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EMBALMING.¹

A SATISFACTORY METHOD OF PERFORMING.

By EDWARD FRANCIS, Surgeon, United States Public Health Service.

The Public Health Service is interested in the subject of embalming in order that the interstate shipment of bodies dead from quarantinable diseases, such as plague, cholera, and smallpox, may be harmless. The Army and Navy are interested in the transportation home in good condition of bodies of officers and men who have died in the Tropics. The funeral director not infrequently is called upon to prepare a body for a long sea voyage or for transportation across the continent. On the death of heads of governments it is sometimes necessary to preserve the body for weeks or months. There should be no difficulty in meeting all the requirements in any case. The instances which I have cited call for perfect embalming—the preservation of all parts of the body and their complete sterilization. The proper fluid in right amounts must be properly injected in definite locations by one thoroughly familiar with human anatomy.

The technique of injection is a matter of the greatest importance. As we are concerned with preserving all parts of the body in an equally good condition, we must satisfy ourselves that the fluid reaches every part of the body in an amount sufficient to preserve it. A single injection into but one artery does not produce the widest possible distribution of the fluid to all the remote parts of the head and extremities. It is not denied that in temperate climates bodies are injected constantly through the brachial artery with a small amount of fluid and that the bodies are preserved for two or three days until burial. If, however, a body is to withstand the high temperature of the Tropics, its indefinite preservation will depend upon the bathing of every tissue of the body by fluid introduced into the circulation in multiple locations.

If a body be injected through but one artery, say the right brachial toward the heart, what assurance is there that the right arm below the site of injection will receive any of the fluid, or that the head will

¹ Read before the Georgia State Funeral Directors' Association, Savannah, Ga., June 16, 1915.

get a sufficient amount to preserve it, or that the opposite arm or the legs will get their proper proportion of fluid? The chances are that the amount will vary in different parts and some part perhaps will get none at all.

When the fluid is introduced into the circulation at but one place, the operator takes great chances against a uniform distribution of fluid throughout all parts of the body; consequently the parts which receive the least fluid will be the first to show signs of decay.

In order to get a uniform distribution of fluid, it is usually necessary to make six injections, i. e., into each brachial artery toward the fingers, into each femoral artery toward the toes, into one common carotid artery toward the head, and into the same carotid toward the heart. In each instance, when injecting the brachial artery, or the femoral or the carotid artery upward, fluid is immediately seen returning through the veins. In this way the operator has the assurance that the fluid actually bathes all the tissues of the extremities or head and he can rest assured that the parts will be preserved.

To so embalm a body that it will withstand a tropical sun, or a long sea voyage, or that it may be kept in state for weeks or months, or that it may be harmless on account of communicable disease, the embalmer should inject the arterial system in the six locations indicated with a total amount of fluid equal to 15 per cent of the body weight.

The maximum amount of fluid which in practical embalming it would be desirable to inject into the arteries would depend upon circumstances. It is an easy matter to overinject the head or extremities so that the face and hands are puffy and unnatural; if the eyes, lips, or one side of the face become overdilated, the injection should cease; sometimes fluid can not be forced into an artery, due perhaps to clots; with practice one learns to disregard actual amounts and to stop the injection of an extremity when it is apparent that the fluid has circulated well from the arteries, through the capillaries and back into the veins. In many instances the effects of overinjection are not objectionable, particularly if the casket is not to be opened or if a long time is to be consumed in transportation before the body is viewed at its destination.

Sites of Injection and Amounts to be Employed.

Inject into the arterial system an amount of fluid equal to 15 per cent of the body weight, figuring 450 cc. of fluid as 1 pound.

Inject each femoral artery toward toes with 2 per cent body weight.

Inject each brachial artery toward fingers with 1 per cent body weight.

Inject one common carotid artery toward head with 2 per cent body weight.

Inject same common carotid artery toward heart with 7 per cent body weight.

Total amount of fluid, including both femorals and both brachials, 15 per cent body weight.

If fluid can not be forced into an artery, due perhaps to clots, the extremity should be wrapped in cotton soaked in the fluid and then bandaged; the cotton should be resaturated from time to time. It is not necessary to withdraw blood from the veins, although there is no objection to doing so. It is not necessary to inject fluid into the thoracic and abdominal cavities. Autopsied bodies are to be treated in the same way as nonautopsied ones, but a liberal amount of cotton and embalming fluid should be supplied to the cavities of the abdomen, chest, and skull. Plug the anus, mouth, and nostrils with cotton soaked in the embalming fluid. Wash the entire body, including the face, ears, and hair, with the fluid. If desirable to keep the body for a long time, drying can be prevented by rubbing vaseline liberally over the entire body followed by bandaging the same.

Thirty cadavers were injected in accordance with these rules and after injection they were kept in a room at 98° F. for periods varying from one month to seven weeks; on the dissecting table these bodies excelled in the matter of preservation, firmness, and natural color of the tissues.

The injection apparatus consists of a 3-gallon bottle, through the rubber stopper of which pass two glass tubes; one tube extends to the bottom of the bottle and affords an outlet to the fluid, which is carried by a rubber tube to the glass injection canula; the other tube is connected by rubber tubing to a pump. A bicycle foot pump is very effective.

The exact composition of an embalming fluid is, I think, of far less importance than the method of injecting it. Probably any one of the many fluids found on the market will preserve a body if administered by skillful hands.

The formula of an embalming fluid which was devised at the Hygienic Laboratory of the Public Health Service, which has been found stable in composition after standing two years and eight months, and which has proven effective in preserving human subjects exposed for two months to a temperature of 98° F. after being embalmed is as follows:

Liquor formaldehyde¹ (U. S. P. solution of formaldehyde), 13.5 cc.

Sodium borate (borax, Na₂B₄O₇), 5 grams.

Water sufficient to make 100 cc.

The above formula is based on the idea that formaldehyde is the best preservative and disinfectant which can be used in an embalming fluid. It constituted the essential ingredient in nearly all commercial fluids analyzed at the Hygienic Laboratory.² One very serious

¹ Should the strength of the solution of formaldehyde used be below 37 per cent, its amount must be proportionately increased, using, for example, 15 cc. of a solution of only 33½ per cent strength.

² Passed Asst. Surg. Norman Roberts, U. S. P. H. S.: Chemical examination of 24 commercial embalming fluids, Proceedings of the twenty-ninth annual convention, National Funeral Directors' Association, September, 1910, p. 97.

objection to formaldehyde is that it bleaches muscular tissue to an ashy gray. In the course of our investigation, this objection was found to be overcome by adding an alkali to the formaldehyde solution, thus changing its reaction from acid to alkaline. In the selection of the proper alkali it was found, however, that the common alkalis caused a deterioration of the formaldehyde after several weeks' standing. On account of the instability of formaldehyde in the presence of sodium hydrate, potassium hydrate, ammonium hydrate, sodium sulphite, and sodium carbonate they all had to be abandoned, whereas borax was found to furnish the desired alkalinity without causing more than the very slightest deterioration of the formaldehyde after having been made up almost three years. Borax has the additional advantage of being in itself a preservative.

Table showing the instability of formaldehyde after the addition of various alkalis and showing its stability in the presence of borax.

Aqueous solutions of formaldehyde rendered alkaline by the addition of—	Percentage of formaldehyde in the solutions after having stood—			
		6 weeks.		
Borax, sodium borate ($\text{Na}_2\text{B}_4\text{O}_7$)	Made up with approximately 5.5 per cent formaldehyde.	5.47		
Sodium carbonate (Na_2CO_3)	do.	5.10		
Sodium sulphite (Na_2SO_3)	do.	4.25		
Ammonium hydrate (NH_4OH)	do.	2.15		
Sodium hydrate (NaOH)	do.	0.90		
			1 day.	2 years 3 months.
			4 weeks.	10 weeks.
Sodium carbonate, 1 per cent	5.11	4.87	4.72	4.59
Sodium carbonate, 2 per cent	5.10	4.78	4.58	4.22
Sodium carbonate, 3 per cent	5.09	4.76	4.50	3.85
Sodium carbonate, 5 per cent	5.09	4.69	4.38	3.57
Sodium carbonate, 10 per cent	5.09	4.61	4.24	3.12
Borax, 3 per cent	5.14	5.05	5.02	5.00
Borax, 5 per cent	5.11	5.07	5.00	5.00

The determinations of the amounts of formaldehyde were made by Elias Elvove, technical assistant, Hygienic Laboratory, United States Public Health Service.

PARALYSIS DURING ANTIRABIC TREATMENT.

REPORT OF TWO CASES OF PARALYSIS, WITH ONE DEATH, OCCURRING DURING THE COURSE OF ANTIRABIC TREATMENT.

By H. E. HASSELLTINE, Passed Assistant Surgeon, United States Public Health Service.

In the Public Health Reports¹ of October 24, 1913, the author reported two cases of paralysis occurring during the course of anti-rabic treatment.

¹ Hasseltine, H. E. Public Health Reports, 1913, vol. 28, pp. 2220-2225.

In that report appears the statement that this paralysis is said not to occur after treatment according to the dilution method of Högyes; this should be modified to read that reported cases of this paralysis have been least frequent when this method was used. The author found three reported cases in patients treated by the dilution method.

Since that report was submitted two other cases of paralysis have been seen, one of which resulted fatally, and of which the following are the case histories:

CASE I.—Male, age 52, printer, weight about 200 pounds; an inveterate user of tobacco; denies use of alcohol to excess.

Bitten on right hand and arm and on left leg by a probably rabid dog. Wounds cauterized by his physician one hour after infliction; the agent used is not known. Began antirabic treatment the following day at the Hygienic Laboratory, and completed the course according to the usual scheme (24 injections in 21 days). The patient went to and from his home, a distance of about 12 miles, by trolley and had several minutes' walk from his home to the station. On the last day of the treatment he was exposed to a strong, cold wind, and two days later developed right-sided facial paralysis. He felt slight pain in the face, but considered it neuralgia until he noticed trouble in expectoration.

The following day the left side of the face showed paralysis, with ptosis of both eyelids. No other symptoms developed; the facial paralysis slowly recovered, the recovery being complete in about three weeks.

Since then the author has seen the patient on the street on several occasions and verified the recovery. On practically each of these occasions he had been indulging freely in alcoholic beverages, and the author believes that the assumption is warranted that alcoholic excess may have been a contributing factor in the development of his local paralysis.

CASE II.—Age 47; male; white; weight about 180 pounds; robust in appearance. Leads an active life, doing a large amount of walking and bicycle riding. Habits as regards use of alcohol are claimed to be temperate, but later a physician, who knew him personally, said that he had been a heavy drinker in past years.

While on the street he was bitten by a fox terrier, the ownership of which was not known. The wounds consisted of several punctures on the outer side of the left thigh, a few inches above the knee. The wounds were cauterized with nitric acid by the author at the Hygienic Laboratory about 30 minutes after infliction. The dog was killed shortly after biting the patient, and examination of the brain showed the presence of Negri bodies.

Antirabic treatment was begun at the Hygienic Laboratory four days after the bite was inflicted. On the seventh day of the treatment a slight local reaction at one site of injection was noted. On the eighth day, the local reaction was moderate at two sites of injection; on the ninth day, severe local reaction was present at two sites. On the tenth and eleventh days, moderate local reaction at two sites of injection was noted.

On the twelfth day of the treatment (16 days after being bitten) he did not report for treatment and on the following day it was learned that he was ill at his home.

He was visited on the thirteenth day after beginning treatment by Asst. Surg. C. L. Williams and the author, and the following data obtained: He stated that about 1 p. m. on the eleventh day of the treatment (the day he received his last injection) he was taken sick with vomiting, pain in the abdomen, and pain in the lumbar region

of the spine. That night he suffered from chilly sensations and also had some fever. On the twelfth day his fever continued and he had chills at intervals, but did not vomit. On the thirteenth day, the day of our first visit, he had no chills but said he felt warm. No attempt was made to obtain a complete family and previous history as the patient was too ill to be disturbed unnecessarily.

Physical examination.—Temperature, 39° C.; pulse, 80; respiration, 20.

Pulse regular and of good volume; respiration, diaphragmatic. Tongue, very much coated and breath foul.

Patellar, cremasteric, and abdominal reflexes absent. Sensation absent to the level of the diaphragm on the left side and to the level of the knee on the right side. Blood examination shows no malarial parasites and a slight leucocytosis (11,820 per cu. mm.), which the author attributed to the fact that sufficient blood could be obtained only by compressing the finger.

At noon of the fourteenth day after beginning of treatment he was visited by his attending physician, Asst. Surg. Williams, and the author. Temperature, 36.2° C.; pulse, 64; respiration, 18. Sensation was absent to the level of the diaphragm on both sides and the muscular power in the arms was impaired. The right arm was involved more than the left, the patient being able to flex the fingers of the right hand, but unable to extend them. In the left upper extremity flexion of the fingers was good, but extension of the same was weak. The movements of the elbows and shoulders were normal. Sensation was lost on the extensor surface of the right forearm and hand; also on the dorsal surface of the left hand. He complained of pain in the cervical portion of the spine. His mental condition was clear and he talked naturally. He stated that he passed a restless night and felt that he had some fever. He complained of thirst and drank freely. Urination had been normal until the morning of the fourteenth day; since then the urine had been passed involuntarily at frequent intervals. Catheterized by his physician and about 1,500 cc. of clear urine obtained. A specimen of this was examined by Dr. Williams and found normal. The tongue remained coated. Vomiting absent for the past three days. Defecation was involuntary.

Visited by the author on the fifteenth day after beginning of treatment and six days after the beginning of symptoms. He was conscious and recognized me when I entered the room. His face was somewhat cyanosed and there was a slight gurgling of mucus in the throat. Speech rather thick and difficult. Respiration, diaphragmatic but shallow. Pulse taken and found to be of good volume and regular; rate, 72 per minute. Before the rate of respiration could be counted he suddenly stopped breathing. Artificial respiration was instituted at once and the heart continued to beat for a few minutes, but about 15 minutes after the collapse occurred all signs of life had disappeared. An autopsy could not be obtained to determine the presence or absence of rabic infection.

The question at once arises, Was this not a case of paralytic rabies instead of so-called treatment paralysis? It is within the range of possibility that the case was rabies resulting from infection received at the time of the bite. However, for a bite on the lower extremity of a male adult, an incubation period of 14 days is exceptionally short, this being practically the minimum incubation period in cases where location of bite, age, sex, and other conditions are most favorable to a rapid development of rabies. This patient showed no excitement, no hypersensitiveness to any kind of stimulus, and no difficulty in swallowing. In fact, he drank profusely during the last two days of illness. Several animals were inoculated with an emulsion made from a towel that was soiled with the patient's saliva and

none developed symptoms of rabies. On the other hand, the symptoms followed quite accurately the course described by most writers who have reported cases of this paralysis.

The cases reported in literature vary from a transient local paralysis of one or more nerves to an acute, rapidly ascending paralysis which is fatal in a comparatively large percentage of cases.

A case was reported by Babes¹ and Mironescu in which autopsy was obtained and the absence of rabic infection determined as follows:

A woman, age 42, was bitten September 9, 1907, by a dog subsequently proven to be suffering from rabies, sustaining deep multiple bites upon the hands. She began treatment on September 14. Her medical history disclosed a tendency to neurasthenia and moderate alcoholism. On September 25 she was taken sick with headache, coated tongue, gastric pains, anorexia, and great weakness of the extremities. The patient had no fever but suffered from insomnia. A painful flaccid paralysis of the legs soon developed, accompanied by ataxia. Reflexes were abolished. The patient could maintain a sitting posture with difficulty and was unable to walk. The paralysis next involved the diaphragm and thorax.

On September 29 she entered the hospital. There was complete paralysis of the inferior extremities and bilateral facial paralysis. Sensation was intact. There was absence of response to electricity and there were reactions of degeneration, with embarrassment of respiration; consciousness was not affected.

On September 29 she became comatose and died. Nephritis was found at autopsy. Three rabbits were inoculated intracerebrally with the cord and medulla and all remained well. In the spinal cord there were found the lesions of an acute transverse myelitis. No Negri bodies were found.

The similarity of the two cases is at once apparent, and particularly so in the time elapsing between the bite and beginning of treatment and the date of onset of symptoms.

The belief that such paralyzes are due to street virus infection (atypical or abortive rabies) seems to be gaining ground in certain European countries, though it seems well established that not all cases are caused in this manner. I have knowledge of an unreported case of treatment paralysis developing in a physician who was not exposed to street virus infection. While administering the treatment to a patient he accidentally stuck his finger with the needle of a syringe containing emulsion of fixed virus that had dried only one day. As some advised him to take the regular course of treatment, and none advised against it, he decided to take the treatment. He later developed paralysis similar to other cases of treatment paralysis, and ultimately recovered. Similar occurrences are reported in the literature.

The exact incidence of this paralysis in treated cases can not be determined as, without doubt, all cases are not reported. Remlinger,² in 1905, collected 40 cases out of 107,712 cases treated; 2 of

¹ Babes, V., and Mironescu, T. *Compt. Rend. Soc. de Biologie*, vol. 64, 1908, p. 964.

² Remlinger, P. *Annales de l'Institut Pasteur*, 1905, v. 19, p. 625.

these resulted fatally. Stimson¹ stated, in 1910, that subsequent reports had brought this total up to 76 cases, with 4 deaths.

Simon,² in 1913, published data showing the occurrence of 100 cases of paralysis in 217,774 treated and 3 other cases, which did not indicate the number treated, occurring up to and including 1911. In this series there were 19 deaths.

Kozewaloff,³ in 1914, reports 2 more cases not mentioned by Simon, which occurred in the Pasteur Institut at Charkow, and mentions 5 cases observed by Mucharinski and 1 case by Abramov. Higier⁴ reported 1 fatal case in 1912. Later Sterling⁵ reports 2 cases showing the usual paralytic symptoms and refers to another case of Hudovernig⁶ which developed a chronic polyneuritis.

Jochmann⁷ reports 3 additional cases, and Goldberg and Oczewalski⁸ have recently published a case, in which the picture of meningitis was most prominent, which resulted fatally.

These cases bring the number given by Simon (103) up to 119. Simon's figures do not contain the case of Fabricius.⁹ Since the publication of Simon's article I have reported 2 cases and now add 2 more. Park and Williams,¹⁰ in their book *Pathogenic Microorganisms*, state (p. 585) that there have been 7 cases of this paralysis, with 2 deaths, in 6,850 cases treated at the Pasteur Institute of the New York City health department. I also have knowledge of 2 other cases, as yet unpublished, bringing the total up to 133 cases, of which 25 have resulted fatally.

As the recent articles have not all given the total number of patients receiving treatment, the incidence of the disease can not be fully determined. Simon's figures, 100 cases in 217,774 persons treated, are the latest ones available (1 case in 2,177 treated persons). Probably many cases are not reported, so the true incidence of the paralysis would be greater than indicated by the figures.

These figures are given to aid physicians and health officers in advising prospective patients of the possible ill effects of antirabic treatment. When the figures are compared with those of cases that develop rabies after being bitten by rabid dogs and have not taken antirabic treatment (about 15 per cent, Döbert¹¹) and those of cases that develop rabies in spite of treatment (0.50 per cent) and taking into consideration that practically 100 per cent of de-

¹Stimson, A. M. Bull. No. 65, 1910, Hyg. Lab.

²Simon, Gerhardt. Centralbl. f. Bakteriol. Jena, Orig. Bd. 68, 1913, pp. 72-112.

³Kozewaloff, S. Centralbl. f. Bakteriol. Jena, Orig. Bd. 73, 1914, pp. 54-71.

⁴Higier, Heinrich. Zeitschr. f. d. ges. Neurol. u. Psychiat., Orig. Bd. 12, 1912, pp. 353-364.

⁵Sterling, W. Zeitschr. f. ges. Neurol. u. Psych. Orig. Bd. 17, pp. 160-205.

⁶Hudovernig, C. Author's Abstract in Neurol. Centralbl., 1912, Bd. 31, p. 1116.

⁷Jochmann, G. Deutsch. Zeitschr. f. Nervenheilk. Bd. 47 and 48, 1913, pp. 267-295.

⁸Goldberg, J., and Oczewalski, K. Wien. Klin. Wochenschr., 1913, Bd. 26, pp. 1981-1984.

⁹Fabricius, J. R. Archives of Diagnosis, 1909, vol. 2.

¹⁰Park, W. H., and Williams, A. W. Pathogenic Microorganisms, 1914, p. 583.

¹¹Döbert, A. Klinisches Jahrbuch, 1909, Bd. 21.

veloped cases of rabies die, it is plainly evident that the choice of taking antirabic treatment is choosing the lesser of two evils.

From cases reported it seems probable that alcoholism, syphilis, and neurasthenia are factors favorable for the development of these paralytic phenomena; exposure to cold, either by cold bath or by weather conditions, and fatigue are also predisposing causes.

In reporting these cases the object has been twofold: To record cases of scientific interest, and to bring to the attention of physicians and people generally the fact that it is far safer to prevent the exposure of man to possible infection of rabies than to rely on antirabic treatment to prevent the development of the disease after exposure. Though the treatment is usually without ill effects, all patients should know of the possible occurrence of complications, so that they can determine for themselves whether or not they, desire to receive the treatment. It is the duty of physicians or officials to give this information to prospective patients.

PLAGUE-PREVENTION WORK.

CALIFORNIA.

The following report of plague-prevention work in California for the week ended July 10, 1915, was received from Passed Asst. Surg. Hurley, of the United States Public Health Service, in temporary charge of the work:

San Francisco, Cal.

RAT PROOFING.		RAT PROOFING—continued.	
New buildings:		Old buildings—Continued.	
Inspections of work under construction.	166	Total area concrete laid . . . square feet..	87,803
Basements concreted (square feet, 7,090).	24	Floors rat proofed with wire cloth	
Floors concreted (square feet, 2,236)....	4	(square feet, 820).....	2
Yards, passageways, etc. (square feet,		Buildings razed.....	2
2,782).....	15	New garbage cans stamped approved.....	725
Total area of concrete laid . . square feet..	12,103	Nuisances abated.....	76
Class A, B, and C (fireproof) buildings:			
Inspections made.....	183		
Roof and basement ventilators, etc.,			
screened.....	5,105		
Wire screening used square feet..	24,260	OPERATIONS ON THE WATER FRONT.	
Openings around pipes, etc., closed with		Vessels inspected for rat guards..... times..	27
cement.....	8,218	Reinspections made on vessels.....	19
Sidewalk lens lights replaced.....	900	New rat guards procured.....	5
Old buildings:		Defective rat guards repaired.....	9
Inspections made.....	375	Rats trapped on wharves and water front..	30
Wooden floors removed.....	17	Rats trapped on vessels.....	12
Yards and passageways, planking re-		Traps set on wharves and water front.....	179
moved.....	2	Traps set on vessels.....	53
Cubic feet new foundation walls installed	3,175	Vessels trapped on.....	11
Concrete floors installed (square feet,		Poisons placed on water front..... pieces..	3,600
72,621).....	38	Bait used on water front and vessels, ba-	
Basements concreted (square feet, 10,625)	21	con..... pounds..	6
Yards and passageways, etc., screened		Amount of bread used in poisoning water	
(square feet, 4,557).....	17	front..... loaves..	12
		Pounds of poison used on water front.....	6

RATS COLLECTED AND EXAMINED FOR PLAGUE.

RATS IDENTIFIED.

Collected.....	276	Mus norvegicus.....	132
Examined.....	225	Mus rattus.....	58
Found infected.....	0	Mus alexandrinus.....	43
		Mus musculus.....	43

Squirrels collected and examined for plague.

Contra Costa County.....	496
Alameda County.....	332
Monterey County.....	149
San Benito County.....	261
Stanislaus County.....	15
Total collected.....	1,253
Examined.....	1,227
Found infected.....	2

Ranches inspected and hunted over.

Contra Costa County.....	36
Alameda County.....	51
Monterey County.....	16
San Benito County.....	25
Stanislaus County.....	2
Total.....	130

Plague-infected squirrels.

Contra Costa County:	
Shot June 25, 1915—Thornton ranch, 4 miles southeast of San Pablo (Peoples Water Co.).....	1
San Benito County:	
Shot June 23, 1915—M. Sally ranch, 4 miles southwest of Hollister (San Justo rancho).....	1

Record of plague infection.

Places in California.	Date of last case of human plague.	Date of last case of rat plague.	Date of last case of squirrel plague.	Total number rodents found infected since May, 1907.
Cities:				
San Francisco.....	Jan. 30, 1908	Oct. 23, 1908	(¹)	398 rats.
Oakland.....	Aug. 9, 1911	Dec. 1, 1908	(¹)	126 rats.
Berkeley.....	Aug. 28, 1907	(¹)	(¹)	None.
Los Angeles.....	Aug. 11, 1908	(¹)	Aug. 21, 1908	1 squirrel.
Counties:				
Alameda (exclusive of Oakland and Berkeley).....	Sept. 24, 1909	Oct. 17, 1909	Aug. 7, 1914	286 squirrels.
Contra Costa.....	May 17, 1914	(²)	June 25, 1915	1 wood rat.
Fresno.....	(¹)	(¹)	Oct. 27, 1911	1 squirrel.
Merced.....	(¹)	(¹)	July 12, 1911	5 squirrels.
Monterey.....	(¹)	(¹)	Apr. 10, 1914	6 squirrels.
San Benito.....	June 4, 1913	(¹)	June 23, 1915	42 squirrels.
San Joaquin.....	Sept. 18, 1911	(¹)	Aug. 26, 1911	18 squirrels.
San Luis Obispo.....	(¹)	(¹)	Jan. 29, 1910	1 squirrel.
Santa Clara.....	Aug. 31, 1910	(¹)	July 23, 1913	25 squirrels.
Santa Cruz.....	(¹)	(¹)	May 17, 1910	3 squirrels.
Stanislaus.....	(¹)	(²)	June 2, 1911	13 squirrels.

¹ None.

² Wood rat.

The work is being carried on in the following named counties: Alameda, Contra Costa, San Francisco, Stanislaus, San Benito, and Monterey.

LOUISIANA—NEW ORLEANS—PLAGUE ERADICATION.

The following report of plague-eradication work at New Orleans for the week ended July 17, 1915, was received from Passed Asst. Surg. Simpson, of the United States Public Health Service, in temporary charge of the work:

OUTGOING QUARANTINE.		BUILDINGS RAT PROOFED—continued.	
Vessels fumigated with sulphur.....	6	By concrete floor and wall.....	194
Vessels fumigated with carbon monoxide..	9	By minor repairs.....	272
Vessels fumigated with hydrocyanic gas...	1	Square yards of concrete laid.....	23,358
Pounds of sulphur used.....	2,612	Total buildings rat proofed.....	785
Pounds of coke consumed in carbon-monoxide fumigation.....	14,700	Total buildings rat proofed to date.....	44,938
Pounds of potassium cyanide used in hydrocyanic-gas fumigation.....	102	Number of abatements.....	384
Pounds of sodium carbonate used in hydrocyanic-gas fumigation.....	120	Number of abatements to date.....	26,103
Pounds of sulphuric acid used in hydrocyanic-gas fumigation.....	104	LABORATORY OPERATIONS.	
Clean bills of health issued.....	33	Rodents received by species:	
Foul bills of health issued.....	8	Mus norvegicus.....	1,482
		Mus rattus.....	76
		Mus alexandrinus.....	88
		Mus musculus.....	3,211
		Wood rats.....	52
		Musk rats.....	38
		Putrid (included in enumeration of species).....	53
		Total rodents received at laboratory..	4,947
		Rodents examined.....	1,875
		Number of suspicious rats.....	5
		Plague rats confirmed.....	1
FIELD OPERATIONS.			
Rats trapped.....	4,910		
Number of premises inspected.....	10,099		
Notices served.....	1,616		
BUILDINGS RAT PROOFED.			
By elevation.....	155		
By marginal concrete wall.....	164		

Rodent case.

Case No.	Address.	Captured.	Diagnosis confirmed.	Treatment of premises.
245	617 St. Mary Street....	July 7, 1915	July 14, 1915	Intensive trapping. Premises vacated. Demolition and rat proofing initiated.

Last case of human plague, Oct. 4, 1914.
 Last case of rodent plague, July 14, 1915.
 Total number of rodents captured to July 17..... 391,124
 Total number of rodents examined to July 17..... 269,357

Total cases of rodent plague to July 17, by species:

Mus musculus.....	4
Mus rattus.....	16
Mus norvegicus.....	217
Mus alexandrinus.....	8
Total rodent cases to July 17, 1915....	245

WASHINGTON—SEATTLE—PLAGUE ERADICATION.

The following reports of plague-eradication work at Seattle have been received from Surg. Lloyd, of the United States Public Health Service, in charge of the work:

WEEK ENDED JULY 3, 1915.

RAT PROOFING.		RAT PROOFING—continued.	
New buildings inspected.....	40	Total concrete laid, new structures, square feet.....	34,333
Basements concreted, new buildings (square feet, 25,118).....	24	New buildings elevated.....	3
Floors concreted, new buildings (square feet, 6,275).....	5	New premises rat proofed, concrete.....	24
Yards, etc., concreted, new structures (square feet, 2,945).....	13	Old buildings inspected.....	4
		Buildings razed.....	2

LABORATORY AND RODENT OPERATIONS.

Dead rodents received.....	9
Rodents trapped and killed.....	336
Rodents recovered after fumigation.....	0
Total.....	345
Rodents examined for plague infection....	250
Rodents proven plague infected.....	0
Poison distributed..... pounds..	19
Bodies examined for plague infection.....	1
Bodies found plague infected.....	0

CLASSIFICATION OF RODENTS.

Mus rattus.....	12
Mus alexandrinus.....	37
Mus norvegicus.....	223
Mus musculus.....	63

WATER FRONT.

Vessels inspected and histories recorded...	6
New rat guards installed.....	5
Port sanitary statements issued.....	39

The usual day and night patrol was maintained to enforce rat guarding and fending.

RODENTS EXAMINED IN EVERETT.

Mus norvegicus trapped.....	30
Mus norvegicus found dead.....	2
Mus musculus trapped.....	3
Total.....	35
Rodents examined for plague infection....	27
Rodents proven plague infected.....	0

RAT-PROOFING OPERATIONS IN EVERETT.

New buildings inspected.....	3
New buildings concrete foundations.....	2
New buildings elevated, 18 inches.....	1
New buildings basements concreted (square feet, 560).....	1
Total concrete laid, new buildings, square feet.....	560

WEEK ENDED JULY 10, 1915.

RAT PROOFING.

New buildings inspected.....	18
New buildings reinspected.....	16
Basements concreted, new buildings (18,722 square feet).....	19
Floors concreted, new buildings (6,100 square feet).....	4
Yards, etc., concreted, new structures (760 square feet).....	4
Sidewalks concreted..... square feet..	7,280
Total concrete laid, new structures, square feet.....	32,860
New buildings elevated.....	3
New premises rat proofed, concrete.....	23
Old buildings inspected.....	4
Floors concreted, old buildings (3,250 square feet).....	2
Wooden floors removed, old buildings.....	2
Buildings razed.....	2

LABORATORY AND RODENT OPERATIONS.

Dead rodents received.....	8
Rodents trapped and killed.....	340
Total.....	348

Rodents examined for plague infection....	269
Rodents proven plague infected.....	0
Poison distributed, pounds.....	15
Bodies examined for plague infection.....	0
Bodies found plague infected.....	0

CLASSIFICATION OF RODENTS.

Mus rattus.....	7
Mus alexandrinus.....	32
Mus norvegicus.....	250
Mus musculus.....	59

WATER FRONT.

Vessels inspected and histories recorded....	8
New rat guards installed.....	9
Defective rat guards repaired.....	3
Port sanitary statements issued.....	55
The usual day and night patrol was maintained to enforce rat guarding and fending.	

MISCELLANEOUS WORK.

Rat-proofing notices sent to contractors....	15
--	----

RODENTS EXAMINED IN EVERETT.

Mus norvegicus trapped.....	40
Mus norvegicus found dead.....	1
Mus musculus trapped.....	4
Total.....	45
Rodents examined for plague infection....	37
Rodents proven plague infected.....	0

RAT-PROOFING OPERATIONS IN EVERETT.

New buildings inspected.....	6
New buildings, concrete foundations.....	4
New buildings elevated 18 inches.....	2
New buildings basements concreted (583 square feet).....	1
New buildings yards concreted (348 square feet).....	1
Total concrete laid, new buildings, square feet.....	936

HAWAII—PLAGUE-PREVENTION WORK.

The following reports of plague-prevention work in Hawaii were received from Surg. Trotter, of the United States Public Health Service:

Honolulu.

WEEK ENDED JULY 3, 1915.

Total rats and mongoose taken.....	334	Average number of traps set daily.....	984
Rats trapped.....	320	Cost per rat destroyed.....cents..	24½
Mongoose trapped.....	14	Last case rat plague, Aiea, 9 miles from Honolulu,	
Examined microscopically.....	277	Apr. 12, 1910.	
Showing plague infection.....	0	Last case human plague, Honolulu, July 12, 1910.	
Classification of rats trapped:		Last case rat plague, Kalopa stable, Paauhau,	
Mus alexandrinus.....	152	Hawaii, Aug. 29, 1914.	
Mus musculus.....	97	Last case human plague, Paauhau Landing, Hawaii,	
Mus norvegicus.....	57	June 29, 1915.	
Mus rattus.....	14		

Hilo.

WEEK ENDED JUNE 19, 1915.

Rats and mongoose taken.....	3,099	Classification of rats trapped and found dead:	
Rats trapped.....	3,061	Mus norvegicus.....	673
Mongoose taken.....	38	Mus alexandrinus.....	426
Rats and mongoose examined macroscopically	3,099	Mus rattus.....	900
Rats and mongoose plague infected.....	0	Mus musculus.....	1,062

WEEK ENDED JUNE 26, 1915.

Rats and mongoose taken.....	2,858	Classification of rats trapped and found dead—	
Rats trapped.....	2,817	Continued.	
Rats found dead.....	2	Mus rattus.....	806
Mongoose taken.....	39	Mus musculus.....	1,019
Rats and mongoose examined macroscopically	2,858	Last case of rat plague, Paauhua Sugar Company,	
Rats and mongoose plague infected.....	0	Aug. 29, 1914.	
Classification of rats trapped and found dead:		Last case of human plague, Paauhau Sugar Com-	
Mus norvegicus.....	617	pany, Aug. 16, 1914.	
Mus alexandrinus.....	377		

PREVALENCE OF DISEASE.

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

IN CERTAIN STATES AND CITIES.

RECIPROCAL NOTIFICATION.

Minnesota.

Cases of communicable diseases referred during June, 1915, to other State health departments by Collaborating-Epidemiologist Bracken, of the Minnesota State Board of Health.

Disease and locality of notification.	Referred to health authority of—	Why referred.
Measles: Delaven, Faribault County.	Hampton, Franklin County, Iowa.	Contracted measles when visiting uncle in Hampton, where measles was prevalent. Returned to Delaven.
Smallpox: Waterville, Lesueur County.	Cherokee, Cherokee County, Iowa.	Came to Waterville from Cherokee, Iowa, completely broken out with smallpox.
Tuberculosis: Ottertail County Sanatorium.	Rutland, Sargent County, N. Dak.	Was in the Ottertail County Sanatorium for treatment of tuberculosis. Returned to Rutland, N. Dak.
Do.....	Milbank, Grant County, S. Dak.	Was in the Ottertail County Sanatorium for treatment of tuberculosis. Returned to Milbank, S. Dak.
St. Paul, Ramsey County.	Pittsburgh, Allegheny County, Pa.	Resided at St. Paul. Left for Pittsburgh to live with sister.
Minneapolis, Hennepin County.	Superior, Douglas County, Wis.	Was under care of the tuberculosis nurse, Associated Charities, Minneapolis. Moved to Superior, Wis.
Do.....	Bayfield, Bayfield County, Wis.	Patient, formerly of Bayfield, died of pulmonary tuberculosis in Minneapolis.
Do.....	Cushing, Polk County, Wis...	Case of tuberculosis who left Minneapolis for Cushing, Wis.
Do.....	Wheeling, Ohio County, W. Va.	Died of pulmonary tuberculosis in Minneapolis. Was formerly a resident of Wheeling, W. Va.
Do.....	Chicago, Cook County, Ill.....	Patient, formerly of Chicago, is taking treatment for pulmonary tuberculosis in Minneapolis.
Do.....	Cathay, Wells County, N. Dak.	Is taking treatment for pulmonary tuberculosis at Thomas Hospital, Minneapolis. Came from Cathay, N. Dak.
Do.....	Ray, Williams County, N. Dak.	Came to Minneapolis from Ray, N. Dak.
Typhoid fever: South Stillwater, Washington County.	United States Public Health Service, Washington, D. C.	Sick with typhoid fever in South Stillwater village. Brought from U. S. steamboat Fury on Mississippi River. Had been employed on this boat.
S. Lucas Hospital, Faribault, Rice County.	Malta, Valley County, Mont...	Sick with typhoid fever at St. Lucas Hospital, Faribault. Came from Malta, Mont.

CEREBROSPINAL MENINGITIS.

State Reports for June, 1915.

Place.	New cases reported.	Place.	New cases reported.
Indiana:		Mississippi:	
Delaware County.....	1	Simmons County.....	1
Vigo County.....	1	Sunflower County.....	1
Total.....	2	Wayne County.....	1
		Newton County.....	1
Kansas:		Wilkinson County.....	1
Crawford County.....	1	Total.....	5
Massachusetts:		Montana:	
Bristol County—		Chouteau County.....	1
Fall River.....	2	Ohio:	
Essex County—		Cuyahoga County—	
Peabody.....	1	Cleveland.....	3
Lawrence.....	1	Hamilton County—	
Middlesex County—		Cincinnati.....	1
Arlington.....	1	Mahoning County—	
Cambridge.....	1	Youngstown.....	1
Somerville.....	1	Paulding County.....	1
Plymouth County—		Total.....	6
Mattapoisett.....	1	South Carolina:	
Suffolk County—		Chester County.....	1
Boston.....	9	Orangeburg County.....	1
Chelsea.....	1	Spartanburg County.....	1
Worcester County—		Total.....	3
Worcester.....	1	Washington:	
Total.....	19	King County—	
Minnesota:		Seattle.....	1
Marshall County—			
Argyle.....	1		
St. Louis County—			
Duluth.....	1		
Total.....	2		

City Reports for Week Ended July 10, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Chelsea, Mass.....		1	Lexington, Ky.....	1	
Chicago, Ill.....	2	2	Lynn, Mass.....	1	1
Jersey City, N. J.....		1	Milwaukee, Wis.....	1	1
Lawrence, Mass.....	1		Providence, R. I.....		1

DIPHTHERIA.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2252.

ERYSIPELAS.

City Reports for Week Ended July 10, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Ann Arbor, Mich.....	1		Detroit, Mich.....	3	
Boston, Mass.....		1	Erie, Pa.....	1	
Buifalo, N. Y.....	5	1	Harrisburg, Pa.....	1	
Chicago, Ill.....	3	2	Milwaukee, Wis.....	1	
Cincinnati, Ohio.....	2		Philadelphia, Pa.....	9	1
Cleveland, Ohio.....	1	1	Pittsburgh, Pa.....	6	
Concord, N. H.....		1	Sacramento, Cal.....	1	

GONORRHEA.

State Reports for June, 1915.

During the month of June, 1915, cases of gonorrhoea were notified by States as follows: Louisiana, 1; Ohio, 176.

MALARIA.

State Reports for June, 1915.

Place.	New cases reported.	Place.	New cases reported.
Massachusetts.....	12	Mississippi—Continued.	
Mississippi:		Madison County.....	75
Adams County.....	58	Marion County.....	201
Alcorn County.....	37	Marshall County.....	96
Amite County.....	84	Monroe County.....	110
Attala County.....	85	Montgomery County.....	44
Benton County.....	18	Neshoba County.....	163
Bolivar County.....	868	Newton County.....	18
Calhoun County.....	94	Noxubee County.....	51
Carroll County.....	221	Oktibbeha County.....	95
Chickasaw County.....	69	Panola County.....	133
Choctaw County.....	35	Pearl River County.....	26
Claiborne County.....	111	Perry County.....	62
Clarke County.....	25	Pike County.....	68
Clay County.....	84	Pontotoc County.....	80
Coahoma County.....	607	Prentiss County.....	22
Copiah County.....	83	Quitman County.....	20
Covington County.....	55	Rankin County.....	43
De Soto County.....	20	Scott County.....	93
Forrest County.....	186	Sharkey County.....	158
Franklin County.....	43	Simpson County.....	62
George County.....	41	Smith County.....	98
Greene County.....	31	Sunflower County.....	806
Grenada County.....	111	Tallahatchie County.....	241
Hancock County.....	92	Tate County.....	244
Harrison County.....	119	Tippah County.....	34
Hinds County.....	282	Tishomingo County.....	22
Holmes County.....	403	Tunica County.....	250
Issaquena County.....	91	Union County.....	19
Itavamba County.....	64	Warren County.....	401
Jackson County.....	55	Washington County.....	400
Jasper County.....	82	Wayne County.....	73
Jefferson County.....	107	Webster County.....	20
Jefferson Davis County.....	30	Wilkinson County.....	24
Jones County.....	111	Winston County.....	151
Kemper County.....	51	Yalobusha County.....	103
Lafayette County.....	104	Yazoo County.....	532
Lamar County.....	44	Walthall County.....	4
Lauderdale County.....	81	Total.....	10,703
Lawrence County.....	114	Ohio.....	3
Lee County.....	130	South Carolina.....	77
Leflore County.....	473		
Lincoln County.....	51		
Lowndes County.....	111		

City Reports for Week Ended July 10, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Boston, Mass.....	2		Plainfield, N. J.....	2	
Cambridge, Mass.....	1		Taunton, Mass.....	1	
Chicopee, Mass.....	1		Waltham, Mass.....	1	
Newark, N. J.....	1		Wilkes-Barre, Pa.....	1	
New Orleans, La.....		1	Wilmington, N. C.....	2	
Philadelphia, Pa.....	1				

MEASLES.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2252.

PELLAGRA.

Missouri—Carterville.

Passed Asst. Surg. Lanza reported July 17, 1915, that a case of pellagra had occurred in Carterville, Mo.

State Reports for June, 1915.

Place.	New cases reported.	Place.	New cases reported.
District of Columbia.....	3	Lee County.....	27
Kansas.....	7	Leflore County.....	96
Louisiana.....	338	Lincoln County.....	29
Massachusetts.....	5	Madison County.....	52
Mississippi:		Marion County.....	30
Adam's County.....	18	Marshall County.....	19
Alcorn County.....	7	Monroe County.....	43
Amite County.....	8	Neshoba County.....	35
Attala County.....	2	Newton County.....	5
Bolivar County.....	497	Noxubee County.....	21
Calhoun County.....	6	Oktibbeha County.....	14
Carroll County.....	48	Panola County.....	29
Chickasaw County.....	19	Pearl River County.....	18
Claiborne County.....	10	Perry County.....	31
Clarke County.....	5	Pike County.....	36
Clay County.....	8	Pontotoc County.....	8
Coahoma County.....	213	Prentiss County.....	4
Copliah County.....	50	Quitman County.....	52
Covington County.....	57	Rankin County.....	14
De Soto County.....	11	Scott County.....	28
Forrest County.....	111	Sharkey County.....	25
Franklin County.....	11	Simpson County.....	17
George County.....	22	Smith County.....	9
Greene County.....	7	Sunflower County.....	310
Grenada County.....	11	Talahatchie County.....	87
Hancock County.....	1	Tate County.....	11
Harrison County.....	50	Tippah County.....	3
Hinds County.....	140	Tishomingo County.....	4
Holmes County.....	48	Tunica County.....	58
Issaquena County.....	4	Union County.....	4
Itawamba County.....	27	Warren County.....	75
Jackson County.....	4	Washington County.....	161
Jasper County.....	10	Wayne County.....	17
Jefferson County.....	8	Webster County.....	1
Jefferson Davis County.....	7	Wilkinson County.....	1
Jones County.....	133	Winston County.....	6
Kemper County.....	22	Yalobusha County.....	15
Lafayette County.....	8	Yazoo County.....	96
Lamar County.....	39	Walthall County.....	2
Lauderdale County.....	41	Total.....	3,195
Lawrence County.....	34	South Carolina.....	234

City Reports for Week Ended July 10, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Boston, Mass.....		1	Mobile, Ala.....		6
Charleston, S. C.....		9	New Orleans, La.....	4	2
Los Angeles, Cal.....	1	1	Richmond, Va.....		1
Lowell, Mass.....		1	Worcester, Mass.....	1	1

PLAGUE—HUMAN.

California—Martinez.

A case of illness which terminated fatally July 21, 1915, at the county hospital at Martinez, Cal., has been proven bacteriologically to have been one of plague.

PNEUMONIA.

City Reports for Week Ended July 10, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Auburn, N. Y.....	1	1	Manchester, N. H.....	1	1
Binghamton, N. Y.....	4	2	Philadelphia, Pa.....	16	10
Chicago, Ill.....	76	34	Pittsburgh, Pa.....	11	12
Cleveland, Ohio.....	10	7	San Francisco, Cal.....	1	3
Kalamazoo, Mich.....	1	.....	Stockton, Cal.....	1	1
Los Angeles, Cal.....	4	2	Wilmington, N. C.....	1	.....

POLIOMYELITIS (INFANTILE PARALYSIS).

State Reports for June, 1915.

Place.	New cases reported.	Place.	New cases reported.
Indiana:		Minnesota:	
Clinton County.....	1	Ramsey County—	
St. Joseph County.....	1	St. Paul.....	1
Total.....	2	Mississippi:	
Kansas:		De Soto County.....	1
Barton County.....	1	Hancock County.....	1
Lyon County.....	1	Itawamba County.....	1
Total.....	2	Neshoba County.....	2
Louisiana:		Washington County.....	1
Natchitoches Parish.....	1	Yalobusha County.....	1
Massachusetts:		Total.....	7
Dukes County—		Ohio:	
Tisbury.....	1	Ashland County.....	1
Middlesex County—		Cuyahoga County.....	4
Melrose.....	1	Montgomery County.....	1
Norfolk County—		Summit County—	
Walpole.....	1	Akron.....	1
Suffolk County—		Total.....	7
Boston.....	1	South Carolina:	
Total.....	4	Chesterfield County.....	1
Michigan:		Washington:	
Lonawee County—		King County—	
Tecumseh.....	1	Seattle.....	1
Mason County—			
Sherman Township.....	1		
Ludington.....	1		
Total.....	3		

City Reports for Week Ended July 10, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Baltimore, Md.....	1	2	Erie, Pa.....	2	.....
Brockton, Mass.....	1	.....	Newton, Mass.....	1	.....
Chicago, Ill.....	2	1	Seattle, Wash.....	.....	1
Cleveland, Ohio.....	2	.....		

RABIES.

City Report for Week Ended July 10, 1915.

During the week ended July 10, 1915, one fatal case of rabies was notified in Cleveland, Ohio.

ROCKY MOUNTAIN SPOTTED FEVER.

State Reports for June, 1915.

Place.	New cases reported.	Place.	New cases reported.
Montana:		Washington:	
Custer County.....	2	Douglas County.....	1
Dawson County.....	1		
Fallon County.....	1		
Ravalli County.....	1		
Total.....	5		

SCARLET FEVER.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2252.

SMALLPOX.

Maryland—Washington County.

Collaborating Epidemiologist Fulton reported by telegraph July 22, 1915, that a new focus of smallpox infection had been reported in Maryland, one case of the disease having been notified near Downsville, Washington County.

Minnesota.

Collaborating Epidemiologist Bracken reported by telegraph that during the week ended July 24, 1915, four new foci of smallpox infection were reported in Minnesota, cases of the disease having been notified as follows: Isanti County, Stanford Township, 1; Martin County, Jay Township, 1; Pipestone County, Tracy Township, 1; Swift County, Kerkhoven Township, 1.

Texas—Brownsville—Virulent Smallpox.

Acting Asst. Surg. Fairbanks reported by telegraph July 23, 1915, that during the ten days from July 13 to 23, 1915, seven cases of smallpox, with three known deaths, were notified in Brownsville, Tex.

SMALLPOX—Continued.
State Reports for June, 1915.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
Kansas:						
Allen County.....	1				1	
Atchison County—						
Atchison.....	8				6	2
Barton County.....	1				1	
Bourbon County—						
Fort Scott.....	1				1	
Cherokee County.....	7			1		4
Comanche County.....	7				2	5
Crawford County.....	15			2	3	10
Pittsburg.....	10			2	5	3
Dickinson County.....	14				10	4
Douglas County.....	1					1
Elk County.....	1					1
Ford County.....	2			2		
Greenwood County.....	12				5	7
Jefferson County.....	15			2		13
Johnson County.....	2					2
Kingman County.....	5					5
Lane County.....	1				1	
Linn County.....	2				2	
Marion County.....	2				1	1
McPherson County.....	1				1	
Meade County.....	1				1	
Montgomery County—						
Coffeyville.....	2				2	
Morris County.....	1				1	
Neosho County.....	1					1
Osage County.....	1				1	
Pottawatomie County.....	1					1
Rawlins County.....	4				4	
Reno County.....	3				2	1
Hutchinson.....	11				10	1
Republic County.....	4				4	
Rice County.....	15			2	5	8
Rush County.....	1				1	
Saline County.....	1					1
Sedgewick County.....	1					1
Wichita.....	21				2	19
Shawnee County.....	1				1	
Topeka.....	12					12
Smith County.....	2				2	
Stevens County.....	7					7
Summer County.....	1					1
Wabauensee County.....	3					3
Washington County.....	1					1
Wyandotte County.....	29				2	27
Kansas City.....	16				1	15
Total.....	248			11	80	157
Massachusetts:						
Bristol County—						
New Bedford.....	14	7				14
Suffolk County—						
Boston.....	1				1	
Total.....	15	7			1	14
Michigan:						
Houghton County—						
Houghton.....	1				1	
Isabella County—						
Isabella Township.....	1		1			
Nottawa Township.....	1				1	
Macomb County.....						
Armada Township.....	1				1	
Manistee County—						
Brown Township.....	1				1	
Dickson Township.....	1				1	
Marquette County—						
Ishpeming.....	6				6	
Marquette.....	1				1	
Negaunee.....	5				5	

SMALLPOX—Continued.

State Reports for June, 1915—Continued.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
Michigan—Continued.						
Mecosta County—						
Big Rapids.....	1				1	
Menominee County—						
Spalding Township.....	1				1	
Monroe County—						
Bedford Township.....	6				6	
Montcalm County—						
Bloomer Township.....	1				1	
Muskegon County—						
Muskegon.....	1				1	
Newaygo County—						
Dayton Township.....	5				5	
Newaygo.....	1				1	
Fremont.....	5				5	
Van Buren County—						
Columbia Township.....	25					25
Washtenaw County—						
Salem Township.....	1				1	
Scio Township.....	1				1	
Ann Arbor.....	1				1	
Wayne County—						
Detroit.....	6				6	
Total.....	73		1		47	25
Minnesota:						
Bigstone County—						
Clinton.....	1			1		
Malta Township.....	1				1	
Blue Earth County—						
Mankato.....	1				1	
Lyra Township.....	5			1	4	
Brown County—						
Springfield.....	1				1	
Chippewa County—						
Montevideo.....	1				1	
Crow Wing County—						
Roosevelt Township.....	1				1	
Faribault County—						
Blue Earth.....	4				3	1
Elmore.....	2				1	1
Prescott Township.....	1				1	
Goodhue County—						
Wanamingo Township.....	1					1
Hennepin County—						
Excelsior.....	2				2	
Minneapolis.....	10				10	
Isanti County—						
Cambridge.....	1				1	
North Branch Township.....	1					1
Le Sueur County—						
Waterville.....	2				2	
Lincoln County—						
Lake Benton.....	1				1	
Lyon County—						
Fairview Township.....	1				1	
Martin County—						
Fairmont.....	3				3	
Sherburne.....	5				5	
Nobles County—						
Larkin Township.....	2				2	
Norman County—						
Waukon Township.....	5			2	1	2
Pine County—						
Kettle River Township.....	2				1	1
Ramsey County—						
St. Paul.....	23				3	
Redwood County—						
Morgan.....	2				2	
Redwood Falls.....	4			1	3	
Sanborn.....	5				5	
Delhi Township.....	3				3	

SMALLPOX—Continued.

State Reports for June, 1915—Continued.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Number vaccinated within 7 years preceding attack.	Number ^b or last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
Minnesota—Continued.						
Rice County—						
Faribault.....	3			1	2	
Morristown.....	6				5	1
Rock County—						
Denver Township.....	1		1			
St. Louis County—						
Duluth.....	2				2	
Township 56, range 19.....	1					1
Stearns County—						
Collegeville Township.....	1				1	
Steele County—						
Owatonna.....	4		1		3	
Todd County—						
Grey Eagle.....	1				1	
Fawn Lake Township.....	9				9	
Wabasha County—						
Plainview.....	2				2	
Washington County—						
Stillwater.....	1				1	
Watonwan County—						
Long Lake Township.....	2				2	
Total.....	124		2	6	107	9
Ohio:						
Allen County—						
Lima.....	4				4	
Ashtabula County.....	1				1	
Athens County—						
Athens.....	1				1	
Auglaize County.....	6					6
Columbiana County.....	11				7	4
Cuyahoga County.....	4				3	1
Darke County.....	14					14
Defiance County—						
Defiance.....	1				1	
Erie County—						
Sandusky.....	1				1	
Franklin County—						
Columbus.....	1				1	
Geauga County.....	4			1	2	1
Hamilton County—						
Cincinnati.....	4		1		2	1
Hancock County.....	6					6
Hardin County.....	7					7
Henry County.....	3					3
Hocking County.....	2					2
Jackson County.....	4					4
Logan County.....	4				1	3
Lorain County.....	6				3	3
Lucas County.....	13				8	5
Mahoning County.....	5					5
Marion County.....	10				9	1
Mercer County.....	4				1	3
Muskingum County—						
Zanesville.....	1					1
Ottawa County.....	2				2	
Paulding County.....	13				3	10
Perry County.....	138			8	116	14
Putnam County.....	24					24
Seneca County—						
Fostoria.....	13					13
Shelby County.....	1					1
Stark County—						
Canton.....	1				1	
Summit County.....	46				24	22
Washington County.....	1					1
Total.....	356		1	9	191	155

SMALLPOX—Continued.
Miscellaneous State Reports.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
District of Columbia (June 1-30).....	2		Indiana (June 1-30):		
Illinois (June 1-30):			Counties—		
Adams County—			Allen.....	2	
Clayton.....	4		Blackford.....	1	
Melrose Township.....	1		Cass.....	10	
Quincy.....	194		Clinton.....	1	
Calhoun County—			Daviess.....	3	
Hamburg.....	7		Delaware.....	38	
Christian County—			Elkhart.....	2	
Pana.....	8		Fountain.....	15	
Clark County—			Gibson.....	24	
Melrose Township.....	1		Grant.....	1	
York Township.....	1		Hamilton.....	1	
Crawford County—			Howard.....	2	
Oblong.....	3		Huntington.....	1	
Franklin County—			Jackson.....	10	
Deming Township.....	3		Jay.....	1	
Fulton County—			Jennings.....	2	
Canton Township.....	1		Knox.....	33	
Henry County—			Lake.....	1	
Kewanee.....	4		Lawrence.....	10	
Jackson County—			Madison.....	39	
Murphysboro.....	2		Marion.....	3	
Jersey County—			Martin.....	20	
English Township.....	1		Pike.....	15	
Mississippi Township.....	1		Pulaski.....	6	
Kane County—			Randolph.....	5	
Aurora.....	1		Shelby.....	15	
La Salle County—			St. Joseph.....	1	
Ottawa.....	3		Tippecanoe.....	2	
McHenry County—			Vanderburg.....	2	
Woodstock.....	4		Vermilion.....	4	
McLean County—			Vigo.....	37	
Bellflower.....	1		Warren.....	13	
Macon County—			Wells.....	8	
Decatur.....	10		Total.....	328	
Macoupin County—			Louisiana (June 1-30):		
Stamton.....	2		Parishes—		
Madison County—			Beauregard.....	1	
Alton.....	8		Caddo.....	4	
Woor River Town-ship.....	1		Vermilion.....	1	
Mercer County—			Total.....	6	
Matherville.....	5		Mississippi (June 1-30):		
Peoria County—			Counties—		
Akron.....	2		Attala.....	12	
Peoria Township.....	11		Chickasaw.....	6	
Piatt County—			Cochama.....	4	
Mansfield.....	6		Copiah.....	2	
Richland County—			Hinds.....	4	
Madison Township.....	1		Holmes.....	12	
Noble.....	2		Jones.....	2	
Olney.....	20		Neshoba.....	1	
Rock Island County—			Newton.....	8	
Moline.....	1		Tunica.....	1	
Rock Island.....	6		Washington.....	3	
Sangamon County—			Winston.....	2	
Auburn.....	1		Total.....	57	
Loami.....	7		Montana (June 1-30):		
Springfield.....	5		Carbon County.....	3	
Scott County.....	7		Granite County.....	1	
Winchester.....	2		Meagher County.....	2	
Stephenson County—			Phillips County.....	1	
Freepport.....	1		Powell County.....	5	
Tazewell County—			Silverbow County.....	5	
Pekin.....	6		Butte.....	8	
Vermilion County—			Yellowstone County.....	1	
Danville.....	12		Total.....	26	
Danville Township.....	2				
Wabash County—					
Mount Carmel.....	24				
Williamson County—					
Bush.....	1				
Total.....	383				

SMALLPOX—Continued.

Miscellaneous State Reports—Continued.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
North Dakota (June 1-30):			Washington (June 1-30):		
Counties—			Jefferson County.....	2	
Burleigh.....	4		King County—		
Cass.....	1		Seattle.....	1	
Cavalier.....	4		Pierce County.....	1	
Foster.....	1		Skamania County.....	1	
McHenry.....	3		Snohomish County.....	1	
Morton.....	4		Spokane County.....	1	
Oliver.....	4		Spokane.....	13	
Wells.....	6		Stevens County.....	1	
Williams.....	36		Yakima County.....	1	
Total.....	63		Whatcom County—		
			Bellingham.....	1	
South Carolina (June 1-30):			Total.....	23	
Counties—					
Charleston.....	18				
Horry.....	2				
Richland.....	1				
Spartanburg.....	1				
Total.....	22				

City Reports for Week Ended July 10, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio.....	1		Kansas City, Kans.....	2	
Buffalo, N. Y.....	1		Lincoln, Nebr.....	3	
Butte, Mont.....	1		Little Rock, Ark.....	1	
Canton, Ohio.....	2		Madison, Wis.....	1	
Charleston, S. C.....	4		Newport, Ky.....	2	
Chicago, Ill.....	1		Ogden, Utah.....	2	
Concord, N. H.....	2		Portland, Oreg.....	3	
Danville, Ill.....	2		Racine, Wis.....	1	
Detroit, Mich.....	7		San Francisco, Cal.....	1	
El Paso, Tex.....	4				

SYPHILIS.

State Reports for June, 1915.

During the month of June, 1915, cases of syphilis were notified by States as follows: Louisiana, 1; Ohio, 67.

TETANUS.

City Reports for Week Ended July 10, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Charleston, S. C.....		1	Los Angeles, Cal.....	1	
Chicago, Ill.....	1	2	Philadelphia, Pa.....	1	2
Evansville, Ind.....	1		Worcester, Mass.....	1	1

TUBERCULOSIS.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2252.

TYPHOID FEVER.

State Reports for June, 1915.

Place.	New cases reported.	Place.	New cases reported.
District of Columbia.....	14	Massachusetts:	
Indiana:		Barnstable County—	
Bartholomew County.....	2	Bourne.....	1
Cass County.....	1	Bristol County—	
Decatur County.....	3	Fall River.....	10
Elkhart County.....	1	New Bedford.....	1
Floyd County.....	3	Mansfield.....	2
Fulton County.....	1	Taunton.....	1
Grant County.....	3	Westport.....	1
Greene County.....	1	Plymouth County—	
Hamilton County.....	8	Middleboro.....	1
Hancock County.....	2	Plymouth.....	1
Harrison County.....	1	Brockton.....	1
Hendricks County.....	1	Berkshire County—	
Howard County.....	1	Adams.....	1
Huntington County.....	1	Pittsfield.....	1
Johnson County.....	4	Essex County—	
Lake County.....	5	North Andover.....	1
Lawrence County.....	4	Beverly.....	1
Madison County.....	3	Danvers.....	1
Marion County.....	8	Haverhill.....	3
Morgan County.....	2	Lawrence.....	2
Ohio County.....	1	Lynn.....	1
Parke County.....	3	Methuen.....	1
Scott County.....	1	Newburyport.....	1
St. Joseph County.....	4	Peabody.....	1
Tipton County.....	1	Salem.....	3
Warrick County.....	1	Essex.....	1
Washington County.....	1	Hampden County—	
Wayne County.....	2	Chicopee.....	1
Total.....	69	Holyoke.....	4
Kansas:		Springfield.....	1
Bourbon County.....	2	Hampshire County—	
Cherokee County.....	2	Easthampton.....	1
Crawford County.....	3	Hadley.....	1
Harvey County.....	2	Northampton.....	1
Labette County—		Middlesex County—	
Parsons.....	1	Cambridge.....	2
Leavenworth County.....	1	Everett.....	4
Lincoln County.....	1	Hudson.....	1
Marion County.....	1	Lowell.....	4
Miami County.....	1	Medford.....	1
Montgomery County.....	3	Somerville.....	2
Ottawa County.....	1	Waltham.....	1
Republic County.....	1	Watertown.....	1
Rice County.....	2	Westford.....	1
Riley County.....	4	Norfolk County—	
Sedgwick County—		Braintree.....	1
Wichita.....	4	Norwood.....	1
Smith County.....	1	Walpole.....	1
Summer County.....	2	Suffolk County—	
Washington County.....	1	Boston.....	22
Wilson County.....	2	Chelsea.....	3
Wyandotte County—		Worcester County—	
Kansas City.....	1	Ashburnham.....	1
Total.....	36	Athol.....	1
Louisiana:		Fitchburg.....	1
Avoyelles Parish.....	2	Gardner.....	1
Caddo Parish.....	7	Harvard.....	1
Iberia Parish.....	3	Oxford.....	1
Morehouse Parish.....	5	Webster.....	1
Plaquemines Parish.....	1	Worcester.....	5
Sabine Parish.....	1	Total.....	103
St. Helena Parish.....	1	Michigan:	
St. Mary Parish.....	1	Allegan County—	
St. Tammany Parish.....	1	Allegan.....	1
Tangipahoa Parish.....	1	Alpena County—	
Terrebonne Parish.....	1	Alpena.....	3
Winn Parish.....	1	Calhoun County—	
Total.....	25	Albion.....	2
		Charlevoix County—	
		Boyer City.....	1
		Chippewa County—	
		Sault Ste. Marie.....	2

TYPHOID FEVER—Continued.

State Reports for June, 1915—Continued.

Place.	New cases reported.	Place.	New cases reported.
Michigan—Continued.		Minnesota:	
Genesee County—		Bigstone County—	
Flint.....	4	Malta Township.....	2
Gladwin County—		Brown County—	
Bentley Township.....	1	Springfield.....	1
Butman Township.....	1	Hennepin County—	
Tobacco Township.....	1	Minneapolis.....	6
Gogebic County—		Hubbard County—	
Bessemer.....	1	Helfa Township.....	1
Ironwood.....	1	Koochiching County—	
Grand Traverse County—		International Falls.....	1
Paradise Township.....	1	Murray County—	
Gratiot County—		Cameron Township.....	1
Arcada Township.....	1	Nobles County—	
Lafayette Township.....	1	Worthington.....	1
Hillsdale County—		Pine County—	
Wright Township.....	1	Bruno.....	1
Houghton County—		Ramsey County—	
Hancock.....	1	St. Paul.....	2
Ingham County—		Rice County—	
Lansing.....	1	Faribault.....	3
Mason.....	1	Northfield.....	1
Ionia County—		Roseau County—	
Boston Township.....	1	Roseau.....	1
Orange Township.....	1	Warroad.....	2
Jackson County—		St. Louis County—	
Jackson.....	2	Duluth.....	5
Kent County—		Fly.....	3
Cascade Township.....	1	Winton.....	2
Grand Rapids.....	7	Scott County—	
Lapeer County—		Credit River Township.....	1
Imlay Township.....	1	Stearns County—	
Leelanau County—		Melrose.....	1
Leland Township.....	1	Todd County—	
Lenawee County—		Hewitt.....	1
Madison Township.....	1	Wadena County—	
Medina Township.....	1	Aldrich Township.....	1
Adrian.....	1	Washington County—	
Macomb County—		St. Paul Park.....	1
Mount Clemens.....	1		
Marquette County—		Total.....	38
Negaunee.....	1		
Mecosta County—		Mississippi:	
Big Rapids.....	1	Adams County.....	1
Midland County—		Alcorn County.....	6
Midland Township.....	1	Amite County.....	5
Midland.....	2	Attala County.....	5
Monroe County—		Benton County.....	1
Monroe.....	4	Bolivar County.....	10
Montmorency County—		Calhoun County.....	8
Avery Township.....	1	Carroll County.....	2
Muskegon County—		Chickasaw County.....	6
Muskegon.....	1	Choctaw County.....	3
Ontonagon County—		Claiborne County.....	1
Carp Lake Township.....	1	Clarke County.....	2
Ontonagon Township.....	1	Clay County.....	2
Ottawa County—		Coahoma County.....	6
Wright Township.....	1	Copiah County.....	19
Saginaw County—		Covington County.....	3
Saginaw.....	4	De Soto County.....	2
St. Clair County—		Forrest County.....	11
Casco Township.....	1	Franklin County.....	7
Port Huron.....	2	George County.....	1
St. Clair.....	1	Greene County.....	2
Shiawassee County—		Hancock County.....	18
Laingsburg.....	1	Harrison County.....	25
Van Buren County—		Hinds County.....	22
Hamilton Township.....	1	Holmes County.....	10
South Haven.....	1	Issaquena County.....	5
Washtenaw County—		Itawamba County.....	2
Augusta Township.....	2	Jasper County.....	8
Wayne County—		Jefferson Davis County.....	5
Ford.....	1	Jones County.....	27
Detroit.....	20	Kemper County.....	4
Wyandotte.....	2	Lafayette County.....	3
Total.....	93	Lamar County.....	9
		Lauderdale County.....	11

TYPHOID FEVER—Continued.

State Reports for June, 1915—Continued.

Place.	New cases reported.	Place.	New cases reported.
Mississippi—Continued.		Ohio—Continued.	
Lawrence County.....	2	Athens County.....	1
Lee County.....	8	Auglaize County.....	1
Leflore County.....	11	Belmont County.....	6
Lincoln County.....	15	Clark County.....	4
Lowndes County.....	3	Clermont County.....	1
Madison County.....	13	Clinton County.....	1
Marion County.....	14	Columbiana County.....	6
Marshall County.....	10	Cuyahoga County—	
Monroe County.....	6	Cleveland.....	28
Neshoba County.....	4	Darke County.....	2
Newton County.....	1	Defiance County.....	2
Noxubee County.....	4	Erie County—	
Okfuskee County.....	6	Sandusky.....	1
Panola County.....	4	Fairfield County—	
Pearl River County.....	6	Lancaster.....	5
Perry County.....	1	Fayette County.....	2
Pike County.....	16	Franklin County—	
Pontotoc County.....	4	Columbus.....	4
Prentiss County.....	1	Guernsey County.....	7
Rankin County.....	19	Hamilton County.....	27
Scott County.....	21	Harrison County.....	4
Simpson County.....	12	Jackson County.....	2
Sunflower County.....	2	Jefferson County.....	5
Tallahatchie County.....	14	Lake County.....	1
Tate County.....	11	Lawrence County—	
Tippah County.....	4	Ironton.....	3
Tishomingo County.....	7	Licking County.....	9
Union County.....	1	Lucas County—	
Warren County.....	4	Toledo.....	60
Washington County.....	19	Mahoning County.....	7
Wayne County.....	1	Marion County—	
Wilkinson County.....	1	Marion.....	1
Winston County.....	12	Medina County.....	1
Yalobusha County.....	5	Meigs County.....	1
Yazoo County.....	19	Mercer County.....	1
Walthall County.....	3	Montgomery County.....	4
		Morgan County.....	1
Total.....	536	Morrow County.....	2
		Muskingum County—	
Montana:		Zanesville.....	2
Blaine County.....	1	Noble County.....	1
Carbon County.....	1	Pickaway County.....	2
Cascade County.....	1	Portage County.....	1
Custer County.....	2	Putnam County.....	2
Flathard County.....	1	Richland County.....	4
Kalispell.....	1	Ross County.....	2
Gallatin County.....	1	Scioto County.....	1
Hill County.....	1	Seneca County—	
Jefferson County.....	1	Fostoria.....	1
Lewis and Clark County.....	1	Tiffin.....	1
Helena.....	2	Stark County—	
Lincoln County.....	8	Canton.....	1
Missoula County—		Summit County.....	4
Missoula.....	1	Trumbull County.....	5
Musselshell County.....	1	Tuscarawas County—	
Phillips County.....	1	Canal Dover.....	1
Stillwater County.....	2	Union County.....	2
Sheridan County.....	4	Washington County.....	3
Yellowstone County—		Williams County.....	1
Billings.....	1	Wood County—	
Total.....	31	Bowling Green.....	1
		Total.....	242
North Dakota:		South Carolina:	
McLean County.....	1	Abbeville County.....	10
Ramsey County.....	1	Barnwell County.....	10
Rolette County.....	1	Beaufort County.....	5
Sargent County.....	3	Berkeley County.....	1
Wells County.....	1	Charleston County.....	49
Williams County.....	1	Chester County.....	2
Total.....	8	Chesterfield County.....	6
Ohio:		Clarendon County.....	3
Adams County.....	1	Darlington County.....	1
Allen County.....	2	Florence County.....	1
Ashland County—		Greenville County.....	15
Ashland.....	1	Greenwood County.....	6
Ashtabula County.....	3	Horry County.....	2

TYPHOID FEVER—Continued.

State Reports for June, 1915—Continued.

Place.	New cases reported.	Place.	New cases reported.
South Carolina—Continued.		Washington:	
Kershaw County.....	12	Clark County.....	6
Lancaster County.....	3	Columbia County.....	2
Laurens County.....	4	Grays Harbor County.....	1
Lee County.....	3	King County—	
Lexington County.....	1	Seattle.....	1
Marlboro County.....	6	Kittitas County.....	2
Newberry County.....	11	Lewis County.....	5
Oconee County.....	1	Lincoln County.....	3
Orangeburg County.....	16	Pierce County.....	2
Richland County.....	32	Tacoma.....	5
Saluda County.....	2	Spokane County—	
Spartanburg County.....	6	Spokane.....	4
Sumter County.....	8	Whatcom County—	
Union County.....	3	Bellingham.....	1
Williamsburg County.....	1	Yakima County.....	5
Total.....	220	Total.....	37

City reports for week ended July 10, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio.....	3	1	Lynn, Mass.....	2	
Altoona, Pa.....	4	1	Milwaukee, Wis.....	1	
Auburn, N. Y.....	2		Mobile, Ala.....	1	
Baltimore, Md.....	24	1	Nashville, Tenn.....	15	1
Boston, Mass.....	7	3	Newark, N. J.....	4	
Buffalo, N. Y.....	4		New Bedford, Mass.....	3	
Cairo, Ill.....		1	New Haven, Conn.....	1	1
Cambridge, Mass.....	2		New London, Conn.....	1	
Charleston, S. C.....	32	1	New Orleans, La.....	3	3
Chelsea, Mass.....	1		Newport, R. I.....	1	1
Chicago, Ill.....	14	1	Norfolk, Va.....	5	
Cincinnati, Ohio.....	3	1	Passaic, N. J.....	1	1
Cleveland, Ohio.....	9	1	Philadelphia, Pa.....	2	
Columbus, Ohio.....	4		Pittsburgh, Pa.....	2	2
Cumberland, Md.....	2		Plainfield, N. J.....	1	
Detroit, Mich.....	5	1	Providence, R. I.....	3	
East Orange, N. J.....	1		Reading, Pa.....	3	
El Paso, Tex.....		1	Richmond, Va.....	1	
Erie, Pa.....	1		Rochester, N. Y.....	4	
Everett, Wash.....	1		Rutland, Vt.....	1	
Fall River, Mass.....	2		San Francisco, Cal.....	1	
Galveston, Tex.....	2		Schenectady, N. Y.....	4	
Grand Rapids, Mich.....	2		Seattle, Wash.....		2
Harrisburg, Pa.....	2		Springfield, Ill.....	4	
Hartford, Conn.....	3	1	Stuebenville, Ohio.....	2	
Johnstown, Pa.....	2		Stockton, Cal.....	1	
Kalamazoo, Mich.....	1		Syracuse, N. Y.....	1	
Key West, Fla.....		1	Toledo, Ohio.....	9	
Lancaster, Pa.....	1		Washington, D. C.....	4	1
Lawrence, Mass.....	2		Wheeling, W. Va.....	3	
Little Rock, Ark.....	4		Wilmington, N. C.....	1	
Los Angeles, Cal.....	5		Worcester, Mass.....	1	
Lynchburg, Va.....	1		York, Pa.....	2	

TYPHUS FEVER.

City Reports for Week Ended July 10, 1915.

During the week ended July 10, 1915, typhus fever was notified in cities as follows: New Bedford, Mass., one case; Orange, N. J., two cases.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

State Reports for June, 1915.

State.	Cases reported.			State.	Cases reported.		
	Diphtheria.	Measles.	Scarlet fever.		Diphtheria.	Measles.	Scarlet fever.
District of Columbia.....	10	381	93	Minnesota.....	118	551	243
Indiana.....	71	879	136	Mississippi.....	36	234	70
Kansas.....	69	1,038	34	Montana.....	14	67	34
Louisiana.....		1		North Dakota.....	38	62	11
Massachusetts.....	577	3,763	837	Ohio.....	366	3,249	411
Michigan.....	228	414	169	South Carolina.....	22	4	12
				Washington.....	31	215	29

City Reports for Week Ended July 10, 1915.

City.	Population as of July 1, 1915. (Estimated by United States Census Bureau.)	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Over 500,000 inhabitants:										
Baltimore, Md.....	584,605	139	12		36		10		36	18
Boston, Mass.....	745,139	183	59	5	112		41	2	53	14
Chicago, Ill.....	2,447,045	501	91	11	296	6	44		240	84
Cleveland, Ohio.....	656,975	121	21		116	4	9	1	22	14
Detroit, Mich.....	554,717	152	22	2	12	2	4		32	17
Philadelphia, Pa.....	1,683,664	403	23	2	344	3	11		102	51
Pittsburgh, Pa.....	571,984	147	12	1	110	1	21		29	11
From 300,000 to 500,000 inhabitants:										
Buffalo, N. Y.....	461,335	93	13		142		5		18	11
Cincinnati, Ohio.....	406,706	119	11	2	64				30	12
Jersey City, N. J.....	300,133	66	18	3	37	3	13		14	9
Los Angeles, Cal.....	465,367	100	10	2	17	1	3		38	17
Milwaukee, Wis.....	428,062	83	5	1	5	1	5		9	8
Newark, N. J.....	399,000	103	14		21		4		27	16
New Orleans, La.....	366,484	153	20	2					30	24
San Francisco, Cal.....	416,912	111	23	2	2		2		30	13
Seattle, Wash.....	330,834	40	1		16					4
Washington, D. C.....	358,679	96	6		60		12		31	11
From 200,000 to 300,000 inhabitants:										
Columbus, Ohio.....	209,722	67			7				17	8
Portland, Ore.....	272,833	28		5	12		1		7	4
Providence, R. I.....	250,025	42		5	3	1	10			4
Rochester, N. Y.....	250,747	56			22	1	2		2	6
From 100,000 to 200,000 inhabitants:										
Bridgeport, Conn.....	118,434	36		4			1		5	5
Cambridge, Mass.....	111,609	21		6	16	1	4		12	3
Camden, N. J.....	104,349			2	3		1		6	
Dayton, Ohio.....	125,509	31		1	2		5		5	4
Fall River, Mass.....	126,904	34			2		2		6	3
Grand Rapids, Mich.....	125,759	25			11				5	1
Hartford, Conn.....	108,969	28		8	2		2		5	1
Lowell, Mass.....	112,124	21		2	4				2	2
Lynn, Mass.....	100,316	19		5	3		3		6	4
Nashville, Tenn.....	115,978	46							6	3
New Bedford, Mass.....	114,694			1	18		1		7	3
New Haven, Conn.....	147,095				2				3	2
Oakland, Cal.....	190,803			3	2				4	5
Reading, Pa.....	105,094	28		1	21		1		4	3
Richmond, Va.....	154,674	57			2		1		4	10
Salt Lake City, Utah.....	113,567	14		4						1
Springfield, Mass.....	103,216	23		1	16				3	
Syracuse, N. Y.....	152,534	30		1	13				12	2
Tacoma, Wash.....	108,094				3					
Toledo, Ohio.....	187,840	45		1	18		1		20	9
Trenton, N. J.....	109,212	37			10				8	3
Worcester, Mass.....	160,523	43		1	2		3		6	2

¹ Population Apr. 15, 1910; no estimate made.

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

City Reports for Week Ended July 10, 1915—Continued.

City.	Population as of July 1, 1915. (Estimated by United States Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 50,000 to 100,000 inhabitants:										
Akron, Ohio.....	82,958		2		2		1			
Altoona, Pa.....	57,606	8	5				1			
Atlantic City, N. J.....	55,806	11		5						
Bayonne, N. J.....	67,582		2						3	
Berkeley, Cal.....	54,879	11		2						
Binghamton, N. Y.....	53,082	18	2				1			1
Brockton, Mass.....	65,746	7	1		19		1		4	
Canton, Ohio.....	59,139	17	1		3		1			1
Charleston, S. C.....	60,427	53								5
El Paso, Tex.....	51,936	39	3		1	1	1			8
Erie, Pa.....	73,798		2		3				6	
Evansville, Ind.....	72,125	13							2	
Harrisburg, Pa.....	70,754	11	1		2		1		1	
Johnstown, Pa.....	66,585	13	2		2					2
Kansas City, Kans.....	96,854		3		1				4	2
Lancaster, Pa.....	50,269		1						3	
Lawrence, Mass.....	98,197	25	6	1	11		2		5	2
Little Rock, Ark.....	55,158	15	1							
Malden, Mass.....	50,067	11			5				3	2
Manchester, N. H.....	76,959	25							2	2
Mobile, Ala.....	56,536	26								2
New Britain, Conn.....	52,203		1						1	3
Norfolk, Va.....	85,076								4	4
Passaic, N. J.....	69,010	16	1		16		10		3	2
Pawtucket, R. I.....	58,156	8	1							2
Sacramento, Cal.....	64,806								2	3
Saginaw, Mich.....	54,815	13	1							1
Schenectady, N. Y.....	95,265	15		1	7		1		1	2
South Bend, Ind.....	67,030	5			12		2			
Springfield, Ill.....	59,468	17	2		1					1
Wilkes-Barre, Pa.....	75,218	22	4	1	12		1		4	3
York, Pa.....	50,543		1						1	
From 25,000 to 50,000 inhabitants:										
Alameda, Cal.....	27,031	6							1	2
Auburn, N. Y.....	36,947	18			1				2	2
Brookline, Mass.....	31,934	4	1							
Butler, Pa.....	26,587	5	1							
Butte, Mont.....	42,918	15							3	
Chelsea, Mass.....	32,452	11			4		4		1	
Chicopee, Mass.....	28,688	10			6				1	4
Cumberland, Md.....	25,564	3					4		4	2
Danville, Ill.....	31,554	4			2		1		1	1
East Orange, N. J.....	41,155	7			6		1		1	1
Elgin, Ill.....	27,844	5			2				1	
Everett, Mass.....	38,307	6	1				1		1	
Everett, Wash.....	33,767		11							
Fitchburg, Mass.....	41,144	13	2				2	2		2
Galveston, Tex.....	41,076	17								3
Haverhill, Mass.....	47,774	16	1	1	5		3		3	
Kalamazoo, Mich.....	47,364	13	2						2	2
Kenosha, Wis.....	30,319	6							2	1
La Crosse, Wis.....	31,522	4	2						2	2
Lexington, Ky.....	39,703	20	1		2				1	1
Lima, Ohio.....	34,644	3								
Lincoln, Nebr.....	46,028	12	1				1			
Lorain, Ohio.....	35,662				6					
Lynchburg, Va.....	32,385	10							2	1
Madison, Wis.....	30,084				5					1
Medford, Mass.....	25,737	7			2		4			1
Montclair, N. J.....	25,550	5							1	1
New Castle, Pa.....	40,351		1				1			
Newport, Ky.....	31,722	4	4							
Newport, R. I.....	29,631	6								
Newton, Mass.....	43,085	6			8				1	2
Niagara Falls, N. Y.....	30,240	14	1				1			
Norristown, Pa.....	30,833	9			1				1	
Ogden, Utah.....	30,466	5								
Orange, N. J.....	32,524	6							2	3
Pasadena, Cal.....	43,859	8							5	1

¹ Population Apr. 15, 1910; no estimate made.

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

City Reports for Week Ended July 10, 1915—Continued.

City.	Population as of July 1, 1914. (Estimated by United States Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 25,000 to 50,000 inhabitants—Continued.										
Perth Amboy, N. J.	39,725		3		4					
Pittsfield, Mass.	37,580	10					2		1	
Portsmouth, Va.	38,610	9			2					1
Racine, Wis.	45,507	16	1		6					
Rock Island, Ill.	27,961	9								1
Steubenville, Ohio.	26,631	9					1			
Stockton, Cal.	34,508		2		3	1				8
Superior, Wis.	45,285	5					2			1
Taunton, Mass.	35,957	10			1		1		1	1
Waltham, Mass.	30,129	3								
West Hoboken, N. J.	41,893	3			20					
Wheeling, W. Va.	43,097	10			5		2		4	
Williamsport, Pa.	33,495	4			10		3			2
Wilmington, N. C.	28,264	6			1					1
Woonsocket, R. I.	43,355						4			
Zanesville, Ohio.	30,406				1		1			
From 10,000 to 25,000 inhabitants:										
Ann Arbor, Mich.	14,979	7							6	
Beaver Falls, Pa.	13,316		1				4			
Braddock, Pa.	21,310				1		1			
Calro, Ill.	15,593	9								
Clinton, Mass.	¹ 13,075	3							1	
Coffeyville, Kans.	16,765								1	
Concord, N. H.	22,480	13					2			1
Galesburg, Ill.	23,923	3								
Kearny, N. J.	22,753	7							2	2
Key West, Fla.	21,437	9			3					1
Melrose, Mass.	17,166	2	1							
Muscatine, Iowa	17,287	3								
Nanticoke, Pa.	22,441	1	1		1					
Newburyport, Mass.	15,195	2	1		3					
New London, Conn.	20,771	8					1		1	
North Adams, Mass.	¹ 22,019	5								
Northampton, Mass.	19,846	8								3
Plainfield, N. J.	23,280	7			1				4	1
Rutland, Vt.	14,624	4					1			1
Saratoga Springs, N. Y.	12,842	2	2		1		1			
Steelton, Pa.	15,337	4								
Wilkinsburg, Pa.	22,361	9								
Woburn, Mass.	15,862	2								

¹ Population April 15, 1910; no estimate made.

FOREIGN REPORTS.

AZORES.

Plague—Terceira.

Plague was reported present at Terceira July 24, 1915.

CHINA.

Plague—Plague-Infected Rats—Hongkong.

During the week ended May 29, 1915, 9 cases of plague with 7 deaths were notified at Hongkong.

During the same period, of 2,080 rats examined at Hongkong, 7 were found plague infected.

CUBA.

Communicable Diseases—Habana.

Communicable diseases were notified at Habana during the 10-day period ended June 30, 1915, as follows:

Disease.	New cases.	Deaths.	Remain- ing June 30, 1915.	Disease.	New cases.	Deaths.	Remain- ing June 30, 1915.
Diphtheria.....	4	.....	1	Scarlet fever.....	.....	.....	1
Leprosy.....	1	.....	250	Tetanus in the new born.....	1	1	.....
Measles.....	.....	.....	7	Typhoid fever.....	7	.....	45
Paratyphoid fever..	1	.....	3	Varicella.....	6	.....	11
Plague.....	.....	.....	2				

DUTCH EAST INDIES.

Plague—Java.

Plague has been notified in Java as follows:

District.	Mar. 12-25, 1915.		Mar. 26-May 29, 1915.	
	New cases.	Deaths.	New cases.	Deaths.
Kediri.....	68	50	157	141
Madioen.....	19	19	17	15
Pasoeroean.....	206	185	352	313
Surabaya.....	29	29	39	35
Soerakarta.....	4	3	17	17
Total.....	326	295	582	521

TURKEY IN ASIA.**Dengue—Beirut.**

During the period from May 16 to June 19, 1915, dengue was reported prevalent at Beirut.

Dengue—Tripoli.

During the two weeks ended June 5, 1915, dengue was reported present at Tripoli.

Typhus Fever—Trebizond.

Typhus fever was reported prevalent at Trebizond from October, 1914, to May 22, 1915, with an estimated number of about 6,000 fatal cases occurring during that period. The infection was imported by sick and wounded troops arriving from various points in Armenia and the Transcaucasus.

TYPHUS FEVER.**Reports Received During Week Ended July 30, 1915.¹**

Place.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary: Hungary— Budapest.....	May 16-June 12...	12	4	
China: Mukden.....	June 6-12.....			Present.
Cuba: Santiago.....	July 4-10.....	2	2	
Egypt: Alexandria.....	June 10-17.....	31	9	
Germany.....	June 13-19.....	8		Among military. Among prisoners of war in 14 Government districts and Baden.
Greece: Saloniki.....	June 13-19.....		4	
Russia: Moscow.....	May 23-June 5....	64	14	
Petrograd.....	May 23-29.....	3		
Warsaw.....	Nov. 1-28.....	31	1	Maximum incidence Nov. 22-28: Cases, 20; deaths, 1.
Turkey in Asia: Jaffa.....	May 23-29.....	7		
Trebizond.....				Oct., 1914-May 22, 1915: 6,000 fatal cases (estimated).

¹ From medical officers of the Public Health Service, American consuls, and other sources.

Reports Received from June 26 to July 23, 1915.

Place.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary: Austria.....	Apr. 25-May 8....	645		Mainly among soldiers, prisoners of war, and persons from Galicia; 6 among the civil population, of which 1 in Vienna.
Azores: Terceira.....	May 23-29.....	1		
Canary Islands: Santa Cruz de Teneriffe.....	May 16-June 19..		2	
China: Hungtaohotze Station.....	Apr. 19-25.....	1		On Eastern Chinese Ry.

TYPHUS FEVER—Continued.

Reports Received from June 26 to July 23, 1915—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Dutch East Indies:				
Java.....	Apr. 25-May 1.....	13	3	Mid-Java.
Do.....	Apr. 27-May 10....	22	4	West Java.
Egypt:				
Alexandria.....	May 21-June 10....	88	26	
Cairo.....	May 7-June 3.....	70	95	
Port Said.....	do.....	2	3	
Germany.....				
	May 16-22.....	12		In German soldiers and 1 prison-
				camp employee; among pris-
				oners of war in 14 districts and
				in Saxony and Hesse.
Do.....	June 6-12.....	12		Do.
Aix la Chapelle.....	May 30-June 5.....		1	
Bremen.....	May 30-June 12....	1	1	
Breslau.....	May 30-June 5.....	5		
Konigsberg.....	June 6-12.....	3		
Leipzig.....	do.....		1	
Great Britain and Ireland:				
Dublin.....	May 23-June 12....	5		
Glasgow.....	May 29.....	1		
Greece:				
Athens.....	June 14-25.....		1	
Saloniki.....	May 30-June 12....		6	
Italy:				
Florence.....	May 1-31.....	5	1	
Turin.....	May 17-23.....	1		
Japan:				
Tokyo.....	June 7-13.....	2		
Mexico:				
Aguascalientes.....	June 21-27.....		1	
Russia:				
Moscow.....	May 2-15.....	84	28	
Petrograd.....	May 9-22.....	5		
Riga.....	Mar. 1-31.....	1	1	
Do.....	June 6-12.....	1		
Warsaw.....				Sept. 27-Oct. 31, 1914: Cases, 31.
Serbia.....	Apr. 27.....			Prevalent.
Switzerland:				
Zurich.....	May 30-June 5.....	1		
Turkey in Asia:				
Adana.....	May 9-15.....			Present.
Harpur.....	Apr. 1-30.....			Do.
Jaffa.....	Apr. 25-May 1.....	4	3	
Mersina.....	May 9-29.....	2	2	
Tarsus.....	do.....			Do.

CHOLERA, PLAGUE, AND SMALLPOX.

Reports Received During Week Ended July 30, 1915.¹

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary:				
Hungary.....	May 24-31.....	62	24	3 additional cases notified, May 16-23, 1915.
Dutch East Indies:				
Java—				
Batavia.....	May 23-29.....	7	6	
Germany:				
Sachsenhausen.....	July 16.....	1		
India:				
Akyab.....	May 16-22.....		1	
Bombay.....	June 6-12.....	2	2	
Serbia.....	June 25-July 2....	3		

¹ From medical officers of the Public Health Service, American consuls, and other sources.

CHOLERA, PLAGUE, AND SMALLPOX—Continued.

Reports Received During Week Ended July 30, 1915—Continued.

PLAGUE.

Place.	Date.	Cases.	Deaths.	Remarks.
Azores:				
Terceira	July 24, 1914.....			Present.
China:				
Hongkong	May 30-June 5....	4	4	
Dutch East Indies:				
Java	Mar. 12-25.....	326	295	
Do	Mar. 26-May 20....	582	521	
Surabaya	May 17-22.....	3	2	
India:				
Bassein	May 23-29.....		10	
Bombay	June 6-12.....	9	8	
Moulmein	May 23-29.....		2	
Rangoon	May 23-29.....	18	17	
Japan:				
Taiwan, island—				
Kagi	June 6-19.....	3	3	

SMALLPOX.

Austria-Hungary:				
Hungary—				
Budapest	May 16-June 12... ..	205		
China:				
Chungking	May 30-June 19....			Present.
Hongkong	May 30-June 5....	2	2	
Dutch East Indies:				
Java	May 23-29.....	20	6	Mid Java.
Do	do.....	62	10	West Java.
Batavia	do.....		7	
Egypt:				
Alexandria	June 10-17.....	11	4	
Germany				June 13-19, 1915: Cases, 5.
Government Districts—				
Allenstein	June 13-19.....	1		
Arnsberg	do.....	1		
Danzig	do.....	2		
Potsdam	do.....	1		
Great Britain:				
Bristol	Mar. 21-May 22....	29	7	1 from vessel from Bombay. Maximum incidence, Apr. 4-17: Cases, 22; deaths, 2.
India:				
Bombay	June 6-12.....	25	10	
Madras	do.....	2		
Moulmein	May 23-29.....		1	
Rangoon	do.....	10	3	
Mexico:				
Vera Cruz	June 27-July 10....	15	7	
Portugal:				
Lisbon	June 27-July 3....	2		
Russia:				
Petrograd	May 23-29.....	31	8	
Warsaw				Nov. 1-28, 1914; Cases, 70; deaths, 23.
Spain:				
Valencia	June 27-July 3....	11	2	
Straits Settlements:				
Singapore	May 23-29.....	1		
Switzerland:				
Basel	May 29-June 19....	4		
Turkey in Asia:				
Beirut	May 16-June 19....	29	12	
Haifa	May 9-16.....	1		
Jaffa	May 23-29.....	1		
Mersina	May 30-June 5....	1		

CHOLERA, PLAGUE, AND SMALLPOX—Continued.

Reports Received from June 26 to July 23, 1915.

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary:				
Austria.....	May 2-22.....	33	8	
Vienna.....	May 9-15.....	9	3	Among soldiers and prisoners.
Bosnia-Herzegovina.....	Apr. 25-May 15.....	116	41	96 cholera carriers in 3 localities.
Croatia-Slavonia.....	May 3-24.....	23	6	14 among soldiers.
Hungary.....	Apr. 26-May 23.....	143	53	
Ceylon:				
Colombo.....	Apr. 25-May 22.....	8	1	
China:				
Hongkong.....	May 2-8.....	1	1	
Dutch East Indies:				
Java—				
Batavia.....	Apr. 25-May 22.....	44	39	
India:				
Bassein.....	Apr. 18-May 8.....		19	Epidemic.
Calcutta.....	Apr. 25-May 29.....		125	
Madras.....	May 2-June 5.....	4	5	
Rangoon.....	Apr. 24-May 1.....	1	2	
Indo-China.....				
Saigon.....	May 2-22.....	264	82	Jan. 1-31, 1915: Cases, 284; deaths, 178.
Provinces—				
Anam.....	Jan. 1-31.....	3	2	
Cochin China.....	do.....	243	158	
Tonkin.....	do.....	38	18	
Siam:				
Bangkok.....	Apr. 19-May 15.....		4	
Straits Settlements:				
Singapore.....	May 9-15.....	1		

PLAGUE.

Ceylon:				
Colombo.....	May 9-29.....	3	3	
China:				
Amoy.....	May 2-15.....			Present. Present in Sio-Khe Valley, 60 miles inland.
Hongkong.....	May 9-29.....	27	23	
Dutch East Indies:				
Java—				
Surabaya.....	Apr. 18-May 15.....	5	5	Jan. 1-Feb. 25, 1915: Cases, 2,004; deaths, 1,864.
Ecuador:				
Guayaquil.....	May 1-31.....	1		Jan. 1-May 20, 1915: Cases, 93; deaths, 48.
Egypt:				
Alexandria.....	May 21-27.....		1	
Assiout, province.....	May 14-June 3.....	7	2	
Favoum, province.....	May 14-June 13.....	37	7	
Galioubeh, province.....	May 14-27.....	1		
Mimieh, province.....	May 14-June 12.....	5	3	
Port Said.....	May 28-June 10.....	4	2	
Hawaii:				
Pauuhau.....	June 29.....	1		
India:				
Bassein.....	Apr. 18-May 22.....		38	
Bombay.....	May 2-June 5.....	102	92	
Calcutta.....	Apr. 25-May 29.....		53	
Henzada.....	May 2-8.....	1		
Karachi.....	May 2-June 5.....	464	386	
Mandalay.....	Apr. 25-May 1.....		1	
Myingyam.....	Apr. 5-17.....		1	
Pegu.....	Apr. 18-May 1.....		5	
Rangoon.....	Apr. 18-May 29.....	58	28	Apr. 1-30, 1915: Cases, 40; deaths, 39.
Toungoo.....	Apr. 25-May 1.....		38	
Indo-China:				
Saigon.....	May 9-15.....	3	2	Jan. 1-31, 1915: Cases, 73; deaths, 58.
Provinces—				
Anam.....	Jan. 1-31.....	36	33	
Cambodia.....	do.....	18	18	
Cochin China.....	do.....	19	7	
Japan:				
Taiwan, island—				
Kagi.....	May 30-June 5.....	2	2	
Tokyo.....	May 31-June 13.....	5	5	

CHOLERA, PLAGUE, AND SMALLPOX—Continued.

Reports Received from June 26 to July 23, 1915—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Peru:				
Callao.....	May 3-9.....	1		
Lima (city).....	do.....	1		
Mollendo.....	do.....	1		
Salaverry.....	Apr. 26-May 2.....	2		
Trujillo.....	May 3-9.....	2		
Straits Settlements:				
Singapore.....	Apr. 25-May 15....	3	3	
Turkey in Asia:				
Bagdad.....	May 2-15.....	418	293	
Union of South Africa:				
Cape Province—				
Tarka, district.....	June 2.....	1	1	
Zanzibar:				
Zanzibar.....	Mar. 1-31.....		1	

SMALLPOX.

Australia:				
New South Wales—				
New Castle District—				
Kurri.....	May 26.....	2		
Victoria—				
Melbourne.....	Apr. 20.....	1		At Point Nepean quarantine station, from S. S. Lord Derby from Rangoon.
Western Australia—				
Fremantle.....	Apr. 27.....	1		At Woodmans Point quarantine station, from S. S. City of Baroda from Calcutta via Colombo.
Austria-Hungary:				
Austria.....	May 2-15.....	275		
Dalmatia, Province.....	May 2-8.....	1		
Vienna.....	May 23-June 3.....	22	7	Aug., 1914-May 8, 1915: Cases, 1,487; deaths, 316. May 9-15, 1915: Cases, 28.
Hungary—				
Budapest.....	May 2-15.....	60	1	
Brazil:				
Rio de Janeiro.....	Apr. 12-June 12....	88	24	
Canada:				
Ontario—				
Hamilton.....	June 1-30.....	2	4	
Sarnia.....	June 13-19.....	1		
Toronto.....	June 6-26.....	5		
Quebec—				
Montreal.....	June 13-July 3....	6		
Sherbrooke.....	June 1-30.....		1	
Ceylon:				
Colombo.....	May 2-29.....	21	7	
China:				
Chungking.....	May 23-29.....			Present.
Foochow.....	May 9-22.....			Do.
Hongkong.....	May 9-29.....	4	1	
Shanghai.....	May 9-June 6.....	4	2	Natives.
Tientsin.....	May 16-22.....		1	
Dutch East Indies:				
Java.....	Apr. 18-May 8.....	59	20	Mid Java.
Do.....	Apr. 27-May 15.....	227	65	West Java.
Batavia.....	Apr. 25-May 22.....		15	Natives.
Egypt:				
Alexandria.....	May 21-June 10....	22	7	
Cairo.....	Apr. 30-June 3.....	10	3	
Germany.....				Total, May 16-22, 1915: 1 case.
Government districts—				
Gumbinnen.....	May 23-29.....	2		
Marienwerder.....	do.....	2		
Oppeln.....	May 16-June 12....	3		
Posen.....	May 30-June 5.....	3		
Hamburg.....	June 6-12.....	1		Prisoners of war.
Great Britain:				
London.....	May 30-June 12....	3		
Greece:				
Saloniki.....	May 23-29.....		1	

CHOLERA, PLAGUE, AND SMALLPOX—Continued.

Reports Received from June 26 to July 23, 1915—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
India:				
Bassein	May 2-8		1	
Bombay	May 2-June 5	133	76	
Calcutta	Apr. 25-May 29		218	
Karachi	May 2-29	22	4	
Madras	do	8	3	
Pegu	Apr. 18-24		1	
Rangoon	Apr. 18-May 29	54	21	
Indo-China:				
Anam	Jan. 1-31			Present.
Cambodia	do	23	5	
Cochin China	do	12		
Tonkin	do	56	12	
Japan:				
Taiwan, island	May 23-29	1		
Mexico:				
Aguascalientes	June 7-July 4		8	
Frontera	May 23-June 19	69	28	
Mazatlan	June 23-29		2	
Monterey	June 14-July 4	6		
Progreso	June 6-26	2	1	
Salina Cruz	June 1-7	1	1	Soldier from San Geronimo.
Vera Cruz	June 7-27	29	17	
Portugal:				
Lisbon	May 23-June 19	18		
Russia:				
Moscow	May 2-15	19	5	
Petrograd	May 8-22	64	21	
Riga	May 9-June 12	48		Mar. 1-31, 1915: Cases, 89; deaths, 22.
Warsaw				Sept. 27-Oct. 31, 1914: Cases, 51; deaths, 16.
Serbia	Apr. 21-May 3	356		
Spain:				
Seville	May 1-31		4	
Valencia	May 30-June 26	31	7	
Straits Settlements:				
Penang	Apr. 25-May 15	6	2	
Switzerland:				
Basel	May 16-June 12			
Turkey in Asia:				
Bagdad	May 2-8			Present.
Haifa	May 3-9		4	
Jaffa	May 9-15		1	
Tripoli	May 2-8			Do.

SANITARY LEGISLATION.

STATE LAWS AND REGULATIONS PERTAINING TO PUBLIC HEALTH.

CALIFORNIA.

Births, Deaths, and Marriages—Registration. (Act May 19, 1915.)

SECTION 1. The State registrar shall have charge of the registration of births, marriages, and deaths; shall prepare sample forms and blanks with instructions for obtaining and preserving such records and shall procure the faithful registration of the same in each primary registration district as constituted in section 3 of this act, and in the central bureau of vital statistics at the capital of the State. The said board shall be charged with the uniform and thorough enforcement of the law throughout the State, and shall promulgate any additional rules or regulations.

SEC. 2. The secretary of the State board of health shall be ex officio the State registrar of vital statistics and shall have full supervision and control over the central bureau of vital statistics which is hereby authorized to be established by said State board of health. There shall also be a competent vital statistician who shall be appointed by and shall serve during the pleasure of the State board of health and shall receive an annual salary at the rate of \$2,400. There shall also be a clerk to the State board of health as now provided by law who shall receive an annual salary of \$1,600 and who shall be appointed by and shall serve during the pleasure of the State board of health. Said board shall provide for such clerical and other assistance as may be necessary for the purposes of this act, all of whom shall serve during the pleasure of the board and whose salaries, excepting said clerk to the State board of health, shall be fixed by the State board of health.

All such salaries shall be paid in the same manner and at the same time as the salaries of State officers. As soon as practicable the custodian of the capitol shall provide for the bureau of vital statistics in the State capitol at Sacramento suitable offices, which shall be properly equipped with fireproof vault and filing cases for the permanent and safe preservation of all official records made and returned under this act.

SEC. 3. For the purposes of this act the State shall be divided into registration districts as follows: Each city and county, city and incorporated town, and each county exclusive of the portion included within cities and incorporated towns shall constitute a primary registration district.

SEC. 4. The recorder of each city and county or county and the clerk of each city and incorporated town shall be the local registrar in and for such primary registration district and shall perform all such duties of local registrar as hereinafter provided: *Provided, however,* That in cities having a freeholder's charter the health officer shall act as local registrar and perform all the duties thereof.

The refusal of a local health officer to perform the duties imposed upon him by this act shall be deemed a neglect of official duty and shall be sufficient ground for the removal of such officer pursuant to the provisions of section 772 of the Penal Code.

Each local registrar shall immediately appoint a deputy in writing, whose duty it shall be to act in his stead in case of his absence or disability, and such deputy shall in writing, accept such appointment and be subject to all rules and regulations governing local registrars, and when it appears necessary for the convenience of the people in any registration district the local registrar is hereby authorized, with the approval of the State registrar, to appoint one or more suitable persons to act as sub-registrars, who shall be authorized to receive certificates and to issue burial or removal permits in and for such portions of the district as may be designated, and each sub-registrar shall note, on each certificate, over his signature the date of filing and shall forthwith forward all certificates to the local registrar of the district, and in all cases before the third day of the following month: *Provided*, That each subregistrar shall be subject to the supervision and control of the State registrar and may be by him removed for neglect or failure to perform his duty in accordance with the provisions of this act or the rules and regulations of the State registrar and shall be subject to the same penalties for neglect of duty as the local registrar.

SEC. 5. The body of any person whose death occurs in this State, or which shall be found dead therein or which shall be brought in from outside the State, shall not be interred, deposited in a vault or tomb, cremated, disinterred, or otherwise disposed of or removed from or into any registration district or be temporarily held pending further disposition more than 72 hours after death unless a permit for burial, removal, or other disposition thereof shall have been properly issued by the local registrar of the registration district in which the death occurred or the body was found: *Provided*, That nothing in this act shall be construed to prevent an undertaker from removing a body from contiguous registration districts in an undertaker's conveyance for the purpose of preparing said body for burial or shipment. A removal permit must be secured within 48 hours and before embalming the body.

No body where death occurred from any disease held by the State board of health to be infectious, contagious, or communicable and dangerous to the public health shall be removed without first securing a removal permit in the manner provided in section 19 of this act. And no such burial or removal permit shall be issued by any registrar until, wherever practicable, a complete and satisfactory certificate of death has been filed with him as hereinafter provided: *Provided*, That when a dead body is transported from outside the State into a registration district in California for burial the transit or removal permit, issued in accordance with the law and health regulations of the place where the death occurred, shall be accepted by the local registrar of the district into which the body has been transported for burial or other disposition as a basis upon which he may issue a local burial permit when such removal or transit permit shall have indorsed thereon the written approval of the State registrar or when the State registrar otherwise officially notifies the local registrar of his approval he shall note upon the face of the burial permit the fact that it was a body shipped in for interment, and give the actual place of death; and no local registrar shall receive any fee for the issuance of burial permits under this act other than the compensation provided in section 20.

SEC. 6. A stillborn child shall be registered as a birth and also as a death, and separate certificates of both the birth and the death shall be filed with the local registrar in the usual form and manner, the certificate of birth to contain, in place of the name of the child, the word "stillbirth": *Provided*, That a certificate of birth and a certificate of death shall not be required for a child that has not advanced to the fifth month of uterogestation.

The medical certificate of the cause of death shall be signed by the attending physician, if any, and shall state the cause of death as "stillborn," with the cause of the stillbirth, if known, whether a premature birth, and, if born prematurely, the period of uterogestation in months, if known; and a burial or removal permit of the prescribed form shall be required. Midwives shall not sign certificates of death for

stillborn children, but such cases and stillbirths occurring without attendance of either physician or midwife shall be treated as deaths without medical attendance, as provided for in section 8 of this act.

Sec. 7. The certificate of death shall contain the following items, which are hereby declared to be necessary for the legal, social, and sanitary purposes subserved by registration records:

- (1) Place of death, including State, county, township, village, or city. If in a city, the ward, street, and house number; if in a hospital or other institution, the name of the same to be given instead of the street and house number. If in an industrial camp, the name of the camp to be given.
- (2) Full name of decedent. If an unnamed child, the surname preceded by "unnamed."
- (3) Sex.
- (4) Color or race—as white, black, mulatto (or other negro descent), Indian, Chinese, Japanese, or other.
- (5) Conjugal condition—as single, married, widowed, or divorced.
- (5a) Husband of
- (5b) Wife of
- (6) Date of birth, including the year, month, and day.
- (7) Age, in years, months, and days. If less than one day, the hours or minutes.
- (8) Occupation. The occupation to be reported of any person, male or female, who had any remunerative employment with the statement of (a) trade, profession, or particular kind of work; (b) general nature of industry, business, or establishment in which employed (or employer).
- (9) Birthplace; at least State or foreign country, if known.
- (10) Name of father.
- (11) Birthplace of father; at least State or foreign country, if known.
- (12) Maiden name of mother.
- (13) Birthplace of mother; at least State or foreign country, if known.
- (14) Signature and address of informant.
- (15) Official signature of registrar, with the date when certificate was filed, and registered number.
- (16) Date of death, year, month, and day.
- (17) Certification as to medical attendance on decedent, fact and time of death, time last seen alive, and the cause of death, with contributory (secondary) cause of complication, if any, and duration of each, and whether attributed to dangerous or insanitary conditions of employment; signature and address of physician or official making the medical certificate.
- (18) Length of residence (for inmates of hospitals and other institutions; transients or recent residents) at place of death and in California, together with the place where disease was contracted if not at the place of death, and former or usual place of residence.
- (19) Place of burial or removal; date of burial.
- (20) Signature and address of undertaker or person acting as such.

The personal and statistical particulars (items 1 to 13) shall be authenticated by the signature of the informant who may be any competent person acquainted with the facts.

The statement of facts relating to the disposition of the body shall be signed by the undertaker or person acting as such.

The medical certificate shall be made and signed by the physician, if any, last in attendance on the deceased, who shall specify the time in attendance, the time he last saw the deceased alive, and the hour of the day at which death occurred. And he shall further state the cause of death, so as to show the course of disease or sequence

of causes resulting in the death, giving first the name of the disease causing death (primary cause) and the contributory (secondary) cause, if any, and the duration of each. Indefinite and unsatisfactory terms, denoting only symptoms of disease or conditions resulting from disease, will not be held sufficient for the issuance of a burial or removal permit; and any certificate containing only such terms, as defined by the State registrar, shall be returned to the physician or person making the medical certificate for correction and more definite statement. Causes of death which may be the result of either disease or violence shall be carefully defined; and if from violence, the means of injury shall be stated, and whether (probably) accidental, suicidal, or homicidal. And for deaths of nonresidents, transients, or recent residents in hospitals or institutions, the physician shall supply the information required under this head (item 18), if he is able to do so, and shall state where, in his opinion, the disease was contracted.

SEC. 8. In case of any death occurring without medical attendance or continued absence of the attending physician it shall be the duty of the undertaker to notify the coroner or other proper official of such death for investigation and certification. And the coroner or other proper officer whose duty it is to hold an inquest on the body of any deceased person, and to make the certificate of death required for a burial permit, shall state in his certificate the name of the disease causing death, or if from external causes (1) the means of death; and (2) whether (probably) accidental, suicidal, or homicidal; and shall in any case furnish such information as may be required by the State registrar in order properly to classify the death. In every case the certificate must contain as many facts required by this act as can be ascertained.

SEC. 9. The undertaker, or person acting as undertaker, shall file the certificate of death with the local registrar of the district in which the death occurred and obtain a burial or removal permit prior to any disposition of the body. He shall obtain the required personal and statistical particulars from the person best qualified to supply them, over the signature and address of his informant. He shall then present the certificate to the attending physician, if any, or to the coroner or other proper official, either directly or as directed by the local registrar, for the medical certificate of the cause of death and other particulars necessary to complete the record, as specified in sections 7 and 8.

And he shall then state the facts required relative to the date and place of burial or removal, over his signature and with his address, and present the completed certificate to the local registrar in order to obtain a permit for burial, removal, or other disposition of the body. The undertaker shall deliver the burial permit to the person in charge of the place of burial before interring or otherwise disposing of the body; or shall attach the removal permit to the box containing the corpse when shipped by any transportation company; said permit to accompany the corpse to its destination, where, if within the State of California, it shall be delivered to the person in charge of the place of burial.

Every person, firm, or corporation selling a casket shall keep a record showing the name of the purchaser, purchaser's post-office address, name of deceased, date of death, and place of death of deceased, which record shall be open to inspection of the State registrar at all times. On the first day of each month the person, firm, or corporation, selling caskets shall report to the State registrar each sale for the preceding month on a blank provided for that purpose: *Provided, however,* That no person, firm, or corporation selling caskets to dealers or undertakers only shall be required to keep such record, nor shall such report be required from undertakers when they have direct charge of the disposition of a dead body.

Every person, firm, or corporation selling a casket at retail, and not having charge of the disposition of the body, shall inclose within the casket a notice furnished by the State registrar calling attention to the requirements of the law, a blank certificate

of death, and the rules and regulations of the State board of health concerning the burial or other disposition of a dead body.

SEC. 10. If the interment, or other disposition of the body is to be made within the State, the wording of the burial or removal permit may be limited to a statement by the registrar, and over his signature, that a satisfactory certificate of death having been filed with him, as required by law, permission is granted to inter, remove, or dispose otherwise of the body, stating the name, age, sex, cause of death, and other necessary details upon the form prescribed by the State registrar.

SEC. 11. No person in charge of any premises on which interments are made shall inter or permit the interment or other disposition of any body unless it is accompanied by a burial, removal, or transit permit, as herein provided. And such person shall indorse upon the permit the date of interment, over his signature, and shall return all permits so indorsed to the local registrar of his district within 10 days from the date of interment. He shall keep a record of all bodies interred or otherwise disposed of on the premises under his charge, in each case stating the name of each deceased person, place of death, date of burial or disposal, and name and address of the undertaker; which record shall at all times be open to official inspection: *Provided*, That the undertaker or person acting as such, when burying a body in a cemetery or burial ground having no person in charge, shall sign the burial or removal permit, giving the date of burial, and shall write across the face of the permit the words "No person in charge," and file the burial or removal permit within 10 days with the registrar of the district in which the cemetery is located.

SEC. 12. The birth of each and every child born in this State shall be registered as hereinafter provided.

SEC. 13. Within 36 hours after the date of each birth there shall be filed with the local registrar of the district in which the birth occurred a certificate of such birth, which certificate shall be upon the form adopted by the State board of health with a view to procuring a full and accurate report with respect to each item of information enumerated in section 14 of this act.

In sparsely settled districts or where there is no direct mail communication with the county seat a reasonable time shall be fixed by the local registrar.

In each case where a physician, or midwife, or person acting as midwife, was in attendance upon the birth, it shall be the duty of such physician to file in accordance herewith the certificate herein contemplated.

In case no physician was in attendance it shall be the duty of the midwife or person acting as midwife to file such certificate.

In every case it shall be the duty of the father or mother of the child, the householder or owner of the premises where the birth occurred, or the manager or superintendent of the public or private institution where the birth occurred, each in the order named, within 10 days after the date of such birth, to report to the local registrar the fact of such birth.

In such case and in case the physician, midwife, or person acting as midwife, in attendance upon the birth is unable, by diligent inquiry, to obtain any item or items of information contemplated in section 14 of this act, it shall then be the duty of the local registrar to secure from the person so reporting, or from any other person having the required knowledge, such information as will enable him to prepare the certificate of birth herein contemplated, and it shall be the duty of the person reporting the birth or who may be interrogated in relation thereto to answer correctly and to the best of his knowledge all questions put to him by the local registrar which may be calculated to elicit any information needed to make a complete record of the birth as contemplated by said section 14, and it shall be the duty of the informant as to any statement made in accordance herewith to verify such statement by his signature, when requested so to do by the local registrar.

SEC. 14. The certificate of birth shall contain the following items, which are hereby declared necessary for the legal, social, and sanitary purposes subserved by registration records:

- (1) Place of birth, including State, county, township or town, village or city. If in a city, the ward, street, and house number; if in a hospital or other institution, the name of the same to be given, instead of the street and house number.
- (2) Full name of child. If the child dies without a name, before the certificate is filed, enter the words "died unnamed." If the living child has not yet been named at the date of filing certificate of birth, the space for "full name of child" is to be left blank, to be filled out subsequently by a supplemental report, as hereinafter provided.
- (3) Sex of child.
- (4) Whether a twin, triplet, or other plural birth. A separate certificate shall be required for each child in case of plural births.
- (5) For plural births, number of each child in order of birth.
- (6) Date of birth, including the year, month, and day.
- (7) Full name of father.
- (8) Residence of father.
- (9) Color or race of father.
- (10) Age of father at last birthday, in years.
- (11) Birthplace of father; at least State or foreign country, if known.
- (12) Occupation of father. The occupation to be reported if engaged in any remunerative employment, with the statement of (a) trade, profession, or particular kind of work; (b) general nature of industry, business, or establishment in which employed (or employer).
- (13) Maiden name of mother.
- (14) Residence of mother.
- (15) Color or race of mother.
- (16) Age of mother at last birthday, in years.
- (17) Birthplace of mother; at least State or foreign country, if known.
- (18) Occupation of mother. The occupation to be reported if engaged in any remunerative employment, with the statement of (a) trade, profession, or particular kind of work; (b) general nature of industry, business, or establishment in which employed (or employer).
- (19) Number of children born to this mother, including present birth.
- (20) Number of children of this mother living.
- (21) The certification of attending physician or midwife as to attendance at birth, including statement of year, month, day (as given in item 7), and hour of birth, and whether the child was born alive or stillborn. This certification shall be signed by the attending physician or midwife, with date of signature and address; if there is not physician or midwife in attendance, then by the father or mother of the child, householder, owner of the premises, or manager or superintendent of public or private institution where the birth occurred, or other competent person, whose duty it shall be to notify the local registrar of such birth, as required by section 13 of this act.
- (22) Exact date of filing in office of local registrar, attested by his official signature, and registered number of birth, as hereinafter provided.

SEC. 15. When any certificate of birth of a living child is presented without the statement of the given name, then the local registrar shall make out and deliver to the parents of the child a special blank for the supplemental report of the given name of the child, which shall be filled out as directed, and returned to the local registrar as soon as the child shall have been named.

SEC. 16. That every physician, midwife, and undertaker shall, without delay, register his or her name, address, and occupation with the local registrar of the district in which he or she resides, or may hereafter establish a residence; and shall

thereupon be supplied by the local registrar with a copy of this act, together with such rules and regulations as may be prepared by the State registrar relative to its enforcement. Within 30 days after the close of each calendar year each local registrar shall make a return to the State registrar of all physicians, midwives, or undertakers who have been registered in his district during the whole or any part of the preceding calendar year: *Provided*, That no fee or other compensation shall be charged by local registrars to physicians, midwives, or undertakers for registering their names under this section or making returns thereof to the State registrar.

SEC. 17. All superintendents or managers, or other persons in charge of hospitals, almshouses, lying-in or other institutions, public or private, to which persons resort for treatment of diseases, confinement, or are committed by process of law, shall make a record of all the personal and statistical particulars relative to the inmates in their institutions at the date of approval of this act, which are required in the forms of the certificates provided for by this act, as directed by the State registrar; and thereafter such record shall be, by them, made for all future inmates at the time of their admittance. And in case of persons admitted or committed for treatment of disease, the physician in charge shall specify for entry in the record, the nature of the disease, and where, in his opinion, it was contracted. The personal particulars and information required by this section shall be obtained from the individual himself if it is practicable to do so; and when they can not be so obtained, they shall be obtained in as complete a manner as possible from relatives, friends, or other persons acquainted with the facts.

SEC. 18. The State registrar shall prepare sample forms and blanks for use in registering, recording, and preserving the returns, or in otherwise carrying out the purposes of this act; and shall prepare and issue such detailed instructions as may be required to procure the uniform observance of its provisions and the maintenance of a perfect system of registration; and no other forms or blanks shall be used than those prescribed by the State registrar. Printed blanks in the forms prescribed by the State registrar for all returns shall be furnished in sufficient quantities to each recorder or health officer by the board of supervisors of each county or city and county. He shall carefully examine the certificates received monthly from the local registrars, and if any such are incomplete or unsatisfactory he shall require such further information to be supplied as may be necessary to make the record complete and satisfactory. And all physicians, midwives, informants, or undertakers, and all other persons having knowledge of the facts are hereby required to supply, upon the forms provided or upon the original certificate, such information as they may possess regarding any birth or death upon demand of the State registrar, in person, by mail, or through the local registrar: *Provided*, That no certificate of birth or death, after its acceptance for registration by the local registrar, and no other record made in pursuance of this act shall be altered or changed in any respect, except where supplemental information required for statistical purposes is furnished.

(a) Whenever it may be alleged that the facts are not correctly stated in any certificate of death already registered, the local registrar shall require an affidavit under oath to be made by the person asserting the fact, to be supported by the affidavit of one other credible person having knowledge of the facts, setting forth the changes necessary to make the record correct. Having received such affidavits, the local registrar shall file them, together with an amended certificate, and he shall note the fact of the amendment with its date on the margin of the otherwise unaltered original certificate. He shall transmit the original certificate with the affidavits and amended certificate attached when making his regular monthly returns to the State registrar. He shall also retain copies for his files. If the correction relates to a certificate previously returned to the State registrar the local registrar shall forthwith transmit the affidavits to the State registrar. If the correction is first made in the State bureau of vital statistics the State registrar shall transmit a certified copy of the amended certificate to the local registrar.

The State registrar shall further arrange, bind, and permanently preserve the certificates in a systematic manner and shall prepare and maintain a comprehensive and continuous card index of all births and deaths registered; said index to be arranged alphabetically, in the case of deaths, by the names of decedents, and in the case of births, by the names of fathers and maiden names of mothers.

He shall inform all registrars what diseases are to be considered infectious, contagious, or communicable and dangerous to the public health, as decided by the State board of health, in order that when deaths occur from such diseases proper precautions may be taken to prevent their spread. If any cemetery company or association, or any church or historical society or association, or any other company, society, or association, or any individual is in possession of any record of births or deaths which may be of value in establishing the genealogy of any resident of his State, such company, society, association, or individual may file such record or a duly authenticated transcript thereof with the State registrar, and it shall be the duty of the State registrar to preserve such record or transcript and to make a record and index thereof in such form as to facilitate the finding of any information contained therein. Such record and index shall be open to inspection by the public, subject to such reasonable conditions as the State registrar may prescribe. If any person desires a transcript of any record filed in accordance herewith, the State registrar shall furnish the same upon application, together with a certificate that it is a true copy of such record as filed in his office.

SEC. 19. Each local registrar shall supply blank forms of certificates to such persons as require them. Each local registrar shall carefully examine each certificate of death when presented for record in order to ascertain whether or not it has been made out in accordance with the provisions of this act and the instructions of the State registrar; and if any certificate of death is incomplete or unsatisfactory, it shall be his duty to call attention to the defects in the return, and to withhold the burial or removal permit until such defects are corrected.

All certificates, either of birth or of death, shall be written legibly, in durable black ink, and no certificate shall be held to be complete and correct that does not supply all of the items of information called for therein, or satisfactorily account for their omission. If the certificate of death is properly executed and complete, he shall then issue a permit for removal, burial, or other disposition of the body to the undertaker: *Provided*, That in case the death occurred from some disease which is held by the State board of health to be infectious, contagious, or communicable and dangerous to the public health, no permit for the removal or other disposition of the body shall be issued by the registrar, except under such conditions as may be prescribed by the State and local boards of health. If a certificate of birth is incomplete, the local registrar shall immediately notify the informant, and require him to supply the missing items of information if they can be obtained. He shall number consecutively the certificates of birth and death, in two separate series, beginning with No. 1 for the first birth and the first death occurring in each calendar year, and sign his name as registrar in attest of the date of filing in his office. He shall also make a complete and accurate copy of each birth and each death certificate registered by him in a record book containing forms identical with the original certificates and to be preserved permanently in his office as the local record. And he shall, on the 5th day of each month, transmit to the State registrar all original certificates registered by him for the preceding month. And if no births or no deaths occurred in any month, he shall, on the 5th day of the following month report that fact to the State registrar on a blank provided for such purpose.

SEC. 20. Each local registrar shall be paid the sum of 25 cents for each birth certificate and each death certificate properly and completely made out and registered with him, and correctly recorded and promptly returned by him to the State registrar, as required by this act, out of which fees he shall pay the subregistrar the sum of 15 cents in cases where the certificate is registered with the subregistrar. And in a case

of no births or no deaths were registered during any month, the local registrar shall be entitled to be paid the sum of 25 cents for each report to that effect, but only if such report be made promptly as required by this act. All amounts payable to a local registrar under the provisions of this section shall be paid by the treasurer of the county in which the registration district is located, upon certification by the State registrar. And the State registrar shall quarterly certify to the treasurers of the several counties the number of births and deaths properly registered, with the names of the local registrars and the amounts due each at the rates fixed herein.

SEC. 21. The State or local registrar shall forthwith upon request supply to any applicant a certified copy of the record of any birth or death registered under provisions of this act, for the making and certification of which he shall be entitled to a fee of 50 cents, to be paid by the applicant. And any such copy of the record of a birth or death, when properly certified by the State or local registrar, shall be prima facie evidence in all courts and places of the facts therein stated.

For any search of the files and records when no certified copy is made the State registrar or local registrar shall be entitled to a fee of 50 cents for each hour or fractional hour of time of search, such fee to be paid by the applicant, and the State registrar shall keep a true and correct account of all fees by him received under these provisions, and such money so received by the State registrar shall be deposited with the State treasurer, who shall credit the amount to the fund provided and to be used for the payment of the traveling and contingent expenses of the State board of health, and the money so collected by the local registrar shall be paid by him into the county or city treasury, as the case may be; *Provided*, That the local registrar shall, upon request of any parent or guardian, supply, without fee, a certificate limited to a statement as to the date of birth of any child when the same shall be necessary for admission to school, or for the purpose of securing employment; *And, provided further*, That the United States census bureau may obtain, without expense to the State, transcripts of births and deaths without payment of the fees herein prescribed.

(b) If, upon such search, it shall develop that for any cause any birth or death occurring in this State was not registered in conformity with the provisions of law in effect at the time when such birth or death occurred, and person beneficially interested in establishing of record the fact of such birth or death may petition the superior court of the county in which such birth or death is alleged to have occurred for an order judicially establishing the fact of such birth or death.

Such petition shall be verified and shall contain all the data necessary to enable the court, upon hearing the same, to determine the fact of such birth or death upon the proofs adduced in behalf of the petitioner at the hearing thereof. A copy of such petition shall be served upon the local registrar of vital statistics, and also upon the district attorney of the county in which such birth or death is alleged to have occurred, and either of said officials shall have the right in his discretion to appear at such hearing and oppose the making of such order. Such hearing shall be had at such time as the court may appoint, not less than 10 days subsequent to the date of filing such petition, and notice thereof must be given by publication for the same time and in the same manner required by law to be given prior to the hearing of the petition for the admission of probate of any will, or the issuance of letters testamentary or of administration thereon.

If, upon such hearing, the proofs of the allegations of the petition are established, to the satisfaction of the court, the court may make an order determining that such birth or such death did in fact occur in such county and at the time shown by the proofs adduced upon such hearing. Certified copies of such order shall be delivered to the local registrar of vital statistics, and to the State registrar of vital statistics.

SEC. 22. Any person who, for himself or as an officer, agent, or employee of any other person, or of any corporation or partnership (a) shall inter, cremate, or otherwise finally dispose of the dead body of a human being, or permit the same to be done, or

shall remove said body from the primary registration district in which the death occurred or the body was found, except as provided in section 5 of this act without the authority of a burial or removal permit issued by the local registrar of the district in which the death occurred or in which the body was found; or (b) shall refuse or fail to furnish correctly any information in his possession, or shall furnish false information affecting any certificate or record, required by this act; or (c) shall willfully alter, otherwise than is provided by section 18 of this act, or shall falsify any certificate of birth or death or any record established by this act; or (d) being required by this act to fill out a certificate of birth or death and file the same with the local registrar, or deliver it, upon request, to any person charged with the duty of filing the same, shall fail, neglect, or refuse to perform such duty in the manner required by this act; or (e) being a local registrar, deputy registrar, or subregistrar, shall fail, neglect, or refuse to perform his duty as required by this act and by the instructions and direction of the State registrar thereunder shall be deemed guilty of a misdemeanor and upon conviction thereof shall for the first offense be fined not less than \$5 nor more than \$50 and for each subsequent offense not less than \$10 nor more than \$100, or be imprisoned in the county jail not more than 60 days, or be both fined and imprisoned in the discretion of the court.

SEC. 23. Under the supervision and direction of the State registrar each local registrar is hereby charged with the strict and thorough enforcement of the provisions of this act in his registration district, under the supervision and direction of the State registrar. He shall make an immediate report to the State registrar of any violation of this law coming to his knowledge, by observation or upon complaint of any person or otherwise.

The State registrar is hereby charged with the thorough and efficient execution of the provisions of this act in every part of the State and is hereby granted supervisory power over local registrars, deputy local registrars, and subregistrars, to the end that all of its requirements shall be uniformly complied with. The State registrar, either personally or by an accredited representative, shall have authority to investigate cases of irregularity or violation of law. When he shall deem it necessary, he shall report cases of violation of any of the provisions of this act to the prosecuting attorney of the county, with a statement of the facts and circumstances; and when any such case is reported to him by the State registrar the prosecuting attorney shall forthwith initiate and promptly follow up the necessary court proceedings against the person or corporation responsible for the alleged violation of law. And upon request of the State registrar the attorney general shall assist in the enforcement of the provisions of this act.

SEC. 24. All acts and parts of acts in conflict with this act are hereby repealed.

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

NEW ORLEANS, LA.

Plague—Prevention of the Introduction and Spread of—Rat Proofing of Buildings. (Ord. 2512, Commission Council, June 22, 1915.)

Whereas, during the month of June, 1914, the bubonic plague made its appearance in the city of New Orleans and thereby threatened the health and lives of the people through the ravages of the dread disease, and menaced the prosperity of the entire community through the imminence of destructive quarantines; and

Whereas the city government and the State and city health authorities, in earnest effort to avert the calamities aforesaid, solicited and secured the cooperation and active assistance of the United States Public Health Service in dealing with the crisis impending; and

Whereas the Board of Health of the Parish of Orleans and the city of New Orleans, with the concurrence and advice of the United States health authorities, enacted certain ordinances designed to eradicate and prevent both rodent and human infection from the said bubonic plague, among which said ordinances were ordinances Nos. 17 and 21 of the board of health series; and

Whereas the honorable Supreme Court of the State of Louisiana has, in the case of the City of New Orleans *v.* Miss M. Sanford et al., held that the said ordinances, although under the stringent circumstances of the case justified and necessary, yet solely because of a certain detail of discretionary executive authority vested thereby in the city health officer, and which authority it is admitted in the opinion of said court has not been by said officer improperly or oppressively exercised, they held the said ordinances were unconstitutional, and hence null and void; and

Whereas the work of the authorities under the health ordinances aforesaid has, up to the present time, entirely averted the disastrous menace of the plague, still the said work is by no means finished, nor is the menace of infection and the spread of the disease finally eliminated; and

Whereas abandonment of the work under said ordinances or delay in the prosecution thereof is fraught with grave danger to the health of the people and the commercial prosperity of the community, the Commission Council of the City of New Orleans is not only constrained by the dictates of prudence, but feel in solemn duty bound to reenact in the legal form prescribed by the honorable supreme court the said health ordinances which the said court has held are, in purpose, both justifiable and necessary. Now, therefore:

SECTION 1. *Be it ordained by the Commission Council of the City of New Orleans, That* from and after the promulgation of this ordinance, that every building, outhouse, and other superstructure, stable, lot, open area, and other premise, sidewalk, street and alley, now constructed or hereafter to be constructed in the city of New Orleans, shall be rat proofed in the manner hereinafter provided for.

SEC. 2. That it shall be unlawful for any person, firm, or corporation to have or maintain or hereafter to construct any building, outhouse, or other superstructure, stable, lot, open area, or other premise, sidewalk, street, or alley within the city of New Orleans, unless the same shall be rat proofed in the manner hereinafter provided for.

Sec. 3. That for the purpose of rat proofing, all buildings, outhouses, and other superstructures in the city of New Orleans, except stables, shall be divided into three classes, to wit: Class A, class B, and class C; and the same shall be rat proofed in the manner following, to wit:

Class A.—All buildings, outhouses, and other superstructures of class A shall have floors made of concrete, which concrete shall be not less than 3 inches thick, and overlaid with a top dressing of cement, mosaic tiling, or other impermeable material, laid in cement mortar, and such floor shall rest without any intervening space between upon the ground, or upon filling of clean earth, sand, cinders, broken stone or brick, gravel or similar material, which filling shall be free from animal or vegetable substances; said floor shall extend, and be hermetically sealed, to walls surrounding said floor, which walls shall be made of concrete, stone, or brick, laid in cement or mortar, and each wall to be not less than 6 inches thick, and shall extend into and below the surface of the surrounding ground at least 2 feet, and shall extend not less than 1 foot above the surface of said floor: *Provided*, That wooden removable gratings may be laid on such concrete floors in such parts of such buildings, superstructures and outhouses as are used exclusively as sales departments.

Class B.—All buildings, outhouses, and other superstructures of class B shall be set upon pillars or underpinning of concrete, stone, or brick, laid in cement mortar, such pillars or underpinning to be not less than 18 inches high, the height to be measured from the ground level to the top of said pillars or underpinning; and the intervening space between said building and the ground level to be open on three sides, and to be free from all rubbish and other rat-harboring material, or may be made rat proof by construction at the margin of the ground area of said building a wall of concrete or brick or stone laid in cement; such wall to extend into and below the surface of the ground at least 2 feet and to meet the floor of the building above closely and without any intervening space, such walls shall be at least 6 inches thick and extend entirely around said building: *Provided*, That said walls may be built with openings therein for ventilation only: *And provided further*, That such openings for ventilation may be of such size as the owner may elect and shall be securely screened with metallic gratings having openings between the bars of said gratings of not more than one-half inch, or with wire mesh of not less than 12 guage, having openings between the wires of said mesh of not more than one-half inch, and the whole so constructed and closed as to prevent the entrance of rats beneath such building.

Class C.—All buildings, outhouses and other superstructures of class C shall be rat-proofed as provided in class A except that tar-cinder composition flooring, as hereinafter defined and provided for, may be substituted for the concrete floors provided for in class A. That tar-cinder flooring hereinabove provided for is hereby defined to be a composition of cinders and coal tar only, and, when laid, to be covered by a wooden floor.

The cinders used in the composition shall be free of soft ash and clinkers and shall be brought to the work dry.

The coal tar used in the composition shall be the product of the dry distillation of coal, and shall contain not more than 2 per cent of water, and shall be free from any mixture with other substance or thing.

The composition of, and manner of laying, tar-cinder composition flooring shall be as follows:

To each cubic yard of such cinders shall be added 20 gallons of such coal tar, the whole to be thoroughly mixed on the work where the same is to be laid, and no other substance or thing to be added thereto. This composition shall be laid between the walls hereinabove provided for in ratproofing buildings of class A, and cover the whole space to be floored, and the whole to be thoroughly tamped or rolled, as provided for hereinafter. The sleepers to be used in the laying of such flooring shall be creosoted by having the creosote pressed into each sleeper, under a pressure of not less than 15

pounds to the square foot, and such sleepers shall be laid in such composition before the whole of said composition is rolled or tamped: *And provided further*, That after such sleepers are laid in such composition, and after the whole shall be so rolled and tamped, the whole shall be not less than 4 inches thick in its thinnest part. Upon this composition and sleepers shall be laid a wooden flooring of the quality now provided, or hereafter to be provided for in the building laws of the city of New Orleans: *Provided, however*, That for the purpose of laying a tar-cinder composition floor, said wooden flooring shall be tongue and groove, well fitted, and the planks firmly set into each other, and the whole, in such manner as to prevent the ingress or egress of rats.

SEC. 4. That every restaurant kitchen, hotel kitchen, cabaret kitchen, dairy, dairy depot, dock, wharf, pier, elevator, store, manufactory, and every other building, outhouse, or superstructure wherein or whereon foodstuffs are stored, kept, sold, handled, held, or offered for sale, manufactured, prepared for market or for sale except stables, shall be ratproofed in the manner provided for hereinabove as class A: *Provided*, That such part of any structure hereinabove defined as of class A, that shall be entirely over a body of water, may be ratproofed as of class B, as hereinafter provided for.

"Foodstuffs," as used in this ordinance, is hereby defined to be flour and flour products, animals and animal products, produce, groceries, cereals, grain, and the products of cereals and grain, poultry and its products, game, birds, fish, vegetables, fruit, milk, cream and the products from milk or cream, ice cream, hides and tallow, or any combination of any one or more of the foregoing.

That every warehouse and wholesale store wherein dry goods, shoes, or other goods, wares, or merchandise other than "foodstuffs," are stored, kept, handled, sold, held, or offered for sale, manufactured or prepared for sale, except stables, shall be ratproofed in the manner provided for hereinabove as class C: *Provided*, That "foodstuffs," when contained in hermetically sealed containers impervious to rats, may be stored, kept, or offered for sale in class C structures.

All other buildings, outhouses, and superstructures, except stables, not hereinbefore specified as class A or class C, and all buildings used exclusively for residential purposes, shall be ratproofed in the manner provided for hereinabove as class B: *Provided*, That the owner of any building, residence, outhouse, or other superstructure in class B may, if he so elects, ratproof same in the manner provided for in class A or in class C, and the owner of a class C structure may, if he so elects, ratproof same as provided for in class A.

Provided, That in any case where, under the foregoing provisions, any building, outhouse, or superstructure is required to be ratproofed as of class A, and the said building or outhouse or superstructure is used in part for residential purposes, and the part used as a residence is effectively separated from the part falling within class A by permanently and effectively closing all openings above and below the ground floor or by constructing a new wall, and in either case the whole, in such manner as to make such wall whole and continuous in its entirety, without doorways, windows, or other openings between the part used as a residence and that used for such purpose as makes it fall within class A, then, in such case, and for ratproofing purposes only, the said building will after such separation and closure of the openings or by the construction of such new wall be deemed to be two buildings, and that part used exclusively for residential purposes may be ratproofed in the manner provided for as a class B building and the remaining part of said building shall be ratproofed in the manner provided for a class A building.

Stables.—All buildings now or hereafter to be constructed and used for stabling horses, mules, cows, and other animals shall be constructed as follows:

Walls.—The walls of such building shall be constructed of concrete, brick, or stone, laid in cement mortar, and shall be not less than 6 inches thick, and shall extend into

and below the surface of the surrounding ground not less than 2 feet and extend above the ground a sufficient height as to be not less than 1 foot above the floor level. All openings in such foundation walls shall be covered with metal grating having openings not greater than one-half inch between the gratings.

Floors.—The floors of stables and stalls shall be of concrete not less than 3 inches thick, upon which shall be laid a dressing not less than one-half inch thick of cement or stone, laid in cement mortar, in such way as to prevent ingress or egress of rats, and such floors to have a slope of one-eighth inch per foot to the gutter drains hereinafter provided for.

Stalls.—The floors of stalls may be of planking, fitting either tightly to the concrete floor or elevated not more than one-half inch from the stall floor, and so constructed as to be easily removable. Such removable planking shall be raised at least once a week and the said planking and the concrete floor beneath thoroughly cleansed.

Gutters.—Semicircular or V-shaped gutter drains shall be constructed in such stables in such manner that a gutter shall be placed so as to receive all liquid matter from each stall, and each of these gutters to connect with the public sewer or with a main gutter of the same construction, which, in turn, shall be connected with the public sewer. All openings from drains into sewers shall be protected by a metal grating having openings not more than one-half inch between the gratings.

Manure pit.—Each stable shall be provided with a manure pit, to be sunk into the ground within or near to said stable, which pit shall be lined with cement so as to make same liquid-tight, and to have a capacity of at least 2½ cubic feet for each stall in said stable. Said manure pit shall be provided with a tight fitting cover, divided into two parts, and so constructed as to render the contents of said pit inaccessible to flies.

Manure.—Any manure in and about all stables shall be placed in said manure pit at least once a day. Manure shall be removed from said pit at least twice a week between March 15 and December 1 and at least once a week between December 1 and March 15. All manure so removed shall be placed in wagons so protected as to render said manure inaccessible to flies.

Mangers.—Each manger shall be constructed so as to have a slope of 2 inches toward the bottom, shall be covered with tin or zinc, and shall be at least 18 inches deep to avoid spilling of food.

Feed bins.—All feed bins shall be constructed of cement, stone, metal, or wood, and with close-fitting doors. If constructed of wood, the bins shall be lined or covered with metal, and the whole so constructed as to prevent the ingress or egress of rats. All grain, malt, and other animal food, except hay, stored or kept in any stable must be kept in such feed bins. Said feed bins must be kept closed at all times except when momentarily opened to take food therefrom, or when same are being filled. No feed shall be scattered about such bin or stable and all such feed found on the floor or in the stalls of said stables shall be removed daily and placed in the manure pits. No foodstuffs intended for or susceptible of human consumption shall be kept or stored in any stable or any other place where animals are kept.

SEC. 5. That the construction and materials used in rat proofing shall conform to the building ordinances of the city of New Orleans, except and only in so far as the same may be modified herein.

SEC. 6. That all accidental and unnecessary spaces and holes, ventilators, and other openings other than doors and windows in every building, outhouse, and other superstructure in the city of New Orleans shall be closed with cement, mortar, or other material impervious to rats or screened with wire having not more than one-half inch mesh, as the case may require, and all wall spaces shall be closed with cement, mortar, or other material impervious to rats, which closure shall extend the full thickness of the wall and shall extend upward at least 12 inches above the floor level; and the whole in such manner as to prevent the ingress or egress of rats: *Provided,*

That in all buildings, outhouses, and other superstructures of class A, class C, and in all stables where there are any spaces in walls between the wall proper and the covering on same, or in ceilings, between the ceiling and floor, or other ceiling covering above, said spaces shall be eliminated by the removal of said covering, or so closed with cement, mortar, or other material impervious to rats as to prevent the ingress or egress of rats: *Provided*, That all such wall spaces shall be closed with cement, mortar, or other material impervious to rats, which closure shall extend the full thickness of the wall and shall extend upward at least 12 inches above the floor level.

SEC. 7. That all premises, improved and unimproved, and all open lots, areas, streets, sidewalks, and alleys in the city of New Orleans shall be kept clean and free from all rubbish and similar loose material that might serve as a harborage for rats, and all lumber, boxes, barrels, loose iron, and similar material that may be permitted to remain thereon and that may be used as a harborage by rats, shall be placed on supports and elevated not less than 2 feet from the ground with a clear intervening space beneath to prevent the harboring of rats.

SEC. 8. That all planking and plank walks on and in yards, alleys, alleyways, streets, sidewalks, or other open areas, shall be removed and replaced with concrete, brick, or stone, laid in cement, gravel, or cinders, or the ground left bare.

SEC. 9. That it shall be the duty of every owner, agent, and occupant of each building, outhouse, and other superstructure, stable, lot, open area and other premise, sidewalk, street, and alley in the city of New Orleans to comply with all the provisions of this ordinance.

SEC. 10. That it is hereby made the duty of the department of public safety, and particularly through its health department (the city board of health), to enforce the provisions of this ordinance: *Provided*, That no affidavit shall be filed against any owner, agent, occupant, or other person charged with the duty of complying with the provisions of this ordinance, until 30 days shall have elapsed after a communication shall have been deposited in the United States mail, addressed by said health department to such owner, agent, occupant, or person, to his residence or to the premises upon which said violation shall be alleged to lie, which communication shall designate the character of violation with which such person shall be charged and the location of the premises upon which the offense is alleged to lie.

SEC. 11. That each day's violation of any provision of this ordinance shall constitute a separate and distinct offense.

SEC. 12. That any person violating any provision of this ordinance shall on conviction be punished by a fine of not less than \$10 nor more than \$25, or in default of the payment of such fine by imprisonment in the parish jail for not less than 10 days nor more than 30 days, or both, at the discretion of the recorder having jurisdiction of the same.

SEC. 13. That any law or ordinance in conflict with the provisions of this ordinance be and the same is hereby repealed.

Plague—Prevention of the Introduction and Spread of—Measures to Prevent Rats from Entering or Leaving Vessels. (Ord. 2513, Commission Council, June 22, 1915.)

SECTION 1. *Be it ordained by the Commission Council of the City of New Orleans*, That from and after the promulgation of this ordinance it shall be unlawful for any vessel, steamboat, or other water craft, except harbor boats, to lie alongside of any wharf or dock in the city of New Orleans, and such vessels, steamboats, or other water craft shall be fended off from said wharf or dock in such manner that no part of such vessel, steamboat, or other water craft shall be nearer than 8 feet from the nearest point of said wharf or dock by a floating fender or spars of sufficient strength to maintain said dis-

tance of 8 feet, and each such spar and each such chain, hawser, rope, or line of any kind extending from any such vessel, steamboat, or water craft to said dock or wharf shall be equipped with and have properly and securely attached thereto a rat shield or guard of such design and in such manner as shall be approved by the chairman of the board of health for the parish of Orleans and the city of New Orleans, except such harbor boats which shall be fumigated once every 60 days.

SEC. 2. That no gang plank, staging, or other structure, whereon or whereby rats may board or leave such vessel, steamboat, or other water craft, shall be extended therefrom to the wharf or dock except during such time as loading or unloading is in progress, and when being loaded or unloaded a competent man, specially detailed for that purpose by the owner, master, or officer in charge of such vessel, steamboat, or other water craft, shall be stationed at each such gang plank, staging, or other structure, whose duty it shall be to prevent rats from boarding or leaving such vessel, steamboat, or other water craft, and, if possible, to destroy same.

SEC. 3. That after the hour of sunset all such gang planks, staging, or other structure, provided for in section 2 of this ordinance, shall be removed from such wharf or dock: *Provided*, That when loading or unloading is required to be done after sunset the same shall be done in the manner provided by section 2 of this ordinance: *And provided further*, That such light or lights shall be furnished by the owner, master, or other officer in charge of such vessel, steamboat, or other water craft, and so placed at, or sufficiently near to, each such gang plank, staging, or other structure as to so light such gang plank, staging, or other structure that the presence of rats may be easily and readily seen, and such additional competent men as may be necessary shall be detailed in the manner and for the purpose provided for in section 2 of this article, provided that at the end of each such gang plank, staging, or other structure shall be kept whitened at all times when in use for a length of 10 feet.

SEC. 4. That no crafted cargo or empty barrels, boxes, or other containers, especially those from or intended for the storeroom, shall be permitted to leave or be received aboard of any such vessel, steamboat, or other water craft until the same shall have been so inspected as to insure that they contain no rats.

SEC. 5. That it is hereby made the duty of the owner, agent, and master, or other officer in charge of any such vessel, steamboat, or other water craft to comply with all the provisions of this ordinance.

SEC. 6. That each day's violation that any provisions of this ordinance shall constitute a separate and distinct offense.

SEC. 7. That the officers and employees of the dock board of the city of New Orleans are requested and the police force of the city of New Orleans are enjoined and required to assist in the enforcement of this whole ordinance and to report any violation thereof to the board of health for the Parish of Orleans and the city of New Orleans.

SEC. 8. That any person who shall violate any provisions of this ordinance shall, on conviction, be punished by a fine of not less than \$10 or more than \$25, or, in default of payment, by imprisonment in the parish jail for not less than 10 nor more than 30 days, or both, at the discretion of the court having jurisdiction of same.

SEC. 9. That all ordinances and parts of ordinances in conflict herewith be, and the same are hereby, repealed.

Plague—Prevention of the Introduction and Spread of—Garbage, Protection and Collection of. (Ord. 2514, Commission Council, June 22, 1915.)

SECTION 1. *Be it ordained by the Commission Council of the City of New Orleans*, That from and after the promulgation of this ordinance that the owner, agent, and occupant of every premise, improved or unimproved, in the city of New Orleans, whereon or wherein garbage shall be created, shall provide a metal, water-tight container or containers, each with a tight-fitting cover, such container or containers to be of such size as to be easily man-handled and of such number as to receive the garbage accumulation

of 48 hours from each such premise, and shall place or cause to be placed in such container or containers, for the purpose of having their contents removed, on the sidewalks or open alleys in front or rear of said premises at the times hereinafter set forth.

SEC. 2. That for the purposes of this ordinance the city of New Orleans is hereby divided into two garbage districts. The first garbage district shall be comprised within the following limits:

Beginning at the river front and Eagle Street, along both sides of Eagle Street to Sycamore Place; along Sycamore Place, both sides, to Joliet Street; along Joliet Street, both sides, to Fig Street; along Fig Street, both sides, to Dublin Street; along Dublin Street, both sides, to Calliope Street; along Calliope Street, both sides, to Short Street; along Short Street, both sides, to Fig Street; along Fig Street, both sides, to South Carrollton Avenue; along South Carrollton Avenue, both sides, to Nelson Street; along Nelson Street, both sides, to Lowerline Street; along Lowerline Street, both sides, to Maple Street; along Maple Street, both sides, to Broadway Street; along Broadway Street, both sides, to St. Charles Avenue; along St. Charles Avenue, both sides, to Audubon Place; along Audubon Place, both sides, through to Audubon Boulevard; along Audubon Boulevard, both sides, to its rear extremity; and beginning again at the entrance of Audubon Place and St. Charles Avenue, along St. Charles Avenue, both sides, to the downtown boundary of Jesuits Place and Sophie Newcomb Place; and along the line of Jesuits Place and Sophie Newcomb Place to Clara Street; along Clara Street, both sides, to Peters Avenue; along Peters Avenue, both sides, to Freret Street; along Freret Street, both sides, to Napoleon Avenue; along Napoleon Avenue, both sides, to South Claiborne Street; along South Claiborne Street, both sides, to Louisiana Avenue; along Louisiana Avenue, both sides, to Magnolia Street; along Magnolia Street, both sides, to Felicity Street; along Felicity Street, both sides, to South Claiborne Avenue; along South Claiborne Avenue, both sides, to Julia Street; along Julia Street, downtown side, to Broad Street; along Broad Street, both sides, to Tulane Avenue; along Tulane Avenue, both sides, to Julia Street; along Julia Street, river side, to South Bernadotte Street; along South Bernadotte Street, both sides, to Cleveland Avenue; along Cleveland Avenue, both sides, to South Anthony Street; along South Anthony Street, both sides, to Canal Street; along Canal Street, both sides, to City Park Avenue; along City Park Avenue, both sides, to Bienville Street; along Bienville Street, both sides, to North Dupre Street; along North Dupre Street, both sides, to Carondelet Walk; along Carondelet Walk, downtown side, to Moss Street; along Moss Street, river side, to Esplanade Avenue; along Esplanade Avenue, both sides, to place near and adjoining Fortin Street; both sides of said place to Fortin Street; along Fortin Street, both sides, to Gentilly Road; along Gentilly Road, both sides, to Abundance Street; along Abundance Street, both sides, to St. Bernard Avenue; along St. Bernard Avenue, both sides, to North Miro Street; along North Miro Street, both sides, to Touro Street; along Touro Street, both sides, to Marigny Avenue; along Marigny Avenue, both sides, to Elysian Fields Avenue; along Elysian Fields Avenue, both sides, to North Miro Street; along North Miro Street, both sides, to St. Roch Avenue; along St. Roch Avenue, both sides, to North Galvez Street; along North Galvez Street, both sides, to Lafayette Avenue; along Lafayette Avenue, both sides, to North Derbigny Street; along North Derbigny Street, both sides, to Press Street; along Press Street, both sides, to Marais Street; along Marias Street, both sides, to Bartholomew Street; along Bartholomew Street, both sides, to St. Claude Avenue; along St. Claude Avenue, both sides, to Kentucky Street; along Kentucky Street, both sides, to Burgundy Street; along Burgundy Street, both sides, to Delery Street; along Delery Street, uptown side, to the river, and along the river to Eagle Street, the point of beginning. In the Fifteenth Ward (Algiers) the first garbage district shall comprise the territory within the following limits: Beginning at the river front and Atlantic Street, along both sides of Atlantic Street to Diana Street; along Diana Street, both sides, to Verret Street; along Verret Street, both sides, to Socrates Street; along Socrates Street, both sides, to

Teche Street; along Teche Street, both sides, to Bringier Street; along Bringier Street, both sides, to the river, and along the river to Atlantic Street, the point of beginning.

The second garbage district shall be comprised of all that part of the city of New Orleans lying outside of the first garbage district hereinabove described.

The owners, agents, and occupants of premises in the first garbage district shall place, or cause to be placed, garbage containers for removal of their contents as provided for in section 1 of this ordinance every day, except Sundays, before the hour of 6.45 a. m., and in the second garbage district every Monday, Wednesday, Friday, and Saturday before the hour of 6.45 a. m.: *Provided*, That such garbage containers may be so placed over the night preceding the day fixed for the removal of their contents.

SEC. 3. That for the purpose of this ordinance the word "garbage" as used in this ordinance shall be construed to mean house and kitchen offal and all refuse matter not excrementitious liquid, and composed of animal or vegetable substances, including dead animals (except cows, horses, mules, and goats), coming from public and private premises of the city and not destined for consumption as food.

SEC. 4. That it shall be unlawful for any owner, agent, or occupant of any such premise to have, maintain, or keep any garbage on any premise except in such garbage containers as are provided for in section 1 of this ordinance.

SEC. 5. That such garbage containers shall be kept tightly covered at all times, except when momentarily open to receive the garbage or to have the contents therefrom removed, as provided for hereinafter.

SEC. 6. That when such garbage container is placed on the outside of any premise it shall be unlawful for any person engaged in the removal of garbage, or for any person, to remove the cover from such garbage container, except for the purpose of emptying its contents into a duly authorized garbage wagon, or to throw such garbage container on the street or sidewalk, or to injure it in any way so as to make it leak or to bend it or its cover as to prevent said garbage container from being tightly covered; and all persons engaged in the removal of garbage shall, after emptying said container, replace the cover tightly on said container.

SEC. 7. That the owner, agent, or occupant of every premise in the city of New Orleans shall keep separate from their garbage and ashes tin cans, broken crockery, hardware, old planks, wooden matter, paper, sweepings, and other trash, and place same in a sound, substantial vessel or container kept for that purpose, which vessel or container shall be placed on the sidewalk or alley in front or rear of each premise of the city of New Orleans, as provided in section 1 of this ordinance for garbage containers, for removal on Tuesdays and Thursdays of each week before the hour of 6.45 a. m.: *Provided*, That such rubbish other than garbage may be so placed overnight on Mondays and Wednesdays: *Provided*, That not more than one barrel of ashes shall be so placed for removal from any one premise at any one time.

SEC. 8. That the provisions of this ordinance shall apply to all public and private markets, as well as all places of business, hotels, restaurants, and all other premises, whether used for business, boarding, or residential purposes.

SEC. 9. That for the purpose of enforcing this ordinance any person living on any premise shall be deemed an occupant, and any person receiving the rent, in whole or in part, of any premise shall be deemed an agent; that on any premise where construction of any kind is in progress, and where employees or workmen eat their dinners, or lunches, in or about said premises, or scatter lunch or food in or about such premises, the contractor or foreman or other person in charge of such workmen shall be deemed an occupant; and that the person in charge of any market, or stall in any market, shall be deemed an occupant.

SEC. 10. That it shall be unlawful for any person to pick from or disturb the contents of any garbage containers or vessels, or other containers provided for in this ordinance.

SEC. 11. That each day's violation of any of the provisions of this ordinance shall constitute a separate and distinct offense.

SEC. 12. That any person violating any provision of this ordinance shall, on conviction, be punished by a fine of not less than \$10 nor more than \$25, or, in default of the payment of said fine, by imprisonment in the parish jail for not less than 10 days nor more than 30 days, or both, at the discretion of the recorder having jurisdiction of the same.

SEC. 13. That any law or ordinance in conflict with the provisions of this ordinance, in whole or in part, be and the same is hereby repealed.

NEW YORK, N. Y.

Living Bacterial Organisms—Use in the Inoculation of Human Beings. (Reg. Dept. of Health, Mar. 30, 1915.)

Regulations of the department of health of the city of New York, adopted March 30, 1915, effective April 1, 1915, relating to section 120 of the sanitary code, which provides as follows:

SEC. 120. *The use of living bacterial organisms in the inoculation of human beings regulated.*—The use of living bacterial organisms in the inoculation of human beings for the prevention or treatment of disease is hereby prohibited until full and complete data regarding the method of use, including a specimen of the culture and other agents employed therewith, and a full account of the details of preparation, dosage, and administration shall have been submitted to the board of health of the city of New York, and permission shall have been granted in writing by the said board for such use.

The applicant shall make precise statements in English supplying the following information:

1. Nature of culture.
2. Source of culture.
3. Duration of cultivation on artificial media.
4. Sensitization.
5. Results of animal inoculation.
6. Result of previous human inoculations.
7. Abstracts of important reports of tests in literature with the journal references.

Schools—Physical Examination of School Children. (Reg. Dept. of Health, Mar. 30, 1915.)

Regulations of the Department of Health of the city of New York, adopted March 30, 1915, effective April 1, 1915, relating to section 200 of the Sanitary Code, which provides as follows:

SEC. 200. *Physical care of school children.*—A health certificate prepared in accordance with the regulations of the department of health, and signed by a duly licensed physician authorized to practice medicine in the State of New York shall be furnished by each pupil at the time of his or her admission to a public or other free school supported in whole or in part by funds obtained from direct taxation.

If any such pupil shall not present a health certificate, as required herein, the principal or teacher in charge of the school shall cause a notice to be promptly sent to the parent, guardian, or other person having the care, custody, or control of such pupil to the effect that, if the required health certificate be not presented within 10 days thereafter, a physical examination of such pupil will be made by a medical inspector of the department of health.

Every principal or teacher in charge of a public or other free school supported in whole or in part by funds obtained from direct taxation shall report to the medical

inspector of the department of health having jurisdiction over the health of the pupils in such school the names of all pupils who shall not have furnished such health certificate within 10 days following the date of the sending of such notice.

REGULATION 1. *Physical examination; points to be included.*—The physical examination of school children, made by physicians in accordance with section 200 of the Sanitary Code, must include the following points:

Test for vision.

Test for hearing.

Test for defective nasal breathing.

Examination for hypertrophied tonsils.

Examination for defective teeth.

Determination of nutrition.

Examination of the heart.

Examination of the lungs.

Examination for orthopedic defects.

Examination for nervous diseases.

REG. 2. *Physical examination; method.*—The method of examination must include the following procedure as minimum requirement:

(a) Vision test: The Snellen test card, or its equivalent, to be used. A separate examination and record of the visual acuity of each eye is required, a card or paper to be used to cover the eye not being tested. Figure charts to be used for children not knowing their letters.

(b) Hearing test: The watch test to be used, each ear to be tested separately.

(c) Defective nasal breathing: The nasal passages to be cleared, each nostril to be tested separately. Record is to be made as to cause of obstruction, if any is found. Secondary symptoms, as nasal catarrh or mouth breathing, should be noted, the latter to be qualified as to whether due to (a) habit or (b) obstruction of nasal passage.

(d) Hypertrophied tonsils: Visual examination of the pharynx to be made with the use of a tongue depressor.

(e) Defective teeth: Visual examination of the interior of the mouth to be made. Uncleanliness, caries, and malocclusion must be recorded.

(f) Nutrition: To be determined by taking into consideration the relation of height, weight, and age to one another. The state of the muscular tissues should be noted, and the color of the skin and mucous membranes must also be recorded. Any height or weight below those indicated in the following table for ages specified must be stated.

Average weight and height.

[Weight includes ordinary clothing.]

Age.	Height.		Weight.	
	Boys.	Girls.	Boys.	Girls.
	<i>Inches.</i>	<i>Inches.</i>	<i>Pounds.</i>	<i>Pounds.</i>
5 years.....	41.7	41.4	41.2	39.8
6 years.....	44.1	43.6	45.1	43.8
7 years.....	46.2	45.9	49.5	48.0
8 years.....	48.2	48.0	54.5	52.9
9 years.....	50.1	49.6	60.0	57.5
10 years.....	52.2	51.8	66.6	64.1
11 years.....	54.0	53.8	72.4	70.3
12 years.....	55.8	57.1	79.8	81.4
13 years.....	58.2	58.7	88.3	91.2
14 years.....	61.0	60.3	99.3	100.3
15 years.....	63.0	61.4	110.8	108.4
16 years.....	65.6	61.7	128.7	113.0

(g) Heart: Heart to be examined with stethoscope over the bare chest and all abnormalities recorded.

(h) Lungs to be examined by percussion and auscultation, using the stethoscope over the bare chest and all abnormalities recorded.

(i) Orthopedic defects: General inspection of the body to be made in the absence of all clothing. Impaired mobility or defects of posture must be recorded.

(j) Nervous affections: Note whether functional or organic.

Maritime Quarantine—Landing of Cargo. (Reg. Dept. of Health, Mar. 30, 1915.)

Regulations of the Department of Health of the city of New York, adopted March 30, 1915, effective April 1, 1915, relating to sections 358 and 359 of the Sanitary Code, which provides as follows:

SEC. 358. *Discharge of cargo regulated.*—No owner, agent, or consignee, of any vessel, or cargo, and no officer of any vessel (in respect of either of which vessel or cargo a permit, according to any law, ordinance, or regulation shall or should have been obtained to pass quarantine, or to come up to the water front of the city of New York) shall unload, or land, or cause to be unladen or landed, such cargo, or any part thereof, at any place in said city, without or otherwise than in accordance with the terms and conditions of a permit therefor issued by the board of health.

SEC. 359. *Skins, hides, rags, straw, bedding, and other articles and materials; removal and distribution regulated.*—No master, charterer, owner, part owner, or consignee of any vessel, or any other person, shall bring nearer to any dock, pier, wharf, or building, than 1,000 feet therefrom in the city of New York, or unload at any dock, pier, wharf, or building therein, or have on storage in the built-up portions of said city, any skins, hides, rags, or similar articles or materials which have been brought from any foreign country or any infected place, or from any points south of Norfolk, Va., without or otherwise than in accordance with the terms and conditions of a permit therefor issued by the board of health, and no person shall sell, exchange, remove, or in any way expose, any straw, bedding, or other articles used by immigrants upon any vessel bringing immigrants to this port, until it shall have been adequately and properly cleaned or disinfected; and all straw, bedding, or other articles that have been exposed on any vessel to the contagion or infection of any infectious disease, or have been or are liable to communicate such disease, shall be destroyed by fire on said vessel.

REGULATION 1. *Information to be supplied by applicant.*—The owner, agent, or consignee of the vessel or cargo, or an officer of the vessel, or his or their duly authorized agent shall make a statement to the department of health, giving in detail the ports or points at which such vessel has touched, stopped, or docked, the kind and character of the cargo, and whether or not there is or has been any person sick on such vessel.

REG. 2. *Pratique to be presented.*—The permit or pratique obtained from the health officer of the Port of New York to pass quarantine must be presented to the department of health by the applicant before a permit to discharge the cargo or any part thereof shall be issued by the department of health.

Day Nurseries—Regulation of. (Reg. Dept. of Health, Mar. 30, 1915.)

Regulations of the Department of Health of the City of New York, adopted March 30, 1915, effective April 1, 1915, relating to section 198 of the Sanitary Code, which provides as follows:

SEC. 198. *Day nurseries; conduct thereof regulated.*—No day nursery shall be conducted in the City of New York without a permit therefor issued by the board of health or otherwise than in accordance with the terms of said permit and with the regulations of said board.

REGULATION 1. *Inspection of children on admission.*—Each child must be inspected on admission and if suspicious signs of contagious disease are noted, the child must be placed in the isolation room and kept entirely apart from the other children and the department of health notified at once.

REG. 2. *Isolation room to be provided.*—An isolation room for cases of suspected contagious diseases shall be provided.

REG. 3. *Rooms to be above street level.*—All rooms devoted to nursery or kindergarten purposes shall be above the street level unless there is a cellar underneath the room so occupied.

REG. 4. *Premises to be kept clean.*—The premises shall at all times be kept in a clean and sanitary condition. Dry dusting or sweeping is prohibited.

REG. 5. *Ventilation, light, and heat.*—Adequate ventilation, lighting, and heating shall be provided. Except in extremely cold weather, adequate ventilation must be maintained by means of open windows.

REG. 6. *Ventilation for outer garments.*—A well ventilated room for children's outer garments shall be provided. In this room the clothing removed from the children in the morning must be placed.

REG. 7. *Air space.*—A minimum of 200 cubic feet of air space for each child shall be provided.

REG. 8. *Floor space.*—Each iron bed or crib shall be placed so that there will be a space of 2 feet on all sides except where the head or sides of a bed or crib may touch the wall.

REG. 9. *Wire springs to be used; mattresses prohibited.*—Woven iron springs shall be provided; over which a folded blanket, protected by rubber or oilcloth sheeting, must be placed. Mattresses are not allowed.

REG. 10. *Use of common wash cloths, etc., prohibited.*—The use of common wash cloths, towels, combs, and hair brushes is prohibited.

REG. 11. *Diapers to be washed.*—All diapers that have become soiled during the day shall be immediately placed in water and thereafter thoroughly washed and boiled. No diapers in an unclean condition shall be removed from the premises.

REG. 12. *Over apron to be provided.*—Unless the clothing worn by a child is thoroughly clean on admission, a suitable over apron (the property of the day nursery) shall be worn through the day, and each individual apron shall be marked for identification, unless a clean apron is provided daily.

REG. 13. *Care of milk, etc.*—Adequate care must be taken of the milk, bottles, and nipples used in infant feeding.

REG. 14. *Excess admissions forbidden.*—No more children shall be admitted daily than are allowed by the permit of the board of health.

REG. 15. *Physician to be attached to nursery.*—Each day nursery in the city of New York shall have attached thereto a regular physician of its selection, duly licensed under the laws of the State, and in good professional standing, and immediately upon the appointment of said physician, the day nursery shall notify the director of the bureau of child hygiene of the name and address of said physician.

It shall be the duty of such physician:

(a) To make a systematic examination of every regular attending child at least twice a month, said examination to be made at least two weeks apart.

(b) To examine each child applying for admission and if suspicious signs of infectious disease are noted, to have such child placed in the isolation room, separate and apart from other children, and immediately notify the department of health, or if such child is found free from infectious disease, to issue a certificate to that effect and deliver same to the matron in charge of the nursery.

(c) To take a vaginal smear from every female child applying for admission and forward same to the department of health for examination, and not to issue a certificate of admission as provided in section (b) of Rule 15, unless the result of the examination of such smear shall be negative.

(d) To take later vaginal smears from all female children who have been denied admission because of gonorrhoeal vaginitis, or to have such smears taken by an inspector of the department of health.

REG. 16. *Duties of matron.*—It shall be the duty of the matron in charge of each day nursery in the city of New York—

(a) To have on file in the office of the nursery an original certificate of health, signed by the nursery physician, for each child that is a regular attendant.

(b) To have on file in the office of the nursery a record that each child regularly attending has been examined by the nursery physician at least twice a month, the said examinations to be not less than two weeks apart.

(c) To prevent the admission of children to the nursery until after they have been examined by the nursery physician and a certificate to the effect that they are free from infectious disease has been issued.

(d) To notify the department of health and the nursery physician immediately, by telephone, of any suspicious rash or illness which appears among the children, during the absence of the nursery physician, and to isolate any child or children so affected in the isolation room.

(e) To make daily inquiry of each mother or other person bringing the child as to whether or not any sickness exists in the child's home, and if any suspicion is aroused as to the possibility of such home sickness being of an infectious nature, the child shall be excluded and the department of health notified, and such exclusion shall continue until a certificate of the department of health is furnished to the effect that the premises referred to are free from infectious disease.

(f) To require that every certificate of health for a female child shall not be considered complete unless attached thereto is a certificate of the department of health to the effect that the examination of the vaginal smear is negative.

(g) To exclude any female child who has been shown by examination of a vaginal smear to be affected with gonorrhoeal vaginitis unless accompanied by a certificate of the department of health to the effect that two smears taken on successive days have shown negative results.

(h) To enforce all rules and regulations of the department of health for the conduct of day nurseries, in so far as they relate to lighting, heating, ventilation, cleanliness, and general sanitary condition of the day nursery under her charge, and the care and maintenance of the attending children and their clothing, and the character and method of preservation of food.