PUBLIC HEALTH REPORTS

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ESTABLISHMENTS LICENSED FOR THE PROPAGATION AND SALE OF VIRUSES, SERUMS, TOXINS, AND ANALOGOUS PRODUCTS.

The following table contains a list of the establishments holding, on July 1, 1912, licenses issued by the Treasury Department in accordance with the act of Congress approved July 1, 1902, entitled "An act to regulate the sale of viruses, serums, toxins, and analogous products in the District of Columbia, to regulate interstate traffic in said articles, and for other purposes."

The number of the license of each firm is also given, together with the names of the several products for which licenses have been granted.

No. of license.	Establishments.	Products.
1	Parke, Davis & Co., Detroit, Mich.....	Diphtheria antitoxin, antigonococcic serum, antistreptococcic serum, antitetanic serum, antitubercle serum, tuberculins, bacterial vaccines, erysipelas and prodigiosus toxins (Coley), vaccine virus, normal goat serum, normal horse serum, thyreodectomized horse serum, and thyreodectomized goat serum.
2	H. K. Mulford Co., Philadelphia, Pa...	Diphtheria antitoxin, antidysenteric serum, antimeningococcic serum, antipneumonic serum, antistreptococcic serum, antitetanic serum, tuberculins, vaccine virus, normal horse serum, bacterial vaccines, and antirabic virus.
3	Dr. H. M. Alexander & Co., Marietta, Pa.	Diphtheria antitoxin, antirabic virus, vaccine virus, normal horse serum, and tuberculins.
5	Fluid Vaccine Co., Milwaukee, Wis....	Vaccine virus.
6	The Slee Laboratories, Swiftwater, Pa..	Do.
8	The Cutter Laboratory, Berkeley, Cal..	Diphtheria antitoxin, antistreptococcic serum, tuberculins, bacterial vaccines, and vaccine virus.
9	Frederick Stearns & Co., Detroit, Mich.	Diphtheria antitoxin, streptolytic serum, and pneumolytic serum.
11	Pasteur Institute of Paris, Paris, France.	Diphtheria antitoxin, antidysenteric serum, antimeningococcic serum, antiplague serum, antistreptococcic serum, sérum antivenimeux, antitetanic serum, and antiplague vaccine.
12	Chemische Fabrik auf Actien, Berlin, Germany.	Diphtheria antitoxin and antistreptococcic serum.
14	Health Department of the City of New York.	Diphtheria antitoxin, antitetanic serum, antirabic virus, vaccine virus, tuberculin, and antimeningococcic serum.
16	National Vaccine and Antitoxin Institute, Washington, D. C.	Diphtheria antitoxin, antigonococcic vaccine, vaccine virus, normal horse serum, antistaphylococcic vaccine, antistreptococcic vaccine, and antityphoid vaccine.
17	Lederle Antitoxin Laboratories, New York City.	Diphtheria antitoxin, antistreptococcic serum, antitetanic serum, suspension of lactic acid bacilli, vaccine virus, antityphoid vaccine, and bacterial vaccines.
18	Burroughs, Wellcome & Co., London, England.	Diphtheria antitoxin, antigonococcic serum, antidysenteric serum, anticolon-bacillus serum, antistaphylococcic serum, antistreptococcic serum, antityphoid serum, antimeningococcic serum, normal horse serum tuberculins, and bacterial vaccines.

No. of license.	Establishments.	Products.
19	Memorial Institute for Infectious Diseases, Chicago, Ill.	Diphtheria antitoxin.
21	Swiss Serum and Vaccine Institute, Berne, Switzerland.	Diphtheria antitoxin, antidysenteric serum, antimeningococcic serum, antipneumonic serum, antiplague serum, antistreptococcic serum, tuberculins, anticholera vaccine, antiplague vaccine, antityphoid vaccine, and antitetanic serum.
22	Institut Bactériologique de Lyon, Lyon, France.	Antidiphtheric serum and normal goat serum.
23	Bacterio-Therapeutic Laboratory, Asheville, N. C.	Tuberculins.
24	Farbwerke, vormals Meister Lucius und Brüning, Hoechst-on-Main, Germany.	Diphtheria antitoxin, antidysenteric serum, antimeningococcic serum, antipneumonic serum, antistreptococcic serum, antitetanic serum, and tuberculins.
25	Tuberculin Society of St. Petersburg, St. Petersburg, Russia.	Tuberculinum purum.
27	Institut Pasteur de Lille, Lille, France.	Sérum antivenimeux.
29	The Behringwerk, Marburg, Germany.	Antitetanic serum and tuberculin.
30	Dr. G. H. Sherman, Dertoit, Mich.....	Bacterial vaccines.
31	E. Merck, Darmstadt, Germany.....	Antidiphtheric serum, antimeningococcic serum, antipneumonic serum, antistreptococcic serum, normal horse serum (liquid and dried), jequirital serum, tuberculins, bacterial vaccines, and leucofermantin (antitryptic sheep serum).
32	Kalle & Co., Biebrich, Germany.....	Tuberculin (Rosenbach).
33	American Biologic Co., Kansas City, Mo.	Antirabic virus.
34	The Béraneck Laboratory, Neuchatel, Switzerland.	Tuberculin (Béraneck).
35	Dr. Carl Spengler, Davos-Platz, Switzerland.	I. K. immune blood.
36	Dr. C. L. McDonald, Cleveland, Ohio..	Bacterial vaccines.
37	Western Biological Co., Kansas City, Kans.	Do.
38	Laboratorio di Terapia Sperimentale (Bruschettini), Genoa, Italy.	Tuberculosis serum-vaccine.
39	Pharmaceutisches Institut Ludwig Wilhelm Gans, Oberursel, near Frankfort on the Main, Germany.	Antidysenteric serum.

NOTES ON THE BIONOMICS OF RATS AND GROUND SQUIRRELS.

By GEORGE W. McCOY,

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During the past three years several interesting facts in connection with the life histories of rats and of ground squirrels have been noted at the Federal Laboratory, San Francisco, Cal. While it is quite probable that none of these are new, yet it seemed proper to make them a matter of record, not only on account of the importance of these rodents for public health reasons, but also from an economic point of view.

BREEDING AND RAISING IN CAPTIVITY.

On a few occasions rats and squirrels were born to mothers that had been trapped, but several attempts at mating and breeding in captivity were unsuccessful. We have succeeded in raising one litter, born a short time after the mother was caught. The facts are as follows: Nine rats (*Mus norvegicus*) were born on May 29, 1909. As we had found that the wild mother in captivity usually killed her offspring, they were given to a white rat that had recently given birth to young. The gray and the white litters lived together in perfect harmony, and the white mother nourished impartially the two families. When the wild rats were about three weeks old, they were placed

in a box cage and fed on bread and milk. They thrived and grew, but gave no evidence of having been domesticated by being raised in relatively decent surroundings. They attempted to escape and some succeeded. They were as ready to bite man as wild rats usually are.

The most interesting feature in connection with the raising of these rodents was the rate of growth. They were first weighed on August 1, 1909, when they were 62 days old. Five of them gave the following weights in grams: 85, 80, 85, 90, 75, an average of 81 grams. A month later—that is, when they were 3 months old—seven were weighed, giving the following figures in grams: 135, 120, 120, 90, 105, 105, 85, an average of 108 grams. On November 1—that is, when 5 months old—one remained, the others having escaped or been killed. The survivor weighed 142 grams. Judged by the majority that came under observation, a rat weighing 142 grams is about three-fourths grown. Before leaving this subject I should say that at the time the unsuccessful attempts at breeding wild rats were made we were having no difficulty in raising white ones.

We have only indirect evidence about the rate of growth of squirrels, but it is believed to be reliable. The great majority of young squirrels are born during the months of March, April, and May. During these and two or three subsequent months many young are sent to the laboratory, but by September practically none come in except such as we classify as three-fourths grown or grown. I should say that squirrels reach the size of the average adult in from four to six months.

LIFE IN CAPTIVITY.

It is sometimes stated that wild rats in captivity do not live long. This has not been our experience. We have kept these rodents in cages for more than a year. There is a heavy mortality during the first few days after a number of rats are put together in a cage. We believe this is due to fighting. After what may be called an equilibrium has been established there is no further loss. With ground squirrels there is practically no mortality even in the beginning of captivity. We have kept them in cages for nearly a year, during which period they remained well and grew fat.

BREEDING SEASONS.

We have kept daily records of the number of pregnant rodents and the number of fetuses in each. The results are shown in the following tables arranged by weeks:

RATS.

Week ended—	Females per 100 males.	Pregnant per 100 females.	Average number of fetuses.	Week ended—	Females per 100 males.	Pregnant per 100 females.	Average number of fetuses.
1908.				1909.			
Dec. 5	196	2.7	8.5	Jan. 2	224	5.6	8.9
Dec. 12	210	3.8	8.0	Jan. 9	191	5.4	8.5
Dec. 19	200	4.3	8.0	Jan. 16	206	5.2	9.0
Dec. 26	243	4.3	8.6	Jan. 23	204	5.0	8.3

RATS—Continued.

Week ended—	Females per 100 males.	Pregnant per 100 females.	Average number of fetuses.	Week ended—	Females per 100 males.	Pregnant per 100 females.	Average number of fetuses.
1909.				1910.			
Jan. 30	188	4.1	8.0	Jan. 1	194	3.7	8.2
Feb. 6	168	4.0	9.0	Jan. 8	181	5.8	7.9
Feb. 13	189	5.0	8.8	Jan. 15	183	4.7	7.2
Feb. 20	167	5.0	7.4	Jan. 22	165	5.1	7.4
Feb. 27	198	6.6	8.0	Jan. 29	168	5.6	7.9
Mar. 6	180	3.1	8.5	Feb. 5	162	5.1	7.6
Mar. 13	191	5.1	8.8	Feb. 12	167	5.5	7.4
Mar. 20	174	4.7	8.1	Feb. 19	183	5.0	7.4
Mar. 27	178	6.4	9.0	Feb. 26	185	8.0	3.2
Apr. 3	170	4.8	9.1	Mar. 5	191	10.0	7.6
Apr. 10	228	4.7	8.0	Mar. 12	163	7.7	7.7
Apr. 17	226	5.1	8.6	Mar. 19	159	9.5	8.0
Apr. 24	224	4.2	7.4	Mar. 26	158	5.7	8.0
May 1	238	5.4	7.3	Apr. 2	167	6.6	8.1
May 8	240	4.9	7.7	Apr. 9	160	7.4	8.0
May 17	245	7.1	8.0	Apr. 16	169	5.5	8.0
May 22	201	6.0	8.3	Apr. 23	175	5.1	7.7
May 29	211	4.6	8.1	Apr. 30	157	5.3	6.8
June 5	230	7.1	8.5	May 7	165	6.9	7.7
June 12	226	6.5	8.4	May 14	172	6.6	8.8
June 19	206	8.6	8.0	May 21	166	6.4	7.9
June 26	198	5.4	8.0	May 28	235	6.8	7.9
July 3	207	5.6	7.8	June 4	152	7.5	7.9
July 10	204	5.0	8.0	June 11	163	6.2	8.5
July 17	204	6.0	7.6	June 18	193	4.2	7.6
July 24	202	8.0	7.5	June 25	164	4.9	7.8
July 31	199	4.7	7.4	July 2	162	7.6	7.2
Aug. 7	188	3.8	8.0	July 9	153	5.4	8.1
Aug. 14	202	4.5	7.6	July 16	156	6.4	8.0
Aug. 21	182	5.0	7.5	July 23	158	6.7	8.1
Aug. 28	129	4.2	8.2	July 30	140	6.8	7.5
Sept. 4	185	5.6	8.9	Aug. 6	156	7.8	8.0
Sept. 11	202	3.1	8.2	Aug. 13	188	6.9	7.6
Sept. 18	176	4.6	8.3	Aug. 20	143	4.8	7.8
Sept. 25	157	3.8	7.4	Aug. 27	163	5.4	8.2
Oct. 2	164	3.0	7.4	Sept. 3	167	7.8	8.2
Oct. 9	305	4.0	8.3	Sept. 10	135	6.2	7.8
Oct. 16	195	3.8	8.3	Sept. 17	130	8.1	8.8
Oct. 23	274	6.3	7.1	Sept. 24	150	7.5	8.2
Oct. 30	204	5.1	7.2	Oct. 1	151	8.6	7.8
Nov. 6	223	6.7	7.4	Oct. 8	156	9.3	4.8
Nov. 13	199	5.1	7.7	Oct. 15	124	7.5	8.7
Nov. 20	301	3.6	7.0	Oct. 22	120	8.1	7.8
Nov. 27	185	3.9	8.0	Oct. 29	103	6.8	7.4
Dec. 4	156	4.7	8.3	Nov. 5	119	8.3	8.4
Dec. 11	144	6.7	8.0				
Dec. 18	167	5.2	7.7				
Dec. 25	182	6.3	8.0				

SQUIRRELS.

1909.				1910.			
July 3	178			Jan. 1	75	0.47	9.0
July 10	168			Jan. 8	90		
July 17	195			Jan. 15	80	.7	5.5
July 24	171			Jan. 22	73	.7	8.1
July 31	144			Jan. 29	122	.2	7.5
Aug. 7	143			Feb. 5	83	.5	6.4
Aug. 14	199			Feb. 12	80	11.0	6.7
Aug. 21	134			Feb. 19	88	19.0	7.2
Aug. 28	126			Feb. 26	90	42.0	7.4
Sept. 4	109			Mar. 5	115	27.0	6.4
Sept. 11	171			Mar. 12	110	24.0	7.4
Sept. 18	129			Mar. 19	128	21.0	7.5
Sept. 25	125			Mar. 26	153	19.0	8.0
Oct. 2	227			Apr. 2	144	20.0	8.0
Oct. 9	150			Apr. 9	168	16.0	7.2
Oct. 16	84			Apr. 16	190	3.7	7.9
Oct. 23	112			Apr. 23	184	3.5	7.3
Oct. 30	159			Apr. 30	171	3.7	7.3
Nov. 6	107			May 7	190	5.0	7.1
Nov. 13	142			May 14	180	1.3	5.9
Nov. 20	73			May 21	200	1.1	7.5
Nov. 27	92			May 28	181		
Dec. 4	113			June 4	166	.2	6.0
Dec. 11	75			June 11	161		
Dec. 18	94			June 18	137		
Dec. 25	93			June 25	146		

SQUIRRELS—Continued.

Week ended—	Females per 100 males.	Pregnant per 100 females.	Average number of fetuses.	Week ended—	Females per 100 males.	Pregnant per 100 females.	Average number of fetuses.
1910,				1910.			
July 2	159			Sept. 10	139		
July 9	118			Sept. 17	138		
July 16	170			Sept. 24	121		
July 23	139			Oct. 1	130		
July 30	140			Oct. 8	134		
Aug. 6	161			Oct. 15	130		
Aug. 13	158			Oct. 22	100.5		
Aug. 20	151			Oct. 29	108		
Aug. 27	140			Nov. 5	113		
Sept. 3	139						

It will be seen at a glance that in San Francisco there is no definite breeding season for rats (*Mus norvegicus*). This is in accord with the observations of the Indian Plague Commission (Journal of Hygiene, Vol. VII., 1907, p. 749) in Bombay, India. With ground squirrels in California the case is quite different, as pregnant rodents are found almost exclusively in February, March, and April, with very few in January and in May.

It should be stated here that the figures on which the proportions and percentages in the preceding tables are calculated were never less than 1,000 rats and the same number of squirrels per week.

One other point of interest may be mentioned in this connection. In ground squirrels during the rutting season the testicles grow very large, at times as large as the last joint of one's thumb, while during the remainder of the year they exist as tough shriveled fibrous masses, usually a little larger than a pea and often hard to find. No such seasonal change is noted in the sexual glands of rats.

FOODS.

We have no observations to offer on the food of rats under natural conditions. In captivity they get along well on cheese, bacon, and bread.

The food of ground squirrels is easily studied as they store it in their cheek pouches for a time. Examination shows chiefly seeds and grain of various sorts. During the spring months they eat enormous quantities of green grass. In captivity we feed them grain, and occasionally cabbage and carrots.

STARVATION OF RATS.

On account of the importance of the possible transportation of a live plague-infected rat from one place to another, it seemed important to determine how long rats would live on certain restricted diets and in the absence of drinking water. The results are shown here. The rats were all *Mus norvegicus*.

Without food and water.

(Absolute starvation.)

1 small rat lived 3 days.
1 grown rat lived 3 days.
1 large rat lived 5 days.
Each of 3 large rats lived 2 days.

Without food but with water.

1 large rat lived 3 days.

Fed on carrots and cabbage only.

1 large rat lived 4 days.

Fed on dry grain (wheat) only, no water.

1 half-grown rat lived 10 days.
1 half-grown rat lived 12 days.
1 half-grown rat lived 15 days.
1 large rat lived 4 days.
1 large rat lived 6 days.
1 large rat was alive 35 days after the experiment was begun.

Fed on bread, meat, and cheese only, no water.

Three half-grown rats were put on this diet. All were alive and well 60 days after the experiment was begun. On the 15th day one was given an opportunity to drink water, but it made no effort to partake of any.

Fourteen rats, all under 175 grams in weight, were kept for 30 days on a diet of bread, meat, cheese, carrots. At the end of that period they were all apparently in perfect health.

UNITED STATES.

MUNICIPAL ORDINANCES, RULES, AND REGULATIONS PERTAINING TO PUBLIC HYGIENE.

[Adopted since July 1, 1911.]

ROCKFORD, ILL.

PUBLIC BUILDINGS—INSPECTION OF.

All public buildings in the city of Rockford shall have the air inspected as regarding temperature, relative humidity, and amount of carbon dioxide present. These inspections shall be made at any time of the day or evening when the inspector shall see fit to step inside and test the air. While air shall not contain more than 6 parts of carbon dioxide per 10,000 in a place occupied by people, and that containing 7 parts shall be considered unfit to breathe, still 10 parts may be allowed providing the audience is to remain but a very short time or less than two hours. All schools, jails, and hospitals shall not at any time be found to have the air inside contain 7 or more parts of carbon dioxide. As to relative humidity—from 35 to 60 per cent shall be allowed, largely dependable upon outside weather conditions. All lecture halls, theaters, and schools shall have a temperature of from 65 to 75 degrees. At the time of inspection the management shall be given a report of the findings of the inspector and all condemned buildings shall have written notices served to improve the air by means of better heating and ventilation.

[Regulation, Department of Health, adopted September, 1911.]

SAGINAW, MICH.

MILK—PRODUCTION, CARE, AND SALE.

SEC. 1. No person, copartnership, firm, or corporation shall engage in the sale, delivery, or distribution of milk, cream, buttermilk, sour milk, skimmed milk, or separated milk within the corporate limits of the city of Saginaw without first having obtained a license therefor from the city clerk of the city of Saginaw, as hereinafter more particularly provided, and for the purposes of this ordinance the word "person" shall hereafter mean individual, copartnership, firm, or corporation.

SEC. 2. Every person desiring to engage in the sale, delivery, or distribution of milk, cream, buttermilk, sour milk, skimmed milk, or separated milk within the corporate limits of the city of Saginaw, before doing so shall make application in writing upon blanks provided by the board of health to the common council of the city of Saginaw for a license for that purpose, and in such application he shall state the number or location of the place where he proposes to conduct such business, the names of the person or persons from whom he proposes to obtain milk or cream, their location, the number of cows in such herds, the average quantity of milk which he expects to obtain from each herd; and such written application shall also contain an agreement on the part of such applicant that he will accept a license, if granted to him, upon the condition that it may be revoked at the will of the common council.

Said applicant shall also at the time he makes application for a license as herein mentioned present a written consent from each person from whom he obtains milk, granting permission to the health officer of the city of Saginaw, his representative, or any member of the board of health of said city, free and open access to his or her dairy or premises for the purpose of making an inspection of the premises or herd, and upon

the consent of the owner of said herd to apply the tuberculin test as hereinafter provided, said producers' permit shall be in the following form:

Producers' permit.

"Date ———.

"I, ——— ———, a producer of milk sold in the city of Saginaw, Mich., grant permission to the health officer of said city, his representative, or any member of the board of health of the city of Saginaw, Mich., free and open access to my dairy. premises, utensils, wagons, and conveyances for the purpose of maki ig inspection of the same so long or while milk of my production shall be sold in said city.

"Dated ———.

"Signed ——— ———."

And such applicant shall, before receiving his license, pay to the city treasurer the sum of $1 as an annual license fee, and take therefor the treasurer's receipt, which receipt he shall deliver to the city clerk with the application for the license. Such license, if issued, shall state the number or location of the applicant's place of business, shall not be transferable, and shall not extend beyond the 30th day of April next after the date of issue of the same.

SEC. 3. In the event that a license is granted and he thereafter changes the source from which he obtains milk or cream, he shall immediately notify the inspector of foods and measures of the names of the parties from whom he proposes to obtain milk or cream, their location, the number of cows in the herd, and when each cow was last tested for tuberculosis.

SEC. 4. When any person makes application for a license under the provisions of this ordinance, it shall be the duty of the board of health and of the inspector of foods and measures, or other persons duly authorized by the common council or board of health to investigate and report to the common council promptly upon the cows and the premises from which the applicant proposes to take and supply milk and to report upon the methods which the applicant proposes to use and employ in handling, storing, and distributing milk, cream, buttermilk or sour milk, skimmed milk or separated milk. A record of this examination and investigation shall be kept by said board and said inspector, on the score card used by the Dairy Division of the United States Government, the board of health to furnish such score cards and all other written records or blanks used by the applicant.

SEC. 5. No applicant shall be granted a license whose total scores do not reach 40 marks or more. The score card properly filled out and extended shall be attached by the city clerk to the application for license and filed by the clerk.

SEC. 6. It shall be the duty of the board of health and the inspector of foods and measures to ascertain that the cows from which the applicant proposes to obtain milk for sale or distribution are free from tuberculosis and other infection or contagious diseases. No cow shall be considered free from tuberculosis except after showing no response to the tuberculin test, as applied by a duly licensed veterinary. The cows from which the applicant proposes to obtain milk for sale and distribution shall be examined by a licensed veterinary before the common council shall grant the application for a license, and an examination of each of the cows in the herd from which milk is obtained for sale and distribution shall be made at least once a year thereafter, and each animal tagged in a manner to afford a permanent record of the examination, and no license shall be granted to any applicant until the cows from which he proposes to obtain milk for sale or distribution are shown to be free from tuberculosis and other infection and contagious diseases.

No milk or cream shall be sold or offered for sale within the corporate limits of the city of Saginaw from any cow added to a herd until such cow has been examined by a licensed veterinary, and upon such examination found free from tuberculosis and other infection or contagious disease, and such examination shall have taken place within six months from the time it is proposed to add said cow to the herd from which any milk dealer or vendor obtains milk sold or offered for sale within the corporate limits of the city of Saginaw.

SEC. 7. For the purpose of instructing dairy men, the board of health shall publish in April and September of each year, and at such other times as they deem advisable, in the official newspaper of the common council, instructions concerning the source from which the milk is obtained, straining, cooling, storage, keeping, handling, conveying, temperature, and other treatment and condition of milk, and the sanitary condition of dairy men, of cows, dairies, ice, stables, wagons, pasture, buildings, rooms, utensils, and other apparatus, appliances and methods used in handling milk and cows.

The city clerk shall within thirty days after publication mail copies of said instructions to each and every person holding a license to sell milk in Saginaw and to those furnishing milk to such licensees: and shall forthwith make a report to the common council of having complied with this provision.

SEC. 8. Each licensee shall have his name, place of business, and number of license placed in plain, large letters on the outside of each vehicle used in distribution of milk, and in a conspicuous place in the room where it is sold; provided that in case the licensee distributes milk, etc., in any manner without the use of a vehicle, then said licensee making such delivery shall carry upon his person a card showing the name of said licensee, place of business, and the number of his license.

SEC. 9. No milk or cream shall be offered for sale in the city of Saginaw, which—

(*a*) Contains any preservative whatever;

(*b*) Has had any part of the cream removed;

(*c*) Has had any water or foreign substance added;

(*d*) Has not been maintained at a temperature of 50° Fahrenheit, or less, since one hour after time of milking;

(*e*) Has (if milk) less than 3 per cent butterfat;

(*f*) Has (if cream) less than 20 per cent fat;

(*g*) Contains more than 100,000 bacteria to the cubic centimeter.

SEC. 10. "Skimmed milk," "sour milk," "buttermilk," and separated milk may be sold if plainly labeled pure and unadulterated and without drugs or other deleterious substances and obtained from cows that have stood the tuberculin test.

SEC. 11. No milk or cream shall be offered for sale except in suitably capped bottles or sealed cans that may be of any standard size. Bottles and cans may be filled only at the dairies and such other places as have been approved by the board of health.

The board of health shall devise the method of cleaning and sterilizing of all bottles, and see that the same is carried into effect by the properly designated official.

SEC. 12. Only detachable tickets that can be used but once shall be permitted.

SEC. 13. No milk shall be sold or used coming from any place where there has been contagious or infectious disease, until after disinfection by the health officer, and written permission from the board of health.

Bottles or cans left at a house placarded for a contagious disease shall not be used until they shall have been sterilized under supervision of the board of health.

SEC. 14. Any person receiving from any milk dealer, milk or cream in bottles, cans, or other receptacles, upon emptying the bottles, cans, or receptacles, and before returning them to the dealer, shall thoroughly wash, scald, and clean the same. No person shall use any bottle, can, or other receptacle which is the property of any milk dealer for any other purpose.

SEC. 15. Any person holding a milk license from the city of Saginaw, shall furnish samples of milk and cream to the inspector of foods and measures or board of health for expert analysis, when requested by said board or inspector.

SEC. 16. It shall be the duty of the board of health and inspector of foods and measures to see that all the provisions of this ordinance are fully complied with, and at their discretion, to have samples of milk and cream subjected to expert bacteriological test, the expense of such test shall be borne by the city.

SEC. 17. In order to carry out the provisions and purposes of this ordinance, the board of health and inspector of foods and measures shall have the right at all times to enter the premises of any person licensed under this ordinance; to examine and inspect the dairy and herd, and to appropriate a reasonable amount of milk or any milk product for samples, inspection, or test. And they shall have equal rights upon the premises of anyone from whom a licensee procures, or had given notice of his intention to procure milk, cream, skimmed milk, sour milk, buttermilk, or separated milk, and said inspector of foods and measures shall enforce the provisions of this ordinance and perform such other duties as may be required of him by the board of health, and shall make monthly reports to the board of health of his doings pertaining to the enforcement of this ordinance, and upon such other matters as may be requested by said board.

SEC. 18. Any person selling milk, cream, buttermilk, sour milk, skimmed milk, or separated milk without a license or violating any provision of this ordinance, shall be guilty of a misdemeanor, and each such act shall constitute a separate offense, which, upon conviction, may be punished by a fine not exceeding $100 and costs.

In the imposition of such fine and costs, the court may make a further order that in default of payment thereof, such offender be imprisoned for a period not exceeding 90 days in the city prison of said city or county jail of the county of Saginaw. Also, the license of said person may be revoked temporarily or permanently by the common council on recommendation of the board of health.

SEC. 19. All ordinances or parts of ordinances in conflict herewith are hereby repealed.

SEC. 20. Milk dealers shall have 30 days from the date of the passage of this ordinance to comply with all its provisions.

[Ordinance No. 145, adopted, Dec. 11, 1911.

UNION (TOWNSHIP), N. J.

COMMUNICABLE DISEASES.

SEC. 12. Every physician shall report in writing to the board of health the name of every patient he or she shall have affected with cholera, smallpox including varioloid, diphtheria, membranous croup, pulmonary tuberculosis, typhus, typhoid, scarlet and yellow fever, or any other contagious or infectious disease that may be hereafter publicly declared by this board to be dangerous to the public health, together with precise locality where such patient may be found, and such report shall be made within 12 hours after the first visit of such physician upon such person. All directions which the board of health shall prescribe for the purpose of preventing the spread of any disease, either by the use of disinfectants, fumigation, or otherwise, shall be strictly carried out, and any order that may be made by the board for the destruction of clothing or other articles for the purpose aforesaid shall be promptly obeyed. Any person or persons failing to comply with, violating, or offending against any of the provisions of this section shall, on conviction thereof, forfeit and pay a penalty of $50.

SEC. 13. That whenever it shall be deemed necessary by this board to establish the true character of any disease, which they may believe to be communicable, a medical examination of the person or persons affected by such disease may be ordered, and such examination shall be permitted by all attendants and persons. Any person or persons offending against any of the provisions of this section shall, on conviction thereof, forfeit and pay a penalty of $20.

SEC. 14. That no principal, teacher, or superintendent of any school, and no parent or guardian of any child attending any school, shall permit any child sick with any disease mentioned in section 12 or with any other communicable disease, or any child residing in any house in which such disease shall exist, to attend any school until such time as the attending physician certifies and the board of health approves that it can be done without danger of communicating the disease to others. Any person or persons offending against any of the provisions of this section shall, on conviction thereof, forfeit and pay a penalty of $20.

SEC. 15. That in case contagious or communicable diseases occur in this township the persons affected thereby shall at the discretion of the board of health be isolated or they may be removed to such locality as the board of health may order and direct.

SEC. 16. That the occupant of any dwelling house, store, shop, or other building, or of any room or rooms in the same, in the township of Union in which said dwelling house, store, shop, or other building or room or rooms, there shall be any person or persons sick or infected with smallpox or varioloid, diphtheria, scarlet fever, or any other disease hereafter named by the board of health, shall put up and maintain in a conspicuous place on the front of said dwelling house, store, or shop, or other building, so that the same can readily be seen and distinguished, a card or sign on which the name of the disease shall be printed in plain letters, not less than 2 inches in height, and shall keep the same so put up during the time any person or persons so sick shall remain in said dwelling, store, shop, or other building, the same not to be removed except by order of the board of health, and no person or persons shall deface, injure, or partially or entirely obscure or hide or cover or remove the same. Any person or persons or corporations failing to comply with, violating or offending against any of the provisions of this section shall, on conviction thereof, forfeit and pay a penalty of $50.

SEC. 17. That no person shall bring or cause to be brought into the township of Union any person infected with any contagious disease, except on a permit granted by the board of health; and no person shall bring or cause to be brought into the said township any article liable to propogate a communicable disease. Any person or persons or corporation offending against any of the provisions of this section shall, on conviction thereof, forfeit and pay a penalty of $50.

SEC. 18. That the keeping of any dwelling house in which there is, or has been, any polluting or communicable disease without thoroughly airing, cleaning, and disinfection, is hereby prohibited; and any person or persons offending against this section shall be liable to a penalty of $25.

SEC. 19. That all funerals and interments within the township of Union of persons dying of any contagious, infectious, or pestilential disease shall be under the direction of the board of health of the township, and shall be strictly private; and it shall be the duty of the householders and all persons concerned, when a death occurs from any such disease to prevent any needless assembling in the apartments or house where such diseases are of all persons liable to become infected thereby. Any person or persons or corporations failing to comply with or violating or offending against any of the provisions of this section shall, on conviction thereof, forfeit and pay a penalty of $25.

SEC. 20. All cases of smallpox, diphtheria, scarlet fever, yellow fever, typhus fever, measles, Asiatic cholera, or other contagious and infectious diseases, and all cases of death therefrom in the township of Union shall be forthwith reported in writing to the board of health of the said township by the owner or occupant of any dwelling in which any of such diseases or deaths shall have occurred, and also by the physician in attendance on the case. All directions which the board of health shall prescribe for the purpose of preventing the spread of any such disease, either by the use of disinfectants, fumigation, or otherwise, shall be strictly carried out, and any order that may be made by the board for the destruction of clothing or other articles for the purposes aforesaid shall be promptly obeyed. Any person or persons or corporations failing to comply with or violating or offending against any of the provisions of this section shall, on conviction thereof, forfeit and pay a penalty of $25.

[Part of ordinance adopted Dec. 11, 1911.]

YONKERS, N. Y.

SLAUGHTERHOUSES AND SLAUGHTERING.

SEC. 109. The keeping and slaughtering of all cattle, sheep, and swine, and the preparation and keeping of all meat and fish, birds and fowl, shall be in that manner which is, or is generally reported or known to be, best adapted to secure and continue their safety and wholesomeness as food; and every butcher and every person owning, leasing, or occupying any place, room, or building where any cattle, sheep, or swine have been or are killed and dressed, and every person being the owner, lessee, or occupant of any room or stable where any cattle may be kept, or market, public or private, shall cause such place, room, building, stall, or market, and their yards and appurtenances to be thoroughly cleaned and purified, and all offal, blood, fat, garbage, refuse, and unwholesome and offensive matter to be removed therefrom at least once in every 24 hours after the use thereof for any of the purposes herein referred to; and shall also at all times keep all woodwork, save floors and counters, in every building, place, or premises aforesaid thoroughly painted or whitewashed.

SEC. 110. No building occupied wholly or partly as a slaughterhouse or any part thereof, or any building on the same lot, shall be occupied or permitted to be occupied for a dwelling or lodging place without a permit from the health officer. It shall be the duty of every owner, lessee, tenant, or occupant of any building occupied wholly or partly as a slaughterhouse to keep such building at all times adequately and thoroughly ventilated; to permit no blood to remain therein overnight; to cause adequate underground connection to be made and maintained from any such building with a public sewer, whenever practicable, and where there is no public sewer adjacent or accessible from said premises, then said building shall be constructed and used in such manner for said business as the health officer may prescribe; to cause the floor of such building on which slaughtering is done, and the yard to be kept properly cemented and paved so as not to absorb blood and so as to carry all liquids into the sewers, or in the manner which may be otherwise prescribed by the health officer, to permit no blood or dirty water, or other substance from any animal slaughtered in any building or place to run, fall, or be in or upon any public street, avenue, sidewalk, or place.

SEC. 111. Every slaughterhouse and the business of slaughtering cattle, sheep, or swine within the city of Yonkers shall be at all times subject to the inspection of the health officer, and subject to all sanitary regulations of the health bureau.

[Part of ordinance adopted Dec. 26, 1911.]

PLAGUE-PREVENTION WORK.

PLAGUE-INFECTED SQUIRRELS FOUND.

During the week ended May 25, 1912, positive diagnosis was made of 30 plague-infected ground squirrels found in Alameda and Contra Costa Counties, Cal., as follows: Alameda County—May 8, 1 squirrel; May 9, 2 squirrels; May 15, 1 squirrel. Contra Costa County—May 6, 1 squirrel; May 7, 1 squirrel; May 8, 3 squirrels; May 9, 1 squirrel; May 11, 3 squirrels; May 13, 3 squirrels; May 14, 4 squirrels; May 15, 1 squirrel; May 16, 1 squirrel; May 17, 8 squirrels.

DISTRIBUTION OF POISON.

In connection with the making and maintenance of a squirrel-free zone around the cities of California on San Francisco Bay, 6,150 acres of land in Alameda County were covered with poison during the week ended May 25, 1912.

RECORD OF PLAGUE INFECTION.

Places.	Date of last case of human plague.	Date of last case of rat plague.	Date of last case of squirrel plague.	Total number of rodents found infected since May, 1907.
California:				
Cities—				
San Francisco	Jan. 30, 1908	Oct. 23, 1908	None	398 rats.
Oakland	Aug. 9, 1911	Dec. 1, 1908	do	126 rats.
Berkeley	Aug. 27, 1907	None	do	None.
Los Angeles	Aug. 11, 1908	do	Aug. 21, 1908	1 squirrel.
Counties—				
Alameda (exclusive of Oakland and Berkeley).	Sept. 26, 1909	Wood rat, Oct. 17, 1909.	May 15, 1912	215 squirrels and 1 wood rat.
Contra Costa	July 21, 1911	None	May 17, 1912	408 squirrels.
Fresno	None	do	Oct. 27, 1911	1 squirrel.
Merced	do	do	July 13, 1911	5 squirrels.
Monterey	do	do	Aug. 6, 1911	Do.
San Benito	June 5, 1910	do	June 8, 1911	22 squirrels.
San Joaquin	Sept. 18, 1911	do	Aug. 26, 1911	18 squirrels.
San Luis Obispo	None	do	Jan. 29, 1910	1 squirrel.
Santa Clara	Aug. 23, 1910	do	Oct. 5, 1910	23 squirrels.
Santa Cruz	None	do	May 17, 1910	3 squirrels.
Stanislaus	do	do	June 2, 1911	13 squirrels.
Washington:				
Cities—				
Seattle	Oct. 30, 1907	Sept. 21, 1911	None	25 rats.

RATS COLLECTED AND EXAMINED FOR PLAGUE INFECTION.

Places.	Week ended—	Found dead.	Total collected.	Examined.	Found infected.
California:					
Cities—					
Berkeley	May 25, 1912	3	[1] 195	150	.....
Oakland	.....do.....	33	[2] 730	592	.....
San Francisco	.....do.....	23	[3] 1,660	1,360	.....
Washington:					
City—					
Seattle	.....do.....	.....	996	950	.....

[1] Identified: Mus norvegicus, 153; Mus musculus, 42.
[2] Identified: Mus norvegicus, 620; Mus rattus, 3; Mus musculus, 105; Mus alexandrinus, 2.
[3] Identified: Mus norvegicus, 942; Mus rattus, 210; Mus musculus, 301; Mus alexandrinus, 207.

SQUIRRELS COLLECTED AND EXAMINED FOR PLAGUE INFECTION.

During the week ended May 25, 1912, 312 ground squirrels collected in Alameda County and 1,785 collected in Contra Costa County, Cal, were examined for plague infection Four from Alameda County and 26 from Contra Costa County were found to be plague infected.

CEREBROSPINAL MENINGITIS.

CASES AND DEATHS REPORTED BY CITY HEALTH AUTHORITIES FOR THE WEEK ENDED JUNE 15, 1912.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Butte, Mont.	.....	1	Nashville, Tenn.	1	.....
Chicago, Ill.	1	3	New Bedford, Mass.	.....	1
Cincinnati, Ohio	3	.....	New Orleans, La.	1	2
Dayton, Ohio	1	2	New York, N. Y.	7	6
Hartford, Conn.	.....	2	Omaha, Nebr.	1	.....
Houston, Tex.	1	1	Providence, R. I.	.....	1
Kansas City, Kans.	1	.....	San Francisco, Cal.	1	1
Lowell, Mass.	.....	1	Yonkers, N. Y.	1	1

ERYSIPELAS.

CASES AND DEATHS REPORTED BY CITY HEALTH AUTHORITIES FOR THE WEEK ENDED JUNE 15, 1912.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Bayonne, N. J.	.....	1	Moline, Ill.	1	.....
Boston, Mass.	.....	2	Montclair, N. J.	1	.....
Buffalo, N. Y.	1	.....	Newark, N. J.	.....	1
Cincinnati, Ohio	2	1	New Bedford, Mass.	.....	1
Cleveland, Ohio	4	.....	New Castle, Pa.	1	.....
Erie, Pa.	1	.....	New York, N. Y.	28	7
Hartford, Conn.	1	.....	Philadelphia, Pa.	5	2
Kalamazoo, Mich.	.....	2	Pittsburgh, Pa.	5	.....
Lancaster, Pa.	1	.....	San Francisco, Cal.	4	.....
Los Angeles, Cal.	1	.....	South Bethlehem, Pa.	1	.....
Milwaukee, Wis.	1	.....			

LEPROSY.

During the week ended June 15, 1912, 1 case of leprosy was reported at Boston, Mass.

PELLAGRA.

During the week ended June 15, 1912, pellagra was reported as follows: Chattanooga, Tenn , 1 case; Nashville, Tenn., 2 cases; Richmond, Va , 1 case.

One death from pellagra was reported from Tippecanoe County, Ind., for the month of May, 1912.

PNEUMONIA.

CASES AND DEATHS REPORTED BY CITY HEALTH AUTHORITIES FOR THE WEEK ENDED JUNE 15, 1912.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Alameda, Cal.	1		Mount Vernon, N. Y.	1	
Auburn, N. Y.	1		Nashville, Tenn.		1
Baltimore, Md.		11	Newark, N. J.		5
Binghamton, N. Y.	1		New Bedford, Mass.		3
Boston, Mass.		22	Newburyport, Mass.		1
Bridgeport, Conn.		4	New Orleans, La.		5
Brockton, Mass.		1	New York, N. Y.		76
Buffalo, N. Y.		5	Niagara Falls, N. Y.		1
Butte, Mont.		2	Norristown, Pa.		1
Cambridge, Mass.		2	Oakland, Cal.		2
Chelsea, Mass.		2	Omaha, Nebr.		2
Chicago, Ill.	23	69	Passaic, N. J.		4
Chicopee, Mass.		1	Peoria, Ill.		1
Cincinnati, Ohio.		7	Philadelphia, Pa.	14	23
Cleveland, Ohio.	16	10	Pittsburgh, Pa.	12	17
Cumberland, Md.		1	Providence, R. I.		3
Danville, Ill.		1	Reading, Pa.	1	
Dayton, Ohio.		1	Richmond, Va.		2
Duluth, Minn.	2	2	Salem, Mass.		1
Dunkirk, N. Y.	4	4	San Francisco, Cal.	7	
Elizabeth, N. J.		1	Saratoga Springs, N. Y.	2	
Erie, Pa.	1		Schenectady, N. Y.	4	1
Everett, Mass.		2	South Bethlehem, Pa.	1	
Fall River, Mass.		4	Spokane, Wash.		3
Grand Rapids, Mich.	1	1	Springfield, Ill.		1
Houston, Tex.		2	Springfield, Mass.		2
Kalamazoo, Mich.	1		Taunton, Mass.		1
Kansas City, Mo.	1	3	Toledo, Ohio.		1
Knoxville, Tenn.		1	Waltham, Mass.		4
Lancaster, Pa.	1		Washington, D. C.		7
Lawrence, Mass.		2	Wheeling, W. Va.		1
Los Angeles, Cal.	1	5	Wilkes-Barre, Pa.		1
Lowell, Mass.		1	Wilkinsburg, Pa.		1
Lynn, Mass.		1	Williamsport, Pa.	1	1
Manchester, N. H.	1	1	Wilmington, Del.		2
Medford, Mass.		1	York, Pa.	1	
Melrose, Mass.		1			

POLIOMYELITIS.

CASES AND DEATHS REPORTED BY CITY HEALTH AUTHORITIES FOR THE WEEK ENDED JUNE 15, 1912.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Bayonne, N. J.		1	New Orleans, La.	1	1
Cleveland, Ohio.	3		New York, N. Y.	8	
Los Angeles, Cal.	1	1	Philadelphia, Pa.		1
Milwaukee, Wis.		1			

TETANUS.

CASES AND DEATHS REPORTED BY CITY HEALTH AUTHORITIES FOR THE WEEK ENDED JUNE 15, 1912.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
New Orleans, La.		1	Pittsburgh, Pa.	1	
New York, N. Y.		1	South Bethlehem, Pa.	1	
Philadelphia, Pa.	1		Wilmington, N. C.	1	1

SMALLPOX IN THE UNITED STATES.

STATE REPORTS.

This table is compiled from reports made to the Bureau of the Public Health and Marine-Hospital Service by the health authorities of certain States, and shows the number of cases of smallpox notified to the authorities in these States.

The following States report monthly: Arizona, California, Colorado, Connecticut, Illinois, Indiana, Iowa, Kansas, Maine, Maryland, Massachusetts, Michigan, Mississippi, Montana, New Jersey, New York, North Carolina, North Dakota, Oklahoma, Ohio, Oregon, Pennsylvania, South Dakota, Texas, Utah, Vermont, Virginia, Washington, Wisconsin, and Wyoming.

Florida, Minnesota, and the District of Columbia report by weeks.

Reports received during week ended July 5, 1912.

Places.	Date.	Cases.	Deaths.	Remarks.
California:				
Counties—				
Alameda	May 1–31	2		
Butte	do	11		
Los Angeles	do	13		
Modoc	do	2		
Placer	do	3		
Sacramento	do	16		
San Bernadino	do	2		
San Diego	do	1		
San Francisco	do	4		
Shasta	do	2		
Tulare	do	6		
Ventura	do	1		
Total for State		63		
Florida:				
Counties—				
Citrus	June 9–16	1		
Escambia	do	1		
Hernando	June 17–23	10		
Hillsboro	June 9–23	13		
Putnam	June 17–23	11		
St. Lucie	do	1		
Sumter	June 9–16	10		
Total for State		47		
Maine:				
Counties—				
Franklin	Apr. 1–30	6		These cases are in addition to those previously noted.
Androscoggin	May 1–31	4		
Aroostook	do	22		
Franklin	do	3		
Oxford	do	3		
Sagadahoc	do	2		
Somerset	do	9		
York	do	4		
Total for State		47		

SMALLPOX IN THE UNITED STATES—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Minnesota:				
Counties—				
Anoka	Apr. 23–29	2		
Big Stone	do	1		
Carlton	Apr. 15–22	4		
Chippewa	Apr. 9–14	1		
Dakota	Apr. 2–8	8		
Dodge	Apr. 16–22	3		
Filmore	Apr. 15–22	3		
Hennepin	Apr. 9–29	67		
Lac qui Parle	Apr. 16–22	1		
Marshall	Apr. 2–15	8		
Mower	Apr. 16–22	1		
Olmstead	Apr. 9–16	1		
Ottertail	Apr. 2–29	16		
Ramsey	do	59		
Renville	do	16		
Rice	Apr. 2–22	6		
Swift	Apr. 16–22	1		
Todd	Apr. 2–22	2		
Wabasha	Apr. 16–22	1		
Washington	do	1		
Winona	Apr. 2–29	5		
Yellow Medicine	Apr. 16–22	6		
Total for State		213		
Becker	May 7–13	1		
Carlton	May 1–27	4		
Chippewa	May 1–20	2		
Dakota	May 14–20	1		
Dodge	May 1–27	5		
Grant	do	6		
Hennepin	May 1–6	1		
Isanti	May 7–13	2		
Lyon	May 21–27	1		
McLeod	May 7–13	1		
Marshall	May 14–20	1		
Mower	May 13–27	53		
Olmstead	May 7–20	2		
Ramsey	May 1–13	45		
Renville	May 1–27	9		
Rice	May 1–20	4		
Saint Louis	May 14–20	1		
Scott	May 1–6	1		
Traverse	May 14–27	5		
Winona	May 21–27	1		
Total for State		146		
North Carolina:				
Counties—				
Beaufort	May 1–31	4		
Buncombe	do	4		
Cabarrus	do	2		
Carteret	do	1		
Craven	do	3		
Cumberland	do	1		
Durham	do	3		
Franklin	do	1		
Granville	do	4		
Guilford	do	1		
Johnston	do	1		
Lenoir	do	1		
Lincoln	do	3		
Madison	do	12		
Mecklenburg	do	3		
Montgomery	do	6		
Pender	do	1		
Robeson	do	14		
Tyrrell	do	10		
Wade	do	1		
Warren	do	1		
Yancy	do	4		
Total for State		81		

SMALLPOX IN THE UNITED STATES—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
North Dakota:				
Counties—				
Barnes	May 1–31	3		Substituted for report on page 1008, Vol. XXVII.
Bottineau	do	12		
Cass	do	1		
Grand Forks	do	1		
Total for State		17		
Oregon:				
Counties—				
Baker	Apr. 1–30	2		
Columbia	do	2		
Lane	do	1		
Marion	do	4		
Polk	do	1		
Union	do	3		
Washington	do	1		
Total for State		14		
Baker	May 1–31	1		
Columbia	do	1		
Grant	do	1		
Harney	do	13		
Hood River	do	1		
Jackson	do	2		
Lane	do	1		
Marion	do	6		
Umatilla	do	4		
Union	do	5		
Total for State		35		
Washington:				
Counties—				
Clark	Apr 1–30	3		
Columbia	do	1		
Douglas	do	1		
Grant	do	10		
Lincoln	do	4		
Pierce	do	6		
Spokane	do	10		
Stevens	do	25		
Thurston	do	1		
Whatcom	do	1		
Yakima	do	1		
Total for State		63		
Grand total		732		

CITY REPORTS.

Cases and Deaths Reported by City Health Authorities for the Week Ended June 15, 1912.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Chicago, Ill	1		New Bedford, Mass	1	
Cincinnati, Ohio	1		New Orleans, La	4	
Detroit, Mich	2		Philadelphia, Pa	1	
Harrisburg, Pa	3		Richmond, Va	3	
Kansas City, Kans	2		San Antonio, Tex	1	
Knoxville, Tenn	5		San Diego, Cal	2	
La Crosse, Wis	1		San Francisco, Cal	12	
Los Angeles, Cal	6		Spokane, Wash	1	

MORBIDITY AND MORTALITY.

MORBIDITY AND MORTALITY TABLE, CITIES OF THE UNITED STATES, FOR WEEK ENDED JUNE 15, 1912.

Cities.	Population, United States Census 1910.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.		Typhoid fever.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Cities having over 500,000 inhabitants.												
Baltimore, Md.	558,485	175	6	....	17	....	11	1	61	23	11	....
Boston, Mass.	670,585	184	24	1	114	2	15	....	56	16	12	1
Chicago, Ill.	2,185,283	583	114	17	307	5	220	15	132	74	21	3
Cleveland, Ohio.	560,663	136	32	2	72	3	52	2	31	13	5	2
New York, N. Y.	4,766,883	1,204	328	23	987	18	293	19	420	143	34	3
Philadelphia, Pa.	1,549,008	354	56	3	35	1	43	4	91	38	25	2
Pittsburgh, Pa.	533,905	138	13	....	164	6	51	2	29	20	7	1
Cities having from 300,000 to 500,000 inhabitants.												
Buffalo, N. Y.	423,715	110	21	3	256	2	15	2	19	10	1	....
Cincinnati, Ohio.	364,463	118	9	....	4	....	18	1	30	20	7	....
Detroit, Mich.	465,766	154	21	5	.....	....	21	....	.....	.....	.....	....
Los Angeles, Cal.	319,198	98	9	....	20	....	3	....	19	13	4	1
Milwaukee, Wis.	373,857	108	11	2	93	....	12	1	16	8	15	1
Newark, N. J.	347,469	79	19	1	8	....	11	....	36	10	1	1
New Orleans, La.	339,075	.....	6	....	11	....	2	....	14	16	5	1
San Francisco, Cal.	416,912	132	5	2	7	1	2	....	27	18	2	1
Washington, D. C.	331,069	97	4	....	67	1	2	....	19	11	10	....
Cities having from 200,000 to 300,000 inhabitants.												
Jersey City, N. J.	267,779	77	.....	.....	.....	.....	.....	.....	.....	8	....	1
Kansas City, Mo.	248,381	.....	1	....	6	....	4	....	4	4	.....	....
Providence, R. I.	224,326	65	12	2	8	....	22	3	6	10	2	....
Cities having from 100,000 to 200,000 inhabitants.												
Bridgeport, Conn.	102,054	32	2	....	1	....	3	....	3	1	.....	....
Cambridge, Mass.	104,839	30	8	....	27	2	3	....	9	4	.....	....
Columbus, Ohio.	181,548	54	2	1	21	1	11	....	5	4	1	....
Dayton, Ohio.	116,577	42	2	1	35	....	1	....	.....	6	1	....
Fall River, Mass.	119,295	29	2	....	1	....	.....	....	4	2	2	....
Grand Rapids, Mich.	112,571	35	.....	....	5	....	.....	....	1	2	4	1
Lowell, Mass.	106,294	33	.....	....	42	1	.....	....	1	1	.....	1
Nashville, Tenn.	110,364	44	.....	.....	.....	.....	.....	.....	5	2	1	1
Oakland, Cal.	150,174	38	2	....	10	....	.....	....	3	3	1	....
Omaha, Nebr.	124,096	25	.....	.....	.....	.....	.....	.....	.....	3	5	....
Richmond, Va.	127,628	53	1	....	11	....	1	....	1	3	4	....
Spokane, Wash.	104,402	.....	2	1	6	....	.....	.....	.....	.....	5	....
Toledo, Ohio.	168,497	48	5	....	65	....	2	....	8	8	7	....
Worcester, Mass.	145,986	41	3	....	27	1	5	....	3	3	1	....
Cities having from 50,000 to 100,000 inhabitants.												
Altoona, Pa.	52,127	10	.....	.....	.....	....	2	....	.....	.....	.....	....
Bayonne, N. J.	55,545	9	.....	.....	6	....	4	....	2	.....	.....	....
Brockton, Mass.	56,878	9	1	....	1	....	2	....	5	.....	1	....
Camden, N. J.	94,538	.....	3	1	3	....	3	....	2	.....	.....	....
Duluth, Minn.	78,466	21	2	.....	.....	.....	13	....	3	3	3	1
Elizabeth, N. J.	73,409	18	1	....	1	....	1	....	5	1	.....	....
Erie, Pa.	66,525	23	.....	....	73	....	9	1	1	3	1	....
Evansville, Ind.	69,647	20	2	.....	.....	.....	.....	.....	.....	1	3	....
Fort Wayne, Ind.	63,933	19	1	....	12	....	.....	....	1	4	.....	....
Harrisburg, Pa.	64,186	26	5	....	4	....	.....	....	6	4	.....	....
Hartford, Conn.	98,915	21	5	2	29	1	1	....	9	3	.....	....
Hoboken, N. J.	70,324	.....	1	....	1	....	1	....	3	1	.....	....
Houston, Tex.	78,800	32	1	.....	.....	.....	.....	.....	.....	2	.....	....
Johnstown, Pa.	55,482	12	2	1	17	....	1	....	.....	1	.....	....
Kansas City, Kans.	82,331	.....	1	....	1	....	.....	....	1	.....	1	....
Lawrence, Mass.	85,892	37	1	....	6	....	.....	....	.....	8	1	....
Lynn, Mass.	89,336	17	2	1	8	....	1	....	2	1	1	....
Manchester, N. H.	70,063	18	1	....	12	1	3	....	.....	.....	.....	....
New Bedford, Mass.	96,652	26	2	....	13	....	.....	....	5	4	....	....

MORBIDITY AND MORTALITY—Continued.

Weekly morbidity and mortality table, cities of the United States, for week ended June 15—Continued.

Cities.	Population United States Census, 1910.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.		Typhoid fever.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Cities having from 50,000 to 100 000 inhabitants—Continued.												
Oklahoma City, Okla.	64,205	16	1	....	2	....	....	....	....	....	....	....
Passaic, N. J.	54,773	14	1	....	13	1	2	....	1	3	....	....
Pawtucket, R. I.	51,622	....	....	....	....	....	....	....	....	1	....	....
Peoria, Ill.	66,950	18	4	....	....	....	1	....	....	....	....	....
Portland, Me.	58,571	21	....	....	16	....	5	....	....	....	....	....
Reading, Pa.	96,071	25	5	1	11	....	1	....	2	3	4	....
Saginaw, Mich.	50,510	16	5	....	1	....	....	....	1	2	3	....
San Antonio, Tex.	96,614	88	....	....	....	....	4	....	....	15	21	2
Schenectady, N. Y.	72,826	21	1	....	44	....	8	....	3	3	....	....
South Bend, Ind.	53,684	15	....	....	....	....	3	....	....	2	1	....
Springfield, Ill.	51,678	16	2	....	....	....	....	....	....	2	1	....
Springfield, Mass.	88,926	19	....	....	5	1	....	....	3	....	....	....
Trenton, N. J.	96,815	29	1	....	2	....	4	....	4	5	3	....
Wilkes-Barre	67,105	13	3	....	3	....	2	....	5	2	....	....
Wilmington, Del.	87,411	19	....	....	....	....	....	....	....	1	....	1
Yonkers, N. Y.	79,803	17	5	....	5	....	4	....	6	4	....	1
Cities having from 25,000 to 50,000 inhabitants.												
Atlantic City, N. J.	46,150	13	....	....	1	....	....	....	....	....	....	....
Auburn, N. Y.	34,668	8	....	....	2	....	1	....	....	1	....	....
Aurora, Ill.	29,807	6	1	....	....	....	....	....	....	1	....	....
Berkeley, Cal.	40,434	8	1	....	7	....	....	....	....	....	....	....
Binghamton, N. Y.	48,443	11	....	....	1	....	1	....	1	2	....	....
Brookline, Mass.	27,792	1	1	....	20	....	....	....	....	....	....	....
Butte, Mont.	39,165	12	....	....	....	....	....	....	....	2	....	....
Chattanooga, Tenn.	44,604	....	....	....	....	....	1	....	....	....	2	....
Chelsea, Mass.	32,452	12	....	....	18	....	1	....	4	....	....	....
Chicopee, Mass.	25,401	7	....	....	5	....	....	....	....	1	1	....
Danville, Ill.	27,871	8	....	....	....	....	....	....	....	....	....	....
East Orange, N. J.	34,371	....	2	....	25	....	....	....	2	....	....	....
Elmira, N. Y.	37,176	14	....	....	44	....	....	....	....	1	....	....
Everett, Mass.	33,484	8	....	....	23	....	....	....	....	1	....	....
Fitchburg, Mass.	37,826	2	....	....	....	....	....	....	5	....	....	....
Haverhill, Mass.	44,115	14	2	....	14	....	3	....	4	....	2	....
Kalamazoo, Mich.	39,437	14	....	....	....	....	2	....	1	....	1	....
Knoxville, Tenn.	36,346	5	....	....	....	....	....	....	....	1	....	....
La Crosse, Wis.	30,417	7	....	....	....	....	....	....	2	2	....	....
Lancaster, Pa.	47,227	....	1	....	7	....	....	....	2	....	....	....
Lexington, Ky.	35,099	10	....	....	....	....	....	....	....	1	....	....
Lynchburg, Va.	29,494	12	....	....	5	....	1	....	2	1	....	....
Malden, Mass.	44,404	7	1	....	42	....	1	....	2	1	1	....
Montgomery, Ala.	38,136	14	....	....	....	....	....	....	1	1	3	1
Mount Vernon, N. Y.	30,919	....	2	....	10	....	....	....	1	....	....	....
Newcastle, Pa.	36,280	....	....	....	....	....	2	....	....	....	....	....
Newport, Ky.	30,309	10	....	....	....	....	1	....	....	....	....	....
Newton, Mass.	39,806	9	....	....	44	....	1	....	....	....	....	....
Niagara Falls, N. Y.	30,445	9	....	....	3	....	....	....	....	....	1	....
Norristown, Pa.	27,875	6	....	....	....	....	1	....	....	....	....	....
Orange, N. J.	29,630	7	....	....	8	....	....	....	....	....	....	....
Pasadena, Cal.	30,291	13	....	....	....	....	....	....	1	2	....	....
Pittsfield, Mass.	32,121	11	....	....	....	....	....	....	1	....	1	....
Portsmouth, Va.	33,190	13	1	....	....	....	....	....	....	1	....	....
Racine, Wis.	38,002	10	1	....	....	....	....	....	....	....	....	....
Roanoke, Va.	34,874	10	1	....	6	....	....	....	6	2	2	....
Rockford, Ill.	45,401	4	1	....	....	....	1	....	....	....	34	....
Salem, Mass.	43,697	9	3	....	3	....	2	....	....	2	1	....
San Diego, Cal.	39,578	....	1	....	1	....	....	....	3	3	....	....
South Omaha, Nebr.	26,259	7	....	....	....	....	....	....	....	....	....	....
Taunton, Mass.	34,259	12	....	....	1	....	....	....	....	....	1	1
Waltham, Mass.	27,834	7	....	....	1	....	....	....	....	....	1	....
West Hoboken, N. J.	35,403	....	....	....	1	....	5	....	1	....	....	....
Wheeling, W. Va.	41,641	9	6	....	3	....	....	....	4	....	5	....
Williamsport, Pa.	31,860	13	1	....	44	....	1	....	....	....	....	....
Wilmington, N. C.	25,748	19	....	....	2	....	1	....	....	4	4	....
York, Pa.	44,750	....	1	....	18	....	....	....	....	....	....	....
Zanesville, Ohio	28,026	7	....	....	....	....	....	....	....	....	3	1

MORBIDITY AND MORTALITY—Continued.

Weekly morbidity and mortality table, cities of the United States, for week ended June 15—Continued.

Cities.	Population United States census, 1910.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.		Typhoid fever.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Cities having less than 25,000 inhabitants.												
Alameda, Cal.	23,833	8	....	....	4	....	....	....	1	....	3	....
Ann Arbor, Mich.	14,817	6	....	....	....	....	....	....	1	....	....	....
Beaver Falls, Pa.	12,191	....	....	....	....	....	....	....	....	....	1	....
Bennington, Vt.	....	4	....	....	26	....	....	....	....	....	1	....
Biddeford, Me.	17,079	5	....	....	....	....	....	....	....	....	....	....
Braddock, Pa.	17,759	5	....	....	2	....	....	....	....	....	1	....
Butler, Pa.	20,782	13	....	....	12	....	....	....	....	....	1	....
Cambridge, Ohio.	11,327	2	....	....	....	....	....	....	....	....	1	....
Carbondale, Pa.	17,040	7	....	....	3	....	....	....	....	....	....	....
Clinton, Mass.	13,075	5	....	....	....	....	....	....	....	....	....	....
Coffeyville, Kans.	12,687	....	1	....	....	....	....	....	....	....	1	....
Columbus, Ga.	20,554	3	....	....	....	....	....	....	....	....	....	....
Columbus, Ind.	....	4	....	....	....	....	1	....	....	....	....	....
Concord, N. H.	21,497	3	1	....	9	....	....	....	....	....	1	....
Cumberland, Md.	21,839	5	....	....	24	....	....	....	4	....	4	....
Dunkirk, N. Y.	....	8	2	....	1	....	....	....	....	....	....	....
Galesburg, Ill.	22,089	6	....	....	....	....	....	....	....	....	....	....
Harrison, N. J.	14,498	3	1	....	....	....	2	....	1	....	....	....
Homestead, Pa.	18,710	....	5	....	1	....	1	....	....	....	....	....
Kearny, N. J.	18,659	3	....	....	....	....	....	....	1	....	....	....
La Fayette, Ind.	20,081	7	....	....	....	....	....	....	....	....	....	....
Marinette, Wis.	14,610	2	....	....	....	....	....	....	....	....	....	....
Marlboro, Mass.	14,579	1	1	....	....	....	1	....	....	....	....	....
Massillon, Ohio.	13,879	2	....	....	....	....	....	....	....	....	....	....
Medford, Mass.	23,150	6	2	....	49	....	1	....	2	....	....	....
Melrose, Mass.	15,715	4	....	....	3	....	....	....	....	....	....	....
Moline, Ill.	24,199	2	....	....	....	....	....	....	....	....	....	....
Montclair, N. J.	21,150	4	....	....	4	....	3	....	1	1	....	....
Morristown, N. J.	12,507	4	1	....	2	....	....	....	....	....	....	....
Nanticoke, Pa.	18,857	3	....	....	....	....	....	....	....	....	....	....
Newburyport, Mass.	19,240	7	....	....	1	....	....	....	....	....	....	....
North Adams, Mass.	22,019	5	....	....	....	....	....	....	3	1	....	....
Northampton, Mass.	19,431	2	1	....	2	....	....	....	1	....	....	....
Palmer, Mass.	....	2	....	....	....	....	....	....	....	....	....	....
Plainfield, N. J.	22,550	8	....	....	1	....	....	....	....	....	....	....
Saratoga Springs, N. Y.	....	8	....	....	....	....	....	....	....	....	....	1
South Bethlehem, Pa.	19,973	5	1	....	3	....	....	....	1	....	....	....
Steelton, Pa.	14,246	....	1	....	7	....	....	....	1	....	....	....
Tiffin, Ohio.	11,894	2	....	....	....	....	....	....	....	....	1	....
Warren, Pa.	11,080	....	....	....	2	....	1	....	....	....	....	....
Wilkinsburg, Pa.	18,924	8	1	....	2	....	1	....	2	....	....	....
Woburn, Mass.	15,308	4	1	....	....	....	....	....	....	....	....	....

STATISTICAL REPORTS OF MORBIDITY AND MORTALITY, STATES OF THE UNITED STATES (Untabulated).

INDIANA.—Month of April, 1912. Population, 2,700,876. Total number of deaths from all causes, 3,117, including diphtheria 14, measles 17, scarlet fever 12, smallpox 2, tuberculosis 376, typhoid fever 31. Cases reported: Diphtheria 120 in 33 counties, smallpox 141 in 25 counties, typhoid fever 209 in 29 counties.

IOWA.—Month of April, 1912. Population, 2,224,771. Total number of deaths from all causes 1,819, including diphtheria 3, measles 8, scarlet fever 8, tuberculosis 139, typhoid fever 16.

KANSAS.—Month of April, 1912. Population 1,690,949. Total number of deaths from all causes not reported. The deaths reported include diphtheria 3, measles 2, typhoid fever 1. Cases reported: Diphtheria 38, measles 554, scarlet fever 137, smallpox 22, typhoid fever 27.

MICHIGAN.—Month of April, 1912. Population, 2,810,173. Cases of communicable diseases reported: Diphtheria 168, measles 233, scarlet fever 453, smallpox 46, tuberculosis 180, typhoid fever 97.

Month of May, 1912. Cases of communicable diseases reported: Diphtheria 181, measles 291, scarlet fever 429, smallpox 27, tuberculosis 185, typhoid fever 214.

FOREIGN AND INSULAR.

CHINA.

Hongkong—Plague—Smallpox—Plague-infected Rats.

Surgeon Brown reports: During the week ended May 18, 208 cases of plague with 179 deaths; 11 cases of smallpox with 6 deaths at Hongkong.

During the same period 3,130 rats were examined for plague infection. Seventy plague-infected rats were found.

ECUADOR.

Plague and Yellow Fever.

Passed Asst. Surg. Parker at Guayaquil forwards the following report of the director of health of Ecuador relative to the prevalence of plague and yellow fever:

Month of May, 1912.

Disease.	Locality.	Date.	Previously existing.	New cases.	Cured.	Died.	Remaining.
Plague	Guayaquil	May 1 to 15		2	1	1	
		May 15 to 30		2		1	1
Yellow fever	do	May 1 to 15	15	27	16	13	13
		May 15 to 30	13	10	13	8	2
Do	Duran	May 1 to 15	1	1		1	1
		May 15 to 31	1		1		
Do	Yaguachi	May 1 to 15	1				1
		May 15 to 31	1		1		
Do	Naranjito	May 1 to 15	2	3	1	1	3
		May 15 to 31	3	1	3	1	
Do	Milagro	May 1 to 15					
		May 15 to 31		5	2	2	1

ITALY.

Examination of Emigrants.

Surg. Geddings, at Naples, reports:

Vessels inspected at Naples, week ended June 8, 1912.

NAPLES.

Date.	Name of ship.	Destination.	Steerage passengers inspected and passed.	Pieces of baggage inspected and passed.	Pieces of baggage disinfected.
June 3	America	Philadelphia	1,602	250	1,830
5	Hamburg	New York	876	140	1,380
6	Oceania	do	1,544	190	2,150
7	San Giovanni	do			
	Total		4,022	580	5,360

Catania—Typhus Fever.

Consul Garrels, at Catania, reports the occurrence of 3 deaths from typhus fever at Catania during the two weeks ended June 7, 1912.

JAPAN.

Formosa—Cholera.

The American consul at Tamsui reports, July 1, the presence of cholera.

MEXICO.

Mexico City—Typhus Fever.

Consul General Shanklin at Mexico City reports the occurrence at that place of 48 cases of typhus fever, with 9 deaths, during the week ended May 18, 1912.

Yellow Fever at San Juan Bautista.

The American consul at Frontera reports June 30 the occurrence of 4 new cases of yellow fever at San Juan Bautista.

PHILIPPINE ISLANDS.

Manila—Plague on Vessel—Additional Quarantine Measures.

Passed Asst. Surg. Fox, acting chief quarantine officer, reports:

A fatal case of bubonic plague occurred at Mariveles quarantine station among the steerage passengers from the steamship *Taisang* from Amoy, which arrived April 30. The case was bacteriologically verified.

ADDITIONAL QUARANTINE MEASURES.

The plague situation in Hongkong and on the China coast showing constant and marked increase, it was deemed necessary to institute further measures of protection. Letters were consequently sent to all the owners of vessels plying regularly between China and the Philippine Islands requiring fumigation every other trip. This additional fumigation will be performed when the vessels are empty at ports in the Philippine Islands.

Rats killed by such fumigations are examined for plague, but no plague-infected rats have been found. In fact the vessels have been found to be remarkably free from rats, only six being recovered from a vessel which had not very recently been fumigated. Whether this scarcity of rats is due to the plague epidemic having continued so long at the vessel's port of call that the excess of rats have died of plague remains to be determined by further investigation.

PORTO RICO.

Plague Situation.

On the request of the governor of Porto Rico the Public Health and Marine-Hospital Service has taken charge of the plague eradicative work in San Juan and vicinity in cooperation with the local sanitary authorities. Passed Assistant Surgeon R. H. Creel, an

officer experienced in the laboratory and field work of plague eradication, has been placed in immediate charge. Officers have been detailed for plague duty in Porto Rico, and additional officers are on their way to San Juan.

The work being carried on includes the limitation of the disease to the island of the old city of San Juan. Measures are being taken to prevent the escape of rats across the bridges and also to prevent the possibility of their gaining access to vessels. The city has been divided into districts, and the houses in the infected territory are inspected daily. Infected houses are surrounded by rat-proof fences and then disinfected and freed from rats or destroyed. Special attention is being paid to the care and collection of garbage and other material which may serve as rat food. Steps are being taken toward the rat proofing of the entire water front. Trapping and poisoning of rats is being done. Special attention is being given to the laboratory examination of rats caught in parts of the city not known to be infected, in order to outline definitely the infected areas.

All the human cases with the exception of 8 have occurred in the old part of San Juan. Of the 8 occurring outside of the old city, 5 were in Santurce, a suburb of San Juan; 2 at Carolina, a town about 15 miles away, and 1 occurred at Arroyo, on a small schooner from San Juan. Of 4 rats caught in one of the houses at Santurce, in which a plague case occurred, 2 were found to be plague infected.

To prevent the further spread of the disease vessels clearing for other ports in United States territory have been made subject to the restrictions contained in paragraphs 35 to 40, inclusive, of the Quarantine Regulations promulgated October 20, 1910. This outgoing quarantine is being maintained with the assistance of the revenue cutter *Algonquin*.

Passed Assistant Surgeon Creel reports July 2: Two cases plague in Santurce July 1. Total to date: San Juan, 21 cases, 13 deaths; Santurce, 5 cases, 2 deaths; Carolina, 2 cases, 2 deaths.

RUSSIA.

Typhus Fever.

Consul General Snodgrass at Moscow reports the occurrence of 27 cases of typhus fever with 4 deaths at Moscow during the two weeks ended May 18, 1912.

Cholera in Astrakhan.

A fatal case of cholera was reported in the city of Astrakhan June 11.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX.

Reports Received During Week Ended July 5, 1912.

[These tables include cases and deaths recorded in reports received by the Surgeon General, Public Health and Marine-Hospital Service, from American consuls through the Department of State and from other sources. For reports received from December 30, 1911, to June 28, 1912, see PUBLIC HEALTH REPORTS for June 28, 1912. In accordance with custom, the tables of epidemic diseases are terminated semiannually and new tables begun.]

CHOLERA.

Places.	Date.	Cases.	Deaths.	Remarks.
Ceylon:				
Colombo	May 19–25	1	.....	In the port.
India:				
Bassein	May 5–11	14	13	
Bombay	May 19–25	34	30	
Japan:				
Formosa—				
Tamsui	July 1	.....	.....	Present.
Russian Empire:				
Astrakhan	June 11	1	1	

YELLOW FEVER.

Chile:				
Tocopilla	June 8	.....	.....	Improving.
Ecuador:				
Duran	May 1–15	1	1	
Guayaquil	May 1–31	37	21	
Milagro	May 16–31	5	2	
Naranjito	May 1–31	4	2	
Yaguachi	May 16–31	1	.....	
Mexico:				
San Juan Bautista	June 23–30	4	.....	
Venezuela:				
La Guaira	May 1	1	.....	

PLAGUE.

Ecuador:				
Guayaquil	May 1–31	4	2	
Dutch East Indies:				
Java—				
Provinces—				
Kediri	Mar. 31–Apr. 6	2	2	
Madiven	....do	3	3	
Egypt:				
Alexandria	May 27–June 4	2	.....	
Port Said	May 29–June 1	1	.....	
Provinces—				
Assiout	May 25–June 1	2	.....	
Beni Souef	May 30–June 6	3	3	
Carchieh	Apr. 28–June 4	1	.....	
Fayoum	Apr. 28–May 4	1	.....	
Minieh	May 27–June 5	13	2	
India:				
Bombay	May 19–25	79	71	
Karachi	....do	34	33	
Philippine Islands:				
Mariveles quarantine station	Apr. 30–May 7	1	1	From s. s. Taisang from Amoy.
Porto Rico:				
Arroyo	To July 2	1	.....	On a schooner from San Juan.
Carolina	....do	2	2	
San Juan	June 21–July 2	9	8	Total June 14 to July 2: Cases 21, deaths 13.
Santurce	To July 2	5	2	
Straits Settlements:				
Singapore	May 5–11	1	1	

SMALLPOX.

Australia:				
Fremantle quarantine station.	Apr. 19	1	.....	From s. s. Malwa from London via Colombo.
Canada:				
Provinces—				
Ontario—				
Ottawa	June 9–15	1	.....	
Windsor	June 12–22	2	.....	
Quebec—				
Montreal	June 16–22	2	.....	

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

Reports Received during week ended July 5, 1912.

SMALLPOX—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Chile:				
Coquimbo	May 26–June 1	7		
China:				
Chungking	May 5–June 1			Present.
Nangking	May 19–25			Do.
Shanghai	May 28–June 2		1	
Egypt:				
Cairo	May 14–20	2		
Port Said	do	2	1	
France:				
Paris	June 2–8	2	1	
Germany				Total: June 2–8, Cases, 7.
Great Britain:				
Liverpool	June 2–8	1		
India:				
Bombay	May 19–25	54	51	
Karachi	do	1	1	
Madras	do	1	1	
Italy:				
Naples	June 2–8	3		
Palermo	May 26–June 1	3	1	
Turin	June 3–9	1		
Mexico:				
Aguascalientes	June 9–16		1	
Guadalajara	June 9–15	1	2	
Juarez	June 16–22		1	
San Luis Potosi	Apr. 7–13	1	1	
Portugal:				
Lisbon	May 27–June 2	3		
Russia:				
Warsaw	Apr. 21–27	3	4	
South Africa:				
Durban	Apr. 28–May 4	4	1	
Spain:				
Valencia	June 2–8	13		
Straits Settlements:				
Singapore	May 5–11	3		
Turkey in Asia:				
Beirut	May 26–June 1	15		
Turkey in Europe:				
Constantinople	May 27–June 9		26	

MORTALITY.

WEEKLY MORTALITY TABLE, FOREIGN AND INSULAR CITIES.

Cities.	Week ended—	Estimated population.	Total deaths from all causes.	Deaths from—										
				Tuberculosis.	Plague.	Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Typhoid fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
Aberdeen	June 1	163,084	71	....	....	....	....	....	....	....	2	1	....	....
Aden	May 27	45,859	29	3	....	....	....	....	....	....	....	....	1	....
Aguascalientes	June 16	40,000	80	....	....	....	....	1	2	1	2	....	2	....
Amsterdam	June 8	582,871	130	15	....	....	....	....	....	1	....	....	5	1
Antwerp	June 1	316,604	65	8	....	....	....	....	....	....	....	2	9	2
Assuncion	May 4	75,000	34	2	....	....	....	....	....	2	....	....	....	....
Do	May 11	.....	27	3	....	....	....	....	....	1	....	....	....	....
Do	May 18	.....	38	2	....	....	....	....	....	2	....	....	....	....
Basel	June 1	138,000	30	7	....	....	....	....	....	....	....	1	....	....
Beirut	do	80,000	25	....	....	....	....	....	....	2	....	....	....	....
Belfast	do	391,051	112	31	....	....	....	....	....	....	....	1	....	4
Do	June 8	.....	121	23	....	....	....	....	....	....	....	....	....	6
Berlin	June 1	2,080,110	531	96	....	....	....	....	....	1	5	9	6	7
Binghamton	June 8	842,512	205	....	....	....	....	....	....	2	1	1	1	4
Bristol	do	359,400	103	4	....	....	....	....	....	....	....	....	9	1

MORTALITY—Continued.

Weekly mortality table, foreign and insular cities—Continued.

Cities.	Week ended—	Estimated population.	Total deaths from all causes.	Deaths from—										
				Tuberculosis.	Plague.	Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Typhoid fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
Bombay	May 25	979,445	261	46	71	30	....	41	....	....	....	....	....	....
Cairo	May 20	689,439	544	25	....	....	....	....	2	6	1	4	1	....
Cartagena	May 4	30,000	15	1	....	....	....	....	....	1	....	....	....	....
Christiania	June 8	245,000	70	14	....	....	....	....	....	....	....	....	3	....
Colombo	May 18	227,026	132	13	....	....	....	....	....	3	....	....	....	....
Constantinople	June 2	1,300,000	228	24	....	....	....	14	....	4	2	2	5	....
Do	June 9	.....	197	25	....	....	....	12	....	3	1	1	6	....
Dundee	June 8	171,006	51	3	....	....	....	....	....	....	....	....	9	2
Durban	May 4	69,165	6	1	....	....	....	....	....	....	....	....	....	....
Do	May 11	.....	6	1	....	....	....	1	....	....	....	....	....	....
Edinburgh	June 8	321,200	99	8	....	....	....	....	....	....	....	....	4	2
Georgetown	June 1	57,577	56	4	....	....	....	....	....	2	....	....	....	....
Glasgow	June 14	785,600	273	....	....	....	....	....	1	....	1	3	8	....
Gothenburg	June 1	170,100	54	10	....	....	....	....	....	....	....	....	....	1
Guadalajara	June 15	119,468	109	....	....	....	....	2	....	1	....	....	....	....
Hamburg	June 1	953,079	257	29	....	....	....	....	....	....	5	6	1	2
Juarez	June 22	6,500	12	....	....	....	....	1	....	....	....	....	....	....
Karachi	May 25	157,290	121	....	33	....	....	1	....	....	....	....	4	....
Kingston	June 8	57,379	.....	....	....	....	....	....	....	1	....	....	....	....
Liege	June 1	167,676	41	3	....	....	....	....	....	....	2	....	1	....
Liverpool	June 8	752,055	268	25	....	....	....	....	....	1	5	1	19	14
London	...do....	7,340,119	1,420	....	....	....	....	....	....	3	4	16	55	30
Lubec	...do....	100,000	30	3	....	....	....	....	....	....	....	....	....	1
Madras	May 25	518,660	364	....	....	....	....	1	....	....	....	....	2	....
Manaos	June 1	52,000	55	6	....	....	5	....	....	....	....	....	....	....
Manchester	June 8	714,427	210	14	....	....	....	....	....	4	....	....	17	15
Mazatlan	June 18	22,000	20	1	....	....	....	1	....	....	....	....	....	....
Monterey	June 16	100,000	82	7	....	....	....	....	....	1	2	....	....	....
Montreal	June 22	466,197	144	16	....	....	....	....	....	1	2	....	....	2
Newcastle-on-Tyne	June 1	269,193	73	10	....	....	....	....	....	....	1	1	....	1
Do	June 8	.....	64	9	....	....	....	....	....	1	1	....	....	....
Nottingham	June 1	260,000	88	5	....	....	....	....	....	....	....	1	7	3
Ottawa	June 15	90,000	27	1	....	....	....	....	....	....	....	....	....	....
Palermo	June 1	340,000	130	6	....	....	....	1	....	1	1	....	....	....
Paris	June 8	2,888,110	907	232	....	....	....	1	....	6	4	5	21	10
Penang	May 11	102,167	76	9	....	....	....	....	....	2	....	....	....	....
Port of Spain	June 1	60,000	40	9	....	....	....	....	....	3	....	....	....	....
Port Said	May 20	52,811	33	....	....	....	....	1	1	1	....	....	1	....
Rotterdam	June 1	439,526	78	....	....	....	....	....	....	....	1	....	....	....
Do	June 8	440,309	74	....	....	....	....	....	....	1	....	....	....	....
Roubaix	Mar. 31	122,723	.....	33	....	....	....	....	....	....	1	....	....	....
Saigon	May 6	220,000	41	....	7	34	....	....	....	....	....	....	....	....
Do	May 13	.....	34	....	3	29	....	2	....	....	....	....	....	....
St. Petersburg	May 18	1,962,400	1,053	155	....	....	....	5	1	12	12	13	53	6
Do	May 25	.....	891	128	....	....	....	7	1	18	6	12	52	8
Salina Cruz	June 8	6,138	3	....	....	....	....	....	....	1	....	....	....	....
Do	June 15	.....	6	....	....	....	....	....	....	1	....	....	....	....
San Luis Potosi	Apr. 13	82,946	55	7	....	....	....	1	....	....	....	....	....	1
Do	May 6	.....	53	5	....	....	....	....	....	1	....	....	....	....
Sarnia	June 22	9,936	3	....	....	....	....	....	....	1	....	....	....	....
Shanghai	May 19	500,000	176	29	....	....	....	....	....	....	....	1	13	....
Do	May 26	.....	164	16	....	....	....	....	....	....	6	1	10	....
Do	June 2	.....	177	20	....	....	....	1	4	....	1	2	10	....
Sheffield	June 1	454,653	104	10	....	....	....	....	....	....	1	....	....	....
Do	June 8	.....	118	15	....	....	....	....	....	....	1	....	....	....
Singapore	May 4	303,328	231	28	....	....	....	1	....	1	....	....	....	....
Do	May 11	.....	254	21	1	....	....	....	3	....	....	....	....	....
Smyrna	...do....	400,000	81	8	....	....	....	....	....	2	1	1	....	....
Do	May 18	.....	55	15	....	....	....	....	....	....	1	....	....	....
Do	May 25	.....	56	7	....	....	....	....	....	1	....	1	....	....
Do	June 1	.....	50	5	....	....	....	....	....	....	....	1	....	....
Southampton	June 8	120,896	26	3	....	....	....	....	....	....	....	1	....	1
South Shields	June 1	109,676	37	3	....	....	....	....	....	....	....	....	....	1
Do	June 8	.....	31	7	....	....	....	....	....	....	....	....	....	2
Stettin	June 1	240,000	67	13	....	....	....	....	....	....	....	1	....	....
Stockholm	May 25	346,599	83	18	....	....	....	....	....	....	....	....	1	1
Stoke-on-Trent	June 8	237,153	56	5	....	....	....	....	....	....	....	1	1	....
Swansea	May 4	117,150	27	3	....	....	....	....	....	....	....	....	1	1
Do	May 11	.....	32	4	....	....	....	....	....	....	....	....	1	....
Do	May 25	.....	26	....	....	....	....	....	....	....	....	2	2	2

MORTALITY—Continued.

Weekly mortality table, foreign and insular cities—Continued.

Cities.	Week ended—	Estimated population.	Total deaths from all causes.	Deaths from—										
				Tuberculosis.	Plague.	Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Typhoid fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
Talcahuano	May 18	2,800	.....	2	....	....	....	....	....	1	....	....	....	2
Do	May 25	.....	.....	2	....	....	....	....	....	....	....	....	....	1
Toronto	June 1	392,000	112	9	....	....	....	....	....	1	1	4	....	....
Do	June 8	.....	134	7	....	....	....	....	....	....	....	2	1	5
Do	June 15	.....	126	7	....	....	....	....	....	1	....	5	....	3
Tripoli	June 2	50,000	56	4	....	....	....	....	....	7	....	....	....	....
Turin	...do.....	430,770	143	12	....	....	....	....	....	3	....	....	3	1
Do	June 9	.....	139	17	....	....	....	....	....	3	....	....	8	1
Valencia	June 1	235,000	70	7	....	....	....	....	....	....	....	....	....	....
Veracruz	June 8	32,000	42	8	....	....	....	....	....	....	....	....	....	....
Vienna	May 25	2,081,335	627	106	....	....	....	....	....	1	2	7	15	2
Warsaw	Apr. 30	821,369	304	33	....	....	....	2	....	2	3	....	1	....
Do	Apr. 27	.....	242	36	....	....	....	4	....	5	4	4	....	....
West Hartlepool	June 1	63,932	9	....	....	....	....	....	....	....	....	2	....	....
Winnipeg	June 8	166,553	44	3	....	....	....	....	....	....	1	....	....	....
Do	June 15	.....	26	1	....	....	....	....	....	....	....	2	....	....
Yokahama	May 27	444,039	.....	....	....	....	....	....	....	1	....	....	....	....

MORTALITY—FOREIGN AND INSULAR—COUNTRIES AND CITIES (Untabulated.)

DUTCH GUIANA.—*Paramaribo.*—Month of May, 1912. Population, 85,891. Total number of deaths from all causes 143.

FRANCE—*Calais.*—Month of May, 1912. Population, 78,000. Total number of deaths from all causes 88, including tuberculosis 17, typhoid fever 1.

St. Etienne.—Two weeks ended May 31, 1912. Population, 150,000. Total number of deaths from all causes 126, including tuberculosis 19, typhoid fever 1. Cases reported: Diphtheria 2, scarlet fever 5.

GREAT BRITAIN.—Week ended June 1, 1912.

England and Wales.—The deaths registered in 95 great towns correspond to an annual rate of 12.6 per 1,000 of the population, which is estimated at 17,639,816.

Ireland.—The deaths registered in 22 principal town districts correspond to an annual rate of 17.9 per 1,000 of the population, which is estimated at 1,157,014. The lowest rate was recorded at Clonmel, viz, 5.1, and the highest at Kilkenny, viz, 39.7 per 1,000.

Scotland.—The deaths registered in 18 principal towns correspond to an annual rate of 15 per 1,000 of the population, which is estimated at 2,182,400. The lowest rate was recorded at Clydebank, viz, 6.5, and the highest at Kilmarnock, viz, 22.5 per 1,000. The total deaths from all causes was 629, including diphtheria 10, measles 25, scarlet fever 3, typhoid fever 2.

GUAM.—Three weeks ended May 11, 1912. Population, 9,000. Total number of deaths from all causes 15.

ITALY—*Milan.*—Month of May, 1912. Population, 602,236. Total number of deaths from all causes 126, including scarlet fever 1, tuberculosis 115, typhoid fever 9. Cases reported: Diphtheria 36, measles 95, scarlet fever 73, tuberculosis 54, typhoid fever 41.

PANAMA—*Panama.*—Three weeks ended May 18, 1912. Population, 30,000. Total number of deaths from all causes not reported. Five deaths from tuberculosis were reported.

SPAIN—*Almeria.*—Month of May, 1912. Population, 50,000. Total number of deaths from all causes 116, including tuberculosis 7, typhoid fever 2.

Madrid.—Month of May, 1912. Population, 584,117. Total number of deaths from all causes 1,156, including diphtheria 12, measles 59, scarlet fever 2, tuberculosis 149, typhoid fever 13.

TAHITI.—Four weeks ended May 17, 1912. Population, 4,000. Total number of deaths from all causes 7. One case of tuberculosis was reported.

VENEZUELA—*La Guaira.*—Two weeks ended May 31, 1912. Population, 10,000. Total number of deaths from all causes 25, including tuberculosis 8, typhoid fever 1. Cases reported: Tuberculosis 8, typhoid fever 1.

By authority of the Secretary of the Treasury:

RUPERT BLUE,
Surgeon General,
United States Public Health and Marine-Hospital Service.

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