

PUBLIC HEALTH REPORTS.

VOL. XXV.

JULY 29, 1910.

No. 30.

A CORRECTION.

The reference to Doctor Fraser's work on beriberi on page 922 of the Public Health Reports of July 1 should have read Medical Record, April 30, 1910, page 762, instead of New York Medical Journal. The account of Doctor Fraser's paper appeared in the report of the meeting of the Far Eastern Association of Tropical Medicine in the Medical Record.

NOTES ON AGENTS USED FOR FLEA DESTRUCTION.

By MAURICE B. MITZMAIN, M. S., Assistant, Plague Laboratory, Public Health and Marine-Hospital Service, San Francisco, Cal.

This report is essentially a preliminary one based on a study of a few of the common germicides, some insecticides, and several other substances. No effort was made to test exhaustively any one of the agents used, and the study was conducted from the standpoint of the biological interest rather than that of the economical.

The investigation was undertaken primarily for the purpose of determining the efficiency of the solutions used in the laboratory for dipping rodents sent in for examination. The main object of the dipping is the killing of fleas and other ectoparasites that are found on the rodents. Lack of time has prevented a thorough investigation of the field, but such results as we have obtained are set forth here.

In the early part of the plague campaign, various agents were utilized for the purpose of destroying parasites on rodents. Mercuric chloride in the strength ordinarily used for disinfection—that is, 1 part to 1,000 of water—was extensively employed; 5 per cent carbolic acid was also used.

MODE IN WHICH INSECTS ARE DESTROYED.

For the purpose of the present work, we may say that insects are killed by the agents under discussion in one of the three following ways:

- (a) *Chemical agents.*—A corroding of the tissue due to chemical action.
- (b) *Physical agents.*—The stoppage of the spiracles, causing suffocation.
- (c) *Physiological agents.*—The effects on the nervous system, such as are produced by chloroform and ether. These latter agents will not be discussed in detail in this paper, except to state that it is well known that both of them very promptly affect these insects. Paralysis is evident after a short time, and if the anesthetic is continued long enough the insect is killed.

We have found in the case of rats, squirrels, and guinea pigs that the fleas do not recover from the effects of an anesthetic (ether or chloroform) synchronously with the host, and in many instances fleas recover from the administration of ether or chloroform when the

host succumbs. On the other hand, when a moderate amount of an anesthetic is given, we have found that the host invariably recovers long before the fleas do.

TECHNIQUE.

As indicated in the tables, the technique employed consisted in some cases in placing the fleas momentarily in the liquid, then returning them to a dry vial; in others, complete submersion, that is, by the exclusion of air; or again by letting the insect float on the surface of the liquid. In the case of gaseous agents and insect powders special methods applicable to the respective agents were used.

In the matter of the criterion of death the test applied was absence of movement for half an hour or more. In many instances the insect was at first apparently killed, but recovered sufficiently to perform its functions, including biting. In other words, it is often impossible to say that a flea is dead, unless the observation covers a considerable length of time.

The following species of fleas were used in our experiments:

Pulex irritans Linn, taken from human hosts and from rodents.

Ceratophyllus fasciatus Bosc. and *Loemopsylla cheopis* Roth., taken from rats.

Hoplopyllus anomalus Baker and *Ceratophyllus acutus* Baker, taken from squirrels.

It was impracticable to determine the relative resistance of the different species to the agents used. Varying lengths of time elapsed after the removal of the flea from the host, and no cognizance is taken of the condition of starvation of the parasites—a point which may be of some moment. Care was taken, however, that the insects were sufficiently healthy to hop about freely.

It would of course have been more satisfactory to have determined exactly by chemical tests the composition of the various agents used and by accurate observation the meteorological conditions involved in the use of each of the agents, but this is scarcely practicable in the actual application of these agents. It is well known that in using a disinfectant or a germicide a large margin of safety must be allowed; that is to say, the strength used should be much greater than the minimum required to kill the germ or the insect.

The technique used is stated in each table.

Several agents which were regarded as more or less inert were used with the intention of determining the effect of their physical influence on the fleas. For instance, tap water, as is shown by the following table, had practically no influence on fleas unless air was excluded; in other words, it was almost impossible to drown these insects by dropping them in water.

Glycerine was also used.

Agent applied; strength used.	Species and number of specimens.	Technique	Result.
Tap water.....	15 <i>C. acutus</i>	Insects placed in water in open test tube and left to swim about undisturbed.	1 dead in 24 hours; others alive from 1 to 7 days.
Do.....	3 <i>C. acutus</i>	Insects submerged in cell slides, air excluded with cover slips.	Movement ceased in 5 to 10 minutes; dead in 30 minutes.
Glycerine equivalent to 50 per cent equal parts (by volume) of glycerine and water.	.....do.....	Placed in liquid in open test tube.	1 specimen alive after 4 hours; 2 specimens alive after 8 hours.
.....	4 <i>C. acutus</i>	Left in liquid over night....	Dead following morning.

Tincture of green soap.—It was rather surprising to observe the effect that this agent exerted. Although it is known that it has some power as a germicide, we were scarcely prepared to find it so promptly fatal to fleas. As this agent contains some alcohol, the latter agent was tested separately.

Agent applied, strength used.	Species and number of specimens.	Technique.	Result.
Tincture of green soap..	1 <i>C. acutus</i> ...	Insect dipped entirely in the liquid, then placed in open cell slides.	Dead in 2 minutes.
Do.....	do.....	do.....	Movement ceased in 40 seconds; dead in 2½ minutes.
Do.....	do.....	do.....	Movement ceased in 25 seconds; dead in 10 minutes.
Do.....	do.....	Cell slide; air excluded by use of cover slip.	Movement ceased in 50 seconds; dead in 3 minutes.
Do.....	1 <i>P. irritans</i> ...	Placed in open cell slide.....	No motion in 50 seconds; dead in 2 minutes.
Alcohol absolute.....	5 <i>C. acutus</i>	do.....	Movement ceased in 20 to 55 seconds; all recovered.
Do.....	2 <i>C. acutus</i>	Insects placed in cell slide; air excluded with cover slip.	No movement in 55 seconds; dead in 2 minutes.
Do.....	6 <i>C. acutus</i>	Left to swim in open test tube.	All dead in 7 minutes.

The agents mentioned in the next table all enjoy considerable reputation as insecticides. Water was used for making the dilutions or mechanical mixtures.

Agent applied; strength used.	Species and number of specimens.	Technique.	Result.
Oil of pennyroyal (pure)..	5 <i>C. acutus</i> ...	Insects left in liquid in watch glass.	Movement ceased in 15 to 20 seconds; dead in 1 minute 20 seconds to 5 minutes.
Oil of peppermint, 1 to 50 of water.	3 <i>C. acutus</i> ...	do.....	Movement ceased in 20 to 22 seconds; dead in 2 minutes.
Do.....	do.....	do.....	Movement ceased in 15 to 20 seconds; dead in 2 minutes to 4 minutes 30 seconds.
Kerosene (full strength)..	2 <i>C. acutus</i>	Flea submerged in liquid momentarily and placed on clean slide.	No movement in 10 to 20 seconds; dead in 30 seconds.
Do.....	4 <i>C. acutus</i>	Left to swim in liquid in cell slide.	Movement ceased in 18 to 35 seconds; dead in 9 to 10 minutes.
Do.....	2 <i>C. acutus</i>	Submerged in covered cell slide for 15 seconds; placed on clean slide.	Dead in 20 seconds.
Kerosene, 1 to 20 of water.	5 <i>C. acutus</i>	Left to swim in liquid in cell slide.	Dead in 11 to 15 minutes.
"Miscible oil" (potash soap, 40 per cent, made from whale oil, and mixed with kerosene; contains 60 per cent of the latter).	do.....	Fleas dipped in the liquid momentarily, then exposed to air on clean slide.	Movement ceased in 17 to 20 seconds; dead in 3 to 10 minutes.
Do.....	do.....	do.....	Movement ceased in 15 to 23 seconds; death resulted in 2 to 5 minutes.

The germicides proper were in the strength ordinarily employed in disinfection; they were diluted with water. In the strengths used all were efficient in killing the nonspore-bearing bacteria, at least a majority of these organisms being devitalized within a minute. It should be stated here that the question of the killing of the insect is entirely aside from that of the destruction of the pathogenic micro-organisms that may be encased in the body.

The refuse from the Pintsch gas tanks was suggested for use by Passed Asst. Surg. W. C. Rucker, and a few experiments were carried

out with this agent. Its chemical composition is not known to us, and it is presumed that the composition is not constant. It was thought that this might afford a cheap and efficient insecticide. This agent is used in some parts of the State as a squirrel exterminator.

Agent applied; strength used.	Species and number of specimens.	Technique.	Result.
Formalin, # 1 to 1,000....	1 C. acutus....	Placed in cell slide with liquid, air excluded.	No movement after 10 seconds; dead in 10 minutes.
Do.....	3 C. acutus....	Left to swim in liquid in the watch glass.	Apparently dead in 12 hours; revived.
Formalin, 1 to 100.....	1 P. irritans.....	.....do.....	Movement ceased in 38 minutes; dead in 44 minutes.
Formalin, 1 to 20.....	1 C. acutus.....	.....do.....	Movement ceased in 3 minutes; dead in 1 hour 40 minutes.
Formalin, 1 to 10.....	1 P. irritans.....	.....do.....	Movement ceased in 1 minute 40 seconds; dead in 5 minutes.
Pure formalin.....	2 P. irritans.....	.....do.....	Movement ceased in 1 to 3 minutes; dead in 5 to 6 minutes.
70 per cent creosote, remainder soap and water.	1 C. fasciatus..	Kept 20 minutes in liquid.....	No movement in 3 minutes; alive after 15 minutes; dead in 20 minutes.
Do.....	.....do.....	Kept 10 minutes in liquid.....	No movement in 1 minute 30 seconds; dead in 10 minutes.
Do.....	.....do.....	Kept in liquid 12 minutes.....	No movement in 2 minutes; dead in 12 minutes.
Do.....	.....do.....	Permitted to swim in open cell slide.	Dead in 13 minutes.
Phenol, 1 per cent.....	2 L. cheopis...	Left swimming in liquid on watch glass; then placed on clean slide after apparent death.	No movement in 19 minutes 30 seconds; dead in 35 minutes.
Phenol, 5 per cent.....	.....do.....	.....do.....	Movement ceased in 6 minutes; dead in 12 minutes.
Phenol, about 25 per cent.	.....do.....	.....do.....	Movement ceased in 45 seconds; dead in 3 minutes.
Phenol, 100 per cent....	.....do.....	.....do.....	Movement ceased in 22 seconds; dead in 1 minute 5 seconds.

a "Formalin" means a solution that is said to contain 40 per cent of formaldehyde.

Agent applied; strength used.	Species and number of specimens.	Technique.	Result.
Mercuric chloride, 1 to 1,000.	2 C. acutus....	Allowed to swim in liquid in cell slide.	1 specimen alive after 10 hours. 1 specimen alive after 18 hours; both dead next morning.
Do.....	4 C. acutus....	Submerged in cell slide; air excluded by cover slip.	Dead in 10 to 12 minutes.
Chloro-naphtholeum, 1 to 50.	5 C. acutus....	Immersed in liquid until motion ceased.	1 specimen paralyzed in 25 seconds; recovered in 1 minute. 1 specimen ceased movement in 4 minutes; recovered. 2 specimens ceased movement in 5 minutes; recovered. 1 specimen dead in 24 hours.
"Hyco," 1 to 100.....	4 C. fasciatus..	Left swimming in liquid in open tube.	Movement ceased in 3 minutes; 8 minutes; alive after 40 minutes; recovered when removed from liquid.
"Hyco," 1 to 50.....	1 C. fasciatus..	Left in liquid until movement ceased; placed on slide.	Recovered after 20 minutes in liquid.
"Hyco" 1 to 50.....	2 C. fasciatus..	.....do.....	Movement ceased in 1 to 3 minutes; recovered.
"Hyco," 100 per cent..	3 C. fasciatus..	.....do.....	1 specimen dead in 4 minutes. 1 specimen dead in 1 minute. 1 specimen dead in 1 minute 30 seconds.
"Trikesol," 1 per cent.	3 C. acutus....	Immersed momentarily in liquid in cell slide. Then exposed on glass slide.	Recovered in 8 minutes; 1 hour. 1 specimen laid 3 eggs after treatment.
Do.....	5 C. acutus....	Submerged in liquid till death.	Dead in 45 seconds. 3 minutes.
Hydrocarbon (refuse from Pintsch gas used in railway cars).	10 C. fasciatus.	Flea placed in test tube stoppered with cotton plug containing 25 drops of agent.	No movement in 4 minutes; dead in 20 minutes.
Do.....	.....do.....	5 drops.....	No movement in 4 minutes; dead in 1 hour.

Powdered sulphur is not used as a germicide, but it is frequently used as an insecticide. It was a matter of surprise as well as of interest to find it practically inert and useless for the killing of fleas.

Thymol is a widely used anthelmintic, and it was thought worth while to perform an experiment with this agent.

Chloride of lime is extensively used as a deodorant and a disinfectant. Just how efficient it is as a disinfectant varies greatly with the sample employed.

Agent used, strength applied.	Species and number of specimens.	Technique.	Result.
Powdered sulphur....	2 <i>C. fasciatus</i>	Powder placed in tube and fleas covered with it.	Fleas alive after 20 hours.
Do.....	10 <i>C. fasciatus</i>	do.....	Fleas alive after 20 hours; still alive after 2 days.
California insect powder, known also as pyrethrum and Persian insect powder.	7 <i>C. acutus</i>	Powder placed in test tube with fleas; tubes shaken so as to surround the fleas with the powder.	All dead next morning.
Do.....	5 <i>C. fasciatus</i>	do.....	All barely alive next morning.
Chloride of lime, commercial, 1 pound; 2 gallons of water.	3 <i>C. acutus</i>	Left to swim in liquid in cell slide.	1 specimen ceased movement in 10 minutes; dead in 30 minutes. 1 specimen dead in 1 hour. 1 specimen dead in 17 minutes.
Do.....	13 <i>C. acutus</i>	Immersed momentarily in liquid. Then placed in dry vial.	Dead next morning.

Carbon bisulfid is widely employed for the killing of rodents, being placed in the burrows on cotton or waste. In sufficient strength, it is an efficient agent for killing fleas.

Agent applied; strength used.	Species and number of specimens.	Technique.	Result.
Carbon bisulfid.....	4 <i>C. acutus</i>	Insects dipped in liquid and placed on dry slides.	Dead in 25 seconds.
Do.....	8 <i>C. acutus</i>	1 drop of carbon bisulfid on cotton plug. ^a	Recovered after exposure to gas for 30 to 45 minutes.
Do.....	10 <i>C. acutus</i>	2 drops of carbon bisulfid on cotton plug. ^a	Apparent death in 25 minutes; recovered.
Do.....	3 <i>C. acutus</i>	3 drops carbon bisulfid on cotton plug. ^a	Dead in 1 hour 8 minutes.
Do.....	2 <i>C. acutus</i>	4 drops carbon bisulfid on cotton plug. ^a	No movement in 2 minutes; dead in 7 minutes.
Do.....	3 <i>C. acutus</i>	5 drops carbon bisulfid on cotton plug. ^a	No movement in 1 minute 15 seconds; dead in 5 to 12 minutes.

^a Drops of agent placed on cotton plug in test tube. Insects exposed to fumes.

Several fumigation experiments were carried out with formaldehyde.

Sulphur fumigation should have received more extensive consideration, but on account of press of routine work we were unable to give it the time and attention it deserved at the time these experiments were conducted.

Fumigation with hydrocyanic gas is commonly practiced in the citrus orchards of California. This agent is occasionally employed in the strength we have applied for house insect pests, including fleas.

Reagent.	How evolved.	Container or animal used.	Fleas used.	Exposure.	Results.
Formaldehyde:					
Experiment 1a.	Permanganate method 1,200 cc. Formalin 2,000 cubic feet air space.	Open beaker	16 C. acutus.....	16 hours.....	14 fleas killed, 2 alive.
Experiment 1b.	{ Same method 3,000 cc. Formalin 2,000 cubic feet.	{ 4 thicknesses of toweling.	{ 12 C. acutus.....	{ 3½ hours..... { 4 hours.....	1 flea alive. All killed.
Experiment 1c.	{ Same method 1,000 cc. Formalin 2,000 cubic feet.	{ 312-gram brown rat in wire cage.	{ 5 C. fasciatus..... {do.....	8 hours..... 9½ hours.....	Rat alive. Rat and fleas killed.
Hydrocyanic acid gas:					
Experiment 2a.	1 ounce KCN. By weight, 1 ounce HSO; by volume 2½ ounces. Water by volume 100 cubic feet air space.	4 thicknesses of toweling.	C. acutus (5 adults, 5 larvæ).	45 minutes..	5 larvæ dead, 1 adult alive, 4 adults alive.
Experiment 2b.	.....do.....	Open beaker	C. acutus (10 larvæ).	30 minutes..	All killed.
Experiment 2c.	{do.....	{do.....	{ 15 C. acutus.....	{ 30 minutes.. { 45 minutes..	Alive. All killed.
Experiment 2d.	{do.....	{do.....	{ 10 C. acutus.....	{ 30 minutes.. { 45 minutes..	Alive, 1 disabled. All dead.
Experiment 2e.	{do.....	{ 4 thicknesses of toweling.	{do.....	{ 30 minutes.. { 50 minutes.. { 1 hour 20 minutes.	Alive. 3 fleas dead. All dead.
Experiment 2f.	{do.....	{ 312-gram brown rat in wire cage.	{ 10 C. fasciatus.....	{ 15 minutes.. { 20 minutes..	Rat alive. Rat alive, fleas alive.
Experiment 2g.	1 ounce KCN. By weight, 1 ounce H SO; by volume, 2½ ounces. Water by volume, 100 cubic feet air space.	142 grams brown rat in wire cage.	5 C. acutus.....	12 minutes..	Rat dead, fleas alive.
Carbon bisulphid:					
Experiment 3a.	By evaporation, 4 c.c. 1 cubic foot.	Open beaker	10 C. fasciatus...	2 hours.....	All dead.
Experiment 3b.	.....do.....	4 thicknesses of toweling.	C. fasciatus (10 adults, 10 larvæ).	.....do.....	Adults survived, larvæ killed.
Experiment 3c.	.....do.....	113 grams brown rat in wire cage.	5 C. acutus, 5 H. anomalus.	.....do.....	Rat dead, fleas alive.
Experiment 3d.	.....do.....	85 grams brown rat in wire cage.	6 C. acutus.....	1½ hours.....	Rat dead, fleas alive.
Sulphur:					
Experiment 4a.	SO ² by burning 2 pounds, 100 cubic feet.	4 thicknesses of toweling.	12 C. acutus.....	4 hours.....	Not affected.
Experiment 4b.	SO ² by burning 1 pound, 100 cubic feet.	Open beaker	10 C. acutus.....	12 hours.....	All dead.
Experiment 4c.	Burning sulphur cones, 4½ ounces, 100 cubic feet.	.....do.....	C. acutus (10 adults, 6 larvæ).	4½ hours.....	Do.
Experiment 4d.	.....do.....	4 thicknesses.	10 C. acutus.....	.....do.....	Fleas dead.
Experiment 4e.	Burning sulphur cones, 8½ ounces, 100 cubic feet.	Open beaker	.....do.....	1½ hours.....	Do.
Experiment 4f.	.....do.....	170 grams brown rat in wire cage.	.....do.....	20 minutes..	Rat and fleas dead.
Experiment 4g.	.....do.....	240 grams brown rat in wire cage.	7 C. acutus.....	25 minutes..	Do.

SUMMARY.

Water is of little value in the destruction of fleas.

Glycerine is practically inert as a pulicid.

Alcohol in the strength of 70 per cent and absolute is uncertain in its action and practically inefficient.

Kerosene and miscible oil are extremely efficient as flea destroyers.

Formalin, phenol, mercuric chloride and trikresol in the strengths used as disinfectants are of little value in killing fleas.

Powdered sulphur proved of no value.

The fumigants bisulfid of carbon, hydrocyanic acid gas, and sulphur dioxid are highly efficient in the strengths employed for flea destruction.

UNITED STATES.

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

PLAGUE-PREVENTION WORK.

Infected Ground Squirrels.

The finding of 4 plague-infected ground squirrels in California was reported during the week ended July 9, 1910. They were found as follows: In San Benito County, June 24, 1 squirrel, June 28, 1 squirrel, June 29, 1 squirrel; in San Joaquin County, June 29, 1 squirrel.

Passed Assistant Surgeon McCoy reports:

Animals Examined for Plague Infection.

During the week ended July 9, 1910, there were examined at the federal laboratory at San Francisco and the branch laboratories at Oakland and Los Angeles, Cal., 4,068 rodents, as follows: Squirrels, 1,926; rabbits, 14; gophers, 4; rats, 2,124. The rats included *Mus norvegicus*, 1,847; *Mus rattus*, 40; *Mus musculus*, 196; *Mus alexandrinus*, 41. Four plague-infected squirrels were found.

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 July 9, 1910. Premises inspected, 828. Houses destroyed, 5. Nuisances abated, 100. Poisons placed, 4,230. Rats trapped, 1,967. Rats found dead, 32. Gophers trapped, 10. Rats identified, 1,999, as follows: *Mus norvegicus*, 1,536; *Mus rattus*, 97; *Mus musculus*, 300; *Mus alexandrinus*, 66. Average number of traps set daily, 7,551. Examined bacteriologically, 1,368 rats and 4 gophers. No plague infection found.

BERKELEY, CAL.

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

Week ended July 9, 1910. Rats trapped, 148. Rats identified, 148, as follows: *Mus norvegicus*, 128; *Mus musculus*, 20. Rats examined bacteriologically, 148. No plague-infected rats found.

OAKLAND, CAL.

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

Week ended July 9, 1910. Rats found dead, 15. Rats trapped, 669. Rats identified, 684, as follows: *Mus norvegicus*, 608; *Mus musculus*, 76. Rats examined bacteriologically, 608. No plague-infected rats found.

ALAMEDA COUNTY, CAL. (exclusive of the 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 July 9, 1910. Ranches inspected, 12. Ground squirrels shot, 121. Ground squirrels found dead, 67. Rabbits shot, 12. Acres covered with poison, 365. Examined bacteriologically, 188 ground squirrels and 12 rabbits. No plague infection found.

CONTRA COSTA COUNTY, CAL.

Last case of human plague sickened July 21, 1908. Last case of rodent plague found June 1, 1910. Total number of ground squirrels found infected to date, 243.

Week ended July 9, 1910. Ranches inspected, 18. Ground squirrels shot, 128. Ground squirrels examined bacteriologically, 128. No plague-infected squirrels found.

LOS ANGELES COUNTY, CAL.

The last case of human plague sickened August 11, 1908. A plague-infected rodent was found August 21, 1908.

Week ended July 9, 1910. Ranches inspected, 28. Ground squirrels shot, 478. Ground squirrels found dead, 4. Ground squirrels examined bacteriologically, 482. No plague-infected squirrels found.

MERCED COUNTY, CAL.

There is no record of human plague in Merced County. The last plague-infected rodent was found June 6, 1910. Total number of plague-infected squirrels found to date, 2.

Week ended July 9, 1910. Ranches inspected, 16. Ground squirrels shot, 121. Ground squirrels found dead, 1. Ground squirrels examined bacteriologically, 116. No plague-infected squirrels found.

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 plague-infected rodents found to date, 4.

Week ended July 9, 1910. Ranches inspected, 3. Ground squirrels shot, 148. Ground squirrels examined bacteriologically, 148. No plague-infected squirrels found.

ORANGE COUNTY, CAL.

There is no record of human or rodent plague in Orange County. Week ended July 9, 1910. Ranches inspected, 7. Ground squirrels shot, 136. Ground squirrels examined bacteriologically, 136. No plague-infected squirrels found.

RIVERSIDE COUNTY, CAL.

There is no record of human or rodent plague in Riverside County. Week ended July 9, 1910. Ranches inspected, 7. Ground squirrels shot, 44. Ground squirrels found dead, 6. Ground squirrels examined bacteriologically, 50. No plague-infected squirrels found.

SAN BENITO COUNTY.

Last case of human plague sickened June 5, 1910. Last plague-infected rodent found June 29, 1910. Total number of ground squirrels found infected to date, 19.

Week ended July 9, 1910. Ranches inspected, 18. Ground squirrels shot, 335. Ground squirrels found dead, 4. Ground squirrels examined bacteriologically, 327. Three plague-infected squirrels found.

The plague-infected ground squirrels were found as follows: At Wapple ranch, 9 miles east of Paicines (sec. 4 to 6, T. 14 S., R. 7 E.), June 24, 1 ground squirrel; June 28, 1 ground squirrel; June 29, 1 ground squirrel.

SAN BERNARDINO COUNTY, CAL.

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

Week ended July 9, 1910. Ranches inspected, 5. Ground squirrels shot, 52. Ground squirrels examined bacteriologically, 52. No plague-infected squirrels found.

SAN JOAQUIN COUNTY, CAL.

There is no record of human plague in San Joaquin County. Last plague-infected rodent found June 29, 1910. Total number of ground squirrels found infected to date, 5.

Week ended July 9, 1910. A plague-infected ground squirrel was found June 29, 1910, at Fink's ranch, 6 miles northeast of Tracey (T. 2 S., R. 6 E.).

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 July 9, 1910. Ranches inspected, 14. Ground squirrels shot, 308. Rabbits shot, 2. Examined bacteriologically, 299 squirrels and 2 rabbits. No plague infection found.

Assistant Surgeon Chapin reports:

SEATTLE, WASH.

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

Week ended July 9, 1910. Rats received, 892. Rats necropsied, 779. No plague-infected rats found.

SMALLPOX IN THE UNITED STATES.

Reports Received During Week Ended July 29, 1910.

Place.	Date.	Cases.	Deaths.	Remarks.
Alabama:				
Birmingham.....	July 10-16.....	1	.....
California, general.....	June 1-30.....	10	.....
Florida:				
Leon County.....	Mar. 1-31.....	.....	1	
Gadsden County.....	July 3-9.....	1	.....
Jefferson County.....	July 10-16.....	2	.....
Taylor County.....	July 3-9.....	1	.....

SMALLPOX IN THE UNITED STATES—Continued.

Reports Received During Week Ended July 29, 1910—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Illinois:				
Adams County.....	June 1-30.....	2		
Clay County.....	June 1-30.....	1		
Coles County.....	June 1-30.....	22		
Cook County.....	June 1-30.....	1		
Chicago.....	June 1-30.....	1		
Edgar County.....	June 1-30.....	2		
Franklin County.....	June 1-30.....	1		
Iroquois County.....	June 1-30.....	1		
Jo Daviess County.....	June 1-30.....	5		
Kendall County.....	June 1-30.....	1		
Knox County.....	June 1-30.....	5		
Madison County.....	June 1-30.....	17		
Marion County.....	June 1-30.....	3		
Montgomery County.....	June 1-30.....	6		
Peoria County.....	June 1-30.....	4		
Perry County.....	June 1-30.....	1		
Pulaski County.....	June 1-30.....	1		
Randolph County.....	June 1-30.....	1		
Richland County.....	June 1-30.....	2		
Rock Island County.....	June 1-30.....	2		
St. Clair County.....	June 1-30.....	1		
Sangamon County.....	June 1-30.....	1		
Tazewell County.....	June 1-30.....	2		
Union County.....	June 1-30.....	4		
Wayne County.....	June 1-30.....	3		
Williamson County.....	June 1-30.....	2		
Indiana:				
Allen County.....	May 1-31.....	6		
Clinton County.....	May 1-31.....	1		
Delaware County.....	May 1-31.....	4		
Elkhart County.....	May 1-31.....	1		
Gibson County.....	May 1-31.....	1		
Grant County.....	May 1-31.....	5		
Greene County.....	May 1-31.....	9		
Howard County.....	May 1-31.....	18		
Marion County.....	May 1-31.....	5		
Orange County.....	May 1-31.....	18		
Owen County.....	May 1-31.....	20		
St. Joseph County.....	May 1-31.....	3		
Tipton County.....	May 1-31.....	1		
Vigo County.....	May 1-31.....	6		
Louisiana:				
New Orleans.....	July 10-16.....	10		
Missouri:				
St. Louis.....	July 10-16.....	1		
Montana:				
Beaverhead County.....	June 1-30.....	1		
Cascade County.....	June 1-30.....	1		
Dawson County.....	June 1-30.....	4		
Fergus County.....	June 1-30.....	2		
Flathead County.....	June 1-30.....	2		
Meagher County.....	June 1-30.....	1		
Park County.....	June 1-30.....	2		
Rosebud County.....	June 1-30.....	2		
Silver Bow County.....	June 1-30.....	9		
Butte County.....	June 1-30.....	27		
Yellowstone County.....	June 1-30.....	2		
Oklahoma, general:				
Canadian County.....	Jan. 1-31.....		1	Reported out of date
Comanche County.....	Apr. 1-30.....		1	
Comanche County.....	Apr. 1-30.....		3	
Grady County.....	Apr. 1-30.....		1	
Oklahoma County.....	Apr. 1-30.....		4	
Pottawatomie County.....	Apr. 1-30.....		2	
Atoka County.....	May 1-31.....	20		
Beckham County.....	May 1-31.....	2		
Blaine County.....	May 1-31.....	8		
Caddo County.....	May 1-31.....	1		
Canadian County.....	May 1-31.....	17		
Choctaw County.....	May 1-31.....	1		
Coal County.....	May 1-31.....	5		
Comanche County.....	May 1-31.....	4	1	
Custer County.....	May 1-31.....	9		
Garvin County.....	May 1-31.....	1		
Grady County.....	May 1-31.....	6	6	
Haskell County.....	May 1-31.....	7		
Hughes County.....	May 1-31.....	42		
Jefferson County.....	May 1-31.....	3		
Kiowa County.....	May 1-31.....	1		
Lincoln County.....	May 1-31.....	4		
McLain County.....	May 1-31.....	9		

SMALLPOX IN THE UNITED STATES—Continued.

Reports Received During Week Ended July 29, 1910—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Oklahoma, general—Cont'd.				
McIntosh County.....	May 1-31.....	11		
Murray County.....	May 1-31.....	1		
Muskogee County.....	May 1-31.....	5		
Noble County.....	May 1-31.....	8		
Nowata County.....	May 1-31.....	3		
Okluskee County.....	May 1-31.....	1		
Oklahoma County.....	May 1-31.....	1	1	
Okmulgee County.....	May 1-31.....	2		
Pawnee County.....	May 1-31.....	4		
Payne County.....	May 1-31.....	10		
Pittsburg County.....	May 1-31.....	6	1	
Pontotoc County.....	May 1-31.....	12		
Seminole County.....	May 1-31.....	2		
Texas County.....	May 1-31.....	4		
Tillman County.....	May 1-31.....	2		
Tulsa County.....	May 1-31.....	1	1	
Washita County.....	May 1-31.....	1		
Tennessee:				
Chattanooga.....	July 10-16.....	1		
Knoxville.....	July 10-16.....	4		
Memphis.....	July 3-9.....	1		
Texas, general.....	Apr. 1-30.....	228	6	Including cases and deaths previously reported.
	May 1-31.....	427	9	Do.
Washington, general.....	Feb. 1-Mar. 31.....		4	

Reports Received from June 25 to July 22, 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-July 10.....	6		
Mobile.....	June 12-July 2.....	11		
Montgomery.....	June 12-25.....	6		
Total for State.....		23		
Arkansas:				
Fort Smith.....	June 19-25.....	1		
California, general.....	May 1-31.....	17		Five additional cases were previously reported.
Colorado:				
Alamosa County.....	Apr. 1-30.....		1	
Las Animas County.....	Mar. 1-Apr. 30.....		2	
Logan County.....	May 1-31.....		1	
Montrose County.....	Apr. 1-30.....		1	
Archuleta County.....	June 1-30.....	7		
Conejos County.....	June 1-30.....	2		
Delta County.....	June 1-30.....	2		
Denver County.....	June 1-30.....	9		
Huerfano County.....	June 1-30.....	10		
Kit Carson County.....	June 1-30.....	4		
Larimer County.....	June 1-30.....	1		
Las Animas County.....	June 1-30.....	3		
Logan County.....	June 1-30.....	1		
Mesa County.....	June 1-30.....	1		
Montrose County.....	June 1-30.....	5		
Otero County.....	June 1-30.....	4		
Prowers County.....	June 1-30.....	7		
Rio Grande County.....	June 1-30.....	4		
Saguache County.....	June 1-30.....	1		
San Miguel County.....	June 1-30.....	1		
Teller County.....	June 1-30.....	1		
Weld County.....	June 1-30.....	5		
Total for State.....		68	5	
District of Columbia.....	July 3-9.....	1		
Total for District.....		1		

SMALLPOX IN THE UNITED STATES—Continued.

Reports Received from June 25 to July 22, 1910—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Florida:				
Duval County.....	June 19-25.....	2		
Jackson County.....	June 19-25.....	2		
Walton County.....	June 12-18.....	1		
Total for State.....		5		
Georgia:				
Columbus.....	July 3-9.....	6		
Macon.....	Apr. 1-June 30.....	8		
Total of State.....		14		
Iowa:				
Benton County.....	June 1-30.....	2		
Buchanan County.....	June 1-30.....	2		
Clayton County.....	June 1-30.....	1		
Dallas County.....	June 1-30.....	1		
Delaware County.....	June 1-30.....	10		
Dubuque County.....	June 1-30.....	1		
Linn County.....	June 1-30.....	25		
Polk County.....	June 1-30.....	13		
Pottawattamie County.....	June 1-30.....	16		
Scott County.....	June 1-30.....	3		
Winneshiek County.....	June 1-30.....	1		
Woodbury County.....	June 1-30.....	1		
Total for State.....		76		
Kansas:				
Allen County.....	May 1-31.....	7		
Atchison County— Atchison.....	Apr. 1-May 31.....	7		
Butler County.....	Apr. 1-May 31.....	6		
Cowley County.....	Apr. 1-May 31.....	10		
Decatur County.....	Apr. 1-May 31.....	4		
Dickinson County.....	May 1-31.....	6		
Doniphan County.....	Apr. 1-30.....	10		
Edwards County.....	Apr. 1-May 31.....	3		
Elk County.....	May 1-31.....	2		
Ellsworth County.....	Apr. 1-30.....	1		
Finney County.....	Apr. 1-30.....	2		
Graham County.....	Apr. 1-May 31.....	6		
Greenwood County.....	Apr. 1-May 31.....	46		
Harper County.....	May 1-31.....	1		
Harvey County.....	Apr. 1-May 31.....	5		
Jewell County.....	May 1-31.....	15		
Kearny County.....	Apr. 1-May 31.....	5		
Kingman County.....	Apr. 1-May 31.....	3		
Labette County— Parsons.....	Apr. 1-May 31.....	9		
Lane County.....	May 1-31.....	2		
Leavenworth County.....	Apr. 1-May 31.....	8		
Leavenworth.....	May 1-31.....	1		
McPherson County.....	May 1-31.....	10		
Miami County.....	Apr. 1-May 31.....	2		
Montgomery County.....	Apr. 1-May 31.....	41	1	
Coffeyville.....	Apr. 1-May 31.....	9		
Neosho County.....	May 1-31.....	15		
Norton County.....	Apr. 1-May 31.....	40		
Osage County.....	Apr. 1-May 31.....	6		
Osborne County.....	Apr. 1-May 31.....	27		
Pawnee County.....	Apr. 1-30.....	3		
Phillips County.....	May 1-31.....	6		
Reno County.....	Apr. 1-30.....	15		
Riley County.....	Apr. 1-May 31.....	5		
Rush County.....	Apr. 1-30.....	3		
Saline County.....	Apr. 1-May 31.....	16		
Scott County.....	Apr. 1-May 31.....	5		
Sedgwick County.....	Apr. 1-May 31.....	7		
Wichita.....	Apr. 1-May 31.....	35		
Seward County.....	May 1-31.....	2		
Sheridan County.....	Apr. 1-30.....	1		
Sherman County.....	May 1-31.....	1		
Sumner County.....	May 1-31.....	4		
Thomas County.....	Apr. 1-May 31.....	2	1	
Wyandotte County.....	Apr. 1-30.....	4		
Kansas City.....	Apr. 1-May 31.....	34		
Total for State.....		452	2	

SMALLPOX IN THE UNITED STATES—Continued.

Reports Received from June 25 to July 22, 1910—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Kentucky:				
Covington.....	June 26-July 2....	1		
Total for State.....		1		
Louisiana:				
Avoyelles Parish.....	June 1-30.....	12		
Calcasieu Parish.....	June 1-30.....	2		
Iberia Parish.....	June 1-30.....	19		
Orleans Parish.....	June 1-30.....			
New Orleans.....	June 12-July 9....	41		
St. John Parish.....	June 1-30.....	10		
St. Tammany Parish.....	June 1-30.....	2		
Tangipahoa Parish.....	June 1-30.....	25		
Vermilion Parish.....	June 1-30.....	30		
Total for State.....		141		
Maine:				
Biddeford.....	May 1-31.....	1		
Total for State.....		1		
Maryland:				
Allegany County— Cumberland.....	May 1-31.....	1		
Total for State.....		1		
Massachusetts:				
Suffolk County.....	June 1-30.....	7		
Total for State.....		7		
Michigan:				
Alcona County.....	June 1-30.....	1		
Arenac County.....	June 1-30.....	2		
Bay County.....	June 1-30.....	5	1	
Cheboygan County.....	June 1-30.....	15		
Clare County.....	June 1-30.....	11		
Eaton County.....	June 1-30.....	7		
Genesee County.....	June 1-30.....	21		
Gratiot County.....	June 1-30.....	2		
Houghton County.....	June 1-30.....	3		
Huron County.....	June 1-30.....	11		
Ingham County.....	June 1-30.....	2		
Ionia County.....	June 1-30.....	5		
Isabella County.....	June 1-30.....	2		
Kalamazoo County.....	June 1-30.....	4		
Kent County.....	June 1-30.....	17		
Lapeer County.....	June 1-30.....	12		
Livingston County.....	June 1-30.....	17		
Manistee County.....	June 1-30.....	8		
Marquette County.....	June 1-30.....	1		
Mason County.....	June 1-30.....	9		
Mecosta County.....	June 1-30.....	6		
Midland County.....	June 1-30.....	9		
Missaukee County.....	June 1-30.....	10		
Monroe County.....	June 1-30.....	2		
Muskegon County.....	June 1-30.....	2		
Newaygo County.....	June 1-30.....	2		
Oceola County.....	June 1-30.....	1		
Ottawa County.....	June 1-30.....	1		
Roscommon County.....	June 1-30.....	4		
Saginaw County.....	June 1-30.....	30		
St. Clair County.....	June 1-30.....	28		
Sanilac County.....	June 1-30.....	2		
Shiawassee County.....	June 1-30.....	42		
Tuscola County.....	June 1-30.....	8		
Wayne County.....	June 1-30.....	10		
Total for State.....		312	1	
Minnesota, general.	Mar. 1-31.....		1	
Missouri:				
Kansas City.....	May 15-June 30....	32		
St. Louis.....	June 12-25.....	8		
Savannah.....	June 26-July 2....	5		
Total for State.....		45		

SMALLPOX IN THE UNITED STATES—Continued.

Reports Received from June 25 to July 22, 1910—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Montana:				
Custer County.....	Apr. 1-30.....		1	
Nebraska:				
Lincoln.....	Apr. 1-30.....	10		
	May 1-31.....	13		
South Omaha.....	June 1-30.....	3		
Total for State.....		26		
New Jersey:				
Cumberland County.....	June 1-30.....	2		
Total for State.....		2		
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		
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.....	7		
Johnston County.....	Apr. 1-May 31.....	4		
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.....	May 1-31.....	23		
Folk 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		

Several.
Several in March.

SMALLPOX IN THE UNITED STATES—Continued.

Reports Received from June 25 to July 22, 1910—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
North Carolina—Continued.				
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	
North Dakota:				
Cass County.....	June 1-30.....	2		
Cavaller County.....	June 1-30.....	1		
Grand Forks County.....	June 1-30.....	4		
Logan County.....	June 1-30.....	1		
McKenzie County.....	June 1-30.....	1		
Pierce County.....	June 1-30.....	1		
Trall County.....	June 1-30.....	6		
Ward County.....	June 1-30.....	4		
Total for State.....		20		
Ohio:				
Allen County.....	June 1-30.....	3		
Butler County.....	June 1-30.....	1		
Clinton County.....	June 1-30.....	10		
Columbiana County.....	June 1-30.....	3		
Cuyahoga County.....	June 1-30.....	9		
Fairfield County.....	June 1-30.....	1		
Franklin County.....	June 1-30.....	4		
Hamilton County.....	June 1-30.....	1		
Hocking County.....	June 1-30.....	25		
Lucas County.....	June 1-30.....	2		
Perry County.....	June 1-30.....	1		
Pickaway County.....	June 1-30.....	1		
Portage County.....	June 1-30.....	7		
Ross County.....	June 1-30.....	66		
Scioto County.....	June 1-30.....	2		
Stark County.....	June 1-30.....	28		
Wayne County.....	June 1-30.....	2		
Wood County.....	June 1-30.....	2		
Total for State.....		168		
Pennsylvania, general.				
	Apr. 1-30.....		2	
	May 1-31.....	22		
Total for State.....		22	2	
South Carolina:				
Charleston.....	June 1-30.....	16		
Total for State.....		16		
Tennessee:				
Benton County— Camden.....	July 1-7.....	2		
Davidson County— Nashville.....	June 12-July 9.....	2		
Hamilton County— Chattanooga.....	June 12-July 2.....	3		
Knox County— Knoxville.....	June 12-July 2.....	4		
Shelby County— Memphis.....	June 12-July 2.....	6		
Total for State.....		17		
Texas, general.				
	Apr. 1-31.....		2	
Fort Worth.....	June 1-30.....	10		
San Antonio.....	May 1-31.....	5		
Total for State.....		15	2	

SMALLPOX IN THE UNITED STATES—Continued.
Reports Received from June 25 to July 22, 1910—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Utah, general.....	Mar. 1-31.....	112		Report received out of date.
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		
Total for State.....		176		
Virginia:				
Lynchburg.....	June 12-18.....	1		
Total for State.....		1		
Wisconsin:				
Ashland County.....	June 1-30.....	13		
Barron County.....	June 1-30.....	1		
Douglas County.....	June 1-30.....	2		
Eau Claire County.....	June 1-30.....	3		
Florence County.....	June 1-30.....	4		
La Fayette County.....	June 1-30.....	1		
La Crosse County.....	June 1-30.....	2		
Rusk County.....	June 1-30.....	1		
Sawyer County.....	June 1-30.....	8		
Waupaca County.....	June 1-30.....	2		
Total for State.....		37		
Grand total for the United States.....		2,686	21	

PLAGUE IN THE UNITED STATES.

Reports Received from June 25 to July 22, 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.		
Altoona, Pa.....	July 16	51,782	14	1	1					3	1				
do.....	do	17,060	2												
Auburn, N. Y.....	July 9	34,709	11		1										1
Baltimore, Md.....	July 16	583,475	222	39	24	19	1	18	1	3		19		8	1
Bayonne, N. J.....	do	51,862		2	1			1		2		2		1	
Beaver Falls, Pa.....	do	10,373						1							
Berkeley, Cal.....	July 9		9	1	1			1							
Boulder, Colo.....	July 16		2									1			
Biddeford, Me.....	do	17,847	11		2			3	1	1	1				
Binghamton, N. Y.....	do	46,545	21		2			2		1		2			
Boston, Mass.....	do	629,868	221	105	21	11	1	20		38	3	55	2	17	1
Braddock, Pa.....	do	21,594	11					2				11			
Bridgeport, Conn.....	do	93,126	34		5	1		2		2					
Brockton, Mass.....	do	55,325	14	10		4				2	2				
Butler, Pa.....	July 9	12,972	12		2							3			
do.....	July 16		3												

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.
Cambridge, Mass.	July 16	102,982	35	8	7			3	1	6	2	4			
Camden, N. J.	do.	90,791		5		1									
Canton, Ohio.	do.	40,570	10				1			2					1
Carbondale, Pa.	do.	15,939	8				1								
Charlotte, N. C.	do.	36,320	7			10									
Chatanooga, Tenn.	do.	34,773		1				1							
Chelsea, Mass.	do.	40,506	11	6	1							1			
Chicago, Ill.	do.	2,282,927	644	140	88	28	4	71	2	129	118	152	7	46	3
Chicopee, Mass.	do.	21,225	23									1			
Cincinnati, Ohio.	do.	353,108	117	39	12	2		6		7		3	2	5	2
Cleveland, Ohio.	July 15	522,475	170	30	11	3		9	3	7	2	12		4	1
Clinton, Mass.	July 16	12,543	3				1	1		1		1			
Columbus, Ga.	do.	17,925	4				1								
Columbus, Ohio.	do.	158,649	58	12	14	2	2			1		7		2	1
Concord, N. H.	do.	22,260	10												
Covington, Ky.	do.	52,325	28	1	4							6			1
Danville, Ill.	do.	28,413	6					1				1			
Dayton, Ohio.	do.	111,889	36	3	3	1	1	1		1	1	16			
Detroit, Mich.	July 9	398,536	175				2	14	4	10	1				
Do.	July 16		110				1	4		5					
Duluth, Minn.	do.	76,915	16	4	3			9		2		11			
Dunkirk, N. Y.	do.	18,778	4					2				5			
Elizabeth, N. J.	do.	69,154	24		2			1		2		1		1	
Elmira, N. Y.	do.	35,776	6											1	1
El Paso, Tex.	do.	23,565	30	12	5							1			
Elyria, Ohio.	July 2		3		1			1							
Do.	July 9		6												
Do.	July 16		7												
Evansville, Ind.	July 17	67,782	14	1	2	1						17			
Everett, Mass.	July 16	33,886	5	2						1	1				
Fall River, Mass.	do.	106,661	99	4	3	3	2	1				9	4		
Fort Wayne, Ind.	do.	56,661	15	1	1	2		3							
Freeport, Ill.	do.	22,687	6							1		1			
Galesburg, Ill.	do.	21,950	8												
Gloucester, Mass.	do.	25,501	8		2										
Grand Rapids, Mich.	do.	107,948	31	1	2	3		2				3		4	
Greensboro, N. C.	do.	16,753	4			2				1					
Harrison, N. J.	do.	15,050	6					1							
Hartford, Conn.	do.	106,470	33	5		2				1			1		
Haverhill, Mass.	do.	38,485	12	2				1		2		2		1	
Hoboken, N. J.	do.				2	1	1	1						1	
Homestead, Pa.	July 14	17,630	6		1			1				4			
Hyde Park, Mass.	July 16	15,776	3	2				2		1		1			
Indianapolis, Ind.	July 2	249,124	69	3	15	3	1	5	3	4		56		50	2
Do.	July 9		78	3	5	2	1	3	3	2		27		54	1
Jacksonville, Fla.	July 16	42,173	16		2	16									
Johnstown, Pa.	do.	47,745	29	10	4			1		1		5		1	
Kalamazoo, Mich.	do.		13					1				2			
Kansas City, Kans.	do.	81,052	21		1	6		4		1					
Kearney, N. J.	do.	16,306	7	2	2									1	
Kingston, N. Y.	do.	26,285	2												
Knoxville, Tenn.	do.	38,328	10		1	3	1								
La Crosse, Wis.	do.	29,261		3	1			3							
La Fayette, Ind.	do.	19,989	3	1											
Lancaster, Pa.	do.	50,907	20	3				3				5			
Lawrence, Mass.	do.	77,541	37	2	3	1	1					6			2
Lebanon, Pa.	do.	20,592	5												
Lexington, Ky.	do.	31,171	10		1					1				3	1
Los Angeles, Cal.	July 9		77	8	16	2		12		3		3		9	1
Lowell, Mass.	July 16	95,109	64	2	1	2		7		3	2	4		1	
Lynchburg, Va.	do.	30,064								1		3			
Lynn, Mass.	do.	85,571	24	3	2	1		2		5		5			
McKeesport, Pa.	June 4	49,090	11	1	2			4		1		29		2	
Do.	June 11		10	1	1	1	1	5		1		10			
Do.	June 18		13	1	1	1		3	1	1		12	1		
Do.	July 2		23	1	1		1	5		4		17			
Do.	June 25		20	1	1			5	4	1		11			
Malden, Mass.	July 16	42,410	10	3				1	1	1		7			
Manchester, N. H.	do.	69,848	17	2	2	1				1					
Manistee, Mich.	do.	10,400	2									29		5	1
Manitowoc, Wis.	do.	13,690	3							1					
Marinette, Wis.	do.	14,513	2					1							
Marlboro, Mass.	July 9	14,537	2		1										
Massillon, Ohio.	July 16	13,796													
Medford, Mass.	do.	21,128	5		2							3			
Melroe, Mass.	do.	15,628	4	1						4					

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

COLORADO—*Denver*.—Month of June, 1910. Population, 153,522. Total number of deaths from all causes 242, including typhoid fever 2, scarlet fever 4, diphtheria 2, tuberculosis 39. Cases reported: Typhoid fever 20, smallpox 10, measles 67, scarlet fever 38, diphtheria 43.

FLORIDA.—Week ended July 9, 1910. Reports from the state board of health show typhoid fever present in 6 localities with 13 cases, smallpox in 2 counties with 2 cases, diphtheria in 2 localities with 2 cases, malaria in 5 localities with 14 cases, tuberculosis in 5 localities with 10 cases.

Week ended July 16, 1910. Typhoid fever present in 7 localities with 17 cases, smallpox in 1 county with 2 cases, malaria in 3 localities with 9 cases, tuberculosis in 5 localities with 12 cases.

MASSACHUSETTS.—Week ended May 7, 1910. Population of reporting towns, 2,401,701. Total number of deaths from all causes 785, including typhoid fever 8, measles 8, scarlet fever 12, diphtheria 15, tuberculosis 72.

Week ended May 14, 1910. Population of reporting towns, 2,375,027. Total number of deaths 739, including typhoid fever 3, measles 13, scarlet fever 13, diphtheria 10, tuberculosis 84.

Week ended May 21, 1910. Population of reporting towns, 2,401,701. Total number of deaths 740, including typhoid fever 3, measles 10, scarlet fever 5, diphtheria 8, tuberculosis 92.

Week ended May 28, 1910. Population of reporting towns, 2,391,561. Total number of deaths 729, including typhoid fever 3, measles 9, scarlet fever 4, diphtheria 12, tuberculosis 68.

MINNESOTA.—Month of March, 1910. Population, 1,979,658. Total number of deaths from all causes 1,946, including typhoid fever 72, smallpox 1, measles 38, scarlet fever 34, diphtheria 41, tuberculosis 209.

MINNESOTA—*St. Paul*.—Month of April, 1910. Population, 235,000. Total number of deaths from all causes 228, including typhoid fever 2, measles 6, scarlet fever 14, diphtheria 17, tuberculosis 29. Cases reported: Smallpox 24, measles 90, scarlet fever 164, diphtheria 105.

UTAH—*Salt Lake City*.—Month of June, 1910. Population, 85,000. Total number of deaths from all causes 82, including typhoid fever 3, smallpox 1, scarlet fever 3, tuberculosis 4. Cases reported: Typhoid fever 9, smallpox 7, measles 20, scarlet fever 59, diphtheria 7.

FOREIGN AND INSULAR.

Detention of Russian Emigrants at European Ports.

The following information was received from the Department of State under date of July 20:

The consular officers at Hamburg, Bremen, Antwerp, Rotterdam, and British ports were instructed July 16 to detain steerage passengers from cholera-infected districts in Russia and disinfect their baggage.

BARBADOS.

BRIDGETOWN—Inspection and Fumigation of Vessels.

Acting Assistant Surgeon Le Sueur reports, July 9:

Week ended July 9. Bills of health issued to 5 vessels, of which number 1 was fumigated. They carried a total of 376 in crews and 231 passengers. There was 1 case of malaria on the steamship *Rio de Janeiro* from Santos and 1 case was reported for the same vessel as recovered en route.

CHINA.

AMOY—Plague—Inspection of Vessels.

Acting Assistant Surgeon Morehead reports, June 14:

Week ended June 11. One death from plague occurred in the international settlement of Kulangsu. The patient was a Chinese cooly who went from Amoy to the foreign settlement. In the city of Amoy plague is present, from 5 to 8 deaths occurring daily. Plague is reported epidemic in the districts of Chang-chew and Chang-pu, which are only a few hours' journey from Amoy.

Original bills of health were issued as follows: June 8, steamship *Sunkiang* for Cebu, Iloilo, and Manila, and June 9, steamship *Taisang* for Manila. They carried an aggregate of 110 members of crews and 48 cabin and 75 steerage passengers. All steerage passengers were bathed and their effects were disinfected. All on board were examined immediately prior to sailing.

HONGKONG—Smallpox—Inspection of Vessels.

Passed Assistant Surgeon Foster reports, June 14:

Week ended June 11. Quarantine restrictions enforced against Swatow June 10 have been withdrawn. Restrictions enforced against Hongkong remain as reported June 4.

One case of smallpox with 1 death was reported during the week.

Inspection and disinfection of vessels.

Vessels granted bills of health.....	9
Total members of crews.....	776
Total cabin passengers.....	193
Total steerage passengers.....	222
Members of crews bathed.....	586
Passengers bathed.....	222
Pieces of baggage disinfected.....	808
Vessels disinfected to kill rats.....	1
Crews' quarters disinfected:	
By formaldehyde.....	6
By sulphur.....	1

SHANGHAI—Smallpox—Inspection of Vessels.

Acting Assistant Surgeon Ransom reports, June 14, 22, and 28:

The United States cruiser *New Orleans* arrived at this port from Nanking June 9 with 3 cases of smallpox on board. The crew, 297 in number, were bathed and their effects were disinfected. The entire living space of the crew, and the cabin, were disinfected. On June 24 the quarantine period for the vessel expired. No new cases of smallpox developed during the period. The *New Orleans* sailed June 27.

Week ended June 11.

Vessels granted bills of health.....	3
Members of crews.....	411
Cabin passengers.....	80
Steerage passengers.....	190
Members of crews bathed and effects disinfected.....	101
Steerage passengers bathed and effects disinfected.....	7
Disinfected:	
Baggage..... pieces..	263
Freight..... do..	6
Vessels, partial.....	2
Packages of freight viséed.....	1,490

Week ended June 18.

Vessels granted bills of health.....	6
Members of crews.....	370
Steerage passengers.....	161
Cabin passengers.....	97
Disinfected, freight..... pieces..	39
Packages of freight viséed.....	2,715

Week ended June 25.

Vessels granted bills of health.....	2
Members of crews.....	210
Cabin passengers.....	67
Steerage passengers.....	138
Steerage passengers bathed and effects disinfected.....	4
Disinfected:	
Baggage..... pieces..	5
Freight..... do..	49
Packages of freight viséed.....	2,712

The weekly reports from the municipal health officer show for the week ended June 11, among foreigners 1 new case of smallpox and among natives 3 deaths from smallpox; for the week ended June 18 3 deaths from smallpox among natives; and for the week ended June 25, 8 deaths from smallpox among natives. Reports from Hankau show for the week ended June 11, 2 cases of typhus fever among Europeans, and for the week ended June 18, 1 case among Europeans and several cases among natives.

COSTA RICA.

LIMON, Fruit Port—Inspection of Vessels.

Acting Assistant Surgeon Mengis reports:
Bills of health issued:

WEEK ENDED JULY 9.

Date.	Vessel.	Destination.	Crew.	Passengers from this port.	Passengers in transit.
1910.					
July 3	Captain Bennett.....	New Orleans.....	21		
3	Limon.....	Boston.....	43	2	
4	Prinz Joachim.....	New York via Colon.....	105	15	25
5	Ellis.....	New Orleans.....	30		
6	Belvernon.....	Mobile.....	20		
6	Hippolyte Dumois.....	Philadelphia.....	25		
7	Greenbrier.....	New Orleans.....	43		
7	Montserrat.....	San Juan, P. R.....	100	12	51
7	Vera.....	Philadelphia.....	22		
8	Parismina.....	New Orleans via Barrios and Belize.....	81	9	26

Temperatures taken of passengers on all vessels dispatched for New Orleans and Mobile. The *Parismina* was fumigated.

YELLOW FEVER.

Doctor Mengis further reports, July 16:

A death from yellow fever occurred in the Limon hospital July 14. The patient was brought down from a point 28 miles distant on July 9.

The Costa Rican Government has sent me official notice of their desire to have me supervise the fumigating and cleaning of all possible foci of infection and I have submitted a list of necessary supplies. The quarantine as applied to this port is being rigidly enforced. Steamships that are securely screened and have the doors kept closed with passengers in cabin and saloon are allowed to load part of their cargo at night. Others pull out into the bay at 6 p. m. The fruit company, the railroad officials, and the Costa Rican authorities are doing everything to facilitate and cooperate in executing all precautions in stamping out the infection and maintaining a quarantine that is effective.

CUBA.

CIENFUEGOS—Inspection of Vessels.

Acting Assistant Surgeon Suarez reports, July 14:

Week ended July 9. Vessels inspected, 10. Bills of health issued, 10. Members of crews of outgoing vessels inspected, 308. Immune certificates issued, 2.

No quarantinable disease reported.

HABANA—Inspection of Vessels.

Passed Assistant Surgeon de Valin reports, July 14:

Week ended July 9, 1910. Bills of health issued, 16. Vessels inspected and passed, 11. Members of crews of outgoing vessels inspected, 677. Passengers of outgoing vessels inspected, 531. Vaccination certificates issued, 12.

No quarantinable disease was reported in the island during the week.

MATANZAS—Inspection of Vessels.

Acting Assistant Surgeon Nufiez reports, July 12 and 18:

Week ended July 9. Bills of health issued to 6 vessels clearing for United States ports. Two passengers were vaccinated and 1 was revaccinated.

The department of sanitation reports the inspection of 2,948 houses from July 1 to 10.

Week ended July 16. Bills of health issued to 6 vessels clearing for United States ports. A case of malarial fever was removed from one of these vessels, the steamship *Everest* originally from Cristobal, Canal Zone, bound for New Orleans. No quarantinable disease reported.

SANTIAGO—Inspection of Vessels.

Acting Assistant Surgeon Wilson reports, July 13:

Week ended July 9, 1910. Bills of health issued to 2 vessels bound for the United States and its dependencies. No quarantinable disease reported.

The department of sanitation reports 2,574 houses inspected during the week.

ECUADOR.**GUAYAQUIL—Inspection of Vessels—Plague and Yellow Fever.**

Passed Assistant Surgeon Parker reports, July 5:

Week ended June 25. Bills of health issued, 25. Vessels fumigated, 3. Members of crews inspected, 216. Cabin passengers inspected, 39. Steerage passengers inspected, 23. Baggage fumigated, pieces, 68. Baggage inspected and passed, pieces, 43. Certificates for hides issued, 3.

Week ended July 2. Six cases of yellow fever with 2 deaths and 6 cases of plague with 1 death were reported. Plague reappeared in 2 foci after an absence of several weeks.

GUATEMALA.**Puerto Barrios, Fruit Port—Inspection of Vessels.**

Acting Assistant Surgeon Ames reports:

Bills of health issued:

WEEK ENDED JULY 2.

Date.	Vessel.	Destination.	Crew.	Passengers from this port.	Passengers in transit.
1910. June 27	Heredia.....	New Orleans via Belize...	83	26	10
30	Mount Vernon.....	do.....	20		
July 1	Agnella.....	do.....	19		

No quarantinable disease present.

WEEK ENDED JULY 9.

July 4	Cartago.....	New Orleans via Belize...	83	6	
7	Belize.....	Mobile via Belize.....	18		
8	Fjell.....	New Orleans via Belize...	19	2	
9	Artist.....	do.....	35		

HAWAII.

HONOLULU—Leprosy on Steamship *Chiyo Maru*.

Passed Assistant Surgeon Ramus reports, June 5:

The steamship *Chiyo Maru* arrived at Honolulu July 1 from the Orient with 1 case of leprosy on board. The patient was removed and the quarters he had occupied were disinfected.

HONDURAS.

CEIBA, Fruit Port—Inspection of Vessels.

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

WEEK ENDED JULY 5.

Date.	Vessel.	Destination.	Crew.	Passengers from this port.	Passengers in transit.
1910. July 2	<i>Hispania</i>	Mobile.....	19		
2	<i>Bluefields</i>	New Orleans.....	24	2	
4	<i>Corinto</i>	do.....	22	4	

No quarantinable disease present in port or vicinity.

WEEK ENDED JULY 12.

Date.	Vessel.	Destination.	Number of crew.	Number of passengers from this port.	Number of passengers in transit.
1910. July 6	<i>Orleanian</i>	New Orleans.....	36	12	3
7	<i>Elsie Louisc</i>	Tampa, Fla.....	7	7	
8	<i>Senator</i>	New Orleans.....	18	4	
11	<i>Grib</i>	do.....	21	2	5
11	<i>John Wilson</i>	do.....	17		
11	<i>Wireless</i>	Tampa, Fla.....	6		

Temperatures taken of passengers on steamships *Orleanian*, *Senator*, *Grib*, and *John Wilson*, for New Orleans. No quarantinable disease present.

PUERTO CORTEZ, Fruit Port—Inspection of Vessels.

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

WEEK ENDED JULY 12.

Date.	Vessel.	Crew.	Passengers from this port.	Passengers in transit.
1910. July 6	<i>Fjell</i>	19	26	
7	<i>Mercator</i>	17	4	
8	<i>Bodo</i>	19		
12	<i>Navigator</i>	19	3	

No quarantinable disease present.

TELA, Fruit Port—Inspection of Vessel.

Acting Assistant Surgeon Roe reports:

During the week ended July 9, bill of health was issued to the steamship *Senator* for New Orleans with 19 in crew and no passengers. No quarantinable disease present.

INDIA.

CALCUTTA—Cholera and Plague.

Acting Assistant Surgeon Allan reports, June 23:

Week ended June 4. At Calcutta there were 27 deaths from cholera and 28 from plague; in all Bengal, 56 cases of plague with 39 deaths; in all India, 4,628 cases of plague with 3,972 deaths.

ITALY.

NAPLES—Examination of Emigrants—Smallpox.

Surgeon Geddings reports, July 4:

Vessels inspected at Naples and Palermo week ended July 2.

NAPLES.

Date.	Name of ship.	Destination.	Steerage passengers inspected and passed.	Pieces of baggage inspected and passed.	Pieces of baggage disinfected.
June 29	Madonna.....	New York.....	390	70	620
29	Calabria.....	do.....	131	25	270
30	Ancona.....	Philadelphia.....	656	90	850
July 1	Europa.....	New York.....	507	70	480
1	Friedrich der Grosse.....	do.....	117	20	210
	Total.....		1,801	275	2,430

PALERMO.

June 30	Madonna.....	New York.....	339	550	175
30	Calabria.....	do.....	333	400	170
July 2	Friedrich der Grosse.....	do.....	74	150	50
	Total.....		746	1,100	395

Rejections recommended.

NAPLES.

Date.	Name of ship.	Trachoma.	Favus.	Suspected trachoma.	Other causes.	Total.
June 29	Madonna.....	9	4	4	2	19
29	Calabria.....	13	1		2	16
29	Pannonia.....					
30	Ancona.....	31	1	6	7	45
July 1	Europa.....	14	1	9	8	32
1	Friedrich der Grosse.....	3			1	4
	Total.....	70	7	19	20	116

PALERMO.

June 30	Madonna.....	23		27	3	53
30	Calabria.....	35		18	2	55
July 2	Friedrich der Grosse.....	6		7	1	14
	Total.....	64		52	6	122

Smallpox in Naples.—During the week ended July 3, 19 cases of smallpox, with 3 deaths, were reported at the health office of the city of Naples.

A case of smallpox was discovered on board the steamship *Pannonia* of the Cunard Line, on the voyage from Palermo to Naples, in a Hungarian steerage passenger, aged 12, embarked at Fiume. The patient was landed and sent to the Cotugno Hospital. The crew and passengers were revaccinated and the compartment was disinfected. Eight contacts were disembarked and held in observation.

JAPAN.

YOKOHAMA—Inspection of Vessels—Smallpox and Typhoid Fever.

Surgeon Irwin reports, June 27:

Week ended June 25. Bills of health issued as follows: Steamships *Amiral Duperre* and *Chiyo Maru* for San Francisco, *Aymeric* and *Yawata Maru* for Manila, *Kamakura Maru* and *Oceano* for Seattle, *Rygja* for Portland, and *Bellerophon* for Tacoma. They carried an aggregate of 804 in crews and 277 cabin and 887 steerage passengers.

On June 21, 188 cases of typhoid fever and 1 case of smallpox were present in Kanagawa ken. The case of smallpox occurred in a rural district. The population of the ken is 776,685.

KOBE—Inspection of Vessels.

Acting Assistant Surgeon Moore reports, June 23:

Week ended June 18. Supplemental bills of health granted to 5 steamships and original bills of health to 2 steamships. Members of crews inspected, 1,000; steerage passengers, 695. Members of crews bathed, 125; steerage passengers, 127; effects disinfected. Pieces of baggage steamed, 642, and of bedding 254. Manifests viséed for 75,940 pieces of freight amounting to 7,350 tons. Two vessels fumigated to kill vermin. Cases of human hair disinfected 43, and of personal effects 1.

Emigrants inspected as follows: Per steamship *Manchuria* for Honolulu 35 (Japanese 34, Russian 1), for San Francisco 3 (Japanese). Per steamship *Kamakura Maru* for Seattle, 40. Per steamship *Chiyo Maru* for Honolulu 28, for San Francisco 4. The emigrants passed, together with 17 intending passengers for Victoria by steamship *Kamakura Maru*, were inspected and bathed and their effects were disinfected. All emigrants were 7 days in quarantine detention at Ono before embarkation.

MEXICO.

Report from the Superior Board of Health of Mexico.

In compliance with articles 1 and 2 of the International Sanitary Convention held at Washington October 9–14, 1905, the president of the Superior Board of Health of Mexico reports, July 11, that no case of yellow fever and no death from the said disease were registered in the Mexican Republic during the week ended July 9, and that the prophylactic measures reported under date of September 28, 1908, continue to be carried out.

COATZACOALCOS—Inspection of Vessels.

Acting Assistant Surgeon Thompson reports, July 14:

Week ended July 13. Vessels inspected: Steamships *Indianapolis* for a port in the United States, via Progreso, crew 25; *American* for Delaware Breakwater, crew 44; *Nicaragua* for Galveston, via Frontera, crew 17, passengers in transit 2; *Cayo Soto* for a port in the United States via Veracruz and Tampico, crew 29 and 1 passenger; and *Massachusetts* for Delaware Breakwater, crew 66.

No quarantinable diseases reported.

VERACRUZ—Inspection and Fumigation of Vessels.

Acting Assistant Surgeon Goldthwaite reports, July 11:

Week ended July 9. Four vessels inspected. Of this number 2 were fumigated. A case of smallpox was brought to the city from Puebla, an interior town about 100 miles distant from Veracruz.

NICARAGUA.

BLUEFIELDS, Fruit Port—Inspection of Vessels.

Acting Assistant Surgeon Jumel reports:

During the week ended July 12 bills of health were issued to the steamships *Utstein* and *Imperator*, crews 37, passengers (*Imperator*) 12.

PHILIPPINE ISLANDS.

MANILA—Cholera—Inspection of Vessels.

Chief Quarantine Officer Heiser reports, July 8 and 16:

During the week ended June 4, 3 cases of cholera with 3 deaths were reported in the city of Manila.

Cholera in the Provinces.

WEEK ENDED JUNE 4.

Provinces.	Cases.	Deaths.
Balacan.....	7	5
Pampanga.....	11	6
Pangasinan.....	78	57
Tarlac.....	24	16
Total.....	120	84

WEEK ENDED JUNE 11.

Pampanga.....	4	2
Pangasinan.....	203	129
Tarlac.....	19	12
Total.....	226	143

Inspection of Vessels.

Week ended June 4. May 29 the steamship *Changsha*, with 74 in crew and 9 cabin passengers, en route from Hongkong to Zamboanga granted a supplemental bill of health. June 4, steamship *Tacoma Maru*, with 79 in crew and 3 cabin and 60 steerage passengers, granted bill of health for Tacoma via Hongkong and Japan ports. Manifests of cargo loaded at this port signed and entire personnel inspected and passed at hour of sailing.

Week ended June 11. June 7 the British steamship *Indramayo*, with 62 in crew, granted a bill of health for New York via Cebu. Vessel fumigated while in this port. Manifests signed. June 8 the British steamship *Quito*, with 38 in crew, en route from Cebu to San Francisco, granted a supplemental bill of health. Cargo loaded at this port inspected and passed. Manifests signed. Entire personnel inspected at hour of departure. June 8 the British steamship *Belleophon*, with 84 in crew, en route from London to Seattle and Tacoma, granted a supplemental bill of health. Manifests viséed. Entire personnel inspected at hour of sailing. June 11 the British steamship *Shimosa*, with 56 in crew, granted a bill of health to New York via Iloilo. Vessel fumigated while in port. Cargo loaded, inspected, and passed, and manifests for same signed.

RUSSIA.

Cholera at St. Petersburg.

The following information dated July 23 was received from Secretary of Legation Wheeler through the Department of State, July 25:

The foreign office to-day announces St. Petersburg officially declared infected with cholera.

ODESSA—Status of Cholera.

Consul Grout reports, July 5:

From June 24 to July 3, inclusive, 16 new cases of cholera with 8 deaths were reported in the city of Odessa, with 17 cases remaining in hospital July 3. In Odessa County during the week ended July 2, 46 cases with 18 deaths were reported.

SIAM.

BANGKOK—Quarantine against Singapore.

The following was received from the American consul-general under date of June 6:

All vessels arriving in Siamese waters from Singapore will be detained at the quarantine anchorage at the island of Koh Phra for inspection.

STRAITS SETTLEMENTS.

SINGAPORE—Cholera and Plague.

The following was received from Consul-General Dubois, under date of May 27:

From May 1 to date, there have been 28 cases of cholera with 25 deaths in Singapore. Several cases of plague occurred during the week ended May 27.

TURKEY.

BAGDAD—Plague Extinct at Bassorah.

Consul Simpich reports, May 26:

Plague has disappeared from the port of Bassorah, and the quarantine established at Bagdad against that port has been removed. The epidemic was of short duration and the number of fatal cases was small.

VENEZUELA.

La Guaira—Inspection of Vessels—Yellow Fever.

Acting Assistant Surgeon Kellogg reports, July 3 and 10:

Week ended July 2. Vessels inspected: Steamships *Prinz Willem II* for New York, crew 39, passengers in transit 11, taken on 9; *William Cliff* for New Orleans, crew 43, passengers in transit 1; *Allemania* for San Juan, crew 82, passengers in transit 55, taken on 4; *Zulia* for New York, crew 51, passengers 6, and *Caracas* for San Juan, crew 71, passengers 10.

No quarantinable disease reported.

Week ended July 9. Vessels inspected: Steamships *Almerian* for Port Tampa, crew 37, passengers in transit 2, and *Prins Willem I* for New York, crew 41, passengers in transit 7, taken on 8.

No quarantinable disease reported in La Guaira or vicinity. The mortuary report for the two weeks ended June 30, 1910, showed 20 deaths, including 1 from yellow fever.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX.

Reports Received During Week Ended July 29, 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.
India:				
Bombay.....	June 15-21.....		1	
Calcutta.....	May 29-June 4.....		27	
Negapatam.....	May 14-20.....		8	
Philippine Islands:				
Manila.....	May 29-June 4.....	3	3	
Provinces—				
Bulacan.....	May 29-June 4.....	7	5	
Pampanga.....	May 29-June 11.....	15	8	
Pangasinan.....	May 29-June 11.....	281	186	
Tarlac.....	May 29-June 11.....	43	28	
Russia:				
Odesa.....	June 24-July 3.....	17	8	
Straits Settlements:				
Singapore.....	June 8-14.....	8	9	

YELLOW FEVER.

Brazil:				
Manaos.....	June 19-25.....		3	
Para.....	June 26-July 2.....	4	3	
Costa Rica:				
Limon.....	July 9-14.....	1	1	
Ecuador:				
Guayaquil.....	June 16-30.....	6	2	
Venezuela:				
La Guaira.....	June 16-30.....		1	

PLAGUE.

China:				
Amoy.....	June 5-11.....			From 5 to 8 deaths daily.
Kulangsu, international city.....	June 5-11.....		1	
Chang-pu district.....	June 11.....			Epidemic.
Ching-chew district.....	June 11.....			Do.
Swatow.....	June 14-20.....			Present in vicinity.
Ecuador:				
Guayaquil.....	June 16-30.....	6	1	

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

Reports Received During Week Ended July 29, 1910—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
India:				
Bombay.....	June 15-21.....		71	
Calcutta.....	May 29-June 4.....		28	
Kurrachee.....	June 12-18.....	39	37	
Rangoon.....	June 4-11.....		47	
Turkey in Asia:				
Basra.....	June 12-18.....	1	1	

SMALLPOX.

Austria:				
Galicia.....	June 26-July 2.....	1		
Brazil:				
Pernambuco.....	May 1-15.....		42	
Rio de Janeiro.....	Apr. 18-24.....	1		
Canada:				
Sydney.....	July 10-16.....	10		
Toronto.....	June 26-July 2.....	1		
Winnipeg.....	June 19-25.....	1		
Chile:				
Santiago.....	June 19-25.....			Present.
Valparaiso.....	June 19-25.....	1		
China:				
Chefoo.....	June 12-18.....		1	
Hongkong.....	June 5-11.....	1	1	
Shanghai.....	June 13-26.....	1	11	Cases among foreigners, deaths among natives. June 9. Three cases from U. S. cruiser New Orleans from Nanking.
				Present.
Swatow	June 14-20.....			
Tsingtau.....	June 12-18.....	2		
Egypt, general	May 21-June 3.....	161	30	
Alexandria.....	May 1-31.....	2	7	
Cairo.....	June 11-17.....	2	2	
France:				
Paris.....	June 19-25.....	1		
Gibraltar	July 4-10.....	1	1	
Great Britain:				
London.....	June 26-July 2.....	1		
India:				
Bombay.....	June 15-21.....		14	
Rangoon.....	June 5-11.....		4	
Italy:				
Genoa.....	June 16-30.....	1		
Naples.....	June 28-July 4.....	19	3	
Japan:				
Kanagawa, ken.....	June 15-21.....	1		
Mexico:				
Veracruz.....	July 3-9.....	1		
Portugal:				
Lisbon.....	June 26-July 2.....	43		
Russia:				
Libau.....	June 28-July 3.....	19		
Odesa.....	June 12-25.....	11	3	
St. Petersburg.....	June 19-25.....	36	17	
Warsaw.....	Mar. 27-Apr. 30.....		48	
Slam:				
Bangkok.....	Apr. 25-May 24.....	1	1	
Spain:				
Almeria.....	June 1-30.....		1	
Valencia.....	June 26-July 2.....	1		
Straits Settlements:				
Singapore.....	June 8-14.....	15	5	
Switzerland:				
Zurich, canton.....	June 19-25.....	2		
Tripoli:				
Tripoli.....	June 12-18.....	1		

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

Reports Received from June 25 to July 22, 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.]

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Swatow.....	May 10-June 6.....		254	In vicinity from 3,000 to 4,000 deaths.
Germany:				
Ruhleben (near Berlin)....	June 23-27.....	2	2	Among Russian emigrants.
India:				
Bombay.....	June 8-14.....		1	
Calcutta.....	May 1-28.....		235	
Madras.....	May 21-27.....		1	
Moulmine.....	May 1-7.....	1	1	
Negatapam.....	Apr. 16-May 13.....		55	
Rangoon.....	May 8-June 4.....		7	
Java:				
Batavia.....	May 8-June 4.....	17	12	
Samarang.....	May 8-June 4.....	187	152	
Soerabaya.....	May 8-21.....	27	11	
Philippine Islands:				
Manila.....	May 22-28.....	1	1	
Provinces—				
Batangas.....	May 1-7.....	1		
Bulacan.....	May 1-28.....	36	24	
Pampanga.....	Apr. 24-May 28.....	63	70	
Pangasinan.....	Apr. 24-May 28.....	333	235	
Tarlac.....	May 8-14.....	1	1	
Union.....	May 1-28.....	2		
Russia, general.....				May 8-18, cases 3,344, deaths 1,260.
Baku, government.....	May 29-June 18.....	10	6	
Bessarabia.....	June 5-11.....	1		
Don, territory.....	May 29-June 18.....	1,298	432	
Ekaterrinslav, government.....	May 29-June 18.....	723	315	
Kharkov, government.....	May 29-June 18.....	154	83	
Kherson, government.....	May 29-June 18.....	153	40	
Odessa.....	May 29-June 18.....	16	9	June 18-20, fatal case on steamship <i>Colenzo</i> .
Kief, government.....	May 29-June 18.....	181	44	
Kuban, government.....	May 29-June 18.....	168	85	
Minsk, government.....	May 29-June 18.....	12	3	
Mohlev, government.....	May 15-28.....	2	1	
Orel, government.....	May 29-June 18.....	13	8	
Poltava, government.....	May 30-June 18.....	2	1	
St. Petersburg, government.....	May 29-June 18.....	111	29	
St. Petersburg.....				June 19-25, cases 4, deaths 1.
Taurida, government.....	May 29-June 18.....	98	31	
Kertsch.....	May 29-June 18.....	1		
Tschernigov.....	May 29-June 18.....	134	61	
Vitebsk, government.....	May 29-June 18.....	7		
Voroneg, government.....	May 29-June 18.....	1	1	
Siam:				
Bangkok.....	May 4-24.....	487	480	
Straits Settlements:				
Singapore.....	May 8-28.....	28	28	

YELLOW FEVER.

Brazil:				
Manaos.....	May 30-June 11.....		3	
Para.....	May 30-June 25.....	31	22	
Costa Rica:				
San Jose.....	May 28-July 9.....	3	2	Case May 28 from Barranquilla Case June 29 from Siquires.
Ecuador:				
Guayaquil.....	May 16-June 15.....	30	16	
Gold Coast:				
Sekondi.....	May 1-27.....	8	8	
Sierra Leone:				
Freetown.....	May 1-June 8.....	4	4	
Sherboro.....	May 20.....			Present.

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

Reports Received from June 25 to July 23, 1910—Continued.

PLAGUE.

Place.	Date.	Cases.	Deaths.	Remarks.
Brasil:				
Pernambuco.....	Apr. 1-15.....		1	
Chile:				
Iquique.....	May 8-June 4.....	19	7	
China:				
Amoy.....	May 8-31.....			From 10 to 15 deaths daily. Mainly at Ho Peng. Present also at Chelin, Feng-chow-so, Taipushien, and Tsai-tang-shi.
Chao Yang district.....	May 5-19.....		3,000	
Hankow.....	May 15-28.....	5	3	
Hongkong.....	May 8-June 4.....	2	2	
Swatow.....	June 1-6.....			Present in vicinity.
Ecuador:				
Guayaquil.....	May 16-31.....	2		
Egypt:				
Alexandria.....	May 24-June 8.....	2	1	
Port Said.....	June 14.....	2		
Provinces—				
Assiout.....	May 26-June 16.....	11	7	
Assouan.....	Apr. 30-June 8.....	2	1	
Beni Souef.....	May 27-June 12.....	6	5	
Galloobeeh.....	May 21-June 5.....	4		
Garbieh.....	May 14-June 14.....	13	4	
Fayoum.....	May 28-June 16.....	16	10	
Kena.....	May 27-June 15.....	23	21	
Menouf.....	May 24-June 13.....	83	13	
India:				
Bombay.....	May 18-June 14.....		445	
Calcutta.....	May 1-28.....		286	
Kurrachee.....	May 15-June 11.....	169	161	
Rangoon.....	May 8-June 4.....		121	
Bombay Presidency and Sind.....	May 1-June 11.....	2,000	1,790	
Madras Presidency.....	May 1-June 11.....	97	61	
Bengal.....	May 1-June 11.....	1,030	915	
United provinces.....	May 1-June 11.....	5,922	5,446	
Punjab.....	May 1-June 11.....	40,642	35,226	
Burma.....	May 1-June 11.....	810	785	
Central provinces, includ- ing Berar.....	May 1-June 11.....	162	107	
Mysore State.....	May 1-June 11.....	81	59	
Hyderabad State.....	May 1-June 11.....	95	68	
Central India.....	May 1-June 11.....	27	22	
Rajputana and Ajmer-Mer- wara.....	May 1-June 11.....	7,437	6,584	
Kashmir.....	May 1-June 11.....	58	49	
Grand total.....		58,361	51,112	
Japan:				
Formosa.....	May 8-June 11.....	10	7	
Osaka.....	May 1-31.....	5	5	
New Zealand:				
Auckland.....	May 23.....	1		
Persia:				
Bouchir.....	Apr. 29-June 4.....	44	36	
Peru:				
Arequipa Department— Mollendo.....	May 16.....			Present.
Callao Department— Callao.....	May 12-19.....	2		Case May 12 from s. s. Victoria; case May 19 from s. s. Nicarie.
Rhodes:				
Aplakia.....	May 22-28.....			Present.
Siam:				
Bangkok.....	Apr. 25-May 24.....	3	3	
Straits Settlements:				
Singapore.....	May 8-28.....	3	3	
Trinidad:				
Port of Spain.....	May 15-July 14.....	2	2	
Turkey in Asia:				
Lobeta.....	May 1-24.....	25	27	And vicinity.

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

Reports Received from June 25 to July 22, 1910—Continued.

SMALLPOX.

Place.	Date.	Cases.	Deaths.	Remarks.
Abyssinia:				
Adis Ababa	May 16-28			Present.
Argentina:				
Buenos Aires	Feb. 1-28		70	
	Mar. 1-31		71	
Algeria:				
Bona	May 1-31	1	1	
Australia:				
Victoria, general	Apr. 3-19	1	1	
Austria:				
Gallcia	May 29-June 4	3		
Brazil:				
Para	May 29-June 25	18	5	
Pernambuco	Mar. 16-Apr. 30		161	
Santos	May 22-29		6	
Canada:				
British Columbia—				
Fernie	June 12-25	4		
Nova Scotia—				
Halifax	June 14-July 2	8		
Pictou	June 12-25	7	1	
Sydney	July 3-9	10		
Ontario—				
Toronto	June 5-11	1		
Chile:				
Chillan	May 14			Epidemic.
Valparaiso	May 19	4		
Victoria	May 14			Do.
China:				
Canton	May 8-28	9		
Chefoo	June 5-11			Present.
Hongkong	May 8-21	2		
Shanghai	May 7			Do.
	May 22-June 12	3	16	Cases among foreigners, deaths among natives.
Swatow	June 6			Present.
Egypt, general	Apr. 30-May 13	130	30	
Cairo	May 21-27	4	2	
Suez	May 21-27	1		
France:				
Paris	May 29-June 18	17		
Germany, general	May 29-June 25	11		
Hamburg	June 5-11	1		
Gibraltar	June 20-July 3	2		
Great Britain:				
London	June 19-25	3		
South Shields	May 22-June 4	4	1	
India:				
Bombay	May 18-June 14		80	
Kurrachee	May 15-28	7	3	
Madras	May 14-June 10		5	
Rangoon	May 8-June 4		29	
Italy, general	May 30-June 19	55		
Naples	May 30-June 26	26	7	June 26—One case from s. s. San Giovanni. One case, July 3, on s. s. Pannonia.
Japan:				
Formosa	May 22-28	1	1	
Java:				
Batavia	May 22-28	1		
Korea:				
Fusan	May 1-7	1		
Seoul	May 26-June 4	2	1	
Malta	May 22-28	1		
Mexico:				
Agascalientes	June 5-July 9		20	
Guadalajara	June 11-July 2		6	
Mexico	May 15-June 11		7	
San Luis Potosi	May 29-June 25	7	3	
Portugal:				
Lisbon	May 29-June 25	140		
Russia:				
Libau	May 30-June 26	103	7	
Moscow	May 22-June 18	57	22	
Odessa	May 22-June 11	36	5	
Riga	May 29-June 25	64		
St. Petersburg	May 8-June 18	237	79	
Warsaw	Mar. 6-26		52	

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.
Leipzig	July 2	590,329	133	17							1		1	1
Leith	do.	86,767	24	3									1	1
Liege	do.	177,159	30	3										
Liverpool	do.	702,247	228	10							2	2	16	11
Do.	July 9		211	16							3	1	15	6
London	July 2	7,537,196	1,379	42						2	2	1	39	24
Lyons	June 4	500,000	165	37								1	1	2
Do.	June 11		178	40								2	2	
Do.	June 18		177	40								2	2	
Madras	June 17	550,000	295	1			1							
Manaos	June 25	52,000	34	15			3							15
Manchester	July 2	631,533	180	20					1	3	2	9	15	5
Mannheim	June 25	193,350	52	9						1				3
Montreal	July 16	450,000	300	18					3	2	2	3	4	3
Munich	July 2	576,000	161	32								1	4	
Nagasaki	June 26	176,970	29	4						1				
Nantes	July 3	161,908	55	18					1					
Naples	July 9	593,729	302	1										
Newcastle on Tyne	July 2	285,891	77							1		4	1	3
Nottingham	do.	260,000	49						1			2		
Nuevo Laredo	July 16	6,548		17		5	1		1	13	3	5	6	3
Odessa	June 18	520,000	224	24		4	2		1	13	2	6	5	
Do.	June 25		219	5					1	13	2	4	23	8
Para	July 2	185,000	73	10			3					1		
Paris	June 25	2,776,394	836	200					5	1	7	23		8
Penang	June 11	103,582	65	10					1		1			
Port Said	June 17	52,591	34								1			
Prague	July 2	233,344	64	22					1					
Rangoon	June 11	252,155	200	10	47		4							
St. Petersburg	June 25	1,678,000	971	105		1		1	15	24	15	61		6
Salina Cruz	July 9	4,500	8											
Shanghai	June 19	565,000	175	12						5	1			
Do.	June 26		181	10					3		1			
Sheffield	July 2	472,000	96	5						1				6
Do.	July 9		93	7								3		4
Singapore	June 14	271,060	235	28		9	5		4					
South Shields	July 2	119,737	30	4										2
Stettin	do.	239,000	96	12					1					
Stockholm	June 25	341,816	107	19						3				2
Talcahuana	June 11	28,000		2					1	1		2		
Do.	June 18								2	1		1		
Turin	June 23	391,988	131	20					1		1			4
Do.	June 30		145	16					3		2	1		1
Valencia	July 2	240,000	100	5					2		1			
Vienna	June 25	2,107,981	588	91					1	5	7	11		2
Do.	July 2		111								6	7		11
Warsaw	Apr. 2	764,054	326	41			17		3	3	4			3
Do.	Apr. 9		272	34			9		3	2	1	1		4
Do.	Apr. 16		252	30			7		3	2	1	1		3
Do.	Apr. 25		260	47			10		2	1				4
Do.	Apr. 30		291	33			5		3	4	1	3		3
Winnipeg	July 16	135,000	38	1						1				

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

ALGERIA—Algiers.—Month of June, 1910. Population, 157,000. Total number of deaths from all causes 333, including typhus fever 20, measles 2, diphtheria 2, tuberculosis 36.

Bona.—Month of June, 1910. Population, 42,000. Total number of deaths from all causes 65, including typhoid fever 5, measles 1, scarlet fever 3, tuberculosis 10.

AZORES—*St. Michaels*.—Month of April, 1910. Population, 131,183. Total number of deaths from all causes 220, including tuberculosis 11.

BAHAMAS—*Nassau*.—Two weeks ended June 18, 1910. Population, 12,534. Number of deaths not reported. No contagious diseases.

BRAZIL—*Pernambuco*.—Two weeks ended May 15, 1910. Population, 210,000. Total number of deaths from all causes 353, including typhoid fever 2, smallpox 42, tuberculosis 51.

CANADA—*Yukon Territory—Dawson*.—Month of April, 1910. Population, 9,142. Total number of deaths from all causes 3. No contagious diseases.

DUTCH GUIANA—*Paramaribo*.—Month of May, 1910. Population, 36,496. Total number of deaths 96. Month of June, 1910. Total number of deaths 81. No contagious diseases reported.

FORMOSA.—Two weeks ended June 11, 1910. Population, 3,132,335. Total number of deaths from all causes not reported. Four deaths from typhoid fever, 1 death from diphtheria, and 3 deaths from plague reported.

FRANCE—*Calais*.—Month of May, 1910. Population, 80,000. Total number of deaths from all causes 112, including diphtheria 1, tuberculosis 28.

Cherbourg.—Month of June, 1910. Population, 43,837. Total number of deaths from all causes 63, including tuberculosis, 15.

Roubaix.—Month of May, 1910. Population, 121,115. Total number of deaths from all causes 177, including typhoid fever 2, measles 5, scarlet fever 1, diphtheria 1, tuberculosis 28.

St. Etienne.—Two weeks ended June 30, 1910. Population, 150,000. Total number of deaths from all causes 108, including measles 4, scarlet fever 2, diphtheria 1, tuberculosis 10.

GREAT BRITAIN.—Week ended June 25, 1910.

England and Wales.—The deaths registered in 77 great towns correspond to an annual rate of 11.2 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 17.9 per 1,000 of the population, which is estimated at 1,151,790. The lowest rate was recorded at Ballymena, viz, 4.8, and the highest at Kilkenny, viz, 29.5 per 1,000.

Scotland.—The deaths registered in 8 principal towns correspond to an annual rate of 13.3 per 1,000 of the population, which is estimated at 1,981,571. The lowest rate was recorded at Greenock, viz, 10.6, and the highest at Dundee, viz, 19.9. The total number of deaths from all causes was 484, including typhoid fever 2, measles 12, scarlet fever 9, diphtheria 8.

INDIA—*Rangoon*.—Month of April, 1910. Population, 295,803. Total number of deaths from all causes 904, including cholera 6, smallpox 91, measles 1, plague 154, tuberculosis 36.

ITALY—*Genoa*.—Two weeks ended June 30, 1910. Population, 279,163. Total number of deaths from all causes 186, including typhoid fever 3, tuberculosis 23.

Milan.—Period from June 17 to 30, 1910. Population, 900,000. Total number of deaths from all causes 76, including typhoid fever 11, measles 3, scarlet fever 1, tuberculosis 60.

MEXICO—*Tampico*.—Ten days ended July 10, 1910. Population, 24,500. Total number of deaths from all causes 37, including tuberculosis pulmonary 7.

SIAM—*Bangkok*.—Four weeks ended May 24, 1910. Population, 600,000. Total number of deaths from all causes 484, including smallpox 1, cholera 480, plague 3.

SOUTHEAST AFRICA—*Lourenço Marques*.—Month of May, 1910. Population, 10,000. Total number of deaths from all causes 36, including tuberculosis 8.

TURKS ISLANDS.—Four weeks ended July 9, 1910. Population, 1,800. Total number of deaths 2. No contagious diseases. Health conditions at Cockburn Harbor and Salt Key are good.

By authority of the Secretary of the Treasury:

WALTER WYMAN,
Surgeon-General,

United States Public Health and Marine-Hospital Service.