

PUBLIC HEALTH REPORTS

VOL. XXVIII.

OCTOBER 31, 1913.

No. 44.

RAT PROOFING A MUNICIPAL SEWER SYSTEM.

A REPORT OF AN INVESTIGATION TO FIND A PRACTICAL METHOD OF RAT PROOFING THE SEWER SYSTEM OF SAN FRANCISCO.

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The city sewer system may be considered a permanent harboring place for rats, and it provides, in addition, a convenient and extensive highway for their rapid travel from one point of the city to another.

To a considerable extent rats enter and follow this highway in their migrations from house to house, and the number present in sewers bears a somewhat definite relation to the number infesting bordering premises. The rat proofing of the city sewers would not only reduce the danger of spread of disease by rats, but would reduce the number of rats infesting such premises and prove an important element for their general control and final elimination.

An examination of the rat-trapping records of this office indicates that about 13½ per cent of all rats trapped are caught in the sewers. These rats were trapped through the use of 252 cage traps, representing 2.9 per cent of the total traps in use in the city.

Rats may enter sewers in four different ways:

First. Through the catch basins at present in use at the corners of city streets.

Second. Through house sewer systems, where the premises have remained vacant for a period of time, which has resulted in the evaporation of the water contained in the various traps.

Third. Through laterals from the main sewer system which extend to vacant lots and there find openings on the surface. Such laterals represent abandoned house sewer systems following the destruction of the buildings by the fire of 1906.

Fourth. Entrance is effected wherever the discharge pipes of the system are above low tide.

Without doubt the majority of rats enter and leave the sewers by means of the numerous and convenient corner catch basins, and the report contained herein will be confined to the discussion of the rat

proofing of catch basins alone. The rat proofing of house sewer systems in vacant premises, the closure of open laterals in vacant lots, and the question of lowering the outfalls which remain uncovered at low tide will not be considered at this time.

Catch Basins.

It is stated by the city engineer's office that there are at present in use in this city approximately 20,000 catch basins, consisting of three general types:

First. The old type, comprising 40 per cent, 8,000.

Second. The modern type, comprising 40 per cent, 8,000.

Third. The reconstructed type, comprising 20 per cent, 4,000.

The first, or old type, consists of an elliptical basin measuring 3 feet by 5 feet and having an average depth of 7 feet. This basin is divided by a brick wall, a portion of the wall being omitted below to provide a water trap. The water from the street enters through a vertical opening in the curb. This type of trap was found to be in very poor condition, and in every instance where examined, dry or semidry sediment was found present up to the sewer outlet. However, a vigorous clean-up of catch basins has put them in fair condition in certain sections. In nearly every instance this sediment contained rat burrows, which extended under the dividing wall and afforded easy passage to rats from the streets. The walls were not plastered, and, being rough, afforded sufficient foothold for rats to climb to the curb inlet. Many of these basins were badly in need of repair.

Type No. 2 is the form constructed under present contract work. It consists of a half-spherical and half-square pit, with a horizontal opening in the street near the curb. The cover of this type consists of two series of rectangular openings about $1\frac{1}{2}$ inches in width. The trap used is a mechanical device, consisting of a flap door of cast iron that opens when the water reaches a certain point in the basin and closes automatically by force of gravity. From actual examination, however, few of these flap doors were found operating properly. Some were rusted in an open position, but the majority were held open by sticks or some form of débris that had fallen into the catch basin. Sediment was found up to the level of the sewer outlet in most cases examined. The interior walls were not plastered, and rats could come and go at will.

The third type represents a reconstructed form. The pit is the same as in the second type. The traps are of the water type, constructed of quarter bends of vitrified pipe. The walls of such basins, where found smoothly plastered on the inside, and where the outlet provided was not less than 3 feet from the top of the street inlet,

were considered rat proof. It is believed that this remodeled form of trap, when properly reconstructed, is rat proof, but frequent cleaning will be required to remove accumulated sediment.

It is stated that a gang of three men with a wagon and driver can clean about 12 basins per day. With six gangs operating it would require 277 days to get around and clean each basin once. The following estimate covers approximately the cost of such cleaning:

Eighteen men clean 72 basins per day.	
Cost for labor, 18 men, at \$3 per day.....	\$54
Cost for teams and drivers, 6 men, at \$5 per day.....	30
Cost of 6 gangs per day.....	84
Six gangs clean 20,000 basins in 277 days at a cost of \$84 per day.	
Total cost for cleaning each basin once in 277 days (\$84 by 277).....	23,268

Since these gangs are continuously employed throughout the year of 300 working days, the total cost per year for the cleaning of catch basins would be 300 times 84, or \$25,200.

The various types here outlined were all carefully examined in order to determine why they are not rat proof. This was found to be due to several causes:

First. The openings in basin inlet gratings, necessary for the proper admission of storm waters or other water accumulating in the street, were in every case sufficient in size to permit the easy passage of rats.

Second. The traps of very few of the basins examined contained water, and in a city with a long dry season, unless mechanically filled with water, such traps are ineffective as such, and in the absence of water offer no obstruction to the passage of rats to and from the sewer.

Third. Practically all catch basins contained dry or semidry sediment up to the opening of the trap outlet to the sewer. This sediment raises the bottom of the basin to within from 20 to 27 inches of the street inlet. Rats very readily jump 2 feet vertically, and coming from the sewer easily leap upward the distance required to reach the openings in the street gratings.

An attempt was then made to devise some form of catch-basin cover or some practical mechanical attachment thereto, which would prevent the entrance or exit of rats to or from the sewer, and at the same time offer no obstruction to the flow of storm or other water from the street.

A series of 11 experiments, using 20 live rats in actual catch basins, was carried out to prove the inefficiency of the present form of basin and to test the various schemes suggested for improvement, but the ingenuity of the entire force was exhausted without finding a rat-proof cover which was both efficient and practical.

In the series where the distance from the bottom of the basin to the street inlet grating did not exceed 27 inches rats in every instance were able to reach the grating by jumping and escape through its openings.

A series of experiments as follows was then conducted in order to determine the minimum distance rats would be unable to jump in their efforts to escape through openings in inlet gratings:

First. A catch basin was cleaned to a depth of exactly 3 feet and the sewer outlet closed. Six rats were placed therein over night. No rats escaped.

Second. A piece of vitrified sewer pipe 24 inches in diameter was arranged vertically on end. The distance inside from the bottom to the top was made exactly 3 feet 6 inches. Three rats were left therein over night. None escaped.

Third. Eight pieces of vitrified sewer pipe—four 18, two 21, and two 24 inches in diameter, respectively—were arranged vertically on end. The distance inside from bottom to top was made exactly 3 feet. On the top of four pieces of pipe, one for each size, was placed the ordinary catch basin cover. Twenty-four rats were distributed throughout and allowed to remain over night. No rats escaped.

From these experiments it is assumed that a vertical distance of 3 feet between the inlet grating and the bottom of the basin will prevent the escape of rats to the street, provided the walls of such basins are smooth.

It is understood that recently during the dry season an attempt has been made to render the traps in basins effective by cleaning, flushing, and filling the traps with water. Unfortunately the water in such traps has proved an ideal breeding place for mosquitoes. In the investigation of numerous mosquito complaints it has been found that in about 98 per cent of all cases examined the breeding of such mosquitoes was confined to corner catch basins alone. In many instances, on lifting the street grating, the basin was found to be swarming with mosquitoes, while the water in the bottom (sealing the trap) contained thousands of wrigglers. A force of men, constituting a "flying squad," is now engaged, as expeditiously as possible, in cleaning, flushing, and oiling all such breeding places.

From the above it will be seen that catch basins in present use present many objections, which may be stated briefly, as follows:

First. Practically all are nonrat proof.

Second. When such contain water they form ideal breeding places for mosquitoes.

Third. They require an expenditure of about \$25,000 per year for cleaning.

Before taking up the question of rat proofing it might be well to consider the need for catch basins.

All examined three months after cleaning were found to be full of sediment up to the trap outlet, which permitted further additions of sediment to enter directly into the sewer. From this it is estimated that 68 per cent of the time the catch basins are not performing their

proper function; that is, catching and holding sediment from the street. If no inconvenience is experienced during this large percentage of the time, the inconvenience certainly should not appear during the remainder of the time.

The object of the catch-basin trap is to prevent the escape to the street of gas generated in the sewer. However, since the majority of traps examined were found inoperative and ineffective and no nuisance resulted, it would seem that the presence of the trap is an unnecessary feature and might be omitted. On the tops of hills, however, effective traps may possibly be advisable to prevent nuisance due to the upward draft caused by the steep grade.

Even though effective traps were installed, in the light of present knowledge it is believed that the objection to sewer gas is in most cases unwarranted. Henry N. Ogden, in his volume, *Sewer Construction*, says:

The avowed purpose of the traps is to prevent the escape of noisome gases generated in the sewer. But such formation of gas does not or should not occur, and the trap really remains as an evidence of the time when sewers were elongated cesspools and had to be cleaned out with shovels. The smell sometimes detected from a catch basin is due generally to the organic decay in the basin itself and not to any rising from the sewer. Where a proper velocity is maintained in a sewer, there is no opportunity for deposits to form nor for decomposition to take place, and therefore, no gases being generated, the purpose of the trap is defeated.

A proper velocity of water in the sewer has a further tendency to draw in fresh air through the various openings and provide ventilation.

Assuming the above to be true, it is obvious that in practically all cases catch basins and traps can be eliminated.

Rat Proofing of Catch Basins.

From experiments conducted by Creel in Porto Rico, and as the result of our own tests, it has been concluded that the ordinary brown or sewer rat (*M. norvegicus*) is unable to jump upward 3 feet in a vertical direction, and it is our opinion that thorough and satisfactory street drainage and proper rat proofing will be obtained where the form of construction provides: First, a vertical distance of 3 feet between street inlet and sewer outlet; second, laterals which enter at a point below this 3-foot limit; and, third, smooth interior walls with a smooth bottom, presenting sufficient curve to insure the prompt discharge of all sediment into the sewer direct without clogging. It is believed that a form of construction using vitrified pipe of sufficient size and connecting the street openings and the sewer direct will provide these requirements.

This form of construction is recommended for trial, and it is suggested that four such basins be constructed, two in a section of the city where street sweepings and other débris accumulate quickly and

where flushing is frequent, and two in a section where débris enters frequently but remains dry because of infrequent flushing. This would determine whether there is danger of clogging and what attention is actually required to keep the basin clean. If found practical this form should be installed wherever the distance between the street opening and the sewer is not less than 3 feet.

The advantages claimed are as follows:

First. Rats from the street may enter the sewer through such basins, but will be unable to return.

Second. Due to the absence of a water trap a potent breeding place for mosquitoes will have been eliminated.

Third. The cost of cleaning catch basins, representing an annual expenditure of about \$25,000, will be eliminated.

In order that the various types in use may conform to these requirements the following modifications are suggested:

In the old type of basin sufficient lengths of vitrified pipe, with a reducing elbow to fit the opening at the outlet, will be required. This should be supported on a suitable foundation of brick or concrete, the basin first being filled with sufficient earth to support the foundation and pipe. This modification will permit a direct flow from the street to the sewer and do away with both trap and catch basins. The essential point in the construction is the necessity for 3 feet of smooth pipe in the vertical position to render it rat proof. The size of the pipe to be used in reconstruction is to be left to the discretion of the engineer in charge. The vertical opening in the curb can be closed permanently with brick.

The second type of catch basin could be rendered rat proof in the same way—namely, by the substitution of vertical vitrified pipe with a reducing elbow and the elimination of the traps to prevent their probable clogging.

Cost Data.

Cost of reconstruction of old-type basins.

3 feet of 12-inch vitrified pipe.....	\$1.0125
1 12-inch to 8-inch reducing elbow.....	1.375
1 yard of dirt to fill in.....	1.00
2 sacks cement.....	1.13
½ yard of sand.....	.50
Labor.....	10.00
 Total.....	 15.0175

The necessary brick for the foundation could be taken from the wall forming the trap.

The cost of reconstructing the "modern type" is approximately the same, \$1 being added to cover cost of necessary brick for the foundation, bringing the cost to \$16 each.

For the purpose of estimating the cost for the reconstruction and rat proofing of all catch basins it is assumed that 16,000 catch basins (8,000 of the old type and 8,000 of the modern type) will require reconstruction, and that 50 per cent, or 2,000, of the so-called "reconstructed" forms (assumed to be rat proof) will require additional repair at a cost estimated to be \$5 each.

The maximum cost may be represented as follows:

Reconstructing 8,000 old type, at \$15 each.....	\$120,000
Reconstructing 8,000 modern type, at \$16 each.....	128,000
Repairing 2,000 reconstructed forms, at \$5 each.....	10,000
Total cost.....	258,000

Should the form of basin suggested prove practical and require, as assumed, no attention for cleaning, the present expense for cleaning would be eliminated, and in 10 years cover the entire cost of reconstruction. Assuming, however, that it may prove desirable to convert or "reconstruct" all existing catch basins according to methods now in vogue, additional cost data are submitted for comparison:

Original cost of modern type.

Castings (trap and top).....	\$19.00
Bricks (1,000).....	9.00
Cement (8 sacks).....	4.50
Sand (1 yard).....	1.00
Labor (excavating).....	2.00
Labor (building).....	10.00
Total.....	45.00

The cost to repair them by plastering the interior walls and removing the present traps, substituting therefor the quarter-bend vitrified pipe, would be as follows:

Vitrified bend.....	\$0.50
Cement.....	1.13
Sand.....	.50
Labor.....	7.00
Total.....	9.13

Cost for reconstructing 16,000 basins, using quarter-bend vitrified pipe, providing a water trap, at \$9.13 each.....	146,080.00
Repair of 2,000 (50 per cent) already mentioned, at \$5 each.....	10,000.00
Total cost.....	156,080.00

This modification would represent a first cost saving of about \$100,000, and would be rat proof provided the water trap was kept constantly sealed with water, but it presents numerous disadvantages and is not recommended.

First. Sediment will accumulate in the bottom of such basins. This will require removal at least three times a year, and based on the present cost, where the basins are cleaned but once in 277 days at an expense of \$23,268, the cost for labor for such cleaning will approximate \$75,000 per year.

Second. To maintain these basins in a rat-proof condition frequent filling of the traps with water will be necessary. This will entail an added expense for labor.

Third. All water traps would require frequent oiling, at considerable expense, to prevent breeding of mosquitoes. Such oiling would be necessary after each flushing of the street or after a slight rainfall, and is of too much sanitary importance to be omitted. Neglect would permit the development of mosquitoes to a serious extent throughout many months of the year and expose the city to mosquito-borne diseases.

Conclusions.

Sewers harbor and provide the means for the spread of rats.

The rat proofing of the city can not be accomplished until the sewers of the city are made practically rat proof.

Rats enter and leave sewers principally through openings in corner catch basins.

Corner catch basins are unnecessary in general sewer construction, and should be installed only when conditions require them.

Mechanical and water traps are unnecessary in properly designed catch basins and should be omitted.

Catch basins, unless designed to permit prompt and direct discharge of sediment into the sewer, should be cleaned at least three times a year.

Water sealing traps should be frequently replaced and oiled to prevent development of mosquitoes.

Recommendations.

That four experimental basins be designed as suggested and installed at proper points for trial.

That, if successful, this type of construction be adopted and used to replace all existing catch basins when the distance from the street to the sewer is not less than 3 feet.

That the "reconstructed" form, with water trap, be continued where the distance is less than 3 feet, such basins to be frequently cleaned and such traps frequently filled with water and the water oiled to prevent mosquitoes.

Much of the information contained herein was obtained by Inspectors Ross and Barber. The statistics were compiled and the estimates made by Inspector Barber.

PREVALENCE OF DISEASE.

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring.

IN CERTAIN STATES AND CITIES.

SMALLPOX.

State Reports for September, 1913.

Place.	Number of new cases reported during month.	Deaths.	Vaccination history of cases.			
			Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
California:						
Humboldt County—						
Eureka.....	1	.....	.....	.....	.....	1
Kern County.....	1	.....	.....	.....	1	.....
Los Angeles County—						
Los Angeles.....	3	.....	.....	.....	.....	3
Lake County—						
Kelseyville.....	1	.....	.....	.....	1	.....
Merced County.....	1	.....	.....	1	.....	.....
Nevada County.....	1	.....	.....	.....	1	.....
Nevada City.....	7	.....	.....	.....	7	.....
Placer County—						
Colfax.....	2	.....	.....	.....	2	.....
San Francisco County—						
San Francisco.....	2	.....	.....	.....	2	.....
San Joaquin County.....	3	.....	.....	.....	.....	3
Stockton.....	1	.....	.....	.....	1	.....
Santa Clara County.....	1	.....	.....	1	.....	1
San Jose.....	7	.....	.....	1	6	.....
Sunnyvale.....	2	.....	.....	.....	2	.....
Sierra County.....	1	.....	.....	.....	1	1
Yolo County.....	1	.....	.....	.....	.....	.....
Total.....	35	.....	.....	2	24	9
Massachusetts:						
Bristol County—						
Fairhaven.....	3	.....	1	.....	2	.....
New Bedford.....	2	.....	.....	.....	.....	2
Total.....	5	.....	1	.....	2	2

SMALLPOX—Continued.

Miscellaneous State Reports.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Florida (Sept. 1-30):			North Dakota (Sept. 1-30):		
Counties—			Counties—		
Duval.....	4		McKenzie.....	3	
Escambia.....	3		Ramsey.....	1	
Hillsboro.....	1		Stutsman.....	1	
Total.....	8		Total.....	5	
Indiana (Sept. 1-30):			South Carolina (Sept. 1-30):		
Counties—			Counties—		
Clark.....	6		Dillon.....	1	
Crawford.....	9		Pickens.....	1	
Dubois.....	4		Spartansburg.....	2	
Knox.....	2		Total.....	4	
Laporte.....	1		Utah (Sept. 1-30):		
Madison.....	1		Counties—		
Marshall.....	3		Cache.....	1	
Miami.....	15		Davis.....	10	
Parke.....	4		Millard.....	2	
Pulaski.....	2		Salt Lake.....	11	
Vanderburg.....	2		San Pete.....	11	
Wabash.....	14		Sevier.....	7	
Warrick.....	3		Summit.....	5	
Washington.....	1		Tooele.....	6	
Total.....	69		Utah.....	4	
Kansas (Sept. 1-30):			Wayne.....	5	
Counties—			Total.....	62	
Crawford.....	6		Vermont¹ (Sept. 1-30):		
Ford.....	3				
Sedgwick.....	3				
Seward.....	1				
Wyandotte.....	1				
Total.....	14				

¹ No case.

City Reports for Week Ended Oct. 11, 1913.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Cincinnati, Ohio.....	1		Marinette, Wis.....	4	
Columbus, Ohio.....	5		Niagara Falls, N. Y.....	5	
Fitchburg, Mass.....	1		Spokane, Wash.....	4	
Knoxville, Tenn.....	7		Toledo, Ohio.....	5	
Los Angeles, Cal.....	3				

TYPHOID FEVER.

State Reports for September, 1913.

Places.	Number of new cases reported during month.	Places.	Number of new cases reported during month.
California:		California—Continued.	
Alameda County—		Humboldt County—	
Alameda.....	2	Eureka.....	2
Berkeley.....	1	Imperial County.....	1
Hayward.....	1	Calexico.....	1
Oakland.....	15	El Centro.....	3
Butte County.....	1	Kern County.....	1
Gridley.....	1	Lassen County—	
Colusa County.....	4	Susanville.....	3
Contra Costa County.....	1	Los Angeles County—	
Fresno County.....	1	Long Beach.....	1
Selma.....	4	Los Angeles.....	30

TYPHOID FEVER—Continued.

State Reports for September, 1913—Continued.

Places.	Number of new cases reported during month.	Places.	Number of new cases reported during month.
California—Continued.		Indiana—Continued.	
Madera County.....	1	Jackson County.....	6
Mariposa County.....	3	Jasper County.....	1
Mendocino County.....	2	Jay County.....	5
Willits.....	6	Jefferson County.....	18
Monterey County.....	1	Jennings County.....	8
King City.....	1	Johnson County.....	8
Orange County—		Knox County.....	11
Santa Ana.....	3	Kosciusko County.....	8
Placer County.....	1	Lagrange County.....	14
Plumas County.....	1	Lake County.....	1
Riverside County—		Laporte County.....	3
Riverside.....	2	Lawrence County.....	18
Sacramento County.....	4	Madison County.....	14
Sacramento.....	11	Marion County.....	7
San Diego County—		Marshall County.....	5
National City.....	1	Martin County.....	8
San Diego.....	3	Miami County.....	4
San Francisco County—		Monroe County.....	2
San Francisco.....	18	Montgomery County.....	4
San Joaquin County—		Morgan County.....	5
Lodi.....	1	Owen County.....	14
San Mateo County—		Parke County.....	14
San Mateo.....	2	Perry County.....	8
Santa Clara County.....	4	Pike County.....	1
Gilroy.....	1	Porter County.....	3
Shasta County.....	1	Possey County.....	4
Sierra County—		Pulaski County.....	4
Loyalton.....	2	Putnam County.....	9
Siskiyou County.....	1	Randolph County.....	3
Solano County—		Ripley County.....	9
Benicia.....	1	Rush County.....	1
Dixon.....	1	Scott County.....	6
Sonoma County.....	2	Shelby County.....	4
Healdsburg.....	2	Spencer County.....	3
Stanislaus County.....	7	Steuben County.....	1
Newman.....	1	St. Joseph County.....	26
Turlock.....	6	Switzerland County.....	6
Yolo County—		Tippecanoe County.....	1
Winters.....	1	Tipton County.....	2
Yuba County—		Vanderburg County.....	17
Wheatland.....	1	Vigo County.....	8
Total.....	165	Wabash County.....	3
Indiana:		Warrick County.....	9
Adams County.....	10	Washington County.....	20
Bartholomew County.....	1	Wayne County.....	23
Blackford County.....	3	White County.....	5
Carroll County.....	4	Total.....	533
Cass County.....	11	Kansas:	
Clark County.....	3	Allen County.....	1
Clay County.....	14	Anderson County.....	1
Clinton County.....	5	Atchison County—	
Crawford County.....	5	Atchison.....	1
Daviess County.....	6	Bourbon County.....	6
Dearborn County.....	8	Brown County.....	2
Decatur County.....	5	Butler County.....	4
Dekalb County.....	3	Cherokee County.....	1
Delaware County.....	25	Clay County.....	1
Dubois County.....	2	Cloud County.....	1
Elkhart County.....	5	Coffey County.....	2
Fayette County.....	1	Cowley County.....	2
Floyd County.....	6	Crawford County—	
Franklin County.....	14	Pittsburg.....	5
Fulton County.....	3	Dickinson County.....	4
Gibson County.....	3	Doniphan Co nty.....	1
Greene County.....	10	Edwards County.....	3
Hamilton County.....	3	Elk County.....	1
Hancock County.....	5	Finney County.....	1
Harrison County.....	4	Ford County.....	6
Hendricks County.....	2	Franklin County.....	2
Henry County.....	1	Geary County.....	2
Howard County.....	3	Gove County.....	3
Huntington County.....	14		

TYPHOID FEVER—Continued.

State Reports for September, 1913—Continued.

Places.	Number of new cases reported during month.	Places.	Number of new cases reported during month.
Kansas—Continued.		Massachusetts—Continued.	
Greenwood County.....	7	Essex County—Continued.	
Harper County.....	1	Beverly.....	2
Harvey County.....	2	Danvers.....	3
Hodgeman County.....	1	Gloucester.....	1
Jefferson County.....	1	Groveland.....	1
Kearny County.....	2	Haverhill.....	11
Kingman County.....	2	Ipswich.....	1
Labette County.....	6	Lawrence.....	4
Parsons.....	14	Lynn.....	15
Leavenworth County—		Methuen.....	2
Leavenworth.....	3	Newburyport.....	2
Lincoln County.....	3	North Andover.....	2
Linn County.....	1	Rockport.....	1
Lyon County.....	2	Rowley.....	1
Marion County.....	1	Salem.....	2
Marshall County.....	1	Saugus.....	10
McPherson County.....	3	Swampscott.....	3
Meade County.....	5	Franklin County—	
Miami County.....	1	Deerfield.....	1
Montgomery County—	11	Greenfield.....	5
Coffeyville.....	7	Orange.....	10
Morris County.....	3	Hampden County—	
Morton County.....	2	Chicopee.....	12
Neosho County.....	4	Holyoke.....	4
Ness County.....	1	Ludlow.....	1
Norton County.....	1	Springfield.....	8
Osage County.....	1	Westfield.....	9
Osborne County.....	1	Hampshire County—	
Ottawa County.....	5	Amherst.....	1
Pawnee County.....	1	Belchertown.....	1
Pratt County.....	1	Northampton.....	1
Rawlins County.....	3	Middlesex County—	
Reno County—		Cambridge.....	10
Hutchinson.....	4	Everett.....	4
Republic County.....	2	Framingham.....	1
Rice County.....	2	Lowell.....	8
Riley County.....	1	Malden.....	2
Roots County.....	1	Medford.....	1
Rush County.....	1	Melrose.....	1
Russell County.....	8	Newton.....	2
Sedgewick County—		Shirley.....	3
Wichita.....	7	Somerville.....	12
Shawnee County—		Wakefield.....	1
Topeka.....	4	Waltham.....	3
Sheridan County.....	2	Watertown.....	1
Sherman County.....	3	Wayland.....	2
Smith County.....	5	Nantucket County—	
Stafford County.....	2	Nantucket.....	1
Sumner County.....	3	Norfolk County—	
Washington County.....	1	Avon.....	5
Wichita County.....	2	Braintree.....	1
Woodson County.....	4	Brookline.....	1
Wyandotte County—		Cohasset.....	1
Kansas City.....	9	Dedham.....	11
Total.....	221	Milton.....	2
Massachusetts:		Norfolk.....	1
Berkshire County—		Norwood.....	1
Adams.....	3	Quincy.....	3
Clarksburg.....	1	Plymouth County—	
Great Barrington.....	1	Brockton.....	14
North Adams.....	5	Marshfield.....	1
Pittsfield.....	5	Plymouth.....	2
Bristol County—		Rockland.....	1
Fall River.....	21	Whitman.....	2
Freetown.....	6	Suffolk County—	
Mansfield.....	1	Boston.....	111
New Bedford.....	23	Chelsea.....	6
North Attleboro.....	2	Winthrop.....	3
Taunton.....	2	Worcester County—	
Essex County—		Athol.....	2
Amesbury.....	5	Barre.....	1
Andover.....	2	Clinton.....	1

TYPHOID FEVER—Continued.

State Reports for September, 1913—Continued.

Places.	Number of new cases reported during month.	Places.	Number of new cases reported during month.		
Massachusetts—Continued.					
Worcester County—Continued.					
Holden	1	South Carolina:			
Millard	1	Abbeville County	6		
Northbridge	3	Anderson County	15		
North Brookfield	1	Barnwell County	4		
Southboro	1	Beaufort County	2		
Templeton	1	Chesterfield County	2		
Westminster	1	Darlington County	4		
Winchendon	1	Edgefield County	1		
Worcester	23	Greenville County	8		
Total	458	Kershaw County	1		
North Dakota:					
Adams County	3	Lancaster County	1		
Barnes County	1	Lee County	6		
Bottineau County	4	Marion County	4		
Burleigh County	11	Marlboro County	6		
Cass County	2	Newberry County	3		
Cavalier County	1	Orangeburg County	6		
Golden Valley County	6	Pickens County	5		
Grand Forks County	6	Richland County	10		
Lamoure County	7	Saluda County	1		
McKenzie County	3	Spartanburg County	2		
Mountrall County	1	Sumter County	3		
Nelson County	4	Total	90		
Ramsey County	2				
Ransom County	5				
Richland County	4				
Rolette County	5				
Steele County	2				
Stutsman County	2				
Walsh County	1				
Ward County	1				
Wells County	3				
Williams County	13				
Total	87				
Vermont:					
Addison County					
Chittenden County					
Franklin County					
Lamoille County					
Orange County					
Rutland County					
Washington County					
Windham County					
Windsor County					
Total					
			15		

New Jersey—Perth Amboy.

Acting Asst. Surg. Naulty, of the Public Health Service, reported October 21, 1913, that 5 new cases of typhoid fever had been notified in Perth Amboy since October 15, making a total of 78 cases, with 4 deaths, since the beginning of the outbreak, September 12, 1913.

The State Board of Health of New Jersey reported October 24, 1913, that the Division of Medical and Sanitary Inspection had investigated the epidemic and had ascertained the source of infection, and instituted measures for the control of the disease.

CEREBROSPINAL MENINGITIS.

State Reports for September, 1913.

Places.	Number of new cases reported during month.	Places.	Number of new cases reported during month.
Indiana:		Massachusetts—Continued.	
Allen County.....	1	Bristol County—Continued.	
DeKalb County.....	1	New Bedford.....	1
Delaware County.....	1	Essex County—	
Fulton County.....	1	Haverhill.....	1
Lawrence County.....	2	Middlesex County—	
Parke County.....	1	Somerville.....	1
Total.....	7	Suffolk County—	
		Boston.....	8
Kansas:		Worcester County—	
Rawlins County.....	1	Worcester.....	1
		Total.....	14
Massachusetts:		South Carolina:	
Berkshire County—		Marlboro County.....	1
West Stockbridge.....	1		
Bristol County—			
Dighton.....	1		

Cases and Deaths Reported by Cities for Week Ended Oct. 11, 1913.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Cleveland, Ohio.....	1		Oakland, Cal.....	1	
Lawrence, Mass.....		1	Philadelphia, Pa.....	1	1
Los Angeles, Cal.....	1	1	Springfield, Ill.....		1
New Orleans, La.....		1			

POLIOMYELITIS (INFANTILE PARALYSIS).

State Reports for September, 1913.

Places.	Number of new cases reported during month.	Places.	Number of new cases reported during month.
California:		Kansas:	
Los Angeles County—		Cloud County.....	1
Los Angeles.....	1	Jackson County.....	1
Santa Monica.....	1	Lambette County.....	
Madera County—		Montgomery County.....	4
Madera City.....	1	Nebraska County.....	1
Total.....	3	Neosho County.....	3
		Reno County.....	1
Indiana:		Total.....	12
Decatur County.....	1		
Delaware County.....	1	Massachusetts:	
Gibson County.....	1	Barnstable County—	
Greene County.....	1	Provincetown.....	1
Howard County.....	1	Berkshire County—	
Lawrence County.....	2	Adams.....	1
Miami County.....	1	Tyringham.....	1
Montgomery County.....	1	Bristol County—	
Pike County.....	1	Aldieborough.....	1
Putnam County.....	1	New Bedford.....	10
Shelby County.....	1	Somerset.....	1
Tippecanoe County.....	1	Essex County—	
Tipton County.....	1	Amesbury.....	2
Total.....	14	Beverly.....	5
		Danvers.....	3
		Haverhill.....	8

POLIOMYELITIS (INFANTILE PARALYSIS)—Continued.

State Reports for September, 1913—Continued.

Places.	Number of new cases reported during month.	Places.	Number of new cases reported during month.
Massachusetts—Continued.		Massachusetts—Continued.	
Essex County—Continued.		Norfolk County—	
Lawrence.....	15	Franklin.....	1
Methuen.....	2	Needham.....	1
Newburyport.....	2	Plymouth County—	
Topsfield.....	1	Bridgewater.....	1
Hampden County—		Brockton.....	10
Chicopee.....	1	East Bridgewater.....	1
Springfield.....	4	West Bridgewater.....	1
Hampshire County—		Suffolk County—	
Hadley.....	1	Boston.....	6
Middlesex County—		Quincy.....	8
Ayer.....	1	Winthrop.....	1
Bedford.....	2	Worcester County—	
Cambridge.....	1	Milford.....	1
Everett.....	1	Winchendon.....	1
Framingham.....	2	Worcester.....	4
Medford.....	1	Total.....	124
Melrose.....	2	South Carolina:	
Newton.....	1	Saluda County.....	1
Reading.....	4	Vermont:	
Somerville.....	1	Caledonia County.....	11
Wakefield.....	2		
Waltham.....	11		

Cases and Deaths Reported by Cities for Week Ended Oct. 11, 1913.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Alameda, Cal.....	1		Lawrence, Mass.....	3	1
Boston, Mass.....	2	1	Manchester, N. H.....	9	
Brockton, Mass.....	2		Newark, N. J.....	1	
Cleveland, Ohio.....	1		Philadelphia, Pa.....	2	
Columbus, Ohio.....	1		Pittsburgh, Pa.....	3	
Concord, N. H.....	1		Richmond, Va.....	1	1
Dayton, Ohio.....	1	1	Springfield, Mass.....	1	
Franklin, N. H.....	1		Worcester, Mass.....	2	

ERYSIPelas.

Cases and Deaths Reported by Cities for Week Ended Oct. 11, 1913.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Binghamton.....	1		Philadelphia, Pa.....	5	1
Buffalo, N. Y.....	3		Pittsburgh, Pa.....	3	
Cincinnati, Ohio.....	4	1	St. Louis, Mo.....	3	
Cleveland, Ohio.....	1		San Francisco, Cal.....	1	
Newark, N. J.....		1	Wheeling, W. Va.....		1

PELLAGRA.

During the week ended October 11, 1913, 1 death from pellagra was notified at Boston, Mass.

PLAGUE.

Rats Collected and Examined.

Places.	Week ended—	Found dead.	Total collected.	Examined.	Found infected.
California: ¹					
Cities—					
Oakland.....	Oct. 11, 1913	37	686	514	.....
Berkeley.....	do.....	4	184	120	.....
San Francisco.....	do.....	16	1,844	1,334	.....

¹ Rats taken from steamship: Golden Gate, 32.

California—Squirrels Collected and Examined.

During the week ended October 11, 1913, 161 ground squirrels from Alameda County were examined for plague infection. No plague-infected squirrels were found.

Washington—Seattle—Plague in Rats.

Surg. Lloyd, of the United States Public Health Service, reported by telegraph October 28 that two plague-infected rats were found in Seattle, Wash., since the report given in the last issue of the Public Health Reports. This makes a total of nine plague-infected rats found in Seattle since September 30, 1913. Local authorities and officers of the United States Public Health Service are vigorously engaged in work to prevent the spread of the infection.

PNEUMONIA.

Cases and Deaths Reported by Cities for Week Ended Oct. 11, 1913.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Binghamton, N. Y.....	6	2	Los Angeles, Cal.....	4	4
Cleveland, Ohio.....	14	8	Philadelphia, Pa.....	13	34
Coffeyville, Kans.....	1	.....	Pittsburgh, Pa.....	13	20
Erie, Pa.....	1	.....	San Francisco, Cal.....	11	.....
Grand Rapids, Mich.....	2	.....	Schenectady, N. Y.....	5	3
Hannibal, Mo.....	1	1			

RABIES.

California—Berkeley, Oakland, and San Francisco—Rabies in Animals.

Surg. Long, of the Public Health Service, reported by telegraph that during the week ended October 25, 1913, 6 cases of rabies in dogs had been reported in Berkeley, 16 cases in Oakland, and 1 case in San Francisco, Cal.

TETANUS.

Cases and Deaths Reported by Cities for Week Ended Oct. 11, 1913.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Boston, Mass.....	.....	.....	San Francisco, Cal.....	.....	1
Pittsburgh, Pa.....	.....	2	Wilkes-Barre, Pa.....	.....	1
St. Louis, Mo.....	1	.....		

SCARLET FEVER, MEASLES, DIPHTHERIA, AND TUBERCULOSIS.

State Reports for September, 1913.

	Scarlet fever.	Measles.	Diphtheria.
California.....	84	23	118
Indiana.....	227	48	397
Kansas.....	48	15	50
Massachusetts.....	268	126	241
North Dakota.....	4	26	21
South Carolina.....	19	45	71
Vermont.....	11	38	19

Alaska—Measles.

Passed Asst. Surg. Krulish, of the Public Health Service, reported October 1, 1913, that 8 cases of measles had occurred at Karluk, 1 case at Kodiak, and 1 case at Afognak, Aleut villages located on Kodiak Island, Alaska.

The report further stated that 9 new cases of measles had occurred on board the steamship Dora during the trip from Unalaska to Seward.

Cases and Deaths Reported by Cities for Week Ended Oct. 11, 1913.

Cities.	Population, United States census 1910.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Over 500,000 inhabitants:										
Boston, Mass.....	670,585	207	36	2	18	—	29	1	53	11
Cleveland, Ohio.....	560,663	152	86	9	12	—	19	2	28	9
Philadelphia, Pa.....	1,549,008	439	40	5	5	—	48	4	74	38
Pittsburgh, Pa.....	533,905	187	36	10	10	1	58	4	31	15
St. Louis, Mo.....	687,029	217	60	6	6	—	11	—	41	13
From 300,000 to 500,000 inhab- itants:										
Buffalo, N. Y.....	423,715	131	53	—	4	1	10	—	24	5
Cincinnati, Ohio.....	364,463	116	21	—	3	—	9	1	26	17
Los Angeles, Cal.....	319,198	99	14	—	2	—	5	—	33	15
Newark, N. J.....	347,469	101	28	—	22	1	—	—	33	12
New Orleans, La.....	339,075	113	26	1	1	—	4	—	18	11
San Francisco, Cal.....	416,912	156	10	1	1	—	6	—	28	20
Washington, D. C.....	331,069	104	18	3	1	—	14	—	11	6
From 200,000 to 300,000 inhab- itants:										
Jersey City, N. J.....	267,779	60	—	—	—	—	—	—	—	5
Providence, R. I.....	224,326	—	10	1	3	—	4	—	10	11
From 100,000 to 200,000 inhab- itants:										
Bridgeport, Conn.....	102,054	28	3	—	4	—	—	—	3	2
Cambridge, Mass.....	104,839	30	4	1	—	—	5	—	5	4
Columbus, Ohio.....	181,548	59	16	1	2	—	12	—	7	7
Dayton, Ohio.....	116,577	27	66	—	4	—	5	—	—	3
Grand Rapids, Mich.....	112,571	31	13	—	56	1	15	1	2	1
Oakland, Cal.....	150,174	43	3	1	—	—	2	—	2	5
Richmond, Va.....	127,628	44	5	—	—	—	8	—	14	5
Spokane, Wash.....	104,402	—	—	—	2	—	—	—	—	2
Toledo, Ohio.....	168,497	49	8	2	2	—	16	—	1	6
Worcester, Mass.....	145,986	54	12	1	1	—	2	—	10	2

SCARLET FEVER, MEASLES, DIPHTHERIA, AND TUBERCULOSIS—Contd.

Cases and Deaths Reported by Cities for Week Ended Oct. 11, 1913—Continued.

Cities.	Population, United States census 1910.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 50,000 to 100,000 inhabitants:										
Altoona, Pa.	52,127	7	3		5		2	1		
Bayonne, N. J.	55,545		7		3				2	
Brockton, Mass.	56,878	11	6		1				2	
Erie, Pa.	66,525	30	4		1				1	
Evansville, Ind.	69,647	16	8	1			1		7	
Hartford, Conn.	98,915	23	8		1		1		8	
Hoboken, N. J.	70,324		2		4		2		7	
Lawrence, Mass.	85,892		2	1	1		2		4	1
Lynn, Mass.	89,336	21	3				3		2	3
Manchester, N. H.	70,063	16	4		1		1		2	2
Passaic, N. J.	54,773	20	3	2					2	1
Pawtucket, R. I.	51,622		1							
Reading, Pa.	96,071	23	12	1	1		5		4	1
St. Joseph, Mo.	77,403	19	2		2				2	
Schenectady, N. Y.	72,826	24	1		1		7	3	3	2
South Bend, Ind.	53,684	12	5				2			3
Springfield, Ill.	51,678	17	3							
Springfield, Mass.	88,926	31	5		1					1
Wilkes-Barre, Pa.	67,105	23	1		2				5	1
From 25,000 to 50,000 inhabitants:										
Aurora, Ill.	29,807	9	1							1
Austin, Tex.	29,860	6	2				1			
Binghamton, N. Y.	48,443	21	2		4		3		2	2
Butte, Mont.	39,165	16					1		2	2
Cheesea, Mass.	32,454	10	2		3		5		1	
East Orange, N. J.	34,371		5	2			1		2	1
Elmira, N. Y.	37,176	3	2		1	1			1	
Everett, Mass.	33,484	9					2			
Fitchburg, Mass.	37,826	7	4						2	
Knoxville, Tenn.	36,346	6	1		1		2			
La Crosse, Wis.	30,417	8	5							
Lancaster, Pa.	47,227		2						1	
Lexington, Ky.	35,099	18	6						3	3
Malden, Mass.	44,404	7					1		2	1
Niagara Falls, N. Y.	30,445	12	1	1	1		1		1	
Norristown, Pa.	27,875	5								
Pasadena, Cal.	30,291	8								2
Pittsfield, Mass.	32,121	9	3	1						
Portsmouth, Va.	33,190	9	2				7			
Racine, Wis.	38,002	8	6				2			
Roanoke, Va.	34,874	8	7	1						
San Diego, Cal.	39,578								3	3
South Omaha, Nebr.	26,259	7								1
Superior, Wis.	40,384	13					3			
Taunton, Mass.	34,259	10	1		3		10		3	
Wheeling, W. Va.	41,641	10	3							
Zanesville, Ohio.	28,026		7							
Less than 25,000 inhabitants:										
Alameda, Cal.	23,383	2					1		1	
Biddeford, Me.	17,079	3	1							
Braddock, Pa.	19,357		2		1		5		1	
Cambridge, Ohio.	11,327						5			
Coffeyville, Kans.	12,687						1			
Columbus, Ind.	8,813	3	1							
Concord, N. H.	21,497	3								
Dunkirk, N. Y.	17,221	1								
Franklin, N. H.	6,132	2								
Galesburg, Ill.	22,089	4								
Hannibal, Mo.	18,341	5								
Harrison, N. J.	14,498	3	2							
Marquette, Wis.	14,610	3								
Massillon, Ohio.	13,879	2	1							
Melrose, Mass.	15,715	2					1			
Moline, Ill.	24,199	2								
Montclair, N. J.	21,556	3	2						1	
Morristown, N. J.	12,507	1							1	
Nanticoke, Pa.	18,877	4	5							
North Adams, Mass.	22,019	5	1				1		2	
Northampton, Mass.	19,431	8					3			
Plainfield, N. J.	20,550	7								
Saratoga Springs, N. Y.	12,893	6								
Steeltown, Pa.	14,246	1	1							
Wilkinsburg, Pa.	18,924	2	2				5			

IN INSULAR POSSESSIONS.

HAWAII.

Examination of Rats and Mongoose.

Rats and mongoose have been examined in Hawaii as follows: Honolulu, week ended October 4, 1913, 400. No plague-infected animal found.

PORTO RICO.

Rodents Collected and Examined.

During the week ended October 11, 1913, there were examined 1,002 rodents collected from various points in Porto Rico. Of these, 761 were collected from various parts of San Juan municipality. None was found infected with plague.

(2301)

FOREIGN REPORTS.

ARGENTINA.

Plague.

Plague was reported present, September 6, 1913, in four small localities situated about 100 miles west of Rosario. Twenty-five deaths from the disease were notified.

AUSTRALIA.

Smallpox—New South Wales.

During the period from July 1 to September 11, 1913, there were notified in New South Wales 736 cases of smallpox. Of these, 721 occurred in Sydney and 15 in the country districts.

CUBA.

Quarantine Against Costa Rica Suspended.

Quarantine at Cuban ports against arrivals from ports in Costa Rica was suspended October 16, 1913.

Communicable Diseases—Habana.

SEPT. 20-30, 1913.

Diseases.	New cases.	Deaths.	Remaining under treatment.
Leprosy.....	6	.....	256
Malaria.....	12	.....	8
Typhoid fever.....	9	1	41
Diphtheria.....	18	.....	9
Scarlet fever.....	5	1	8
Measles.....	29	.....	53
Paratyphoid fever.....	3	1	9

OCT. 1-10, 1913.

Leprosy.....	.....	1	256
Malaria.....	1	1	8
Typhoid fever.....	12	.....	45
Diphtheria.....	14	.....	10
Scarlet fever.....	5	2	4
Measles.....	30	1	52
Varicella.....	3	.....	2
Tetanus in the new born.....	1	.....	.....
Paratyphoid fever.....	9	.....	11

¹ 1 from Manacas, 1 from Jibara.

ITALY.**Quarantine Against Black Sea Ports.**

Vessels arriving at ports in Italy from Russian ports of the Black Sea were declared, September 11, 1913, to be subject to the measures prescribed against cholera.

JAPAN.**Plague—Yokohama.**

Two cases of plague were notified at Yokohama October 29, 1913. From September 19 to date there have been notified 12 cases.

Precautions Against Infection of Vessels by Plague Rats—Yokohama.

The following instructions were issued October 3, 1913, by the medical officer of the United States Public Health Service on duty at the American consulate at Yokohama, Japan, to agents, owners, and masters of vessels, as a precaution against infection of vessels:

Owing to the infection of the customs docks at this port with plague rats the following regulations must be enforced from this date on all vessels bound for United States ports, in order to comply with the United States quarantine laws.

- (a) The vessel must be fended off from the dock at least 6 feet at all points.
- (b) All gangways and cargo chutes must be raised and all lighters and boats removed from alongside between sunset and sunrise. When vessels are discharging cargo during the night and gangways and cargo chutes are in use, watchmen must be stationed at these points to prevent the access of rats.
- (c) All lines from the vessel to the dock, shore, or vessels must be equipped with galvanized sheet-iron rat guards. These guards must fit the lines tightly, if necessary padding the lines with burlap or straw. The circumference of the guards must be approximated at all points. The guards must be applied near the vessel and must not overhang the dock or shore.
- (d) When it is impracticable to apply rat guards to lines, those portions of the lines nearest to the vessels will be covered with fresh tar for a distance of not less than 6 feet, and a new coating of tar applied daily.

TRIPOLI.**Summary of Plague—Tripoli.**

During the period from July 1 to September 30, 1913, there were notified in Tripoli and vicinity 56 cases of plague with 19 deaths.

TURKEY IN EUROPE.**Cholera—Rodosto.**

From September 27 to October 5, 1913, 12 cases of cholera with 8 deaths were notified at Rodosto.

ZANZIBAR.

Examination of Rats—Zanzibar.

During the three weeks ended September 14, 1913, 3,431 rats were examined at Zanzibar for plague infection. No plague-infected rat was found.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX.

Reports Received During Week Ended Oct. 31, 1913.

CHOLERA.

Places.	Date.	Cases.	Deaths.	Remarks.
istria-Hungary:				
Bosnia-Herzegovina—				
Bijela.....	Aug. 16-27.....	3.....	.....
Bosnisch Samac.....	Aug. 16-Sept. 15.....	7.....	1.....	
Brecko.....	Aug. 1-Sept. 15.....	31.....	7.....	
Buskinje.....	Aug. 1.....	1.....	.....
Creveno Brodo.....	Aug. 28-Sept. 6.....	1.....	.....
Donja Skukva.....	Aug. 16-27.....	1.....	1.....	
Gracanica.....	do.....	1.....	.....
Gornja Tuzla.....	Aug. 1-Sept. 7.....	6.....	1.....	
Janja.....	Aug. 28-Sept. 15.....	4.....	.....
Lejubaca.....	Aug. 28-Sept. 6.....	1.....	.....
Morac.....	do.....	2.....	.....
Orasje.....	Aug. 16-Sept. 15.....	17.....	1.....	
Tilza.....	Aug. 28-Sept. 6.....	1.....	.....
Ulice.....	Aug. 16-26.....	1.....	.....
Vidovice.....	Aug. 16-Sept. 15.....	8.....	.....
Vusic Dolnji.....	Aug. 16-Sept. 7.....	3.....	.....
Vusic Gornji.....	Aug. 16-Sept. 15.....	4.....	.....
Croatia-Slavonia—				
Syrmien—				
Adasevci.....	Sept. 8-14.....	2.....	1.....	
Bacinici.....	do.....	5.....	3.....	
Bebrina.....	Sept. 1-7.....	1.....	1.....	
Bosnjaci, Mitro- vica district.....	do.....	1.....	.....
Bosnjaci, Zupenja district.....	do.....	8.....	6.....	
Cortanovci.....	Sept. 1-14.....	4.....	2.....	
Galubinci.....	Sept. 8-14.....	2.....	.....
Grad, Mitrovica district.....	Sept. 1-14.....	2.....	1.....	
Grad, Zemun dis- trict.....	Sept. 8-14.....	1.....	1.....	
Krecedin.....	Sept. 1-7.....	1.....	1.....	
Kuzmin.....	Sept. 1-14.....	19.....	7.....	
Lacakar.....	do.....	3.....	.....
Martinci.....	Sept. 8-14.....	3.....	1.....	
Mihovica.....	July 15-Sept. 14.....	3.....	2.....	
Novo Karlovci.....	Sept. 1-14.....	11.....	10.....	
Novo Slankamen.....	Sept. 8-14.....	1.....	1.....	
Ogar, Ruma dis- trict.....	do.....	2.....	1.....	
Ogar, Sid district.....	do.....	1.....	.....
Otok.....	Sept. 1-7.....	2.....	1.....	
Podgajci.....	Sept. 8-14.....	2.....	2.....	
Rivica.....	do.....	2.....	2.....	
Vinkovci.....	do.....	1.....	1.....	
Zupinge.....	Sept. 22-23.....	.....	.....	Present.
Galicia—				
Skole—				
Oporec.....	Sept. 10-18.....	11.....	6.....	
Slawsko.....	do.....	2.....	1.....	
Tucholka.....	do.....	1.....	1.....	
Hungary—				
Ada.....	Sept. 7-13.....	2.....	.....
Budapest.....	do.....	7.....	.....
Deliblat.....	Sept. 1-13.....	11.....	1.....	
Felecoverecake.....	Sept. 7-13.....	1.....	.....
Harsfalva.....	do.....	1.....	.....
Kevevaro.....	Aug. 22-28.....	1.....	.....
Kissolyva.....	Sept. 7-13.....	2.....	.....
Kupimovo.....	Aug. 17-28.....	1.....	.....
Martinci.....	do.....	2.....	.....

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received During Week Ended Oct. 31, 1913—Continued.

CHOLERA—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary—Continued.				
Hungary—Continued.				
Munkacs.....	Sept. 7-13.....	1	.....
Neramogyros.....	do.....	10	.....
Osce.....	do.....	7	.....
Odavidhaza.....	do.....	3	.....
Orosztelek.....	do.....	3	.....
Palank.....	Aug. 10-Sept 13.....	8	1	
Petrocz.....	Sept. 7-13.....	1	1	
Tittel.....	Sept. 17-28.....	1	.....
Ujvidek.....	do.....	2	.....
Varkulesa.....	Sept. 7-13.....	2	.....
Volocz.....	do.....	1	.....
Zajgo.....	do.....	1	.....
Zugo.....	do.....	1	.....
Bulgaria:				
Rustschuk.....	Sept. 8.....	18	8	
Sistovo.....	do.....	60	.....
Tirnowo.....	do.....	14	14	
China:				
Canton.....				July 15-26: Cases, 132.
Foochow.....	Sept. 13.....			Present.
Hongkong.....	Sept. 7-13.....	4	1	
India:				
Bombay.....	Sept. 14-20.....	3	2	
Madras.....	Sept. 15-21.....	5	4	
Rangoon.....	Aug. 1-31.....	1	1	
Roumania.....				Total to Sept. 29: Cases, 4,341; deaths, 2,014. Sept 25-29: Cases, 788; deaths, 481.
Russia:				
Kherson, district.....	Aug. 26-Sept. 13.....	27	19	Including previous reports.
Kherson.....	do.....	44	13	
Odessa, district.....	Sept. 7-14.....	22	13	
Odessa, prefect.....	do.....	2	1	
Poltava.....	Sept. 18.....	8	1	
Taurida, government—Dneprosk.....	Sept. 14.....	2	1	
Serbia:				
Belgrade.....				Sept. 22-27, 1 case.
Turkey in Asia:				
Smyrna.....	Sept. 29-Oct. 4.....	6	4	
Turkey in Europe:				
Kavak.....	Aug. 8-Sept. 22.....	98	50	Including previous reports.
Rodost.....	Sept. 17-Oct. 5.....	12	8	
Saloniki.....	Sept. 30-Oct. 5.....	2	1	

YELLOW FEVER.

Brazil: Rio de Janeiro.....				Case p. 2175, Sept. 13 from Bahia on s. s. Canova.
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PLAGUE.

Argentina.....				Nov. 6, outbreak with 25 deaths in 4 localities west from Rosario.
Brazil: Bahia.....	Sept. 21-27.....	11	4	
China: Hongkong.....	Sept. 7-13.....	8	8	
Chile: Iquique.....	Aug. 24-Sept. 20.....	4	4	
India: Bombay.....	Sept. 14-20.....	16	14	Total: Cases, 8,415; deaths, 6,181.
Rangoon.....	Aug. 1-31.....	88	84	
Provinces: Bombay.....	Aug. 2-Sept. 13.....	3,922	2,611	
Madras Presidency.....	do.....	316	277	
Bengal.....	do.....	31	29	
Bihar and Orissa.....	do.....	537	441	
United Provinces.....	do.....	1,506	1,287	
Punjab.....	do.....	257	182	

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received During Week Ended Oct. 31, 1913—Continued.

PLAGUE—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
India—Continued.				
Provinces—Continued.				
Burma.....	Aug. 2-Sept. 13...	472	447	
Coorg.....	June 22-Aug. 30...	10	8	
Mysore.....	Aug. 2-Sept. 13...	1,005	670	
Hyderabad.....	do	236	194	
Rajputana.....	Aug. 30-Sept. 13...	33	25	
North West Province.....	Aug. 24-Sept. 13...	30	30	
Japan:				
Yokohama.....	Oct. 29.....	2	.....	Total, Sept. 19-Oct. 29: 12 cases.
Mauritius.....	July 6-Aug. 28.....	26	16	Total, Jan. 1-Aug. 28: Cases, 126; deaths, 70.
Persia:				
Kermanshah—				
Djameh-Chouran.....	Aug. 28-Sept. 13...	22	6	
Harounabad.....	May 20-June 25...	71	51	Including previous reports.
Philippine Islands:				
Manila.....				Fourth quarter 1912: Cases, 39; deaths, 33. First quarter 1913: Cases, 8; deaths, 7. Second quarter: Cases, 9; deaths, 7.
Russia:				
West Turkestan—				
Semirechji territory—				
Prievalsk district.....	Sept. 25.....	26	26	Among the Torguen.
Tripoli:				
Derna.....	July 15.....	.....		Present.
Tripoli.....	July 1-Sept. 30.....	56	19	

SMALLPOX.

Places.				Total July 1-Sept. 11: Cases, 736.
Australia.....				
New South Wales—				
Cootamundra.....	Aug. 7-Sept. 11.....	1	.....
Illabo.....	do	1	.....
Harden.....	do	1	.....
Liverpool.....	do	2	.....
Sydney.....	July 1-Sept. 11.....	721	.....
Queensland—				
Brisbane.....	Aug. 7-Sept. 11.....	1	.....
Ipswich.....	do	1	.....
Victoria—				
Melbourne.....	July 14.....	.....		1 case on s. s. Karoola from Sydney.
Brazil:				
Pernambuco.....	Aug. 16-Sept. 15.....	.....	58	
Canada:				
Manitoba—				
Winnipeg.....	Oct. 5-11.....	3	.....
Germany.....				Sept. 28-Oct. 4, 1 case.
India:				
Rangoon.....	Aug. 1-31.....	5	1	
Philippine Islands.....				First quarter, 1913: Cases, 57; second quarter, cases, 63.
Russia:				
Moscow.....	Sept. 14-27.....	3	.....
Warsaw.....	July 13-26.....	2	2	
Serbia:				
Belgrade.....	Sept. 21-27.....	1	.....
Spain:				
Valencia.....	Sept. 14-Oct. 4.....	3	.....
Turkey in Europe:				
Constantinople.....	Sept. 21-27.....	.....	2	

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received from June 26 to Oct. 24, 1913.

CHOLERA.

Places.	Date.	Cases.	Deaths.	Remarks.
Arabia:				
Hodeidah.....	Aug. 27-Sept. 4....	3	2	
Do.....	Aug. 20-Sept. 4....	123	21	Among the military at quarantine.
Austria-Hungary:				
Bohemia—				
Marienbad.....	Sept. 13.....	1	.....
Prague.....	Sept. 27.....	1	1	In suburb, Weinberge.
Bosnia-Herzegovina—				
Tsala, district.....	Aug. 12-20.....	58	30	Total, Aug. 12-25: Cases, 86; deaths, 39.
Croatia-Slavonia—				
Syrmiens.....	Aug. 16-21.....	.....	.....	Present in 5 localities.
Alt Slankamen.....	Aug. 16.....	2	.....
Bosut.....	Aug. 25-Sept. 2.....	3	1	
Bosnjaci.....	do.....	16	4	
Cortamoboc.....	do.....	1	1	Aug. 16, 1 case.
Djakova.....	do.....	1	.....
Ilici.....	Aug. 25-31.....	1	.....
Kutina.....	Aug. 25-Sept. 2.....	1	.....
Lecarac.....	Aug. 25-31.....	3	.....
Martinici.....	Aug. 16.....	1	.....
Novi Karlovci.....	Aug. 25-31.....	5	.....
Podjaci.....	Aug. 16.....	1	.....
Samlin.....	Aug. 25-31.....	1	1	
Ternes, district.....	July 31.....	5	3	In Kreevena.
Dalmatia—				
Cattaro.....	Aug. 6.....	1	1	
Galicia—				
Oporzec.....	Sept. 10.....	3	2	
Wyzlow.....	do.....	1	1	
Hungary—				
Budapest.....	Sept. 11.....	9	3	
Districts—				
Bacs-Bodrog.....	Sept. 2-13.....	14	7	
Csurog.....	do.....	18	2	
Bereg.....	do.....	43	27	
Temes.....	Aug. 16-Sept. 2.....	7	3	In Kevevera.
Vienna.....	Aug. 4.....	.....	.....
Bulgaria:				
Varna.....	Sept. 11.....	3	.....
Ceylon:				
Colombo.....	Aug. 17-23.....	1	1	Oct. 15, present on s. s. Karena and s. s. Koronga from Calcutta.
China:				
Amoy.....	Aug. 23.....	.....	.....	Present in vicinity.
Canton.....	July 12-26.....	.....	6	Present.
Chuan Chow.....	Sept. 6.....	.....	.....
Hongkong.....	Aug. 3-Sept. 6.....	56	37	
Swatow.....	Aug. 1-15.....	9	4	
Dutch East Indies:				
Borneo.....	.....	.....	.....	Total, May 12-June 7: Cases, 131; deaths, 105.
Sesajap, district.....	May 12-June 7....	57	40	
Java—				
Batavia and Tanjung Priok.....	May 18-Sept. 6....	500	297	May 25-Aug. 23: 12 cases and 1 death among Europeans.
Madjene, province.....	Apr. 22-28.....	1	1	
Pakalongan.....	Aug. 10-Sept. 6....	101	70	
Preanger.....	Aug. 9-15.....	41	23	
Samarang.....	July 12-Aug. 16.....	18	11	
Surabaya.....	Aug. 2-23.....	2	.....
Sibru.....	Mar. 24-Apr. 27....	117	104	
Sumatra—				
Djambi, province.....	June 1-Sept. 6....	158	83	
Palembang.....	June 22-Aug. 4....	252	157	
Greece:				
Athens.....	Sept. 15-29.....	1	1	
Piraeus.....	Sept. 13-29.....	8	4	Among troops at quarantine.
India:				
Bassein.....	May 4-July 19....	31	23	
Bombay.....	May 25-Sept. 13....	33	21	
Calcutta.....	Apr. 27-Aug. 30....	458	.....
Madras.....	June 15-Sept. 13....	8	4	

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received from June 28 to Oct. 24, 1913—Continued.

CHOLERA—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
India—Continued.				
Moulmine.	May 4-June 14.	6	6	
Rangoon.	May 1-June 30.	6	2	
Indo-China.				Total, Jan. 1-May 20: Cases, 79; deaths, 54.
Saigon.	June 17-23.	2	2	
Japan:				
Kobe.	Sept. 5-8.	7		From s. s. Canada Maru. Crew quarantined at Wada.
Nagasaki.	Aug. 25-31.	2		From s. s. Canada Maru.
Philippine Islands:				
Manila.	Aug. 25.	2		Total to Sept. 25: Cases, 3,553; deaths, 1,533. Sept. 19-25; Cases, 1,017; deaths, 525.
Roumania.				
Russia:				
Governments—				
Bessarabia—				
Akerman.	Sept. 16-18.	3	1	
Ishmail.	do.	1	1	
Kishinef.	Sept. 22.	3	1	
Wolfsknechty.	Sept. 18-21.	1	1	
Ekaterinislav—				
Nicopol.	Sept. 22.	2		
Kherson.				Total, Aug. 24-Sept. 20: Cases, 107; deaths, 48; including previous reports.
Kherson.	Aug. 26-Sept. 20.	48	12	
Odessa.	Sept. 13-22.	7	2	
Varvaroika.	Sept. 22.			Present.
Kief—				
Zvenigorod.	Sept. 8.	2	2	
Minsk.	Sept. 14-22.	1	1	
Poltava.	Sept. 18-20.	3	2	
Taurida—				
Alechki.	Sept. 8-14.	4	1	
Dneprovski.	Sept. 8-20.	6	1	
Servia.				Total, July 4-Aug. 30: Cases, 2,123; deaths, 886.
Districts—				
Belgrade.	July 4-Aug. 30.	100	49	
Belgrade.	do.	220	73	
Kraina.	Aug. 3-30.	63	28	
Kragujevatz.	July 4-Aug. 30.	161	57	
Kroushevatz.	do.	140	49	
Lejkovac.	Aug. 1-7.	1		
Morava.	July 4-Aug. 30.	436	181	
Niche.	do.	50	33	
Oujitze.	July 22-Aug. 30.	14	9	
Palanka.	Aug. 1-7.	1		
Pirot.	July 4-Aug. 30.	865	143	
Podrigne.	do.	38	22	
Pojarevatz.	Aug. 3-30.	77	42	
Pozenga.	July 25-31.	1		
Roudnik.	Aug. 3-30.	18	5	
Shabatz.	Aug. 1-7.	1		
Smederevo.	July 4-Aug. 30.	151	62	
Tehatshak.	July 22-Aug. 30.	45	7	
Timok.	July 19-Aug. 30.	161	82	
Topitas.	July 22-Aug. 30.	30	9	
Ueskub.	July 19-Aug. 2.	37	19	
Viznica and Mirjevo.	July 4-21.		1	
Waljevo.	July 22-Aug. 30.	250	84	
Wragne.	do.	346	110	
Siam:				
Bangkok.	Mar. 23-Aug. 9.		17	
Strait Settlements:				
Singapore.	July 6-Sept. 6.	10	9	
Turkey in Asia:				
Smyrna.	July 29-Sept. 28.	282	170	Aug. 9, 1 case on s. s. Casablanca.
Turkey in Europe:				
Constantinople.	Aug. 2-Sept. 28.	44	23	
Dardanelles—				
Gallipoli.	Sept. 17.			Present.
Maidos.	Sept. 8.		3	
Kavak.	Aug. 8-17.	27		Sept. 30, still present.
Saloniki (Macedonia).	July 7-Sept. 28.	508	455	Sept. 19-Aug. 8, epidemic. Among civilians, July 10, present in Kavala, Drama, Orlana Serres, and Stroumitsa.
Saloniki.				

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received from June 28 to Oct. 24, 1913—Continued.

YELLOW FEVER.

Places.	Date.	Cases.	Deaths.	Remarks.
Brazil:				
Bahia.....	May 11-Aug. 23.....	40	20	
Manaos.....	June 30-July 5.....	6	6	
Pernambuco.....	May 1-June 30.....		3	
Rio de Janeiro.....	May 25-July 12.....	4	3	Sept. 13—1 fatal case.
Colombia:				
Cartagena.....	Aug. 23.....	1	.....	Contracted in the interior.
Cuba:				
Habana.....	July 16.....			1 case on s. s. <i>Hydra</i> , which left Manaos June 17, Para June 21. Four deaths occurred in voyage; 2 at Manaos, 1 at Guantanomo, and 1 at Cienfuegos.
Do.....	Aug. 8-14.....	1	.....	From steamship <i>Morro Castle</i> , passenger from Campeche.
Ecuador:				
Babahoyo.....	June 1-July 31.....	2	2	
Bucay.....	June 1-Aug. 31.....	3	2	
Duran.....	May 1-31.....	1	.....
Guayaquil.....	May 1-Aug. 31.....	29	19	
Milagro.....	do.....	21	11	
Naranjito.....	do.....	8	6	
Mexico:				Total May 25-Sept. 20: Cases, 27; deaths, 15.
Campeche.....	May 25-Sept. 20.....	24	2	Oct. 9—1 death.
Carmen.....	Oct. 11.....			Present.
Maxcanu.....	Aug. 23-Sept. 6.....	2	2	Case Aug. 23 from Campeche.
Southern Nigeria:				
Lagos.....	May 12.....	1	.....	July 23-Aug. 22: Epidemic; Oct. 15 still present.
Worri.....	June 1-30.....			Present.
Venezuela:				
Caracas.....	Feb. 1-28.....	1	.....
Do.....	May 1-31.....	1	.....
Do.....	July 1-31.....	1	1	From Valencia.

PLAUE.

Arabia:				
Aden.....	June 3-25.....	8	4	Total Apr. 9-June 25: Cases, 81; deaths, 59.
Debal.....				Aug. 31, free: Reported, p. 656, Pt. I.
Brazil:				
Bahia.....	May 11-Sept. 20.....	119	50	
Rio de Janeiro.....	July 27-Sept. 13.....	1	2	
British East Africa:				1 death.
Kisumu.....	May 15-June 12.....			
Mombasa.....	do.....	3	.....	Apr. 25-30, 15 deaths.
Nairobi.....	May 1-June 30.....	57	49	
Chile:				
Iquique.....	May 11-Aug. 23.....	35	15	May 18-June 14, still present in Ampo, Chaoyang, Fungshun, Kitayang, Puning, Ta-bu, and other points along the railway.
China:				May 25-June 7, 10 to 20 deaths daily. Aug. 23, present in vicinity.
Amoy.....	June 6-21.....		90	May 7, 1 or 2 deaths daily.
Kulangsu.....	Jan. 1-May 24.....		29	Present Aug. 7, 1913.
Canton.....				Apr. 1-June 30: Cases, 229. Apr. 10-May 22, 300 fatal cases in the Sunninger district.
Hongkong.....	May 18-Sept. 6.....	269	224	10 deaths daily.
Kaochow.....	Apr. 10-May 22.....			Present Aug. 7, 1913.
Macao.....	July 3.....			Among natives.
Shanghai.....	June 1-15.....	8	7	Decreasing along the Swatow-Chaochowfu Railway.
Swatow.....	July 12.....			
Dutch East Africa:				
Districts—				
Usmawo.....				Present.
Misungi.....	Mar. 15-May 10.....			Do.
Nora.....	do.....			Do.
Urima.....	do.....			
Muanza.....	Mar. 15-June 11.....	503	459	

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received from June 28 to Oct. 24, 1913—Continued.

PLAGUE—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Dutch East Indies:				
Java—				
Districts—				
Kediri.....	Apr. 1-July 31.....	586	445	
Medioen.....	do.....	248	226	
Malang.....	do.....	2,074	2,000	
Surabaya.....	do.....	79	70	
Madura—				
Bangkalan.....	July 13-Aug. 9.....	34	27	
Ecuador:				
Guayaquil.....	May 1-Aug. 31.....	48	17	
Milagro.....	May 1-July 31.....	1	1	
Egypt.....				Total Jan. 1-Sept. 11: Cases, 596; deaths, 281.
Alexandria.....	May 28-Sept. 11.....	27	13	
Port Said.....	June 2-Sept. 9.....	18	6	Aug. 11, 2 fatal cases.
Provinces—				
Behera.....	June 13-Sept. 7.....	8	3	
Fayoum.....	May 30-Sept. 7.....	45	16	
Galoubéh.....	May 21-Aug. 7.....	6	2	
Garbien.....	May 27-Sept. 8.....	42	35	Jan. 1-May 26: Cases, 12; deaths, 5.
Gizeh.....	May 29-July 1.....	6	1	
Menouf.....	May 28-Aug. 27.....	3	3	Jan. 1-May 26: Cases, 51; deaths, 24.
Minieh.....	May 30-Sept. 7.....	29	10	
Greece:				
Athens.....	Aug. 29.....	1		
Piraeus.....	Aug. 21-Sept. 3.....	8	2	
India:				
Bombay.....	May 18-Sept. 13.....	661	563	
Calcutta.....	Apr. 27-Aug. 30.....		299	
Karachi.....	May 18-Sept. 13.....	159	140	
Rangoon.....	May 1-July 31.....	217	204	
Provinces.....				Total May 4-Aug. 2: Cases, 20,548; deaths, 17,301.
Delhi.....	May 4-Aug. 2.....	24	18	
Bombay.....	do.....	2,759	2,090	
Madras.....	do.....	239	239	
Bengal.....	do.....	277	287	
Bihar and Orissa.....	do.....	1,153	931	
United Provinces.....	do.....	7,929	6,889	
Punjab.....	do.....	6,428	5,398	
Burma.....	do.....	817	766	
Central Provinces.....	May 4-17.....	2	1	
Mysore.....	May 4-Aug. 2.....	537	386	
Hyderabad.....	do.....	111	71	
Central India.....	May 4-31.....	9	9	
Rajputana.....	May 4-July 12.....	173	154	
Kashmir.....	May 4-Aug. 2.....	65	44	
North West Province.....	do.....	25	18	
Indo-China.....				Total Jan. 1-May 20: Cases, 1,927; deaths, 1,875.
Saigon.....	June 17-Aug. 25.....	63	40	
Japan:				
Taiwan—				
Kagi.....	June 1-July 19.....	81	63	
Yokohama.....	Sept. 19-Oct. 6.....	5	1	
Mauritius.....	Apr. 18-July 5.....	21	16	
Persia.....				
Djame-Chouran.....	May 31-Aug. 27.....	15	15	
Faizabad.....	June 11.....		3	
Gommi.....	do.....		11	
Harounabad.....	June 16-20.....	1	1	
Lerzangueneh.....	May 27-June 15.....	30	28	
Mahi-Dacht.....	June 4.....	2	2	
Taybat.....	June 11.....		3	
Zobyr.....	May 31-June 25.....	14	10	
Peru:				
Departments—				
Ancachs—				
Chimbote.....	July 28-Sept. 7.....	2		
Arequipa—				
Mollendo.....	Apr. 28-Sept. 7.....	10	2	
Callao.....	June 30-Sept. 7.....	5		

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received from June 29 to Oct. 24, 1913—Continued.

PLAGUE—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Peru—Continued.				
Departments—Continued.				
Caxamarca—				
Cuervo.....	June 9-Aug. 17.....	5	.....
Chota.....	June 30-July 27.....	.....		Present.
Liberdad—				
Chiclayo.....	Apr. 28-June 8.....	1	1	
Salaverry.....	June 4-Aug. 17.....	3	1	
San Pedro.....	June 4-17.....	1	1	
Trujillo.....	May 19-Sept. 7.....	7	.....
Lima.....	do.....	22	.....
Piura.....	June 30-July 27.....	.....		Present.
Philippine Islands:				
Manila.....	May 11-24.....	3	.....
Russia:				
Astrakhan.....				
Tsarev.....	June 3-10.....	.....	9	
West Turkestan.....				Sept. 25, present in the district of Prejevalsk, among the Torguen.
Acheozek.....	Aug. 22.....	1	1	
Diamantal-Toubek.....	July 15-Aug. 17.....	6	6	
Siam:				
Bangkok.....	Mar. 23-Aug. 9.....	.....	16	
Korat.....	Mar. 21-31.....	.....		Epidemic.
Straits Settlements:				
Singapore.....	June 15-21.....	1	1	
Tripoli:				
Tripoli.....	Aug. 5.....	1	.....
Turkey in Asia:				
Adalia.....	Aug. 30.....	1	.....
Basra.....	July 14-21.....	1	1	To June 3, 31 cases.
Uruguay:				
Montevideo.....		.....		July 28, present.

SMALLPOX.

Algeria:				
Departments—				
Algiers.....	May 1-31.....	1	.....
Constantine.....	Apr. 1-May 31.....	21	.....
Oran.....	May 1-31.....	25	.....
Arabia:				
Aden.....	June 3-9.....	1	.....
Argentina:				
Buenos Aires.....	Apr. 1-July 31.....	.....	11	
Australia:				
New South Wales—				
Goulburn.....	July 1-31.....	1	.....
Lithgow.....	do.....	1	.....
Newcastle.....	do.....	1	.....
Nyngan.....	do.....	1	.....
Parkes.....	do.....	5	.....
Penrith.....	do.....	2	.....
Sydney.....	July 7-31.....	389	.....
Taree.....	July 1-31.....	2	.....
Ulmarra.....	do.....	2	.....
Queensland—				
Ipswich.....	do.....	2	.....
Toowoomba.....	do.....	1	.....
South Australia.....	July 17-Aug. 2.....	1	.....
Austria-Hungary:				
Coastland.....	July 6-12.....	1	.....
Fiume.....	May 27-July 7.....	19	1	
Galicia.....	July 6-Aug. 12.....	1	.....
Gorz and Gradinska.....	Aug. 7-14.....	1	.....
Krain.....	do.....	1	.....
Trieste.....	June 1-Sept. 14.....	33	.....
Tyrol and Voralberg.....	Aug. 10-23.....	2	.....
Belgium:				
Antwerp.....	July 1-7.....	1	.....
Brazil:				
Bahia.....	May 11-Aug. 30.....	13	1	
Manaos.....	June 15-21.....	1	.....
Para.....	June 15-Sept. 27.....	64	28	
Pernambuco.....	May 1-Aug. 15.....	.....	167	
Rio de Janeiro.....	May 4-Sept. 13.....	175	27	

Cases June 14 from Patras.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received from June 28 to Oct. 24, 1918—Continued.

SMALLPOX—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
British East Africa:				
Mombasa.....	Mar. 1-June 30.....	29	9	
Canada:				
Provinces—				
British Columbia—				
Vancouver.....	June 8-Sept. 13.....	2		
Manitoba—				
Winnipeg.....	June 15-Oct. 4.....	16		
Nova Scotia—				
Sydney.....	July 14-Aug. 2.....	2		
Ontario—				
Fort William.....	June 10-30.....	4		
Ottawa.....	June 8-Oct. 4.....	12		
Toronto.....	June 16-Aug. 2.....	9		
Quebec—				
Grosse Isle Quarantine.....	June 20.....	1	1	In steerage.
Quebec.....	June 8-Sept. 20.....	6		
Montreal.....	July 6-Oct. 11.....	50	2	
St. Johns.....	May 25-July 5.....	4		
Chile:				
Iquique.....	June 1-21.....	2		
Santiago.....	June 15-29.....			Present Aug. 16; epidemic.
Valparaiso.....	July 12.....			Present.
China:				
Amoy.....	May 25-June 7.....			Do.
Kulangsu.....	May 25-31.....			Do.
Chungking.....	Aug. 2.....			Do.
Dainy.....	July 27-Aug. 2.....	1	1	
Hohow.....				Aug. 22 free.
Hongkong.....	May 18-June 14.....	9	7	
Nanking.....	May 11-Aug. 2.....			Do.
Shanghai.....	May 19-Sept. 20.....	8	47	Deaths among natives.
Tientsin.....	June 8-14.....		1	
Dutch East Indies:				
Java—				
Batavia.....	June 22-Aug. 23.....	12	3	
Surabaya.....	May 11-Aug. 29.....	11	5	
Egypt:				
Alexandria.....	May 28-Sept. 16.....	22	17	
Cairo.....	May 14-Aug. 26.....	41	9	
France:				
Lyon.....	June 23-29.....		1	
Marseille.....	May 1-July 31.....		52	
Nantes.....	Aug. 3-9.....	1		
Paris.....	May 25-Sept. 20.....	24		
Toulon.....	Aug. 18.....	1		
Germany:				
Berlin.....	Aug. 24-30.....	1		
Kehl.....	June 1-July 31.....	2	1	
Strassburg.....	Aug. 1-31.....	1		
Great Britain:				
Hull.....	Sept. 14-20.....	1		
Liverpool.....	May 25-Sept. 20.....	5		
Manchester.....	July 20-26.....	1		
Greece:				
Patras.....	June 9-Aug. 31.....		9	
India:				
Bombay.....	May 26-Sept. 6.....	68	64	
Karachi.....	May 25-Aug. 16.....	13	4	
Madras.....	May 24-Sept. 13.....	22	8	
Rangoon.....	May 1-June 30.....	45	19	
Indo-China:				
Saigon.....	July 8-14.....	1	1	
Italy:				
Naples.....	Aug. 2-15.....	3		
Rome.....	Jan. 5-11.....	1	1	
Japan:				
Hokkaido.....	Apr. 1-30.....	1		
Kanagawa ken.....	May 1-31.....	1		
Kobe.....	June 23-29.....	1		
Nagasaki ken.....	May 1-July 31.....	54	14	
Oita ken.....	May 1-June 30.....	11	4	
Tokyo.....	June 18-July 31.....	11	7	Aug. 18, epidemic.
Yokohama.....	Aug. 19-25.....	1	1	

Total Jan. 1-July 31; cases, 87, deaths, 29.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.

Reports Received from June 28 to Oct. 24, 1913—Continued.

SMALLPOX—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Luxemburg:				
Esch.	May 17-31.	2	.....
Mauritius	Apr. 13-July 5.	1,019	106	
Mexico:				
Acapulco	May 25-Aug. 16.	5	.....
Aguascalientes	June 9-Sept. 21.	28	.....
Chihuahua	June 23-Aug. 2.	9	.....
Guadalajara	June 8-Sept. 13.	71	.....
Hermosillo	June 7-Sept. 13.	126	85	
Manzanillo	July 18.	.....	
Mexico	Apr. 20-Sept. 6.	217	124	
Monterey	June 9-Aug. 31.	7	.....
Panuco	Sept. 12.	30	.....
Puerto Mexico	July 1-31.	3	.....
San Luis Potosi	Apr. 27-Aug. 30.	20	13	
Saltillo	Aug. 1-June 30.	25	.....
Veracruz	June 16-Sept. 13.	10	2	
Tampico	Sept. 16.	1	.....
Newfoundland:				
St. Johns	June 15-Sept. 26.	38	.....
Peru				Sept. 30, epidemic in Ancon, Callao, Chancay, Huaco, and Lima.
Portugal:				
Lisbon	May 25-Sept. 13.	65	.....
Russia:				
Batoum	Apr. 1-May 31.	4	.....
Libau	June 2-July 20.	3	1	
Moscow	May 18-Sept. 26.	86	22	
Odessa	June 8-Aug. 23.	58	15	
Riga	June 22-28.	6	.....
St. Petersburg	May 18-Sept. 27.	26	1	
Siberia:				
Vladivostok	May 7-June 20.	3	.....
Warsaw	Feb. 23-July 12.	54	15	
Samoa:				
Apia				
Servia:				
Belgrade	June 1-Sept. 13.	15	3	May 18, 1 death on transport Michael Jepson, from Hong-kong, and to June 4, 4 cases transferred from this vessel to a lighter 3 miles east.
Siam:				
Bangkok	Mar. 23-Aug. 9.	11	.....
Spain:				
Almeria	June 1-Aug. 31.	6	.....
Barcelona	June 8-Sept. 27.	78	.....
Cadiz	May 1-July 31.	4	.....
Madrid	June 1-Aug. 31.	82	.....
Malaga	Aug. 1-31.	1	.....
Seville	July 1-31.	1	.....
Valencia	June 1-28.	2	.....
Straits Settlements:				
Singapore	May 4-10.	1	1	
Switzerland:				
Cantons—				
Basel	June 1-Sept. 20.	37	.....
Zurich	May 18-24.	1	.....
Turkey in Asia:				
Beirut	May 25-Sept. 20.	66	49	
Damascus	June 1-7.	.....		From Paris.
Mersina	May 25-July 12.	3	.....	Present.
Smyrna	Apr. 26-June 28.	45	.....
Turkey in Europe:				
Constantinople	June 1-Sept. 20.	.....	68	
Saloniki	June 2-Sept. 28.	35	39	
Union of South Africa:				
Johannesburg	May 10-June 7.	23	.....
West Indies:				
Trinidad	Aug. 19.	2	.....	On a. s. Danube and placed in quarantine 5 miles distant.

SANITARY LEGISLATION.

STATE LAWS AND REGULATIONS PERTAINING TO PUBLIC HEALTH.

CALIFORNIA.

Tenement Houses—Construction, Maintenance, and Occupation of. (Chap. 356, Act June 13, 1913.)

SECTION 1. An act to regulate the building and occupancy of tenement houses in incorporated towns, incorporated cities, and cities and counties, and to provide penalties for the violation thereof and repealing an act entitled "An act to regulate the building and occupancy of tenement houses in incorporated towns, incorporated cities, and cities and counties, and to provide penalties for the violation thereof, approved April 16, 1909, statutes of California, of 1909, page 948," and approved April 10, 1911, statutes of California of 1911, page 860, is hereby amended to read as follows:

SECTION 1. This act shall be known as the tenement-house act, and its provisions shall apply to all incorporated towns, incorporated cities, cities, and counties in the State of California. It shall be the duty of the department of health of incorporated towns, incorporated cities, and cities and counties to enforce all the provisions of this act: *Provided, however,* That incorporated towns, incorporated cities, cities, and counties in the State of California shall have and are hereby given authority to designate and charge by ordinance any other department than the department of health with the enforcement of this act or any portion thereof: *Provided,* That the department of health of incorporated towns, incorporated cities, and cities and counties shall always have supervision over and shall enforce the provisions of this act relating to sanitation, ventilation, and health in all tenement buildings not in course of actual construction or alteration, and shall issue the permit hereinafter mentioned, entitled "Permit of occupancy upon completion of construction." In the event that an incorporated town, incorporated city, or city and county shall by municipal ordinance designate another and different department than the department of health to enforce the provisions of this act or any of them which by the provisions of this act may by such ordinance be transferred to the control of another department than the department of health all powers not so transferred shall be and remain in the department of health.

SEC. 2. For the purpose of this act certain words and phrases are defined as follows:

A tenement house is any house or building or portion thereof, of more than one story, which is designed, built, rented, leased, let, or hired out, to be occupied or is occupied as the home or residence of four families or more living independently of each other and doing their cooking upon the premises, or by three families so living and cooking and having a common right in the halls, stairways, yards, water-closets, or some or any of them: *Provided,* That a building of not more than two stories in height, which is designed, built, rented, leased, let, or hired out to be occupied or is occupied as the home or residence of not more than four families living independently of each other and so constructed that each section is arranged to be occupied as the home or residence of a separate family and each section having an entirely

independent and separate entrance and stairway from the street or from an outside vestibule on the level of the first floor of said building and with no room, hall, bathroom, water-closet, kitchen, or other convenience used in common by two or more families occupying said building, shall not come within the definition of a tenement house contained in this act.

An "apartment" in a tenement house is a room or a suite of rooms which is occupied, or is intended or designed to be occupied, as a family domicile.

A "yard" is an open unoccupied space on the same lot with a tenement house, situated in the rear of said tenement house: *Provided*, That in case of a corner lot the yard may be placed in the rear of either frontage.

A "court" is an open unoccupied space, other than a yard, on the same lot with a tenement house. A court not extending to the street or yard is an inner court. A court extending to the street or yard and bounded on three sides by a tenement house on the same lot is an outer court. If it extends to the street, it is a street court. If it extends to the yard, it is a yard court. If it extends from the street to the yard, it is a street-to-yard court. A court bounded on one side and both ends by a tenement house and on the remaining side by a lot line is a "lot-line" court.

A "court" bounded on one side and one end by a tenement house and on the remaining side by lot line and the remaining end open to the street or yard is a lot line outer court.

A "shaft" includes exterior and interior shafts, whether for air, light, elevator, dumb-waiter, or any other purpose. A vent shaft is one used solely to ventilate or light a water-closet compartment or bathroom.

A "public hall" is a hall, corridor, or passageway not within an apartment.

A "private hall" is a hall, passageway, corridor, or vestibule within an apartment.

A "stair hall" includes the stairs, stair landings, and those portions of the public halls through which it is necessary to pass in going between the entrance hall and the roof.

A "basement" is a story partly below the level of the curb, the ceiling of which is not less than 7 feet above the curb level.

A "cellar" is any story partly or wholly below the level of the curb, the ceiling of which is less than 7 feet above the curb level.

A fireproof tenement house is one the walls of which are constructed of brick, stone, iron, or other incombustible material, and in which there are no wooden beams or lintels, and in which the floors, roofs, stair halls, and public halls are built entirely of brick, stone, iron, or other hard, incombustible material, and in which no woodwork or other inflammable material is used in any of the partitions, furlings, or ceilings. But this definition shall not be construed as prohibiting elsewhere than in the stair halls or entrance halls the use of wooden flooring on top of the fireproof floors or the use of wooden sleepers, nor as prohibiting wooden handrails, and hardwood treads.

A "wooden tenement" is a tenement of which the exterior walls or a portion thereof are of wood. Wooden buildings covered with metal, plaster, terra cotta, or veneered with masonry are wooden structures.

For the purpose of this act the greatest horizontal linear dimension of any building shall be its length, and the next greatest horizontal linear dimension its width.

The height of buildings shall be measured from the curb level at the center of the main front of the building to the top of the highest point of the roof beams in case of flat roofs, and for high-pitched roofs the average height of the gable shall be taken as the highest point of the building.

For a building erected upon a street corner, the measurements shall be taken from the curb level opposite the center of either front.

When the ground upon which the walls of a structure are built is above the street level, the average level for the ground adjoining the walls may be taken instead of the curb level for the height of such structure.

SEC. 3. A building not erected for use as a tenement house, if hereafter altered or converted to such use, shall thereupon become subject to all of the provisions of this act affecting tenement houses hereafter erected.

SEC. 4. No tenement house shall at any time be altered so as to be in violation of any provision of this act. If any tenement house or any part thereof be erected, altered, or occupied contrary to law, such tenement house shall be deemed an unlawful structure, and the department of health, or the department charged with the enforcement of this act, may cause such building to be vacated, and such building shall not again be occupied until it or its occupation, as the case may be, has been made to conform with the law.

SEC. 5. No tenement house hereafter erected shall occupy more than 90 per cent of a corner lot or more than 75 per cent of any other lot, except as otherwise provided in this act: *Provided*, That the space occupied by open iron fire escapes erected and constructed according to law shall not be deemed a part of the lot occupied, but that the space occupied by fireproof stairs and by vent shafts 32 square feet or less in area shall be considered as part of the lot occupied. For the purposes of this section the measurements may be taken at the level of the second tier of beams (the second-floor level), except where rooms on the ground floor are to be used for sleeping apartments.

SEC. 6. By corner lot is meant a lot situated at the junction of two streets, or of a street and public alley, or other public thoroughfare or public park, not less than 16 feet in width. Any portion of the width of such lot distant more than 50 feet from such junction shall not be regarded as part of a corner lot, but shall be subject to the provisions of this act respecting other than corner lots. Where, in any corner lot, the two frontages are of unequal length, either street frontage may be taken as the width of the lot. Street frontage alone and not alley frontage shall be considered in determining such lesser frontage.

SEC. 7. The height of no tenement house hereafter erected shall by more than one-half exceed the width of the widest street upon which it stands.

SEC. 8. Behind every tenement house hereafter erected, there shall be a yard extending across the entire width of the lot and at every point open from the ground to the sky, unobstructed, except that open iron fire escapes may project not over 4 feet from the rear line of the house. The depth of said yard, measured from the extreme rear wall of the house toward the rear line of the lot, shall be as provided in the following sections.

SEC. 9. Except upon a corner lot, as provided in section 10, or upon a lot running through from street to street, or street to public alley, or public park as provided in section 11, the depth of the yard behind every tenement house hereafter erected 60 feet in height shall not be less than 12 feet in every part. Said yard shall be increased in depth 2 feet for every additional 12 feet in height of the building or fraction thereof, and may be decreased in depth 1 foot for every 12 feet in height of the building less than 60 feet; but it shall never be less than 10 feet in depth in every part. In the event that two tenement houses or a tenement house and another structure of more than one story in height are constructed or erected upon the same lot, then and in that event the full yard space as set forth in this section shall be provided for each of such buildings. In no case shall two buildings of more than one story in height abut upon the yard of a width as herein provided for a single tenement house. To determine the depth of yard as described in this section, the measurement shall be taken of the rear wall of such tenement house abutting on said yard and from the top of such wall to the level of the floor of the yard at such rear wall.

SEC. 10. The depth of the yard behind every tenement house hereafter erected upon a corner lot shall be not less than 10 feet in every part and at every point open and unobstructed from the level of the second tier of beams (the second floor level): *Provided*, That where any such lot is less than 100 feet in depth the depth of the yard be not less

than 10 per centum of the greatest depth of such lot, but shall never be less than 5 feet in every part, nor less than the minimum width of an outer court on the lot line as prescribed by this act. If rooms on the ground floor are used as sleeping apartments the yard shall be taken from the ground up. When a corner lot is more than 50 feet in width, the yard for that portion in excess of 50 feet shall conform to the provisions of section 9 of this act.

SEC. 11. Whenever a tenement house is hereafter erected upon a lot which runs through from one street to another street or public alley or public park and said lot is not more than 150 feet in depth, one-half of the width of the street or alley upon which the yard abuts may be included in the depth of the yard required by sections 9 and 10, but said one-half not to exceed in width the depth of the yard for such lot provided in sections 9 and 10: *Provided*, That on such lot no tenement house hereafter erected shall occupy more than 90 per cent of a corner lot, or more than 75 per cent of any other lot.

One-half the width of the rear street or public alley or public park immediately behind said lot may be included in the portion of lot that is left uncovered in computing the percentage: *Provided*, That whenever said one-half the width of said rear street or public alley or public park equals or exceeds the depth of yard required in section 10, if the lot be a corner lot, or in section 9, if the lot be not a corner lot, only such portion of such street or public alley or public park may be included in computing the percentage to be left uncovered as will equal the depth of yard required for said lot. When one-half the width of such rear street or public alley or public park is less than the depth of the yard required for such lot by the provisions of sections 9 and 10, it may be included in computing the percentage of the lot to remain uncovered.

If a lot is surrounded upon its four sides by streets or streets and public alleys 20 feet or more wide or public parks over 24 feet wide, the provisions relating to yards in sections 8, 9, 10, and 11 need not be complied with: *Provided*, That the tenement house to be constructed on such lot does not occupy more than 75 per cent of the lot and contains an outer court at least 80 feet deep and of a width twice as great as the depth prescribed for yards in section 9 and open to one of the surrounding streets, public alleys, or public parks: *Provided*, That said outer court shall not be required to be of a depth which shall leave less than 50 feet between the rear line of said court and the line of said lot immediately behind said court.

SEC. 12. No court or vent shaft of a tenement house hereafter erected shall be covered by a roof or skylight, but every such vent shaft or court shall be at every point open from at least 2 feet above the floor of the lowest apartment abutting upon such vent shaft or court to the sky, unobstructed, except that open iron fire escapes, as required by law, or by ordinances or regulations of incorporated towns, incorporated cities or cities and counties, may project into the court, but not more than 4 feet from the wall of the house. All courts in tenement houses hereafter erected shall conform to the requirements of the following sections. Except that recesses may be built on the street or yard or a court, provided the depth of same is no greater than the width and that their area be not counted in computing the area of the court.

SEC. 13. The outer courts of all tenement houses hereafter erected shall have not less than the following minimum widths nor more than the following maximum lengths:

Building.	Least width.	Maximum length.
2 stories.....	4 feet.....	16 feet.
3 stories.....	4 feet 6 inches.....	25 feet.
4 stories.....	5 feet 6 inches.....	30 feet.
5 stories.....	6 feet.....	35 feet.
6 stories.....	8 feet.....	35 feet.
7 stories.....	10 feet.....	40 feet.
8 stories or more.....	12 feet.....	40 feet.

The length of outer courts shall not be more than the maximum lengths given in the above table unless 6 inches be added to the minimum widths for each additional 5 feet or fraction thereof in length. The lot line outer courts and street to yard courts shall have the same minimum width as outer courts, but are not governed by the provision in this section regarding maximum lengths.

SEC. 14. The inner courts of all tenement houses hereafter erected shall have areas and minimum widths in all parts, not less than the widths and areas as follows:

Building.	Area in square feet.	Least width.
2 stories.....	75.....	6 feet.
3 stories.....	120.....	7 feet.
4 stories.....	160.....	8 feet.
5 stories.....	250.....	12 feet.
6 stories.....	400.....	16 feet.
7 stories.....	625.....	20 feet.
8 stories or more.....	840.....	24 feet.

Provided, That when only the windows of kitchens containing not more than 75 square feet of floor area or of bathrooms or toilets open or are designed to open upon an inner court and said court is entirely open and free from obstruction from the bottom thereof to the sky, said court shall have areas and minimum widths in all parts not less than the areas and widths specified in the following table:

Building.	Area in square feet.	Least width.
2 stories.....	75.....	6 feet 0 inches.
3 stories.....	84.....	7 feet 0 inches.
4 stories.....	112.....	8 feet 0 inches.
5 stories.....	144.....	12 feet 0 inches.
6 stories.....	240.....	16 feet 0 inches.
7 stories.....	360.....	20 feet 0 inches.
8 stories or more.....	400.....	20 feet 0 inches.

SEC. 15. Lot line courts in tenement houses hereafter erected shall have areas and minimum widths in all parts not less than those specified in the following table:

Building.	Area in square feet.	Least width.
2 stories.....	50.....	4 feet 0 inches.
3 stories.....	72.....	6 feet 0 inches.
4 stories.....	105.....	7 feet 0 inches.
5 stories.....	180.....	9 feet 0 inches.
6 stories.....	300.....	12 feet 0 inches.
7 stories.....	490.....	14 feet 0 inches.
8 stories or more.....	595.....	17 feet 0 inches.

Provided, That when only the windows of kitchens containing not more than 75 square feet of floor area or of bath rooms or toilets open or are designed to open upon a lot line court, and said court is entirely open and free from obstruction from the bottom thereof to the sky, said court shall have areas and minimum widths in all parts not less than the areas and widths specified in the following table:

Building.	Area in square feet.	Least width.
2 stories.....	50.....	4 feet 0 inches.
3 stories.....	50.....	4 feet 0 inches.
4 stories.....	60.....	6 feet 0 inches.
5 stories.....	108.....	9 feet 0 inches.
6 stories.....	144.....	12 feet 0 inches.
7 stories.....	168.....	14 feet 0 inches.
8 stories or more.....	225.....	15 feet 0 inches.

SEC. 16. Every inner court, including lot-line courts, shall be provided with one or more horizontal air intakes at the bottom. Such intakes shall always communicate directly with the street or yard and shall consist of an unobstructed passageway, not less than 3 feet wide and 6 feet 6 inches high, which shall be left open, or if not open there shall always be provided in said passageway open grilles or transoms, one at each end, of a size not less than 10 square feet each, and such open grilles or transoms shall

never be covered with glass or in any other way. In case the court does not go down below the second floor level, the intakes shall consist of unobstructed open ducts having an open interior area of not less than 16 square feet at any point, and covered at each end with a wire screen of not less than 1-inch mesh. Such duct shall be so arranged as to be easily cleaned out. These ducts or intakes must in any case be either of fireproof construction or lined with No. 26 galvanized iron on inside.

SEC. 17. No existing tenement house shall (unless the rear of the lot upon which it stands abuts upon a public alley at least 10 feet wide) hereafter be enlarged or its lot be diminished so that there will not be a yard immediately behind said tenement house building of the size required by this act for tenement house buildings hereafter constructed. Where a tenement house, now or hereafter erected, stands upon a lot, other than a corner lot, no other building shall hereafter be placed upon the front or rear of that lot, unless the minimum distance between such buildings shall be at least 10 feet, if neither building exceeds the height of one story; or 12 feet if either building exceeds the height of one story, but not the height of two stories, and so on, 2 additional feet to be added to such minimum distance of 10 feet for every story more than one in the height of the highest building on such lot. Every rear tenement hereafter erected, or every tenement that hereafter becomes a rear tenement by the erection of a building or buildings on the front of the same lot, shall have direct access to a street, or to a public alley at least 16 feet wide, by a passageway not less than 5 feet wide by 7 feet high.

SEC. 18. In every tenement house hereafter erected every room, except water-closet compartments and bathrooms shall have a window or windows of the area required by section 19 of this act, opening directly upon the street or upon a yard or a court of the dimensions specified in sections 8 to 16 of this act, and such windows shall be located so as to properly light all portions of such rooms.

SEC. 19. In every tenement house hereafter erected the total window area of each room within each apartment, except water-closet compartments and bathrooms, shall be at least one-eighth of the superficial area of the room, except in the cellar or basement, where it shall be one-sixth, and the upper half of all windows shall be made so as to open the full width. The total window area of any such room shall never be less than 12 square feet, measured to outside of sash.

SEC. 20. In every tenement house hereafter erected all rooms, except water-closet compartments and bathrooms, shall be of the following dimensions: In each apartment there shall be at least one room containing not less than 120 square feet of floor area, and each other room shall contain at least 90 square feet of floor area. Each room shall be in every part not less than 9 feet from the finish floor to the finished ceiling: *Provided*, That an attic room need be but 9 feet high in but half its area. Except that small closets, and water-closet compartments, and bathrooms may be not less than 7 feet 6 inches in height, and except that kitchens or pantries may be less than 90 square feet of area: *Provided*, That same are not occupied or intended or designed to be occupied as bedrooms.

SEC. 21. In every tenement house hereafter erected an alcove in any room shall be separately lighted and ventilated and must conform to all the requirements of other rooms and shall not be less than 90 square feet in area. No part of any room in a tenement house hereafter erected shall be inclosed or subdivided at any time, wholly or in part, by a curtain or portiere, fixed or movable partition, or other contrivance or device unless such part of the room so inclosed or subdivided shall contain a separate window, as herein required, and shall have a floor area of not less than 90 square feet: *Provided, however*, That closets or alcoves of not more than 25 square feet floor area do not come within the provisions of this section: *Provided, further*, That it shall be unlawful to do any cooking or prepare any food in closets or alcoves unless they conform to all the provisions of sections 18 and 19 of this act relative to windows.

SEC. 22. In every tenement house which is hereafter erected, which is occupied or arranged to be occupied by more than two families on any floor, or which exceeds four stories and cellar in height, every public hall or stair hall shall have at least one window at each floor opening directly upon the street or upon a yard or court, except as otherwise provided in this section. Any part of a hall divided off from any other part of said hall by a door or doors shall be deemed a separate hall within the meaning of this section, and if no window from such hall opens directly upon a street or upon a yard or court, there shall be a skylight over each such public hall with louvers and at least 20 square feet of glass area over buildings two stories in height. The area of glass in such skylight shall be increased at a ratio of 6 square feet for each additional story in height of the building and a stair well be provided. The clear open area of such stair well at each floor to be equal to one-third of the area of the glass in such skylight, and all doors leading from such public halls shall be provided with translucent glass panel of an area of not less than 5 square feet for each door and also with fixed transom of translucent glass over each door: *Provided*, That in a stair hall that does not have a window opening directly upon a street or upon a yard or court in lieu of such window a skylight with louvers and at least 20 square feet of glass area shall be constructed in the roof over such stairway.

SEC. 23. In every tenement house hereafter erected one at least of the windows provided to light each public hall or part thereof shall have an area of at least 12 square feet measured to outside of sash.

SEC. 24. In every tenement house hereafter erected the windows required by law on each floor to light or ventilate stair halls shall be at least 15 square feet of area measured to outside of sash. Sash doors in entrance halls and public halls shall be deemed the equivalent of a window for lighting purposes: *Provided*, That such doors contain the amount of glazed surface prescribed for windows.

SEC. 25. Every vent shaft hereafter constructed in a tenement house shall be at least 16 square feet in area, and the least dimension of such vent shaft shall be at least 4 feet; and if such vent shaft is above 50 feet in height measured from the bottom to the top of said shaft, such vent shaft shall throughout its entire height be increased in area 3 square feet for each addition of 12 feet or fraction thereof above 50 feet. Every such vent shaft shall be constructed of fireproof materials or shall be covered on the outside (weather side) with metal and on the inside (room side) with metal lath and plaster, excepting that portion of such vent shaft extending from the ceiling of the topmost story of the building may be covered with metal on both sides in lieu of metal lath and plaster. Every such vent shaft shall be provided with an air intake or duct at the bottom, communicating with the street or yard, or a court; such air intake shall be 3 square feet in total area; such air intake may be divided into not more than three separate ducts running between the joists or otherwise, and shall in all cases be placed as nearly horizontal as possible. Such ducts shall be constructed of fireproof material and shall enter the shaft at or near the bottom thereof, and shall be provided with a wire screen of not more than 1 inch mesh at each end. Plumbing, gas, steam, or other similar pipes may be placed in a vent shaft.

SEC. 26. In every apartment of four or more rooms in a tenement house hereafter erected, access to every living room and bedroom and to at least one water-closet compartment shall be had without passing through any bedroom.

SEC. 27. In no tenement house hereafter erected shall any room in the cellar be constructed, altered, converted or occupied for living purposes; and no room in the basement of a tenement house shall be constructed, altered, converted, or occupied for living purposes, unless all of the following conditions of this act be complied with, and at least two-thirds of the basement shall be above grade for building: *Provided*, In each case of each such room the ceiling shall be at least 7 feet above the adjoining street grades and actual ground levels.

(1) Such rooms shall be at least 9 feet in every part from the floor to the ceiling.

(2) There shall be appurtenant to such room or apartment a water-closet conforming to the regulations and ordinances relating to water-closets of the incorporated town, incorporated city, or city and county in which the tenement house is or is to be built.

SEC. 28. If the basement of any tenement house hereafter erected is used or designed to be used for living purposes, it shall have all walls below the ground level and all cellar or lower floors dampproofed and waterproofed. When necessary to make such floors and walls dampproof and waterproof, the dampproofing and waterproofing shall run through the walls as high as the ground level and continue throughout the floor. All cellars and basements in such tenement houses shall be properly lighted and ventilated to the satisfaction of the department charged with the enforcement of this act.

SEC. 29. In every tenement house hereafter erected the bottom of all shafts, courts, areas, and yards which extend to the basement for light or ventilation of living rooms shall not be more than 2 feet above the floor of the lowest apartment abutting on such court, shaft, area, or yard. In every tenement house all shafts, courts, areas, and yards shall be properly graded and drained and connected with the street or sewer so that all water may pass freely through into it, and when required by the department charged with the enforcement of this act shall be properly concreted.

SEC. 30. In every tenement house hereafter erected there shall be in each apartment a proper sink with running water.

SEC. 31. In every tenement house hereafter erected there shall be a separate water-closet in a separate compartment within each apartment, and one shower bath or bathtub in a separate compartment shall be provided on each floor for every 10 rooms or fraction thereof and arranged so that one bathtub or shower is accessible to each apartment, provided that where there are apartments consisting of but one or two rooms there may be one water-closet compartment for every two such apartments accessible from each such apartment through the public hall, and not more than 20 feet distant from an entrance of each such apartment. Each compartment shall not be less than 2 feet 4 inches wide and shall be inclosed with plastered partitions which shall extend to the ceiling. Every such water-closet compartment shall have a window or windows of at least 6 square feet total area opening directly upon a vent shaft, court, street, or yard. However, a bathtub or shower may be placed in a separate water-closet compartment where neither bathtub or shower or water-closet are to be used by more than one apartment. Every water-closet compartment shall be provided with proper means for lighting same by night. The floor of every such water-closet compartment shall be made waterproof with asphalt, tile, cement, or some other nonabsorbent waterproof material, which shall be satisfactory to the department charged with the enforcement of this act.

SEC. 32. No wooden tenement house shall hereafter be erected which shall contain more than 150 rooms, exclusive of bathrooms.

SEC. 33. No wooden tenement house exceeding three stories in height, exclusive of cellar, shall hereafter be erected. However, the building may step up or down to follow the grade: *Provided*, That no part of the said building is over three stories in height: *Provided, however*, That a wooden tenement containing a basement or a full first story the floor of which is not below the level of the curb may, where such basement or story is not used or designed to be used for living purposes, be constructed with not more than three stories of living apartments above such basement or such first story: *And provided, further*, That when three stories of living apartments are constructed or designed to be constructed or occupied above such first story or basement of a wooden tenement such first story or basement shall not be of such height as to have more than 14 feet nor less than 9 feet between the finished floor and finished ceiling.

Where such wooden tenement contains three stories designed for living purposes no stores shall be placed therein.

Whenever in a wooden tenement three stories of apartments designed for living purposes are constructed above such last-mentioned basement or story, such base-

ment or story may contain reception or amusement rooms, not to exceed five in number, which shall be for the use of the tenants of the building and are not to be used for commercial purposes, and shall not contain apartments used or designed to be used for living purposes.

Every tenement house may contain not to exceed five such reception or amusement rooms for the use of the tenants of the building and not to be used for commercial purposes. Every reception or amusement room shall have a minimum floor area of not less than 150 square feet and a minimum width of not less than 10 feet, and shall have a window or windows therein opening upon a street or public alley, or other public thoroughfare or public park, or court or yard, as follows:

When such room contains not more than 180 square feet or floor area, the window area, if said room is not a basement room, shall be not less than one-eighth the superficial area of said room, and if located in a basement shall be not less than one-sixth the superficial area of such room, and the upper half of the windows shall be made so as to open the full width.

No reception or amusement room containing more than 180 square feet of floor area shall have a lesser window area than that provided for such rooms containing 180 square feet of floor area.

No such reception or amusement room shall be used for lodgings, sleeping apartments, or family domicile.

Whenever such reception or amusement rooms are placed in a wooden tenement building, or in a tenement which is not a wooden tenement, the story or basement in which such rooms are located shall have a minimum height between the finished floor and finished ceiling of not less than 9 feet.

No wooden tenement shall contain more than three stories used or designed to be used for living purposes, and a basement containing living apartments shall be counted as a story in determining the number of stories of a tenement house. Such tenement house may step up or down to follow the grade.

Sec. 34. A nonfireproof tenement house may be built four stories in height: *Provided*, The exterior walls are all of brick or stone or concrete and all other municipal requirements for this class of building are complied with. If in addition to above requirements all joists, girders, studding, furring, and the soffits of stairs be lathed with metal lath and plastered, such tenement houses may be built not to exceed six stories: *Provided*, The height limits imposed by municipal ordinance for all buildings of this particular class be not exceeded. A cellar is not a story within the meaning of this section. However, the building may step up or down to follow the grade, provided that no part of said building exceeds the number of stories provided for in this section.

Sec. 35. Every tenement house hereafter erected exceeding six stories or parts of stories in height (above the curb) shall be a fireproof tenement house. A cellar is not a story within the meaning of this section.

Sec. 36. Every tenement house shall be provided and equipped with standpipes and with metallic fire escapes, combined with suitable metallic balconies, platforms, and railings, as provided for, or which shall be provided for, by the ordinances of the incorporated town, incorporated city, or city and county in which the tenement house is situated. No incumbrance of any kind shall at any time be placed before, upon, or against any stairway, steps, or landings or fire escapes in or upon any tenement house. All fire escapes upon tenement houses shall be kept in good order and repair, and every exposed part thereof shall at all times be protected against rust by durable paint.

Sec. 37. Every tenement house hereafter erected, more than two stories in height, shall have a stairway not less than 3 feet in width leading to an opening on to the roof and provided with a penthouse over such a stairway (such penthouse to be constructed on the inside and ceiling, of the same materials as required in this section for

the walls inclosing stairway, and provided with a door). Such stairway shall be provided with proper handrail and be inclosed with walls of fireproof materials or wood studs lathed on the stair side with metal lath and plaster, or such wood studs may be covered with metal in lieu of metal lath and plaster. Any door opening from such stairway to the roof space shall be covered on the stair side with metal. The soffits of all such stairs shall be covered with metal or metal lath plastered.

SEC. 38. Every tenement house hereafter erected, more than two stories in height, shall have at least one flight of stairs, extending from the entrance floor to the roof and the stairs and public halls therein shall be at least 3 feet wide in the clear and every non-fireproof tenement house containing not more than 50 rooms shall have a secondary flight of stairs running from the top floor down to the second floor and not less than 2 feet 6 inches wide. A fire escape may take the place of this second stairway, provided said fire escape connects directly with a public hallway or is accessible to each apartment.

SEC. 39. Every nonfireproof tenement house hereafter erected containing over 50 rooms, exclusive of bath rooms, above the entrance story, shall also have an additional flight of stairs for every additional 80 rooms or fraction thereof, if said house contains not more than 100 rooms above the entrance story, in lieu of an additional stairway, the stairs, stair halls and entrance halls throughout the entire building shall be at least one-half wider than is specified in sections 38 and 42 of this act. However, where an additional flight of stairs is added in accordance with the provisions of this section, the secondary stairway required in section 38 may be omitted.

SEC. 40. Every fireproof tenement house hereafter erected containing over 120 rooms above the entrance story, exclusive of bathrooms, shall have an additional flight of stairs for every additional 120 rooms or fraction thereof, but if said house contains not more than 180 rooms above the entrance story, exclusive of bathrooms, in lieu of an additional stairway the stairs, stair halls, and entrance halls throughout the entire building may each be at least one-half wider than is specified in sections 38 and 42 of this act, and if such house contains not more than 300 rooms above entrance story, exclusive of bathrooms, in lieu of four stairways there may be but three stairways: *Provided*, That one of such stairways and the stair halls and entrance halls connected therewith are at least one-half wider than is specified in sections 38 and 42 of this act.

SEC. 41. Each flight of stairs mentioned in the last two sections shall have an entrance on the entrance floor from the street or street court, or from an inner court which connects directly with the street. All stairs shall be constructed with a rise of not more than 8 inches, and with treads not less than 9 inches wide exclusive of nosings. Where winders are used all treads at a point 18 inches from the strings on the wall side shall be at least 10 inches wide.

SEC. 42. Every entrance hall in a tenement house hereafter erected shall be at least 3 feet 6 inches in the clear from the entrance up to and including the stair inclosure, and beyond this point 3 feet wide in the clear. In every tenement house hereafter erected access shall be had from the street to the yard either in a direct line or through a court.

SEC. 43. In nonfireproof tenement houses hereafter erected no closet of any kind shall be constructed under any stairway leading from the first story exclusive of the cellar to the upper stories, but such space shall be left entirely open and kept clear and free from incumbrance.

SEC. 44. In every tenement house hereafter erected there shall be an entrance to the cellar or other lowest story from the outside of said building.

SEC. 45. No tenement house shall be increased in height or its lot decreased so that its yard shall be diminished to less than is required by sections 8 to 11, inclusive, of this act, or so that a greater percentage of the lot shall be occupied by buildings or structures than provided for in section 5 of this act. For the purpose of this section

the measurements for computing the percentage of lot to be occupied may be taken at the level of the second tier of beams, the second floor level, except in tenement houses where rooms on the ground floor are to be occupied as sleeping apartments: *Provided*, That the space occupied by open iron fire escapes and by chimneys or flues located in yards and attached to the house, which do not exceed 5 square feet in area and do not obstruct the light or ventilation, shall not be deemed part of the lot occupied.

SEC. 46. No tenement house shall be increased in height so that said building shall exceed in height by more than one-half the width of the widest street on which it stands.

SEC. 47. Any shaft or court used or intended to be used to light or ventilate rooms intended to be used for living purposes, and which may hereafter be placed in tenement houses erected prior to the passage of this act, shall not be less in area than 25 square feet or less than 4 feet in width in any part, and such shaft shall under no circumstances be roofed or covered over at the top with a roof or skylight.

SEC. 48. Any additional room or hall that is hereafter constructed or created in a tenement house shall comply in all respects with the provisions of this act applicable to tenement houses to be erected hereafter, except that such rooms may be the same height as the other rooms of the same story of the house.

SEC. 49. No tenement house shall be so altered that any room or public hall or stairs shall have its light or ventilation diminished in any way not approved by the health department or other department designated by municipal ordinance for that purpose.

SEC. 50. No part of any room in any tenement house shall hereafter be inclosed or subdivided wholly or in part by a curtain, portiere, fixed or movable partition, or other contrivance or device unless such part of the room so inclosed or subdivided shall contain a window as required by section 18 of this act, and have a floor area of not less than 90 square feet: *Provided*, however, That closets or alcoves of not more than 25 square feet in area do not come within the provisions of this section.

SEC. 51. Every new water-closet hereafter placed in a tenement house, except one provided to replace a defective or antiquated fixture in the same location, shall comply with the provisions of section 31 of this act relative to water-closets in tenement houses hereafter erected.

SEC. 52. No existing wooden tenement house shall hereafter be increased in size so as to contain more than 150 rooms, exclusive of bathrooms.

SEC. 53. No wooden tenement house shall be increased in height so as to exceed three stories, exclusive of the cellar. However, the building may step up or down to follow the grade: *Provided*, That no part of said building is over three stories in height.

SEC. 54. A nonfireproof tenement house may hereafter be altered to be four stories in height: *Provided*, That the exterior walls are all of brick or stone or concrete and all other municipal requirements for this class of building are complied with. If in addition to the above requirements all joists, girders, studding, furring, and the soffits of stairs be lathed with metal lath and plastered, such tenement houses may be built not to exceed six stories: *Provided*, That the height limits imposed by municipal ordinances for all buildings of this particular class be not exceeded. A cellar is not a story within the meaning of this section. However, the building may step up or down to follow the grade: *Provided*, That no part of the said building exceeds the number of stories provided for in this section.

SEC. 55. No tenement house shall hereafter be altered to exceed six stories or parts of stories in height unless it is a fireproof tenement house. A cellar is not a story within the meaning of this section.

SEC. 56. No stairs leading to the roof in any tenement house shall be removed or replaced with a ladder unless a new stairway is built in conformity with requirements of section 37.

SEC. 57. No public hall or stairs in a tenement house shall be reduced in width so as to be less than the minimum width prescribed in sections 38 and 42 of this act.

SEC. 58. In every tenement house containing 15 rooms or more, where the public halls and stairs are not, in the opinion of the health department or other department designated by municipal ordinance for that purpose, sufficiently lighted, the owner of such house shall keep a proper light burning in the hallway near the stairs upon each floor from sunrise to sunset.

SEC. 59. In every tenement house containing 15 rooms or more, a proper light shall be kept burning by the owner in the public hallways, near the stairs, upon the entrance floor, and upon the second floor above the entrance floor of said house, every night from sunset to sunrise throughout the year, and upon all other floors of the said house from sunset until 10 o'clock in the evening.

SEC. 60. No water-closets shall be maintained in the cellar of any tenement house without a special permit in writing from the health department, or other department designated by municipal ordinance for that purpose which shall have power to make rules and regulations governing the maintenance of such closets.

SEC. 61. In every tenement house existing prior to the passage of this act, at least one water-closet shall be provided for every two families: *Provided, however,* That the health department or other department designated by municipal ordinance for that purpose may exempt any tenement house existing prior to the passage of this act from the provision in this section above contained, whenever, in the judgment of said department, it would not be detrimental to the health of the occupants of said tenement house and the written permit be signed by an officer of said department authorized so to do and filed in said department as a part of its records: *Provided, further,* That the above exemption shall not apply to extensions of or additions to tenement houses existing prior to the passage of this act.

SEC. 62. In no now existing tenement house shall any room in the cellar be constructed, altered, converted, or occupied for living purposes; and no room in the basement of a tenement house shall be constructed, altered, or converted to be occupied for living purposes, unless all of the following conditions of this act be complied with, and at least two-thirds of the basement shall be above grade for building: *Provided,* In each case it shall be at least 7 feet above the street grade and actual ground level. Such rooms shall be at least 8 feet 6 inches high in all now existing tenement houses in every part, from the floor to the ceiling. There shall be appurtenant to such room or apartment a water-closet conforming to the regulations and ordinances relating to water-closets, of the incorporated town, incorporated city, or city and county in which the tenement house is or is to be built. All walls shall be damp proofed, and there shall be an open area way extending to bottom of basement floor and running clear across outside of at least one room in each apartment.

SEC. 63. In all tenement houses the floor and wall surfaces beneath and around all water-closets and sinks shall be maintained in good order and repair, and if of wood shall be kept well painted with light colored paint.

SEC. 64. The owner of every tenement house shall see that such house and all parts thereof shall be kept in good order and the roof shall be kept so as not to leak, and all rain water shall be so drained and conveyed therefrom as to prevent its dripping on the ground or causing dampness in the walls, ceilings, yards, or areas.

SEC. 65. The owner of every tenement house shall see that such house and every part thereof shall be kept clean and free from any accumulation of dirt, filth, or garbage or other matter in or on the same, or in the yards, courts, passages, areas, or alleys connected or belonging to the same.

SEC. 66. The walls of all yard courts, inner courts, and shafts, unless built of light colored brick or stone, shall be thoroughly whitewashed by the owner, lessee, or tenant, or shall be painted a light color and so maintained.

SEC. 67. In all tenement houses, the health department or other department designated by municipal ordinance for that purpose may require the walls and ceilings of every room that does not open directly on the street to be kalsomined white or painted with white paint when necessary to improve the lighting of such rooms, and may require this to be renewed as often as may be necessary.

SEC. 68. No wall paper shall be placed upon a wall or ceiling of any tenement house unless all wall paper shall be first removed therefrom and said wall and ceiling thoroughly cleaned.

SEC. 69. The owner of every tenement house shall provide for said building proper and suitable conveniences or receptacles for ashes, rubbish, garbage, refuse, and other matter.

SEC. 70. No horse, cow, calf, swine, goat, rabbit, or sheep, chickens, or poultry shall be kept in a tenement house, or within 20 feet thereof on the same lot, and no tenement house or the lot or premises thereof, shall be used for a lodging house or stable, or for the storage or handling of rags.

SEC. 71. Whenever there shall be more than eight families living in any tenement house, in which the owner does not reside, there shall be a janitor, housekeeper, or some responsible person who shall reside in said house and have charge of same, as the department charged with the enforcement of this act shall so require.

SEC. 72. No room in any tenement house shall be so overcrowded that there shall be afforded less than 400 cubic feet of air to each person occupying such room.

SEC. 73. No tenement house or any part thereof, nor of the lot upon which it is situated, shall be used as a place of storage, keeping or handling of any combustible article except under such conditions as may be prescribed by the department of any incorporated town, incorporated city, or city and county to which this act applies, which are now charged with the enforcement of laws, ordinances, or regulations relating to the erection of buildings, the protection of public health, and police and fire protection. No tenement house nor any part thereof, nor of the lot upon which it is situated, shall be used as a place of storage, keeping or handling of any article dangerous or detrimental to life or health, nor for the storage, keeping, or handling of feed, hay, straw, excelsior, cotton, paper stock, feathers, or rags.

SEC. 74. No bakery, and no place of business in which fat is boiled, shall be maintained in any tenement house which is not fireproof throughout, unless the ceilings and side walls of said bakery or place where fat, boiling is done are made safe by fireproof materials around the same, and there shall be no openings either by door or window, dumb-waiter shafts or otherwise, between said bakery or said place where fat is boiled in any tenement house and the other parts of said building.

SEC. 75. All transoms and windows opening into halls from any portion of a tenement house where paint, oil, spirituous liquors, or drugs are stored for the purpose of sale or otherwise, shall be glazed with wire glass or they shall be removed and closed up as solidly as the rest of the wall. And all doors leading into such hall from such portion shall be made fireproof.

SEC. 76. All scuttles and penthouses and all stairs or ladders leading thereto shall be easily accessible to all tenants of the building, and kept free from encumbrance and ready for use at all times. No scuttle and no penthouse door shall at any time be locked with a key but either may be fastened on the inside by movable bolts or hooks.

SEC. 77. No room in a tenement house erected prior to the passage of this act shall hereafter be occupied for sleeping purposes unless it shall have a window opening directly upon the street, or upon a yard not less than 10 feet deep, or above the roof of an adjoining building, or upon a court of not less than 20 square feet in area, open

to the sky without roof or skylight, unless such room is located on the top floor and is adequately lighted and ventilated by a skylight opening directly to the outer air, or is on the top floor and has a window opening upon a court not less than 10 square feet in area and not more than 3 feet below the top of the walls of said court. Every room in such tenement house, regardless of the use thereof, shall comply with the above provisions; or, if the room be not used for sleeping purposes, shall be provided with a sash window opening into an adjoining room in the same apartment, which latter room either opens directly on the street or on a yard of the above dimensions. Said sash window shall be a vertically sliding pulley, hung sash not less than 3 feet by 5 feet between stop beads; both halves shall be made so as to readily open, and shall be glazed with translucent glass, and so far as possible it shall be in line with windows in outer rooms opening on the street or yard as to afford a maximum of light and ventilation.

¶ SEC. 78. In all now existing tenement houses whenever a public hall on any floor is not light enough in the daytime to permit a person to read in every part thereof without the aid of artificial light the wooden panels in the doors located at the ends of the public halls and opening into rooms shall be removed and ground glass or other translucent glass or wire glass panels of an aggregate area of not less than 4 square feet for each door shall be substituted; or said public hall may be lighted by a window at the end thereof with the plane of the window at right angles to the axis of the said hall, said window opening upon the street or upon a yard or court.

SEC. 79. In all now existing tenement houses the woodwork inclosing all water-closets shall be removed from the front of said closets and the space underneath the seat shall be left open. The floor and other surface beneath and around the closet shall be maintained in good order and repair, and if of wood shall be kept well painted with light-colored paint.

SEC. 80. In all now existing tenement houses the woodwork inclosing sinks or lavatories located in rooms, located in public halls or stairs, shall be removed and the space underneath sink or lavatory shall be left open. The floors and wall surfaces beneath and around the sink or lavatory shall be maintained in good order and repair, and if of wood shall be well painted.

SEC. 81. In all now existing tenement houses there shall be at the bottom of every shaft or inner court a door or window giving sufficient access to each shaft or court to enable it to be properly cleaned out.

SEC. 82. In all tenement houses erected prior to the passage of this act, where a connection with a sewer is possible, all school sinks, privy vaults, or other similar receptacles used to receive fecal matter, urine, or sewage shall be completely removed and the place where they are located properly disinfected under the direction of the health department or other department designated by municipal ordinance for that purpose. Such appliances shall be replaced by individual water-closets of durable nonabsorbent material, properly sewer connected, and with individual traps and properly connected flush tanks providing an ample flush of water to thoroughly cleanse the bowl. Each water-closet shall be located in a compartment completely separated from every other water-closet, and such compartment shall contain a window of not less than 3 square feet in area opening directly to the street or yard, or on a court of the minimum size prescribed in section 25 of this act. The floors of the water-closet compartments shall be water proof, as provided in section 31 of this act. Where water-closets are placed in the yard to replace school sinks or privy vaults, the structure containing the water-closets shall not exceed 10 feet in height; such structure shall be provided with a ventilating skylight in the roof of adequate size, and each water-closet shall be located in a compartment separated completely from every other water-closet. Proper and adequate means for lighting the structure at night shall be provided. There shall be provided at least one water-closet for every two families in every tenement house existing on the day this act takes effect, subject to the

provisions of section 61 of this act. Except as in this section otherwise provided such water-closets and all plumbing in connection therewith shall be in accordance with the ordinances and regulations in relation to plumbing and drainage.

SEC. 83. Every tenement house of more than two stories in height erected prior to the passage of this act shall have in the roof a penthouse or a scuttle which shall not be less than 21 by 28 inches and located in the ceiling of a public hall. All scuttles shall be covered on the outside with metal and shall be provided with stairs or stationary ladders leading thereto and easily accessible to all tenants of the building. No scuttle and no bulkhead door shall at any time be locked with a key, but either may be fastened on the inside by movable bolts or locks. All key locks on scuttles and on penthouse doors shall be removed.

SEC. 84. Before the construction or alteration of a tenement house or the alteration or conversion of a building for the use of a tenement house is commenced and before the construction or alteration of any building or structure on the same lot with a tenement house the owner or his agent or architect shall submit to the health department or other department designated for that purpose by ordinance of the municipality in which said work is contemplated a detailed statement, in writing, verified by the affidavit of the person making the same, of the construction of such tenement house or building or of such alterations proposed to be made to the said tenement house or building upon blanks or forms to be furnished by such department, also a full and complete copy of the plans and specifications of the tenement house or building proposed to be erected or altered, as the case may be, together with a plan of the lot on which such building is proposed to be erected or altered or such portion of the lot as will be set aside exclusively for and under the control of the said tenement-house building. Such statement shall give in full the name and residence by street and number of the owner or owners of such tenement house or building, also the name and business address by street and number of the architect and the contractor. Said affidavit shall allege that said plans, specifications, and lot plan are true and contain a correct description of such tenement house, building, lot, structure, and proposed work. The statements and affidavits herein provided for may be made by the owner or his agent or architect. No person, however, shall be recognized as the agent of the owner unless he shall file with said department an affidavit alleging that he is authorized by the said owner to act for him and to sign the required affidavit. Any false swearing in a material point in such affidavit shall be deemed perjury. Such plans, specifications, and statements shall be filed in said department and shall be deemed public records. Said department charged with the enforcement of this act shall cause all such plans and specifications to be examined, and if such plans and specifications conform to the provisions of this act shall issue a written certificate to that effect to the person submitting the same. Such certificate shall state that "Tenement-house act has been complied with." Said department may from time to time approve changes in any plans or specifications previously approved by it: *Provided*, Plans and specifications when so changed shall be in conformity with the provisions of this act.

Said department shall have power to revoke or cancel any permit or approval that has been previously issued in case of any failure or neglect to comply with any of the provisions of this act or in case any false statement or misrepresentation is made in any of the said plans, specifications, or statements submitted or filed for such permit or approval. The construction, alteration, or conversion of such tenement house, building, or structure, or any part thereof, shall not be commenced until the filing of such specifications, plans, and statements, and the approval thereof, as above provided. The construction, alteration, or conversion of such house, building, or structure shall be in accordance with such approved specifications and plans. When the original plans are filed a copy shall be presented to the department with which the plans are filed and when the permit to construct or alter is issued said copy shall

be certified thereon by said department as a true copy of said plans and delivered to the person applying for said permit and shall be kept upon the premises upon which the tenement house or building is to be constructed or altered from the commencement of the work thereon to the final completion of the construction or alteration and be subject to inspection at all times by all proper authorities.

A copy of all changes or alterations in the original plans duly authorized shall also be kept upon the premises or said changes or alterations shall be noted upon the original copy so issued and certified by the department with which the original plans were filed. The department charged with the enforcement of this act may, at its discretion, issue a permit in case of nominal alterations and repairs, when application is made therefor in writing by the owner, his agent, or architect, when the making of said nominal alterations and repairs do not affect any structural feature, light, or sanitation of a tenement-house building, without requiring the filing of plans, specifications, or lot plan. Any permit or approval which may be issued by said department, but under which no work has been done within 90 days from the date of issuance of such permit or approval or where work has been suspended for a period of 90 days shall expire by limitation, and a new permit shall be obtained before the work may be prosecuted.

SEC. 85. Upon the completion of the construction or alteration of a tenement house or alteration of a building into a tenement house and the making of a written application therefor by the owner, his agent, architect, or contractor to the health department or other department designated by municipal ordinance to enforce the provisions of this act regarding actual construction or alteration of a tenement house or building, said department, if said building at the date of such application is entitled thereto, shall, within 10 days from the date of application, issue a certificate that the tenement house or building or alteration thereof is completed in conformity with the tenement-house act, which certificate shall be entitled "Certificate of final completion," and upon presentation of said certificate to the department of health of the incorporated town, incorporated city, or city and county in which the building is located and filing the same with such department the department of health shall issue a permit to occupy such tenement house, which last-mentioned permit shall be entitled "Permit of occupancy upon completion of construction." Said certificate and said permit shall each be made in duplicate and one copy of each shall remain on file in the department issuing it. No tenement house shall be occupied in whole or in part for human habitation until the issuance of the said "Certificate of final completion" and of said "Permit of occupancy upon completion of construction."

SEC. 86. If any building hereafter constructed as or altered into a tenement house be occupied in whole or in part for human habitation in violation of the last section, during such unlawful occupancy said premises shall be deemed unfit for human habitation, and the department of health or other department charged with the enforcement of this act may cause them to be vacated accordingly.

SEC. 87. Except as herein otherwise provided, the provisions of this act shall be enforced by the departments of any incorporated town, incorporated city, or city and county to which this act applies, which are charged with the enforcement of laws, ordinances, and regulations relating to the protection of public health and the erection of buildings.

By the term "department of health," used in this act, is meant any department, portion, or part of the government of any incorporated town, incorporated city, or city and county to which this act applies which is charged with the enforcement of laws, ordinances, and regulations relating to the protection of public health.

SEC. 88. The department of health or other department charged with the enforcement of this act in any incorporated town, incorporated city, or city and county to which this act applies and the officers and agents of such departments shall have the right and it shall be its and their duty to enter into tenement houses and build-

ings within the said municipal corporation for the purpose of inspecting such houses and buildings to secure compliance with the provisions of this act and to prevent violations thereof.

SEC. 89. Nothing in this act shall be construed to abrogate or impair the powers of the department of health, the department of public works, or of the courts to enforce any provisions of the charter or building ordinances and regulations of any incorporated town, incorporated city, or city and county not inconsistent with this act or to prevent or punish violations thereof.

The provisions of this act shall be held to be the minimum requirements adopted for the protection, health, and safety of the community. Nothing in this act contained shall be construed as prohibiting the local legislative body of any incorporated town, incorporated city, or city and county from enacting from time to time supplementary ordinances imposing further restrictions. But no ordinance, regulation, or ruling of any municipal authority shall repeal, amend, modify, or dispense with any provision of this act.

SEC. 90. Every person who shall violate or assist in violation of any provision of this act shall be guilty of a misdemeanor, punishable by imprisonment in a county jail not exceeding six months or by a fine not exceeding \$500, or by both, and in addition to the penalty therefor shall be liable for all costs, expense, and disbursements paid or incurred by the department, by any of the officers thereof, or by any agent, employee, or contractor of the same, in the prosecution of such violation.

SEC. 91. Except as herein otherwise specified, the procedure for the prevention of violations of this act, or for the vacation of premises unlawfully occupied, or for other abatement of nuisance in connection with a tenement house, shall be as set forth in charter and ordinances of the municipality in which the procedure is taken. In case any tenement house, building, or structure, or any part thereof, is constructed, altered, converted, or maintained in violation of any provision of this act, or of any order or notice of the departments charged with its enforcement, or in case a nuisance exists in any such tenement house, building, or structure, or upon the lot on which it is situated, said departments may institute any appropriate action or proceeding to prevent such unlawful construction, alteration, conversion, or maintenance, to restrain, correct, or abate such violation or nuisance, to prevent the occupation of said tenement house, building, or structure, or to prevent any illegal act, conduct, or business in or about such tenement house or lot. In any such action or proceeding said departments may, by affidavit setting forth the facts, apply to the superior court, or to any judge thereof, for an order granting the relief for which said action or proceeding is brought, or for an order enjoining all persons from doing or permitting to be done any work in or about such tenement house, building, structure, or lot, or from occupying or using the same for any purpose, until the entry of final judgment or order. In case any notice or order issued by said departments is not complied with, said departments may apply to the superior court, or to any judge thereof, for an order authorizing said departments to execute and carry out the provisions of said notice or order, to remove any violation specified in said order or notice, or to abate any nuisance in or about such tenement house, building, or structure, or the lot upon which it is situated. The court, or any judge thereof, is hereby authorized to make any order specified in this section. In no case shall the said department or any officer thereof or the municipal corporation be liable for costs in any action or proceeding that may be commenced in pursuance of this act.

SEC. 92. Every fine imposed by judgment under section 90 of this act upon a tenement-house owner shall be a lien upon the house in relation to which the fine is imposed from the time of the filing of a certified copy of said judgment in the office of the recorder of the county in which said tenement house is situated, subject only to taxes and assessments and water rates, and to such mortgage and mechanics' liens as may exist thereon.

prior to such filing; and it shall be the duty of the department of health or other department by municipal ordinance designated for that purpose, upon the entry of such judgment, to forthwith file the copy as aforesaid, and such copy upon filing shall be forthwith indexed by the recorder in the index of mechanics' liens.

SEC. 93. In any action or proceeding instituted by the departments charged with the enforcement of this act the plaintiff or petitioner may file in the county recorder's office of the county where the property affected by such action or proceeding is situated a notice of the pendency of such action or proceeding. Said notice may be filed at the time of the commencement of the action or proceeding, or at any time afterwards before final judgment or order, or at any time after the service of any notice or order issued by said department. Such notice shall have the same force and effect as the notice of pendency of action provided for in the Code of Civil Procedure. Each county recorder with whom such notice is filed shall record it, and shall index it in the name of each person specified in a direction subscribed by an officer of the department instituting such action or proceeding. Any such notice may be vacated upon the order of a judge of the court in which such action or proceeding was instituted or is pending. The recorder of the county where such notice is filed is hereby directed to mark such notice and any record or docket thereof as canceled of record upon the presentation and filing a certified copy of such order.

SEC. 94. Every owner of a tenement house and every lessee of the whole house, or other person having control of a tenement house, shall file in the department of health a notice containing his name and address, and also a description of the property, by street and number, and otherwise, as the case may be, in such manner as will enable the departments charged with the enforcement of this act to easily find the same; and also the number of apartments in each house, the number of rooms in each apartment, and the number of families occupying the apartments. In case of a transfer of any tenement house it shall be the duty of the grantee of said tenement house to file in the department of health a notice of such transfer, stating the name of the new owner, within 30 days after such transfer. In case of the devolution of the said property by will it shall be the duty of the executor and the devisee, if more than 21 years of age, and in the case of devolution of such property by inheritance without a will it shall be the duties of the heirs, or in case all the heirs are under age, it shall be the duty of the administrator of the deceased owner of said property to file in said department a notice, stating the death of said owner and the names of those who have succeeded to his interests, within 30 days after the death of the decedent, in case he died intestate, and within 30 days after the probate of his will, if he died testate.

SEC. 95. Every owner, agent, or lessee of a tenement house shall file in the department of health a notice containing the name and address of such agent of such house for the purpose of receiving service of process, and also a description of the property, by street and number or otherwise, as the case may be, in such manner as will enable the department charged with the enforcement of this act to easily find the same. The name of the owner or lessee may be filed as agent for this purpose.

SEC. 96. The names and addresses filed in accordance with sections 94 and 95 shall be indexed by the department of health in such a manner that all of those filed in relation to each tenement house shall be together and readily ascertainable. The department of health shall provide the necessary books and clerical assistance for that purpose, and the expense thereof shall be paid by the municipality. Said indexes shall be public records, open to public inspection during business hours.

SEC. 97. Every notice or order in relation to a tenement house shall be served five days before the time for doing the thing in relation to which it shall have been issued.

SEC. 98. In any action brought by any department charged with the enforcement of this act in relation to a tenement house for injunction, vacation of the premises, or other abatement of nuisance, or to establish a lien thereon, it shall be sufficient service

of summons to serve the same as notices and orders are served under the provisions of the Code of Civil Procedure.

SEC. 99. A tenement house shall be subject to a penalty of \$1,000 if it or any part of it shall be used for the purposes of a house of prostitution or assignation of any description, with the permission of the owner thereof, or his agent, and said penalty shall be a lien upon the house and the lot upon which the house is situated.

SEC. 100. A tenement house shall be deemed to have been used for the purposes specified in the last section with the permission of the owner or lessee thereof, if summary proceedings for the removal of the tenants of said tenement house, or so much thereof as is unlawfully used, shall not have been commenced within five days after notice of such unlawful use, served by a department charged with the enforcement of this act in the manner prescribed by law for the service of notices and orders in relation to tenement houses.

SEC. 101. In a prosecution against an owner or agent of a tenement house under section 316 of the Penal Code, or in an action to establish a lien under section 99 of this act, the general reputation of the premises in the neighborhood shall be competent evidence, but shall not be sufficient to support a judgment without corroborative evidence, and it shall be presumed that their use was with the permission of the owner or lessee: *Provided*, That such presumption may be rebutted by evidence.

SEC. 102. Said action shall be brought against the tenement house as defendant. Said house may be designated in the title of the action by its street and number or in any other method sufficiently precise to secure identification. The property shall be described in the complaint. The plaintiff, except as hereinafter provided, shall be any department charged with the enforcement of this act.

SEC. 103. Said action shall be brought in the superior court in the county or city and county in which the property is situated. At or before the commencement of the action the complaint shall be filed in the office of the clerk of the county or city and county, together with a notice of the pendency of the action, containing the names of the parties, the object of the action, and a brief description of the property affected thereby.

SEC. 104. The judgment in such action, if in favor of the plaintiff, shall establish the penalty sued for as a lien upon said premises, subject only to taxes, assessments, and to such mortgages and mechanics' liens as may exist thereon prior to the filing of the notice of pendency of the action.

SEC. 105. All statutes of the State and ordinances of incorporated towns, incorporated cities, and cities and counties, as far as inconsistent with the provisions of this act, are hereby repealed: *Provided*, That nothing in this act contained shall be construed as repealing or abrogating any present law or ordinance in any incorporated town, incorporated city, or city and county of the State, further restricting the percentage of the lot to be covered by a tenement house, the number of stories or the height of such house, the number of apartments therein, the occupation thereof, the materials to be used in its construction, or increasing the size of yards or courts, the air space to each individual occupying a room, the requirements as to sanitation, ventilation, light, protection against fire.

SEC. 106. Nothing in this act contained shall be construed as abrogating, diminishing, minimizing, or denying the power of any incorporated town, incorporated city, or city and county by ordinance to further restrict the percentage of the lot to be covered by a tenement house within said municipality, the number of stories or the height of such house, the number of apartments therein, the occupation thereof, the materials to be used in its construction, or increasing the size of yards or courts, the air space to each individual occupying a room, the requirements as to sanitation, ventilation, light, protection against fire.

SEC. 107. Except as herein otherwise provided, every tenement house shall be constructed and maintained in conformity with the existing law, but no ordinance, regulation, or ruling of any municipal authority shall repeal, modify, or dispense with any provisions of this act.

SEC. 108. All improvements specifically required by this act upon tenement houses erected prior to its date of passage shall be made within one year from said date, or at such earlier period as may be fixed by the boards of health charged with the enforcement of this act.

SEC. 109. All steam boilers, heating furnaces, or water-heating apparatus using any fuel other than coal gas or natural gas installed in the basement or cellar of any tenement building shall be inclosed in a room with walls of masonry, reenforced concrete, terra cotta, or tile from the basement or cellar floor to the bottom of the first-floor joists and the ceiling of same construction or of not less than three-fourths inch plaster on metal lath.

All windows shall be of wire glass not less than one-quarter of an inch thick, in metal frames and sashes. All doors leading from said room shall be fire doors and either run on tracks or arranged to swing out and to close automatically.

All fire doors shall overlap the wall at least 3 inches at side and top. Sills shall be of metal at least one-quarter of an inch thick on masonry, or of masonry, and have horizontal faces extending under fire doors and outer edges flush with outer surface of fire doors.

Top of sliding door shall conform to incline on the track, which shall be three-quarters inch to the foot. No door shall be hung on wooden frames or in contact with any woodwork.

Doors shall be made of three thicknesses of seven-eighths inch by 6 inch tongued-and-grooved redwood boards, surfaced both sides, the outer thickness to be placed vertical or diagonal and the inner thickness to be horizontal, nailed with clinched nails.

Doors shall be entirely covered with good tin plate ("IC" charcoal, 109 pounds to the box), not over 14 inches by 20 inches in size, laid with locked joints covering nail heads, and all vertical seams shall be double locked. No solder shall be used.

All doors shall have hinges, hangers, latches, and chafing strips of wrought iron bolted to the doors, and shall have steel tracks (when sliding doors) and wrought-iron stops and binders bolted through the wall. Swinging doors shall have wall eyes of wrought-iron built into or bolted through the wall.

Where oil is burned, every doorway shall have a masonry sill rising not less than 6 inches from the floor.

Where oil is burned, the oil shall not be fed to the furnace by a gravity flow.

All tenement houses hereafter constructed of more than two stories in height shall have at least two standard fire escapes, one of which shall be on the front of said tenement house. Tenement houses over two stories in height hereafter constructed located on corner lots shall have at least one standard fire escape, constructed as hereinafter described, placed upon each front of the building upon each frontage upon each street.

The fire-escape balconies of said standard fire escapes shall commence at the level of the second floor, and one such fire-escape balcony shall be placed at the level of each floor above such second floor, and from the topmost balcony shall extend an iron gooseneck ladder over the fire wall to the roof.

SEC. 110. Every person desiring to construct or alter a tenement house shall obtain a permit from the department charged with the enforcement of this act. Every owner or lessee of a tenement house shall obtain at the beginning of each year a license from the health department of the incorporated town, incorporated city, or city and county in which said tenement house is situated.

Drugs—Mislabeled or Misbranded—Hearing before State Board of Health. (Chap. 358, Act June 13, 1913.)

SECTION 1. Section 6 of an act entitled "An act for the prevention of the manufacture, sale, or transportation of adulterated, mislabeled, or misbranded drugs, regulating the traffic in drugs, and providing penalties for violation thereof," approved March 11, 1907, is hereby amended to read as follows:

"Sec. 6. Drugs shall be deemed mislabeled or misbranded under the meaning of this act in either of the following cases:

"First. If it be an imitation of or offered for sale under the name of another article.

"Second. If the contents of the package as originally put up shall have been removed, in whole or in part, and other contents shall have been placed in such package, or if the package as offered for sale at retail or wholesale fail to bear a statement on the label of the per cent of volume of alcohol, or the quantity of any morphine, opium, cocaine, heroin, alpha or beta eucaine, chloroform, cannabis indica, chloral hydrate, acetanilide, or any derivative or preparation of any such substances contained therein, except when prescribed by a licensed physician, licensed dentist, or licensed veterinary surgeon.

"Third. If its package or label shall bear or contain any statement, design, or device regarding the curative or therapeutic effect of such article, or any of the ingredients or substances contained therein, which is false and fraudulent."

Sec. 2. Section 15 of said act is hereby amended to read as follows:

"Sec. 15. When the examination or analysis of the director of the State laboratory shows that any of the provisions of this act have been violated, notice of that fact, together with a copy of the certificate of the findings, shall be furnished to the party or parties from whom the sample was obtained or who executed the guaranty as provided in this act, and a date shall be fixed by the secretary of the board of health at which time said party or parties may be heard before the State board of health or any two members thereof and the secretary. The hearing shall be held at such times and places as may be designated by the State board of health, and at least 15 days' notice thereof shall be first served upon the party complained of. These hearings shall be private and confined to questions of fact. The parties interested therein may appear in person or by attorneys and may propound the interrogatories and submit oral or written evidence to show any fault or error in the findings made by the director of the State laboratory. If the examination or analysis be found correct, or if the party or parties fail to appear at such hearing, after notice duly served as provided herein, the secretary of the State board of health shall forthwith transmit a certificate of the facts so found to the district attorney of the county in which said adulterated, mislabeled, or misbranded drug was found. No publication thereof shall be made until after said hearing is concluded."

Cold-storage Warehouses—License Required—Inspection—Care of Foodstuffs in. (Chap. 360, Act June 13, 1913.)

SECTION 1. The term "cold storage" as used in this act shall be construed to mean a place artificially cooled to a temperature of 40° F. or below, but shall not include such a place in a private home. The term "cold stored" as used in this act shall be construed to mean the keeping of "articles of food," excepting eggs and butter, in "cold storage" for a period exceeding 30 days: *Provided, however,* That when the term "cold stored" is used in connection with eggs and butter it shall mean the keeping of these "articles of food" in "cold storage" for any length of time whatever. The term "articles of food" as used in this act shall be construed to mean and include fresh meat and fresh-meat products (except in process of manufacture), fresh fruit and vegetables, fish, shellfish, game, poultry, eggs, butter, and cheese. The term

"storer" as used in this act shall be construed to mean the person or persons who offer articles of food for cold storage.

SEC. 2. Any person, firm, or corporation desiring to operate a public cold storage or refrigerating warehouse shall make application in writing to the State board of health for that purpose, stating the location of its plant or plants. On receipt of the application the State board of health shall cause an examination to be made into the sanitary condition of said plant or plants and if found to be in a sanitary condition and otherwise properly equipped for the business of cold storage, the State board of health shall cause a license to be issued authorizing the applicant to operate a cold storage or refrigerating warehouse for and during a period of one year. The license shall be issued upon payment by the applicant of a license fee of \$50 to the State board of health. The secretary of the State board of health shall keep a full and correct account of all fees received under the provisions of this act, and shall at least once each month deposit all such fees collected with the State treasurer, and make a detailed report covering same to the State controller, and such moneys shall be credited to the travelling and contingent fund of the State board of health, to be used exclusively for the purposes of this act.

SEC. 3. In the event that any place or places, or any part thereof, covered by a license under the provision of this act shall at any time be deemed by the State board of health to be in an unsanitary condition, it shall be the duty of the State board of health to notify licensee of such condition and upon the failure of the licensee to put said specified place or places, or the specified part thereof, in a sanitary condition within a designated time it shall be the duty of the State board of health to prohibit the use under its license such specified place or places, or part thereof, as it deems in an unsanitary condition until such time as it may be put in a sanitary condition.

SEC. 4. It shall be the duty of any person, firm, or corporation licensed to operate a cold-storage or refrigeration warehouse to keep an accurate record of the receipts and the withdrawals of the articles of food, and the State board of health shall have free access to these records at any time. Every such person, firm, or corporation shall, furthermore, submit a quarterly report to the State board of health setting forth in itemized particulars quantity of food products held in cold storage. Such quarterly reports shall be filed on or before the 25th day of January, April, July, and October of each year, and the reports so rendered shall show the conditions existing on the first day of the month in which the report is filed. The State board of health shall have the authority to require such reports to be made at more frequent intervals than the times herein specified, if in the judgment of the State board of health more frequent reports shall be needed in the interest of a proper enforcement of this act, or for other reasons affecting the public welfare.

SEC. 5. No storer shall place in cold storage any article of food intended for human consumption if diseased, tainted, or deteriorated so as to injure its keeping qualities, or if not slaughtered, handled, and prepared for storage in accordance with the pure-food and sanitary-food laws and such rules and regulations as may be prescribed by the State board of health for the sanitary preparation of food products for cold storage under the authority hereinafter conferred. Any article of food, if intended for use other than human consumption, before being cold stored shall be marked by the owner in accordance with forms prescribed by the State board of health, under authority hereinafter conferred, in such a way as to plainly indicate the fact that such articles are not to be sold for human food.

SEC. 6. It shall be the duty of the State board of health to inspect and supervise all cold-storage or refrigerating warehouses in this State, and to make such inspection of the entry of articles of food therein as the State board of health may deem necessary to secure proper enforcement of this act. The members of the State board of health or its duly authorized agents, inspectors, or employees shall be permitted access to such establishments and all parts thereof at all reasonable times for purposes of inspection

and enforcement of the provisions of this act. The State board of health may also appoint and designate, at such salary or salaries as it may designate, such person or persons as it deems qualified to make the inspections herein required.

SEC. 7. All articles of food when deposited in cold storage shall be marked plainly on or in connection with the containers in which they are packed on the individual article with the date of receipt, and when removed from cold storage shall be marked with the date of withdrawal, in accordance with such forms as may be prescribed by the State board of health under the authority hereinafter conferred.

SEC. 8. No person, firm, or corporation as owners, or having control, shall keep in cold storage any article of food for a longer period than 12 calendar months, except with the consent of the State board of health, as hereinafter provided. The State board of health shall, upon application, grant permission to extend the period of storage beyond 12 months for a particular consignment of goods if the goods in question are found, upon examination, to be in proper condition for further storage at the end of 12 months. The length of time for which further storage is allowed shall be specified in the order granting the permission. A report on each case in which such extension of storage may be permitted, including information relating to the reason for the action of the State board of health, the kind and the amount of goods for which the storage period was extended, and the length of time for which the continuance was granted, shall be included in the annual report of the State board of health.

SEC. 9. It shall be unlawful to sell, or to offer or expose for sale, uncooked articles of food which have been cold stored without notifying persons purchasing, or intending to purchase, the same that they have been kept in cold storage by the display, in a conspicuous place and upon the articles of food, of a sign marked "These are cold stored goods," in type at least 2 inches high; and it shall be unlawful to represent or advertise as fresh goods articles of food which have been placed in cold storage.

SEC. 10. It shall be unlawful to return to cold storage any article of food that has once been released from such storage and placed on the market for sale to consumers, but nothing in this section shall be construed to prevent the transfer of goods from one cold storage or refrigerating warehouse to another: *Provided*, That such transfer is not made for the purpose of evading any provision of this act.

SEC. 11. The State board of health may make rules and regulations to secure a proper enforcement of the provisions of this act, including rules and regulations with respect to the sanitary preparations of articles of food for cold storage, the use of marks, tags, or labels, and the display of signs, and the violation of such rules shall be punished on conviction, as provided in section 12 of this act.

SEC. 12. Any person, firm, or corporation violating any of the provisions of this act shall, upon conviction, be punished for the first offense by a fine not exceeding \$500, and for the second offense by a fine not exceeding \$1,000, or by imprisonment for not more than 90 days, or by both such fine and imprisonment.

SEC. 13. All acts and parts of acts in conflict herewith are hereby repealed.