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THE PRACTICAL WORKINGS OF THE "SURFACE PRIVY" AND THE "LIME SYSTEM."

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In a former article ^a attention was called to the fact that the surface privy is in very common use and that some persons advise that lime be applied in treating the night soil. The present article gives observations upon this system as actually practiced.

For purpose of study a certain industrial village of about 100 houses was selected, in which the lime system and surface privies have been in use for a number of months. The outhouses are cleaned once a week and lime is distributed free to the families; the latter have been notified repeatedly that it should be used regularly and generously, and the village authorities emphasized the fact to us that all reasonable efforts were made to carry out the system properly. It would seem, therefore, that this village is a fair case to take as basis for observations as to the actual workings of the system.

Just before the privies received their weekly cleaning, 88 toilets, belonging to 88 inhabited houses, were examined. In 32 cases it was found that the families had actually used the lime which was furnished to them; if the remaining 56 families had used it, no evidence of that fact was apparent. The conclusion would therefore appear justified that even if lime is furnished free of cost and even if the families are repeatedly urged to use it as a practical sanitary precautionary measure, the system is not generally adopted.

Of the 32 outhouses in which lime has been used, it was used freely in only 3 instances. The conclusion therefore seems justified that when the lime is used families can not be relied upon to use it properly.

In not a single instance did we fail to find exposed night soil of easy access to flies and other insects, which were observed feeding in 85 of the 88 toilets examined. Flies feeding on the feces were not observed in 2 of the limed privies and in 1 of the unlimed toilets, but other insects were present in all 3 of these cases.

Samples of night soil were taken to the laboratory from 2 limed and from 2 unlimed privies, in the hope of obtaining a supply of hook-worm eggs. Live fly larvæ were found in all 4 samples. Live hook-worm eggs were found in 3 samples (1 limed, 2 unlimed). After the

^a The Sanitary Privy <Public Health Reports, v. 25 (17), April 29, 1910, pp. 545-552, figs. 1-4.

toilets were cleaned, samples of sand were taken from under the seat of 1 privy in which lime had been used and 1 in which it had not been used; in both instances live nematode embryos and larvæ, apparently hookworms, were found. The conclusion is thus justified that even when the lime is used, at least as found in these cases, both live fly larvæ and live hookworm eggs, embryos, and larvæ may be found. Our observations indicate, however, that there are in general fewer flies on the limed than on the unlimed night soil.

The practical workings of the cleaning process were next observed. As the cleaner went from place to place, he shoveled the night soil into an ordinary open dump cart, smoothed over the dirt under the privy seat, and placed a fresh supply of lime in the outhouses. As he was under close observation it is to be assumed that he did his work at least as thoroughly as usual. As he disturbed the excreta under the seat, a number of flies would rise; part of these would settle in the cart, part would return to the outhouse, and part would fly in various directions, including the direction toward the kitchen. Upon finishing with an outhouse, the cleaner then drove his wagon, containing excreta and flies, to the next privy. Here he disturbed the flies in the wagon by taking out his implements; part of the flies settled again on the feces in the cart, part flew off in various directions, as toward the privy or toward the kitchen. As the cleaner now started to clean the privy, more flies would be disturbed and scattered; as he shoveled the excreta into the cart, part of the filth would fall upon the ground and the rest would disturb the swarm of flies which were feeding on the night soil in the cart. This resulted in another general redistribution of flies from the cart to the privy, the kitchen, the cart, etc.

Finally, the man started through the village with his wagon load of night soil and flies and drove to the dump. To observe the insects it was now necessary to follow close behind the wagon. A light breeze was blowing and the road was, here and there, not very smooth.

As the cart proceeded on its way, many of the flies deserted it to scatter toward the houses and elsewhere. Part of the excreta was shaken through the cart and dropped on the road. When we arrived at the dump there was still a good supply of flies in the wagon, but they were relatively few in number as compared with the original swarm.

The dump also had its swarm of flies. These were naturally disturbed as the cleaner dumped the night soil from his cart; part of this swarm settled again on the dump, part on the soiled cart, and part flew off. Then the cart proceeded back to the village with its new supply of flies, part of which deserted the wagon as it passed one house after another.

Thus, the cart acted as a distributor of flies between the village and the dump, and between the various privies and houses.

The possibilities of distributing filth and infections by the procedure here described are self-evident.

Various species of insects were seen during these observations, but most of the flies seemed in appearance to resemble the so-called "common house fly" (*Musca domestica*). If the public could be brought to a full understanding of the filthy habits of this creature, its breeding places would soon be lessened in number. In the particular village under observation, the common breeding place was

undoubtedly the surface privy and the dump. In addition, these filth flies were also breeding elsewhere, as in manure.

The advantages of the surface privy can be summarized in the simple statement that although it is a miserable substitute for a sanitary privy it is a great improvement over the promiscuous defecation which occurs around 55 per cent of the 4,645 farmhouses of which we have record.

Among the disadvantages of the surface privy may be mentioned:

(1) It is a great breeding place for flies, and therefore a great reservoir from which intestinal bacterial infections may be spread.

(2) It forms a developing place for hook worms, amebic dysentery, Cochín-China diarrhea, and certain other zooparasitic diseases, second only to promiscuous defecation.

(3) Soil pollution extends beyond the surface privy as the latter is emptied.

(4) It can not be thoroughly cleaned by any practical method.

(5) The privy soon falls out of repair, because the cleaning process undermines the base of the structure, so that the outhouse soon settles back, pulling the boards apart, and even splitting the seat. In the end, therefore, it is an extravagant structure.

(6) It can not be kept without odor.

(7) It is an eyesore, and therefore greatly detracts from the appearance of the village.

For the particular State in which the foregoing observations were made we have records covering 1,501 farmhouses, 62.8 per cent of which have no privy of any kind; of the farmhouses in question tabulated as occupied by whites 40.2 per cent have no outhouse, and those tabulated as occupied by negroes 88.3 per cent have none.

For this same State we have records of the toilet system in 17 industrial villages, and of these 15 villages have the surface privy.

The typhoid index of the State in question is, according to the Twelfth Census, 66 deaths per year per 100,000 inhabitants.

The advantages of the lime system, as observed, are:

(1) It results in a slight decrease in flies.

(2) It results in a slight decrease in the odor.

Among the disadvantages of the lime system may be mentioned:

(1) This (like any other similar "dry" system, as, for instance, the dry earth system) is dependent upon the cooperation of the entire public (children as well as adults) using the outhouses, and experience shows that this cooperation is not to be relied upon.

(2) It does not prevent either fly breeding or fly feeding.

(3) It does not prevent the development of intestinal worms.

(4) It therefore gives to the public a false sense of security.

The theoretically and practically ideal and the universally applicable system of caring for the night soil has not yet been discovered. At present it is more a question of selecting the least objectionable rather than the most satisfactory system, and this point may vary according to local conditions. Even the details of construction of a privy may depend to some extent upon the question of the presence or absence of an alley back of the yard.

The fact appears, however, to be established beyond question that the surface privy (with or without either lime or dry earth), although a great improvement over promiscuous defecation, is dangerous both to public and to private health, and that where a sewer system is not

feasible (for financial or other reasons), the surface privies should, without further delay, be remodeled into the tub, pail, or barrel system.

Just what material (lime, earth, carbolic acid, cresol, water and kerosene, etc.) it is best to use in the tubs may for the present in the interest of conservatism be considered *sub judice*, pending further experiments. It is possible to raise objections, both of a theoretical and of a practical nature, to all of these materials. Leaving a more detailed discussion of these matters to later reports in which we hope to give the results of further experiments, we feel justified at present in mentioning the following points:

The use (in the tub) of any one of the substances mentioned in the foregoing paragraph is an improvement over the use of the tub without any safeguarding material. The present widespread faith in lime and in earth is not so fully grounded, either theoretically or practically, as seems to be popularly supposed. Although we personally do not know of any accidents that have occurred from the use of carbolic acid in privy tubs (a custom extending back thirty years or more) possibilities of accidents occur to us which justify a warning for caution. The danger of fire in connection with the water and kerosene method (a method based on the well-known use of kerosene against mosquitoes) has not yet materialized in our tests to light the kerosene film by throwing in burning matches and lighted tobacco. As already mentioned in an earlier article, if a fluid system is adopted, the tub should be deep and its top should come close to the seat. In connection with the breeding and feeding of insects in exposed or buried feces, flies are by no means the only insects which come into both practical and theoretical consideration, and our observations indicate a need for further studies along these lines. Our observations to date indicate that with the water and kerosene method, (1) flies which attempt to feed on particles of floating feces are (always?) overcome by the effects of the oil, (2) dead hook-worm eggs are found beginning with the fourth day, (3) the development of the eggs is retarded, even in very warm weather, so that at the end of seven days embryos have not been found, (4) it is not safe to empty the tub on a field at the end of a week (the usual time recommended for cleaning the privy) as live hook-worm eggs may still be present in large numbers, despite the fermentation which has occurred. (How long it is necessary to ferment the night soil, at different seasons of the year, in order to kill these eggs, will be reported later.)

UNITED STATES.

REPORTS TO THE SURGEON-GENERAL, PUBLIC HEALTH AND MARINE-HOSPITAL SERVICE.

PLAGUE-PREVENTION WORK.

Infected Ground Squirrels.

Six plague-infected ground squirrels have been reported found in California, as follows: In Merced County, June 6, 1; in Monterey County, June 6, 1; in San Joaquin County, June 10, 1; in Santa Clara County, June 8, 2, and June 10, 1.

Passed Assistant Surgeon McCoy reports:

SAN FRANCISCO, CAL.

Last case of human plague sickened January 30, 1908. Last case of rodent plague trapped October 23, 1908. Total number of rats found infected to date, 398.

Week ended June 18, 1910. Premises inspected, 2,517. Houses destroyed, 11. Buildings condemned, 7. Nuisances abated, 165. Poisons placed, 4,820. Rats trapped, 2,198. Rats found dead, 23. Gophers trapped, 14. Squirrels trapped, 1. Rats identified, 2,221, as follows: *Mus norvegicus*, 1,745; *Mus rattus*, 71; *Mus musculus*, 330; *Mus alexandrinus*, 75. Average number of traps set daily, 7,618. Examined bacteriologically, 1,668 rats, 1 squirrel, and 1 gopher. No plague infection found.

BERKELEY, CAL.

There is no record of rodent plague in Berkeley. The last case of human plague sickened August 28, 1907.

Week ended June 18, 1910. Rats trapped, 179. Gophers trapped, 1. Rats identified, 179, as follows: *Mus norvegicus*, 145; *Mus musculus*, 34. Examined bacteriologically, 145 rats and 1 gopher. No plague infection found.

OAKLAND, CAL.

Last case of human plague sickened October 26, 1909. Last case of rodent plague found December 1, 1908.

Week ended June 18, 1910. Rats found dead, 27. Rats trapped, 760. Rats identified, 787, as follows: *Mus norvegicus*, 659; *Mus musculus*, 128. Rats examined bacteriologically, 659. No plague-infected rats found.

ALAMEDA COUNTY, CAL. (exclusive of city of Oakland).

Last case of human plague sickened 2 miles southwest of Sunol September 26, 1909. Last case of rodent plague found May 30, 1910. To the present time 81 ground squirrels and 1 wood rat have been found infected.

Week ended June 18, 1910. Ranches inspected, 6. Ground squirrels shot, 6. Ground squirrels found dead, 106. Rabbits shot, 19. Acres covered with poison, 1,010. Examined bacteriologically, 112 squirrels and 19 rabbits. No plague infection found.

CONTRA COSTA COUNTY, CAL.

Last case of human plague sickened July 21, 1908. Last plague-infected rodent found January 15, 1910. Total number of ground squirrels found infected to date, 242.

Week ended June 18, 1910. Ranches inspected, 23. Ground squirrels shot, 188. Ground squirrels examined bacteriologically, 153. No plague-infected squirrels found.

LOS ANGELES COUNTY, CAL.

Last case of human plague sickened August 11, 1908. Last plague-infected rodent found August 21, 1908.

Week ended June 18, 1910. Ranches inspected, 33. Ground squirrels shot, 455. Ground squirrels found dead, 47. Ground squirrels examined bacteriologically, 500. No plague-infected squirrels found.

MERCED COUNTY, CAL.

There is no record of human plague in Merced County. A plague-infected rodent was found June 6, 1910.

Week ended June 18, 1910. Ranches inspected, 8. Ground squirrels shot, 146. Rabbits shot, 1. Examined bacteriologically, 126 ground squirrels and 1 rabbit. One plague-infected squirrel found.

The plague-infected squirrel was found June 6, 1910, at Near Ranch, 8 miles south of Gustine.

MONTEREY COUNTY, CAL.

There is no record of human plague in Monterey County. The last plague-infected rodent was found June 6, 1910. Total number of ground squirrels found infected to date, 4.

Week ended June 18, 1910. Ranches inspected, 18. Ground squirrels shot, 756. Ground squirrels examined bacteriologically, 734. One plague-infected squirrel found.

The plague-infected squirrel was found June 6 at Dowd Ranch, 3½ miles south of King City, San Bernabe Rancho.

ORANGE COUNTY, CAL.

There is no record of human or rodent plague in Orange County.

Week ended June 18, 1910. Ranches inspected, 18. Ground squirrels shot, 174. Ground squirrels found dead, 3. Ground squirrels examined bacteriologically, 127. No plague-infected squirrels found.

RIVERSIDE COUNTY, CAL.

There is no record of human or rodent plague in Riverside County. Week ended June 18, 1910. Ranches inspected, 7. Ground squirrels shot, 61. Ground squirrels found dead, 116. Ground squirrels examined bacteriologically, 170. No plague-infected squirrels found.

SAN BENITO COUNTY, CAL.

Last case of human plague sickened June 5, 1910. Last plague-infected rodent found June 5, 1910. Total number of ground squirrels found infected to date, 15.

Week ended June 18, 1910. Ranches inspected, 22. Ground squirrels shot, 345; found dead, 1. Ground squirrels examined bacteriologically, 337. No plague-infected squirrels found.

SAN BERNARDINO COUNTY, CAL.

There is no record of human or rodent plague in San Bernardino County.

Week ended June 18, 1910. Ground squirrels shot, 55. Ground squirrels found dead, 11. Ground squirrels examined bacteriologically, 66. No plague-infected squirrels found.

SAN JOAQUIN COUNTY, CAL.

There is no record of human plague in San Joaquin County. The last case of rodent plague was found June 10, 1910. Total number of ground squirrels found infected to date, 3.

Week ended June 18, 1910. Ranches inspected, 20. Ground squirrels shot, 344. Rabbits shot, 3. Examined bacteriologically, 344 squirrels and 3 rabbits. One plague-infected squirrel found.

The plague-infected squirrel was found June 10 at Cowell ranch (Lathrop).

SAN LUIS OBISPO COUNTY, CAL.

There is no record of human plague in San Luis Obispo County. A plague-infected rodent was found January 29, 1910.

Week ended June 18, 1910. Ranches inspected, 12. Ground squirrels shot, 432. Ground squirrels examined bacteriologically, 424. No plague-infected squirrels found.

SANTA CLARA COUNTY, CAL.

There is no record of human plague in Santa Clara County. The last case of rodent plague was found June 10, 1910. Total number of ground squirrels found infected to date, 19.

Week ended June 18, 1910. Ranches inspected, 9. Ground squirrels shot, 401; found dead, 1. Ground squirrels examined bacteriologically, 391. Three plague-infected squirrels found.

The plague-infected squirrels were found as follows: June 8, at Weber ranch, 2 miles southeast of Coyote (Rancho La Laguna Seca), 1, and at Tony ranch, 2 miles northeast of Coyote (sec. 19 old Pueblo tract), 1; June 10, at Yerba Buena ranch, 1 mile north of Coyote (Rancho Yerba Buena y Socayre), 1.

SANTA CRUZ COUNTY, CAL.

There is no record of human plague in Santa Cruz County. The last plague-infected rodent was found May 9, 1910. Total number of ground squirrels found infected to date, 2.

Week ended June 18, 1910. Ranches inspected, 9. Ground squirrels shot, 105. Ground squirrels examined bacteriologically, 105. No plague-infected squirrels found.

STANISLAUS COUNTY, CAL.

There is no record of human plague in Stanislaus County. The last plague-infected rodent was found May 21, 1910. Total number of plague infected squirrels found to date, 5.

Week ended June 18, 1910. Ranches inspected, 4. Ground squirrels shot, 54. Ground squirrels examined bacteriologically, 54. No plague-infected squirrels found.

Assistant Surgeon Chapin reports:

SEATTLE, WASH.

No case of human plague since October 30, 1907. The last plague-infected rodent was found February 8, 1910. Total number of plague-infected rats to date, 22.

Week ended June 18, 1910. Rats received, 965. Rats necropsied, 788. No plague-infected rats found.

SMALLPOX IN THE UNITED STATES.**Reports Received During Week Ended July 8, 1910.**

Place.	Date.	Cases.	Deaths.	Remarks.
Alabama:				
Montgomery.....	June 19-25.....	2	.....
Arkansas:				
Fort Smith.....	June 19-25.....	1	.....
Florida:				
Duval County.....	June 19-25.....	2	.....
Jackson County.....	June 19-25.....	2	.....
Walton County.....	June 12-18.....	1	.....
Missouri:				
Kansas City.....	May 15-31.....	13	.....
St. Louis.....	June 19-25.....	4	.....
Nebraska:				
Lincoln.....	Mar. 1-31.....	3	.....
	Apr. 1-30.....	10	.....
	May 1-31.....	13	.....
North Dakota:				
Billings County.....	Apr. 1-30.....	1	.....
Bottineau County.....	Apr. 1-30.....	3	.....
Cavaller County.....	Apr. 1-30.....	6	.....
Walsh County.....	Apr. 1-30.....	10	.....
Ward County.....	Apr. 1-30.....	1	.....
Pennsylvania, entire State.....	Apr. 1-30.....		2	
	May 1-31.....	22	.....
Tennessee:				
Hamilton County—				
Chattanooga.....	June 19-25.....	1	.....
Knox County—				
Knoxville.....	June 21-27.....	1	.....
Shelby County—				
Memphis.....	June 19-25.....	2	.....
Utah:				
Boxelder County.....	May 1-31.....	1	.....
Cache County.....	May 1-31.....	6	.....
Davis County.....	May 1-31.....	17	.....
Salt Lake County.....	May 1-31.....	21	.....
Utah County.....	May 1-31.....	1	.....
Weber County.....	May 1-31.....	18	.....

SMALLPOX IN THE UNITED STATES—Continued.

Reports Received from June 25 to July 1, 1910.

[For reports received from January 1, 1910, to June 24, 1910, see Public Health Reports for June 24, 1910. In accordance with custom, the tables of epidemic diseases are terminated semiannually and new tables begun.]

Place.	Date.	Cases.	Deaths.	Remarks.
Alabama:				
Birmingham.....	June 12-18.....	2	.....
Mobile.....	June 12-18.....	8	.....
Montgomery.....	June 12-18.....	4	.....
Total for State.....		14	.....
Kansas:				
Atchison County—				
Atchison.....	Apr. 1-30.....	5	.....
Butler County.....	Apr. 1-30.....	2	.....
Cowley County.....	Apr. 1-30.....	1	.....
Decatur County.....	Apr. 1-30.....	1	.....
Doniphan County.....	Apr. 1-30.....	10	.....
Edwards County.....	Apr. 1-30.....	1	.....
Ellsworth County.....	Apr. 1-30.....	1	.....
Finney County.....	Apr. 1-30.....	2	.....
Graham County.....	Apr. 1-30.....	1	.....
Greenwood County.....	Apr. 1-30.....	3	.....
Harvey County.....	Apr. 1-30.....	1	.....
Kearny County.....	Apr. 1-30.....	1	.....
Kingman County.....	Apr. 1-30.....	2	.....
Labette County—				
Parsons.....	Apr. 1-30.....	8	.....
Leavenworth County.....	Apr. 1-30.....	1	.....
Miami County.....	Apr. 1-30.....	1	.....
Montgomery County.....	Apr. 1-30.....	27	1	
Coffeyville.....	Apr. 1-30.....	7	.....
Norton County.....	Apr. 1-30.....	3	.....
Ossage County.....	Apr. 1-30.....	5	.....
Osborne County.....	Apr. 1-30.....	1	.....
Pawnee County.....	Apr. 1-30.....	3	.....
Reno County.....	Apr. 1-30.....	15	.....
Riley County.....	Apr. 1-30.....	1	.....
Rush County.....	Apr. 1-30.....	3	.....
Saline County.....	Apr. 1-30.....	3	.....
Scott County.....	Apr. 1-30.....	4	.....
Sedgwick County.....	Apr. 1-30.....	3	.....
Wichita.....	Apr. 1-30.....	6	.....
Sheridan County.....	Apr. 1-30.....	1	.....
Thomas County.....	Apr. 1-30.....	1	.....
Wyandotte County.....	Apr. 1-30.....	4	.....
Kansas City.....	Apr. 1-30.....	20	.....
Total for State.....		148	1	
Louisiana:				
New Orleans.....	June 12-18.....	20	.....
Total for State.....		20	.....
Maine:				
Biddeford.....	May 1-31.....	1	.....
Total for State.....		1	.....
Maryland:				
Allegany County—				
Cumberland.....	May 1-31.....	1	.....
Total for State.....		1	.....
Missouri:				
St. Louis.....	June 12-18.....	4	.....
Total for State.....		4	.....
New York:				
Erie County—				
Buffalo.....	May 1-31.....	1	.....
Tonawanda Township.....	May 1-31.....	2	.....
Niagara County—				
Niagara Falls.....	May 1-31.....	1	.....
North Tonawanda.....	May 1-31.....	1	.....
St. Lawrence County.....	May 1-31.....	19	.....
Schenectady County.....	May 1-31.....	2	.....
Total for State.....		26	.....

SMALLPOX IN THE UNITED STATES—Continued.

Reports Received from June 25 to July 1, 1910—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
North Carolina:				
Forsyth County.....	Feb. 1-28.....	.....	1	
Rowan County.....	Feb. 1-28.....	.....	1	
Alamance County.....	Mar. 1-May 31.....	36	.....
Alexander County.....	Mar. 1-May 31.....	48	.....
Anson County.....	Apr. 1-May 31.....	2	.....
Ashe County.....	Mar. 1-31.....	12	.....
Beaufort County.....	Mar. 1-31.....	4	.....
Bladen County.....	Apr. 1-May 31.....	16	.....
Cabarrus County.....	Mar. 1-May 31.....	12	.....
Caldwell County.....	Mar. 1-May 31.....	9	1	
Catawba County.....	Mar. 1-May 31.....	38	.....
Chatham County.....	Mar. 1-Apr. 30.....	3	.....
Chowan County.....	Mar. 1-31.....	3	.....
Columbus County.....	Apr. 1-May 31.....	23	.....
Craven County.....	Mar. 1-31.....	1	.....
Currituck County.....	Mar. 1-May 31.....	17	.....
Davidson County.....	Mar. 1-31.....	2	.....
Davie County.....	Mar. 1-31.....	8	.....
Durham County.....	Mar. 1-May 31.....	18	.....
Forsyth County.....	Mar. 1-May 31.....	17	.....
Franklin County.....	Mar. 1-31.....	5	.....
Gaston County.....	Mar. 1-May 31.....	12	2	
Graham County.....	Mar. 1-Apr. 30.....	8	.....
Greene County.....	Mar. 1-Apr. 30.....	19	.....
Guilford County.....	Mar. 1-May 31.....	44	.....
Halifax County.....	Mar. 1-31.....	40	.....
Henderson County.....	May 1-31.....	4	.....
Hertford County.....	Mar. 1-31.....	1	.....
Iredell County.....	May 1-31.....	.....	.....	Several.
Johnston County.....	Apr. 1-May 31.....	4	.....	Several in March.
Jones County.....	Mar. 1-31.....	1	.....
Lee County.....	Mar. 1-31.....	5	.....
Lenoir County.....	Mar. 1-May 31.....	11	.....
Lincoln County.....	Mar. 1-May 31.....	2	.....
Madison County.....	Apr. 1-30.....	5	.....
Martin County.....	Apr. 1-May 31.....	4	.....
Mecklenburg County.....	Mar. 1-May 31.....	15	.....
Montgomery County.....	Mar. 1-May 31.....	47	.....
Nash County.....	Mar. 1-May 31.....	50	.....
New Hanover County.....	Mar. 1-May 31.....	12	.....
Onslow County.....	Mar. 1-May 31.....	5	.....
Orange County.....	Mar. 1-May 31.....	32	.....
Pamlico County.....	Mar. 1-31.....	2	.....
Perquimans County.....	May 1-31.....	1	.....
Person County.....	May 1-31.....	1	.....
Pitt County.....	Mar. 1-May 31.....	23	.....
Polk County.....	Mar. 1-31.....	7	.....
Richmond County.....	Apr. 1-30.....	2	.....
Robeson County.....	Apr. 1-May 31.....	3	.....
Rockingham County.....	Mar. 1-31.....	48	.....
Rowan County.....	Mar. 1-May 31.....	32	1	
Sampson County.....	May 1-31.....	2	.....
Scotland County.....	May 1-31.....	5	.....
Stanly County.....	Apr. 1-May 31.....	20	.....
Stokes County.....	Mar. 1-31.....	64	.....
Surry County.....	Mar. 1-31.....	4	.....
Union County.....	Mar. 1-May 31.....	25	.....
Vance County.....	Apr. 1-30.....	4	.....
Wake County.....	Apr. 1-May 31.....	22	.....
Warren County.....	Apr. 1-30.....	20	.....
Washington County.....	Mar. 1-Apr. 30.....	4	.....
Watauga County.....	Apr. 1-May 31.....	20	.....
Wayne County.....	Apr. 1-May 31.....	6	.....
Wilkes County.....	Mar. 1-May 31.....	35	.....
Wilson County.....	Mar. 1-May 31.....	24	1	
Yancey County.....	Mar. 1-31.....	26	.....
Total for State.....		995	7	
Tennessee:				
Davidson County—				
Nashville.....	June 12-18.....	1	.....
Hamilton County—				
Chattanooga.....	June 12-18.....	1	.....
Knox County—				
Knoxville.....	June 12-18.....	2	.....
Shelby County—				
Memphis.....	June 12-18.....	1	.....
Total for State.....		5	.....

SMALLPOX IN THE UNITED STATES—Continued.

Reports Received from June 25 to July 1, 1910—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Texas, general.....	Apr. 1-31.....	.....	2	
San Antonio.....	May 1-31.....	5	.....
Total for State.....	.....	5	2	
Virginia:				
Lynchburg.....	June 12-18.....	1	.....
Total for State.....	.....	1	.....
Grand total for the United States.....	.....	1,220	10	

PLAGUE IN THE UNITED STATES

Reports Received from June 25 to July 1, 1910.

Place.	Date.	Cases.	Deaths.	Remarks.
California:				
San Benito County—Hollister.....	June 5-11.....	1	1	

MORBIDITY AND MORTALITY.

WEEKLY MORBIDITY AND MORTALITY TABLE, CITIES OF THE UNITED STATES.

[For smallpox and plague see special tables.]

Cities.	Week ended—	Esti- mated popu- lation, 1910.	Total deaths from all causes.	Tuber- culosis.		Ty- phoid fever.		Scarlet fever.		Diph- theria.		Measles.		Whoop- ing cough.	
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Altoona, Pa.....	June 25	51,782	10	.....	2	5	.....	2	.....	1	.....	.....	.....	.....	.....
Ann Arbor, Mich.....	June 18	14,734	10	2	.....	.....	.....	.....	.....	.....	.....	4	.....	.....	.....
Do.....	June 25	.....	8	.....	.....	.....	.....	.....	.....	.....	.....	12	.....	.....	.....
Auburn, N. Y.....	June 18	34,709	12	1	.....	.....	.....	6	.....	2	1	.....	.....	4	.....
Baltimore, Md.....	June 25	583,475	209	43	26	15	3	15	.....	2	.....	15	.....	24	5
Bayonne, N. J.....	do.....	51,802	.....	1	.....	.....	.....	1	.....	1	.....	5	.....	2	.....
Beaver Falls, Pa.....	do.....	10,373	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Berkeley, Cal.....	June 11	.....	2	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....
Do.....	June 18	.....	8	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1
Biddeford, Me.....	June 25	17,847	1	.....	.....	.....	.....	2	.....	2	.....	.....	.....	.....	.....
Binghamton, N. Y.....	do.....	46,545	16	4	1	.....	.....	6	1	2	.....	5	.....	.....	.....
Birmingham, Ala.....	do.....	55,945	46	9	5	14	1	2	1	1	.....	24	1	.....	.....
Boston, Mass.....	do.....	629,868	178	115	24	5	.....	29	1	39	1	147	3	9	1
Braddock, Pa.....	do.....	21,594	12	1	1	2	.....	.....	.....	1	1	6	.....	.....	.....
Bridgeport, Conn.....	do.....	96,126	33	.....	2	.....	.....	1	.....	3	.....	1	.....	.....	.....
Brockton, Mass.....	do.....	55,525	11	13	2	1	.....	1	.....	3	.....	3	.....	.....	.....
Camden, N. J.....	do.....	90,791	.....	.....	.....	.....	.....	2	.....	3	.....	.....	.....	.....	.....
Cambridge, Mass.....	do.....	102,982	23	7	3	1	1	4	.....	8	1	11	.....	.....	1
Cambridge, Ohio.....	do.....	12,121	5	.....	1	.....	.....	.....	.....	1	1	.....	.....	.....	.....
Canton, Ohio.....	do.....	40,570	11	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Carbondale, Pa.....	June 26	15,939	5	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
Charlotte, N. C.....	June 25	36,320	12	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chelsea, Mass.....	do.....	40,506	6	3	.....	1	.....	2	.....	1	.....	9	.....	.....	.....
Chicago, Ill.....	do.....	2,282,927	635	151	60	10	2	120	10	124	15	456	5	36	3
Chicopee, Mass.....	do.....	21,225	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cincinnati, Ohio.....	do.....	353,108	114	40	29	6	1	9	.....	3	1	19	.....	.....	.....
Cleveland, Ohio.....	June 24	522,475	161	31	20	5	1	13	3	18	2	50	3	12	1
Columbus, Ga.....	June 25	17,925	8	.....	1	.....	1	.....	.....	.....	.....	.....	1	.....	.....
Columbus, Ohio.....	do.....	158,649	63	6	6	1	.....	2	.....	1	.....	25	.....	1	.....
Concord, N. H.....	June 18	22,260	6	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Covington, Ky.....	June 25	52,325	12	.....	3	1	.....	1	1	2	.....	.....	.....	.....	.....

MORBIDITY AND MORTALITY—Continued.

Weekly morbidity and mortality table, cities of the United States—Continued.

Cities.	Week ended—	Esti- mated popu- lation, 1910.	Total deaths from all causes.	Tuber- culosis.		Ty- phoid fever.		Scarlet fever.		Diph- theria.		Measles.		Whoop- ing cough.	
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Danville, Ill.	June 25	28,413	10					2				2			
Dayton, Ohio.	do.	111,889	32	5	5			14		10	2	19			
Detroit, Mich.	do.	393,536	159					6							
Duluth, Minn.	June 18	76,915	20	3		1	1	6		3	3	8		3	
Dunkirk, N. Y.	June 25	18,778	5	1						2	2	2			
Elizabeth, N. J.	do.	69,154	24		2			10		3		1			
Elmira, N. Y.	do.	35,776	14					3							
Evansville, Ind.	June 18	67,782	18		2	2				2		72			
Do.	June 25		25		3		1	1		1		68	1	1	2
Freeport, Ill.	do.	22,687	7		1										
Erie, Pa.	do.	64,862	20	6	3	2	1	12	1	1	2	5			
Everett, Mass.	do.	33,886	2	1		1						8			
Galesburg, Ill.	do.	21,950	0												
Hartford, Conn.	June 18	106,470	29		3			3		4		18			
Do.	June 25		24	10	1			4		10	2	23	1		
Jacksonville, Fla.	do.	42,173	12	1	2	4		1							
Kingston, N. Y.	June 11	26,285	12	1	1			2		3					
Do.	June 18		11	2	2			2		1		9			
La Crosse, Wis.	June 25	29,261	10		1			1		1					
La Fayette, Ind.	do.	19,989	7	3								1			
Lancaster, Pa.	do.	50,907	11	3		1		1		1		17			
Lebanon, Pa.	June 25	20,592	5	9				4	1						
Lexington, Ky.	do.	31,171	10									18	1	2	
Los Angeles, Cal.	June 18		59	6	8	10	1	16		7	2	9			
Lowell, Mass.	June 25	95,109	40	2	1		1	6	2	4		7		3	
Lynchburg, Va.	do.	30,064										1			
Lynn, Mass.	June 18	85,571	22	3	2	1		2		4	2	71			1
Malden, Mass.	do.	42,410	8	1				4				18			
Manchester, N. H.	June 25	69,848	26							3					
Manistee, Mich.	do.	10,400	85			2						10		5	
Mansfield, Ohio.	do.	21,807						1		1		15			
Marquette, Wis.	do.	14,513	2												
Massillon, Ohio.	do.	13,796	4		1										
McKeesport, Pa.	May 7		14		2			4				57			
Do.	May 14		17		1			4		1		42	1	1	
Do.	May 21		14			1		2		2	1	46	1		
Do.	May 28		14		2	3		6	1			27			
Medford, Mass.	June 25	21,123	3					4		1		3			
Memphis, Tenn.	do.	140,145	69	7	5	4	1	3							
Milwaukee, Wis.	do.	337,117	106	14	16	47	9	41	5	16	3	100	5	22	2
Mobile, Ala.	June 18	56,335	24		2	5				1					
Moline, Ill.	June 25	23,576	4					3				1			
Montclair, N. J.	do.	18,778	3					2				3			
Morristown, N. J.	June 18	13,025	5			1	1	1		2		2			
Do.	June 25		2					1							
Mount Vernon, N. Y.	do.	28,632	3	1				2		4		1		1	
Nanticoke, Pa.	do.	14,188	4							1					
Nashville, Tenn.	do.	107,076	48	1	6	2	1	2				16	1		
Newark, N. J.	do.	315,014	102	19	12	1		28		20					
New Bedford, Mass.	do.	86,282	36	5	1	5	1	5	1	2		2			
Newburyport, Mass.	do.	14,872	5	1	1										
New Orleans, La.	do.	332,169	155	34	19	9	3	9	2	5		26			
Newport, Ky.	do.	31,308	9		2										
New York, N. Y.	do.	4,563,604	1,425	517	137	24	7	354	20	316	37	827	20	56	3
Newton, Mass.	do.	40,067	7	1		1		4		4		20			
Niagara Falls, N. Y.	June 25	33,407	14	2	3	1		2				1			
North Adams, Mass.	do.	20,100	7			1									
Northampton, Mass.	June 27	21,146	8	1								8			
Oakland, Cal.	June 18		46					1		2					
Orange, N. J.	June 25	28,061	6					1				2			
Palmer, Mass.	do.		2							2	1				
Philadelphia, Pa.	do.	1,540,430		103	43	17	2	28		70	12	206	6	48	6
Peekskill, N. Y.	do.	16,042	5									14			
Pittsburg, Pa.	June 18	570,065	164	27	7	12	3	37	5	12	121	5	5		
Pittsfield, Mass.	June 25	28,236	16	2	1	1				2	1	2		2	1
Plainfield, N. J.	do.	21,567	1	2		1									
Plymouth, Pa.	do.	17,954						1							
Pontiac, Mich.	May 7	13,112	12	18		1		15		10	1	15			
Do.	May 14		2			1		10		8		18			
Do.	May 21		5			1		8	2	8	1	15			
Do.	May 28		9	19		1		5		8		12			
Portland, Me.	June 4	58,512	19		1			1		1		2			1
Do.	June 11		19		1	3		3				2			

MORBIDITY AND MORTALITY—Continued.

Weekly morbidity and mortality table, cities of the United States—Continued.

Cities.	Week ended—	Estimated population, 1910.	Total deaths from all causes.	Tuberculosis.		Typhoid fever.		Scarlet fever.		Diphtheria.		Measles.		Whooping cough.	
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Portsmouth, N. H.	June 25	11,447	—	—	—	—	—	—	—	1	1	1	—	—	—
Portsmouth, Va.	do.	28,225	12	—	—	1	—	—	—	1	—	2	—	—	—
Pottstown, Pa.	do.	14,065	4	—	—	1	—	—	—	—	—	1	—	—	—
Providence, R. I.	do.	221,673	90	4	11	5	—	4	—	5	1	3	5	—	—
Racine, Wis.	do.	35,478	8	—	2	—	—	—	—	1	—	—	—	—	—
Reading, Pa.	June 27	99,261	25	1	—	2	—	6	1	5	2	26	—	10	—
Rockford, Ill.	June 25	38,651	—	—	—	—	—	2	—	2	—	—	—	—	—
Rock Island, Ill.	do.	25,352	6	2	2	3	—	1	—	—	—	—	—	—	—
Sacramento, Cal.	June 18	32,178	12	—	2	—	—	—	—	—	—	2	—	1	—
Saginaw, Mich.	May 21	53,008	—	—	—	1	—	1	—	1	—	—	—	—	—
Salt Lake City, Utah.	June 17	65,464	25	—	—	2	20	20	2	—	—	5	—	4	—
Do.	June 25	—	23	—	—	3	10	4	—	4	—	3	—	3	—
San Antonio, Tex.	do.	68,969	11	—	9	5	2	—	—	—	—	1	—	—	—
San Francisco, Cal.	June 18	—	104	24	11	14	4	4	—	9	2	9	—	5	—
Saratoga Springs, N. Y.	do.	13,589	10	—	—	—	1	—	—	—	—	—	—	—	—
Do.	June 25	—	2	—	—	—	—	—	—	—	—	—	—	—	—
Schenectady, N. Y.	June 18	76,744	15	—	—	7	1	2	—	—	—	5	1	2	1
Do.	June 25	—	13	6	1	14	1	1	—	—	—	2	—	—	—
Seattle, Wash.	June 18	—	2	2	3	1	8	—	—	2	—	15	1	—	—
Somerville, Mass.	do.	76,901	17	1	1	1	6	6	1	6	—	6	—	—	—
Do.	June 25	—	13	7	—	1	4	4	3	4	—	4	—	—	—
South Bend, Ind.	do.	50,741	10	1	—	—	1	—	—	—	—	1	—	—	—
South Bethlehem, Pa.	do.	16,180	8	2	1	—	—	—	—	1	1	1	—	—	—
Springfield, Mass.	do.	85,021	35	6	1	1	2	8	—	18	—	1	—	1	—
Steelton, Pa.	do.	15,055	6	3	—	—	4	4	2	—	—	—	—	1	—
Superior, Wis.	do.	42,011	11	—	—	—	7	1	1	—	—	—	—	—	—
Taunton, Mass.	May 28	30,898	16	—	—	1	1	2	—	—	—	4	—	—	—
Do.	June 25	—	12	2	1	—	—	—	—	—	—	—	—	—	—
Terre Haute, Ind.	do.	56,409	18	2	—	—	—	12	—	—	—	49	—	1	—
Titusville, Pa.	do.	8,415	2	—	—	—	—	—	—	—	—	—	—	—	—
Do.	June 18	—	4	—	—	—	—	2	—	—	—	—	—	3	—
Trenton, N. J.	June 25	95,053	6	6	6	3	—	9	—	—	—	—	—	—	—
Utica, N. Y.	do.	70,911	26	—	2	—	—	—	—	1	—	—	—	—	—
Waltham, Mass.	do.	29,063	1	—	—	—	1	1	—	1	—	1	—	—	—
Warren, Ohio	June 18	11,424	1	—	—	1	1	—	—	—	—	—	—	—	—
Washington, D. C.	June 25	237,044	136	15	11	5	2	4	—	8	—	6	—	8	—
Wichita, Kans.	do.	52,313	22	—	2	1	—	—	—	3	—	3	—	—	—
Wilkesbarre, Pa.	June 18	65,724	20	3	1	4	—	10	—	3	—	2	—	1	—
Do.	June 25	—	22	2	1	—	4	4	—	6	1	7	—	2	—
Wilkesburg, Pa.	do.	20,884	11	1	2	—	1	—	—	—	—	2	—	—	—
Williamsport, Pa.	do.	30,382	4	—	—	—	—	1	—	1	—	26	—	2	—
Wilmington, Del.	do.	90,260	24	5	—	—	—	—	—	—	—	—	—	—	—
Woburn, Mass.	June 4	14,550	2	—	—	1	—	3	—	1	—	4	—	—	—
Do.	June 25	—	1	1	1	—	—	—	—	—	—	1	—	—	—
Yonkers, N. Y.	do.	74,897	20	1	1	—	—	14	1	4	—	4	—	—	—
York, Pa.	do.	42,805	5	—	—	—	—	1	—	8	1	—	—	2	—
Zanesville, Ohio	do.	26,042	7	1	1	2	—	—	—	—	—	—	—	—	—

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

CALIFORNIA—*Sacramento*.—Month of May, 1910. Population, 55,000. Total number of deaths from all causes 79, including typhoid fever 1, measles 1, scarlet fever 1, diphtheria 3, tuberculosis 12. Cases reported: Typhoid fever 1, measles 1, scarlet fever 3, diphtheria 3, tuberculosis 1.

FLORIDA.—Reports from the state board of health show as follows: Week ended June 4, 1910. Typhoid fever present in 8 localities with 12 cases, malaria in 4 localities with 12 cases, tuberculosis in 8 localities with 19 cases.

Week ended June 18, 1910.^a Typhoid fever present in 9 localities with 22 cases, smallpox in 2 counties (Duval and Walton) with 2 cases, malaria in 2 localities with 6 cases, tuberculosis in 4 localities with 5 cases.

Week ended June 25, 1910. Typhoid fever present in 11 localities with 26 cases, smallpox in 2 counties (Duval and Walton) with 3 cases, malaria in 2 localities with 10 cases, tuberculosis in 6 localities with 8 cases.

INDIANA.—Month of April, 1910. Population 2,732,550. Total number of deaths from all causes 2,836, including typhoid fever 32, diphtheria 13, tuberculosis 431. Cases reported: Typhoid fever 112 in 32 counties, smallpox 81 in 18 counties, diphtheria 109 in 28 counties.

IOWA.—Month of May, 1910. Population 2,192,608. Total number of deaths from all causes 1,435, including typhoid fever 14, measles 13, scarlet fever 11, diphtheria 12, tuberculosis 117.

KANSAS.—Month of April, 1910. Population 1,703,002. Deaths from contagious diseases include typhoid fever 13, smallpox 1, measles 23, scarlet fever 13, diphtheria 7, tuberculosis 70. Cases reported: Typhoid fever 57, smallpox 148, measles 1,840, scarlet fever 329, diphtheria 95, tuberculosis 280.

NEBRASKA—*Lincoln*.—Month of May, 1910. Population 65,000. Total number of deaths from all causes 38, including tuberculosis 4. Cases reported: Smallpox 13, measles 12, scarlet fever 16, diphtheria 3.

NEW YORK — *Rochester*. — Month of April, 1910. Population 200,000. Total number of deaths from all causes 262, including typhoid fever 1, scarlet fever 9, diphtheria 4, tuberculosis (pulmonary) 33. Cases reported: Typhoid fever 3, measles 101, scarlet fever 264, diphtheria 26. Month of May, 1910. Total number of deaths from all causes 239, including typhoid fever 2, scarlet fever 7, diphtheria 3, tuberculosis (pulmonary) 28. Cases reported: Typhoid fever 2, measles 166, scarlet fever 198, diphtheria 15.

NORTH DAKOTA.—Month of April, 1910. Population 536,103. Total number of deaths from all causes 253, including measles 1, scarlet fever 3, diphtheria 3, tuberculosis 1. Cases reported: Typhoid fever 4, smallpox 21, measles 367, scarlet fever 59, tuberculosis 21.

PENNSYLVANIA — *Scranton*. — Year 1909. Population 129,000. Total number of deaths from all causes 1,803, including typhoid fever 14, measles 18, scarlet fever 49, diphtheria 43, tuberculosis 114. Cases reported: Typhoid fever 119, measles 673, scarlet fever 261, diphtheria 349, tuberculosis 51.

^a Week ended June 11, 1910, Public Health Reports, June 24, 1910, page 897.

FOREIGN AND INSULAR.

ARABIA.

HODEIDAH—Status of Plague at Lohela.

Consul Moser reports, May 24:

Since the outbreak of plague at Loheia, officially reported from this consulate May 23, there have been 56 cases with 51 deaths. The disease has not spread beyond Loheia and the surrounding country, a district about 60 miles from Hodeidah. Shipment of hides and other merchandise capable of conveying infection to the United States will be suspended until land and maritime quarantine against arrivals from Loheia is enforced.

BARBADOS.

BRIDGETOWN—Inspection of Vessels.

Acting Assistant Surgeon Le Sueur reports, June 18:

Week ended June 18. Bills of health issued to 8 vessels having an aggregate of 380 in crews and 169 passengers. No quarantinable diseases were reported during the week.

CHINA.

AMOY—Epidemic Plague—Inspection of Vessels.

Acting Assistant Surgeon Morehead reports, May 17, 27, and 31:

Plague has increased rapidly in Amoy, the average number of deaths occurring daily being from 10 to 15 (population 96,000). In 2 Chinese families numbering 8 persons and occupying the same house there were 7 deaths from pneumonic plague within a few days. Plague and cholera are reported epidemic in Swatow, a port 13 miles distant from Amoy. All regular coast steamships running between Hongkong and Amoy call at Swatow. There is a very large coolie traffic between Amoy and Swatow and the Straits Settlements, an average of 60,000 to 70,000 coolie passengers leaving Amoy for the Straits Settlements every year. During the month of April, 1910, 13,760 coolies left Amoy for Singapore. The port health officer at Singapore reports 2 cases of plague occurring among coolies arriving in April. The government of the Straits Settlements has declared Amoy an infected port.

There has been practically no rainfall in this province (Fukien) during the current year and the great majority of wells and other water supplies have failed. The people are drinking every kind of stagnant and polluted water.

Bills of health were issued as follows: Week ended May 14. Steamships *Taisang* and *Yingchow* for Manila. These vessels carried an aggregate of 120 in crews and 71 cabin and 192 steerage passengers. All steerage passengers were bathed and their clothing was disinfected with steam. All on board were examined immediately prior to sailing. One steerage passenger was rejected. Manifests were viséed for 936 and 1,461 packages of freight, respectively. The vessels anchored in mid stream.

Week ended May 21. Steamships *Taisang* and *Sunkiang* for Manila with an aggregate of 114 in crews and 58 cabin and 192 steerage passengers. All steerage passengers were bathed and their clothing was disinfected. All on board were inspected immediately prior to sailing. Manifests viséed for 648 and 512 packages of freight. One steerage passenger was rejected. The vessels anchored in mid stream.

Week ended May 28. No bills of health issued. Leprosy and plague are present. From 8 to 12 deaths from plague have occurred daily during the week.

SHANGHAI—Inspection of Vessels—Smallpox.

Acting Assistant Surgeon Ransom reports, May 26:

Week ended May 21.

Vessels granted bills of health.....	1
Total members of crews.....	163
Total cabin passengers.....	40
Total steerage passengers.....	167
Steerage passengers bathed and effects disinfected.....	4
Pieces of baggage disinfected.....	11
Pieces of freight disinfected.....	80
Packages of freight viséed.....	1, 147

The steamship *Nippon Maru* from Hongkong for San Francisco via Shanghai and Japanese ports was in this port 30 hours in the stream at Woosung. Loading was done by daylight only and liberty ashore allowed officers only. The steerage passengers from Shanghai were bathed and inspection was held on the tender for the vessel at the hour of sailing.

The weekly report of the municipal health officer shows 2 deaths from smallpox among natives. Reports from Hankau for the week ended May 14 show 1 case of typhus fever and from Tientsin, for the week ended May 7, 1 case of typhus fever.

SWATOW—Cholera and Plague.

Consul Chamberlain reports, May 19:

Within the past 10 days cholera has appeared in virulent form in the city of Swatow. It is estimated that over 150 deaths have occurred since May 10.

Plague appeared about two weeks ago in the Chao Yang district and as many as 3,000 deaths have been reported, occurring chiefly at Ho Peng. Other places infected are Feng-chow-so, Tsai-tang-shi, Chelin, and Tai-pu-shien. There is very little plague in the city of Swatow, but people from the infected villages are coming into the city.

COSTA RICA.**LIMON, Fruit Port—Inspection of Vessels.**

Acting Assistant Surgeon Mengis reports:
Bills of health issued as follows:

WEEK ENDED JUNE 18.

Date.	Vessel.	Destination.	Crew.	Passengers from this port.	Passengers in transit.
June 11	Limon.....	Boston.....	43	4	.....
12	Harry T. Inge.....	New Orleans.....	26	.....	.....
13	Sibiria.....	New York.....	83	9	.....
14	Helen.....	Mobile.....	22	.....	.....
15	Rosina.....	New Orleans.....	33	.....	.....
15	Mount Vernon.....	Mobile.....	20	.....	.....
16	Preston.....	do.....	31	.....	.....
16	Bonaventure.....	New Orleans.....	29	.....	.....
17	Parismina.....	do.....	83	13	24
18	Vera.....	Philadelphia.....	22	.....	.....

YELLOW FEVER AT SAN JOSÉ.

Doctor Mengis further reports:

June 29. One case of yellow fever at San José carried there from Siquires on fifth day of illness.

A further report from Doctor Mengis states as follows:

The yellow fever patient, a native of Costa Rica, was in the banana district near Siquires 14 days before his being taken ill. The infected district is believed to be within an area of 20 miles, beginning at Estrada and ending at Siquires.

A previous case of yellow fever occurred May 28 in the person of a foreigner landed May 27 at Limon from Barranquilla via Colon. The patient slept on the vessel on the night of May 27 and went, May 28, to San José, where he developed yellow fever.

CUBA.**CIENFUEGOS—Inspection of Vessels.**

Acting Assistant Surgeon Suarez reports, June 20:

Week ended June 18. Bills of health issued, 4. Vessels inspected, 4. Members of crews of outgoing vessels inspected, 110.

No quarantinable disease was reported. Mosquitoes are prevalent.

HABANA—Inspection of Vessels—Status of Leprosy in Island.

Passed Assistant Surgeon de Valin reports, June 22:

Week ended June 18. Bills of health issued, 23. Vessels inspected and passed, 18. Members of crews of outgoing vessels inspected, 840. Passengers of outgoing vessels inspected, 607.

The department of sanitation shows for the period from May 20 to 30, 4 new cases of leprosy with 4 deaths and a total of 33 cases under treatment in the island of Cuba.

No quarantinable diseases were reported during the week ended June 18.

MATANZAS—Inspection of Vessels.

Acting Assistant Surgeon Nuñez reports, June 27:

Week ended June 25. Bills of health granted to 3 vessels leaving for the United States. No quarantinable disease reported.

The department of sanitation reports 4,113 houses inspected during the ten days ended June 20.

SANTIAGO—Inspection of Vessels.

Acting Assistant Surgeon Wilson reports, June 23:

Week ended June 18. Bills of health issued to 4 vessels leaving for the United States and its dependencies. No quarantinable disease reported.

The department of sanitation reports 2,577 houses inspected during the week.

GERMANY.**BERLIN—Fatal Cholera Cases in Vicinity.**

The following information was received from the Department of State under date of June 24:

The consul-general at Berlin reports, this date, that a Russian emigrant from the Warsaw district died of Asiatic cholera at the government inspection station at Ruhleben, near Berlin, June 23.

Information of a second case of cholera at Ruhleben was received through the Department of State under date of June 30, as follows:

The consul-general at Berlin reported June 29 a second fatal case of cholera at Ruhleben in the person of a Russian woman, a member of the family of the first case. The patient died June 27.

GUATEMALA.**PUERTO BARRIOS, Fruit Port—Inspection of Vessels.**

Acting Assistant Surgeon Ames reports:

Bills of health issued as follows:

WEEK ENDED JUNE 4.

Date.	Vessel.	Destination.	Crew.	Passengers from this port.	Passengers in transit.
May 30	Parlsmina.....	New Orleans, via Belize.....	82	30	9
June 2	Ravn.....	do.....	19		
3	Agnella.....	New Orleans.....	18		

Temperature taken of all passengers leaving this port. No quarantinable diseases exist. *Stegomyia calopus* present.

HAWAII.

Three cases of human plague were taken from steamship *Nippon Maru* at Honolulu June 7, 1910.

The last plague-infected rat was found at Aiea, 9 miles from Honolulu, April 12, 1910.

At Hilo the last case of human plague occurred March 23, 1910.

The last plague-infected rat was found at Piihuona, 4 miles from Hilo, April 9, 1910.

Passed Assistant Surgeon Ramus reports, June 13:

HONOLULU—Plague-prevention Work.

Week ended June 11, 1910.

Total rats taken.....	691
Trapped.....	690
Found dead (<i>mus rattus</i>).....	1
Examined bacteriologically.....	575
Plague rats.....	0
Classification of rats trapped:	
<i>Mus alexandrinus</i>	89
<i>Mus musculus</i>	294
<i>Mus norvegicus</i>	57
<i>Mus rattus</i>	250
Average number of traps set daily.....	1,738

INDIA.

CALCUTTA—Cholera, Plague, and Smallpox.

Acting Assistant Surgeon Allan reports, June 2:

Week ended May 14. At Calcutta there were 74 deaths from cholera, 87 from plague, and 5 from smallpox; in all Bengal, 268 cases of plague with 250 deaths; in all India, 12,850 cases of plague with 11,248 deaths.

ITALY.

NAPLES—Examination of Emigrants—Smallpox.

Surgeon Geddings reports, June 15:

Vessels inspected at Naples and Palermo week ended June 11.

NAPLES.

Date.	Name of ship.	Destination.	Steerage passengers inspected and passed.	Pieces of baggage inspected and passed.	Pieces of baggage disinfected.
June 8	Romanic.....	Boston.....	814	130	920
8	Duca degli Abruzzi.....	New York.....	687	105	950
9	Venezia.....	do.....	392	90	560
9	Italia.....	do.....	223	45	290
10	Prinzess Irene.....	do.....	388	45	520
11	Verona.....	Philadelphia.....	780	110	950
	Total.....		3,204	525	4,190

PALERMO.

June 10	Venezia.....	New York.....	436	700	250
10	Italia.....	do.....	343	700	225
11	Prinzess Irene.....	do.....	275	450	150
	Total.....		1,054	1,850	625

Rejections recommended.

NAPLES.

Date.	Name of ship.	Trachoma.	Favus.	Suspected trachoma.	Other causes.	Total.
June 8	Romanic.....	5	7	6	10	31
8	Duca degli Abruzzi.....	7	2	13	9	31
9	Venezia.....	11	3	4	1	19
9	Italia.....	4	1	2	3	10
10	Prinzess Irene.....	12	2	2	9	25
11	Verona.....	27	1	9	3	40
	Total.....	69	16	36	35	156

PALERMO.

June 10	Venezia.....	19	.....	9	3	31
10	Italia.....	21	.....	10	3	34
11	Prinzess Irene.....	8	.....	9	1	18
	Total.....	48	.....	28	7	83

Smallpox in Naples.—During the week ended June 12, 10 cases of smallpox, with 5 deaths, were reported at the health office of the city of Naples.

JAPAN.

| YOKOHAMA.—Inspection of Vessels—Plague Measures in Formosa.

Surgeon Irwin reports, June 6:

Week ended June 4. Bills of health issued as follows: Steamships *Chicago Maru* for Tacoma, *Guam Maru* for Guam, *Siberia* for San Francisco, *Protesilaus* for New York, and *Panama Maru* for Manila. These vessels carried an aggregate of 556 in crews and 214 cabin and 549 steerage passengers.

The results of preventive measures against plague in Formosa are shown in a report which states that from January 1 to May 13, 1910, there were only 9 cases of plague with 7 deaths, as compared with 794 cases during the corresponding period of last year.

KOBE.—Inspection of Vessels.

Acting Assistant Surgeon Moore reports, June 8:

Week ended June 4. Supplemental bills of health granted to 4 steamships and original bill granted to 1 steamship. Members of crews inspected, 682; steerage passengers, 768. Members of crews bathed, 19; steerage passengers bathed, 182 (effects disinfected). Pieces of baggage steamed, 627, and of bedding, 364. Manifests viséed for 26,537 pieces of freight, amounting to 2,678 tons. One vessel fumigated to destroy vermin. Twenty cases of human hair disinfected. Emigrants inspected as follows: Per steamship *Siberia* for Honolulu, 124 (Russians 93, Japanese 31; vaccinated); for San Francisco, 3 (Japanese). Per steamship *Tambo Maru*, for Seattle, 19. Per steamship *China*, for Honolulu, 26; for San Francisco, 3. The emigrants passed, together with 7 intending passengers to Victoria by the *Tambo Maru*, were inspected and bathed and their effects were disinfected. All the emigrants were 7 days in Ono detention station before embarkation.

LIBERIA.**MONROVIA—Quarantine Against Yellow Fever.**

The following information dated May 21 was received from Consul-General Lyon through the Department of State, under date of June 25:

The ports of Sherboro, Sierra Leone, and Sekondi, Gold Coast, are declared infected with yellow fever and the landing of cargo, passengers, or baggage from vessels that have touched at the ports named is prohibited by proclamation of the President of Liberia.

MEXICO.**PROGRESO—Inspection and Fumigation of Vessels.**

Acting Assistant Surgeon Harrison reports, June 18:

Week ended June 18. Vessels inspected, 6, of which 5 were fumigated. They carried a total of 186 in crews and 26 passengers from Progreso.

VERACRUZ—Sanitary Work.

Acting Assistant Surgeon Goldthwaite forwards the following report under date of June 24:

Work of special committee for prevention of yellow fever, month of May, 1910:

Visits made to—		
Nonimmunes.....	34,244	
Schools.....	398	
Factories.....	226	
Stores.....	328	
Nonimmunes entering city.....	2,267	
Nonimmunes leaving city.....	2,139	
Houses disinfected.....	48	
Deposits of water inspected.....	8,094	
Deposits of water containing larvæ, oiled.....	2,127	
Notices sent to house owners.....	7	
Suspects isolated in hospital.....	5	
Passengers inspected on trains.....	3,684	

NEW ZEALAND.**AUCKLAND—Plague.**

The following information was received from the Department of State under date of June 28:

The consul-general at Auckland reported, May 23, a case of plague at Auckland. The patient was an employee in a laundry.

NICARAGUA.**BLUEFIELDS, Fruit Port—Inspection of Vessels.**

Acting Assistant Surgeon Jumel reports:

Bills of health issued as follows:

WEEK ENDED JUNE 21.

Date.	Vessel.	Crew.	Passengers from this port.	Passengers in transit.
May 15	Wilhelmine.....	8	44	.....
16	Navigator.....	19	.....	.....
19	Paducah.....	162	.....	.....
20	Imperator.....	20	14	.....

PANAMA.

BOCAS DEL TORO, Fruit Port—Inspection of Vessels.

Acting Assistant Surgeon Osterhaut reports:
Bills of health issued as follows:

WEEK ENDED JUNE 8.

Date.	Vessel.	Crew.	Passengers from this port.	Passengers in transit.
June 2	Mount Vernon.....	20	.....	.....
2	Heredia.....	82	13	34
4	Preston.....	29	.....	.....
5	Fort Morgan.....	23	.....	.....
7	Cartago.....	84	3	59
8	Turrisiba.....	84	38	4
8	Sibiria.....	84	1	75

PERU.

CALLAO—Inspection of Vessels—Plague on Steamships.

Acting Assistant Surgeon Castro-Gutierrez reports, June 12:

Two weeks ended May 28. Four vessels inspected and fumigated. They carried an aggregate of 393 members of crews and 143 cabin and 60 steerage passengers. One of these vessels, the steamship *Nicaria*, was infected with plague. It was twice dispatched from Callao, but on arrival at Eten, after having been dispatched the first time from Callao, there occurred on board a case of plague and the vessel returned to Callao to leave the patient. The patient was a sailor embarked at Iquique. He was removed to the lazaretto at Lima without landing at Callao, and the vessel was again fumigated and the clothes and bedding were disinfected on shore. No rats were found on board.

On May 12 a case of plague was brought to Callao on the steamship *Victoria*. The vessel was from Iquique. The sanitary authorities removed the patient and all precautions were taken.

There has been no case of plague in Callao since March 7.

Bills of health show 4 cases of smallpox at Valparaíso, Chile, May 19; and at Iquique, May 15, 19 cases of plague, with 8 deaths, reported for the preceding two weeks. At Mollendo, Peru, sporadic cases of plague are reported.

RUSSIA.

Cholera, Smallpox, and Typhus Fever—Examination and Vaccination of Emigrants.

Acting Assistant Surgeon De Forest reports, June 18:

Summary of cholera in Russia.—From the outbreak of the epidemic in May to June 13, there have been 1,491 cases of cholera with 573 deaths.

During the week ended June 16, 24 cases of typhus fever with 5 deaths and a total of 72 cases present were reported at Riga.

At Libau during the week ended June 12, smallpox was present with 8 new cases and 3 deaths and 25 cases remaining. For the steamship *Lituania*, sailing June 22 for New York, 972 passengers have been examined. No quarantinable disease was found among them. On account of the presence of smallpox in Libau all emigrants are vaccinated upon arrival at Libau, none being allowed to sail without having been vaccinated.

ST. LUCIA ISLAND.

CASTRIES—Inspection and Fumigation of Vessels.

Acting Assistant Surgeon Maylie reports, June 20:
Week ended June 18. Bills of health issued to 4 vessels, of which 3 were fumigated. No quarantinable disease present.

SIERRA LEONE.

FREETOWN—Yellow Fever.

Consul Yerby reports, June 4:
During the month of May, 1910, 3 cases of yellow fever with 3 deaths were reported.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX.

Reports Received during Week Ended July 8, 1910.

[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.]

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Swatow.....	May 10-23.....		250	In vicinity from 3,000 to 4,000 deaths.
Germany:				
Berlin.....	June 23-27.....			Two deaths at Ruhleben inspection station among Russian emigrants.
India:				
Calcutta.....	May 8-14.....		74	
Madras.....	May 21-27.....		1	
Moulmine.....	May 1-7.....	1	1	
Negapatam.....	Apr. 16-29.....		34	
Rangoon.....	May 15-21.....		2	
Java:				
Batavia.....	May 15-21.....	3	2	
Samarang.....	May 15-21.....	42	32	
Soerabaya.....	May 15-21.....	12	5	
Russia, general.....				From the beginning of the epidemic in May to June 16, cases 1,491, deaths 573.
Straits Settlements:				
Singapore.....	May 8-14.....	7	5	

YELLOW FEVER.

Costa Rica:				
San José.....	May 28-June 29...	2		Case May 28 from Barranquilla. Case June 29 from Siquires.
Ecuador:				
Guayaquil.....	June 1-15.....	9	8	
Sierra Leone:				
Sherboro.....	May 20.....			Present.

PLAGUE.

Chile:				
Iquique.....	May 22-June 4....	10	3	
China:				
Amoy.....	May 8-31.....			From 10 to 15 deaths daily.
Chao Yang district.....	May 5-19.....		3,000	Mainly at Ho Peng. Present also at Chelin, Feng-chow-so, Taipushien, and Tsai-tang-shi.
Hankow.....	May 15-28.....	2	1	
India:				
Calcutta.....	May 8-14.....		87	
Kurrachee.....	May 22-28.....	58	53	
Rangoon.....	May 15-21.....		33	
Japan:				
Formosa.....	May 8-28.....	5	4	

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

Reports Received During Week Ended July 8, 1910—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
New Zealand:				
Auckland.....	May 23.....	1		
Peru:				
Arequipa Department—				
Mollendo.....	May 16.....			Present.
Callao Department—				
Callao.....	May 12.....	1		From s. s. Victoria.
Straits Settlements:				
Singapore.....	May 8-14.....	1	1	
Turkey in Asia:				
Loheia.....	May 1-24.....	25	27	And vicinity.

SMALLPOX.

Canada:				
Fernie.....	July 15-25.....	3		
Halifax.....	July 19-25.....	4		
Pictou.....	July 19-25.....	5		
Chile:				
Valparaiso.....	May 19.....	4		
China:				
Shanghai.....	May 22-June 5.....	2	13	
France:				
Paris.....	June 5-11.....	3		
Germany, general.....	June 12-18.....	1		
Hamburg.....	June 5-11.....	1		
India:				
Kurrachee.....	May 22-28.....	2	3	
Rangoon.....	May 15-21.....		7	
Italy, general.....	June 6-12.....	10		
Naples.....	June 6-12.....	10	5	
Japan:				
Formosa.....	May 22-28.....	1	1	
Mexico:				
Aguascalientes.....	June 12-18.....		4	
Guadalajara.....	June 11-17.....		4	
Mexico.....	May 22-28.....		1	
San Luis Potosi.....	June 5-11.....	3	2	
Portugal:				
Lisbon.....	June 5-11.....	33		
Russia:				
Libau.....	June 6-12.....	25	3	
Moscow.....	May 29-June 4.....	13	3	
Odessa.....	June 5-11.....	8	2	
Warsaw.....	Mar. 6-26.....		52	
Spain:				
Madrid.....	May 1-31.....		3	
Seville.....	May 1-31.....		2	
Straits Settlements:				
Singapore.....	May 8-14.....	6	5	

Reports Received from June 25 to July 1, 1910.

[For reports received from January 1, 1910, to June 24, 1910, see PUBLIC HEALTH REPORTS for June 24, 1910. In accordance with custom, the tables of epidemic diseases are terminated semi-annually and new tables begun.]

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
India:				
Calcutta.....	May 1-7.....		63	
Rangoon.....	May 8-14.....		1	
Java:				
Batavia.....	May 8-14.....	5	4	
Samarang.....	May 8-14.....	50	40	
Soerabaya.....	May 8-14.....	15	6	

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

Reports Received from June 25 to July 1, 1910—Continued.

YELLOW FEVER.

Place.	Date.	Cases.	Deaths.	Remarks.
Brasil:				
Manaos.....	May 30-June 4.....	.....	1	
Para.....	May 30-June 11....	11	7	
Ecuador:				
Guayaquil.....	May 16-31.....	21	8	
Gold Coast:				
Sekondi.....	May 1-27.....	8	8	
Sierra Leone:				
Freetown.....	May 1-31.....	3	3	

PLAGUE.

Chile:				
Iquique.....	May 8-21.....	9	4	
China:				
Hongkong.....	May 8-14.....	2	.....
Ecuador:				
Guayaquil.....	May 16-31.....	2	.....
India:				
Bombay.....	May 18-24.....	.....	162	
Calcutta.....	May 1-7.....	.....	75	
Kurrachee.....	May 15-21.....	60	60	
Rangoon.....	May 8-14.....	.....	17	
Bombay Presidency and Sind.....	May 1-14.....	985	868	
Madras Presidency.....	May 1-14.....	38	15	
Bengal.....	May 1-14.....	626	567	
United provinces.....	May 1-14.....	3,660	3,445	
Punjab.....	May 1-14.....	16,810	14,654	
Burma.....	May 1-14.....	348	340	
Central provinces, including Berar.....	May 1-14.....	118	82	
Mysore State.....	May 1-14.....	18	12	
Hyderabad State.....	May 1-14.....	5	2	
Central India.....	May 1-14.....	9	7	
Rajputana and Ajmer-Merwara.....	May 1-14.....	4,650	4,286	
Baluchistan.....	May 1-14.....	54	46	
Grand total.....		27,321	24,324	
Peru:				
Callao, department—				
Callao.....	May 19.....	1	.....	From s. s. Nicarie.
Trinidad:				
Port of Spain.....	May 15-21.....	1	1	

SMALLPOX.

Algeria:				
Bona.....	May 1-31.....	1	1	
Australia:				
Victoria, general.....	Apr. 3-19.....	1	1	
Austria:				
Galicia.....	May 29-June 4.....	3	.....
Brasil:				
Para.....	May 29-June 11....	8	1	
Canada:				
British Columbia—				
Fernie.....	June 12-18.....	1	.....
Nova Scotia—				
Halifax.....	June 14-20.....	2	.....
Pictou.....	June 12-18.....	2	1	
Ontario—				
Toronto.....	June 5-11.....	1	.....
China:				
Canton.....	May 8-21.....	4	.....
Hongkong.....	May 8-14.....	1	.....
Nanking.....	May 7.....	.....	.....	Present.
Egypt, general:				
Cairo.....	Apr. 30-May 6.....	50	15	
	May 21-27.....	4	2	

4. CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.**Reports Received from June 25 to July 1, 1910—Continued.****SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
France:				
Paris.....	May 29-June 4.....	6		
Germany, general	May 29-June 11.....	9		
Great Britain:				
South Shields.....	May 22-June 4.....	4	1	
India:				
Bombay.....	May 18-24.....		28	
Kurrachee.....	May 15-21.....	5		
Madras.....	May 14-20.....		2	
Rangoon.....	May 8-14.....		12	
Italy, general.....	May 30-June 5.....	8		
Naples.....	May 30-June 5.....	18	1	
Korea:				
Fusan.....	May 1-7.....	1		
Malta.....	May 22-28.....	1		
Mexico:				
Aguascalientes.....	June 5-11.....		7	
Mexico.....	May 15-21.....		1	
San Luis Potosi.....	May 29-June 4.....	2	1	
Portugal:				
Lisbon.....	May 29-June 4.....	34		
Russia:				
Libau.....	May 30-June 5.....	32	1	
Moscow.....	May 22-28.....	7	5	
Odessa.....	May 22-June 4.....	28	3	
Riga.....	May 29-June 4.....	5		
St. Petersburg.....	May 8-28.....	146	36	
Spain:				
Barcelona.....	May 31-June 6.....		3	
Cadiz.....	May 1-31.....		1	

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.
Aguascalientes.....	June 18	40,000	92	2				4	2		1		3
Alx la Chapelle.....	June 4	162,066	78	7							3		
Amoy.....	May 21	400,000							1				
Amsterdam.....	June 18	570,149	129	13					1				2
Antwerp.....	June 4	326,351	62	7									2
Do.....	June 11		55	6									
Athens.....	do.....	250,010	81	19						11			
Barcelona.....	June 13	591,272	385	22								4	11
Barmen.....	June 11	164,400	37	5					1				3
Do.....	June 4	163,700	27	2								2	
Barranquilla.....	do.....	40,000	20	3					3				
Do.....	June 11		15	1					1				
Batavia.....	May 21	217,630		2									
Belfast.....	June 11	391,167	148	24					1		1	38	5
Belgrade.....	do.....	80,000									1	2	
Bergen.....	do.....	87,749	20								1	2	1
Berlin.....	June 4	2,127,539	551	106					1	10	10	15	2
Birmingham.....	June 18	570,113	128						1	1		5	
Bradford.....	June 11	295,865	69	6					1		2	5	
Bristol.....	June 18	382,550	57	5					1		5	3	1
Budapest.....	June 12	950,610									5	3	2
Brussels.....	June 11	720,030	207	21					1	2		29	
Cairo.....	June 3	677,663	644	32				9			7	6	
Calcutta.....	May 14	847,796	542	44	87	74		5	9			2	
Chemnitz.....	June 11	283,350	80	10								2	
Christiania.....	June 11	236,000	51	6					2		1	14	
Cologne.....	do.....	425,944	159	16									
Colombo.....	May 21	187,864	88	7					5				
Constantinople.....	June 12	1,000,000	191	31					5	1		3	1
Copenhagen.....	June 4	455,000	125	13						3		2	
Dublin.....	June 11	394,525	133	22								1	1
Dundee.....	June 18	170,206	67	9							1	4	
Durango.....	June 12	75,000	79								1	18	2
Do.....	June 19		95	1								30	1
Edinburgh.....	June 11	360,276	91	14					1				
Frankfort-on-the-Main.....	do.....	406,000	90								2	4	3
Georgetown.....	June 4	56,000	55	6					1				
Gothenburg.....	June 11	164,000	49	10									1
Guadalajara.....	June 17	125,000	89					4		11			
Hamburg.....	June 11	895,804	244	21					1		5	5	1
Hankow.....	May 28	850,000			1								
Havre.....	June 11	132,430	60	16					2				
Iquique.....	May 28	38,382	6	2					1				
Do.....	June 4		3	1									
Königsberg.....	June 11	244,200	89	12					1	1			1
Kurrachee.....	May 28	130,000	108		53			3					
Leeds.....	June 18	490,985	100	9							1	1	1
Leith.....	June 11	86,767	19	3									
Libau.....	June 12	90,000						3					
Leipzig.....	June 11	590,329	163	13					2	3	2		1
Liverpool.....	June 18	767,606	239						1	3		20	12
London.....	June 11	7,537,196	1,412						5	7	13	57	34
Londonderry.....	do.....	43,477	8	1									1
Lyons.....	May 21	600,000	183	36							2	4	7
Do.....	May 28		147	33							2		1
Madras.....	May 27	550,000	359			1						2	
Magdeburg.....	June 4	278,321	74	10						1			
Manchester.....	June 11	631,533	361	28								17	18
Mexico.....	May 28	500,000	401	35				1	14		1		1
Montreal.....	June 25	530,000	182	28					1	1	1	2	5
Do.....	June 4	1,500,000	766	85				3	1	8	22	16	4
Munich.....	June 11	576,000	192	43							3	1	2
Nagoya.....	May 21	389,761	146						1		2		
Do.....	May 28		155								2		
Newcastle-on-Tyne.....	June 11	285,891	83	14								1	2
Nottingham.....	do.....	260,000	51									4	1
Nuremberg.....	June 4	323,506	101	19								5	3
Odessa.....	June 11	520,000	188	22				2	1	2	9	2	4
Paris.....	do.....	2,776,399	841	179						7		9	30

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.
Penang.....	May 21	103,582	66	4						1			
Plymouth.....	June 18	124,180	27									1	
Port Said.....	June 3	53,711	46									2	
Prague.....	June 11	233,344	89	16						1			2
Rangoon.....	May 21	252,155	171	6	33	2		7					
Rotterdam.....	June 18	421,358	98									1	
Salina Cruz.....	June 18	4,800	6							1			
San Luis Potosi.....	June 11	82,479	67	2				2					
Santa Cruz de Tenerife.....	do	46,000	22	2						1	6	1	1
Shanghai.....	June 5	565,000	157	8				8				1	
Sheffield.....	June 4	472,000	109	9								3	6
Do.....	June 11		109	6					1	2		3	5
Singapore.....	May 14	271,060	195	17	1	5		5		1			
Stettin.....	June 11	239,000	92	7						1			1
Swatow.....	May 23	50,000		100									
Turin.....	June 2	391,968	131	13									3
Do.....	June 9		156	23						1	2	2	1
Valencia.....	June 11	240,000	103	7									1
Venice.....	May 14	183,224	71	10						1			1
Do.....	May 21		69	3								1	
Do.....	May 28		47	3								1	1
Vienna.....	June 11	2,107,981	740	115					3	1	4	25	5
Warsaw.....	Mar. 12	764,054	265	34				14	3	5	3	2	5
Do.....	Mar. 19		293	37				17		2	5	2	7
Do.....	Mar. 26		280	49				21		1	4	2	3
Winnipeg.....	June 25	135,000	24	1						1			
Yokohama.....	June 6	407,432								1			

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

ALGERIA—*Algiers*.—Month of May, 1910. Population 157,000. Total number of deaths from all causes 345, including typhus fever 15, typhoid fever 1, measles 1, tuberculosis 62.

Bona.—Month of May, 1910. Population 42,000. Total number of deaths from all causes 95, including typhus fever 2, smallpox 1, measles 1, scarlet fever 1, tuberculosis 18.

AUSTRALIA—*New South Wales—Newcastle*.—Month of April, 1910. Population 53,450. Total number of deaths from all causes 47, including typhoid fever 1, diphtheria 1, tuberculosis 5.

CUBA—*Matanzas*.—Period from April 23 to June 18, 1910. Population 36,009. Total number of deaths from all causes 183, including typhoid fever 2, scarlet fever 1, tuberculosis 17.

FRANCE—*St. Etienne*.—Two weeks ended May 15, 1910. Population 150,000. Total number of deaths from all causes 138, including typhoid fever 2, measles 4, diphtheria 1, tuberculosis 25.

GREAT BRITAIN.—Week ended June 4, 1910.

England and Wales.—The deaths registered in 77 great towns correspond to an annual rate of 11.8 per 1,000 of the population, which is estimated at 16,940,895.

Ireland.—The deaths registered in 21 principal town districts correspond to an annual rate of 18 per 1,000 of the population, which is estimated at 1,151,790. The lowest rate was recorded at Lisburn, viz, 4.5, and the highest at Kilkenny, viz, 39.3 per 1,000.

Scotland.—The deaths registered in 8 principal towns correspond to an annual rate of 14.3 per 1,000 of the population, which is estimated at 1,865,571. The lowest rate was recorded at Aberdeen, viz, 9.6, and the highest at Dundee, viz, 20.2 per 1,000 of the population. The total number of deaths from all causes was 517, including typhoid fever 1, measles 20, scarlet fever 3, diphtheria 2.

ITALY—*Genoa.*—Two weeks ended May 31, 1910. Population 279,163. Total number of deaths from all causes 229, including typhoid fever 1, measles 2, diphtheria 1, tuberculosis 28.

MALTA.—Month of May, 1910. Population 215,879. Total number of deaths from all causes 165, including typhoid fever 2, tuberculosis 6.

PANAMA—*Colon.*—Two weeks ended June 11, 1910. Population 16,000. Total number of deaths from all causes 21, including tuberculosis 2.

SPAIN—*Cadiz.*—Month of May, 1910. Population 69,382. Total number of deaths from all causes 167, including typhoid fever 5, smallpox 1, measles 1, diphtheria 1, tuberculosis 17.

VENEZUELA—*Maracaibo.*—Period from April 30 to June 4, 1910. Population 50,000. Total number of deaths from all causes 78, including tuberculosis 16.

By authority of the Secretary of Treasury:

WALTER WYMAN,

Surgeon-General,

United States Public Health and Marine-Hospital Service.