.

The above entitled assessment was entered on the date hereinbefore given in the Record of Titles of Assessments, kept in the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents. Unless the amount assessed for benefit on any person or property shall be paid within sixty days after the date of said entry of the assessment interest will be collected thereon, as provided in section 1006 of the Greater New York Charter.

Said section provides that "If any such assessment shall remain unpaid for the period of sixty days after the date of entry thereof in the said Record of Titles of Assessments, it shall be the duty of the officer authorized to collect and receive the amount of such assessment to charge, collect and receive interest thereon at the rate of seven per centum per annum, to be calculated to the date of payment from the date when such assessment became a lien, as provided by section 159 of this act."

Section 159 of this act provides \* \* \* "An assessment shall become a lien upon the real estate affected thereby ten days after its entry in the said record."

The above assessment is payable to the Collector of Assessments and Arrears at the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, in the Municipal Building, corner of One Hundred and Seventy-seventh street and Third avenue, Borough of The Bronx, between the hours of 9 a. m. and 2 p. m., and on Saturdays from 9 a. m. to 12 m.; and all payments made thereon on or before January 20, 1908, will be exempt from interest, as above provided, and after that date will be subject to a charge of interest at the rate of seven per centum per annum from the date when above assessment became a lien to the date of payment.

HERMAN A. METZ,  
Comptroller.

City of New York, Department of Finance,  
Comptroller's Office, November 21, 1907.  
n22,d6

#### NOTICE OF ASSESSMENTS FOR OPENING STREETS AND PARKS.

IN PURSUANCE OF SECTION 1005 OF THE Greater New York Charter, the Comptroller of the City of New York hereby gives public notice of the confirmation by the Supreme Court and the entering in the Bureau for the Collection of Assessments and Arrears of the assessment for OPENING AND ACQUIRING TITLE to the following named street in the BOROUGH OF QUEENS:

##### FIRST WARD.

**LATHROP STREET—OPENING,** from Broadway to Jackson avenue. Confirmed June 12, 1907; entered November 21, 1907. Area of assessment includes all those lands, tenements and hereditaments and premises situate, lying and being in the Borough of Queens, in The City of New York, which, taken together, are bounded and described as follows, viz.:

Beginning at the point of intersection of the northerly line of Jackson avenue with the middle line of the blocks between Lathrop street and Rapelje avenue; running thence northerly along said middle line of the blocks to the southerly line of Broadway; thence westerly along the southerly line of Broadway to its intersection with the middle line of the blocks between Debevoise avenue and Lathrop street; thence southerly along the last-mentioned middle line of the blocks to the northerly line of Jackson avenue; thence easterly along the northerly line of Jackson avenue to the point or place of beginning.

The above-entitled assessment was entered on the date hereinbefore given in the Record of Titles of Assessments, kept in the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents. Unless the amount assessed for benefit on any person or property shall be paid within sixty days after the date of said entry of the assessment, interest will be collected thereon, as provided in section 1016 of the Greater New York Charter.

Said section provides that "If any such assessment shall remain unpaid for the period of sixty days after the date of entry thereof in the said Record of Titles of Assessments, it shall be the duty of the officer authorized to collect and receive the amount of such assessment to charge, collect and receive interest thereon at the rate of seven per centum per annum, to be calculated to the date of payment from the date when such assessment became a lien, as provided by section 159 of this act."

Section 159 of this act provides \* \* \* "An assessment shall become a lien upon the real estate affected thereby ten days after its entry in the said record."

The above assessment is payable to the Collector of Assessments and Arrears, at the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, at the Hackett Building, No. 51 Jackson avenue, Long Island City, Borough of Queens, between the hours of 9 a. m. and 2 p. m., and on Saturdays from 9 a. m. until 12 m., and all payments made thereon on or before January 20, 1908, will be exempt from interest, as above provided, and after that date will be subject to a charge of interest at the rate of seven per centum per annum from the date when above assessment became a lien to the date of payment.

HERMAN A. METZ,  
Comptroller.

City of New York—Department of Finance,  
Comptroller's Office, November 21, 1907.  
n22,d6

#### NOTICE TO PROPERTY OWNERS.

IN PURSUANCE OF SECTION 1018 OF THE Greater New York Charter, the Comptroller of the City of New York hereby gives public notice to all persons, owners of property, affected by the following assessments for LOCAL IMPROVEMENTS in the BOROUGH OF THE BRONX:

##### TWENTY-THIRD WARD, SECTION 10.

**TEMPORARY CONNECTION FROM THE EXISTING SEWER IN LONGFELLOW AVENUE to the existing sewer in HOME STREET,** at the intersection of Longfellow avenue and Home street. Area of assessment: Both sides of Longfellow street, from One Hundred and Sixty-seventh street to West Farms road.

##### TWENTY-FOURTH WARD, SECTION 11.

**RECEIVING BASINS AT THE NORTH-EAST CORNER OF MORRIS AND TREMONT AVENUES;** southeast corner of TREMONT AND MORRIS AVENUES; at the northeast, southeast and northwest corners of MORRIS AVENUE AND EAST ONE HUNDRED AND SEVENTY-NINTH STREET. Area of assessment: Block bounded by Tremont avenue, Morris avenue, Creston avenue and One Hundred and Seventy-ninth street; block bounded by Tremont avenue, Morris avenue, One Hundred and Seventy-seventh street and the Grand Boulevard and Concourse, and blocks bounded by Walton avenue, Creston avenue, One Hundred and Seventy-ninth street and Burnside avenue.

**EAST ONE HUNDRED AND EIGHTY-NINTH STREET—SEWER AND APPURTENANCES,** between Park Avenue East and Third avenue. Area of assessment: Both sides of One Hundred and Eighty-ninth street, from Park Avenue East to Third avenue.

—that the same were confirmed by the Board of Assessors November 19, 1907, and entered November 19, 1907, in the Record of Titles of Assessments, kept in the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, and unless the amount assessed for benefit on any person or property shall be paid within sixty days after the date of said entry of the assessments interest will be collected thereon, as provided in section 1019 of said Greater New York Charter.

Said section provides, in part, that "If any such assessment shall remain unpaid for the period of sixty days after the date of entry thereof in the said Record of Titles of Assessments, it shall be the duty of the officer authorized to collect and receive the amount of such assessment to charge, collect and receive interest thereon at the rate of seven per centum per annum, to be calculated to the date of payment from the date when such assessment became a lien, as provided by section 159 of this act."

Section 159 of this act provides \* \* \* "An assessment shall become a lien upon the real estate affected thereby ten days after its entry in the said record."

The above assessments are payable to the Collector of Assessments and Arrears at the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, in the Municipal Building, corner of One Hundred and Seventy-seventh street and Third avenue, Borough of The Bronx, between the hours of 9 a. m. and 2 p. m., and on Saturdays from 9 a. m. to 12 m., and all payments made thereon on or before January 18, 1908, will be exempt from interest, as above provided, and after that date will be subject to a charge of interest at the rate of seven per centum per annum from the date when the above assessments became liens to the date of payment.

HERMAN A. METZ,  
Comptroller.

City of New York, Department of Finance,  
Comptroller's Office, November 19, 1907.  
n21,d5

#### NOTICE OF ASSESSMENTS FOR OPENING STREETS AND PARKS.

IN PURSUANCE OF SECTION 1005 OF THE Greater New York Charter, the Comptroller of the City of New York hereby gives public notice of the confirmation by the Supreme Court, and the entering in the Bureau for the Collection of Assessments and Arrears of the assessment for OPENING AND ACQUIRING TITLE to the following named street in the BOROUGH OF THE BRONX:

##### TWENTY-THIRD WARD, SECTION 10.

**BARRETTO STREET—OPENING,** from Westchester avenue to Edgewater road. Confirmed March 1, 1907; entered November 18, 1907. Area of assessment includes all those lands, tenements and hereditaments and premises situate, lying and being in the Borough of The Bronx, in The City of New York, which, taken together, are bounded and described as follows, viz.:

Beginning at a point formed by the intersection of the northeasterly pierhead line of the East river with the southerly prolongation of a line parallel to and 100 feet westerly from the westerly line of Tiffany street; running thence northerly and northwesterly along said prolongation and parallel line and its northwesterly prolongation to an intersection with the southerly prolongation of a line parallel to and 100 feet westerly from the westerly line of that portion of Kelly street lying north of Dongan street; thence northerly along said last mentioned prolongation and parallel line to an intersection with a line parallel to and 100 feet northwesterly from the northwesterly line of Westchester avenue; thence northeasterly along said last mentioned parallel line to its intersection with a line parallel to and 100 feet westerly from the westerly line of Barretto street; thence northerly along said last mentioned parallel line to its intersection with a line parallel to and 100 feet northerly from the northerly line of East One Hundred and Sixty-seventh street; thence easterly along said last mentioned parallel line to its intersection with a line parallel to and 100 feet easterly from the easterly line of Barretto street; thence southerly along said last mentioned

parallel line to its intersection with a line parallel to and 100 feet northwesterly from the northwesterly line of Westchester avenue; thence northeasterly along said last mentioned parallel line to its intersection with a line parallel to and 100 feet easterly from the easterly line of Southern boulevard; thence southerly along said last mentioned parallel line to its intersection with a line parallel to and 100 feet northwesterly from the northwesterly line of Hunt's Point road; thence southeasterly along said last mentioned parallel line to its intersection with the northerly prolongation of a line parallel to and 100 feet easterly from the easterly line of Coster street; thence southerly along said last mentioned prolongation and parallel line to its intersection with the northeasterly pierhead line of the East river; thence northwesterly along said northwesterly pierhead line to the point or place of beginning.

The above entitled assessment was entered on the date hereinbefore given in the Record of Titles of Assessments, kept in the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents. Unless the amount assessed for benefit on any person or property shall be paid within sixty days after the date of said entry of the assessment interest will be collected thereon, as provided in section 1006 of the Greater New York Charter.

Said section provides that "If any such assessment shall remain unpaid for the period of sixty days after the date of entry thereof in the said Record of Titles of Assessments, it shall be the duty of the officer authorized to collect and receive the amount of such assessment to charge, collect and receive interest thereon at the rate of seven per centum per annum, to be calculated to the date of payment from the date when such assessment became a lien, as provided by section 159 of this act."

Section 159 of this act provides \* \* \* "An assessment shall become a lien upon the real estate affected thereby ten days after its entry in the said record."

The above assessment is payable to the Collector of Assessments and Arrears at the Bureau for the Collection of Assessments and Arrears of Taxes and Assessments and of Water Rents, in the Municipal Building, corner of One Hundred and Seventy-seventh street and Third avenue, Borough of The Bronx, between the hours of 9 a. m. and 2 p. m., and on Saturdays from 9 a. m. to 12 m.; and all payments made thereon on or before January 17, 1908, will be exempt from interest, as above provided, and after that date will be subject to a charge of interest at the rate of seven per centum per annum from the date when above assessment became a lien to the date of payment.

HERMAN A. METZ,  
Comptroller.

City of New York, Department of Finance,  
Comptroller's Office, November 18, 1907.  
n20,d4

#### CORPORATION SALE OF BUILDINGS AND APPURTENANCES THERETO ON CITY REAL ESTATE.

PUBLIC NOTICE IS HEREBY GIVEN that the Commissioners of the Sinking Fund, by virtue of the powers vested in them by law, will offer for sale at public auction the buildings, parts of buildings, etc., standing within the lines of property owned by The City of New York, acquired by it for bridge purposes in the

##### Borough of Manhattan.

Being all the remaining buildings on the triangular block bounded by Park row, Tryon row and Centre street, which were not sold at previous sales held on April 1, 1907, and August 13, 1907, and also the remaining buildings on Duane street and Chambers street, between Park row and Centre street. The property to be sold is more particularly described on a certain map on file in the office of the Collector of City Revenue, Department of Finance, Room 141, No. 280 Broadway, Borough of Manhattan.

Pursuant to resolutions of the Commissioners of the Sinking Fund, adopted at a meeting held on the 13th day of August, 1907, the sale of the above buildings and appurtenances thereto will be held by the direction of the Comptroller on

MONDAY, DECEMBER 2, 1907,

at 11 o'clock, on the premises, on the following

##### TERMS AND CONDITIONS.

It being understood that the purchasers at the time of the auction sale, when the said bid is accepted by the City, shall execute a contract with The City of New York for the proper compliance with these terms and conditions, which contract shall provide for liquidated damages at so much per day for each and every day the removal of the buildings, etc., remains incomplete after the expiration of sixty days from the day of sale. A copy of the contract is on file in the office of the Collector of City Revenue, Department of Finance, Room 141, No. 280 Broadway, Borough of Manhattan.

The buildings and appurtenances thereto will be sold to the highest bidder, who must pay immediately cash or a certified check drawn to the order of the Comptroller of The City of New York, and must either give a certified check or cash in half the amount of the purchase price as security for the faithful performance of the terms and conditions of the sale and contract. Where the amount of the purchase price does not equal or exceed the sum of fifty dollars, the sum of fifty dollars shall be the amount of the security deposited. This security must be deposited within forty-eight hours after the sale, and may at any time after the expiration of the contract period be applied by the City to the cost of completing any work required under the contract, but unfinished at the expiration of the contract period.

All the buildings, structures and parts thereof, their fixtures and foundations, of every class and description, within the described area are to be torn down to the existing curb level, and structures which may exist within any of the buildings, such as engine beds, boiler settings, etc., and all stoops and area walls shall be torn down to the same level. All partitions, sheds and fences shall be removed from the premises. All brick laid in mortar, all floor beams, joists, studs, flooring, ceiling, roofing, boats and woodwork of every description, and all gas, water, steam and soil piping shall be removed from the premises. All combustible matter, such as tar and felt roofing, broken laths and fragments of timber, chips, splinters, etc., which are of no value shall be gathered together by the contractor and burned or carried away.

The purchaser at the sale shall also shut off and cap all water pipes at the main pipe in the street, in compliance with the rules and regulations of the Department of Water Supply, Gas and Electricity.

Failure to remove said buildings or appurtenances, or any portion thereof, within sixty days from the day of sale, will work forfeiture of ownership of such buildings or appurtenances or portion as shall then be left standing, and the bidder's assent to the above conditions being understood to be implied by the act of bidding, and The City of New York will without notice to the purchaser cause the same to be removed and the costs and expenses thereof charged against the security above mentioned.



The work of removal must be carried on in every respect in a thorough and workmanlike manner and must be completed within sixty days from the day of sale, and the successful bidder will provide and furnish all materials of labor and machinery necessary thereto, and will place proper and sufficient guards and fences and warning signs by day and night for the prevention of accidents, and will indemnify and save harmless The City of New York, its officers, agents and servants, and each of them, against any and all suits and actions, claims and demands of every name and description brought against it, them or any of them, and against and from all damages and costs to which it, they or any of them be put by reason of injury to the person or property of another, resulting from negligence or carelessness in the performance of the work or in guarding the same, or from any improper or defective materials or machinery, implements or appliances used in the removal of the said buildings.

Party walls and fences, when existing against adjacent property not sold, shall not be taken down. All furrings, plaster, chimneys, projecting brick, etc., on the faces of such party walls are to be taken down and removed. The walls shall be made permanently self-supporting, beamholes, etc., bricked up, and the wall pointed and made to exclude wind and rain and present a clean exterior. The roofs of the adjacent buildings shall be properly flashed and painted and made watertight where they have been disturbed by the operation of the contractor.

The Comptroller of the City of New York reserves the right on the day of sale to withdraw from sale any of the buildings, parts of buildings and machinery included therein, or to reject any and all bids.

H. A. METZ,  
Comptroller.

City of New York, Department of Finance,  
Comptroller's Office, October 29, 1907.

n4,d2

DEPARTMENT OF FINANCE, BUREAU FOR THE COLLECTION OF TAXES, NO. 57 CHAMBERS STREET (STEWART BUILDING), NEW YORK, November 1, 1907.

#### IMPORTANT TO TAXPAYERS.

NOTICE IS HEREBY GIVEN TO ALL persons whose taxes for the year 1907 have not been paid before the 1st day of November of the said year, that unless the same shall be paid to the Receiver of Taxes at his office in the borough in which the property is located, as follows:

Borough of Manhattan, No. 57 Chambers street, Manhattan, N. Y.;  
Borough of The Bronx, corner Third and Tremont avenues, The Bronx, N. Y.;  
Borough of Brooklyn, Rooms 2, 4, 6 and 8, Municipal Building, Brooklyn, N. Y.;  
Borough of Queens, corner Jackson avenue and Fifth street, Long Island City, N. Y.;  
Borough of Richmond, Borough Hall, St. George, Staten Island, N. Y.;

—before the 1st day of December of said year, he will charge, receive and collect upon such taxes so remaining unpaid on that day, in addition to an amount of such taxes, one per centum of the amount thereof, as provided by sections 916 and 918 of the Greater New York Charter (chapter 378, Laws of 1897).

DAVID E. AUSTEN,  
Receiver of Taxes.

n1,d1

NOTICE OF SALE OF LANDS AND TENEMENTS WITHIN THAT PART OF THE CITY OF NEW YORK NOW KNOWN AS THE BOROUGH OF RICHMOND FOR UNPAID TAXES AND ASSESSMENTS.

THE CITY OF NEW YORK, DEPARTMENT OF FINANCE, BUREAU FOR THE COLLECTION OF ASSESSMENTS AND ARREARS OF TAXES, ASSESSMENTS AND WATER RENTS, STEWART BUILDING, NO. 280 BROADWAY, BOROUGH OF MANHATTAN, NEW YORK CITY, August 10, 1907.

UNDER THE DIRECTION OF HERMAN A. Metz, Comptroller of the City of New York, the undersigned hereby gives public notice, pursuant to the provisions of section 1027 of the Greater New York Charter:

That the respective owners of the lands and tenements within that part of The City of New York now known as the Borough of Richmond, on which taxes have been laid and confirmed according to law by The City of New York for the years 1899, 1900, 1901, 1902 and 1903, including taxes on the real estate of corporations for the said years and taxes on the special franchises of corporations for the years 1900, 1901, 1902 and 1903, and which now remain due and unpaid;

And also the respective owners of all lands and tenements in The City of New York, situated in the borough aforesaid, on which the assessments have been laid according to law by the said City of New York for the years 1899, 1900, 1901, 1902, 1903 and 1904, and which now remain due and unpaid, are required to pay the amount of the said taxes and assessments so remaining due and unpaid, with the interest thereon at the rate of seven (7) per centum per annum, from the time when the same became due to the time of payment, together with the charges of this notice and advertisement, to the Collector of Assessments and Arrears, at his office in the Borough Hall, New Brighton, in the Borough of Richmond, in The City of New York;

And that, if default shall be made in such payment, such lands and tenements will be sold at public auction, in Room 129, Borough Hall, New Brighton, in the Borough of Richmond, in The City of New York, on

#### WEDNESDAY, NOVEMBER 20, 1907

at 10 o'clock in the forenoon of that day, for the lowest term of years at which any person shall offer to take the same, in consideration of advancing the said taxes or assessments, as the case may be, and the interest thereon as aforesaid, to the time of sale, together with the charges of this notice and advertisement, and all other costs and charges accrued thereon; and that such sale will be continued from time to time until all the lands and tenements so advertised for sale shall be sold.

Notice is hereby further given that a detailed statement of such taxes and assessments and the ownership of the property taxed and on which such taxes and assessments remain unpaid, is published in a pamphlet and that copies of the said pamphlet are deposited in the offices of the Collector of Assessments and Arrears in the Boroughs of Manhattan and Richmond, and will be delivered to any person applying for the same.

DANIEL MOYNAHAN,  
Collector of Assessments and Arrears  
of The City of New York.

The foregoing sale will be continued on  
**WEDNESDAY, DECEMBER 4, 1907**  
at 10 o'clock a. m. in Room 129, Borough Hall, New Brighton, in the Borough of Richmond.

DANIEL MOYNAHAN,  
Collector of Assessments and Arrears.

n21,d4

DEPARTMENT OF FINANCE, CITY OF NEW YORK, December 14, 1906.

UNTIL FURTHER NOTICE AND UNLESS otherwise directed in any special case surety companies will be accepted as sufficient upon the following contracts to the amounts named:

Supplies of Any Description, including Gas and Electricity—

One company on a bond up to \$50,000.

Two companies on a bond up to \$125,000.

Three companies on a bond up to \$200,000.

Asphalt, Asphalt Block and Wood Block Pavements—

Two companies on a bond up to \$50,000.

Three companies on a bond up to \$125,000.

Regulating, Grading, Paving, Sewers, Water Mains, Dredging, Construction of Parks, Parkways, Etc.—

One company on a bond up to \$25,000.

Two companies on a bond up to \$75,000.

Three companies on a bond up to \$150,000.

Four companies on a bond up to \$250,000.

New Docks, Buildings, Bridges, Aqueducts, Tunnels, Etc.—

One company on a bond up to \$25,000.

Two companies on a bond up to \$75,000.

Three companies on a bond up to \$150,000.

Four companies on a bond up to \$250,000.

Repairs, Ventilating, Heating, Plumbing, Etc.—

One company on a bond up to \$25,000.

Two companies on a bond up to \$75,000.

Three companies on a bond up to \$150,000.

Four companies on a bond up to \$250,000.

On bonds regarded as hazardous risks additional surety will be required as the Comptroller sees fit in each instance.

All bonds exceeding \$250,000 will by that fact alone be considered hazardous risks, no matter what the nature of the work.

H. A. METZ,  
Comptroller.

#### POLICE DEPARTMENT.

POLICE DEPARTMENT OF THE CITY OF NEW YORK, No. 300 MULBERRY STREET.

SEALED BIDS OR ESTIMATES WILL BE received by the Police Commissioner of the City of New York at the Bookkeeper's office, Central Department, until 10 o'clock a. m., on

#### FRIDAY, DECEMBER 6, 1907.

FOR FURNISHING AND DELIVERING ONE GASOLINE TOURING FIVE-PASSENGER CAR.

The time for the delivery of the labor, materials and supplies and the performance of the contract is thirty days.

The amount of security required will be fifty per cent (50%) of the amount of bid or estimate.

The bids will be compared and award made to the lowest bidder.

The bidder will state the price for which he will do all the work and provide, furnish and deliver all the labor and materials mentioned and described in said contract and specifications.

For particulars as to the nature and extent of the work required or of the materials to be furnished bidders are referred to the specifications and to the plans on file in the office of the Inspector of Repairs and Supplies of the Police Department, No. 300 Mulberry street, City of New York.

Blank forms and further information may be obtained at the Central Office of the Police Department, No. 300 Mulberry street, Borough of Manhattan.

THEODORE A. BINGHAM,  
Police Commissioner.

Dated November 21, 1907.

n23,d6

See General Instructions to Bidders on the last page, last column, of the "City Record."

POLICE DEPARTMENT OF THE CITY OF NEW YORK, PROPERTY CLERK'S OFFICE, NO. 300 MULBERRY STREET, NEW YORK.

PUBLIC NOTICE IS HEREBY GIVEN that the eighty-ninth public auction sale, consisting of watches, chains, charms, fobs, rings, pins, studs, opera-glasses, purses, pocket-books, handbags, handkerchiefs, gloves, scissors, knives, cameras, typewriters, plated ware, bicycles, baby carriages, etc., also condemned police property, consisting of beds, furniture, etc., will be held at the Property Clerk's Office, Room 9, No. 300 Mulberry street, at 10 a. m.,

#### TUESDAY, DECEMBER 3, 1907.

THEODORE A. BINGHAM,  
Police Commissioner.

n20,d3

#### POLICE DEPARTMENT—CITY OF NEW YORK.

OWNERS WANTED BY THE PROPERTY Clerk of the Police Department of The City of New York, No. 300 Mulberry street, Room No. 9, for the following property, now in his custody, without claimants: Boots, rope, iron, lead, male and female clothing, boots, shoes, wine, blankets, diamonds, canned goods, liquors, etc.; also small amount of money taken from prisoners and found by Patrolmen of this Department.

THEODORE A. BINGHAM,  
Police Commissioner.

POLICE DEPARTMENT—CITY OF NEW YORK, BOROUGH OF BROOKLYN.

OWNERS WANTED BY THE DEPUTY Property Clerk of the Police Department of The City of New York—Office, No. 209 State street, Borough of Brooklyn—for the following property, now in his custody, without claimants: Boots, rope, iron, lead, male and female clothing, boots, shoes, wine, blankets, diamonds, canned goods, liquors, etc.; also small amount of money taken from prisoners and found by Patrolmen of this Department.

THEODORE A. BINGHAM,  
Police Commissioner.

#### BOROUGH OF RICHMOND.

OFFICE OF THE PRESIDENT OF THE BOROUGH OF RICHMOND, BOROUGH HALL, ST. GEORGE, NEW BRIGHTON, NEW YORK CITY.

SEALED BIDS OR ESTIMATES WILL BE received by the President of the Borough of Richmond, at the above office, until 12 o'clock m. on

#### TUESDAY, DECEMBER 3, 1907.

##### Borough of Richmond.

No. 1. FOR FURNISHING ALL THE LABOR AND MATERIALS REQUIRED FOR FURNISHING AND DELIVERING 14 TABLES, 14 TABLE CASES AND 9 UPRIGHT CASES, FOR MUNICIPAL LIBRARY AND MUSEUM IN RICHMOND BOROUGH HALL. The time for the completion of the work and the full performance of the contract is sixty days.

The amount of security required is One Thousand Dollars (\$1,000).

The contracts must be bid for separately, and the bids will be compared and the contract awarded at a lump or aggregate sum for each contract.

Bidders are requested to make their bids or estimates upon the blank form prepared by the President, a copy of which, with the proper envelope in which to inclose the bid, together with a copy of the contract, including the specifications, in the form approved by the Corporation Counsel, can be obtained upon application therefor at the office of the said President. The plans and drawings may be seen and other information obtained at the office of the Commissioner of Public Works of the Borough of Richmond, Borough Hall, New Brighton, Borough of Richmond.

GEORGE CROMWELL,  
President.

The City of New York, November 19, 1907.

n20,d3

See General Instructions to Bidders on the last page, last column, of the "City Record."

#### DEPARTMENT OF EDUCATION.

DEPARTMENT OF EDUCATION, CORNER OF PARK AVENUE AND FIFTY-NINTH STREET, BOROUGH OF MANHATTAN, CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Superintendent of School Buildings at the above office of the Department of Education until 3 o'clock p. m. on

#### MONDAY, DECEMBER 2, 1907.

##### Various Boroughs.

##### PIANOS.

FOR FURNISHING AND DELIVERING NEW PIANOS FOR VARIOUS SCHOOLS IN THE BOROUGH OF MANHATTAN, THE BRONX, BROOKLYN, QUEENS AND RICHMOND.

The time allowed to complete the whole work will be 130 working days, as provided in the contract.

The amount of security required is One Hundred Dollars per instrument on each item.

Bids will be considered by the Committee on Buildings only when made by the manufacturers.

Bidders must indicate on the outside of the envelope containing the bids the number of instruments bid for under each item.

Bidders must state in the bid what action is to be supplied.

A separate proposal shall be submitted for each item and award will be made thereon.

Bidders must state the price of each or any article or item contained in the specifications or schedules herein contained or hereto annexed, by which the bids will be tested.

Extensions must be made and footed up, as the bids will be read from the total of each item and award made to the lowest bidder on each item.

Delivery will be required to be made at the time and manner and in such quantities as may be directed.

Blank forms, plans and specifications may be obtained or seen at the office of the Superintendent, at estimating room, ninth floor, Hall of the Board of Education, Park avenue and Fifty-ninth street, Borough of Manhattan.

C. B. J. SNYDER,  
Superintendent of School Buildings.

Dated November 20, 1907.

n20,d2

See General Instructions to Bidders on the last page, last column, of the "City Record."

#### DEPARTMENT OF WATER SUPPLY, GAS AND ELECTRICITY.

DEPARTMENT OF WATER SUPPLY, GAS AND ELECTRICITY, ROOM 1536, NOS. 13 TO 21 PARK ROW, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Water Supply, Gas and Electricity at the above office until 2 o'clock p. m. on

#### TUESDAY, DECEMBER 10, 1907.

FOR FURNISHING GAS FOR AND TO THE PUBLIC LAMPS ON THE STREETS, SUPPLYING GAS, ETC., FOR NEW LAMPS WHEN REQUIRED, FOR MAKING CERTAIN REPAIRS TO LAMP-POSTS, AND FOR FURNISHING GAS TO PUBLIC BUILDINGS, FROM JANUARY 1, 1908, TO DECEMBER 31, 1908, BOTH INCLUSIVE.

For lighting streets, avenues, public buildings, parks and public places in The City of New York.

No. 1. Borough of Manhattan.  
No. 2. Borough of The Bronx.  
No. 3. Borough of Queens.  
No. 4. Borough of Richmond.

FOR FURNISHING GAS LAMPS, ETC., ON THE STREETS, AND SO ON, AND FOR CONNECTING, LIGHTING, EXTINGUISHING, CLEANING, REPAIRING AND MAINTAINING THE SAME, AND ALSO LAMPS BELONGING TO THE CITY, SUPPLYING NEW LAMPS WHEN REQUIRED AND FOR FURNISHING BURNERS AND APPLIANCES FOR IMPROVED SYSTEM OF LIGHTING ON THE STREETS, AVENUES, PARKS AND PUBLIC PLACES, FROM JANUARY 1, 1908, TO DECEMBER 31, 1908, BOTH INCLUSIVE.

For furnishing gas lamps, etc., on the streets, and so on, in The City of New York.

No. 1. Borough of Manhattan.  
No. 2. Borough of The Bronx.  
No. 3. Borough of Queens.  
No. 4. Borough of Richmond.

FOR FURNISHING NAPHTHA OR SIMILAR ILLUMINATING MATERIAL FOR THE PUBLIC LAMPS USING SAME, AND FOR FURNISHING, LIGHTING, EXTINGUISHING, CLEANING, REPAIRING AND MAINTAINING SUCH LAMPS, SUPPLYING NAPHTHA, ETC., FOR NEW LAMPS, FOR FURNISHING NEW LAMPS AS REQUIRED, FOR FURNISHING BURNERS AND APPLIANCES FOR IMPROVED SYSTEM OF LIGHTING STREETS, AVENUES, PARKS AND PUBLIC PLACES, FROM JANUARY 1, 1908, TO DECEMBER 31, 1908, BOTH INCLUSIVE.

For furnishing naphtha, etc., and lighting streets, avenues, parks and public places in The City of New York.

No. 1. Borough of Manhattan.  
No. 2. Borough of The Bronx.  
No. 3. Borough of Queens.  
No. 4. Borough of Richmond.

FOR FURNISHING AND MAINTAINING ELECTRIC LAMPS FOR LIGHTING STREETS, AVENUES, PUBLIC BUILDINGS, PARKS AND PUBLIC PLACES, FROM JAN-

UARY 1, 1908, TO DECEMBER 31, 1908, BOTH INCLUSIVE.

For lighting streets, avenues, public buildings, parks and public places in The City of New York.

No. 1. Borough of Manhattan.  
No. 2. Borough of The Bronx.  
No. 3. Boroughs of Manhattan and The Bronx.

No. 4. Borough of Queens.  
No. 5. Borough of Richmond.

The amount of the security required is twenty-five per cent. (25%) of the amount of the bid or estimate, except "for furnishing gas lamps," where the security required is fifty per cent. (50%) of the amount of the bid or estimate.

The bidder will state the price of each item or article contained in the specifications or schedules, per lamp, lamp-post, column, service-pipe, stand-pipe or other unit of measure, by which the bids will be tested.

Blank forms may be obtained at the office of the Department, Room 1319.

JOHN H. O'BRIEN,  
Commissioner.

New York, November 23, 1907.

n26,d10

See General Instructions to Bidders on the last page, last column, of the "City Record."

DEPARTMENT OF WATER SUPPLY, GAS AND ELECTRICITY, ROOM 1536, NOS. 13 TO 21 PARK ROW, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Water Supply, Gas and Electricity at the above office until 2 o'clock p. m. on

#### TUESDAY, DECEMBER 10, 1907.

FOR FURNISHING GAS FOR AND TO THE PUBLIC LAMPS ON THE STREETS, SUPPLYING GAS, ETC., FOR NEW LAMPS WHEN REQUIRED, FOR MAKING CERTAIN REPAIRS TO LAMP-POSTS, AND FOR FURNISHING GAS TO PUBLIC BUILDINGS, FROM JANUARY 1, 1908, TO DECEMBER 31, 1908, BOTH INCLUSIVE.

For lighting streets, avenues, public buildings, parks and public places in the Borough of Brooklyn, The City of New York.

FOR FURNISHING GAS LAMPS, ETC., ON THE STREETS, AND SO ON, AND FOR CONNECTING, LIGHTING, EXTINGUISHING, CLEANING, REPAIRING AND MAINTAINING THE SAME, AND ALSO LAMPS BELONGING TO THE CITY, SUPPLYING NEW LAMPS WHEN REQUIRED, AND FOR FURNISHING BURNERS AND APPLIANCES FOR IMPROVED SYSTEM OF LIGHTING ON THE STREETS, AVENUES, PARKS AND PUBLIC PLACES, FROM JANUARY 1, 1908, TO DECEMBER 31, 1908, BOTH INCLUSIVE.

For furnishing gas lamps, etc., on the streets, and so on, in the Borough of Brooklyn, The City of New York.

FOR FURNISHING NAPHTHA OR SIMILAR ILLUMINATING MATERIAL FOR THE PUBLIC LAMPS USING SAME, AND FOR FURNISHING, LIGHTING, EXTINGUISHING, CLEANING, REPAIRING AND MAINTAINING SUCH LAMPS, SUPPLYING NAPHTHA, ETC., FOR NEW LAMPS, FOR FURNISHING NEW LAMPS AS REQUIRED, FOR FURNISHING OR MAKING CERTAIN REPAIRS TO LAMP-POSTS, AND FOR FURNISHING BURNERS AND APPLIANCES FOR IMPROVED SYSTEM OF LIGHTING STREETS, AVENUES, PARKS AND PUBLIC PLACES, FROM JANUARY 1, 1908, TO DECEMBER 31, 1908, BOTH INCLUSIVE.

For furnishing naphtha, etc., and lighting streets, avenues, parks and public places in the Borough of Brooklyn, The City of New York.

FOR FURNISHING AND MAINTAINING ELECTRIC LAMPS FOR LIGHTING STREETS, AVENUES, PUBLIC BUILDINGS, PARKS AND PUBLIC PLACES, FROM JANUARY 1, 1908, TO DECEMBER 31, 1908, BOTH INCLUSIVE.

For lighting streets, avenues, public buildings, parks and public places in the Borough of Brooklyn, The City of New York.

The amount of the security required is twenty-five (25) per cent. of the amount of the bid or estimate, except "for furnishing gas lamps," where the security required is fifty (50) per cent. of the amount of the bid or estimate.

The bidder will state the price of each item or article contained in the specifications or schedules, per lamp, lamp-post, column, service-pipe, stand-pipe or other unit of measure, by which the bids will be tested.

Blank forms may be obtained at the office of the Department, Room 1319.

JOHN H. O'BRIEN,  
Commissioner.

New York, November 23, 1907.

n26,d10

See General Instructions to Bidders on the last page, last column, of the "City Record."

DEPARTMENT OF WATER SUPPLY, GAS AND ELECTRICITY, ROOM 1536, NOS. 13 TO 21 PARK ROW, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

SEALED BIDS OR ESTIMATES WILL BE received by the Commissioner of Water Supply, Gas and Electricity at the above office until 2 o'clock p. m. on

#### TUESDAY, DECEMBER 10, 1907.

FOR FURNISHING, PUTTING IN PLACE AND MAINTAINING SIX HUNDRED AND THIRTY-FIVE (635) GAS REGULATORS, FROM JANUARY 1, 1908, TO DECEMBER 31, 1908, BOTH INCLUSIVE.

For furnishing gas regulators in public buildings in The City of New York, in the Boroughs of Manhattan and The Bronx.

FOR FURNISHING STEAM FOR HEATING OR POWER PURPOSES TO CERTAIN PUBLIC BUILDINGS, FROM JANUARY 1, 1908, TO DECEMBER 31, 1908, BOTH INCLUSIVE.

For furnishing steam to public buildings in The City of New York, in the Boroughs of Manhattan and The Bronx.

The amount of security required for furnishing gas regulators is fifty per cent. (50%) of the amount of the bid or estimate.

For furnishing steam the amount of security required is twenty-five per cent. (25%) of the amount of the bid or estimate.

The bidder will state the price of each item or article contained in the specifications or schedules, per regulator, in the contract for gas regulators, and per thousand pounds of steam as measured on a meter, or per building per month, or other unit of measure, by which the bids will be tested.

Blank forms may be obtained at the office of the Department, Room 1319.

JOHN H. O'BRIEN,  
Commissioner.

New York, November 23, 1907.

n26,d10

See General Instructions to Bidders on the last page, last column, of the "City Record."



DEPARTMENT OF WATER SUPPLY, GAS AND ELECTRICITY, ROOM 1536, NOS. 13 TO 21 PARK ROW, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

**SEALED BIDS OR ESTIMATES WILL BE** received by the Commissioner of Water Supply, Gas and Electricity at the above office until 2 o'clock p. m., on

**TUESDAY, DECEMBER 10, 1907.**

FOR FURNISHING, PUTTING IN PLACE AND MAINTAINING ONE HUNDRED AND SIXTY GAS REGULATORS, FROM JANUARY 1, 1908, TO DECEMBER 31, 1908, BOTH INCLUSIVE.

For furnishing gas regulators in public buildings in the Borough of Brooklyn, The City of New York.

The amount of security required for furnishing gas regulators is fifty per cent. (50%) of the amount of the bid or estimate.

The bidder will state the price of each item or article contained in the specifications or schedules, per regulator, in the contract for gas regulators.

Blank forms may be obtained at the office of the Department, Room 1536.

JOHN H. O'BRIEN,  
Commissioner.

New York, November 23, 1907.

n26,d10

**See General Instructions to Bidders on the last page, last column, of the "City Record."**

DEPARTMENT OF WATER SUPPLY, GAS AND ELECTRICITY, ROOM 1536, NOS. 13 TO 21 PARK ROW, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

**SEALED BIDS OR ESTIMATES WILL BE** received by the Commissioner of Water Supply, Gas and Electricity at the above office until 2 o'clock p. m. on

**FRIDAY, DECEMBER 6, 1907.**

FOR FURNISHING AND DELIVERING SPECIAL CROSSHEADS FOR LAMP-POSTS IN THE BOROUGH OF BROOKLYN.

The amount of security required for furnishing crossheads shall be twenty-five per cent. (25%) of the amount of the bid or estimate.

The time allowed for the delivery of the supplies and the performance of the contract will be thirty (30) calendar days.

The bidder will state the price of each item or article contained in the specifications or schedules, per crosshead, by which the bids will be tested.

Blank forms may be obtained at the office of the Department, Room 1536.

JOHN H. O'BRIEN,  
Commissioner.

New York, November 22, 1907.

n23,d6

**See General Instructions to Bidders on the last page, last column, of the "City Record."**

DEPARTMENT OF WATER SUPPLY, GAS AND ELECTRICITY, ROOM 1536, NOS. 13 TO 21 PARK ROW, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

**SEALED BIDS OR ESTIMATES WILL BE** received by the Commissioner of Water Supply, Gas and Electricity at the above office until 2 o'clock p. m. on

**WEDNESDAY, DECEMBER 11, 1907.**

**Boroughs of Manhattan and The Bronx.**

FOR FURNISHING, DELIVERING AND ERECTING A SYSTEM OF WATER CURTAINS, WITH ALL PIPING, VALVES, MANIFOLDS, SPRINKLER HEADS, BRACKETS, SUPPORTS AND ALL OTHER APPURTENANCES, COMPLETE, IN PLACE AND READY FOR OPERATION IN THE HIGH PRESSURE PUMPING STATIONS LOCATED AT OLIVER AND SOUTH STREETS, AND AT GANSEVOORT AND WEST STREETS, BOROUGH OF MANHATTAN.

The time allowed for doing and completing the work will be ninety calendar days.

The security required will be One Thousand Dollars (\$1,000).

The bidder will state the price, per unit, of each item of work or supplies contained in the specifications or schedule, by which the bids will be tested.

The bids will be compared and the contract awarded for all the work, articles, materials and supplies contained in the specifications or schedule attached thereto.

Bidders are requested to make their bids or estimates upon the blank form prepared by the Department, a copy of which, with the proper envelope in which to inclose the bid, together with a copy of the contract, including the specifications, in the form approved by the Corporation Counsel, and any further information may be obtained upon application therefor at the office of the Chief Engineer, Room 922, Nos. 13 to 21 Park row, Borough of Manhattan.

JOHN H. O'BRIEN,  
Commissioner of Water Supply, Gas and Electricity.

The City of New York, November 21, 1907.

n22,d11

**See General Instructions to Bidders on the last page, last column, of the "City Record."**

## DEPARTMENT OF PUBLIC CHARITIES.

DEPARTMENT OF PUBLIC CHARITIES, FOOT OF EAST TWENTY-SIXTH STREET, NEW YORK.

### TO CONTRACTORS.

### PROPOSALS FOR BIDS OR ESTIMATES.

**SEALED BIDS OR ESTIMATES WILL BE** received by the Department of Public Charities at the above office until 2.30 o'clock p. m. on

**THURSDAY, DECEMBER 5, 1907.**

FOR FURNISHING AND DELIVERING:

1. FLOUR.
2. COAL.
3. BUTTER, EGGS AND YEAST.
4. ICE.
5. DRY GOODS, RUBBER GOODS, PLATED WARE, PAINTS, OILS AND GLASS, AND FOR OTHER MISCELLANEOUS SUPPLIES.

The time for the performance of the contract is during the year 1908.

The amount of security required is fifty per cent. (50%) of the amount of the bid or estimate.

The bidder will state the price per barrel, per ton, per pound, per dozen, etc., by which the bids

will be tested. The extensions must be made and footed up, as the bids will be read from the total and awards made to the lowest bidder on each class, line or item, as stated in the specifications.

Blank forms and further information may be obtained at the office of the Department, foot of East Twenty-sixth street, Borough of Manhattan.

ROBERT W. HEBBERD,  
Commissioner.

The City of New York, November 23, 1907.

n23,d5

**See General Instructions to Bidders on the last page, last column, of the "City Record."**

DEPARTMENT OF PUBLIC CHARITIES, FOOT OF EAST TWENTY-SIXTH STREET, NEW YORK.

### TO CONTRACTORS.

### PROPOSALS FOR BIDS OR ESTIMATES.

**SEALED BIDS OR ESTIMATES WILL BE** received by the Department of Public Charities at the above office until 2.30 o'clock p. m. on

**THURSDAY, DECEMBER 5, 1907.**

FOR GROCERIES, PROVISIONS, VEGETABLES, ICE, FRESH MEATS, FRESH FISH, POULTRY AND FLUID MILK.

The time for the performance of the contract is during the year 1907.

The amount of security required is fifty (50) per cent. of the amount of the bid or estimate.

The bidder will state the price per pound, per dozen, etc., by which the bids will be tested. The extensions must be made and footed up, as the bids will be read from the total and awards made to the lowest bidder on each line or item, as stated in the specifications.

Blank forms and further information may be obtained at the office of the Department, foot of East Twenty-sixth street, Borough of Manhattan.

ROBERT W. HEBBERD,  
Commissioner.

The City of New York, November 21, 1907.

n21,d3

**See General Instructions to Bidders on the last page, last column, of the "City Record."**

## DEPARTMENT OF BRIDGES.

DEPARTMENT OF BRIDGES, NOS. 13 TO 21 PARK ROW, BOROUGH OF MANHATTAN, CITY OF NEW YORK.

**SEALED BIDS OR ESTIMATES WILL BE** received by the Commissioner of Bridges at the above office until 2 o'clock p. m. on

**MONDAY, DECEMBER 9, 1907.**

FOR THE CONSTRUCTION OF THE MASONRY PIERS, SURFACE AND SUB-SURFACE CHANGES, AND STEEL SUPER-STRUCTURE OF THE MANHATTAN AND BROOKLYN APPROACHES OF THE MANHATTAN BRIDGE, OVER EAST RIVER, BETWEEN THE BOROUGH OF MANHATTAN AND BROOKLYN.

The contractor will be required to begin work within five days of the date of certification of the contract by the Comptroller, and will be required to complete the entire work to the satisfaction of the Commissioner, and in accordance with the specifications, by September 1, 1909.

The amount of security to guarantee the faithful performance of the work will be Eight Hundred Thousand Dollars (\$800,000).

The right is reserved by the Commissioner to reject all the bids should he deem it to be to the interest of the City so to do.

Blank forms, plans and specifications may be obtained at the office of the Department of Bridges.

JAMES W. STEVENSON,  
Commissioner of Bridges.

Dated November 21, 1907.

n22,d9

**See General Instructions to Bidders on the last page, last column, of the "City Record."**

## DEPARTMENT OF CORRECTION.

DEPARTMENT OF CORRECTION, No. 148 EAST TWENTIETH STREET, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

**SEALED BIDS OR ESTIMATES WILL BE** received by the Commissioner of Correction at the above office until 11 o'clock a. m. on

**TUESDAY, DECEMBER 10, 1907.**

**Borough of Manhattan.**

No. 1. FOR FURNISHING AND DELIVERING GROCERIES, VEGETABLES, PROVISIONS, YEAST, FORAGE, ETC.

The time for the delivery of the articles, materials and supplies and the performance of the contract is during the year 1908.

The amount of security required is fifty per cent. (50%) of the amount of the bid or estimate.

No. 2. FOR FURNISHING AND DELIVERING DRY GOODS, HARDWARE, PAINTS, OILS, LEATHER, TIN, CROCKERY AND MISCELLANEOUS ARTICLES.

The time for the delivery of the articles, materials and supplies and the performance of the contract is during the year 1908.

The amount of security required is fifty per cent. (50%) of the amount of the bid or estimate.

The bidder will state the price of each item or article contained in the specifications or schedules herein contained or hereto annexed, per pound, ton, dozen, gallon, yard or other unit of measure, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read from the totals and awards made to the lowest bidder on each item.

Delivery will be required to be made at the time and in the manner and in such quantities as may be directed.

Blank forms and further information may be obtained and the plans and drawings may be seen at the office of the Department of Correction, the Borough of Manhattan, No. 148 East Twentieth street.

JOHN V. COGGEY,  
Commissioner.

Dated November 27, 1907.

n29,d10

**See General Instructions to Bidders on the last page, last column, of the "City Record."**

DEPARTMENT OF CORRECTION, No. 148 EAST TWENTIETH STREET, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

**SEALED BIDS OR ESTIMATES WILL BE** received by the Commissioner of Correction at the above office until 11 o'clock a. m. on

**TUESDAY, DECEMBER 10, 1907.**

**Borough of Manhattan.**

No. 1. FOR FURNISHING AND DELIVERING FRUITS AND VEGETABLES.

The time for the delivery of the articles, materials and supplies and the performance of the contract is during the year 1908.

The amount of security required is fifty per cent. (50%) of the amount of the bid or estimate.

No. 2. FOR FURNISHING AND DELIVERING ICE.

The time for the delivery of the articles, materials and supplies and the performance of the contract is during the year 1908.

The amount of security required is fifty per cent. (50%) of the amount of the bid or estimate.

The bidder will state the price of each item or article contained in the specifications or schedules herein contained or hereto annexed, per pound, ton, dozen, gallon, yard or other unit of measure, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read from the totals and awards made to the lowest bidder on each item.

Delivery will be required to be made at the time and in the manner and in such quantities as may be directed.

Blank forms and further information may be obtained and the plans and drawings may be seen at the office of the Department of Correction, the Borough of Manhattan, No. 148 East Twentieth street.

JOHN V. COGGEY,  
Commissioner.

Dated November 27, 1907.

n29,d10

**See General Instructions to Bidders on the last page, last column, of the "City Record."**

DEPARTMENT OF CORRECTION, No. 148 EAST TWENTIETH STREET, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

**SEALED BIDS OR ESTIMATES WILL BE** received by the Commissioner of Correction at the above office until 11 o'clock a. m. on

**THURSDAY, DECEMBER 5, 1907.**

**Borough of Manhattan.**

FOR FURNISHING AND DELIVERING HARDWARE, PAINTS, IRON, STEAM FITTINGS, LUMBER AND MISCELLANEOUS ARTICLES.

The time for the delivery of the articles, materials and supplies and the performance of the contract is ten days.

The amount of security required is fifty per cent. (50%) of the amount of the bid or estimate.

The bidder will state the price of each item or article contained in the specifications or schedules herein contained or hereto annexed, per pound, ton, dozen, gallon, yard or other unit of measure, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read from the totals and awards made to the lowest bidder on each item.

The bids on lumber will be compared and the contract awarded at a lump or aggregate sum.

Delivery will be required to be made at the time and in the manner and in such quantities as may be directed.

Blank forms and further information may be obtained and the plans and drawings may be seen at the office of the Department of Correction, the Borough of Manhattan, No. 148 East Twentieth street.

JOHN V. COGGEY,  
Commissioner.

Dated November 21, 1907.

n22,d5

**See General Instructions to Bidders on the last page, last column, of the "City Record."**

DEPARTMENT OF CORRECTION, No. 148 EAST TWENTIETH STREET, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

**SEALED BIDS OR ESTIMATES WILL BE** received by the Commissioner of Correction at the above office until 11 o'clock a. m. on

**TUESDAY, DECEMBER 3, 1907.**

No. 1. FOR FURNISHING ALL THE LABOR AND MATERIALS REQUIRED FOR MAKING AND COMPLETING THE ALTERATIONS AND REPAIRS TO THE STEAMER "MASSASOIT."

The time for the completion of the work and the full performance of the contract is by or before 30 consecutive working days.

The amount of security required is fifty per cent. (50%) of the amount of bid or estimate.

Bids will be compared and the contract awarded at a lump or aggregate sum.

Blank forms and further information may be obtained at the office of the Department of Correction, the Borough of Manhattan, No. 148 East Twentieth street.

JOHN V. COGGEY,  
Commissioner.

Dated November 18, 1907.

n19,d3

**See General Instructions to Bidders on the last page, last column, of the "City Record."**

DEPARTMENT OF CORRECTION, No. 148 EAST TWENTIETH STREET, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

**SEALED BIDS OR ESTIMATES WILL BE** received by the Commissioner of Correction at the above office until 11 o'clock a. m. on

**TUESDAY, DECEMBER 3, 1907.**

**Borough of Manhattan.**

No. 1. FOR FURNISHING AND DELIVERING SUPPLIES FOR MANUFACTURING PURPOSES, ETC.

The time for the delivery of the articles, materials and supplies, and the performance of the contract is by or before thirty days.

The amount of security required is fifty per cent. (50%) of the amount of the bid or estimate.

The bidder will state the price of each item or article contained in the specifications or schedules herein contained or hereto annexed, per pound, ton, dozen, gallon, yard or other unit of measure, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read from the totals and awards made to the lowest bidder on each item.

Delivery will be required to be made at the time and in the manner and in such quantities as may be directed.

Blank forms and further information may be obtained and the plans and drawings may be seen at the office of the Department of Correction, the Borough of Manhattan, No. 148 East Twentieth street.

JOHN V. COGGEY,  
Commissioner.

Dated November 18, 1907.

n19,d3

**See General Instructions to Bidders on the last page, last column, of the "City Record."**

DEPARTMENT OF CORRECTION, No. 148 EAST TWENTIETH STREET, BOROUGH OF MANHATTAN, THE CITY OF NEW YORK.

**SEALED BIDS OR ESTIMATES WILL BE** received by the Commissioner of Correction at the above office until 11 o'clock a. m. on

**TUESDAY, DECEMBER 3, 1907.**

**Borough of Manhattan.**

No. 1. FOR FURNISHING AND DELIVERING HARDWARE, PAINTS, IRON, STEAM FITTINGS, LUMBER AND MISCELLANEOUS ARTICLES.

The time for the delivery of the articles, materials and supplies and the performance of the contract is by or before ten days.

The amount of security required is fifty per cent. (50%) of the amount of the bid or estimate.

The bidder will state the price of each item or article contained in the specifications or schedules herein contained or hereto annexed, per pound, ton, dozen, gallon, yard or other unit of measure, by which the bids will be tested. The extensions must be made and footed up, as the bids will be read from the totals and awards made to the lowest bidder on each item.

The bids on lumber will be compared and the contract awarded at a lump or aggregate sum.

Delivery will be required to be made at the time and in the manner and in such quantities as may be directed.

Blank forms and further information may be obtained and the plans and drawings may be seen at the office of the Department of Correction, the Borough of Manhattan, No. 148 East Twentieth street.

JOHN V. COGGEY,  
Commissioner.

Dated November 18, 1907.

n19,d3

**See General Instructions to Bidders on the last page, last column, of the "City Record."**

## BOARD OF CITY RECORD.

### PROPOSALS FOR BIDS OR ESTIMATES.

**SEALED BIDS OR ESTIMATES WILL BE** received at the office of the Supervisor of the City Record, Room 807, Park Row Building, Nos. 13 to 21 Park row, in The City of New York, until 11 o'clock a. m. on

**THURSDAY, DECEMBER 5, 1907.**

FOR SUPPLYING PRINTED, LITHOGRAPHED OR STAMPED FORMS, PAMPHLETS, PRINTED BLANKS AND STATIONERY, INCLUDING LETTER AND WRITING PAPER AND ENVELOPES, WITH PRINTED HEADINGS OR INDORSEMENTS, ETC., FOR THE USE OF THE COURTS AND THE DEPARTMENTS AND BUREAUS OF THE GOVERNMENT OF THE CITY OF NEW YORK DURING THE YEAR 1908.

The time of delivery shall not be later than June 30, 1908, except under the following conditions:

First—Delivery must be made not more than 30 days after the receipt of copy, if required by the Supervisor.

Second—Where revised copy is required by the character of the sample, all work shall be completed within 30 days after such revised copy is received from the Department by the contractor.

The amount of security shall be twenty-five per cent. of the amount of the bid.

The bidder must state the price for each item and the total price of each schedule. The bids will be tested and the award will be made to the lowest bidder by schedule.

Bidders will write out the total amount of their estimates in addition to inserting the same in figures.

Delivery will be required to be made at the office of the City Record from time to time and in such quantities as may be directed by the Supervisor of the City Record.

Bidders are requested to make their bids or estimates upon the blank form prepared by the Board of City Record, a copy of which, with the proper envelope in which to inclose the bid, together with a copy of the contract, including the specifications, in the form approved by the Corporation Counsel, can be obtained upon application therefor at the office of the City Record, where further information can be obtained.

GEORGE B. McCLELLAN,  
Mayor.

FRANCIS KEY PENDLETON,  
Corporation Counsel;

HERMAN A. METZ,  
Comptroller;

Board of City Record.

New York, November 22, 1907.

n23,d5

**See General Instructions to Bidders on the last page, last column, of the "City Record."**

## SUPREME COURT—FIRST DEPARTMENT.

### FIRST DEPARTMENT.

In the matter of the application of The City of New York, relative to the opening of WHITE PLAINS ROAD (although not yet named by proper authority) from the northern boundary of The City of New York to Morris Park avenue, in the Twenty-fourth Ward, Borough of The Bronx, in The City of New York. In re petition relative to damage caused by the closing, discontinuance and abandonment of old White Plains road, Elliott avenue and Barker avenue.

**NOTICE**



noon of that day, or as soon thereafter as counsel can be heard thereon; and that the said bill of costs, charges and expenses has been deposited in the office of the Clerk of the County of New York, there to remain for and during the space of ten days, as required by the provisions of section 999 of the Greater New York Charter, as amended by chapter 466 of the Laws of 1901.

Dated Borough of Manhattan, New York, November 30, 1907.

CHAS. DONOHUE,  
EDWIN W. FISKE,  
SAMUEL McMILLAN,  
Commissioners.

JOHN P. DUNN,  
Clerk.

n30,d11

#### FIRST DEPARTMENT.

In the matter of acquiring title by The City of New York to certain lands and premises situated on the EASTERLY LINE OF TENTH AVENUE, between Fiftyth and Fifty-first streets, in the Borough of Manhattan, City of New York, duly selected as a site for a public library, according to law.

NOTICE IS HEREBY GIVEN THAT THE report of S. Stanwood Menken, Adam T. Schneider and Ezekiel R. Thompson, Commissioners of Estimate and Appraisal, duly appointed in the above-entitled proceeding, which report bears date the 25th day of November, 1907, was filed in the office of the Board of Estimate and Apportionment of The City of New York on the 26th day of November, 1907, and a duplicate of said report was filed in the office of the Clerk of the County of New York on the same day.

Notice is further given that the said report will be presented for confirmation to the Supreme Court of the State of New York, in the First Judicial District, at Special Term, Part III, thereof, to be held at the County Court House, in the Borough of Manhattan, in The City of New York, on the 27th day of December, 1907, at the opening of the Court on that day, and that then and there, or as soon thereafter as counsel can be heard thereon, a motion will be made that the said report be confirmed.

Dated New York, November 26, 1907.

FRANCIS K. PENDLETON,  
Corporation Counsel.  
Hall of Records, Borough of Manhattan, City of New York.

n27,d9

#### FIRST DEPARTMENT.

In the matter of acquiring title by The City of New York to certain lands and premises situated on the northerly side of ONE HUNDRED AND FIFTH STREET, between Lexington and Park avenues, in the Borough of Manhattan, in The City of New York, duly selected as a site for school purposes.

NOTICE IS HEREBY GIVEN THAT THE report of Edward L. Patterson, Francis O'Neil and Ferdinand Levy, Commissioners of Estimate and Appraisal, duly appointed in the above-entitled proceeding, which report bears date the 12th day of November, 1907, was filed in the office of the Board of Estimate of The City of New York, on the 22nd day of November, 1907, and a duplicate of said report was filed in the office of the Clerk of the County of New York on the same day.

Notice is further given that the said report will be presented for confirmation to the Supreme Court of the State of New York, in the First Judicial District, at Special Term, Part III, thereof, to be held at the County Court House, in the Borough of Manhattan, in The City of New York, on the 23d day of December, 1907, at the opening of the Court on that day, and that then and there, or as soon thereafter as counsel can be heard thereon, a motion will be made that the said report be confirmed.

Dated New York, November 22, 1907.

FRANCIS KEY PENDLETON,  
Corporation Counsel.  
Hall of Records, Borough of Manhattan, City of New York.

n23,d5

#### FIRST DEPARTMENT.

In the matter of the application of The City of New York, relative to acquiring title, wherever the same has not been heretofore acquired, to the lands, tenements and hereditaments required for the opening and extending of the FIFTH NEW STREET north of West One Hundred and Eighty-first street (Watkins place), extending from Broadway to first new avenue west of Broadway (Bennett avenue), in the Twelfth Ward, Borough of Manhattan, City of New York.

NOTICE IS HEREBY GIVEN, THAT BY an order of the Supreme Court, bearing date the 26th day of July, 1907, and duly entered in the office of the Clerk of the County of New York at his office in the Borough of Manhattan, in The City of New York, on the 1st day of August, 1907, a copy of which order was duly filed in the office of the Register of the County of New York, and indexed in the Index of Conveyances, Block No. 2180, we, Harvey Watterson, Gustav Lange, Jr., and James Shelton Meng, were appointed Commissioners of Estimate for the purpose of making a just and equitable estimate and assessment of the loss and damage, to the respective owners, lessees, parties and persons respectively entitled unto or interested in the lands, tenements, hereditaments and premises required for the purpose by and in consequence of opening and extending the above mentioned street or avenue, the same being particularly set forth and described in the petition of The City of New York, and also in the notice of the application for the said order thereto attached, filed herein in the office of the Clerk of the County of New York on the 1st day of August, 1907, and of ascertaining and defining the extent and boundaries of the respective tracts or parcels of land to be taken or to be assessed therefor, and of performing the trusts and duties re-

quired of us by chapter 17, title 4 of the Greater New York Charter, as amended, and the acts or parts of acts supplementary thereto or amendatory thereof.

All parties and persons interested in the real estate taken or to be taken for the purpose of opening and extending the said street or avenue and affected thereby, and having any claim or demand on account thereof, are hereby required to present the same, duly verified, to us, the undersigned Commissioners of Estimate, at our office, ninth floor, Nos. 90 and 92 West Broadway, in the Borough of Manhattan, in The City of New York, with such affidavit or other proof as the owners or claimants may desire, within ten days after the date of this notice.

And we, the said Commissioners, will be in attendance at our said office on the 5th day of December, 1907, at 2 o'clock in the afternoon of that day, to hear the said parties and persons in relation thereto. And at such time and place, and at such further or other time and place as we may appoint, we will hear such owners in relation thereto and examine the proofs of such claimant or claimants, or such additional proofs and allegations as may then be offered by such owner, or on behalf of The City of New York.

Dated Borough of Manhattan, City of New York, November 20, 1907.

HARVEY WATTERSON,  
GUSTAV LANGE, Jr.,  
JAMES SHELTON MENG,  
Commissioners.

JOHN P. DUNN,  
Clerk.

n20,d3

#### FIRST DEPARTMENT.

In the matter of the application of The City of New York, relative to acquiring title, wherever the same has not been heretofore acquired, to the lands and premises required for the construction of the BRIDGE over the Hutchinson river, on the line of the Boston road, Borough of The Bronx, City of New York (Eastchester Bridge).

NOTICE IS HEREBY GIVEN THAT WE, the undersigned, were appointed by an order of the Supreme Court, bearing date the 26th day of July, 1907, and duly entered in the office of the Clerk of the County of New York, at his office in the Borough of Manhattan, in The City of New York, on the 1st day of August, 1907, a copy of which order was duly filed in the office of the Register of the County of New York, and indexed in the Index of Conveyances, "Annexed Territory," east of Bronx river, Commissioners of Estimate and Appraisal, for the purpose of making a just and equitable estimate and assessment of the loss and damage to the respective owners, lessees, parties and persons respectively entitled unto or interested in the lands, tenements, hereditaments and premises required for the construction of the above-mentioned bridge over the Hutchinson river, the same being particularly set forth and described in the petition of The City of New York, and also in the notice of the application for the said order thereto attached, filed herein in the office of the Clerk of the County of New York on the 1st day of August, 1907; and of ascertaining and defining the extent and boundaries of the respective tracts or parcels of land to be taken therefor, and of performing the trusts and duties required of us by chapter 17, title 4 of the Greater New York Charter, as amended, and the acts or parts of acts supplementary thereto or amendatory thereof.

All parties and persons interested in the real estate taken or to be taken for the purpose of constructing the said bridge, and affected thereby, and having any claim or demand on account thereof, are hereby required to present the same, duly verified, to us, the undersigned Commissioners of Estimate and Appraisal, at our office, ninth floor, Nos. 90 and 92 West Broadway, in the Borough of Manhattan, in The City of New York, with such affidavit and other proof as the owners or claimants may desire, within ten days after the date of this notice.

And we, the said Commissioners, will be in attendance at our said office on the 5th day of December, 1907, at 4 o'clock in the afternoon of that day, to hear the said parties and persons in relation thereto. And at such time and place, and at such further or other time and place as we may appoint, we will hear such owners in relation thereto and examine the proofs of such claimant or claimants, or such additional proofs and allegations as may then be offered by such owner, or on behalf of The City of New York.

Dated Borough of Manhattan, City of New York, November 20, 1907.

ERNEST HALL,  
GEORGE H. ENGEL,  
WILLIAM A. COKELEY,  
Commissioners.

JOHN P. DUNN,  
Clerk.

n20,d3

#### FIRST DEPARTMENT.

In the matter of the application of The City of New York, relative to acquiring title wherever the same has not been heretofore acquired, to the lands, tenements and hereditaments required for the opening and extending of WEST ONE HUNDRED AND SIXTY-SEVENTH STREET (although not yet named by proper authority) from Broadway to St. Nicholas avenue; PUBLIC PLACE, bounded by Broadway, St. Nicholas avenue and West One Hundred and Sixty-seventh street; PUBLIC PLACE, bounded by West One Hundred and Sixty-sixth street, St. Nicholas avenue, West One Hundred and Sixty-seventh street and Broadway, in the Twelfth Ward, Borough of Manhattan, City of New York.

NOTICE IS HEREBY GIVEN THAT, BY an order of the Supreme Court, bearing date the 26th day of July, 1907, and duly entered in the office of the Clerk of the County of New York, at his office in the Borough of Manhattan, in The City of New York, on the 1st day of August, 1907, a copy of which order was duly filed in the office of the Register of the County of New York, and indexed in the Index of Conveyances, Block 2124, we, John H. Judge, Thomas Sutherland Scott and Robert J. Daly were appointed Commissioners of Estimate for the purpose of making a just and equitable estimate and assessment of the loss and damage to the respective owners, lessees, parties and persons respectively entitled unto or interested in the lands, tenements, hereditaments and premises required for the purpose by and in consequence of opening and extending the above-mentioned street or avenue and public places, the same being particularly set forth and described in the petition of The City of New York, and also in the notice of the application for the said order thereto attached, filed herein in the

office of the Clerk of the County of New York on the 1st day of August, 1907, and the said John H. Judge was appointed Commissioner of Assessment for the purpose of making a just and equitable estimate and assessment of the value of the benefit and advantage of the said street or avenue and public places so to be opened and extended, to the respective owners, lessees, parties and persons respectively entitled to or interested in the respective lands, tenements, hereditaments and premises situated within the area of assessment adopted by the Board of Estimate and Apportionment and not required for the purpose of opening and extending the same, but benefited thereby, the said area of assessment being particularly set forth and described in the petition of The City of New York, and also in the notice of the application for the said order thereto attached, filed herein in the office of the Clerk of the County of New York on the 1st day of August, 1907, and of ascertaining and defining the extent and boundaries of the respective tracts or parcels of land to be taken or to be assessed therefor, and of performing the trusts and duties required of us by chapter 17, title 4, of the Greater New York Charter, as amended, and the acts or parts of acts supplementary thereto or amendatory thereof.

All parties and persons interested in the real estate taken or to be taken for the purpose of opening and extending the said street or avenue and public places and affected thereby, and having any claim or demand on account thereof, are hereby required to present the same, duly verified to us, the undersigned Commissioners of Estimate, at our office, ninth floor, Nos. 90 and 92 West Broadway, in the Borough of Manhattan, in The City of New York, with such affidavit or other proof as the owners or claimants may desire, within ten days after the date of this notice.

And we, the said Commissioners, will be in attendance at our said office on the 5th day of December, 1907, at 3 o'clock in the afternoon of that day, to hear the said parties and persons in relation thereto. And at such time and place, and at such further or other time and place as we may appoint, we will hear such owners in relation thereto and examine the proofs of such claimant or claimants, or such additional proofs and allegations as may then be offered by such owner, or on behalf of The City of New York.

Dated Borough of Manhattan, City of New York, November 20, 1907.

JOHN H. JUDGE,  
ROBERT J. DALY,  
THOMAS S. SCOTT,  
Commissioners.

JOHN P. DUNN,  
Clerk.

n20,d3

#### SUPREME COURT—SECOND DEPARTMENT.

#### SECOND DEPARTMENT.

In the matter of the application of The City of New York relative to acquiring title, wherever the same has not been heretofore acquired, to the lands, tenements and hereditaments required for the opening and extending of CHARLES AVENUE (although not yet named by proper authority), from Richmond avenue to Nicholas avenue, in the Third Ward, Borough of Richmond, City of New York.

WE, THE UNDERSIGNED COMMISSIONERS of Estimate and Assessment in the above entitled matter, hereby give notice to all persons interested in this proceeding, and to the owner or owners, occupant or occupants of all houses and lots and improved and unimproved lands affected thereby, and to all others whom it may concern, to wit:

First—That we have completed our supplemental and amended estimate and assessment, and that all persons interested in this proceeding, or in any of the lands, tenements and hereditaments and premises affected thereby, and having objections thereto, do present their said objections in writing, duly verified, to us at our office, Nos. 90 and 92 West Broadway, in the Borough of Manhattan, in The City of New York, on or before the 19th day of December, 1907, and that we, the said Commissioners, will hear parties so objecting, and for that purpose will be in attendance at our said office on the 20th day of December, 1907, at 3 o'clock p. m.

Second—That the abstracts of our said supplemental and amended estimate and assessment, together with our damage and benefit maps, and also all the affidavits, estimates, proofs and other documents used by us in making the same, have been deposited in the Bureau of Street Openings in the Law Department of The City of New York, Nos. 90 and 92 West Broadway, in the Borough of Manhattan, in said City, there to remain until the 20th day of December, 1907.

Third—That the limits of our assessment for benefit include all those lands, tenements and hereditaments and premises situate, lying and being in the Borough of Richmond, in The City of New York, which, taken together, are bounded and described as follows, viz.:

Beginning at a point formed by the intersection of the westerly prolongation of the middle line of the blocks between Charles avenue and Hatfield place, and a line parallel to and distant one hundred (100) feet west of the westerly line of Nicholas avenue, running thence northerly along said parallel line to its intersection with the westerly prolongation of the middle line of the blocks between Charles avenue and Hatfield avenue; thence easterly along said westerly prolongation and middle line to its intersection with a line parallel to and distant one hundred (100) feet west of the westerly line of Richmond avenue; thence northerly along said parallel line to its intersection with the westerly prolongation of a line parallel to and distant one hundred (100) feet north of the northerly line of Mersereau avenue; thence easterly along said prolongation and parallel line to its intersection with the middle line of the blocks between Richmond avenue and Herberton avenue; thence southerly along said middle line to its intersection with a line parallel to and distant one hundred (100) feet north of the northerly line of Albion place; thence easterly along said last-mentioned parallel line to its intersection with a line parallel to and distant one hundred (100) feet east of the easterly line of Herberton avenue; thence southerly along said parallel line to its intersection with a line parallel to and distant one hundred (100) feet south of the southerly line of Albion place; thence westerly along said parallel line to its intersection with the middle line of the blocks between Richmond avenue and Herberton avenue; thence southerly along said middle line to its intersection with a line parallel to and distant one hundred (100) feet south of the southerly line of Post avenue; thence westerly along said last-mentioned parallel line and its westerly prolongation to its intersection with the middle line of the block between Charles avenue and Hatfield place; thence wester-

ly along said last-mentioned middle line and its westerly prolongation, to the point or place of beginning, excepting from said area all streets, avenues and roads or portions thereof heretofore legally opened as such area is shown upon our benefit maps, deposited as aforesaid.

Fourth—That, provided there be no objections filed to either of said abstracts, our final report herein will be presented for confirmation to the Supreme Court of the State of New York, Second Department, at a Special Term thereof for the hearing of motions, to be held in the County Court House, in the Borough of Brooklyn, in The City of New York, on the 29th day of January, 1908, at the opening of the Court on that day.

Fifth—In case, however, objections are filed to either of said abstracts of estimate and assessment, the notice of motion to confirm our final report herein will stand adjourned to the date to be hereafter specified, and of which notice will be given to all those who have theretofore appeared in this proceeding, as well as by publication in the CITY RECORD, pursuant to sections 981 and 984 of the Greater New York Charter, as amended by chapter 658 of the Laws of 1906.

Dated Borough of Manhattan, New York, November 12, 1907.

WM. T. CROAK,  
Chairman;  
JOHN L. DERY,  
Commissioners.

JOHN P. DUNN,  
Clerk.

n29,d17

#### SECOND DEPARTMENT.

In the matter of the application of The City of New York, relative to acquiring title, wherever the same has not been heretofore acquired, to the lands, tenements and hereditaments required for the opening of CARROLL STREET, from Albany avenue to East New York avenue, in the Twenty-fourth and Twenty-ninth Wards, Borough of Brooklyn, City of New York.

WE, THE UNDERSIGNED COMMISSIONERS of Estimate and Assessment in the above-entitled matter, hereby give notice to all persons interested in this proceeding, and to the owner or owners, occupant or occupants of all houses and lots and improved and unimproved lands affected thereby, and to all others whom it may concern, to wit:

First—That we have completed our estimate and assessment, and that all persons interested in this proceeding, or in any of the lands, tenements and hereditaments and premises affected thereby, and having objections thereto, do present their said objections, in writing, duly verified, to us, at our office, in the office of the Law Department, No. 166 Montague street, in the Borough of Brooklyn, in The City of New York, on or before the 19th day of December, 1907, and that we, the said Commissioners, will hear parties so objecting, and for that purpose will be in attendance at our said office on the 23d day of December, 1907, at 4 o'clock p. m.

Second—That the abstracts of our said estimate and assessment, together with our damage and benefit maps, and also all the affidavits, estimates, proofs and other documents used by us in making the same, have been deposited in the Bureau of Street Openings in the Law Department of The City of New York, No. 166 Montague street, in the Borough of Brooklyn, in said City, there to remain until the 30th day of December, 1907.

Third—That the limits of our assessment for benefit include all those lands, tenements and hereditaments and premises situate, lying and being in the Borough of Brooklyn, in The City of New York, which, taken together, are bounded and described as follows, viz.:

Beginning at a point formed by the intersection of the easterly side of Albany avenue and the centre line of the blocks between Crown street and Carroll street, and running thence northerly along said easterly side of Albany avenue to its intersection with the centre line of the blocks between Carroll street and President street; thence easterly along said centre line of the blocks between Carroll street and President street to its intersection with the northeasterly side of East New York avenue; thence southerly along said northeasterly side of East New York avenue to its intersection with the centre line of the blocks between Crown street and Carroll street; thence westerly along said centre line of the blocks between Crown street and Carroll street to the point or place of beginning.

Fourth—That, provided there be no objections filed to either of said abstracts, our final report herein will be presented for confirmation to the Supreme Court of the State of New York, Second Department, at a Special Term thereof for the hearing of motions, to be held in the County Court House, in the Borough of Brooklyn, in The City of New York, on the 24th day of February, 1908, at the opening of the Court on that day.

Fifth—In case, however, objections are filed to either of said abstracts of estimate and assessment, the notice of motion to confirm our final report herein will stand adjourned to the date to be hereafter specified, and of which notice will be given to all those who have theretofore appeared in this proceeding, as well as by publication in the CITY RECORD, and in the corporation newspapers, pursuant to sections 981 and 984 of the Greater New York Charter, as amended by chapter 658 of the Laws of 1906.

Dated Borough of Brooklyn, New York, November 29, 1907.

EDWARD KELLY,  
Chairman;  
JAS. B. SHELDON,  
SOLON BARBANELL,  
Commissioners.

JAMES F. QUIGLEY,  
Clerk.

n29,d16

#### SECOND DEPARTMENT.

In the matter of the application of The City of New York, relative to acquiring title, wherever the same has not been heretofore acquired, to the lands, tenements and hereditaments required for the opening and extending of CROWN STREET, from Albany avenue to East New York avenue, in the Twenty-fourth and Twenty-ninth Wards, Borough of Brooklyn, City of New York.

WE, THE UNDERSIGNED COMMISSIONERS of Estimate and Assessment in the above-entitled matter, hereby give notice to all persons interested in this proceeding, and to the owner or owners, occupant or occupants of all houses and lots and improved and unimproved lands affected thereby, and to all others whom it may concern, to wit:

First—That we have completed our estimate and assessment, and that all persons interested in this proceeding, or in any of the lands, tenements and hereditaments and premises affected



thereby, and having objections thereto, do present their said objections in writing, duly verified, to us at our office, in the office of the Law Department, No. 166 Montague street, in the Borough of Brooklyn, in The City of New York, on or before the 19th day of December, 1907, and that we, the said Commissioners, will hear parties so objecting, and for that purpose will be in attendance at our said office on the 23d day of December, 1907, at 3 o'clock p. m.

Second—That the abstract of our said estimate and assessment, together with our damage and benefit maps, and also all the affidavits, estimates, proofs and other documents used by us in making the same, have been deposited in the Bureau of Street Openings, in the Law Department of The City of New York, No. 166 Montague street, in the Borough of Brooklyn, in said City, there to remain until the 30th day of December, 1907.

Third—That the limits of our assessment for benefit include all those lands, tenements and hereditaments and premises situate, lying and being in the Borough of Brooklyn, in The City of New York, which, taken together, are bounded and described as follows, viz:

Beginning at a point formed by the intersection of the easterly side of Albany avenue with the centre line of the blocks between Montgomery street and Crown street, and running thence northerly along said easterly side of Albany avenue to its intersection with the centre line of the blocks between Crown street and Carroll street; thence easterly along said centre line of the blocks between Crown street and Carroll street to its intersection with the northeasterly side of East New York avenue; thence southwesterly along the northeasterly side of East New York avenue to its intersection with the centre line of the blocks between Montgomery avenue and Crown street; thence westerly along said centre line of the blocks between Montgomery street and Crown street to the point or place of beginning.

Fourth—That, provided there be no objections filed to either of said abstracts, our final report herein will be presented for confirmation to the Supreme Court of the State of New York, Second Department, at a Special Term thereof, for the hearing of motions, to be held in the County Court House in the Borough of Brooklyn, in The City of New York, on the 24th day of February, 1908, at the opening of the Court on that day.

Fifth—In case, however, objections are filed to either of said abstracts of estimate and assessment, the notice of motion to confirm our final report herein will stand adjourned to the date to be hereafter specified, and of which notice will be given to all those who have theretofore appeared in this proceeding, as well as by publication in the CITY RECORD and in the corporation newspapers, pursuant to sections 981 and 984 of the Greater New York Charter, as amended by chapter 658 of the Laws of 1906.

Dated Borough of Brooklyn, New York, November 29, 1907.

WALTER T. BENNETT,  
Chairman;  
F. MATTHEW SAAUZE,  
SOLON BARBANELL,  
Commissioners.

JAMES F. QUIGLEY,  
Clerk.

n29,d16

## SECOND DEPARTMENT.

In the matter of acquiring title by The City of New York to certain lands and premises situated on the SOUTHEASTERLY CORNER OF GRAFTON AVENUE AND CLINTON PLACE, in the Fourth Ward of the Borough of Queens, in The City of New York, duly selected as a site for school purposes, according to law.

WE, THE UNDERSIGNED COMMISSIONERS of Estimate and Appraisal in the above-entitled proceeding, do hereby give notice to the owner or owners, lessee or lessees, parties or persons respectively entitled to or interested in the lands, tenements, hereditaments and premises, title to which is sought to be acquired in this proceeding, and to all others whom it may concern, to wit:

First—That we have completed our estimate of the loss and damage to the respective owners, lessees, parties or persons respectively entitled to or interested in the lands and premises affected by this proceeding, or having any interest therein, and have filed a true report or transcript of such estimate in the office of the Board of Education of The City of New York, situated at the southwest corner of Fifty-ninth street and Park avenue, in the Borough of Manhattan, City of New York, for the inspection of whomsoever it may concern.

Second—That all parties or persons whose rights may be affected by the said estimate, or who may object to the same, or any part thereof, may, within ten days after the first publication of this notice, on November 27, 1907, file their objections, in writing, with us, at our office, Room 401, No. 258 Broadway, in the Borough of Manhattan, in The City of New York; and we, the said Commissioners, will hear parties so objecting, at our said office, on the 10th day of December, 1907, at 3 o'clock in the afternoon of that day, and upon such subsequent days as may be found necessary.

Dated New York, November 27, 1907.  
FREDERICK CUZNER,  
JOSEPH H. FITZPATRICK,  
CORTLAND C. WOODBURN,  
Commissioners.

JOSEPH M. SCHENCK,  
Clerk.

n27,d9

## SUPREME COURT—THIRD JUDICIAL DISTRICT.

### THIRD JUDICIAL DISTRICT.

#### ULSTER COUNTY.

Ashokan Reservoir, Section No. 3, Ulster County.

Towns of Olive, Marletown and Hurley.

In the matter of the application and petition of J. Edward Simmons, Charles N. Chadwick and Charles A. Shaw, constituting the Board of Water Supply of The City of New York, to acquire real estate for and on behalf of The City of New York, under chapter 724 of the Laws of 1905 and the acts amendatory thereof, in the Towns of Olive, Marletown and Hurley, Ulster County, N. Y., for the purpose of providing an additional supply of pure and wholesome water for the use of The City of New York.

PUBLIC NOTICE IS HEREBY GIVEN that the first separate report of George Holmes Smith, Henry Smith and Josiah J. Hasbrouck, who were appointed Commissioners of

Appraisal in the above-entitled matter, by an order of this Court made at a Special Term thereof, held at the Court House in the City of Kingston, Ulster County, N. Y., April 20, 1907, was filed in the office of the Clerk of the County of Ulster on the 23d day of November, 1907, and affects Parcels Nos. one hundred and twenty-two (122), ninety-six (96), one hundred and twenty-nine (129), ninety (90), ninety-four (94), one hundred and seventeen (117), one hundred and twenty-four B (124-B), one hundred and twenty-five (125), one hundred and thirty (130), one hundred and nineteen (119), one hundred and twenty-six (126), one hundred and six A (106-A), one hundred and twenty-four A (124-A), one hundred and twenty-one (121), eighty-five (85), eighty-nine (89), eighty-three (83) and one hundred and thirty-four (134), shown on the map in this proceeding.

Notice is further given that an application will be made at a Special Term of the Supreme Court of the State of New York to be held in and for the Third Judicial District, at the Court House in the City of Kingston, Ulster County, N. Y., on the 21st day of December, 1907, at 10 o'clock in the forenoon of that day, or as soon thereafter as counsel can be heard, for an order confirming said report, and for such other and further relief as may be just.

Dated New York, November 25, 1907.  
FRANCIS KEY PENDLETON,  
Corporation Counsel.  
Hall of Records, New York City. n30,d21

### THIRD JUDICIAL DISTRICT.

#### ULSTER COUNTY.

### CATSKILL AQUEDUCT.

#### Section No. 5.

### NOTICE OF APPLICATION FOR THE APPOINTMENT OF COMMISSIONERS OF APPRAISAL.

PUBLIC NOTICE IS HEREBY GIVEN that it is the intention of the Corporation Counsel of The City of New York to make application to the Supreme Court of the State of New York for the appointment of Commissioners of Appraisal under chapter 724 of the Laws of 1905, as amended. Such application will be made at a Special Term of the Supreme Court to be held in and for the Third Judicial District at the Court House in the City of Kingston, New York, on December 21, 1907, at 10 o'clock in the forenoon of that day, or as soon thereafter as counsel can be heard. The object of such application is to obtain an order of the Court appointing three disinterested and competent freeholders, one of whom shall reside in the County of New York, and at least one of whom shall reside in the county where the real estate herein-after described is situated, to act as Commissioners of Appraisal under said act and discharge all the duties conferred by the said law and the acts amendatory thereof, upon such Commissioners of Appraisal, for the purpose of providing an additional supply of pure and wholesome water for The City of New York.

The real estate to be acquired herein is situated in the Towns of Gardiner, Plattekill and Shawangunk, and is to be acquired for the purpose of furnishing an additional supply of pure and wholesome water to The City of New York.

The following is a statement of the boundaries of the lands to be acquired herein, with a reference to the date and place of filing of the map:

All those certain pieces or parcels of real estate situated in the Towns of Gardiner, Plattekill and Shawangunk, County of Ulster and State of New York, shown on a certain map, entitled, "Northern Aqueduct Department, Section No. 5, Board of Water Supply of The City of New York. Map of real estate situated in the Towns of Gardiner, Plattekill and Shawangunk, County of Ulster and State of New York, to be acquired by The City of New York under the provisions of chapter 724 of the Laws of 1905, as amended, for the construction of Catskill Aqueduct and appurtenances, from the vicinity of Libertyville to Orange County line, near St. Elmo," which map was filed in the office of the County Clerk of the County of Ulster, at Kingston, New York, on the 14th day of October, 1907; which parcels are bounded and described as follows:

Beginning at the most easterly point of Parcel No. 201, in the easterly line of a road leading from Mohonk to Minnewaska, shown on map of real estate, Section No. 4, Northern Aqueduct Department, filed in the office of the County Clerk of the County of Ulster, at Kingston, New York, on the 11th day of October, 1907, which point is the most northerly point of Parcel No. 203 of real estate, Section No. 5, Northern Aqueduct Department, hereby described and running thence along the easterly line of said Parcel No. 203 and Parcels Nos. 204 and 205, south 13 degrees 20 minutes east 4,185.5 feet, crossing a road leading from New Paltz to Minnewaska, to the southeast corner of said Parcel No. 205, in the northerly line of Parcel No. 206; thence partly along said line, north 60 degrees 34 minutes east 324.1 feet to the northeast corner of said parcel; thence along the easterly line of same, south 29 degrees 24 minutes east 976.4 feet to the southeast corner of said parcel; thence along the southerly line of same, south 60 degrees 34 minutes west 600 feet to the southwest corner of said parcel, in the centre of a road leading from Minnewaska to Libertyville, in the easterly line of Parcel No. 207; thence partly along said line and along the easterly lines of Parcels Nos. 208 and 209, south 14 degrees 40 minutes east 3,064 feet, crossing a road leading from Libertyville to Tuthill and the Wallkill river, to the southeast corner of said Parcel No. 209, in the southerly shore line of said river; thence along said shore line and partly along the southerly line of said parcel, south 73 degrees 40 minutes west 8.6 feet to the northeast corner of Parcel No. 210; thence partly along the easterly line of said parcel, south 32 degrees 33 minutes east 398.6 feet, south 38 degrees 1 minute east 951.3 feet, south 75 degrees 20 minutes west 490.8 feet and south 14 degrees 40 minutes east 1,010.9 feet to the northwest corner of Parcel No. 211; thence along the northerly line of said parcel the following courses and distances: North 89 degrees 27 minutes east 228.2 feet, south 84 degrees 16 minutes east 217.3 feet, south 80 degrees 19 minutes east 422.3 feet, north 76 degrees 42 minutes east 149 feet and north 69 degrees 20 minutes east 90.4 feet to the northeast corner of said parcel, in the westerly line of a road leading from New Paltz to Gardiner; thence along said road line and the easterly line of said parcel, south 13 degrees 30 minutes east 25.2 feet to the southeast corner of said parcel; thence along the southerly line of same the following courses and distances: South 69 degrees 13 minutes west 88.8 feet, south 76 degrees 41 minutes west 155.8 feet, north 80 degrees 19 minutes west 426.6 feet, north 84 degrees 16 minutes west 215.1 feet and south 89 degrees 27 minutes west 220.4 feet to the southwest corner of said parcel, in the be-

fore mentioned easterly line of Parcel No. 210; thence partly along said line, south 14 degrees 40 minutes east 301.9 feet to the northeast corner of Parcel No. 212; thence partly along the easterly line of said parcel, south 14 degrees 40 minutes east 2,024.3 feet and south 50 degrees 11 minutes east 578.9 feet to another point in the road leading from New Paltz to Gardiner; thence along the centre line of said road, south 9 degrees 45 minutes west 150 feet and south 13 degrees 8 minutes west 287.3 feet to the point of intersection of said centre line and the northerly line produced of a road leading from Forest Glen to Wallkill river; thence along said northerly line produced and the northerly line of said road, north 63 degrees 1 minute west 187.6 feet; thence continuing along the easterly line of Parcel No. 212, south 14 degrees 40 minutes east 398.6 feet, crossing said road leading to Wallkill river, to the most northerly point of Parcel No. 213, in the centre of the before mentioned road leading from New Paltz to Gardiner; thence along the easterly line of said parcel, south 14 degrees 40 minutes east 1,326.8 feet, crossing said road leading to Gardiner, to the southeast corner of said parcel, in the northerly line of Parcel No. 214; thence partly along said line and the northerly property line of the Wallkill Valley Railroad Company, south 70 degrees 12 minutes east 47 feet, to the most easterly point of said parcel; thence partly along the southerly line of same, and continuing along said northerly railroad property line, south 57 degrees 38 minutes west 40.7 feet to the northeast corner of Parcel No. 215; thence along the easterly line of said parcel, south 14 degrees 40 minutes east 68.4 feet, crossing the property of said railroad company, to the southeast corner of said parcel, in the northerly line of Parcel No. 216; thence partly along said line, and along the southerly property line of said railroad company, south 59 degrees 50 minutes east 111.8 feet and south 50 degrees 45 minutes east 19.8 feet; thence continuing along the northerly line of Parcel No. 216, south 65 degrees 38 minutes east 145.2 feet to the northeast corner of said parcel; thence partly along the easterly line of same, south 10 degrees 51 minutes west 538.6 feet to the most northerly point of Parcel No. 217; thence along the easterly lines of said parcel and Parcels Nos. 218, 219 and 220, the following courses and distances: South 14 degrees 40 minutes east 559.1 feet, south 34 degrees 53 minutes east 1,196.4 feet, south 21 degrees 23 minutes west 275 feet, crossing a road leading from Gardiner to New Paltz, south 55 degrees 2 minutes west 268.2 feet, south 14 degrees 40 minutes east 4,695.6 feet, crossing a road leading from Gardiner to Ireland Corners and a road leading from New Paltz to Ireland Corners, south 68 degrees 46 minutes east 565.5 feet and south 11 degrees 14 minutes west 559 feet to the southeast corner of said Parcel No. 220; thence partly along the southerly line of said parcel, north 68 degrees 46 minutes west 276.9 feet to the northeast corner of Parcel No. 221; thence partly along the easterly line of said parcel, the following courses, distances and curve: South 3 degrees 36 minutes west 351.9 feet, north 86 degrees 24 minutes west 25 feet, south 3 degrees 36 minutes west 340 feet, on a curve of 275 feet radius to the right, 23.6 feet, and south 8 degrees 31 minutes west 629.5 feet to a point in the northerly line of a road leading from Ireland Corners to Modena; thence along said road line, south 53 degrees 53 minutes east 84.7 feet; thence continuing along the easterly line of Parcel No. 221, south 8 degrees 31 minutes west 90 feet, crossing said road, to the southeast corner of said parcel; thence partly along the southerly line of same, north 7 degrees 45 minutes west 76.4 feet to the northeast corner of Parcel No. 222; thence along the easterly lines of said parcel and Parcels Nos. 223, 224, 226, 228, partly along the easterly lines of Parcels Nos. 229 and 230, and along the easterly line of Parcel No. 231, the following courses, distances and curves: South 8 degrees 31 minutes west 367.1 feet, on a curve of 275 feet radius to the right, 230 feet, south 56 degrees 26 minutes west 379.4 feet, on a curve of 125 feet radius to the left, 46.6 feet, south 35 degrees 6 minutes west 814.6 feet, on a curve of 275 feet radius to the right, 57 feet, south 46 degrees 58 minutes west 189.3 feet, on a curve of 125 feet radius to the left, 66 feet, south 16 degrees 44 minutes west 917.6 feet, on a curve of 275 feet radius to the right, 68.6 feet, south 31 degrees 2 minutes west 499.6 feet, on a curve of 125 feet radius to the left, 22.7 feet, south 20 degrees 38 minutes west 218.9 feet, on a curve of 275 feet radius to the right, 60.2 feet, south 33 degrees 10 minutes west 228.9 feet, on a curve of 275 feet radius to the right, 67.5 feet, south 11 degrees 32 minutes west 362.8 feet, on a curve of 275 feet radius to the right, 33.3 feet, south 18 degrees 28 minutes west 1,411.8 feet, crossing a road leading from New Paltz to New Hurley, south 4 degrees 1 minute east 929 feet, south 20 degrees 2 minutes east 448.5 feet, north 69 degrees 58 minutes east 63.8 feet, south 9 degrees 28 minutes east 839.3 feet, recrossing said road, on a curve of 325 feet radius to the right, 123.5 feet, and south 12 degrees 17 minutes west 438.8 feet to a point in the centre of said road, at the most southerly point of said Parcel No. 231, in the easterly line of Parcel No. 232; thence partly along said line and along the easterly line of said road, the following courses and distances: South 4 degrees 33 minutes west 128.5 feet, south 18 minutes west 93.5 feet, south 16 degrees 29 minutes west 207.3 feet, south 16 degrees 3 minutes west 1,026 feet, south 16 degrees 31 minutes west 74.9 feet and south 11 degrees 17 minutes east 136.4 feet to the northeast corner of Parcel No. 234; thence partly along the easterly line of said parcel and along the easterly line of Parcel No. 235, south 20 degrees 59 minutes west 276.6 feet and south 15 minutes east 403.6 feet to the southeast corner of said Parcel No. 235, in the easterly line of before mentioned Parcel No. 234; thence partly along said line, south 73 degrees 7 minutes east 141.7 feet, crossing a road leading from Modena to New Hurley, to a point in the line between the Towns of Gardiner and Plattekill; thence along said town line, along the easterly line of said road, and continuing along the easterly line of Parcel No. 234, south 20 degrees 33 minutes west 381.2 feet to the most northerly point of said parcel, partly along the easterly line of Parcel No. 238, along the easterly lines of Parcels Nos. 240 and 239, and partly along the easterly line of Parcel No. 241, the following courses, distances and curve: South 15 minutes east 476.9 feet, on a curve of 100 feet radius to the left, 27.2 feet, south 15 degrees 49 minutes east 690.9 feet, south 10 degrees 4 minutes east 58.4 feet, south 5 degrees 3 minutes west 185.2 feet and south 1 degree 25 minutes west 350.7 feet to the southeast corner of said Parcel No. 241, in the northerly line of Parcel No. 242, said northerly line being also the centre line of a road leading from New Hurley to Flint and the line between the Towns of Plattekill and Shawangunk; thence partly along said northerly line and along the centre line of said road, south 71 degrees 36 minutes east 71.3 feet to the northeast corner of said parcel; thence partly along the easterly line of

same, south 10 degrees 36 minutes east 68.5 feet and south 17 degrees 45 minutes west 525.4 feet to the northwest corner of Parcel No. 243; thence along the northerly line of said parcel, south 71 degrees 26 minutes east 57.2 feet to the northeast corner of same; thence along the easterly line of said parcel and partly along the easterly line of Parcel No. 244 the following courses, distances and curves: South 1 degree 25 minutes west 146.2 feet, on a curve of 100 feet radius to the left, 39.2 feet, south 21 degrees 2 minutes east 502.8 feet, south 13 degrees 12 minutes east 323.7 feet, on a curve of 300 feet radius to the right, 110.1 feet, south 7 degrees 51 minutes west 478.1 feet and south 32 degrees 58 minutes east 1,059 feet to a point in the westerly line of a road leading from New Paltz to St. Elmo; thence along said road line, continuing along the easterly line of Parcel No. 244, and running partly along the easterly line of Parcel No. 245, south 14 degrees 18 minutes west 87.7 feet, south 13 degrees 26 minutes west 372.7 feet and south 10 degrees 28 minutes west 250 feet; thence south 79 degrees 32 minutes east 34 feet, crossing said road, to a point in the easterly line thereof; thence along said road line, and continuing along the easterly line of Parcel No. 245, south 10 degrees 22 minutes west 575.6 feet to the southeast corner of said parcel, in the northerly line of Parcel No. 246; thence partly along said line, and continuing along said easterly road line, south 9 degrees 20 minutes west 14.8 feet; thence continuing along the northerly line of Parcel No. 246, south 80 degrees 20 minutes east 55.4 feet and south 72 degrees 34 minutes east 315 feet to the northeast corner of said parcel; thence along the easterly lines of same and Parcels Nos. 247, 248, 249, 250, 251, 252, 253, 254, 255, 256 and 257 the following courses, distances and curves: South 23 degrees 49 minutes west 546.9 feet, south 17 degrees 38 minutes east 1,497.6 feet, south 15 minutes west 656 feet, south 8 degrees 50 minutes west 632.8 feet, south 50 minutes east 200.5 feet, south 9 degrees 42 minutes west 185.3 feet, south 8 degrees 46 minutes west 183.7 feet, south 4 degrees 8 minutes west 70.4 feet, on a curve of 100 feet radius to the left, 8 feet, south 27 minutes east 1,184.3 feet, south 3 degrees 36 minutes east 1,197.5 feet, on a curve of 300 feet radius to the right, 80.6 feet, south 11 degrees 48 minutes west 1,041.6 feet, crossing a road leading from Plains road to Plattekill, south 78 degrees 12 minutes east 100 feet, south 11 degrees 48 minutes west 50 feet, south 14 degrees 24 minutes east 278.3 feet, south 14 degrees 17 minutes east 327 feet, south 75 degrees 43 minutes west 150 feet and south 24 degrees 47 minutes east 210.9 feet to the southeast corner of said Parcel No. 257, in the northerly line of Parcel No. 258; thence partly along said line, south 24 degrees 47 minutes east 54.2 feet to a point in the northerly line of a road leading from Wallkill to Newburg; thence along said road line, continuing along the northerly line of Parcel No. 258 and running along the northerly line of Parcel No. 259, north 89 degrees 54 minutes east 105.9 feet and north 84 degrees 51 minutes east 117.3 feet to the northeast corner of said Parcel No. 259; thence along the easterly line of same and partly along the easterly line of Parcel No. 260, south 5 degrees 9 minutes east 40 feet to the most easterly point of said parcel No. 260; thence partly along said easterly line of Parcel No. 260 and the southerly line of said road, south 84 degrees 51 minutes west 214.9 feet; thence continuing along the easterly line of Parcel No. 260 and running along the easterly lines of Parcels Nos. 261, 262, 263, 264, 265 and 266 the following courses, distances and curves: South 14 degrees 17 minutes east 370.8 feet, on a curve of 300 feet radius to the right, 98.2 feet, south 4 degrees 28 minutes east 1,054.2 feet, south 41 degrees 9 minutes east 320 feet, south 70 degrees 39 minutes east 169.9 feet to a point in the northerly line of a road leading from Wallkill to Newburg; thence south 15 degrees 7 minutes west 40 feet, crossing said road, to a point in the southerly line of same; thence along said line north 74 degrees 53 minutes west 64.3 feet; thence continuing along the easterly lines of before mentioned parcels, south 12 degrees 15 minutes east 824.7 feet, crossing the property of the Central New England Railroad Company, on a curve of 300 feet radius to the right, 116.7 feet, south 10 degrees 3 minutes west 964.4 feet, on a curve of 300 feet radius to the right, 96.8 feet, south 28 degrees 32 minutes west 1,603.6 feet, crossing the road leading from St. Elmo to Newburg, on a curve of 100 feet radius to the left, 32.9 feet, and south 9 degrees 41 minutes west 39.7 feet to the southeast corner of said Parcel No. 266, in the line between the counties of Ulster and Orange, near St. Elmo; thence along said county line and the southerly line of said parcel, north 74 degrees 42 minutes west 201 feet to the southwest corner of same; thence along the westerly line of said parcel, partly along the westerly line of before mentioned Parcels Nos. 265 and 264, and along the westerly lines of before mentioned Parcels Nos. 263, 262, 261 and partly along the westerly line of Parcel No. 260 the following courses, distances and curves: North 9 degrees 41 minutes east 20.1 feet, on a curve of 300 feet radius to the right, 98.7 feet, north 28 degrees 32 minutes east 1,603.6 feet, recrossing the road leading from St. Elmo to Newburg, on a curve of 100 feet radius to the left, 32.3 feet, north 10 degrees 3 minutes east 964.4 feet, on a curve of 100 feet radius to the left, 38.9 feet, north 12 degrees 15 minutes west 742.8 feet, recrossing the property of the Central New England Railroad Company, north 41 degrees 9 minutes west 150 feet, south 86 degrees 13 minutes west 451.7 feet, north 4 degrees 28 minutes east 971.5 feet, recrossing the road leading from Wallkill to Newburg, south 74 degrees 40 minutes east 203.7 feet, north 4 degrees 28 minutes east 511.8 feet, on a curve of 100 feet radius to the left, 32.9 feet, and north 14 degrees 17 minutes west 48.8 feet to a point in the southerly line of the before mentioned road leading from Wallkill to Newburg; thence along said line and continuing along the westerly line of before mentioned Parcel No. 260, north 54 degrees 14 minutes west 71.8 feet; thence north 21 degrees 54 minutes east 20.6 feet to the southwest corner of Parcel No. 258, in the centre of said road; thence along the westerly lines of said parcel and Parcels Nos. 257 and 256, the following courses, distances and curve: North 21 degrees 54 minutes east 141.9 feet, north 14 degrees 17 minutes west 99.2 feet, north 20 degrees 54 minutes west 340 feet, north 1 degree 24 minutes west 264 feet, on a curve of 300 feet radius to the right, 69.1 feet, and north 11 degrees 48 minutes east 1,047.7 feet to a point in the southerly line of the before mentioned road leading from Plains road to Plattekill; thence along said road line, north 74 degrees 17 minutes west 500 feet and north 11 degrees 48 minutes east 20 feet to the southwest corner of Parcel No. 255, in the centre of said road; thence along the westerly line of said parcel, north 11 degrees 48 minutes east 20 feet, crossing said road; thence continuing along the westerly line of Parcel No. 255, on a curve of 100 feet radius to the left, 26.9 feet, and north 3 degrees 36 minutes west 551.7 feet to the southwest corner of before mentioned Parcel No. 254; thence along the westerly lines of said parcel and before mentioned Parcels Nos. 253 and 252, the following courses, distances and curve: North 3 degrees 36



minutes west 601.3 feet, north 87 degrees 59 minutes east 48.6 feet, north 2 degrees 1 minute west 100 feet, south 87 degrees 59 minutes west 48.6 feet, north 27 minutes west 1,139.7 feet, on a curve of 300 feet radius to the right, 24 feet, and north 4 degrees 8 minutes east 292.3 feet to the northwest corner of said Parcel No. 252, in the southerly line of before mentioned Parcel No. 251; thence partly along said line, north 75 degrees 38 minutes west 53.6 feet to the southwest corner of said parcel, in the easterly line of the before mentioned road leading from New Paltz to St. Elmo; thence along said road line and the westerly lines of said parcel and before mentioned Parcels Nos. 250, 249, 248 and 247, and partly along the westerly line of before mentioned Parcel No. 246, the following courses and distances: North 11 degrees 51 minutes east 189.4 feet, north 10 degrees 16 minutes east 106.9 feet, north 7 degrees 41 minutes east 487.8 feet, north 2 degrees 58 minutes east 423.5 feet, north 3 degrees 52 minutes west 133.2 feet, north 5 degrees 54 minutes west 1,024.5 feet, north 8 degrees 51 minutes west 289 feet, north 6 degrees west 163.5 feet, north 2 degrees 13 minutes west 199 feet and north 7 degrees 42 minutes east 49.7 feet; thence continuing along the westerly line of Parcel No. 246, and running along the westerly lines of before mentioned Parcels Nos. 245 and 244, partly along the westerly line of before mentioned Parcel No. 243, and along the westerly line of before mentioned Parcel No. 242, the following courses, distances and curves: North 7 degrees 38 minutes west 637.5 feet, crossing said road leading to St. Elmo, north 4 degrees 45 minutes east 780.8 feet, north 10 degrees 22 minutes east 672.1 feet, north 15 degrees 22 minutes east 556.6 feet, north 32 degrees 58 minutes west 1,059.1 feet, north 7 degrees 51 minutes east 494.8 feet, on a curve of 50 feet radius to the left, 18.3 feet, north 13 degrees 12 minutes west 306.2 feet, north 14 degrees 17 minutes west 425.5 feet, north 21 degrees 2 minutes west 63.3 feet, on a curve of 300 feet radius to the right, 117.6 feet, and north 1 degree 25 minutes east 791.8 feet to a point in the southerly line of the before mentioned road leading from New Hurley to Flint; thence along said road line, north 71 degrees 36 minutes west 78.1 feet; thence north 17 degrees 42 minutes east 20 feet, continuing along the westerly line of Parcel No. 242, to the southwest corner of before mentioned Parcel No. 241, in the line between the Towns of Shawangunk and Plattkill, in the centre of said road; thence along the westerly line of said Parcel No. 241, north 17 degrees 42 minutes east 515.4 feet, crossing said road, to a point in the southerly line of before mentioned Parcel No. 238; thence partly along said line, north 71 degrees 43 minutes west 92 feet to the southwest corner of said parcel; thence along the westerly line of same, north 15 degrees 49 minutes west 617.5 feet to the most southerly point of before mentioned Parcel No. 234, in the line between the Towns of Plattkill and Shawangunk, in the easterly line of the before mentioned road leading from New Paltz to New Hurley; thence along the westerly line of said Parcel No. 234, on a curve of 300 feet radius to the right, 42 feet, north 15 minutes west 1,416.9 feet, crossing said road and the line between the towns of Shawangunk and Gardiner, and north 2 degrees 26 minutes west 251.2 feet to the southwest corner of before mentioned Parcel No. 233; thence along the westerly line of same, north 21 degrees 2 minutes east 792.7 feet to the northwest corner of said Parcel No. 233; thence partly along the northerly line of said parcel, south 72 degrees 42 minutes east 100.2 feet to the southwest corner of before mentioned Parcel No. 232; thence along the westerly lines of said parcel and before mentioned Parcels Nos. 230 and 229 the following courses and distances: North 21 degrees 2 minutes east 238 feet, north 10 degrees 10 minutes east 1,141.6 feet, north 12 degrees 17 minutes east 715.8 feet, on a curve of 100 feet radius to the left, 37.9 feet, north 9 degrees 28 minutes west 606.4 feet, north 20 degrees 2 minutes west 664.3 feet, north 4 degrees 1 minute west 996.8 feet and north 18 degrees 28 minutes east 1,102 feet to the most northerly point of said Parcel No. 229, in the centre of the before mentioned road leading from New Paltz to New Hurley, said point being also in the westerly line of before mentioned Parcel No. 228; thence partly along said line and along the centre line of said road, north 14 degrees 39 minutes west 23 feet, north 7 degrees 41 minutes west 130.1 feet and north 3 degrees 31 minutes east 6.5 feet to the northwest corner of said parcel; thence partly along the northerly line of same, south 72 degrees 19 minutes east 80.6 feet to the southwest corner of before mentioned Parcel No. 227; thence along the westerly line of said parcel and partly along the westerly line of before mentioned Parcel No. 226, the following courses, distances and curves: North 18 degrees 28 minutes east 107.6 feet, on a curve of 75 feet radius to the left, 9.1 feet, north 11 degrees 32 minutes east 362.8 feet, on a curve of 325 feet radius to the right, 175.4 feet, north 42 degrees 27 minutes east 239.3 feet, on a curve of 75 feet radius to the left, 12.2 feet, north 33 degrees 10 minutes east 228.9 feet, on a curve of 75 feet radius to the left, 16.4 feet, north 20 degrees 38 minutes east 218.3 feet, on a curve of 325 feet radius to the right, 58.9 feet, north 31 degrees 2 minutes east 499.6 feet, on a curve of 75 feet radius to the left, 18.7 feet, and north 16 degrees 44 minutes east 90.8 feet to the southeast corner of Parcel No. 225; thence along the southerly line of said parcel, north 65 degrees 35 minutes west 325.4 feet to the southwest corner of same, in the easterly line of the before mentioned road leading from New Paltz to New Hurley; thence along said road line and the westerly line of said parcel, north 24 degrees 25 minutes east 25 feet to the northwest corner of said parcel; thence along the northerly line of same, south 65 degrees 35 minutes east 322.1 feet to the northeast corner of said parcel, in the before mentioned westerly line of Parcel No. 226; thence partly along said line and the westerly lines of before mentioned Parcels Nos. 224, 223 and 222, the following courses, distances and curves: North 16 degrees 44 minutes east 801.6 feet, on a curve of 325 feet radius to the right, 171.5 feet, north 46 degrees 58 minutes east 189.3 feet, on a curve of 75 feet radius to the left, 15.5 feet, north 35 degrees 6 minutes east 814.6 feet, on a curve of 325 feet radius to the right, 121 feet, north 56 degrees 26 minutes east 379.4 feet, on a curve of 75 feet radius to the left, 62.7 feet, and north 8 degrees 11 minutes east 405.1 feet to the northwest corner of said Parcel No. 222, in the southerly line of before mentioned Parcel No. 221; thence partly along said line and the southerly line of the before mentioned road leading from Gardiner to Modena, north 70 degrees 45 minutes west 460 feet to the southwest corner of said parcel, at the point of intersection of the southerly line of said road produced and the centre line of the before mentioned road leading from New Paltz to New Hurley, at Ireland Corners; thence along the centre line of said road leading to New Hurley and partly along the westerly line of said parcel, north 19 degrees 15 minutes east 50 feet; thence continuing along the westerly line of Parcel No. 221, and along the northerly line of the road leading to Modena and same produced, south 70 degrees 45 minutes east 193.3 feet and south 79 degrees 29 minutes east 252.8 feet;

thence continuing along the westerly line of Parcel No. 221, north 8 degrees 31 minutes east 616.6 feet, on a curve of 75 feet radius to the left, 6.4 feet, north 3 degrees 36 minutes east 403.6 feet, and north 68 degrees 46 minutes west 91.8 feet to a point in the easterly line of the before mentioned road leading from New Paltz to New Hurley; thence along said road line, continuing along the westerly line of Parcel No. 221, and running partly along the westerly line of before mentioned Parcel No. 220, north 16 degrees 37 minutes east 66 feet, north 7 degrees 55 minutes west 317.4 feet and north 45 minutes west 487.4 feet; thence continuing along the westerly line of Parcel No. 220, and running along the westerly lines of before mentioned Parcels Nos. 219 and 218 the following courses and distances: South 68 degrees 46 minutes east 131.4 feet, north 14 degrees 40 minutes west 4,659.4 feet, recrossing said road and the before mentioned road leading to Gardiner, south 75 degrees 20 minutes west 150 feet and north 14 degrees 40 minutes west 744.2 feet to the southwest corner of before mentioned Parcel No. 217, in the centre of the before mentioned road leading from Gardiner to New Paltz; thence along the westerly lines of said parcel and before mentioned Parcel No. 216, north 2 degrees 27 minutes west 709.9 feet, crossing said road, and north 14 degrees 40 minutes west 1,109.1 feet to the southwest corner of before mentioned Parcel No. 215, in the southerly property line of the Wallkill Valley Railroad Company; thence along the westerly line of said parcel, north 14 degrees 40 minutes west 67.2 feet to the northwest corner of said parcel, in the northerly property line of said railroad company, said point being also in the southerly line of before mentioned Parcel No. 214; thence partly along said line and along said railroad property line, south 58 degrees 11 minutes west 245 feet to the southwest corner of said parcel; thence along the westerly line of same and of before mentioned Parcels Nos. 213 and 212, north 22 degrees 14 minutes east 300 feet, north 14 degrees 40 minutes west 1,584.4 feet, recrossing the road leading from New Paltz to Gardiner and the before mentioned road leading from Forest Glen to Wallkill river, to a point in the northerly line of said road leading to Wallkill river; thence along said road line, north 63 degrees 1 minute west 485.5 feet; thence continuing along the westerly line of Parcel No. 212, and running along the westerly line of before mentioned Parcel No. 210, north 29 degrees 45 minutes east 518.1 feet, north 14 degrees 40 minutes west 3,362.9 feet, south 75 degrees 20 minutes west 375 feet and north 14 degrees 40 minutes west 1,276.3 feet to the northwest corner of said Parcel No. 210, in the southerly shore line of Wallkill river; thence along said shore line, and partly along the northerly line of said parcel, north 82 degrees 3 minutes east 187.3 feet and north 75 degrees 3 minutes east 188.9 feet to the southwest corner of before mentioned Parcel No. 209; thence along the westerly line of said parcel and before mentioned Parcels Nos. 208 and 207, north 14 degrees 40 minutes west 3,255.2 feet, recrossing said river and the before mentioned road leading from Libertyville to Tuthill, to the most northerly point of said Parcel No. 207, in the centre of the before mentioned road leading from Minnewaska to Libertyville, in the westerly line of before mentioned Parcel No. 206; thence partly along said line, and along the centre line of said road, north 29 degrees 24 minutes west 779.8 feet to the northwest corner of said parcel; thence partly along the northerly line of same, north 60 degrees 34 minutes east 223.9 feet to the southwest corner of before mentioned Parcel No. 205; thence along the westerly line of said parcel, and partly along the westerly lines of before mentioned Parcels Nos. 204 and 203, north 13 degrees 29 minutes west 4,162.9 feet, recrossing the road leading from Minnewaska to New Paltz, to a point in the easterly line of the before mentioned road leading from Mohonk to Minnewaska; thence along said road line and continuing along the westerly line of Parcel No. 203, north 40 degrees 10 minutes east 62.1 feet to the point or place of beginning.

Also all that certain piece or parcel of real estate bounded and described as follows: Beginning at a point in the southerly line of Parcel No. 201, shown on before mentioned map of real estate, Section No. 4, where said southerly line is intersected by the westerly line of a road leading to Minnewaska, said point being the northeast corner of Parcel No. 202, hereby described, and running thence along the easterly line of said Parcel No. 202 and said westerly road line, south 28 degrees 30 minutes west 300 feet to the southeast corner of said Parcel No. 203; thence along the southerly line of same north 52 degrees 59 minutes west 500 feet and north 28 degrees 30 minutes east 500 feet to the southwest corner of Parcel No. 200, shown on map of before mentioned Section No. 4, and running thence along the southerly lines of said parcel and before mentioned Parcel No. 201, and partly along the southerly line of an abandoned road leading to Mohonk, south 52 degrees 59 minutes east 500 feet, to the point or place of beginning.

The fee is to be acquired by The City of New York in all the real estate Parcels Nos. 202 to 266, inclusive, contained in the above description, excepting Parcels Nos. 211, 225, 231 and 236, over which temporary easement is to be acquired.

Reference is hereby made to the said map, filed as aforesaid in the office of the County Clerk of the County of Ulster, for a more detailed description of the real estate to be taken as above described.

In case any property above described is used for any public purpose, such as a highway, etc., such use shall continue until The City of New York shall have legal right to take possession of or change the same.

Dated November 1, 1907.

FRANCIS KEY PENDLETON,  
Corporation Counsel.

Office and Post Office address, Hall of Records, corner of Chambers and Centre streets, Borough of Manhattan, New York City.

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### THIRD JUDICIAL DISTRICT.

#### ULSTER COUNTY.

#### CATSKILL AQUEDUCT.

#### Section No. 3.

### NOTICE OF APPLICATION FOR THE APPOINTMENT OF COMMISSIONERS OF APPRAISAL.

PUBLIC NOTICE IS HEREBY GIVEN that it is the intention of the Corporation Counsel of The City of New York to make application to the Supreme Court of the State of New York for the appointment of Commissioners of Appraisal under chapter 724 of the Laws of 1905, as amended. Such application will be made at a Special Term of the Supreme Court to be held in and for the Third Judicial District at the City Hall, City of Albany, N. Y., on November 30, 1907, at 10 o'clock in the forenoon of that day, or as soon thereafter as

counsel can be heard. The object of such application is to obtain an order of the Court appointing three disinterested and competent freeholders, one of whom shall reside in the County of New York, and at least one of whom shall reside in the county where the real estate hereinafter described is situated, to act as Commissioners of Appraisal under said act and discharge all the duties conferred by the said law and the acts amendatory thereof, upon such Commissioners of Appraisal, for the purpose of providing an additional supply of pure and wholesome water for The City of New York.

The real estate to be acquired herein is situated in the Towns of Olive and Marbletown, and is to be acquired for the purpose of furnishing an additional supply of pure and wholesome water to The City of New York.

The following is a statement of the boundaries of the lands to be acquired herein, with a reference to the date and place of filing of the map. All those certain pieces or parcels of real estate, situated in the towns of Olive and Marbletown, County of Ulster and State of New York, shown on a certain map entitled "Northern Map of Water Supply of The City of New York. Map of real estate situated in the Towns of Olive and Marbletown, County of Ulster and State of New York, to be acquired by The City of New York, under the provisions of Chapter 724 of the Laws of 1905, as amended, for the construction of Catskill Aqueduct and appurtenances, from taking line of Section No. 2, Reservoir Department, to the vicinity of Kripplebush," which map was filed in the office of the County Clerk of the County of Ulster, at Kingston, New York, on the 11th day of October, 1907, which parcels are bounded and described as follows:

Beginning at a point in the southerly boundary line of Parcel No. 42, shown on map of Section No. 2, Reservoir Department, which map was filed in the office of the County Clerk of the County of Ulster, at Kingston, New York, on January 31, 1907, and running thence partly along the said southerly line, the southerly line of Parcel No. 43 and partly along the westerly line of Parcel No. 44, shown on said map, said lines being the northerly and easterly lines of Parcel No. 93 and partly along the easterly line of Parcel No. 95, shown on the first mentioned filed map, the following courses and distances: North 77 degrees 44 minutes east 587.1 feet, south 46 degrees 45 minutes east 508.7 feet, south 43 degrees 30 minutes east 206.7 feet, south 4 degrees 27 minutes east 571 feet, south 11 degrees 56 minutes east 1,359.9 feet, south 4 degrees 24 minutes east 100.4 feet, south 16 degrees 8 minutes east 178.5 feet and south 45 degrees 28 minutes east 201.4 feet; thence along the easterly line of before mentioned Parcel No. 95 the following courses and distances: South 60 degrees 41 minutes west 273.4 feet, south 18 degrees 46 minutes east 935.8 feet, south 81 degrees 20 minutes south 30 seconds east 240 feet and south 8 degrees 39 minutes south 30 seconds west 400 feet to the most northerly point of Parcel No. 98, in the centre of Tongore creek; thence partly along the northerly line of said parcel south 55 degrees 8 minutes south 30 seconds east 149.9 feet and south 53 degrees 56 minutes south 30 seconds east 199 feet to the southwest corner of Parcel No. 99; thence along the westerly line of said parcel north 36 degrees 3 minutes south 30 seconds east 86 feet to the northwest corner of said parcel; thence along the northerly line of same south 53 degrees 56 minutes south 30 seconds east 65 feet, crossing the Upper Pulp Mill road, to the northeast corner of said parcel; thence along the easterly line of same south 36 degrees 3 minutes south 30 seconds west 86 feet to the southeast corner of said parcel, in the northerly line of before mentioned Parcel No. 98; thence partly along the northerly line of said parcel and along the northerly lines of Parcels Nos. 100 and 101 the following courses, distances and curves: South 53 degrees 56 minutes south 30 seconds east 82.3 feet, south 80 degrees 46 minutes south 30 seconds east 266.5 feet, on a curve of 300 feet radius to the right, 109.1 feet, south 59 degrees 57 minutes east 472 feet, on a curve of 100 feet radius to the left, 41.2 feet, south 83 degrees 34 minutes east 262.2 feet, on a curve of 100 feet radius to the left, 58.3 feet, and north 63 degrees 2 minutes east 234.3 feet to a point in the line between the towns of Olive and Marbletown; thence along the said town line and partly along the westerly line of Parcel No. 102 north 21 degrees 41 minutes east 169.3 feet to the northwest corner of said parcel; thence partly along the northerly line of same and continuing along the before mentioned town line north 83 degrees 9 minutes east 217.6 feet and north 81 degrees 33 minutes south 30 seconds east 173.1 feet to the southwest corner of Parcel No. 103; thence along the westerly line of same, north 16 minutes south 30 seconds west 50 feet to the northwest corner of said parcel; thence along the northerly line of same, north 89 degrees 43 minutes south 30 seconds east 75 feet to the northeast corner of said parcel; thence along the easterly line of same, south 16 degrees 30 minutes east 50 feet to the southeast corner of said parcel, in the northerly line of before mentioned Parcel No. 102; thence partly along the same and along the before mentioned town line, north 89 degrees 43 minutes south 30 seconds east 203.8 feet, north 87 degrees 56 minutes south 30 seconds east 194.1 feet and north 84 degrees 4 minutes south 30 seconds east 451.2 feet to the northeast corner of said parcel; thence partly along the easterly line of same, south 1 degree 5 minutes south 30 seconds west 94.7 feet and south 12 degrees 39 minutes west 43.3 feet to the northwest corner of Parcel No. 104; thence along the northerly and easterly lines of said parcel and Parcel No. 105 the following courses, distances and curves: North 89 degrees 1 minute south 30 seconds east 107.1 feet, on a curve of 300 feet radius to the right, 28.6 feet, south 85 degrees 31 minutes east 140.4 feet, north 4 degrees 29 minutes east 50 feet, south 85 degrees 31 minutes east 50 feet, south 4 degrees 29 minutes west 50 feet, south 85 degrees 31 minutes east 615.5 feet, north 4 degrees 29 minutes east 125 feet, south 85 degrees 31 minutes east 50 feet, south 4 degrees 29 minutes west 125 feet, on a curve of 300 feet radius to the right, 45.8 feet, south 76 degrees 46 minutes east 520.9 feet, crossing the Lower Pulp Mill road, on a curve of 300 feet radius to the right, 298.6 feet, south 19 degrees 44 minutes east 729.5 feet, on a curve of 100 feet radius to the left, 25.5 feet, south 34 degrees 19 minutes south 30 seconds east 636.6 feet, on a curve of 100 feet radius to the left, 24.6 feet, south 48 degrees 26 minutes east 350.9 feet, on a curve of 100 feet radius to the left, 12.5 feet, south 55 degrees 29 minutes south 30 seconds east 381.9 feet, north 41 degrees 40 minutes south 30 seconds east 158.3 feet, south 48 degrees 19 minutes south 30 seconds east 50 feet, crossing the Stone Church road, south 41 degrees 40 minutes south 30 seconds west 152 feet, south 55 degrees 29 minutes south 30 seconds east 231.8 feet, on a curve of 300 feet radius to the right, 205.2 feet, south 16 degrees 18 minutes east 455.2 feet, south 6 degrees 24 minutes west 482.9 feet, on a curve of 325 feet radius to the right, 74.7 feet, south 19 degrees 34 minutes south 30 seconds west 468.3 feet, south 1 degree 1 minutes south 30 seconds west 414.9 feet and south 31 degrees 37 minutes east 114.5 feet to the northeast corner of Parcel No. 109; thence along the easterly line of same, south 58 degrees 33 minutes west 60.6 feet to the centre of Tongore road; thence along the centre line of said road and continuing along

the easterly line of said Parcel No. 109 the following courses and distances: South 31 degrees 37 minutes east 123.7 feet, south 26 degrees 37 minutes east 129 feet, south 56 degrees 32 minutes east 122 feet, south 30 degrees 36 minutes east 146.2 feet and south 40 degrees 54 minutes east 90.1 feet, crossing the Gladlypt Kill; thence still continuing along the easterly line of said parcel, south 18 degrees 17 minutes west 157 feet and south 71 degrees 43 minutes east 660.3 feet to the centre of the before mentioned road; thence along the centre line of same and still continuing along the easterly line of said parcel, south 31 degrees 8 minutes south 30 seconds east 104.4 feet and south 27 degrees 22 minutes south 30 seconds east 66.6 feet to the most northerly point of Parcel No. 111; thence along the easterly line of said parcel, and along the centre line of before mentioned Tongore road, south 29 degrees 46 minutes south 30 seconds east 198.2 feet and south 30 degrees 3 minutes south 30 seconds east 210.6 feet; thence still continuing along said easterly line, south 7 degrees 33 minutes south 30 seconds east 144.5 feet to a point in the northerly line of Parcel No. 112; thence partly along said line and along the northerly line of Parcel No. 113 the following courses and distances: South 49 degrees 15 minutes south 30 seconds east 100 feet, south 40 degrees 44 minutes south 30 seconds east 45 feet, south 49 degrees 15 minutes south 30 seconds east 441.1 feet and south 60 degrees 14 minutes south 30 seconds east 639.6 feet, crossing the Upper Vly road, to the most northerly point of Parcel No. 114; thence partly along the northerly and easterly lines of said parcel the following courses, distances and curves: South 60 degrees 14 minutes east 166.4 feet, on a curve of 325 feet radius to the right, 120.4 feet, south 39 degrees 1 minute east 269 feet, on a curve of 75 feet radius to the left, 4.8 feet, south 42 degrees 43 minutes east 591.6 feet and north 47 degrees 17 minutes east 210.8 feet to a point in the centre of before mentioned Tongore road; thence along the centre line of said road, and still continuing along the easterly line of Parcel No. 114, south 43 degrees 9 minutes east 144.3 feet and south 47 degrees 47 minutes east 55.9 feet; thence still continuing along the easterly line of said Parcel No. 114 and along the easterly lines of Parcels Nos. 115 and 116 the following courses, distances and curves: South 47 degrees 17 minutes west 413.2 feet, south 1 degree 46 minutes south 30 seconds west 213.7 feet, south 53 degrees 25 minutes east 560.2 feet, on a curve of 300 feet radius to the right, 103 feet, and south 33 degrees 45 minutes south 30 seconds east 460.1 feet, on a curve of 100 feet radius to the left, 11.5 feet, south 40 degrees 22 minutes east 402.1 feet, on a curve of 100 feet radius to the left, 17.9 feet, south 50 degrees 37 minutes south 30 seconds east 67 feet, north 39 degrees 22 minutes south 30 seconds east 150 feet, south 50 degrees 37 minutes south 30 seconds east 50 feet, south 39 degrees 22 minutes south 30 seconds west 150 feet, south 50 degrees 37 minutes south 30 seconds east 365.7 feet, on a curve of 300 feet radius to the right, 183.2 feet, south 15 degrees 38 minutes south 30 seconds east 26.2 feet, on a curve of 100 feet radius to the left, 42.9 feet, south 40 degrees 12 minutes east 487.2 feet, on a curve of 100 feet radius to the left, 73.8 feet, and south 82 degrees 29 minutes south 30 seconds east 95.6 feet to the most northerly point of Parcel No. 117; thence along the northerly and easterly lines of said parcel, and partly along the easterly line of Parcel No. 118, the following courses, distances and curves: South 82 degrees 29 minutes south 30 seconds east 80.4 feet, south 45 degrees 13 minutes south 30 seconds east 449.2 feet, on a curve of 325 feet radius to the right, 67.4 feet, and south 33 degrees 20 minutes south 30 seconds east 26.7 feet to the northwest corner of Parcel No. 119; thence along the northerly line of said parcel, north 56 degrees 40 minutes east 66 feet, north 33 degrees 47 minutes south 30 seconds west 185.1 feet and north 47 degrees 2 minutes east 178.2 feet to the centre of before mentioned Tongore road; thence along the centre line of said road and the easterly line of said parcel, south 34 degrees 21 minutes east 25.3 feet to the southeast corner of same; thence along the southerly line of said parcel, south 47 degrees 2 minutes west 143 feet, south 33 degrees 47 minutes south 30 seconds east 190.7 feet and south 56 degrees 40 minutes west 101 feet to the southwest corner of said parcel, in the before mentioned easterly line of Parcel No. 118; thence partly along said line, south 33 degrees 20 minutes south 30 seconds east 388.7 feet to the southeast corner of said parcel, in the northerly line of Parcel No. 120; thence partly along said line, north 64 degrees 7 minutes east 147.6 feet to a point in the centre of before mentioned Tongore road; thence along the centre line of said road and the easterly lines of said parcel and Parcel No. 121, and partly along the easterly line of Parcel No. 122, the following courses and distances: South 2 degrees 5 minutes east 154.2 feet, south 9 degrees east 102.3 feet, south 2 degrees 16 minutes south 30 seconds east 319.9 feet, south 13 minutes west 148.5 feet, south 3 degrees 25 minutes south 30 seconds west 153.9 feet, south 3 degrees 17 minutes south 30 seconds east 237 feet, and south 13 degrees 54 minutes east 129.5 feet; thence still continuing along the easterly line of said Parcel No. 122, and partly along the easterly line of Parcel No. 123, the following courses and distances: South 81 degrees 3 minutes west 77.7 feet, south 27 degrees 55 minutes west 500.2 feet, south 23 degrees 1 minute south 30 seconds west 104.2 feet, south 25 degrees 13 minutes south 30 seconds west 255.3 feet, south 26 degrees 22 minutes south 30 seconds east 80 feet, south 12 degrees 35 minutes south 30 seconds west 20.6 feet and south 77 degrees 36 minutes south 30 seconds east 79.2 feet to the northwest corner of Parcel No. 124; thence along the northerly line of said parcel, south 20 degrees 37 minutes east 121.8 feet and north 72 degrees 42 minutes east 459 feet to the northeast corner of said parcel, in the westerly line of before mentioned Tongore road; thence along said line and along the easterly line of said parcel, south 2 degrees 31 minutes east 25.9 feet to the southeast corner of said parcel; thence along the southerly line of same, south 72 degrees 42 minutes west 506 feet to the southeast corner of before mentioned parcel No. 123; thence partly along the southerly line of said parcel, north 68 degrees 53 minutes west 169.6 feet to a point in the easterly line of Parcel No. 125; thence partly along said line and along the easterly line of Parcel No. 126 the following courses, distances and curves: north 86 degrees 51 minutes south 30 seconds west 22.7 feet, south 3 degrees 8 minutes south 30 seconds west 414.6 feet, south 9 degrees 7 minutes east 234.5 feet, on a curve of 75 feet radius to the left, 32 feet, south 33 degrees 33 minutes east 442.6 feet, on a curve of 75 feet radius to the left, 8.8 feet, south 40 degrees 18 minutes east 318.9 feet, on a curve of 325 feet radius to the right, 118.4 feet and south 19 degrees 25 minutes east 288.0 feet to the southeast corner of said Parcel No. 126, in the northerly line of Parcel No. 128; thence partly along said line, north 88 degrees 22 minutes east 17.3 feet to the northeast corner of said parcel; thence partly along the easterly line of same, and along the easterly and southerly lines of Parcel No. 127, the following courses and distances: South 23 degrees 25 minutes south 30 seconds east 198 feet, south 37 degrees 5 minutes south 30 seconds east 215.5 feet, south 23 degrees 25 minutes south 30 seconds east 40 feet and south 77 degrees 4 minutes south 30 seconds west 51.8 feet crossing the Lower Vly road to the southeast corner of be-



fore mentioned Parcel No. 128; thence partly along the southerly line of said Parcel, south 77 degrees 4 minutes 30 seconds west 47.3 feet to the northeast corner of Parcel No. 129; thence along the easterly line of said parcel the following courses, distances and curves: South 19 degrees 25 minutes east 57.2 feet, south 3 degrees 37 minutes 30 seconds west 273.8 feet, on a curve of 100 feet radius to the left, 29.8 feet and south 13 degrees 28 minutes east 59.9 feet to the southeast corner of said parcel, in the northerly line of Parcel No. 130; thence partly along said line, north 67 degrees 33 minutes 30 seconds east 218.2 feet to the northeast corner of said parcel, in the centre of the Vly road; thence along said road, and partly along the easterly line of said parcel, south 15 degrees 20 minutes 30 seconds east 137.5 feet and south 22 degrees 40 minutes east 137.5 feet to a point in the centre of the before mentioned Tongore road; thence along the centre line of said road, and still continuing along the easterly line of said Parcel No. 130, south 8 degrees 47 minutes east 134 feet, south 17 degrees 57 minutes 30 seconds east 367.3 feet and south 20 degrees 36 minutes east 145.1 feet to the southeast corner of said parcel; thence along the southerly line of same the following courses and distances: South 69 degrees 24 minutes west 300 feet, north 20 degrees 36 minutes west 180 feet, north 37 degrees 24 minutes 30 seconds west 297.4 feet and south 46 degrees 1 minute 30 seconds west 640 feet to the southwest corner of said parcel; thence partly along the westerly line of same, north 2 degrees 12 minutes 30 seconds west 100.6 feet to the southeast corner of Parcel No. 131; thence along the southerly lines of said parcel and Parcels Nos. 133 and 134, the following courses and distances: South 46 degrees 1 minute 30 seconds west 2,903.8 feet, south 43 degrees 58 minutes 30 seconds east 256 feet, south 50 degrees 10 minutes 30 seconds west 544.4 feet and south 64 degrees 20 minutes 30 seconds west 16.8 feet to the most northerly point of Parcel No. 135, in the Peak road; thence along said road, and partly along the easterly line of said parcel, south 41 degrees 39 minutes 30 seconds east 85 feet, south 16 degrees 10 minutes 30 seconds east 6.1 feet; thence, still continuing along the easterly line of said parcel the following courses and distances: South 12 degrees 49 minutes 30 seconds west 828.9 feet, south 1 degree 24 minutes east 50.6 feet, south 29 degrees 30 minutes east 329 feet, south 10 minutes west 205.4 feet and south 17 degrees 28 minutes east 221.3 feet to the south east corner of said parcel; thence along the southerly line of same, south 68 degrees 31 minutes west 270.6 feet and north 74 degrees 30 seconds west 91.3 feet to the northeast corner of Parcel No. 136; thence partly along the easterly line of said parcel, south 9 degrees 57 minutes 30 seconds west 296.3 feet, on a curve of 100 feet radius to the left, 50.9 feet, and south 19 degrees 12 minutes east 166.4 feet to the northwest corner of Parcel No. 137; thence along the northerly line of said parcel the following courses and distances: North 53 degrees 56 minutes east 47.7 feet, north 83 degrees 47 minutes east 92.1 feet, north 59 degrees 44 minutes east 60 feet, north 73 degrees 38 minutes east 389.8 feet and north 72 degrees 17 minutes 30 seconds east 80.8 feet to the northeast corner of said parcel, in the westerly line of Parcel No. 138; thence partly along said line and along Peak road, north 8 degrees 19 minutes 30 seconds west 77 feet to the northwest corner of said parcel; thence along the northerly line of same, north 73 degrees 35 minutes east 185.7 feet to the northeast corner of said parcel; thence along the easterly line of same, south 14 degrees 1 minute 30 seconds east 235.8 feet to the southeast corner of said parcel; thence along the southerly line of same, south 73 degrees 35 minutes west 198 feet to the southwest corner of said parcel, in the before mentioned Peak road; thence along the westerly line of said parcel and along said road, north 16 degrees west 117.3 feet to the southeast corner of before mentioned Parcel No. 137; thence along the southerly line of said parcel the following courses and distances: South 72 degrees 17 minutes 30 seconds west 77 feet, south 73 degrees 38 minutes west 387 feet, south 59 degrees 44 minutes west 62.8 feet, south 83 degrees 47 minutes west 90.8 feet and south 53 degrees 56 minutes west 48.6 feet to the southwest corner of said parcel, in the easterly line of before mentioned Parcel No. 136; thence partly along said line and along the easterly line of Parcel No. 139, the following courses, distances and curves: South 19 degrees 12 minutes east 183 feet, on a curve of 100 feet radius to the left, 47 feet, south 46 degrees 8 minutes east 222.8 feet, on a curve of 300 feet radius to the right, 257.1 feet, south 2 degrees 57 minutes 30 seconds west 857.8 feet, on a curve of 300 feet radius to the right, 50 feet, and south 12 degrees 31 minutes west 618.2 feet to a point in the northerly line of Parcel No. 141; thence partly along said line, south 51 degrees 4 minutes 30 seconds east 27.9 feet to the northeast corner of said parcel; thence along the easterly line of same and the easterly lines of Parcels Nos. 142 and 143, the following courses, distances and curves: South 12 degrees 31 minutes west 102.8 feet, on a curve of 325 feet radius to the right, 38 feet, south 19 degrees 13 minutes west 337.8 feet, on a curve of 75 feet radius to the left, 19 feet, south 4 degrees 41 minutes 30 seconds west 547.2 feet, on a curve of 325 feet radius to the right, 137.7 feet, south 28 degrees 58 minutes 30 seconds west 536.3 feet, on a curve of 75 feet radius to the left, 10.1 feet, south 21 degrees 13 minutes west 206.8 feet, on a curve of 325 feet radius to the right, 56.3 feet, south 31 degrees 9 minutes west 613.4 feet, south 48 degrees 38 minutes 30 seconds east 168.1 feet, south 42 degrees 33 minutes 30 seconds east 124.4 feet, south 35 degrees 55 minutes 30 seconds west 190.5 feet and south 31 degrees 19 minutes 30 seconds west 205.2 feet to the southeast corner of said Parcel No. 143; thence along the southerly line of said parcel, north 48 degrees 26 minutes 30 seconds west 205.9 feet and north 51 degrees 25 minutes 30 seconds west 415.2 feet to the southwest corner of same; thence along the westerly line of said parcel and the westerly lines of before mentioned Parcels Nos. 142 and 141, the following courses, distances and curves: North 42 degrees 45 minutes 30 seconds east 417.4 feet, south 74 degrees 20 minutes 30 seconds east 16.3 feet, south 48 degrees 38 minutes 30 seconds east 47 feet, north 31 degrees 9 minutes east 577.3 feet, on a curve of 125 feet radius to the left, 21.7 feet, north 21 degrees 13 minutes east 206.8 feet, on a curve of 275 feet radius to the right, 37.2 feet, north 28 degrees 58 minutes 30 seconds east 536.4 feet, on a curve of 125 feet radius to the left, 53 feet, north 4 degrees 41 minutes 30 seconds east 547.2 feet, on a curve of 275 feet radius to the right, 69.7 feet, north 19 degrees 13 minutes east 337.8 feet, on a curve of 125 feet radius to the left, 14.6 feet and north 12 degrees 31 minutes east 202.1 feet to a point in the southerly line of before mentioned Parcel No. 139; thence along the said line, north 51 degrees 4 minutes 30 seconds west 27.9 feet to the southwest corner of said parcel; thence along the westerly lines of same and of before mentioned Parcels Nos. 136 and 135, and the northerly lines of before mentioned Parcels Nos. 134, 133 and 131 and Parcels Nos. 140 and 132 the following courses, distances and curves: North 12 de-

grees 31 minutes east 518.9 feet, on a curve of 100 feet radius to the left, 16.7 feet, north 2 degrees 57 minutes 30 seconds east 857.8 feet, on a curve of 100 feet radius to the left, 85.7 feet, north 46 degrees 8 minutes west 222.8 feet, on a curve of 300 feet radius to the right, 141 feet, north 19 degrees 12 minutes west 375.6 feet, on a curve of 300 feet radius to the right, 152.7 feet, north 9 degrees 57 minutes 30 seconds east 758.8 feet, north 9 degrees 56 minutes west 767.2 feet, north 29 degrees 10 minutes east 705.2 feet, re-crossing before mentioned Peak road, north 46 degrees 1 minute 30 seconds east 552.6 feet, south 43 degrees 58 minutes 30 seconds east 75 feet and north 46 degrees 1 minute 30 seconds east 2,948.8 feet to a point in the westerly line of before mentioned Parcel No. 130; thence along the said line and the westerly lines of before mentioned Parcels Nos. 129, 128, 126 and 125 the following courses, distances and curves: North 2 degrees 12 minutes 30 seconds west 100.5 feet, north 46 degrees 1 minute 30 seconds east 418.7 feet, north 5 degrees 53 minutes east 304.3 feet, north 13 degrees 28 minutes west 91.4 feet, on a curve of 300 feet radius to the right, 89.5 feet, north 3 degrees 37 minutes 30 seconds east 233 feet, north 19 degrees 25 minutes west 742.1 feet, on a curve of 125 feet radius to the left, 45.5 feet, north 40 degrees 18 minutes west 318.9 feet, on a curve of 275 feet radius to the right, 32.4 feet, north 33 degrees 33 minutes west 442.6 feet, on a curve of 275 feet radius to the right, 117.3 feet, north 9 degrees 7 minutes west 253.6 feet, north 3 degrees 8 minutes 30 seconds east 393.1 feet, north 86 degrees 51 minutes 30 seconds west 100 feet, north 3 degrees 8 minutes 30 seconds east 150 feet and north 20 degrees 52 minutes east 448.1 feet to the northwest corner of said Parcel No. 125; thence along the northerly line of same, north 76 degrees 23 minutes 30 seconds east 64.4 feet to the southwest corner of before mentioned Parcel No. 122; thence along the westerly line of said parcel, north 19 degrees 30 seconds east 582 feet to a point in the southerly line of before mentioned Parcel No. 121; thence partly along the said southerly line, north 82 degrees 3 minutes 30 seconds west 44.7 feet to the southwest corner of said parcel; thence along the westerly line of same and the westerly lines of before mentioned Parcels Nos. 120, 118, 116, 115 and 114 the following courses, distances and curves: North 9 degrees 46 minutes 30 seconds east 219.9 feet, north 5 degrees 57 minutes 30 seconds east 693.2 feet, north 33 degrees 20 minutes 30 seconds east 474.5 feet, on a curve of 125 feet radius to the left, 25.9 feet, north 45 degrees 13 minutes 30 seconds west 381.7 feet, north 82 degrees 29 minutes 30 seconds west 108.5 feet, on a curve of 300 feet radius to the right, 221.5 feet, north 40 degrees 12 minutes west 487.2 feet, on a curve of 300 feet radius to the right, 128.6 feet, north 15 degrees 38 minutes 30 seconds west 26.2 feet, on a curve of 100 feet radius to the left, 61.1 feet, north 50 degrees 37 minutes 30 seconds west 482.8 feet, on a curve of 300 feet radius to the right, 53.7 feet, north 40 degrees 22 minutes west 402.1 feet, on a curve of 300 feet radius to the right, 34.6 feet, north 33 degrees 45 minutes 30 seconds west 460.1 feet, on a curve of 100 feet radius to the left, 34.3 feet, north 53 degrees 25 minutes west 212.7 feet, south 36 degrees 35 minutes west 125.6 feet, north 53 degrees 25 minutes west 456.1 feet, north 1 degree 46 minutes 30 seconds east 275 feet, south 88 degrees 13 minutes 30 seconds east 75 feet, north 1 degree 46 minutes 30 seconds east 91.5 feet, north 42 degrees 28 minutes 30 seconds west 94.7 feet, north 42 degrees 43 minutes west 458.6 feet, on a curve of 275 feet radius to the right, 17.8 feet, north 39 degrees 1 minute west 269 feet, on a curve of 125 feet radius to the left, 46.3 feet and north 60 degrees 14 minutes 30 seconds west 211 feet to a point in the easterly line of before mentioned Parcel No. 113; thence partly along the said line, south 42 degrees 20 minutes 30 seconds west 7.5 feet and south 44 degrees 29 minutes 30 seconds west 31 feet to the most southerly point of said Parcel No. 113; thence along the southerly line of same, north 55 degrees 52 minutes 30 seconds west 339.2 feet, re-crossing the before mentioned Upper Vly road, to the most southerly point of before mentioned Parcel No. 112; thence along the southerly and westerly lines of said parcel the following courses and distances: North 57 degrees 47 minutes west 266.6 feet, north 49 degrees 15 minutes 30 seconds west 599.3 feet, south 40 degrees 44 minutes 30 seconds west 150 feet, north 49 degrees 15 minutes 30 seconds west 159.4 feet and north 15 degrees 48 minutes 30 seconds east 192.2 feet to the southwest corner of before mentioned Parcel No. 111; thence partly along the westerly line of said parcel and along the westerly lines of Parcels Nos. 110, 108, 107 and 106 and before mentioned Parcel No. 109 the following courses, distances and curves: North 15 degrees 48 minutes 30 seconds east 56.4 feet, north 21 degrees 55 minutes west 410.5 feet, on a curve of 125 feet radius to the left, 108.6 feet, north 71 degrees 43 minutes west 524.7 feet, north 26 degrees 42 minutes 30 seconds west 110.8 feet, south 83 degrees 37 minutes west 702 feet, re-crossing Gladglyn Kill, north 45 degrees 6 minutes west 126.6 feet, north 19 degrees 8 minutes east 159.5 feet, north 20 degrees 6 minutes east 189.5 feet, south 71 degrees 54 minutes east 102.3 feet, south 63 degrees 50 minutes east 80.2 feet, north 70 degrees 31 minutes east 62.4 feet, south 82 degrees 31 minutes 30 seconds east 84.9 feet, north 18 degrees 21 minutes 30 seconds east 192.1 feet, north 28 degrees 2 minutes east 76.4 feet, north 26 degrees 42 minutes 30 seconds west 167.2 feet, north 1 degree 15 minutes 30 seconds east 596.8 feet and north 19 degrees 34 minutes 30 seconds east 476.7 feet to a point in the westerly line of before mentioned Parcel No. 105, in the centre of Tongore road; thence along said westerly line the following courses, distances and curves: North 19 degrees 34 minutes 30 seconds east 15.9 feet, on a curve of 125 feet radius to the left, 20.1 feet, north 6 degrees 24 minutes east 253.2 feet, north 8 degrees 18 minutes west 147.5 feet, north 55 minutes 30 seconds west 198.3 feet, north 16 degrees 18 minutes west 252.6 feet, on a curve of 100 feet radius to the left, 68.4 feet and north 55 degrees 29 minutes 30 seconds west 664 feet, re-crossing the before mentioned Stone Church road; thence still continuing along the westerly line of said Parcel No. 105, on a curve of 300 feet radius to the right 37 feet, north 48 degrees 26 minutes west 350.9 feet, on a curve of 300 feet radius to the right, 73.9 feet and north 34 degrees 19 minutes 30 seconds west 407.2 feet to the most southerly point of before mentioned Parcel No. 104; thence along the southerly line of said parcel the following courses, distances and curves: North 34 degrees 19 minutes 30 seconds west 229.3 feet, on a curve of 300 feet radius to the right, 76.4 feet, north 19 degrees 44 minutes west 729.6 feet, re-crossing and again crossing before mentioned lower Pulp Mill road, on a curve of 100 feet radius to the left, 99.5 feet, north 76 degrees 46 minutes west 520.9 feet, on a curve of 100 feet radius to the left, 15.3 feet, north 85 degrees 31 minutes west 855.9 feet, on a curve of 100 feet radius to the left, 9.5 feet and south 89 degrees 1 minute 30 seconds west 205.9 feet to the southeast corner of

before mentioned Parcel No. 102; thence along the southerly line of said parcel, south 89 degrees 1 minute 30 seconds west 928.3 feet and south 63 degrees 2 minutes west 409.7 feet to the southeast corner of before mentioned Parcel No. 101, in the line between the Towns of Olive and Marlborough; thence along the southerly line of said Parcel No. 101 and partly along the southerly line of before mentioned Parcel No. 98 the following courses, distances and curves: South 63 degrees 2 minutes west 16.3 feet, on a curve of 300 feet radius to the right, 174.9 feet, north 83 degrees 34 minutes west 262.2 feet, on a curve of 300 feet radius to the right, 123.7 feet, north 59 degrees 57 minutes west 471.8 feet, on a curve of 100 feet radius to the left, 36.4 feet, north 80 degrees 46 minutes 30 seconds west 432.6 feet and south 34 degrees 22 minutes west 209.7 feet to the centre of the before mentioned upper Pulp Mill road; thence along the centre line of said road, south 7 degrees 22 minutes 30 seconds west 138.1 feet; thence still continuing along the westerly line of said Parcel No. 98, north 82 degrees 37 minutes 30 seconds west 78.3 feet to the southwest corner of said Parcel No. 98; thence partly along the westerly line of same, north 24 degrees 20 minutes 30 seconds west 662 feet to the most southerly point of before mentioned Parcel No. 95, in the centre of Tongore creek; thence partly along the westerly line of said parcel, north 24 degrees 20 minutes 30 minutes west 1,124.2 feet and north 41 minutes east 25.8 feet to the southeast corner of Parcel No. 96; thence along the southerly line of said parcel and of Parcel No. 97 the following courses and distances: North 80 degrees 4 minutes 30 seconds west 528.1 feet, south 79 degrees 10 minutes west 220.1 feet, south 79 degrees 31 minutes 30 seconds west 312.4 feet, south 79 degrees 13 minutes west 229.3 feet, south 64 degrees 28 minutes west 317.6 feet, south 64 degrees 45 minutes 30 seconds west 124.6 feet, south 46 degrees 3 minutes west 229.9 feet, south 1 degree 28 minutes 30 seconds east 118.7 feet and south 74 degrees 4 minutes west 204.7 feet to the southwest corner of said parcel, in the easterly line of before mentioned Tongore road; thence along the said easterly line and the westerly line of said parcel, north 18 degrees 22 minutes 30 seconds west 25 feet to the northwest corner of said parcel; thence along the northerly line of same and the northerly line of Parcel No. 96 the following courses and distances: North 74 degrees 4 minutes east 186.4 feet, north 1 degree 28 minutes 30 seconds west 110.3 feet, north 46 degrees 3 minutes east 245 feet, north 64 degrees 45 minutes 30 seconds east 128.7 feet, north 64 degrees 28 minutes east 320.8 feet, north 79 degrees 13 minutes east 232.5 feet, north 79 degrees 31 minutes 30 seconds east 205 feet, north 10 degrees 28 minutes 30 seconds west 25 feet, north 79 degrees 29 minutes 30 seconds east 111.3 feet, south 10 degrees 50 minutes east 25 feet, north 79 degrees 10 minutes east 150 feet and south 80 degrees 4 minutes 30 seconds east 528.6 feet to a point in the before mentioned westerly line of Parcel No. 95; thence partly along the said line and the westerly line of before mentioned Parcel No. 93 north 41 minutes east 904.1 feet, north 20 degrees 28 minutes 30 seconds west 813.3 feet and north 50 degrees 14 minutes 30 seconds west 282.4 feet to the most easterly point of before mentioned Parcel No. 94; thence along the southerly line of said parcel, north 64 degrees 29 minutes 30 seconds west 405.7 feet to the point or place of beginning.

The fee is to be acquired by The City of New York in all the real estate Parcels Nos. 93 to 143, inclusive, contained in the above description, excepting Parcels Nos. 96, 97, 119, 124 and 137, over which a temporary easement is to be acquired.

Reference is hereby made to the said map, filed as aforesaid in the office of the County Clerk of the County of Ulster, for a more detailed description of the real estate to be taken as above described.

In case any property above described is used for any public purpose, such as a highway, etc., such use shall continue until The City of New York shall have legal right to take possession of or change the same.

Dated October 12, 1907.

FRANCIS KEY PENDLETON,

Corporation Counsel.

Office and Post Office address, Hall of Records, corner of Chambers and Centre streets, Borough of Manhattan, New York City.

019,230

### THIRD JUDICIAL DISTRICT.

ULSTER COUNTY.

CATSKILL AQUEDUCT.

Section No. 4.

### NOTICE OF APPLICATION FOR THE APPOINTMENT OF COMMISSIONERS OF APPRAISAL.

PUBLIC NOTICE IS HEREBY GIVEN that it is the intention of the Corporation Counsel of The City of New York to make application to the Supreme Court of the State of New York for the appointment of Commissioners of Appraisal under chapter 724 of the Laws of 1905, as amended. Such application will be made at a Special Term of the Supreme Court to be held in and for the Third Judicial District at the City Hall, City of Albany, N. Y., on November 30, 1907, at 10 o'clock in the forenoon of that day, or as soon thereafter as counsel can be heard. The object of such application is to obtain an order of the Court appointing three disinterested and competent freeholders, one of whom shall reside in the County of New York, and at least one of whom shall reside in the county where the real estate hereinafter described is situated, to act as Commissioners of Appraisal under said act and discharge all the duties conferred by the said law and the acts amendatory thereof, upon such Commissioners of Appraisal, for the purpose of providing an additional supply of pure and wholesome water for The City of New York.

The real estate to be acquired herein is situated in the Towns of Marlborough, New Paltz and Gardiner, and is to be acquired for the purpose of furnishing an additional supply of pure and wholesome water to The City of New York.

The following is a statement of the boundaries of the lands to be acquired herein, with a reference to the date and place of filing of the map.

All those certain pieces or parcels of real estate situated in the Towns of Marlborough, New Paltz and Gardiner, County of Ulster and State of New York, shown on a certain map entitled "Northern Aqueduct Department, Section No. 4, Board of Water Supply of The City of New York. Map of real estate situated in the Towns of Marlborough, New Paltz and Gardiner, County of Ulster and State of New York, to be acquired by The City of New York under the provisions of chapter 724 of the Laws of 1905, as amended, for the construction of Catskill Aqueduct and appurtenances, from the vicinity of Kripplebush to the vicinity of

Libertyville," which map was filed in the office of the County Clerk of the County of Ulster, at Kingston, New York, on the 11th day of October, 1907; which parcels are bounded and described as follows:

Beginning at the southwest corner of Parcel No. 143, shown on map of Section No. 3, Northern Aqueduct Department, filed in the office of the County Clerk of the County of Ulster, at Kingston, New York, on the 11th day of October, 1907, which point is in the northerly line of Parcel No. 144 of Section No. 4, hereby described, and running thence along the southerly line of said Parcel No. 143 and partly along the northerly line of said Parcel No. 144, south 51 degrees 25 minutes 30 seconds east 415.2 feet and south 48 degrees 26 minutes 30 seconds east 205.9 feet to the northeast corner of said Parcel No. 144; thence along the easterly line of same, south 31 degrees 19 minutes 30 seconds west 96.6 feet and south 38 degrees 36 minutes east 2,247.3 feet to the northeast corner of Parcel No. 146; thence along the easterly lines of said parcel and Parcel No. 147, south 38 degrees 36 minutes east 860.4 feet to a point in the westerly line of Parcel No. 148; thence partly along said line, north 38 degrees 20 minutes 30 seconds east 357.3 feet to the northwest corner of said parcel, in the centre of Kripplebush road; thence along the centre line of said road and the northerly line of said parcel, south 55 degrees 14 minutes east 256.1 feet and south 55 degrees 16 minutes east 303.2 feet to the northeast corner of said parcel; thence along the easterly lines of said parcel and Parcels Nos. 149 and 150, and partly along the easterly line of Parcel No. 151, the following courses and distances: South 51 degrees 24 minutes west 513.4 feet, south 38 degrees 36 minutes east 513.4 feet, crossing Ellenville road, north 51 degrees 24 minutes east 100 feet and south 38 degrees 36 minutes east 224.8 feet to the most westerly point of Parcel No. 152; thence along the westerly and northerly lines of said parcel and the northerly line of Parcel No. 153, north 31 degrees 57 minutes east 636.4 feet, north 49 degrees 9 minutes 30 seconds east 596.7 feet and north 49 degrees 18 minutes 30 seconds east 885.4 feet to the most northerly point of said Parcel No. 153, in the southerly line of Stone Ridge road; thence along said line, and continuing along the northerly line of Parcel No. 153, south 52 degrees 20 minutes east 25.5 feet to the most easterly point of said parcel; thence along the southerly line of same and the easterly line of before mentioned Parcel No. 152, south 49 degrees 18 minutes 30 seconds west 890.6 feet, south 49 degrees 9 minutes 30 seconds west 592.9 feet and south 31 degrees 57 minutes west 641.5 feet to the most southerly point of said Parcel No. 152, in the before mentioned easterly line of Parcel No. 151; thence partly along said line and along the easterly line of Parcel No. 154, and partly along the easterly line of Parcel No. 157, the following courses and distances: South 38 degrees 36 minutes east 548.7 feet, south 51 degrees 24 minutes west 100 feet, south 38 degrees 36 minutes east 3,000 feet and north 68 degrees 9 minutes 30 seconds east 478.4 feet to the northwest corner of Parcel No. 155; thence along the northerly line of said parcel and partly along the northerly line of Parcel No. 155, the following courses and distances: North 56 degrees 25 minutes 30 seconds east 360.2 feet, north 57 degrees 23 minutes 30 seconds east 188.8 feet, north 53 degrees 23 minutes east 178.7 feet, north 59 degrees 43 minutes 30 seconds east 222.6 feet, north 54 degrees 9 minutes 30 seconds east 136.8 feet and north 56 degrees 25 minutes east 1,130.4 feet to the most northerly point of said Parcel No. 155, in the centre of the before mentioned Stone Ridge road; thence along the centre line of said road and the northerly line of said parcel, south 46 degrees 4 minutes 30 seconds east 25.6 feet to the most easterly point of said parcel; thence along the southerly lines of same and before mentioned Parcel No. 156 the following courses and distances: South 56 degrees 25 minutes west 1,135.4 feet, south 54 degrees 9 minutes 30 seconds west 137.5 feet, south 59 degrees 43 minutes 30 seconds west 222.4 feet, south 53 degrees 23 minutes west 178.2 feet, south 57 degrees 23 minutes 30 seconds west 189.5 feet and south 56 degrees 25 minutes 30 seconds west 365.8 feet to the southwest corner of said Parcel No. 156, in the easterly line of before mentioned Parcel No. 157; thence partly along said line, south 20 degrees 20 minutes east 1,021.8 feet to the northwest corner of Parcel No. 158; thence along the northerly and easterly lines of said parcel, north 69 degrees 40 minutes east 130.9 feet and south 26 degrees east 76.2 feet to the northeast corner of Parcel No. 161, in the northerly property line of the Ellenville and Kingston Railroad Company (N. Y. O. & W. R. R.); thence along the easterly line of said parcel, crossing the property of said railroad company, south 26 degrees east 66.4 feet to the southeast corner of same, in the southerly property line of said railroad company, at the northeast corner of Parcel No. 159; thence along the easterly line of said Parcel No. 159, south 26 degrees east 540.6 feet to the southeast corner of same, in the centre of the Lucas turnpike; thence along the centre line of same and the southerly line of said parcel, south 75 degrees 16 minutes west 25.5 feet to the southwest corner of said parcel; thence along the westerly line of same, north 26 degrees west 533 feet to the southwest corner of before mentioned Parcel No. 161, in the southerly property line of the before mentioned railroad company; thence along the westerly line of said parcel, re-crossing said railroad property, north 26 degrees west 66.4 feet to a point in the southerly line of before mentioned Parcel No. 158; thence partly along said line, north 26 degrees west 56.2 feet and south 69 degrees 40 minutes west 108.3 feet to the southwest corner of said parcel, in the before mentioned easterly line of Parcel No. 157; thence partly along said line, south 20 degrees 20 minutes east 70 feet to the southeast corner of said Parcel No. 157, in the northerly property line of said railroad company; thence along said line and along the southerly line of said parcel on a curve of 1,113.3 feet radius to the right, 136.9 feet, to the northeast corner of Parcel No. 162; thence along the easterly line of said parcel, again crossing the property of said railroad company, south 38 degrees 36 minutes east 70.7 feet to the northeast corner of Parcel No. 160, in the southerly property line of said railroad company; thence along the easterly line of said parcel, south 38 degrees 36 minutes east 1,126.6 feet to a point in the centre of Rondout creek, in the northerly line of Parcel No. 163; thence along the centre line of said creek and partly along said northerly line, south 75 degrees 34 minutes 30 seconds east 307.1 feet to the most northerly point of Parcel No. 164; thence along the northerly line of said parcel, south 40 degrees 53 minutes 30 seconds east 153 feet and south 54 degrees 30 minutes east 185.8 feet to the northeast corner of said parcel, in the centre of a road leading from Kyserville to High Falls; thence along the centre line of said road and partly along the easterly line of said parcel, south 29 degrees 32 minutes west 206.7 feet to the most northerly point of Parcel No. 165; thence along the easterly lines of said parcel and Parcel No. 168, south 38 degrees 36 minutes east 484.4 feet, crossing the abandoned Delaware and Hudson canal, to the southeast corner of Parcel No. 168, in the northerly



line of Parcel No. 167; thence partly along said line, south 38 degrees 36 minutes east 44 feet, north 53 degrees 27 minutes east 170.1 feet, north 40 degrees 40 minutes east 89.2 feet and south 53 degrees 30 minutes east 400 feet to the northeast corner of said parcel; thence along the easterly line of same, south 10 degrees 45 minutes 30 seconds west 610.6 feet and south 38 degrees 36 minutes east 2,013.2 feet to a point in the westerly line of Parcel No. 169, in the centre of Mohonk road; thence along the centre line of said road and partly along said westerly line, north 24 degrees 29 minutes 30 seconds east 218.5 feet to the northwest corner of said parcel; thence along the northerly and easterly lines of same, and partly along the easterly line of Parcel No. 172, the following courses and distances: South 61 degrees 25 minutes 30 seconds east 430.1 feet, south 61 degrees 49 minutes east 876.6 feet, south 38 degrees 36 minutes west 769.5 feet, south 38 degrees 36 minutes east 1,319.4 feet, crossing Coxing Kill, north 34 degrees 51 minutes east 156.5 feet and south 38 degrees 36 minutes east 200 feet to a point in the centre of a road leading from Rosendale to Lake Mohonk; thence along the centre line of said road, and continuing along the easterly line of Parcel No. 172, and partly along the westerly line of Parcel No. 171, north 34 degrees 51 minutes east 101.3 feet to the most northerly point of said Parcel No. 171; thence partly along the easterly lines of said parcel and Parcel No. 172 and along the easterly line of Parcel No. 173 the following courses and distances: South 38 degrees 36 minutes east 700 feet, south 3 degrees 41 minutes west 48.2 feet, south 42 degrees 8 minutes east 650 feet, north 47 degrees 52 minutes east 1,050 feet, south 42 degrees 8 minutes east 500 feet and south 5 degrees 52 minutes 30 seconds west 762.4 feet to the southeast corner of said Parcel No. 173, in the northerly line of Parcel No. 174; thence partly along said line, south 76 degrees 42 minutes east 156 feet to the northeast corner of said parcel; thence along the easterly line of same, south 2 degrees 7 minutes 30 seconds east 509.8 feet to the southeast corner of said parcel; thence partly along the southerly line of same, south 86 degrees 48 minutes 30 seconds west 174.8 feet to the northeast corner of Parcel No. 175; thence along the easterly line of said parcel, south 10 degrees 40 minutes west 287.7 feet to the southeast corner of said parcel; thence along the southerly line of same, south 81 degrees 49 minutes west 125 feet to the northeast corner of Parcel No. 176; thence along the easterly line of said parcel and Parcel No. 177, and partly along the easterly line of Parcel No. 178, the following courses and distances: South 8 degrees 11 minutes east 630.7 feet, crossing a line between the towns of Marletown and New Paltz, north 81 degrees 49 minutes east 75 feet, south 8 degrees 11 minutes east 286.7 feet, north 81 degrees 49 minutes east 150.1 feet and south 15 degrees 47 minutes east 283.2 feet to the northwest corner of Parcel No. 179; thence along the northerly line of said parcel the following courses and distances: South 87 degrees 49 minutes east 290.7 feet, north 79 degrees 20 minutes east 217.4 feet, south 79 degrees 8 minutes east 345.2 feet, south 51 degrees 4 minutes east 136.4 feet, south 47 degrees 10 minutes east 140.9 feet, south 47 degrees 35 minutes east 65.8 feet, south 52 degrees 35 minutes east 78.8 feet, south 49 degrees 28 minutes east 254.5 feet and south 37 degrees 30 minutes east 76.1 feet to the northeast corner of said parcel, in the westerly line of a road leading from Rosendale to Butterville; thence along said line and the easterly line of said parcel, south 8 degrees 35 minutes east 54.3 feet to the southeast corner of said parcel; thence along the southerly line of same the following courses and distances: North 49 degrees 28 minutes west 370.2 feet, north 52 degrees 39 minutes west 78.1 feet, north 48 degrees 45 minutes west 337.3 feet, north 79 degrees 8 minutes west 334.2 feet, south 79 degrees 20 minutes west 215.4 feet and north 87 degrees 49 minutes west 285.4 feet to the southwest corner of said parcel, in the easterly line of before mentioned Parcel No. 178; thence partly along said line and along the easterly lines of Parcels Nos. 180, 181, 182 and 183, and partly along the easterly line of Parcel No. 184, the following courses, distances and curves: South 15 degrees 47 minutes east 228 feet, south 19 degrees 20 minutes east 293.7 feet, on a curve of 450 feet radius to the right, 105.3 feet, south 5 degrees 56 minutes east 407.2 feet, on a curve of 450 feet radius to the right, 97.6 feet, south 6 degrees 30 minutes west 138.1 feet, on a curve of 450 feet radius to the right, 81.5 feet, south 16 degrees 53 minutes west 143.9 feet, on a curve of 450 feet radius to the right, 22.8 feet, south 19 degrees 47 minutes west 425.9 feet, south 34 degrees 32 minutes west 211.4 feet, south 6 degrees 4 minutes west 762.1 feet, on a curve of 500 feet radius to the right, 94.5 feet, south 24 degrees 7 minutes west 187.4 feet, on a curve of 100 feet radius to the left, 24.5 feet, south 10 degrees 4 minutes west 335.1 feet, on a curve of 100 feet radius to the left, 9.7 feet, south 4 degrees 31 minutes west 511.3 feet, south 10 degrees 15 minutes west 183.6 feet, south 79 degrees 45 minutes east 300 feet, on a curve of 625 feet radius to the right, 101 feet, south 19 degrees 31 minutes west 210.7 feet and north 79 degrees 20 minutes west 163.8 feet to a point in the northerly line of Parcel No. 185; thence partly along said line the following courses and distances: South 19 degrees 45 minutes east 134.1 feet, south 5 degrees 18 minutes east 62.5 feet, south 17 degrees 29 minutes east 77.3 feet, south 31 degrees 33 minutes east 76.4 feet, south 43 degrees 47 minutes east 245.4 feet, south 60 degrees 2 minutes east 106.4 feet and south 65 degrees 5 minutes east 357.5 feet to the northeast corner of said parcel, in the westerly line of Canaan road; thence along said line and the easterly line of said parcel, south 35 degrees 53 minutes west 25.4 feet to the southeast corner of said parcel; thence along the southerly line of same the following courses and distances: North 65 degrees 5 minutes west 353.8 feet, north 60 degrees 2 minutes west 111.1 feet, north 43 degrees 47 minutes west 251.6 feet, north 31 degrees 33 minutes west 82.1 feet, north 17 degrees 29 minutes west 83.2 feet and north 19 degrees 45 minutes west 151.3 feet to another point in the easterly line of Parcel No. 184; thence partly along said line and along the easterly lines of Parcels Nos. 186 and 187, the following courses, distances and curves: North 70 degrees 29 minutes west 103.9 feet, on a curve of 325 feet radius to the right, 96.6 feet, south 36 degrees 33 minutes west 673.6 feet, on a curve of 325 feet radius to the right, 24.1 feet, and south 40 degrees 48 minutes west 741.1 feet to the northeast corner of Parcel No. 188; thence along the easterly and partly along the southerly lines of said parcel the following courses, distances and curves: South 40 degrees 48 minutes west 143.1 feet, on a curve of 325 feet radius to the right, 59.7 feet, south 51 degrees 20 minutes west 224.4 feet, on a curve of 325 feet radius to the right, 162.1 feet, south 79 degrees 54 minutes west 90 feet, on a curve of 325 feet radius to the right, 307.9 feet, and north 45 degrees 50 minutes west 143.1 feet to a point in the easterly line of a road leading from Mountain Rest to New Paltz; thence along

said line, south 8 degrees 50 minutes east 87.8 feet; thence continuing along the southerly line of Parcel No. 188, south 81 degrees 10 minutes west 19 feet to the southeast corner of Parcel No. 189, in the centre of said road; thence partly along the southerly line of said parcel, south 18 degrees 10 minutes west 19 feet to a point in the westerly line of said road; thence along said line, north 8 degrees 50 minutes west 90.7 feet and north 4 degrees 30 minutes west 56.1 feet; thence still continuing along the southerly line of said parcel, south 66 degrees 8 minutes west 1060.1 feet and south 15 degrees 14 minutes west 374.7 feet to the northeast corner of Parcel No. 190; thence along the easterly lines of said parcel and Parcel No. 191 the following courses, distances and curves: South 6 degrees 44 minutes west 237.8 feet, on a curve of 325 feet radius to the right, 70 feet, south 20 degrees 18 minutes west 367 feet, on a curve of 325 feet radius to the right, 23.9 feet, south 24 degrees 31 minutes west 243.1 feet, on a curve of 325 feet radius to the right, 59.3 feet, south 34 degrees 58 minutes west 422.1 feet, on a curve of 325 feet radius to the right, 173.2 feet, and south 24 degrees 30 minutes east 200 feet to the southeast corner of said parcel; thence partly along the southerly line of same, south 65 degrees 30 minutes west 332 feet and north 59 degrees 7 minutes west 243 feet to the most easterly point of Parcel No. 192; thence along the southerly line of said parcel, south 65 degrees 30 minutes west 64.4 feet, on a curve of 325 feet radius to the right, 113.9 feet, south 85 degrees 35 minutes west 745 feet and south 24 degrees 9 minutes west 72.4 feet to the southwest corner of said parcel, in the easterly line of Parcel No. 193; thence partly along said line, south 24 degrees 9 minutes west 246.6 feet to the northeast corner of Parcel No. 196, in the easterly line of a road leading from Mohonk to New Paltz; thence along said line and the easterly line of said parcel, south 12 degrees 44 minutes west 126.6 feet and south 4 degrees 42 minutes east 124.3 feet; thence partly along the centre line of a road leading from Mohonk to Minnewaska, south 41 degrees 37 minutes west 156.4 feet to the most northerly point of Parcel No. 194; thence along the easterly line of said parcel and Parcel No. 195 and partly along the easterly lines of before mentioned Parcel No. 196 and Parcel No. 198, the following courses, distances and curves: South 15 degrees 12 minutes west 98.4 feet, on a curve of 325 feet radius to the right, 189.5 feet, south 48 degrees 37 minutes west 374.9 feet, on a curve of 75 feet radius to the left, 15.3 feet, south 36 degrees 57 minutes west 799.4 feet, on a curve of 75 feet radius to the left, 10.2 feet, south 29 degrees 9 minutes west 146.6 feet, on a curve of 75 feet radius to the left, 16.7 feet, south 16 degrees 25 minutes west 332 feet, on a curve of 325 feet radius to the right, 93.9 feet, south 32 degrees 58 minutes west 292.1 feet, on a curve of 75 feet radius to the left, 6.6 feet, south 27 degrees 56 minutes west 182.6 feet, on a curve of 325 feet radius to the right, 32.1 feet, south 33 degrees 35 minutes west 114.9 feet, on a curve of 325 feet radius to the right, 200.6 feet, south 68 degrees 58 minutes west 83.1 feet, on a curve of 75 feet radius to the left, 61.9 feet, south 21 degrees 37 minutes west 94.1 feet, on a curve of 325 feet radius to the right, 133.5 feet, south 45 degrees 9 minutes west 200.4 feet, south 33 degrees 35 minutes west 753.9 feet to a point in the easterly line of the before mentioned road leading from Mohonk to Minnewaska; thence along said line, south 27 degrees 49 minutes west 37 feet; thence still continuing along the easterly line of Parcel No. 198, south 56 degrees 5 minutes east 71.1 feet, south 33 degrees 55 minutes west 50.1 feet and north 56 degrees 5 minutes west 104.9 feet, crossing the before mentioned road, to a point in the westerly line thereof; thence along said line, continuing along the easterly line of Parcel No. 198, and partly along the easterly line of Parcel No. 199, the following courses and distances: South 27 degrees 49 minutes west 360.7 feet, south 30 degrees 44 minutes west 165.8 feet, south 37 degrees 57 minutes west 140.6 feet, south 20 degrees 40 minutes west 327.7 feet, south 33 degrees 28 minutes west 368 feet, south 40 degrees 20 minutes west 319.9 feet, south 40 degrees 3 minutes west 245.1 feet, south 39 degrees 15 minutes west 632.1 feet, crossing a line between the towns of New Paltz and Gardiner, and south 40 degrees 10 minutes west 94.6 feet to the northeast corner of Parcel No. 201; thence along the easterly line of said parcel, south 13 degrees 29 minutes east 44.7 feet, recrossing the before mentioned road to a point in the easterly line thereof; thence along said line and the easterly line of said Parcel No. 201, south 40 degrees 10 minutes west 128.2 feet to the southeast corner of said parcel; thence along the southerly lines of said parcel and Parcel No. 200, and partly along the southerly line of an abandoned road leading to Mohonk, north 52 degrees 59 minutes west 536 feet and north 51 degrees east 359.9 feet, recrossing the before mentioned line between the towns of New Paltz and Gardiner, to the northwest corner of Parcel No. 201; thence along the northerly line of said parcel and the westerly lines of before mentioned Parcels Nos. 199, 198, 196, Parcel No. 197 and before mentioned Parcel No. 193, the following courses and distances: North 51 degrees east 163.8 feet, recrossing the before mentioned abandoned road leading to Mohonk, south 60 degrees 50 minutes east 225 feet, north 29 degrees 10 minutes east 286.6 feet, north 36 degrees 56 minutes east 355.7 feet, north 33 degrees 21 minutes east 274.2 feet, north 28 degrees 24 minutes east 154.4 feet, north 35 degrees 20 minutes east 275 feet and north 33 degrees 55 minutes east 179.8 feet, crossing the before mentioned road leading from Mohonk to Minnewaska, to a point in the easterly line thereof; thence along said line, north 16 degrees 56 minutes east 16 feet and north 9 degrees 58 minutes east 412.4 feet; thence still continuing along the westerly line of Parcel No. 196, the following courses, distances and curves: North 45 degrees 9 minutes east 192.8 feet, on a curve of 125 feet radius to the left, 51.3 feet, north 21 degrees 37 minutes east 94.1 feet, on a curve of 275 feet radius to the right, 27.2 feet, north 68 degrees 58 minutes east 83.1 feet, on a curve of 125 feet radius to the left, 77.2 feet, north 33 degrees 35 minutes east 114.9 feet, on a curve of 125 feet radius to the left, 12.4 feet, north 27 degrees 56 minutes east 182.6 feet, on a curve of 275 feet radius to the right, 24.2 feet, north 32 degrees 58 minutes east 292.1 feet, on a curve of 125 feet radius to the left, 36.1 feet, north 16 degrees 25 minutes east 332.8 feet, recrossing the before mentioned road leading from Mohonk to Minnewaska, on a curve of 275 feet radius to the right, 61.1 feet, north 29 degrees 9 minutes east 146.6 feet, on a curve of 275 feet radius to the right, 37.4 feet, north 36 degrees 57 minutes east 799.4 feet, on a curve of 275 feet radius to the right, 56 feet, north 48 degrees 37 minutes east 374.9 feet, crossing Kleinekil road, on a curve of 125 feet radius to the left, 72.9 feet, north 15 degrees 12 minutes east 408.7 feet, north 29 degrees 51 minutes east 108.5 feet and north 12 degrees 1 minute east 499 feet to the northwest corner of before mentioned Parcel No. 193; thence along the northerly line of said parcel, south 86 degrees 5 minutes east 73.2 feet, again crossing the road leading from Mohonk to Minnewaska, to the northeast corner

of said parcel; thence partly along the easterly line of same, south 5 degrees 36 minutes east 163.8 feet and south 16 degrees 23 minutes east 70.9 feet to the northwest corner of before mentioned Parcel No. 192; thence along the northerly line of said parcel and partly along the northerly line of before mentioned Parcel No. 191 the following courses, distances and curves: South 87 degrees 25 minutes east 39.8 feet, north 85 degrees 35 minutes east 745.1 feet, on a curve of 125 feet radius to the left, 43.8 feet, north 65 degrees 30 minutes east 534.4 feet, on a curve of 125 feet radius to the left, 66.6 feet, and north 34 degrees 58 minutes east 235.2 feet to the southwest corner of before mentioned Parcel No. 190; thence along the westerly line of said parcel and the westerly and northerly lines of before mentioned Parcel No. 189 the following courses, distances and curves: North 34 degrees 53 minutes east 186.9 feet, on a curve of 125 feet radius to the left 22.8 feet north 24 degrees 31 minutes east 243.1 feet, on a curve of 125 feet radius to the left, 9.2 feet, north 20 degrees 18 minutes east 367 feet, on a curve of 125 feet radius to the left, 26.9 feet, north 7 degrees 57 minutes east 336.6 feet, north 16 degrees 39 minutes east 223.4 feet, north 27 degrees 55 minutes east 338.2 feet, north 66 degrees 8 minutes east 950.5 feet and north 85 degrees 30 minutes east 156 feet to the northwest corner of before mentioned Parcel No. 188, in the centre of the before mentioned road leading from Mountain Rest to New Paltz; thence along the northerly line of said parcel the following courses, distances and curves: North 85 degrees 30 minutes east 359.9 feet, south 45 degrees 50 minutes east 344.9 feet, on a curve of 125 feet radius to the left, 118.4 feet, north 79 degrees 54 minutes east 90 feet, on a curve of 125 feet radius to the left, 62.4 feet, north 51 degrees 20 minutes east 224.4 feet, on a curve of 125 feet radius to the left, 23 feet, and north 40 degrees 48 minutes east 112.9 feet to the southwest corner of before mentioned Parcel No. 187; thence along the westerly lines of said parcel and before mentioned Parcels Nos. 184, 183, 182, 180, 178, 177 and 176, the following courses, distances and curves: North 40 degrees 48 minutes east 771.3 feet on a curve of 125 feet radius to the left, 9.3 feet, north 36 degrees 33 minutes east 673.6 feet, on a curve of 125 feet radius to the left, 37.2 feet, north 10 degrees 31 minutes east 210.7 feet, on a curve of 125 feet radius to the left, 20.2 feet, north 10 degrees 15 minutes east 473.6 feet, north 4 degrees 31 minutes east 501.2 feet, on a curve of 300 feet radius to the right, 29.1 feet, north 10 degrees 4 minutes east 335.1 feet, on a curve of 300 feet radius to the right, 73.6 feet, north 24 degrees 7 minutes east 187.4 feet, on a curve of 100 feet radius to the left, 31.5 feet, north 6 degrees 4 minutes east 688.2 feet, north 34 degrees 32 minutes west 254.8 feet, north 3 degrees 32 minutes west 295.5 feet, north 19 degrees 47 minutes east 502.1 feet, on a curve of 125 feet radius to the left, 6.3 feet, north 16 degrees 53 minutes east 143.9 feet, on a curve of 125 feet radius to the left, 22.5 feet, north 6 degrees 30 minutes east 138.1 feet, on a curve of 125 feet radius to the left, 27.1 feet, north 5 degrees 56 minutes west 407.2 feet, on a curve of 125 feet radius to the left, 29.2 feet, north 19 degrees 20 minutes west 303.8 feet, north 15 degrees 47 minutes west 572.5 feet, north 8 degrees 11 minutes west 305 feet, north 81 degrees 49 minutes east 50 feet and north 8 degrees 11 minutes west 6,307.7 feet, recrossing the line between the towns of New Paltz and Marletown, to a point in the southerly line of before mentioned Parcel No. 175; thence partly along said southerly line, south 81 degrees 49 minutes west 125 feet, to the southwest corner of said parcel; thence along the westerly line of same, north 32 degrees 2 minutes 30 seconds west 706.6 feet to the northwest corner of said parcel, in the southerly line of before mentioned Parcel No. 174; thence partly along said line, south 19 degrees 5 minutes 30 seconds west 234.9 feet, south 20 degrees 20 minutes west 580 feet and north 64 degrees 52 minutes 30 seconds west 144.4 feet to the southwest corner of said parcel; thence along the westerly line of same north 13 degrees 37 minutes west 400.2 feet, north 31 degrees 13 minutes 30 seconds east 374.4 feet and north 37 degrees 38 minutes 30 seconds west 333.3 feet to the southwest corner of before mentioned Parcel No. 173, in the easterly line of Mountain road; thence along said road and the westerly line of said parcel, north 37 degrees 38 minutes 30 seconds west 136 feet and north 23 degrees 12 minutes west 50 feet; thence continuing along said westerly line, north 47 degrees 52 minutes east 293.7 feet and north 36 degrees 31 minutes west 522.6 feet to a point in the centre of the before mentioned road; thence along the centre line of same, and continuing along the westerly line of Parcel No. 173, north 16 degrees 7 minutes 30 seconds west 467 feet, north 42 degrees 31 minutes 30 seconds west 43.5 feet and north 64 degrees 31 minute west 288.1 feet to the southwest corner of before mentioned Parcel No. 172; thence along the westerly line of said parcel, and still continuing along the centre line of said road, north 64 degrees 1 minute west 177.5 feet, north 31 degrees 3 minutes 30 seconds west 202.9 feet and north 60 degrees 27 minutes 30 seconds west 154.6 feet; thence continuing along said westerly line, and partly along the westerly line of before mentioned Parcel No. 169, north 51 degrees 24 minutes east 197.8 feet, north 38 degrees 36 minutes west 2,479.9 feet, recrossing the before mentioned road leading from Rosendale to Mohonk and Coxing Kill, and south 51 degrees 24 minutes west 100 feet to the southeast corner of Parcel No. 170; thence along the southerly line of said parcel, south 51 degrees 24 minutes west 391.3 feet to the southwest corner of said parcel, in the centre of Mohonk road; thence along the centre line of said road and the westerly line of said parcel, north 12 degrees west 28 feet to the northwest corner of said parcel; thence along the northerly line of same, north 51 degrees 24 minutes east 378.7 feet to a point in the before mentioned westerly line of Parcel No. 169; thence partly along said line and along the westerly line of before mentioned Parcel No. 167, the following courses and distances: North 38 degrees 36 minutes west 275 feet, north 51 degrees 24 minutes east 100 feet, north 38 degrees 36 minutes west 2,900 feet, recrossing Mohonk road, south 51 degrees 24 minutes west 250 feet and north 38 degrees 36 minutes west 303.9 feet to the northwest corner of said Parcel No. 167; thence partly along the northerly line of same, north 56 degrees 7 minutes east 250.8 feet and north 38 degrees 36 minutes west 33 feet to the southwest corner of before mentioned Parcel No. 168; thence along the westerly line of said parcel, north 38 degrees 36 minutes west 147.1 feet, recrossing the before mentioned abandoned Delaware and Hudson Canal, to the southwest corner of Parcel No. 166; thence along the westerly lines of said parcel and before mentioned Parcels Nos. 164, 163 and 160, north 38 degrees 36 minutes west 636.7 feet, crossing Kyserike road, north 65 degrees 10 minutes west 670.8 feet and north 21 degrees 5 minutes west 930.2 feet, recrossing Rondout creek and Lucas turnpike, to the southwest corner of before mentioned Parcel No. 162, in the before mentioned southerly property line of the Ellenville and Kingston Railroad Company (New York, Ontario and Western Railroad); thence

along the westerly line of said parcel, and recrossing said railroad company's property, north 21 degrees 5 minutes west 66.6 feet to a point in the northerly property line of said railroad company; thence along said line and the southerly line of before mentioned Parcel No. 157, on a curve of 1,113.3 feet radius to the right, 173.7 feet, to the southwest corner of before mentioned Parcel No. 157; thence along the westerly line of said parcel and before mentioned Parcels Nos. 154, 151, 150 and 149, the following courses and distances: North 38 degrees 36 minutes west 1,062.2 feet, north 51 degrees 24 minutes east 150 feet, north 38 degrees 36 minutes west 3,000.1 feet, south 51 degrees 24 minutes west 750 feet, north 38 degrees 36 minutes west 500 feet, north 26 degrees 23 minutes east 827.7 feet, north 38 degrees 36 minutes west 3,650 feet, recrossing Ellenville road, south 61 degrees 16 minutes west 583.6 feet and north 38 degrees 36 minutes west 73 feet to the southwest corner of before mentioned Parcel No. 147; thence along the westerly line of said parcel, north 38 degrees 36 minutes west 527 feet, north 51 degrees 24 minutes east 575 feet and north 38 degrees 36 minutes west 380.9 feet to a point in the southerly line of before mentioned Parcel No. 146; thence partly along said line, south 37 degrees 30 minutes west 175.7 feet to the southwest corner of said parcel; thence along the westerly lines of said parcel, Parcel No. 145 and before mentioned Parcel No. 144, the following courses and distances: North 17 degrees 38 minutes 30 seconds west 298.8 feet, recrossing Kripplush road, north 38 minutes 30 seconds west 103.5 feet, north 38 degrees 36 minutes west 1,277.8 feet, south 51 degrees 24 minutes west 177.6 feet, north 52 degrees 27 minutes 30 seconds west 670.3 feet, north 9 degrees 10 seconds west 417.8 feet, north 51 degrees 22 minutes 30 seconds west 564.2 feet and north 43 degrees 31 minutes east 304.6 feet to the most northerly point of said Parcel No. 144; thence partly along the northerly line of said parcel, south 51 degrees 43 minutes 30 seconds east 86.3 feet, to the point or place of beginning.

The fee is to be acquired by The City of New York in all the real estate parcels Nos. 144 to 201, inclusive, contained in the above description, excepting Parcels Nos. 152, 153, 155, 156, 158, 159, 161, 168, 179, 185, 184 and 195, over which temporary easement is to be acquired. Reference is hereby made to the said map, filed as aforesaid in the office of the County Clerk of the County of Ulster, for a more detailed description of the real estate to be taken as above described.

In case any property above described is used for any public purpose, such as a highway, etc., such use shall continue until The City of New York shall have legal right to take possession of or change the same.

Dated October 12, 1907.  
FRANCIS KEY PENDLETON,  
Corporation Counsel.  
Office and Post Office address, Hall of Records, corner of Chambers and Centre streets, Borough of Manhattan, New York City.

019,930

## PROPOSALS FOR BIDS AND ESTIMATES FOR THE CITY OF NEW YORK.

### NOTICE TO CONTRACTORS.

#### GENERAL INSTRUCTIONS TO BIDDERS.

The person or persons making a bid or estimate for any services, work, materials or supplies for The City of New York, or for any of its departments, bureaus or offices, shall furnish the same in a sealed envelope, indorsed with the title of the supplies, materials, work or services for which the bid or estimate is made, with his or their name or names and the date of presentation to the President or Board or to the head of the Department at his or its office, on or before the date and hour named in the advertisement for the same, at which time and place the estimates received will be publicly opened by the President or Board or head of said Department and read, and the award of the contract made according to law as soon thereafter as practicable.

Each bid or estimate shall contain the name and place of residence of the person making the same, and names of all persons interested with him therein, and, if no other person be so interested, it shall distinctly state that fact; also, that it is made without any connection with any other person making an estimate for the same purpose, and is in all respects fair and without collusion or fraud, and that no member of the Board of Aldermen, head of a department, chief of a bureau, deputy thereof, or clerk therein, or other officer of The City of New York, is, shall be or become interested, directly or indirectly, as contracting party, partner, stockholder, surety or otherwise in or in the performance of the contract, or in the supplies, work or business to which it relates, or in any portion of the profits thereof. The bid or estimate must be verified by the oath, in writing, of the party or parties making the estimate that the several matters stated herein are in all respects true.

Each bid or estimate shall be accompanied by the consent, in writing, of two householders or freeholders in The City of New York, or of a guaranty or surety company duly authorized by law to act as surety, and shall contain the matters set forth in the blank forms mentioned below.

No bid or estimate will be considered unless, as a condition precedent to the reception or consideration of any proposal, it be accompanied by a certified check upon one of the State or National banks of The City of New York, drawn to the order of the Comptroller, or money to the amount of five per centum of the amount of the bond required, as provided in section 420 of the Greater New York Charter.

The certified check or money should not be inclosed in the envelope containing the bid or estimate, but should be either inclosed in a separate envelope addressed to the head of the Department, President or Board, or submitted personally upon the presentation of the bid or estimate.

For particulars as to the quantity and quality of the supplies, or the nature and extent of the work, reference must be made to the specifications, schedules, plans, etc., on file in the said office of the President, Board or Department.

No bid shall be accepted from or contract awarded to any person who is in arrears to The City of New York upon debt or contract, or who is a defaulter, as surety or otherwise, upon any obligation to the City.

The contract must be bid for separately. The right is reserved in each case to reject all bids or estimates if it is deemed to be for the interest of the City so to do.

Bidders will write out the amount of their bids or estimates in addition to inserting the same in figures.

Bidders are requested to make their bids or estimates upon the blank forms prepared and furnished by the City, a copy of which, with the proper envelope in which to inclose the bid, together with a copy of the contract, including the specifications, in the form approved by the Corporation Counsel, can be obtained upon application therefor at the office of the Department for which the work is to be done. Plans and drawings of construction work may also be seen there.



# THE CITY RECORD.



## OFFICIAL JOURNAL OF THE CITY OF NEW YORK.

There shall be published daily, Sundays and legal holidays excepted, under a contract to be made as hereinafter provided, a paper to be known as the CITY RECORD. And said CITY RECORD, and the newspapers now by law designated as corporation newspapers in the present City of Brooklyn, shall be the only papers to be included within the term corporation newspapers, as the same is used anywhere in this act; . . . . There shall be inserted in said CITY RECORD nothing aside from such official matters as are expressly authorized. . . . All advertising required to be done for the City, except as in this act otherwise specially provided, and all notices required by law or ordinance to be published in corporation papers, shall be inserted at the public expense only in the CITY RECORD, and the publication therein shall be a sufficient compliance with any law or ordinance requiring publication of such matters or notices. . . . The Comptroller shall cause a continuous series of the CITY RECORD to be bound as completed, quarterly, and to be deposited with his certificate thereon in the office of the Register of Deeds of the County of New York in the County Clerk's office of said County, and in the office of the City Clerk, and copies of the contents of any of the same, certified by such Register, County Clerk or City Clerk, shall be received in judicial proceedings as prima facie evidence of the truth of the contents thereof.—§1526, *Greater New York Charter*.

## NOVEMBER, 1907.

VOL. XXXV.

PART XI.

### BOARD OF CITY RECORD:

GEORGE B. McCLELLAN, Mayor.

FRANCIS K. PENDLETON, Corporation Counsel.

HERMAN A. METZ, Comptroller.

PATRICK J. TRACY, Supervisor.

M. B. BROWN CO., PRINTERS  
Nos. 49-57 Park Place,  
NEW YORK.



# THE CITY RECORD



OFFICIAL JOURNAL

OF THE CITY OF NEW YORK

NOVEMBER 1901

M. B. BROWN CO. PRINTERS  
108 N. 2D ST. PHILA. PA.  
NEW YORK



# NOVEMBER, 1907.

## INDEX TO VOLUME XXXV.—PART XI.

### ALDERMEN, BOARD OF—

Advertisement, 11720.  
Announcement, 12220.  
Antrier, J. B., erect storm door, No. 993 Fulton street, Borough of Brooklyn, 12220.  
Budget for 1908, 11684.  
Conditions governing payment to charitable institutions, 11696.  
Communications from City, county and borough offices, 11705, 11714, 11929, 12217.  
Commissioners of Deeds appointed, 11932, 12219.  
City Surveyor appointed, 11711.  
Construct foot bridge across Tenth avenue and Thirtieth street, 11932.  
Establishment of position of Automobile Enginemen, Bureau of Supplies, Board of Education, salary fixed, 11710.  
Gluck, Charles, permission to erect storm door, No. 86 Lenox avenue, Borough of Manhattan, 11933.  
Gray, John, permission to erect storm door, No. 411 Bleecker street, Borough of Manhattan, 11934.  
Gumpel, J., & Son, permission to drive advertising wagon, 12220.  
General orders, 12219.  
Issue of Special Revenue Bonds to meet deficiencies in appropriations of Department of Charities, 11711.  
Issue of Special Revenue Bonds applied for various purposes, Department of Correction, 11712.  
Issue of Special Revenue Bonds to meet increase of salaries of Assistant Clerks of City Court, 11713.  
Issue of Special Revenue Bonds to meet proportionate cost of improvement with abolishing grade crossings, 11950.  
Issue of Special Revenue Bonds for altering and repairing Municipal Courts, Borough of Manhattan, 11931.  
Issue of Special Revenue Bonds, proceeds applied to expenses of placing steam launch "Velox" in condition for service, 11932.  
In matter of flat wheels on cars on Ninth Avenue Railroad, 11932.  
Minutes of special meetings, 11684.  
Minutes of stated meetings, 11705, 11929.  
McDonald, H. William, engrossing resolutions, warrant in favor of, 12220.  
Mrs. Carroll Livingston, permission to keep ornamental drinking fountain in Long Acre square, 12220.  
Ornamental lamp-post, No. 1219 Madison avenue, Borough of Manhattan, 11714.  
Ordinance to fix width of roadway of Ocean avenue, Borough of Brooklyn, 11716.  
Ordinance, issue of Corporate Stock for City Court buildings, Borough of Manhattan, 11931.  
Ordinance, issue of Corporate Stock to pay for removal of two columns of Brooklyn Bridge station, 11931.  
Ordinance, issue of Corporate Stock for site for public bath, Borough of Queens, 11931.  
Petitions and communications, 11705, 11929, 12217.  
Purchase of fire hydrants without public letting, 11713.  
Public hearings by the Aldermanic Finance Committee, 11752.  
Permit peddlers to stand on sidewalks for sale of holiday goods, 12220.  
Renumber buildings on north side of West 89th street, 11934.  
Reports of Standing Committees, 11930, 12218.  
Remington Typewriter Company, in favor of, 12219.  
Statement of title of any estate on which money has been received, 11707.  
Sabine, George, erect and place storm door, No. 642 Park avenue, Borough of Brooklyn, 11716.  
Special Revenue Bonds for furnishing Magistrates' Courts, Borough of Brooklyn, 12218.  
Transcript of such accounts of Public Administrator as have been closed or finally settled, 11706.  
Trustees of Mount Moriah Hospital, permission to erect stands for speakers, 11716.  
"Velox," steam launch, lease, 11709.  
White Plains road, from Pelham Parkway, Borough of The Bronx, water mains, 11716.  
Warrants in favor of, 11950.

### APPELLATE DIVISION, SUPREME COURT—

Chambers and hours, 11231.

### APPROVED PAPERS—

"Battery Boys," permission to parade with advertising wagons, Borough of Manhattan, 11789.  
Commissioners of Deeds appointed, 11249, 11789, 12038, 12469.  
City Surveyors appointed, 11529, 12038.  
Christ's Mission, No. 331 West 57th street, Borough of Manhattan, lamp-posts, 11788.  
Defraying minor incidental expenses, Board of Trustees of Bellevue and Allied Hospitals, 11249.  
Edenwald, annexed district, Borough of The Bronx, gas mains, etc., 11249.  
Establishment of grades of position of Cashier, Department of Docks and Ferries, salary fixed, 12038.  
Gluck, Charles, erect storm door, No. 86 Lenox avenue, Borough of Manhattan, 12039.  
Gray, John, erect storm door, No. 411 Bleecker street, Borough of Manhattan, 12039.  
Hillside Rod and Gun Club of Flushing allowed to shoot clay pigeons, Borough of Queens, 11249.  
Issue of Special Revenue Bonds to meet deficiencies in Department of Street Cleaning, 12039.  
Issue of Special Revenue Bonds for various purposes, Department of Correction, 12038.

### APPROVED PAPERS—

Issue of Special Revenue Bonds to meet deficiency in appropriation for salaries, Bureau of Public Buildings, Borough of Brooklyn, 12469.  
Junction of Jerome avenue and Macomb's Dam road, Borough of The Bronx, arc light, 11789.  
Mueller, W. A., erect at own expense an ornamental lamp-post, No. 1219 Madison avenue, 12469.  
No. 1121 1st avenue, Borough of Manhattan, watering trough, 11789.  
Northeast corner of Murdock and Jefferson avenues, Borough of The Bronx, lamp-posts, 11789.  
Ordinance, issue of Corporate Stock for use of Topographical Bureau, Borough of Brooklyn, 11249.  
Ordinance, issue of Corporate Stock for uses and purposes of Department of Docks and Ferries, 11529.  
Ordinance, issue of Corporate Stock for fitting up under Brooklyn Bridge a garage for repairs to City automobiles, 11788.  
Ordinance, issue of Corporate Stock for the acquisition of sites for public baths, Borough of Manhattan, 11788.  
Ordinance, issue of Corporate Stock for payment of architect's services of new penitentiary on Riker's Island, 11788.  
Ordinance to fix width of roadway and sidewalks of Ocean avenue, Borough of Brooklyn, 12038.  
Ordinance, issue of Corporate Stock for removal of two supporting columns, Brooklyn Bridge, 12469.  
Ordinance, issue of Corporate Stock for the acquisition of site for public bath, 8th street, Borough of Queens, 12469.  
Rose & Snyder, permission to parade through streets and thoroughfares, 11249.  
Requisition for an issue of bonds, Department of Street Cleaning, 11249.  
Southwest corner of Navy and Sands streets, Borough of Brooklyn, watering trough, 11249.  
Sabine, George, permission to keep storm door, No. 642 Park avenue, Borough of Brooklyn, 12038.  
Sydney Social Club, permission to drive advertising wagon through streets, Borough of Manhattan, 12470.  
Trustees of Mount Moriah Hospital, etc., permission to erect stand for speakers, 11789.  
Veteran Sharpshooters of Jamaica, permission to shoot at a target on Thanksgiving Day, 11529.  
White Plains avenue and Boston road, Borough of The Bronx, watering trough, 11788.  
Water mains, 165th street, extended to Riverside drive, 11789.

### ASSESSORS, BOARD OF—

Advertisements, 11233, 11274, 11330, 11452, 11502, 11538, 11578, 11627, 11666, 11723, 11763, 11802, 11826, 11858, 11916, 11973, 12001, 12047, 12207, 12247, 12479.  
Office and office hours, 12229.

### BOARD MEETINGS—

Advertisements, 11232, 11272, 11328, 11368, 11441, 11500, 11538, 11626, 11666, 11731, 11756, 11796, 11820, 11852, 11931, 11972, 12001, 12042, 12066, 12167, 12207, 12247, 12470.

### BELLEVUE AND ALLIED HOSPITALS—

Bills approved, 11716, 11749.  
Bid accepted, 11755.  
Communications, 11718, 11750.  
Duly audited by the Finance Committee, 11716, 11749.  
General Medical Superintendent reported, 11717, 11749.  
New business, 11718, 11750.  
Office and office hours, 11230.  
Reports of Committees, 11717, 11749.

### BRIDGES, DEPARTMENT OF—

Bids received and contracts awarded, 11535, 11999.  
Office and office hours, 11230.  
Proposals for construction of masonry piers, etc., 12002, 12171.

### BROOKLYN, BOROUGH OF—

Bureau of Incumbrances and Permits, 11833.  
Bureau of Sewers, 11833.  
Bureau of Highways, 11833.  
Office and office hours, 11231.  
Operations of Bureau of Buildings, 11834.  
Proposals for regulating and paving with asphalt, 11852.  
Report of President, 11833.

### CHAMBERLAIN—

(See Finance Department.)  
Office and office hours, 11230.

### CHANGE OF GRADE DAMAGE COMMISSION—

Advertisements, 11232, 11272, 11328, 11370, 11442, 11501, 11538, 11583, 11627, 11666, 11722, 11755, 11795, 11850, 11913, 11972, 12001, 12042, 12066, 12162, 12208, 12242, 12473.

### CHANGES IN DEPARTMENTS, ETC.—

Advertisements, 11229, 11269, 11325, 11365, 11438, 11501, 11534, 11574, 11623, 11662, 11719, 11752, 11791, 11816, 11847, 11909, 11969, 11998, 12039, 12063, 12159, 12199, 12239, 12470.

### CHARITIES, PUBLIC, DEPARTMENT OF—

Description of unknown men, 11357, 11790, 11809, 12258.  
Description of unknown woman, 12258.

### CHARITIES, PUBLIC, DEPARTMENT OF—

List of changes in service of Department, 11357, 11358, 11789.  
Office and office hours, 11230.  
Propositions, 11357, 11358, 11790, 11809, 12257.  
Proposals for furnishing and delivering fresh meats, 11371.  
Proposals for furnishing work and labor for extermination of rats, etc., 11795.  
Proposals for furnishing flour, coal, butter, etc., 12483.  
Proposals of November 13, 1907, accepted November 18, 1907, 12257.

### CITY CHAMBERLAIN—

Commissions in court and trust funds, October, 1907, 11719.  
Office and office hours, 11230.

### CITY CLERK—

Office and office hours, 11229.

### CITY COURT—

Chambers and hours, 11231.

### CITY MAGISTRATES' COURT—

Chambers and hours, 11231.

### CITY RECORD, BOARD OF—

Forward to Department of Finance, for audit and payment of claims, 11364.  
Insert advertisements for departments, 11363.  
Minutes, 11362.  
Office and office hours, 11230.  
Requisitions for printing and stationery supplies for various city departments, year 1908, 11364.

### COMPTROLLER—

(See Finance Department.)  
Office and office hours, 11230.

### CORONERS—

Office and office hours, 11231.

### CORPORATION COUNSEL—

(See Law Department.)  
Office and office hours, 11230.

### CORRECTION, DEPARTMENT OF—

Appointed, 11788, 12057.  
Communications received, 11659, 11787, 12057.  
Communication transmitted, 12057.  
Death, 12057.  
Leave of absence without pay, 11659, 11788.  
Office and office hours, 11230.  
Proposals accepted, 11659, 11788.  
Proposals for furnishing poultry, salt pork, etc., for Thanksgiving dinner, 11232, 11666.  
Proposals for furnishing and delivering hardware, paints, etc., 12068.  
Report of transactions, 11659, 11787.  
Report for year ending December 31, 1906, 11769.  
Resigned, 11788.  
Transferred, 11788.

### COUNTY CLERK, KINGS COUNTY—

Office and office hours, 11231.

### COUNTY CLERK, NEW YORK COUNTY—

Office and office hours, 11231.

### COUNTY CLERK, QUEENS COUNTY—

Office and office hours, 11231.

### COUNTY CLERK, RICHMOND COUNTY—

Office and office hours, 11231.

### COUNTY COURT, KINGS COUNTY—

Chambers and hours, 11231.

### COUNTY COURT, QUEENS COUNTY—

Chambers and hours, 11231.

### COUNTY JUDGE AND SURROGATE, RICHMOND COUNTY—

Chambers and hours, 11231.

### COURT OF GENERAL SESSIONS—

Chambers and hours, 11231.

### CRIMINAL DIVISION, SUPREME COURT—

Chambers and hours, 11231.

### DISTRICT ATTORNEY, KINGS COUNTY—

Office and office hours, 11231.

### DISTRICT ATTORNEY, NEW YORK COUNTY—

Office and office hours, 11231.

### DISTRICT ATTORNEY, QUEENS COUNTY—

Office and office hours, 11231.

### DISTRICT ATTORNEY, RICHMOND COUNTY—

Office and office hours, 11231.



## DOCKS AND FERRIES, DEPARTMENT OF—

Advertisements, 11236, 11277, 11626, 11666, 11975, 12204.  
 Approving plan for changing lines of pier at West 59th street, 11224.  
 Authorizing lease to Crane Company, 11224.  
 Auditor reported, 11225, 11227, 11250, 11657, 11813, 11835, 12193.  
 Action deferred, 12192, 12194.  
 Bid for insurance on ferryboats "Manhattan," "Bronx," "Brooklyn," "Queens" and "Richmond," 11226.  
 Communications received, actions taken, 11225, 11228, 11229, 11619, 11961, 12191.  
 Cashier reported, 11225, 11227, 11250, 11621, 11657, 11813, 11835.  
 Charges of absence without leave, 11226.  
 Contracts awarded, 11814.  
 Cunard Steamship Company, permission granted, 12191.  
 Department orders issued, 11226, 11229, 11620, 11656, 11812, 11962, 12191, 12194.  
 Engineer-in-Chief reported, 11225, 11227, 11250, 11621, 11657, 11813, 11835.  
 Joy Steamship Company, permission granted, 12191.  
 Office and office hours, 11230.  
 Permit granted Montauk Steamboat Company, 11622.  
 Permission to construct bulkhead platform, etc., Borough of The Bronx, 11622.  
 Proposals of Brooklyn Heights Railroad Company, 11622.  
 Privileges to use and occupy space in Jamaica, Borough of Queens, 11656.  
 Phoenix Construction Company, contract awarded, 11963.  
 Requesting berth for fireboat at St. George, Borough of Richmond, 11225.  
 Reinstatement to position of Inspector of Pier Buildings, 11622.  
 Report for quarter ending September 30, 1907, 11964.  
 Reinstated, 12192.  
 Sealed bids or estimates received, 11226, 11621, 11657, 11814, 11962, 12191.  
 Submitting list of persons eligible for appointment, 11815.  
 Statement showing revenue and disbursements of Department of Docks and Ferries for three months ending September 30, 1907, 11964.

## EDUCATION, DEPARTMENT OF—

Appropriating money from school building fund for payment of bills, 11520.  
 Assistant Inspector of Public School Athletics, 11521.  
 Appointing Teachers for elementary schools, 11523.  
 Appointing persons to positions in high schools, 11524.  
 Auditorium, Bedford Branch, Young Men's Christian Association, Borough of Brooklyn, for lectures, 11525.  
 Appropriations, 11527.  
 Approving plans for various school buildings, 11528.  
 Contracts entered into, 11533.  
 Contracts awarded, 11519, 11953.  
 Changing name of New York Truant School to Manhattan Truant School, 11526.  
 Cleaners, fixing salaries, 11526.  
 Clerk in office of City Superintendent of Schools, resignation accepted, 11960.  
 Establishing recreation centres, season of 1907-1908, 11524.  
 Minutes of stated meetings, 11519, 11527, 11953.  
 Office and office hours, 11230.  
 Promoting Teachers, 11523.  
 Persons appointed, Inspectors, Local Superintendents, etc., 11525.  
 Proposals for furnishing stages to convey pupils to and from school, 11546.  
 Richmond avenue and Bennett street, Port Richmond, Borough of Richmond, renewal of lease, 11519.  
 Reports, 11529, 11953, 11960, 11961.  
 Special meeting, 11520.

## ELECTIONS, BOARD OF—

List of registration and polling places and boundaries of election districts, 11289.  
 Office and office hours, 11230.

## ESTIMATE AND APPORTIONMENT, BOARD OF—

Advertisements, 11239, 11376, 11502, 11628, 11865, 11897, 12164, 12204.  
 Acquisition of No. 14 Madison street, Borough of Manhattan, for bridge purposes, 11480.  
 Approve of selection of property for street purposes, 11601.  
 Approve of site for Carnegie Library, Nos. 192 and 194 East Broadway, 11608.  
 Ada place, Borough of Queens, closing, 11872.  
 Appollo street, Borough of Brooklyn, opening, 11875.  
 Adams street, between West Farms road and Bronx Park avenue, Borough of The Bronx, opening, 11877.  
 Approved papers, 11896.  
 Amounts included in Budget for the year 1908, 12081.  
 Appropriations made to Board of Education, for the year 1905, Borough of Manhattan, 12182.  
 Additional appropriations, acquiring site, etc., for Police Department, 12185.  
 Advertise for bids for electric lighting for the year 1908, Boroughs of Manhattan and The Bronx, 12228.  
 Appropriations for recopying, etc., mutilated records, Borough of Queens, 12229.  
 Awarding contract for furnishing pianos to various schools, 12233.  
 Brooklyn Union Elevated Railroad Company, application, 11465.  
 Brooklyn and Queens County Suburban Railroad Company, application, 11517.  
 Bridge carrying railroad tracks over Laurel Hill avenue, Borough of Queens, 11644.  
 Broad street, Gordon street, Borough of Richmond, laying out street system, 11874.  
 Bronx Park avenue, between Tremont avenue and Morris Park avenue, 11878.  
 Butler street, between Flatbush and Nostrand avenues, Borough of Brooklyn, paving, 11891.  
 Budget for 1908, City of New York, 12133.  
 Central Railroad Company of New Jersey, application, 11457.  
 Communication from Secretary of Public Service Commission, 11348.  
 Carlin's testimony as to constructive value of buildings, 11472.  
 Catskill Aqueduct, land for, 11643.  
 Concord avenue, Borough of The Bronx, sewer, 11647.  
 Creston avenue, Borough of The Bronx, receiving basins, 11648.

## ESTIMATE AND APPORTIONMENT, BOARD OF—

Contracts registered, 11890.  
 Concord avenue, between St. Mary street and East 142d street, Borough of The Bronx, sewer, 11895.  
 Departmental estimate for the year 1908, 11483.  
 Discontinuing proceedings for acquiring title to certain parks, Boroughs of Manhattan, Brooklyn, The Bronx and Queens, 11897.  
 Department of Street Cleaning, proposals for bids or estimates, Borough of Manhattan, 12232.  
 Eleventh avenue, Tenth avenue and West street, existing spur tracks, 11349, 12181.  
 Eagle avenue, Hempstead, storage reservoir, laying out, 11466.  
 East 23d street, Borough of Brooklyn, grading, 11645.  
 East 22d street, Borough of The Bronx, grading, 11647.  
 Elm avenue, between Myrtle avenue and Sheridan street, Borough of Queens, opening, 11879.  
 East 140th street, between St. Ann's avenue and Cypress avenue, Borough of The Bronx, paving, 11893.  
 Estimate of salaries and expenses for Coroners' office, Borough of Brooklyn, for the year 1908, 12131.  
 11th avenue and 54th street, Borough of Brooklyn, change of grade, 11869.  
 Extract from Minutes, 11607, 11840.  
 Financial and franchise matters, 11457, 11483, 12177.  
 Fixing of salaries and establishing new grades, 12182.  
 Forest avenue, Borough of Brooklyn, closing and discontinuing, 11868.  
 Grant avenue, Borough of Brooklyn, grading, 11646.  
 Grafton street, Borough of Brooklyn, paving, 11646.  
 Hunter avenue, between Jane street and Harris avenue, Borough of Queens, grading and paving, 11895.  
 Issue of Corporate Stock to pay awards for constructing bridge over Gowanus canal, Borough of Brooklyn, 11466.  
 Issue of Corporate Stock to pay awards for constructing Riverside Viaduct, Borough of Manhattan, 11466.  
 Issue of Corporate Stock for construction and extension of Rapid Transit Railway, 11483.  
 Issue of Corporate Stock for construction of Webster storm relief tunnel sewer, Borough of The Bronx, 11484.  
 In regard to tracks, rights, etc., of New York Central and Hudson River Railroad on west side of city, 11596.  
 Intervale court, Borough of The Bronx, laying out, 11870.  
 Issue of Special Revenue Bonds to equip Water Register's Bureau, etc., 12182.  
 Improvement and development of water supply, Borough of Brooklyn, 12183.  
 Johnson road (lane), Borough of Brooklyn, closing, 11868.  
 Juniper avenue, Borough of Queens, changing lines, 11872.  
 Kenmore place, Borough of Brooklyn, change of grade, 11641.  
 Kingsbridge avenue, Borough of The Bronx, change of lines, 11871.  
 Laws of New York by authority, 11478, 11601.  
 Levying assessments for street and park openings, 11881.  
 Minutes, 11345, 11483, 11607, 11840.  
 Mutual Life Insurance Company of New York, application, 11346.  
 Maps copied, as they are in a dilapidated condition, 12229.  
 Nostrand avenue, Borough of Brooklyn, change of grade, 11869.  
 Office and office hours, 11229.  
 Opening unnamed streets 1,500 feet north of West 181st street, Borough of Manhattan, 11874.  
 Proposed petition and consent for layout of new highway, 11467.  
 Proposed release to City of New York to Town of Hempstead, 11468.  
 Prevailing rate of wages paid mechanics in employ of the City, 11476.  
 Property on Richmond road and Sea View avenue, Borough of Richmond, for use of Fire Department, 11606.  
 Payrolls, Department of Bridges, 11610.  
 Public hearing in regard to application of several boroughs for appropriation for the year 1908, 11611.  
 Public improvement matters, 11641.  
 Queens Borough Railway Company, application, 11457.  
 Relative to designation of rooms in new Hall of Records, 11477.  
 Relief from assessments for widening Delancey street, Borough of Manhattan, 11643.  
 Reduction of assessments for opening West 218th street, Borough of Manhattan, 11880.  
 Rogers place, etc., Borough of The Bronx, paving, 11894.  
 Report of Bureau of Municipal Investigations and Statistics, 12186.  
 Seaboard Refrigeration Company, application, 11345.  
 Sea Beach Railway Company, petition to remove tracks, 11347, 12179.  
 Seaside Park, Borough of Queens, laying out, 11649.  
 Southeast corner of 18th avenue, Borough of Brooklyn, sewer basins, 11893.  
 St. Mary's street, between St. Ann's and Robbins avenues, Borough of The Bronx, paving, 11894.  
 Transferred from appropriation made to the Department of Education for the year 1907, 11465.  
 Temporary bridge across Sunnyside yard, Borough of Queens, 11889.  
 United Dressed Beef Company, application, 11503.  
 West (formerly East) 192d street, Borough of The Bronx, closing, 11642.  
 West 16th street, between Canal avenue and Atlantic Ocean, Borough of Brooklyn, title, 11642.  
 West 135th street, between Amsterdam avenue and Broadway, paving, 11645.  
 Westerly corner of Hamilton avenue and Henry street, Borough of Brooklyn, receiving basin, 11646.  
 West 192d street, Borough of The Bronx, grading, 11647.  
 Width of streets, sidewalks and roadways, encroachments upon streets, 11888.  
 Wolcott street, Borough of Brooklyn, grading and paving, 11891.

## EXAMINERS, BOARD OF—

Appeals, 11662, 11718, 11744.  
 Buildings constructed contrary to law, 11662.  
 Office and office hours, 11230.  
 On motion, denied, 11718.  
 On motion, approved, 11718.  
 Report of Chief Croker, 11744.

## EXECUTIVE DEPARTMENT—

Appointments by the Mayor, 12470.  
 Budget for 1908, 11553.  
 Notice of special meetings of Board of Aldermen, 11457, 11513, 11553, 11593.

## EXECUTIVE DEPARTMENT—

Office and office hours, 11229.  
 Report of Bureau of Licenses, 11269, 11535, 11719, 12239.  
 Statement of licenses issued and fees received, October, 1907, 11937.

## FINANCE, DEPARTMENT OF—

Abstract of transactions, 11420.  
 Approval of sureties, 11422.  
 Claims filed, 11420.  
 Contracts registered, 11421.  
 Chamberlain's trial balance, September 30, 1907, 11941.  
 Corporation sale of buildings, etc., 11332, 11444, 11632, 11760, 11977, 12074.  
 Minutes of meeting of Banking Commission, November 1, 1907, 11322.  
 Notice of sale of lands, etc., 11336, 11448, 11634, 11762, 11978, 12074.  
 Notice of assessments for opening streets and parks, 11334, 11446, 11631, 11760, 11976, 12073.  
 Notice to property owners, 11333, 11446, 11631, 11760, 11976, 12073.  
 Notice to taxpayers, 11334, 11446, 11633, 11762, 11976, 12073.  
 Office and office hours, 11230.  
 Opening of proposals, 11422.  
 Report of City Chamberlain, 11311, 11416, 11615, 11745, 11836, 12058.  
 Sureties required on various classes of contracts, 11336, 11448, 11634, 11762, 11978, 12074.  
 Suits, orders of court, judgments, etc., 11420.

## FIRE DEPARTMENT—

Advertisement, 11243.  
 Award of contracts deferred, 11431, 11900.  
 Bills audited, 11431, 11614, 11898, 11903.  
 Communications, 11429, 11430, 11611, 11898, 11899.  
 Charges against delinquent members of uniformed force, 11430.  
 Chimney fires for week ending August 17, 1907, Borough of Queens, 11614.  
 Expenditures authorized, 11430, 11611, 11612, 11902, 11903.  
 Office and office hours, 11230.  
 Opening of proposals, 11612, 11899, 11902.  
 Promoted to rank of assistant firemen, 11430.  
 Provide auxiliary fire appliances, Boroughs of Brooklyn and Queens, 11432.  
 Proposals for furnishing hay, straw, etc., Boroughs of The Bronx and Queens, 11443.  
 Proposals for furnishing rubber hose for fireboats, 11631.  
 Probationary firemen appointed, 11613, 11614, 11900.  
 Referred, 11430, 11431, 11631, 11614, 11898, 11904.  
 Resignation of firemen, 11902.  
 Security deposits forwarded to Comptroller, 11431.  
 Trial balance and statement of appropriations, etc., 11431.

## HEALTH, DEPARTMENT OF—

Application for relief from orders denied, 11222, 11261, 11426, 11517, 11742.  
 Amendment of Sanitary Code, 11759, 11823.  
 Actions discontinued, 11253, 11422, 11514, 11737.  
 Applications, 11224.  
 Bills forwarded on account of strike in Department of Street Cleaning, 11217.  
 Bureau of Records, 11222, 11261, 11427, 11742.  
 Bills approved, 11252, 11513.  
 Change in hospital service approved, 11218.  
 Delayed and imperfect certificates, 11262, 11427, 11517, 11742.  
 Leave of absence granted, 11222, 11263, 11427, 11518, 11743.  
 Minutes, 11217, 11252, 11737.  
 Medical Inspectors appointed in Department, 11266, 11429.  
 Orders rescinded, causes removed, 11219, 11254, 11423, 11514.  
 Orders extended, modified or rescinded, 11221, 11260, 11426, 11470.  
 On motion, 11222.  
 Office and office hours, 11230.  
 Orders entered, 11737.  
 Permits granted, 11220, 11257, 11424, 11514, 11737.  
 Permits for sale and delivery of milk granted, 11220, 11258, 11425, 11515, 11740.  
 Permits denied, 11220, 11259, 11429, 11515, 11740.  
 Permits revoked, 11221, 11259, 11426, 11516, 11741.  
 Public nuisances, 11254.  
 Reports and communications, 11222, 11264, 11265, 11428, 11518, 11579, 11743.  
 Record corrected certificates relating to, 11222, 11261, 11427, 11517, 11742.  
 Reports, weekly, 11251, 11350, 11660, 11810.  
 Report of the Board of Health regarding the operations during the year ending December 31, 1906, 12259.  
 Sanitary Bureau, 11218, 11253, 11422, 11514, 11737.  
 Typewriting Copyists appointed, 11266.  
 Weekly reports for Willard Parker, Reception, Riverside and Kingston Avenue Hospitals, 11253, 11422, 11514.

## JURORS, COMMISSIONER OF, KINGS COUNTY—

Office and office hours, 11231.

## JURORS, COMMISSIONER OF, NEW YORK COUNTY—

Office and office hours, 11231.

## JURORS, COMMISSIONER OF, QUEENS COUNTY—

Office and office hours, 11231.

## JURORS, COMMISSIONER OF, RICHMOND COUNTY—

Office and office hours, 11231.

## LAW DEPARTMENT—

Contracts, etc., drafted, examined and approved as to form, 11907, 11939, 11940, 12190.  
 Judgments, orders and decrees entered, 11907, 11938, 11940, 12190.  
 Judgments entered in favor of plaintiffs, 11907, 11938, 11940, 12190.  
 Opinions rendered, 11907, 11939, 11940, 12190.  
 Record of court work, 11907, 11938, 12190.  
 Report of matters relating to delinquent jurors, October 1, 1907, 12057.  
 Statement and return of money received by Bureau for Recovery of Penalties, October, 1907, 11683.  
 Suits and special proceedings instituted, 11907, 11937, 11939, 12189.



## MANHATTAN, BOROUGH OF—

Advertisements, 11371, 11443, 11538, 11763, 11795, 12242.  
Change in working force, 11534, 11968.  
Minutes of Local Board meetings, 11811.  
Office and office hours, 11231.  
Obstructions removed, 11534, 11790, 11968.  
Proposals for furnishing furniture for Criminal Courts, etc., 11235, 11371, 11443.  
Public money received during week, 11534, 11790, 11967.  
Permits issued, 11534, 11790, 11967.  
Petitions for local improvements, 11811.  
Report of Bureau of Buildings, 11229, 11362, 11436, 11752, 11790, 12238.  
Report of Commissioner of Public Works, 11534, 11790, 11967.  
Repairs to pavements, 11534, 11790, 11967.  
Repairs to sewers, 11534, 11790.

## MUNICIPAL CIVIL SERVICE COMMISSION—

Advertisements, 11233, 11330, 11666, 11727, 11975, 12243.  
Applications granted, 11209, 11212, 11652, 11654, 12235.  
Applications denied, 11212, 11654.  
Application filed for Patrolmen, 11322, 11719, 11968.  
Emergency appointments approved, 11652, 12235.  
Letters, 11213, 11655.  
Minutes, 11209, 11652, 12234.  
Office and office hours, 11230.  
On motion, 11654, 12234.  
Public hearing, 11209, 11652.  
Persons for rerating of examination papers denied, 11652.  
Reinstatements approved, 11209, 11652, 11654, 12235.  
Reassignments approved, 11209, 11652, 11654, 12235.  
Report for quarter ending September 30, 1907, 11209.  
Request granted, 11214.  
Reports and communications, 11211, 11653, 12236.  
Statement of applications filed for positions during July, August and September, 1907, 11209.  
Transfers approved, 11209, 11652, 11654, 12235.  
Vouchers for salary, etc., 12235.

## NOTICE TO CONTRACTORS—

Proposals for bids or estimates for The City of New York, 11248, 11288, 11344, 11384, 11456, 11512, 11552, 11592, 11640, 11680, 11736, 11768, 11808, 11823, 11864, 11928, 11984, 12016, 12056, 12080, 12176, 12216, 12256, 12488.

## OFFICIAL BOROUGH PAPERS—

Advertisements, 11232, 11272, 11328, 11368, 11441, 11509, 11538, 11578, 11626, 11666, 11722, 11755, 11795, 11852, 11916, 11972, 12001, 12042, 12066, 12162, 12202, 12242, 12473.

## OFFICIAL DIRECTORY—

Statement of the hours during which public offices of the City are opened and where located, 11229, 11269, 11325, 11365, 11438, 11498, 11535, 11575, 11623, 11663, 11720, 11752, 11792, 11816, 11848, 11910, 11969, 11999, 12039, 12063, 12159, 12199, 12239, 12470.

## OFFICIAL PAPERS—

Newspapers in which certain advertisements may be inserted, 11232, 11272, 11328, 11368, 11441, 11500, 11539, 11579, 11626, 11674, 11724, 11763, 11795, 11819, 11850, 11913, 11972, 12001, 12047, 12071, 12162, 12202, 12242, 12473.

## PARKS, DEPARTMENT OF—

Advertisement, 11242.  
Bids or proposals received, 11215, 11614, 11967.  
Estimate box opened, 11215, 11614, 11967.  
Minutes, 11216, 11614, 11967.  
Meteorological Observatory, abstract of registers, 11250, 11437, 11574, 11841, 12154.  
Office and office hours, 11230.  
Proposals for rental of building and shed, Pelham Bay Park, 11370.  
Proposals for furnishing labor and material for building granolithic sidewalks, 11242.  
Repairs and alterations to ornamental stone entrance to Prospect Park, Borough of Brooklyn, 11216.  
Repairs and alterations to Soldiers' and Sailors' Memorial Arch, Prospect Park Plaza, Borough of Brooklyn, 11216.  
Repairs and alterations, painting of fences around parks, etc., Boroughs of Brooklyn and Queens, 11216.  
Report for quarter ending September 30, 1907, Boroughs of Brooklyn and Queens, 11351.  
Revenue from parks and parkways, 11351.  
Statement of appropriations, expenditures and balances, Boroughs of Brooklyn and Queens, 11351.  
Table of bids, 11216.  
Work done on street trees from July 1 to September 16, 1907, 11351.

## POLICE DEPARTMENT—

Advertisements, 11236, 11376, 11442, 11543, 11631, 11755, 11851, 11974, 12164, 12482.  
Accepted, 11529, 11750.  
Application for full pay granted, 11530.  
Advanced from contingent fund, 12062.  
Advancements to grades ordered, 12158, 12196.  
Concert license granted, 11359, 11751.  
Complaints dismissed, 11359, 12063.  
Disapproved, 11531, 12155.  
Denied, 11934.  
Extension of temporary assignments ordered, 11360.  
Fines imposed, 11359, 11530, 12158.  
Granted, 11358, 11531, 11750, 11934.  
Leave of absence granted, 11360, 11531, 11752, 12036, 12155.  
Masquerade ball permits granted, 11358, 11529, 11531, 11533, 11751, 11845, 12155.  
Members of Department excused, 11359, 11533, 11846, 11936, 12062.  
Members of force relieved and dismissed from police force and placed on roll of pension fund, 11851.  
No. 360 West 125th street, Picken Building, lease, 12155.  
Office and office hours, 11230.  
On file, 11358, 11529, 11845, 12035, 12155.  
Ordered, 11530, 11531, 11845, 12157.  
Public hearings, acquisition of lands for use of Police Department, 11229.  
Permission given to leave city, 11534.  
Proposals for repairs to heating system, etc., of precinct police station houses, 11851.  
Proposals for furnishing gasoline touring five-passenger cars, 12164, 12204.

## POLICE DEPARTMENT—

Pensions revoked, 12062.  
Retirements, deaths, etc., 11229, 11623, 11847, 11998.  
Reprimanded, 11359, 11531, 11532, 12158.  
Referred to Comptroller, 11359, 11529, 11751, 12155, 12195.  
Resignations accepted, 11359, 11530, 11752.  
Report of Sanitary Company (Boiler Squad), 11361, 11362, 11433, 11434, 11435, 11436, 11574, 11815, 11846, 11936, 12037, 12197, 12470.  
Runner license granted, 11531, 11750, 11934, 12155, 12195.  
Relieved from suspension, 12036.  
Special Patrolmen appointed, 11532.  
Suspended from duty, 12156.  
Transfers and assignments ordered, 11358, 11531, 11750, 12062.  
Temporary assignments ordered, 11359, 11360, 11531, 11750, 11936, 12035.  
Temporary assignments discontinued, 11359.  
Theatrical license granted, 11845.  
Transferred from precincts to Detective Bureau, Borough of Manhattan, 11935.

## PRESIDENTS OF BOROUGH—

Office and office hours, 11231.

## PUBLIC ADMINISTRATOR, KINGS COUNTY—

Office and office hours, 11231.

## PUBLIC ADMINISTRATOR, NEW YORK COUNTY—

Office and office hours, 11231.  
Statement and return of money received, month of October, 1907, 11353.

## PUBLIC ADMINISTRATOR, QUEENS COUNTY—

Office and office hours, 11231.

## RECORDS, COMMISSIONER OF, KINGS COUNTY—

Office and office hours, 11231.

## RECORDS, COMMISSIONER OF, NEW YORK COUNTY—

Office and office hours, 11231.

## REGISTER OF KINGS COUNTY—

Office and office hours, 11231.

## REGISTER OF NEW YORK COUNTY—

Office and office hours, 11231.

## RICHMOND, BOROUGH OF—

Advertisements, 11274, 12204.  
Appointments and removals, 11842, 11908, 11969.  
Minutes of Local Board meetings, 11214, 12258.  
Office and office hours, 11231.  
Petitions, 11214, 11215, 12258.  
Public money received during week, 11842, 11907, 11968.  
Permits issued, 11842, 11907, 11968.  
Proposals, for furnishing tables, etc., for library at Richmond Borough Hall, 11916, 12204.  
Report of Bureau of Buildings, 11267, 12199.  
Report of Commissioner of Public Works, 11842, 11907.  
Requisitions drawn on Comptroller, 11842, 11908, 11968.  
Statement of laboring force employed, 11842, 11908, 11969.  
Work done, 11842, 11968.

## REVISION OF ASSESSMENTS, BOARD OF—

Assessment lists confirmed, 11354.  
East 169th street, Borough of The Bronx, regulating, 11354.  
Minutes, 11354.  
Office and office hours, 11230.  
Quarry road, Borough of The Bronx, regulating, 11355.  
West 164th street, Borough of Manhattan, sewer, 11354.  
Whitlock avenue, Borough of The Bronx, regulating, 11354.

## SHERIFF, KINGS COUNTY—

Office and office hours, 11231.

## SHERIFF, NEW YORK COUNTY—

Office and office hours, 11231.

## SHERIFF, QUEENS COUNTY—

Office and office hours, 11231.

## SHERIFF, RICHMOND COUNTY—

Office and office hours, 11231.

## SINKING FUND, COMMISSIONERS OF—

Acquisition of water front, between 13th and 14th streets, Borough of Manhattan, 11386.  
Assignment of gasoline launch to Department of Correction, 11414.  
Armory Board approves of bill for services, Eighth Regiment armory, 11992.  
Bill for references, etc., pay to, 11390.  
Bonds and stock of City of New York sold at private sale, August 12, 1907, 11393.  
Central avenue, south of Clark avenue, Borough of Queens, lease of, for use of Fire Department, 11415.  
Description of Stock and Bonds, 11395.  
East 120th street, Borough of Manhattan, land owned by City, 11995.  
Fines payable to New York Society for Prevention of Cruelty to Children, 11390, 11993.  
Fines payable to the Forest, Fish and Game Commission, 11391.  
Joy Steamship Company, Borough of Manhattan, lease, 11387.  
Minutes, 11385, 11985.  
Nos. 1401, 1402, 1403 and 299 Broadway, Borough of Manhattan, renewal of lease, 11389.  
Nos. 354 and 356 Flushing avenue, renewal of lease, 11414.  
No. 166 South 4th street, Borough of Brooklyn, renewal of lease, 11415.  
No. 17 Leonard street, Borough of Manhattan, lease, for use of Police Department, 11415.  
No. 151 Crosby street, Borough of Manhattan, lease, 11987.  
No. 314 Ely avenue, Borough of Queens, lease, for use of the Department of Bridges, 11998.  
Northly side of 3d avenue, Borough of Richmond, renewal of lease, 11990.  
Office and office hours, 11230.  
Parlor floor, No. 29 Front street, Borough of Brooklyn, renewal of lease, 11388.  
Premises on Butler street, Borough of Brooklyn, renewal of lease, 11389.

## SINKING FUND, COMMISSIONERS OF—

Premises at Fort Washington avenue, Borough of Manhattan, site for Twenty-second Regiment, 11412.  
Pier at foot of West 47th street, North river, Borough of Manhattan, lease, 11985.  
Parcel "A," Borden avenue and Dutch Kills creek, Borough of Brooklyn, renewal of lease, 11987.  
Room in building, Nos. 101 to 107 East 125th street, Borough of Manhattan, renewal of lease, 11388.  
Refunding of Croton water rents paid in error, 11391, 11392, 11394.  
Refunding of amounts overpaid on permits to build street vaults, 11391.  
Repairs to roof, etc., Thirteenth Regiment armory, appropriation, 11412.  
Royal Mail Steam Packet Company, lease, 11997.  
Registered and coupon forms of Revenue Bonds, etc., 11997.  
Store in Post Office Building, Main street, Westchester, Borough of The Bronx, renewal of lease, 11388.  
Snow guards on roof, etc., Second Battalion Naval Militia, appropriation, 11389.  
Site for new armory, Second Battery, bid of, 11390.  
Sale at public auction of old station at Coenties slip, Borough of Manhattan, 11392.  
Sale of buildings between Duane and Pearl streets, Borough of Manhattan, Commissioner of Bridges, 11393.  
Southeast corner of Leonard and Stagg streets, Borough of Brooklyn, renewal of lease, 11986.  
Winter time tables of the municipal ferries, 11387.  
Washington avenue and 174th street, Borough of The Bronx, lease, 11986.

## SPECIAL SESSIONS, COURT OF—

Chambers and hours, 11231.

## STREET CLEANING, DEPARTMENT OF—

Advertisements, 11242, 11379, 11547, 11852, 12204, 12476.  
Abstract of transaction, 11362, 11835.  
Contracts executed, 11362, 11534, 11835, 12198, 12258.  
Money transmitted to City Chamberlain, 11362, 11534, 11835, 12199.  
Office and office hours, 11230.  
Proposals for contract for furnishing horse blankets for street use, 11379.  
Proposals for contract for furnishing labor and material for removing snow, 11852.  
Proposals for furnishing 15 top buggies, 12203.  
Removal of incumbrances, Boroughs of Manhattan and The Bronx, 11362, 11534, 11835, 12198, 12258.

## SUPREME COURT, PROCEEDINGS IN, TO ACQUIRE LAND FOR PUBLIC USES—

Beck street (not yet named), Borough of The Bronx, opening and extending, 11244.  
Baker (street) avenue (although not named), Borough of The Bronx, 11245.  
Bedford avenue, Borough of Brooklyn, opening, 11245.  
Bridge over Hutchinson river, Borough of The Bronx, application, 11922.  
Belmont street, Borough of The Bronx, opening and extending, 12010.  
Carter avenue (not yet named), Borough of The Bronx, application, 11243.  
Coster street (not yet named), Borough of The Bronx, opening and extending, 11244.  
Clifton avenue, north side of Pennsylvania avenue, Borough of Richmond, site for school, 11804.  
Charles avenue, Borough of Richmond, opening and extending, 12252.  
Crown street, from Albany avenue to East New York avenue, Borough of Brooklyn, opening and extending, 12484.  
Ditmars avenue (although not named), Borough of Queens, opening and extending, 11245.  
East 197th street, Borough of The Bronx, opening, 11244.  
East 25th street, Borough of Brooklyn, opening and extending, 11246.  
East 197th street, Borough of The Bronx, opening, 11281.  
East 177th street (Tremont avenue), Borough of The Bronx, widening, 11452.  
Easterly line of 10th avenue, between 50th and 51st streets, Borough of Manhattan, site for public library, 12211.  
Fordham road, Borough of The Bronx, opening, 11675.  
First avenue, from Jersey street to Pine street, Borough of Richmond, application, 11676.  
Fifth new street north of West 181st street, Borough of Manhattan, opening and extending, 11978.  
Gilroy, F. Thomas, Commissioner of Public Works, petition of, 11764.  
Garrison avenue, Borough of The Bronx, opening and extending, 11860.  
Housmann avenue (not yet named), Borough of Richmond, opening and extending, 11676.  
Hawthorne street, Borough of The Bronx, opening and extending, 11731.  
Joseph Rodman Drake Park, Borough of The Bronx, opening and extending, 11244.  
Lyman street, between Tompkins and Sumner avenues, Borough of Richmond, sewer, 11676.  
Ludlow avenue, from Tremont avenue to Whitlock avenue, Borough of Brooklyn, opening and extending, 11803.  
Nautilus street, Borough of Richmond, sewer outlet, 11246.  
Notice of application for the appointment of Commissioners of Appraisal, 11246, 11286, 11454, 11510, 11549, 11589, 11677.  
Northeasterly corner of Baxter and Hester streets, Borough of Manhattan, site for school, 11860.  
Northeasterly corner of South 3d street and Keap street, Borough of Brooklyn, site for school, 11860.  
Northerly side of 105th street, between Lexington and Park avenues, site for school, 12050.  
Oak Tree place, Borough of The Bronx, opening and extending, 11858.  
Pier (old) No. 53, foot of Jackson street, Borough of Manhattan, application, 11243.  
Perry avenue, Borough of The Bronx, opening, 11243.  
Piers (old) Nos. 2 and 3, East river, Borough of Manhattan, application, 11245.  
Public park, bounded by Rae street and German place and St. Ann's avenue, Borough of The Bronx, opening and extending, 11547.  
Pleasant avenue (Olin avenue), from Gun Hill road to East 219th street, Borough of The Bronx, opening, 11802.



## SUPREME COURT, PROCEEDINGS IN, TO ACQUIRE LAND FOR PUBLIC USES—

Paulding avenue, Borough of The Bronx, opening and extending, 11803.  
Southeasterly corner of Grafton avenue and Clinton place, site for school, 12213.  
The approach to Manhattan Bridge, opening and extending, 11588.  
White Plains road (not yet named), Borough of The Bronx, application, 11283.  
West Farms road, Borough of The Bronx, opening and widening, 11380.  
West 179th street, Borough of Manhattan, opening and extending, 11453.  
White Plains road, Borough of The Bronx, opening, 12483.

## SUPREME COURT—

Chambers and hours, 11231.

## SURROGATE, KINGS COUNTY—

Office and office hours, 11231.

## SURROGATE, NEW YORK COUNTY—

Office and office hours, 11231.

## SURROGATE, QUEENS COUNTY—

Office and office hours, 11231.

## TAXES AND ASSESSMENTS, DEPARTMENT OF—

Amount of tax levied on real estate in several boroughs from 1899 to 1907, 11681.  
Block tax assessment maps, 11682.  
Lot alterations, 11682.  
Land acquired for public purposes, 11683.  
Miscellaneous, 11683.  
Office and office hours, 11230.  
Report for quarter ending September 30, 1907, 11681.  
Real Estate Bureau, 11682.  
State tax, 11682.  
Summary of work done in Surveyor's office, September 30, 1907, 11682.  
Street closings, 11683.  
Total tax by boroughs, as extended for year 1907, 11681.  
Tax rate in several boroughs, year 1907, 11681.  
Tax rate by boroughs from 1899 to 1907, 11682.

## THE BRONX, BOROUGH OF—

Advertisements, 11666, 12042.  
Bronx boulevard, regulating and grading, 11966.  
Bridge construction, 12017.  
Changing of grades of streets and avenues, etc., 12017.

## THE BRONX, BOROUGH OF—

Devoe or Tremont avenue to Morris Park avenue, Borough of The Bronx, regulating and grading, 11845.  
East 171st street and St. Paul's place, constructing sewer, 11355.  
East 236th street, regulating and grading, 11844.  
East 194th street, from Kingsbridge road to Webster avenue, widening, 11967.  
General summary of classes and qualities of work, 12025.  
Hearings, 11355.  
Jerome avenue and Kingsbridge road, receiving basin, 11355.  
Lafayette avenue to New York and New Haven Railroad, paving with asphalt, 11356.  
Laboring force employed during week, 11486.  
Money received for permits, 11486, 11937.  
Minutes of Local Board meetings, 11355, 11966.  
Minerva place, between Jerome avenue and Grand boulevard, regulating and grading, 11355.  
Memorandum in reference to mileage, 12030.  
Office and office hours, 11231.  
Permits issued, 11486, 11937.  
Proposals for unloading and delivering ashes furnished by Street Cleaning Department, 11374, 11937.  
Paving with block asphalt, 12017.  
Petition received by Local Boards, 12027.  
Report of Bureau of Buildings, 11215, 11486, 11651, 11744, 11809, 12032.  
Report of President, 11486, 11937.  
Report for quarter ending June 30, 1907, 12017.  
Report of Bureau of Sewers, 12024.  
Relative to field and office work, 12025.  
Sidewalks, repairs, etc., 12017.  
Sewer constructions, 12018.  
Summary of contracts (including district east of Bronx river), 12025.  
Teller avenue, from East 170th street to Morris avenue, opening, 11967.  
Webster avenue, north of St. Paul's place, guard rails, 11355.  
Wilkins avenue, between Intervale avenue and Southern boulevard, paving, 11356.  
Walkley place and Sumner avenue, constructing sewers, 11844.  
West 167th street, sewer, 11967.

## WATER SUPPLY, BOARD OF—

Appointments, 11268, 11843, 11904.  
Awards, condemnation proceedings, 11267.  
Accounts, tax vouchers, 11269.  
Abstract of expenditures made and liabilities incurred, 11719.  
Amendments of minutes, 11843.  
Appropriations, 11843.  
Bills approved, 11267, 11842, 11904.

## WATER SUPPLY, BOARD OF—

Counsel fees of parcel owners, 11267.  
Civil service matters, 11268, 11843.  
Communications from Chief Engineer, 11268, 11843, 11905.  
Communications from Law Department, 11268, 11843, 11905.  
Contracts, 11268.  
Classification of grades, 11843.  
Claims submitted, 11844.  
Communications from Board of Estimate and Apportionment, 11905.  
Geological investigations, 11843.  
Kingston sewer, right of way, 11268.  
Land damages, 11267.  
Leave of absence, 11843.  
Minutes, 11268, 11904, 11906.  
Office and office hours, 11230.  
Other communications, 11269.  
Promotions, 11268, 11843.  
Permits to set bench marks at different locations, Park Department, 11844.  
Real estate, Possession of, Ashokan Reservoir, 11268, 11843.  
Real estate claims, Suffolk Club, 11268.  
Real estate, south side, Sportsmen's Club, 11268.  
Real estate, taxes, 11268.  
Real estate, buildings, 11843.  
Separations, 11268, 11143, 11904.  
Sealed bids or proposals received, 11904.  
Telephone service, Chappaqua, 11268.  
Weekly financial statement, 11268, 11843.

## WATER SUPPLY, GAS AND ELECTRICITY, DEPARTMENT OF—

Appointed, 11215, 11310, 11437, 11661, 11908, 12153, 12154, 12237.  
Change in working force, 11215, 11310, 11437, 11661, 11662, 12153, 12237.  
Contracts entered into, 11310, 11437, 11661, 11662, 11908, 12153.  
Deaths, 11661, 12154.  
Increased, 11215, 11310, 11438, 11909.  
Public money received and deposited, 11215, 11310, 11437.  
Proposals for furnishing and erecting a system of water curtains, etc., 11236.  
Proposals for furnishing gas for and to the public lamps on the streets, 12250.  
Report of transactions, 11215, 11310, 11437, 12237.  
Resigned, 11438, 11661, 12153.  
Receipts reported by Collector of Assessments and Arrears, arrears prior to 1905, 12153.  
Title changed, 11310, 11437.  
Transferred, 12153.  
Work done on public lamps, 11215, 11310, 11437, 11661, 11662, 11908, 12153, 12237.