

# PUBLIC HEALTH REPORTS

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## THE PLAGUE SITUATION.

### PORTO RICO.

From August 21 to 27, both dates inclusive, no case of plague was reported in Porto Rico. The total number of cases reported, therefore, remains the same as that noted last week, namely, 49 cases, of which 33 occurred in San Juan. The work for the control and eradication of the disease is progressing rapidly and satisfactorily. Passed Asst. Surg. Creel, in charge of the work, reported August 21 that Asst. Surg. Williams would be ordered to Ponce for the purpose of opening a laboratory, supervising the ratproofing of buildings, and superintending the catching and poisoning of rats; that Asst. Surg. Ridlon would be ordered to Mayaguez to inaugurate and carry out similar work at that place; that the work to be performed at Ponce and Mayaguez would be similar to that being carried on in San Juan, although necessarily on a lesser scale; and that the work would include the catching and poisoning of rats, house to house inspection, enforcement of ratproofing laws, and especial attention to garbage disposal. A foreman and a gang of rat trappers have begun operations in Caguas, and all rats caught there will be forwarded to the laboratory at San Juan for examination. Ratproofing in San Juan is progressing rapidly, and within a comparatively short period this work will be completed in Puerta de Tierra and Santurce. Ratproofing in the older part of the city of San Juan will be slower of accomplishment, due to the greater congestion and the construction of the buildings.

**CUBA DECLARED FREE FROM PLAGUE IN ACCORDANCE WITH THE TERMS OF THE INTERNATIONAL SANITARY CONVENTION, SIGNED AT WASHINGTON, OCTOBER 14, 1905.**

Article IX of the International Sanitary Convention, signed at Washington October 14, 1905, to which both the Governments of Cuba and the United States are signatory, reads as follows:

ART. IX. That an area should no longer be considered as infected official proof must be furnished:

First. That there has been neither a death nor a new case of plague or cholera for five days after isolation, death, or cure of the last plague or cholera case. In the case of yellow fever the period shall be 18 days, but each Government may reserve the right to extend this period.

Second. That all the measures of disinfection have been applied; in the case of plague that the precautions against rats have been observed and in the case of yellow fever that the measures against mosquitoes have been executed.

In Cuba there have been in all three cases of plague in Habana. None has been reported elsewhere. The last case was reported July 22 and terminated fatally July 27. Many thousands of rats have been caught in the city of Habana, but of those examined none has been found plague infected.

Pursuant to Article IX, above referred to, the Cuban authorities have advised that Cuba is now to be considered free from plague, but that the collection and examination of rats in Habana will continue.

In compliance with the above the Secretary of the Treasury has waived, until further notice, restrictions on passenger traffic from Cuba to the United States. Precautions against the importation of rats from Cuba to the United States on vessels will be continued in conformity with the policy being carried out by the Cuban authorities.

#### KEY WEST, FLA.

##### Rat Examination—No Plague Infection Found.

During July the Florida State Board of Health began the examination of rats in Key West to ascertain whether plague infection was present.

One of the first rats examined was one which showed signs of being sick at the time it was killed. In order that there might be no question whatsoever regarding the nature of the disease with which this rat was suffering, Dr. Joseph Y. Porter, State health officer of Florida, requested the United States Public Health Service to send an officer experienced in the diagnosis of plague to examine the rat and corroborate the findings of the State bacteriologist. Pursuant to this request, Passed Asst. Surg. John F. Anderson, director of the Hygienic Laboratory, was sent to Key West. He found that the rat did not have plague. His report follows:

Upon my arrival in Key West I at once called upon Dr. R. L. Benson, bacteriologist of the State Board of Health of Florida, who was in charge of the State health laboratory in Key West. Dr. Benson gave me the following history of the rat:

The rat was caught on July 22 at a house situated on White Street, between Petrona and Olivia Streets, this location being somewhat remote from the docks. The rat was noticed to be slowly crawling across the floor of the dwelling and was kicked and killed by a boy residing therein. It was brought immediately to the laboratory.

*Autopsy.*—Hair almost entirely gone. Upon reflecting the skin over the chest and abdomen there was no subcutaneous injection; slight injection and enlargement of the inguinal glands on both sides; lymph glands in other portions of the body apparently normal; lungs apparently normal, except for a nodule in the right lung, which contained a mucoid-like material; small amount of yellowish fluid in the pleural cavity. Liver showed fine yellowish spots quite numerous and in addition several yellowish areas. Spleen dark and slightly enlarged.

Cultures made from the lung nodule, liver, and spleen showed a cocco-bacillus apparently in pure culture. No direct guinea-pig inoculations were made. A guinea pig was inoculated July 26 by the cutaneous method from culture made from the suspected rat and died July 29. At autopsy under surface of skin was found to be slightly reddened, but no general injection was present; inguinal glands slightly enlarged and hyperemic; other glands apparently normal. Liver was yellowish; the left margin of inferior surface showed an oval yellowish area; the anterior surface showed yellowish spots about the size of a pea; the left lobe was thickly studded with pinhead-size yellowish spots. Spleen was very dark, but not enlarged.

Cultures made from the spleen and liver on agar showed the same bipolar-staining cocco-bacillus that was noticed in the smears made from the suspected rat.

In addition to the inoculation of this guinea pig, Dr. Benson had inoculated other animals from the first guinea pig, and had, on my arrival, obtained the organism in pure culture.

Immediately upon my arrival cultures were made upon glucose broth, lactose broth, salt agar, and neutral agar.

Guinea pigs and white rats were inoculated, some subcutaneously and some cutaneously. Some of the animals, in addition, received antiplague serum. In 24 hours examination of the cultures showed the absence of involution forms upon salt agar; profuse and heavy growth upon salt agar and neutral agar; the formation of gas with acidity in glucose broth; a growth in lactose broth without change in reaction.

A guinea pig inoculated subcutaneously, and which had not received any antiplague serum, showed distinct evidence of illness within 18 hours after inoculation, and died in about 28 hours after inoculation. At necropsy the findings were in no way typical of plague.

The white rat inoculated by subcutaneous injection, and which had also received antiplague serum, died in about 36 hours after inoculation, some hours before the control animal, which had received no antiplague serum.

Based on the above findings, the opinion was arrived at that the organism isolated from the suspected rat was not the plague bacillus.

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### VIRULENT SMALLPOX.

For a number of years smallpox of a mild form has been widely prevalent throughout the United States. From time to time the virulent type of the disease has appeared in certain localities. During the past few weeks this virulent type of the disease has been present in the city of Los Angeles, Cal., and in the neighboring city of Pasadena. In Los Angeles from July 28 to August 17, 19 cases of smallpox were reported, with 7 deaths. In the neighboring city of Pasadena, during the latter part of July, there were 3 cases, with 2 deaths. Of the 7 deaths in Los Angeles, all occurred in persons who had never been vaccinated, with the exception of one case, which was in a person who had been vaccinated 30 years before the attack.

During the past few months virulent smallpox was also present in certain localities in Texas, the most pronounced outbreak being in Tarrant County.

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### LEPROSY.

The occurrence of two cases of leprosy in persons who had resided in Michigan for some years, noted on page 1437, brings again to general attention the need for some definite policy which will act uniformly throughout the country for the control and segregation of lepers. During the calendar year 1911 there were reported in the continental United States 41 cases of leprosy coming to official notice during the year. These 41 cases were distributed among 19 States.

At the beginning of the present year there was a total of 146 cases of leprosy known to be present in the country. These cases were under the supervision of the health authorities of 17 different States. Three States, namely, California, Louisiana, and Massachusetts, have established leprosaria, where lepers are segregated and cared for. In the other States cases are provided for in various ways and with varying degrees of segregation and control. The number of cases in many of these States is so small that it has been considered economically impracticable to make satisfactory provision for their control and care. It is a question, however, whether the sanitary welfare of the community and of future generations does not make it imperative that adequate provision be made for all cases. Quite a number of cases of leprosy have developed in persons born in the United States.

Leprosy is a disease which appears to require for its spread from the sick to the well a more or less prolonged or intimate contact. It is, however, an infectious disease, due to a specific microorganism, and each case represents a focus of infection from which other persons may become infected, if their association with the sick is sufficiently intimate or prolonged. There are but a comparatively few cases of leprosy now in the United States, but if this number is to be kept small and the burden of an ever-increasing number of lepers is not to be placed upon future generations, it is necessary that all foci of the infection be controlled and lepers segregated. This segregation will necessarily work some hardship upon the persons affected, but as the measure is for the welfare of the community at large, the segregation should be made as agreeable and devoid of inconvenience as it is practicable to make it.

Leprosy is sometimes compared with tuberculosis and the statement made that the latter disease is more contagious and more prevalent and the question is asked why take so much greater precautions with leprosy which is the less contagious of the two? If there were in the United States at the present time only a few hundred cases of tuberculosis, sanitary wisdom and the welfare of the Nation would warrant the careful and rigid segregation of all persons affected with the disease, and the community would do well to expend any reasonable amount of money that might be necessary to accomplish this segregation and to make the lives of those thus segregated not only free from hardship but in so far as possible, enjoyable in every way. This segregation would stamp out the disease and prevent its spread. The same result would be accomplished by the segregation of lepers.

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### POLIOMYELITIS (INFANTILE PARALYSIS).

Poliomyelitis (infantile paralysis) is at the present time epidemic in Buffalo, N. Y., and vicinity, and in Los Angeles, Cal. A greater number of cases than usual has also been reported in Cleveland, Ohio.

The first known outbreak of poliomyelitis in Buffalo was during the summer and autumn of 1910, during which time 24 cases were

reported to the health department. During 1911, 9 cases were reported. This present summer the disease has again appeared in epidemic form. Up to June 22 there had been only 3 cases reported, with 1 death. From June 22 to August 24 there have been 154 cases, with 19 deaths. The State and local authorities have been taking every possible precaution to control the disease, and at the request of the State commissioner of health of New York, Passed Asst. Surg. Frost, of the United States Public Health Service, was detailed to cooperate with the State and local authorities in the study of the epidemic as soon as it became apparent that the disease was unusually prevalent.

A careful epidemiological examination is being made of each case reported with a view to obtaining such information as is possible in regard to the source of the infection. Physicians are required to report all cases in which a definite diagnosis has been made, and have been urged to report also all cases in which there is any suspicion of the existence of the disease.

The city department of health is taking care of all cases referred to it in the contagious-disease hospital. The members of families in which cases occur are, in so far as possible, being isolated, both from contact with the patient and from association with other families. Premises are being fumigated three weeks after the onset of the illness in each case and immediately after the removal or death of the patient, and persons coming in contact with the patient are excluded from public gatherings for three weeks after such contact. Investigations have not as yet proceeded sufficiently far to lead to any definite conclusion regarding the origin of the disease or the means by which it is spread. The earlier cases appear to have occurred in the central and more congested part of the city. The later cases, however, have been widely scattered throughout all sections. The cases so far studied have been mainly of a rather mild type, and there have been but few instances of extensive paralysis. Cases of the disease have also occurred in Niagara Falls, Ontario, and at Crystal Beach, Ontario, a summer resort frequented by people from Buffalo.

In Los Angeles, Cal., there was reported from June 8 to August 17, 1912, a total of 226 cases of poliomyelitis, of which 43 ended fatally. The local authorities have taken active measures to control the disease. With its first appearance quarantine, without guard, was established in each case, the same as was in practice in connection with cases of diphtheria, but since August 6 strict isolation, with guards day and night, has been maintained. A municipal hospital for the treatment of the disease has been opened, and the sending of patients to this hospital is urged for the protection of other members of the family and of neighboring families, where strict isolation is not practicable in the home.

In Cleveland, Ohio, one case of poliomyelitis was reported during the week ended July 20, 2 cases during the week ended July 27, 9 during the week ended August 3, 12 cases with 2 deaths during the week ended August 9, and 6 cases with 2 deaths during the week ended August 16.

## THE PUBLIC HEALTH SERVICE TUBERCULOSIS SANATORIUM AT FORT STANTON.

### A DESCRIPTION OF THE SANATORIUM, WITH ESPECIAL REFERENCE TO WORK PERFORMED DURING THE YEAR ENDED JUNE 30, 1912.

By F. C. SMITH, Passed Assistant Surgeon, United States Public Health Service.

The Public Health Service established at Fort Stanton, N. Mex., in 1899 a sanatorium for the treatment of tuberculosis.

The sanatorium reservation comprises an area of 43 square miles, nearly all of which is inclosed with fence. About 200 acres are under cultivation, 10 acres in garden, the remainder in forage crops. The station has a central power plant, from which the machinery in kitchens, carpenter shop, laundry, dairy, pumping stations, and ice plant is driven. From the boilers seven buildings are heated, and steam is also supplied to the kitchens, laundry, dairy, and sterilizers. All buildings, including tent houses, are lighted by electricity.

No new building has been constructed since the United States Army abandoned this post in 1895, the present buildings, 30 or more, having been remodeled where necessary for sanatorium purposes. Eighty-seven tent houses, so called, have been constructed, however, each of which houses two patients. They are of two types, class A and class B, as shown by the illustrations. While such shacks have been found less desirable in eastern climates than more expensive wards, cottages, and pavilions, they possess certain advantages, in this climate, as set forth in "Economic housing of consumptives, with especial reference to the Southwest," by Surg. P. M. Carrington. (Sixth International Congress on Tuberculosis, Vol. I, p. 1042.) The cost of upkeep in a sanatorium where patients are housed in small shacks is, of course, greater than in one more compactly constructed, and the difficulty of maintaining the rigorous regimen essential to successful treatment is increased. On the whole, however, the plan has been found satisfactory except in occasional instances where patients have to be removed to wards for failure to comply with the tent rules. Two male nurses by day and a watchman at night assist the medical officers in enforcing the regulations considered necessary in the tent village.

#### TENT RULES.

1. The sole purpose of tents is to secure a maximum of ventilation. Nothing will be permitted to interfere with this.
2. Tents must be well ventilated at all times, both day and night. "Well ventilated" means awnings, front and side, up and rear window open. During violent rain, dust, or wind storms, weather side of tent may be closed. Curtains will not be permitted over rear windows.
3. Lockers must not be higher than side of tent. Mirrors, ornaments, or clothes must not be hung from screens, roof of tent, or otherwise so as to interfere with ventilation. Clothes lines should extend from tent to tent in the same row and not along side of tents.
4. Canvas must be rolled tight and all tents must have a uniform neat appearance; when wet, canvas may be let down for a short time to dry, patients staying outside during that time. Licensed men's tents must have eight panels completely open day and night.
5. Patients are to keep the ground clean around their tents, and each row will be held responsible for the condition of the street in front.

6. All refuse, such as apple peelings, cores, egg shells, lemon peelings, tobacco cans, empty match boxes, and papers, must be thrown into waste cans which are provided for this purpose. Patients are required to keep their tents free from flies.

7. Firewood, buckets, mops, etc., should be neatly arranged in position on the uphill side of tents.

8. All ambulatory patients will be required to rest on their beds from the conclusion of the dinner hour until 2.30 p. m. each day. Patients on the pay roll are excepted. All other exceptions, as of patients privately employed, must be made individually by the medical officer in charge of the tent village.

The average number of patients in the infirmary is 35. Many of these are temporary admissions from the ambulant squad for hemorrhage or complications incident to their disease. During the past fiscal year there were 56 deaths in the wards.

Two trained female nurses, assisted by two male orderlies, are on duty during the day, and a male nurse is on duty at night. Bed patients are served directly from the hospital kitchen, and the hospital dining room accommodates about 35 patients who require special diets. The main dining room, where ambulant patients are served, accommodates about 200.

#### ALTITUDE AND LOCATION.

Patients sometimes think that the altitude, 6,200 feet, is too high for their particular case, but this is an infrequent complaint. During the past year only one patient has been recommended for transfer to other stations on this account and in no others have ill effects been noted. The patient transferred was one who came to the sanatorium at his own expense without seeking advice of the officer at his local relief station. This indicates that the cases recommended by the service officers for transfer to this station are carefully selected and that untoward effects of this altitude on such cases are not frequent. Reviewing the experience at this station during the 13 years of its existence there is no reason to question the wisdom of selecting this location. The increased expense due to its isolation is probably much more than offset by the advantages of removal from sources of acute infection and from the temptations which near-by cities afford for desertions and other indiscretions. The location as regards the United States as a whole is fairly central and while the relative importance ascribed to this climate in the treatment of tuberculosis has lessened in recent years there is no disposition to deny its considerable benefits to those who can also secure the other essentials of treatment.

#### BENEFICIARIES AND GENERAL POLICY.

Tuberculous seamen and other beneficiaries admitted to any of the 22 marine hospitals on the coasts and rivers of the United States are, if considered suitable cases for transfer, sent to this sanatorium. Cases of pulmonary tuberculosis considered unsuitable for transfer are those in which pulse rate and temperature remain elevated in spite of rest in bed, chronic fibroid cases, and those complicated by asthma, by uncompensated valvular disease of the heart, by chronic alcoholism, or by advanced tuberculous involvement of other vital organs. Such regulations as have been made against the transfer of unsuitable cases have had in view only the welfare of the individual patient. No attempt has been made to make a record of cures, but on the other hand a patient once admitted is encouraged to remain

if his disease is seen to be taking an unfavorable course. Over 50 per cent of the cases are far advanced on admission and only a small proportion are incipient. From the opening of the institution in 1899, to June 30, 1912, 1,937 patients were discharged with the following results:

Apparently cured.....	229
Arrested.....	291
Improved.....	565
Unimproved.....	184
Dead.....	668

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1,937

Six hundred and sixty-eight patients have died here of tuberculosis, the average duration of treatment in these being 11 months and 25 days. Practically all bodies are interred in the sanatorium cemetery. A discussion of the relative usefulness of those sanatoria reserved exclusively for early cases and those which, like Fort Stanton, admit both early and late cases, is out of place here, but it will be seen that this sanatorium has shared fully in the care of those most dangerous to the public health besides restoring more favorable cases to a working capacity, although the majority of deaths from tuberculosis among the beneficiaries of this service still occur, of course, in the local marine hospitals among cases unsuitable for transfer. There is no limit to the time the patient may stay, and the average duration of treatment in all cases is 1 year 5 months and 16 days. Arrested cases are restored tentatively to active life, first by graduated exercise, by walking, and light work, and later by employment with monetary compensation for a few months. Patients must defray their own travel expenses when leaving the sanatorium. No patient is retained after reaching a capacity for work sufficient to earn his living without detriment to his health. Effort is made to keep in touch with those discharged, and readmissions are frequent in cases of relapse.

#### TREATMENT.

Rest, food, and fresh air are the only curative measures depended upon in treating active tuberculosis. Some medicines are given to allay acute symptoms. Brandy is used in the infirmary only, and there in small amount and usually in the making of egg-nogs. Conservative surgery is employed when indicated in some of the complications of the disease and during the year 3 major and 30 minor operations were performed at this station. Individualization in all matters related to the treatment of tuberculosis is recognized as imperative to success. For some the matter of nutrition is all important, for others rest in bed or the correction of complications is the key to success. All have to be taught the meaning of unlimited ventilation, and each patient has to be repeatedly instructed in matters pertaining to the treatment of his own particular case. In the matter of discharge from the sanatorium the tendency of some is to leave too soon while others more cautious and apprehensive have to be reassured and encouraged to leave the institution.

The use of tuberculin was discontinued at this station after the last series of cases reported in the "Transactions of the Seventh Annual Meeting of the National Association for the Study and Prevention of

Tuberculosis." Those cases were under observation approximately a year before and a year after tuberculin treatment was given, thus affording opportunity to observe the therapeutic effects of tuberculin in conjunction with the ordinary hygienic-dietetic treatment. It was the unanimous conclusion of all the officers who did the work that no benefit was observed from the use of either of the two kinds of tuberculin employed. I believe, moreover, that there is a growing scepticism among sanatorium physicians as to the therapeutic efficacy of tuberculin and a gradual limitation of its use to private practice and those sanatoria where some special effort is needed on the part of the practitioner to keep in intimate touch with his patients and, in short, that the benefit of tuberculin is limited chiefly to the effect of its administration on the mental condition of the patient. No experiments have been made with induced pneumothorax nor with any of the various new remedies proposed from time to time, as it is believed a conservative policy is better with reference to such innovations.

The matter of exercise has received close attention. Recognizing the essential chronicity of this disease it seems to be the tacit policy of all public institutions to aim to restore the patient to a working capacity as soon as possible. Without in any way relinquishing our former beliefs in the curability of pulmonary tuberculosis, some early ideas as to the nature of the cure have been modified in recent years. It is recognized that an anatomical cure of a far-advanced case of tuberculosis is an impossibility, and that to retain the patient in an institution simply because he has tubercle bacilli in his sputum and physical signs in his chest is unwise if he has at the same time become free from the clinical symptoms of the disease. It is recognized, moreover, that the extent of the lesion is not always an index to the patient's capacity for work and his fitness for discharge. All patients, therefore, whose disease has become quiescent and who are in good general physical condition are required to do light work, usually from one to two hours a day. This consists of policing the grounds, splitting kindlings at a long bench provided at the carpenter shop for this purpose, picking stones, mowing weeds, working in the garden, handing wood to the power saw, cleaning in the hospital, washing glassware in the laboratory, painting, etc. Patients who have private industries of their own are excused from this detail exercise, but limited in their own activities by their advising physician.

Patients who have convalesced to the point where their discharge is contemplated are usually given paid employment for a few months. This test enables us to detect any symptoms of exacerbation produced by manual labor, it hardens the patient's muscles, and prepares him for return to active life, and it also provides him means to leave the institution. It can not be denied that the efficiency of the station force is at times somewhat lessened by the employment of sailors unskilled in farm or sanatorium work, but it meets the sociological requirements of the situation and is undoubtedly an important part of the purpose for which the institution was established.

The economic value to the institution of unpaid labor given as exercise is not great, as it is more than offset by the close supervision necessary to insure benefit to the patients. The therapeutic and disciplinary value of such exercise, however, is considerable. The diversion afforded by having something definite to do at stated intervals, the satisfaction at being able to do it, and the tonic effect

of moderate exercise all react favorably on the patient's mental and physical condition. The duties, moreover, serve to identify the individual with the spirit and routine of the institution with resultant improvement in order and discipline.

The number of patients taking work in the exercise detail is variable, but during March (month selected at random) the weekly reports of the officer in charge of the ambulant cases showed that exercise was taken as follows:

*Exercise details, month of March, 1912.*

Detail.	Number of assignments.	Number of hours work.
Passing wood to saw.....	159	203½
Painting.....	26	26
Scrubbing hospital.....	24	24
Cleaning laboratory.....	7	7
Washing bottles in dairy.....	6	6
Picking up stones and bones.....	87	130
Picking up wood.....	31	40
Making flower beds.....	26	34
Fixing egg crates.....	29	32
Screening sawdust.....	6	6
Chipping boiler tubes.....	6	6
Cutting surveyor's stakes.....	3	3
	410	517½

**DENTISTRY.**

It has long been felt that the very insanitary condition of the teeth has seriously retarded the progress of many patients. Pyorrhea alveolaris is especially common among seamen, and the consequent interference with mastication and constant absorption of septic products is a well known cause of depreciated health. From November, 1911, to June, 1912, this station was fortunate in having the free services of a dentist, who was himself suffering from pulmonary tuberculosis. The benefit to the patients has been very marked. A glance at the following table will give an idea of the work accomplished.

*Dental operations, November 1911, to June, 1912.*

Examinations only.....	31
Fillings:	
Amalgam.....	127
Cement.....	112
Combination.....	11
Roots.....	22
Plate, partial.....	2
Bridge repairs.....	5
Porcelain crown.....	1
Pulps capped and preserved.....	39
Pulps devitalized.....	5
Extractions:	
Roots.....	127
Teeth.....	31
Scaling and polishing.....	73
Alveolar abscess treatments.....	174
Pyorrhea treatments.....	116
Necrosed bone operation.....	3
Grinding and polishing elongated teeth.....	4

## DIET.

The dietitian authorized this year by the bureau has greatly increased the efficiency of the kitchens, dining rooms, etc., and has facilitated a study of our ration. Caloric estimates have been made from time to time, which have served well as a preliminary study. Some interesting facts have been developed, as follows:

The very sick, confined to bed in the infirmary, were found to consume only an average of 1,458.974 calories per day each; protein, 48.682 grams; fats, 62.163 grams; carbohydrates, 166.165 grams. This included raw eggs and milk, which are freely offered to this class of patients, and was the maximum amount which they could be persuaded to take.

The semiambulant patients and those requiring special dietetic treatment, who take their meals in the diet kitchen in the infirmary building, were found to consume 3,146.65 calories each per day; protein, 112.99 grams; fats, 156.68 grams; carbohydrates, 375.06 grams. This was on selected diet calculated to tempt their appetites and encourage digestion.

The remaining patients, about 170 in number, all ambulant and taking their meals at the main dining room, consumed 4,029.50 calories per day each; protein 130 grams, fats 203 grams, carbohydrates 446 grams. This amount was consumed in three meals with an additional pint of milk at 7 p. m. No extra meals or lunches are issued this class of patients between meals, and no raw eggs, except to a very few who consume them at table in preference to the cooked. It would appear that extra meals are not needed for the majority of tuberculous patients, and in practical experience it has been found better to discourage eating between meals and to encourage a leisurely consumed full meal of mixed diet three times a day.

One estimate was made of the consumption by convalescent patients who were working 8 to 10 hours per day on the force of attendants. These were 30 in number, who were on the same full diet as the ambulant patients but sat at a different table and were served at a different time. Their consumption amounted to 3,923 calories per day each, or a little less than the ambulant patients consumed.

This might be accounted for by the fact that these men had reached the stage where they were reassured as to their condition and consequently ate less, and also by the fact that some of them, such as night firemen, nurses, etc., were unavoidably compelled to hurry through their meals, whereas the patients were able to eat more slowly.

An estimate was made of the consumption by the healthy farm hands. These are natives of New Mexico, 16 in number. They are served practically the same food that the patients get, although lacking sometimes a few delicacies, and are served in a separate room. As might be expected, their consumption exceeded that of the patients amounting to 4,191.19 calories per day each; protein, 143.80 grams; fats, 189.05 grams; carbohydrates, 447.50 grams. This did not include the pint of milk which is issued to patients, but not to workingmen, although milk in limited quantities is served to workingmen at table.

Touching general considerations of diet for tuberculous patients, effort has been made to follow the plan adopted in practically all

sanatoria, which is to give a full mixed diet without emphasizing the importance of any particular kind of food and without attempting to cut down any special kind of food, such as proteins. The experiments which have been made at other sanatoria on a light proteid diet have been carefully considered, and especially the fact that two excellent sanatoria in New York State, which were the chief exponents of a low proteid diet, have both abandoned this plan and have resumed the full mixed diet. Attention has been paid to variety and service, and, through the dietitian, this is practicable and successful. Permanent records have been made of the daily menus, in both dining room and diet kitchen, since January 1, and selection has been made by lot of one month's menus from the main dining room for the last half of the fiscal year, which are published below. The diet kitchen menus included a somewhat greater variety, as "short orders" are allowed for breakfast and supper.

The cost of the ration is given elsewhere in this report.

Each meal is inspected by an officer of the station, who remains in the dining room during the largest part of the time, tastes dishes, invites and receives complaints, and reports any necessary corrections to the commanding officer. In this, as in other things, unremitting watchfulness is the price of success. And for the many thousand details incident to kitchen and dining-room supervision the constant presence of some capable person, such as the dietitian, is essential.

#### JUNE 1.

*Breakfast.*—Oatmeal, bacon, fried and boiled eggs, hashed brown potatoes, buck-wheat cakes, bread, tea, coffee, milk.

*Dinner.*—Purée of split pea soup and crackers, baked short ribs and brown gravy, boiled beef and tomato sauce, brown potatoes, boiled rice, string beans, raisin pie, bread, iced tea, coffee, milk.

*Supper.*—Mutton chops and country sauce, cold sliced meats and chopped onions, herring and drawn butter, boiled potatoes, succotash, stewed peaches, chocolate cake, bread, cornmeal muffins, tea, milk.

#### JUNE 2.

*Breakfast.*—Oatmeal, fried ham, fried and boiled eggs, cottage fried potatoes, dry toast, bread, tea, coffee, milk.

*Dinner.*—Consommé of vermicelli and crackers, roast leg of mutton and brown gravy, mashed potatoes, asparagus on toast, green peas, baking powder biscuits, bread, chocolate cornstarch pudding, iced tea, coffee, milk.

*Supper.*—Cold sliced ham and beef, sardines in mustard sauce, potato salad, cheese, pickled onions, cake, canned pears, cream puffs, bread, tea, milk.

#### JUNE 3.

*Breakfast.*—Oatmeal, bacon, fried and boiled eggs, German fried potatoes, wheat cakes, bread, tea, coffee, milk.

*Dinner.*—Rice tomato soup and crackers, beef Spanish, boiled potatoes, spinach and chopped eggs, string beans and French dressing, hot rolls, bread, rice custard and milk sauce, iced tea, coffee, milk.

*Supper.*—Spanish stew, kidney and ham hocks, chipped beef and cream, lyonnaise potatoes, canned plums, cake, bread, tea, milk.

#### JUNE 4.

*Breakfast.*—Oatmeal, fried ham, fried and boiled eggs, hashed brown potatoes, baking powder biscuits, bread, tea, coffee, milk.

*Dinner.*—Purée of navy beans and crackers, roast beef au jus, mashed potatoes, spinach and chopped eggs, ham jambolaya, bread, cherry pie, iced tea, coffee, milk.

*Supper.*—Steak, potatoes in cream, Italian spaghetti, lima beans, brown muffins, bread, stewed apples, tea, milk.

## JUNE 5.

*Breakfast.*—Oatmeal, bacon, fried and boiled eggs, mashed brown potatoes, wheat cakes, bread, tea, coffee, milk.

*Dinner.*—Vegetable soup and crackers, beef à la mode and onion sauce, boiled potatoes, string beans, hot rolls, bread, boiled custard, iced tea, coffee, milk.

*Supper.*—Liver sauté, Hamburg à la Tartar, baked pork and beans, corn fritters, escalloped potatoes, bread, stewed prunes, cake, tea, milk.

## JUNE 6.

*Breakfast.*—Oatmeal, fried ham, fried and boiled eggs, mashed brown potatoes, buttered toast, bread, tea, coffee, milk.

*Dinner.*—Cream of rice soup and crackers, roast beef and brown gravy, mashed potatoes, stewed tomatoes, pumpkin pie, bread, iced tea, coffee, milk.

*Supper.*—Mutton chops, cold meats, lyonnaise potatoes, succotash, hominy, chile con carne, cornmeal muffins, bread, stewed peaches, devil's food, tea, milk.

## JUNE 7.

*Breakfast.*—Oatmeal, bacon, mackerel, boiled and fried eggs, boiled potatoes, wheat cakes, bread, tea, coffee, milk.

*Dinner.*—Barley soup and crackers, Hamburg loaf and brown gravy, Irish stew, baked pork and beans, boiled potatoes, green peas, hot rolls, bread, chocolate corn-starch, iced tea, coffee, milk.

*Supper.*—Codfish and pork scraps, cold meats, chipped beef in cream, boiled potatoes, stewed corn, canned peaches, chocolate cake, bread, tea, milk.

## JUNE 8.

*Breakfast.*—Oatmeal, fried ham, fried and boiled eggs, hashed brown potatoes, bread, wheat cakes, tea, coffee, milk.

*Dinner.*—Consommé soup and crackers, boiled beef and Spanish sauce, boiled potatoes, string beans, ham jambolaya, lemon pies, bread, iced tea, coffee, milk.

*Supper.*—Steak, herring, boiled potatoes, Mexican beans and ham hocks, corn bread, bread, stewed apples, ginger bread, tea, coffee, milk.

## JUNE 9.

*Breakfast.*—Oatmeal, bacon, fried and boiled eggs, German fried potatoes, wheat cakes, bread, tea, coffee, milk.

*Dinner.*—Cream of rice soup and crackers, roast beef and brown gravy, mashed potatoes, green peas, tea biscuits, bread, chocolate ice cream and cake, iced tea, coffee, milk.

*Supper.*—Cold sliced ham and beef, sardines in mustard sauce, potato salad, cheese, canned pears, cream puffs, ginger bread, bread, tea, coffee, milk.

## JUNE 10.

*Breakfast.*—Oatmeal, fried ham, fried and boiled eggs, cottage fried potatoes, dry toast, bread, tea, coffee, milk.

*Dinner.*—Cream of tomato soup and crackers, beef à la mode and tomato sauce, roast mutton and brown gravy, boiled potatoes, stewed tomatoes, hot rolls, iced tea, coffee, milk.

*Supper.*—Baked pork and beans, potatoes au gratin, corn fritters, spring onions, stewed peaches, bread, cake, tea, milk.

## JUNE 11.

*Breakfast.*—Oatmeal, bacon, fried and boiled eggs, German fried potatoes, buck-wheat cakes, bread, tea, coffee, milk.

*Dinner.*—Purée of split pea and crackers, baked short ribs and brown gravy, Hamburg rolls and brown gravy, brown potatoes, string beans, lettuce salad, peach pie, bread, iced tea, coffee, milk.

*Supper.*—Spanish stew, cold meats, lima beans and cream sauce, braized potatoes, spring onions, canned plums, coconut cake, bread, tea, milk.

## JUNE 12.

*Breakfast.*—Oatmeal, ham, fried and boiled eggs, lyonnaise potatoes, wheat cakes, bread, tea, coffee, milk.

*Dinner.*—Vegetable soup and crackers, roast beef and brown gravy, mashed potatoes, stewed corn, spring onions, hot rolls, bread, rice custard, iced tea, coffee, milk.

*Supper.*—Liver sauté, kidney beans and ham hocks, French fried potatoes, corn-meal muffins, stewed prunes, coconut cake, tea, milk.

## JUNE 13.

*Breakfast.*—Oatmeal, bacon, fried and boiled eggs, German fried potatoes, dry toast, bread, tea, coffee, milk.

*Dinner.*—Cream of vermicelli and crackers, beef à la mode and horseradish sauce, boiled potatoes, string beans, lettuce salad, pumpkin pie, bread, iced tea, coffee, milk.

*Supper.*—Beef stew, cold sliced meats, succotash, lyonnaise potatoes, spring onions, wheat muffins, canned peaches, cake, tea, milk.

## JUNE 14.

*Breakfast.*—Oatmeal, fried ham, mackerel, fried and boiled eggs, boiled potatoes, wheat cakes, bread, tea, coffee, milk.

*Dinner.*—Barley tomato soup and crackers, roast beef and brown gravy, pork and beans, spinach and chopped eggs, boiled potatoes, spring onions, bread, sago pudding, iced tea, coffee, milk.

*Supper.*—Salmon, boiled potatoes, spaghetti Italian, cracked hominy, bread, stewed peaches, cake, cornbread, tea, milk.

## JUNE 15.

*Breakfast.*—Oatmeal, bacon, fried and boiled eggs, hashed brown potatoes, wheat cakes, bread, tea, coffee, milk.

*Dinner.*—Cream of rice soup and crackers, beef à la mode and mustard sauce, hering, boiled potatoes, string beans, spring onions, cherry pie, iced tea, milk, coffee.

*Supper.*—Hamburg à la creole, codfish and pork scraps, baked pork and beans, boiled potatoes, brown muffins, canned pears, chocolate cake, rye bread, tea, milk.

## JUNE 16.

*Breakfast.*—Oatmeal, fried ham, fried and boiled eggs, German fried potatoes, buckwheat cakes, rye bread, tea, coffee, milk.

*Dinner.*—Cream of chicken soup and crackers, chicken fricassee and boiled rice, mashed potatoes, asparagus on toast, lettuce salad, tea biscuits, ice cream and cake, bread, iced tea, coffee, milk.

*Supper.*—Cold sliced ham and beef, sardines in mustard sauce, potato salad, cheese, Boston baked beans, spring onions, canned cherries, cake, tea, milk, bread.

## JUNE 17.

*Breakfast.*—Oatmeal, bacon, fried and boiled eggs, German fried potatoes, wheat cakes, bread, tea, coffee, milk.

*Dinner.*—Consommé of rice and crackers, roast beef and brown gravy, mashed potatoes, stewed corn, spring onions, hot rolls, boiled custard, iced tea, rye bread, coffee, milk.

*Supper.*—Beef currie and boiled rice, cold meats, brown beans and ham, pickled onions, lyonnaise potatoes, bread, stewed apples, cake, tea, milk.

## JUNE 18.

*Breakfast.*—Oatmeal, fried ham, fried and boiled eggs, mashed brown potatoes, buckwheat cakes, bread, tea, coffee, milk.

*Dinner.*—Cream of tomato soup and crackers, beef Spanish, boiled potatoes, string beans, spring onions, raisin pie, bread, iced tea, coffee, milk.

*Supper.*—Chicken jambolaya, escalloped potatoes, succotash, corn-meal muffins, lettuce salad, canned plums, bread, cake, tea, milk.

## JUNE 19.

*Breakfast.*—Oatmeal, bacon, fried and boiled eggs, hashed brown potatoes, wheat cakes, bread, tea, coffee, milk.

*Dinner.*—Cream of macaroni soup and crackers, roast beef and brown gravy, boiled potatoes, green peas, lettuce salad, hot rolls, rice custard, bread, iced tea, coffee, milk.

*Supper.*—Liver sauté, kidney beans and ham, French fried potatoes, corn fritters, stewed prunes, bread, cake, tea, milk.

## JUNE 20.

*Breakfast.*—Oatmeal, fried ham, boiled and fried eggs, German fried potatoes, tea biscuits, bread, tea, coffee, milk.

*Dinner.*—Purée of split pea and crackers, beef à la mode and tomato sauce, boiled potatoes, string beans, spring onions, bread, pumpkin pie, iced tea, coffee, milk.

*Supper.*—Spanish stew, cold sliced meats, baked pork and beans, Lyonnaise potatoes, lettuce salad, canned peaches, cake, tea, milk.

## JUNE 21.

*Breakfast.*—Oatmeal, bacon, mackerel, fried and boiled eggs, boiled potatoes, wheat cakes, bread, tea, coffee, milk.

*Dinner.*—Vegetable soup and crackers, roast beef and brown gravy, salmon, boiled potatoes, stewed corn, hot rolls, bread, chocolate cornstarch pudding, lettuce salad, iced tea, coffee, milk.

*Supper.*—Hamburg à la creole, codfish and pork scraps, boiled potatoes, boiled rice, Italian spaghetti, stewed peaches, bread, cake, tea, milk.

## JUNE 22.

*Breakfast.*—Oatmeal, fried ham, fried and boiled eggs, German fried potatoes, wheat cakes, bread, coffee, tea, milk.

*Dinner.*—Purée of navy bean and crackers, beef à la mode, mustard sauce, boiled potatoes, green peas, lettuce salad, peach pie, bread, iced tea, coffee, milk.

*Supper.*—Steak, herring, boiled potatoes, spring onions, lima beans, canned plums, cake, bread, tea, milk.

## JUNE 23.

*Breakfast.*—Oatmeal, bacon, fried and boiled eggs, hashed brown potatoes, wheat cakes, bread, tea, coffee, milk.

*Dinner.*—Cream of chicken soup and crackers, chicken fricassee and boiled rice, mashed potatoes, spinach and chopped eggs, lettuce salad, tea biscuits, bread, vanilla ice cream and cake, iced tea, coffee, milk.

*Supper.*—Cold sliced ham and beef, sardines in oil, baked beans, potato salad, spring onions, white cherries, cheese, cake, bread, tea, milk.

## JUNE 24.

*Breakfast.*—Oatmeal, fried ham, fried and boiled eggs, cottage fried potatoes, wheat cakes, bread, tea, coffee, milk.

*Dinner.*—Rice tomato soup and crackers, roast beef au jus, mashed potatoes, stewed corn, lettuce salad, hot rolls, bread, baked custard, iced tea, coffee, milk.

*Supper.*—Liver sauté, Mexican beans and ham, Lyonnaise potatoes, spring onions, stewed apples, cake, bread, tea, milk.

## JUNE 25.

*Breakfast.*—Oatmeal, bacon, fried and boiled eggs, German fried potatoes, wheat cakes, bread, tea, coffee, milk.

*Dinner.*—Cream of vermicelli soup and crackers, beef à la mode and tomato sauce, boiled potatoes, string beans, spring onions, bread, pumpkin pie, iced tea, coffee, milk.

*Supper.*—Steak, chicken jambolaya, escalloped potatoes, succotash, lettuce salad, cornmeal muffins, bread, canned plums, ginger bread, tea, milk.

## JUNE 26.

*Breakfast.*—Oatmeal, ham, fried and boiled eggs, German fried potatoes, wheat cakes, bread, tea, coffee, milk.

*Dinner.*—Macaroni tomato soup and crackers, roast beef and brown gravy, mashed potatoes, green peas, lettuce salad, lemon cream pudding, hot rolls, bread, iced tea, coffee, milk.

*Supper.*—Hamburg roast and brown gravy, kidney beans and ham, potatoes au gratin, corn fritters, stewed peaches, ginger bread, bread, tea, milk.

## JUNE 27.

*Breakfast.*—Oatmeal, bacon, steak, fried and boiled eggs, mashed brown potatoes, buttered toast, bread, tea, coffee, milk.

*Dinner.*—Cream of vermicelli soup and crackers, beef à la mode and spiced gravy, boiled potatoes, stewed corn, lettuce salad, rice custard, bread, iced tea, coffee, milk.

*Supper.*—Beef stew, cold sliced meats, baked pork and beans, spring onions, canned peaches, cake, bread, tea, milk.

## JUNE 28.

*Breakfast.*—Oatmeal, fried ham, fried and boiled eggs, hashed brown potatoes, buckwheat cakes, bread, tea, coffee, milk.

*Dinner.*—Consommé of rice and crackers, roast beef and Espanol mashed potatoes, string beans, spring onions, pork and beans, hot rolls, bread, cottage pudding and vanilla sauce, iced tea, coffee, milk.

*Supper.*—Beef curry and boiled rice, cold meats, sardines in oil, potatoes in cream, lettuce salad, stewed prunes, cake, bread, tea, milk.

## JUNE 29.

*Breakfast.*—Oatmeal, bacon, fried and boiled eggs, German-fried potatoes, wheat cakes, bread, tea, coffee, milk.

*Dinner.*—Purée of split pea and crackers, beef Spanish, boiled potatoes, green peas, spring onions, bread, cherry pie, iced tea, coffee, milk.

*Supper.*—Steak, codfish and pork scraps, boiled potatoes, succotash, lettuce salad, corn-meal muffins, canned plums, cake, bread, tea, milk.

## JUNE 30.

*Breakfast.*—Cream of wheat, fried ham and eggs, lyonnaise potatoes, toast, oranges, bread, tea, coffee, milk.

*Dinner.*—Rice tomato soup and crackers, roast beef and brown gravy, mashed potatoes, spinach and chopped eggs, lettuce salad, tea biscuits, bread, chocolate, ice cream and cake, iced tea, coffee, milk.

*Supper.*—Cold sliced ham and beef, sardines in mustard sauce, potato salad, cheese, spring onions, canned white cherries, cake, cream puffs, bread, tea, milk.

The actual cost of this ration was \$0.3516 per day, exclusive of beef and milk, which were produced on the station.

## ULTIMATE RESULTS OF TREATMENT.

During the past year effort has been made to trace discharged patients. This was attended with unusual difficulties because seamen so frequently change their addresses. It was found most practicable to use the addresses of relatives given when the seamen entered the sanatorium. A list of 332 names, mostly without any address, was also published gratis by the Coast Seamen's Journal, to which thanks are due for the valuable assistance rendered. In all, 1,239 inquiries were made. Three hundred and twenty-nine replies only were received. In most of the other instances the letters were returned, having failed to reach the addressee. Forty-six inquiries answered conveyed no information as to whether the patient was

living or dead. In addition to this a considerable number of patients were located through correspondence with seamen now present. In all, the condition of only 326 patients was ascertained. The results are given in tabular form below, classified as to condition on arrival and discharge.

*Ultimate results of treatment.*

Present condition of ex-patients discharged prior to Dec. 31, 1911.	Incipient.				Moderately advanced.				Far advanced.				Total.
	Apparently cured.	Arrested.	Improved.	Not improved.	Apparently cured.	Arrested.	Improved.	Not improved.	Apparently cured.	Arrested.	Improved.	Not improved.	
Living and in good health.....	17	7	4	2	11	11	18	3	6	7	4	1	91
Living and in fairly good health.....	1	.....	.....	2	1	4	4	3	.....	.....	5	3	23
Living and in poor health.....	1	.....	1	1	.....	9	3	1	2	5	6	2	31
Living, condition not known.....	1	1	.....	.....	1	1	.....	.....	.....	.....	.....	.....	4
Living or dead not known.....	2	.....	2	.....	6	1	20	2	.....	4	5	4	46
Dead, reported by letter.....	.....	3	2	1	8	7	38	8	.....	9	39	21	136
Dead, reported indirectly by other patients.....	.....	1	.....	1	8	10	12	3	3	17	13	11	79

The results of this inquiry were not gratifying in any way, but from the manner in which our inquiries had to be made we believe we were more apt to learn of a death than a recovery. Of the 91 living and in good health, 63 had been absent more than two years, and 20 of these more than five years. Of the 215 dead, about one-half died within two years, and of these 62 within one year. Although encouraged to remain, a certain number of those hopelessly ill will leave the institution in the hope of improvement elsewhere.

**WORK OF THE FISCAL YEAR ENDING JUNE 30, 1912.**

*General information.*

Patients present July 1, 1911.....	178
Admitted during the year.....	176
Patients discharged during the year.....	178
Deaths (included in preceding item).....	56
Patients present June 30, 1912.....	176
Maximum number of patients during year.....	220
Minimum number of patients during year.....	173
Total number of days treatment furnished patients.....	71, 905
Officers and attendants.....	77
Patients who left against advice.....	13
Patients discharged for causes affecting discipline.....	5
Patients transferred to other stations:	
For insanity.....	2
For dyspnea.....	1

3

*Patients discharged during the year, with stage of disease and result of treatment.*

	Appar- ently cured.	Arrested.	Im- proved.	Unim- proved.	Dead.	Total.
Incipient.....	10	9	12	12		23
Moderately advanced.....	7	14	10	2	8	41
Far advanced.....	3	34	13	11	47	108
Nontuberculous (lungs).....						2
Cases admitted, discharged, readmitted and discharged.....						4
Total.....						178

1 under treatment less than 30 days.

2 under treatment less than 30 days.

Fifty-eight deaths occurred during the year, 56 among the patients and 2 among tuberculous attendants.

*Cause of death.*

Tuberculosis of the lungs.....	35
Tuberculosis of the lungs and hemorrhage:	
Sudden.....	6
Broncho-pneumonia.....	4
	10
Tuberculosis of the lungs and larynx.....	5
Tuberculosis of the lungs and intestines.....	3
Tuberculosis of the lungs and meninges.....	1
Tuberculosis of the lungs and Bright's disease.....	1
Tuberculosis of the lungs and kidneys.....	1
Tuberculosis of the lungs and pyo-pneumothorax.....	1
Other causes than tuberculosis.....	1
Total deaths.....	58

The most striking thing in the above table is the large number of deaths due to pulmonary hemorrhage. Up to the present time there have been 72 deaths from pulmonary hemorrhage at this station out of a total of 673 deaths occurring here. Studies on this subject have been made from time to time, the last in Public Health Reports, October 7, 1910, entitled "Pulmonary hemorrhage in the tuberculous at high altitudes." No records are available of any other institution that reports as high a death rate from pulmonary hemorrhage as this, although there are several in this country at equal or greater altitudes. It is probable that the accurate records kept, according to the regulations of the Public Health Service, have revealed facts by no means peculiar to this institution but not generally noted by others.

**AMUSEMENTS.**

A private organization of patients and attendants, in which the officers also cooperated, has provided numerous amusements for the patients during the year. The isolation of this station throws it upon its own resources in this respect. The motion-picture machine, phonograph, balopticon, and other equipment, valued at \$561.35, and privately purchased by this association some time ago, have all been used. Accurate records have been kept of only the last half of the fiscal year, but during that time a motion-picture show of four films was given every week, to which all patients were invited. These shows were well attended and greatly enjoyed. A traveling troupe

of 14 persons was also engaged on one occasion and gave a successful entertainment, and the baseball team has been equipped and some amusement derived from it under the auspices of the amusement association. During the past six months \$550.27, private funds, have been expended for amusement purposes; \$316 of this was donated by officers, attendants, and patients, the balance having been derived from miscellaneous sources. Waste material from the public dump, such as old barrels, egg cases, bags, etc., thrown away by contractors supplying the station, was collected and sold by patients to the amount of \$88.45 for this fund.

#### EARNINGS OF PATIENTS DURING TREATMENT.

As mentioned elsewhere in this report it is the policy of the institution to give some paid employment to patients about to be discharged and usually the result is not given as "arrested" or "apparently cured" unless the subject has had two months' work. During the last fiscal year there have been 191 changes in the personnel or a change every 1.91 days, mostly occasioned by the shifting of patients on and off the pay roll as they progressed to discharge or failed under the work test and were returned to a less strenuous régime. One hundred and eighteen patients have been furnished with work on the station force, the average period of employment being 71.3 days. The total amount earned by patients in this way was approximately \$9,000.

The earnings of patients from private enterprises are considerable, and the benefit to their health from such activities is no doubt as great as that derived by those taking exercise in less remunerative ways. A partial list of the various private industries follows, with the estimated amount earned and the number of patients employed at each, for the last half of the fiscal year.

#### *Private enterprises from Jan. 1 to June 30, 1912.*

	Number of men.	Number of hours.	Amount earned.
Personal services for officers and others.....	61	6,407	\$909.00
Barber.....	3	615	88.00
Clerk in store.....	2	1,106	180.00
Private hostler.....	1	1,256	75.00
Tailor.....	2	324	230.00
Cobbler.....	2	848	16.00
Making bone canes.....	1	244	8.00
Photography.....	2	182	225.45
Total.....			1,731.45

The term "personal services" includes a large variety of work performed by the patients for officers and their families and others, such as members of the clerical force at the station. The list includes private cooks, waiters, dishwashers, etc.

#### COST OF MAINTENANCE.

It is found that the cost of maintenance of institutions in the West is somewhat greater than in the East. An analysis of our expenditures shows that the increased wages paid in this region account largely for the difference. As this is a sanatorium for men only it has

not been practicable to employ female attendants except in a few instances. Our cooks, waiters, orderlies, janitors, dishwashers, and most of the nurses must necessarily be men. The minimum wage for which a man can be employed in this country is \$30 per month and maintenance, whereas in eastern institutions, especially those where women are employed, many of these positions are filled for \$12 and \$15 per month.

The cost of fuel, light, and power, including refrigeration, etc., is also high, owing largely to the price of coal, which at this station for ordinary bituminous coal is \$6.67 per ton and for fancy nut bituminous coal \$7.40 per ton. The high freight rates are largely accountable for the high cost of coal, and also increase the cost of many other items.

Our patients are all adult males, and their ration costs more than a ration in institutions admitting also females and children. The daily cost, however, was only \$0.3635, which appears unusually low. This is partly due to the fact that the dairy and range herds supply all the milk and practically all the beef consumed at this station. Taking into account all the station products at the cost of production, the ration amounts to \$0.5403, and reckoning the same at contract prices it would have been \$0.5663 per day. The cost of the ration for the Tuberculosis Hospital for the District of Columbia was \$0.53 (annual report, 1911), and according to verbal information courteously given by the officers in charge of the various institutions, the ration last year at the Adirondack Cottage Sanatorium cost \$0.73, at the New Jersey State Sanatorium \$0.5585, at Otisville Sanatorium \$0.45 to \$0.50, and at Loomis Sanatorium \$0.41 to \$0.55.

The increased cost of the ration for tuberculous patients over that provided in general hospitals for acute diseases, such as typhoid fever, pneumonia, and surgical conditions, will be readily understood.

*Items of expenditure.*

	Per annum.	Per day per patient.
<b>Salaries:</b>		
Medical care and executive, including all medical officers and pharmacists..	\$8, 149. 99	\$. 1133
Nursing.....	2, 728. 99	. 0379
Preparing and serving ration.....	6, 519. 01	. 0905
All other employees, except those included in items below.....	14, 964. 30	. 2081
Milk, cost of production, including pay of four dairymen, etc.....	7, 351. 18	. 1022
Beef, cost of production, including pay of stockmen, fencing, feed, etc.....	3, 775. 15	. 0525
Pork, eggs, poultry, and garden produce, including pay, seeds, etc.....	1, 589. 75	. 0221
Subsistence supplies purchased for 71,905 rations furnished patients.....	26, 137. 47	. 3635
Subsistence supplies purchased for 19,416 rations furnished employees.....	7, 057. 72	. 0981
Fuel, light, and power, including refrigeration, etc., and pay.....	16, 138. 06	. 2244
Repairs to buildings and mechanical equipment.....	7, 629. 49	. 1062
Furniture.....	1, 123. 58	. 0156
All other expenditures, covering general equipment, laundry supplies, forage not included in cost of production of milk, beef, etc.....	12, 735. 60	. 1770
Total cost of maintenance.....	115, 900. 29	1. 6114
Refund from reimbursements from officers and married attendants for subsistence supplies, sale of beef hides, old bulls, Jersey calves, etc.....	4, 028. 48	. 0560
Net expense.....	111, 871. 81	1. 5554

The cost of our maintenance as a whole, \$1.5554 per day, includes repairs, furniture, and perhaps some other items not generally allowed by the sanatorium system of bookkeeping adopted by the American Sanatorium Association. A bulletin issued by the National

Association for the Study and Prevention of Tuberculosis last year gave the average cost per patient per day in 30 semicharitable sanatoria as \$1.669, of which the average daily ration amounted to \$0.544, and salaries and wages \$0.481. The same bulletin named \$2.025 as the cost of maintenance in the West and Southwest.

All the specific data available, in published annual reports or from verbal statements, on the cost in various institutions are tabulated below. It may be mentioned that a sanatorium for incipient cases can be maintained at less expense than one admitting advanced cases. Most of the sanatoria in this list also admit pay patients, and while moneys paid by them are not deducted from the cost of maintenance, work performed by them in lieu thereof is usually omitted from the list of expenditures. This accounts in part for the low cost of maintenance in the Otisville Sanatorium and some others.

No data are available regarding the cost in western sanatoria.

*Cost of maintenance per patient per day in other sanatoria.*

New York State Hospital for the Treatment of Incipient Tuberculosis, Ray Brook, N. Y.....	\$1. 354
New Jersey Sanatorium for Tuberculous Diseases, Glen Gardner, N. J.....	1. 301
Maryland Tuberculosis Sanatorium, Sabillasville, Md.....	.9708
Edward Sanatorium, Naperville, Ill.....	1. 50
State Sanatorium for Incipient Tuberculosis, Mount Vernon, Mo.....	1. 74
Pennsylvania State South Mountain Sanatorium, Mont Alto, Pa.....	1. 285
Massachusetts State Sanatorium, Rutland, Mass.....	1. 44
Adirondack Cottage Sanitarium, Saranac Lake, N. Y.....	1. 55-1. 71
Otisville Sanatorium, Otisville, N. Y.....	.9885
Tuberculosis Hospital of the District of Columbia.....	1. 48
The Hospital for Consumptives of Maryland, Towson, Md.....	1. 09
Cincinnati Tuberculosis Sanatorium.....	.8839

**THE FARM.**

It should be noted that this sanatorium is entirely dependent upon its own resources for a milk supply, as this is not a dairying country. The production of milk averaged 442 quarts daily, the maximum and minimum for the year being 576 and 356 quarts, respectively. The dairy herd is almost pure-bred Jersey, numbering 132 head. All have been tuberculin tested with negative results. The milk is cooled immediately upon being drawn and bottled for all table uses by modern machinery. Pint bottles are served patients at table. The cost of production of this milk, reckoning forage and labor only, was \$0.1823 per gallon during the past year. It is difficult to estimate what milk of this quality would cost if purchased at the station, but practically it would be unobtainable.

The range herd of Herefords numbers now about 2,000 head and includes at this date, July 1, 1912, one hundred and ninety 3-year-old steers, which will furnish all beef needed for the next fiscal year. It is probable that after this year it will be necessary to sell surplus stock from time to time.

The labor loaned from farm to sanatorium is recorded as a farm credit, although both are under the same management. Work is accomplished in this way which would otherwise have to be done by contract and the farm force of 18 men kept employed during the winter. Alternate Sunday relief is partially afforded the sanatorium attendants from the farm force and many emergencies of station life are met with its aid.

**THE LIBRARY.**

Among the minor needs of the sanatorium may be mentioned that of bound volumes for the patients' reading room. The station library now contains 2,625 books, which have been donated from time to time. By a special ruling from the Postmaster General, books may be franked to the sanatorium if delivered to an officer of the Public Health Service.

Through the courtesy of Miss Helen Gould the reading room is supplied with Harper's Weekly; and from private funds contributed at this station 3 other weekly periodicals, 3 daily newspapers, and 13 monthly magazines are subscribed for. The Maine Sanatorium News, Spunk (published at the Pennsylvania State South Mountain Sanatorium), Forest Leaves (Gabriels' Sanatorium), and the Evangelical Lutheran Sanatorium Review, are also received through the courtesy of the respective publishers.

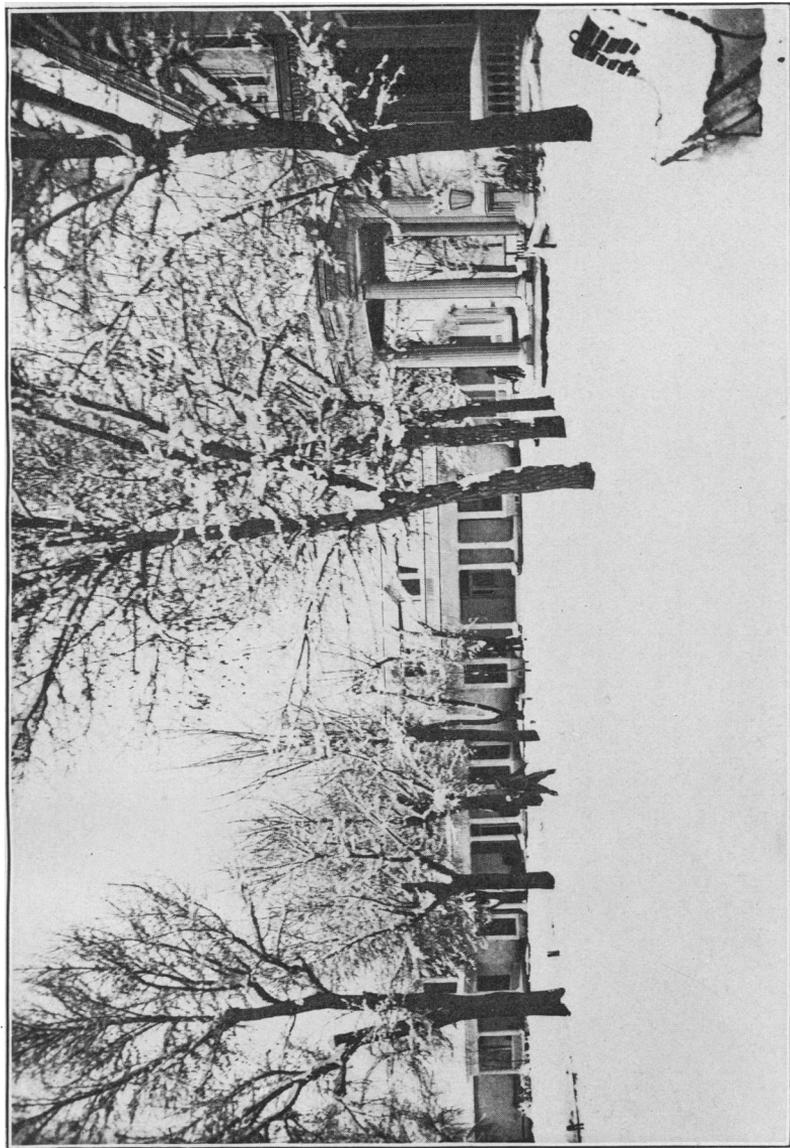


FIG. 1.—A WINTER SCENE AT THE TUBERCULOSIS SANATORIUM OF THE UNITED STATES PUBLIC HEALTH SERVICE AT FORT STANTON, N. MEX.

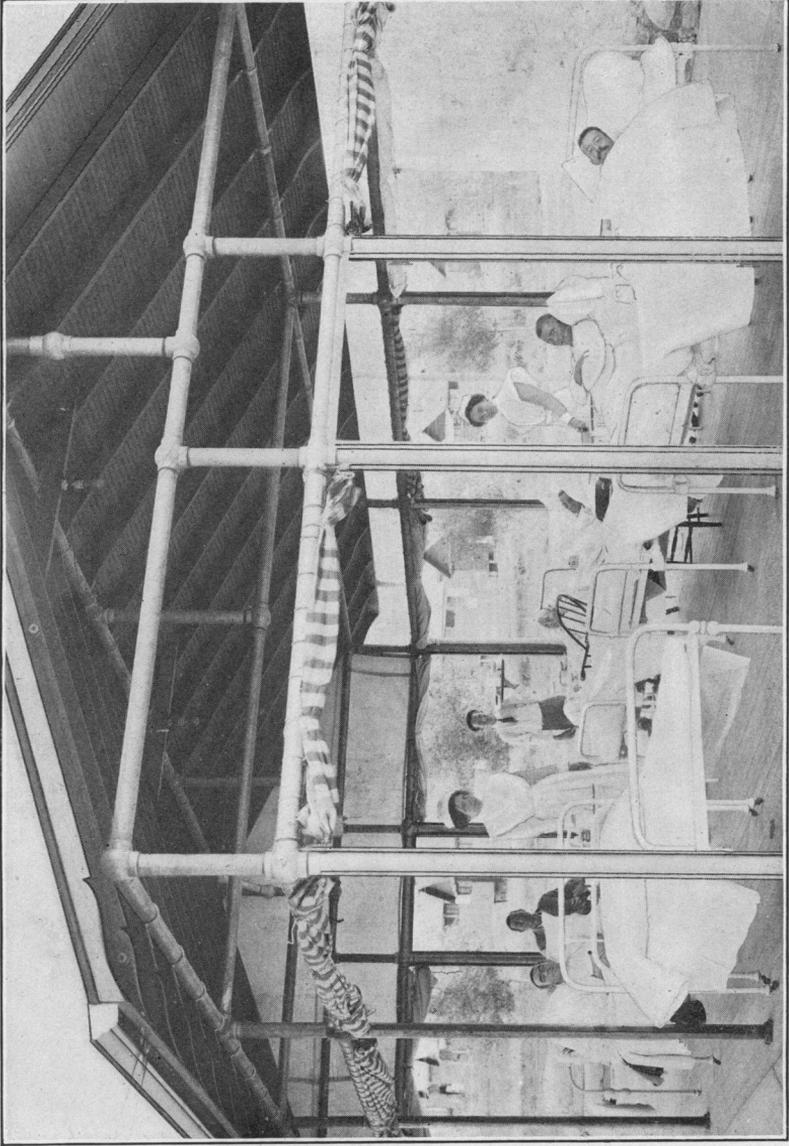


FIG. 2.—A BED SHELTER USED AT THE UNITED STATES PUBLIC HEALTH SERVICE SANATORIUM, FORT STANTON N. MEX., 1912.

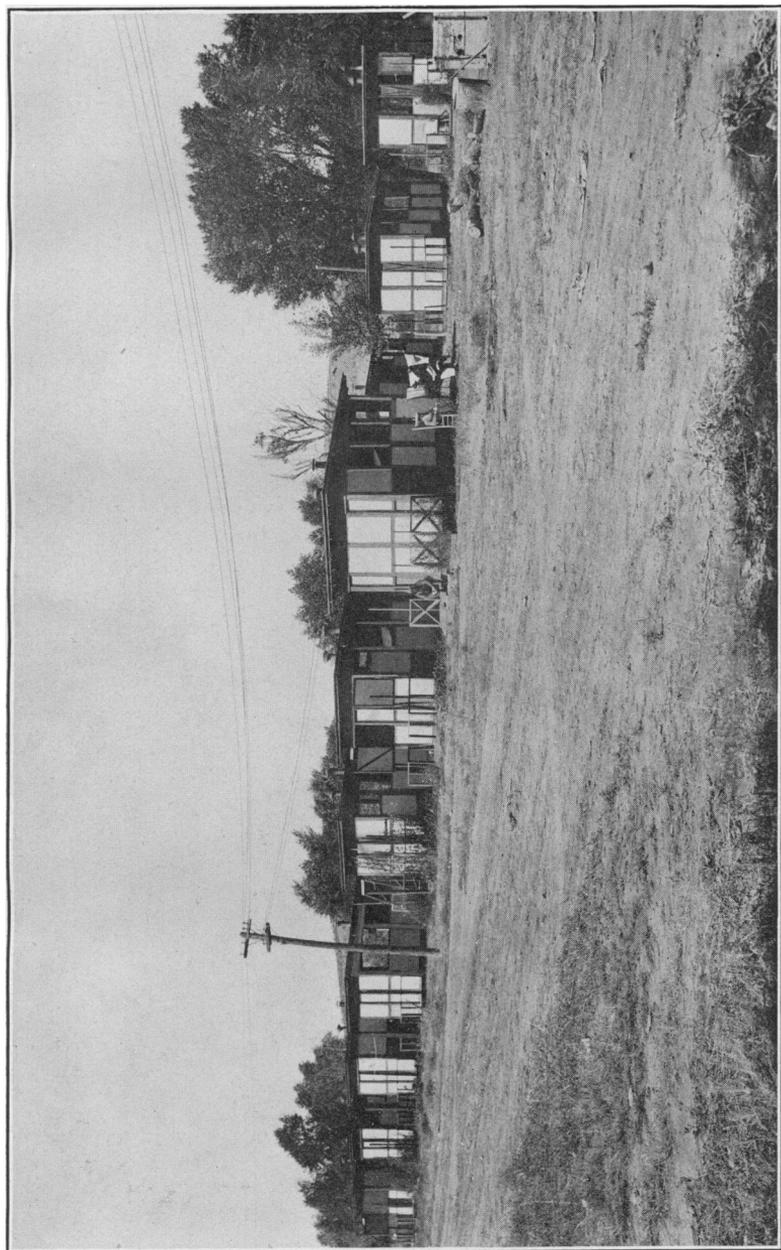


FIG. 3.—MASTERS', PILOTS', AND ENGINEERS' TENT HOUSES, TYPE "A," USED AT THE UNITED STATES PUBLIC HEALTH SERVICE SANATORIUM, FORT STANTON, N. MEX., 1912.

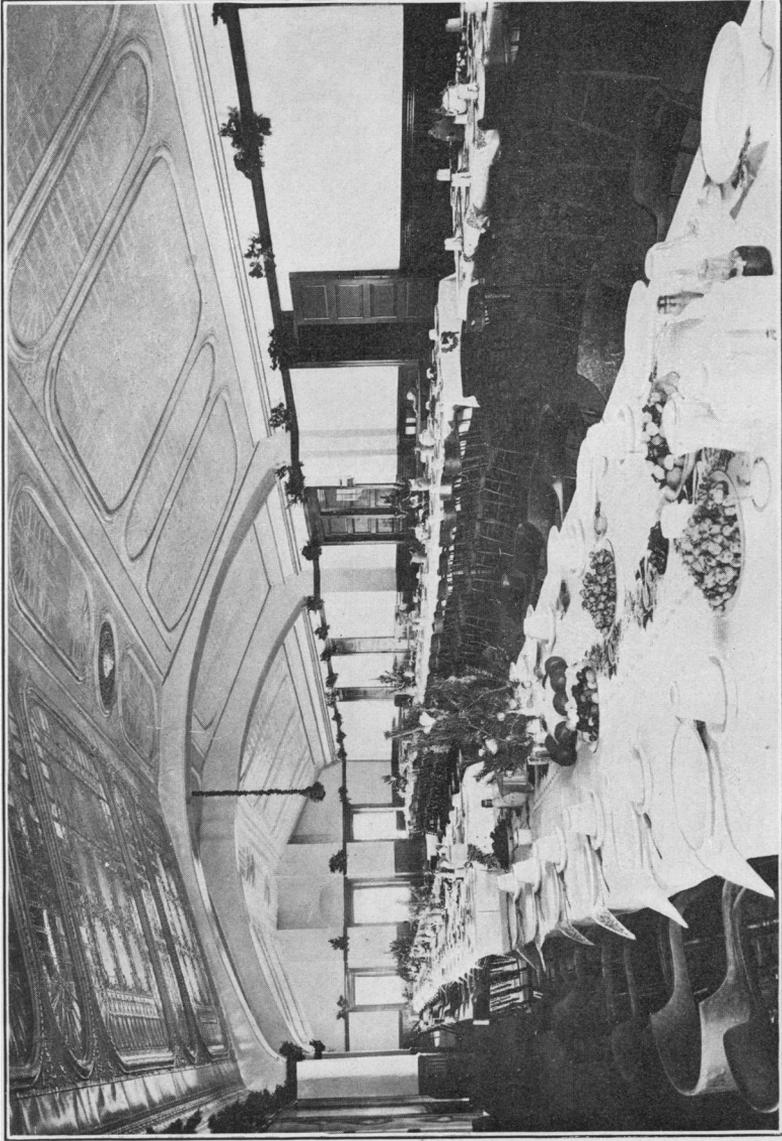


FIG. 4.—MAIN DINING ROOM, CHRISTMAS, 1911, UNITED STATES PUBLIC HEALTH SERVICE SANATORIUM,  
FORT STANTON, N. MEX.

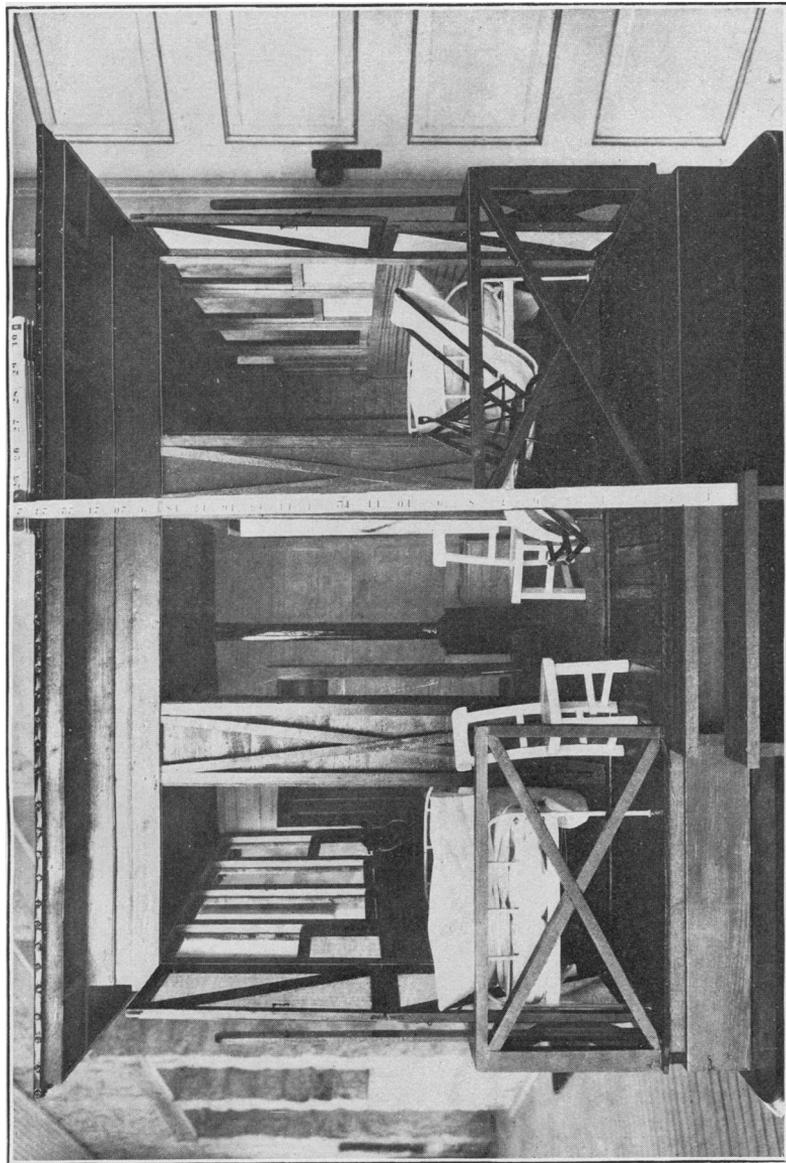


FIG. 5.—MODEL OF TENT HOUSE, TYPE "A," USED AT THE UNITED STATES PUBLIC HEALTH SERVICE SANATORIUM, FORT STANTON, N. MEX., 1912.

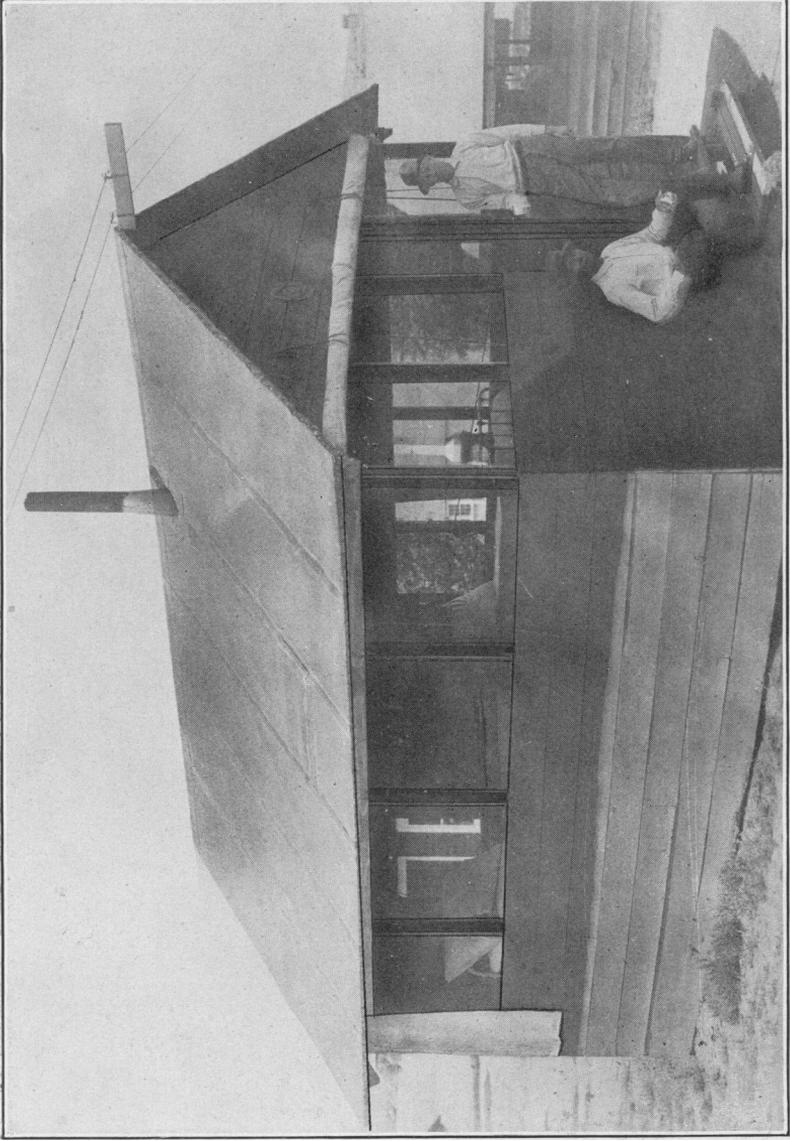


FIG. 6.—TENT HOUSE, TYPE "B" USED AT THE UNITED STATES PUBLIC HEALTH SERVICE SANATORIUM, FORT STANTON, N. MEX., 1912.

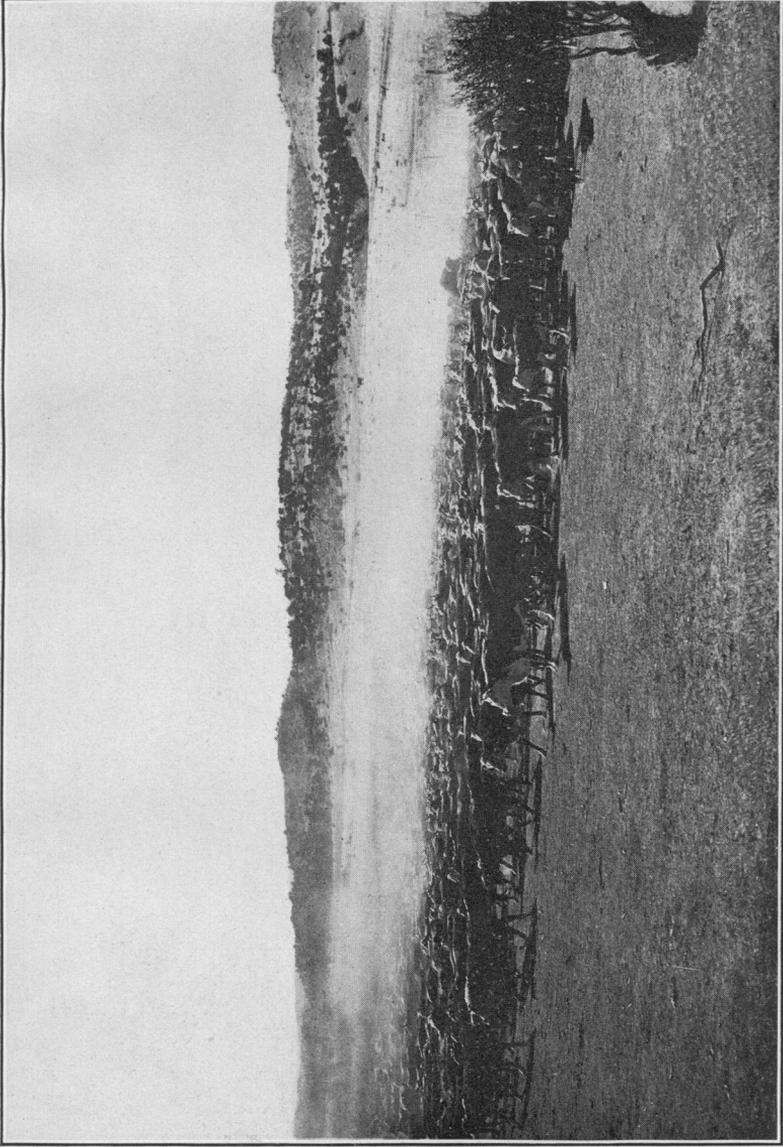


FIG. 7.—MAIN HERD OF BEEF CATTLE, UNITED STATES PUBLIC HEALTH SERVICE SANATORIUM, FORT STANTON, N. MEX., 1911.



FIG. 8.—A ROUND-UP OF THE BEEF HERD, SHOWING THE BRANDING OF CALVES AT THE UNITED STATES PUBLIC HEALTH SERVICE SANATORIUM, FORT STANTON, N. MEX.

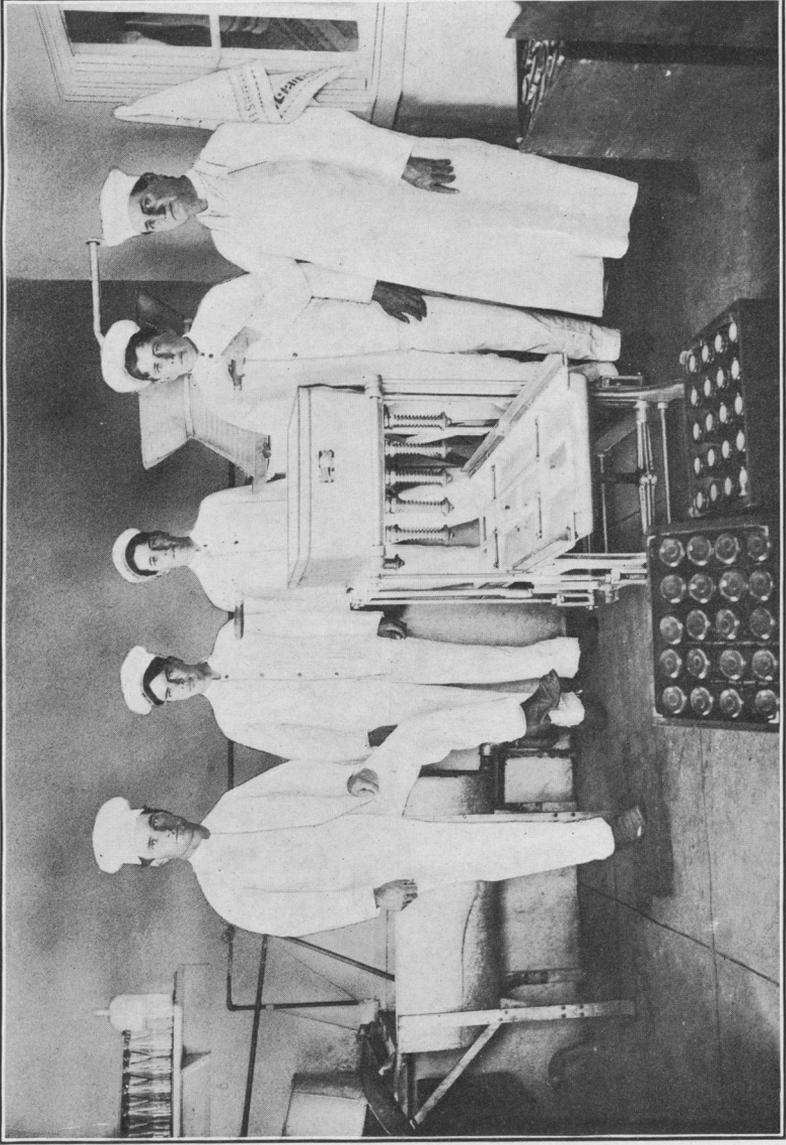


FIG. 9.—CORNER OF DAIRY AT THE UNITED STATES PUBLIC HEALTH SERVICE SANATORIUM, FORT STANTON, N. MEX., 1912.

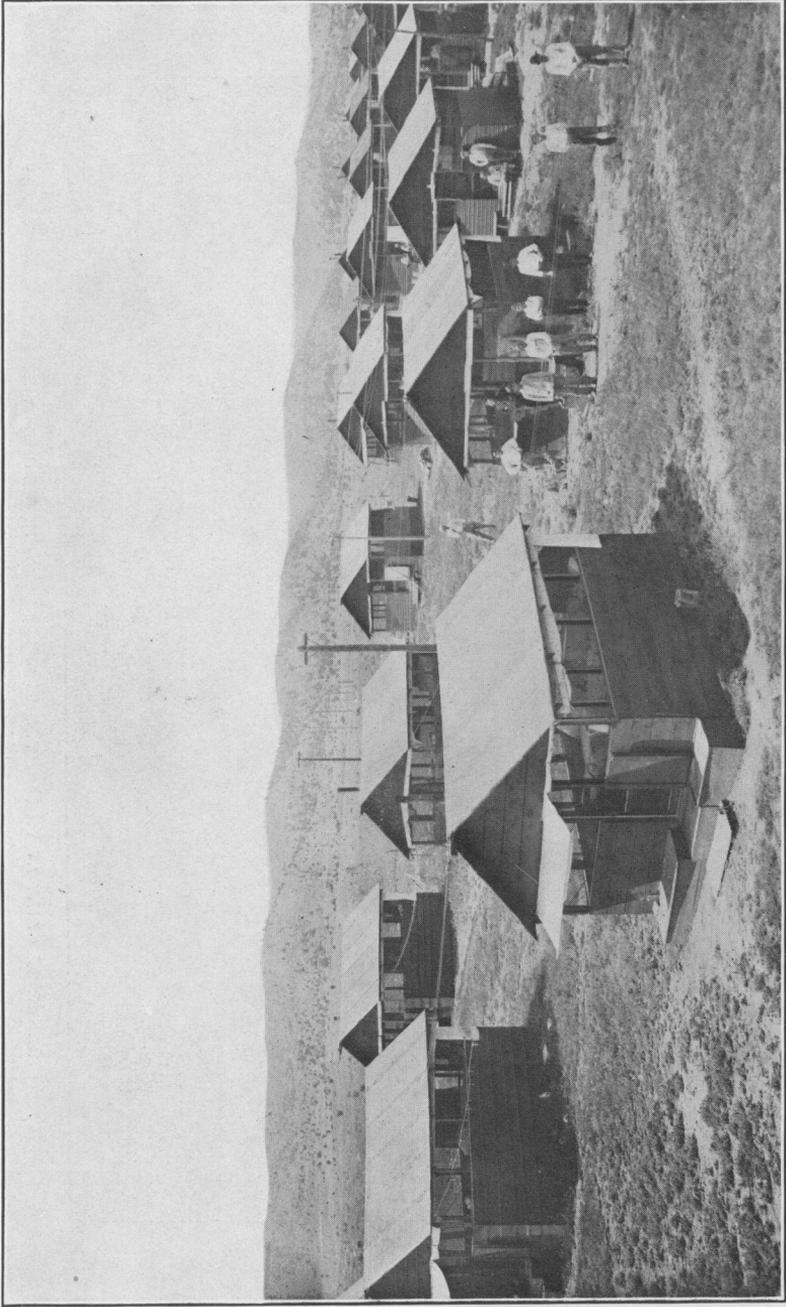


FIG. 10.—PANORAMIC VIEW, SHOWING THE TENT HOUSES OF TYPE "B" AT THE UNITED STATES PUBLIC HEALTH SERVICE SANATORIUM, FORT STANTON, N. MEX., 1912.

# UNITED STATES.

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

[Adopted since July 1, 1911.]

### OIL CITY, PA.

#### STABLES AND MANURE.

**RULE 7.** The owner or owners of all stables and stable yards, chicken coops and chicken yards shall keep said places in a clean and sanitary condition at all times and in such condition as not to cause unnecessary or offensive odors. Stable and chicken yards shall be kept properly drained.

**RULE 8.** Between May 1 and November 1 of each and every year not more than one wagonload of cow or horse manure at any private stable and not more than three loads at any livery or sale stable shall be permitted to accumulate in or near the same unless by written permission of the board of health, and such permission may be revoked upon complaint of said accumulation of manure causing an annoying or unsanitary condition to exist.

**RULE 9.** At every stable, public or private, the owners of the animals or the keepers thereof shall have constructed a water-tight box of the necessary height wherein to throw said manure, and not permit it to be scattered around in any lot, street, or alley. Unless such proper box or receptacle is used it is forbidden to allow any manure to accumulate in or around any public or private stable or barn.

**RULE 10.** When it is necessary or desirable to remove manure to or from any premises it shall be done in such a manner that none of it shall drop or fall or be left in or on any lot, street, alley, lane, road, or other passageway with the limits of the city.

[Regulations board of health, adopted Oct. 18, 1911.]

### ORANGE, N. J.

#### COMMUNICABLE DISEASES—REPORTS OF CASES TO BE MADE.

16. Section 73 of the ordinance to which this ordinance is a supplement is hereby amended to read as follows:

“73. Every physician shall report in writing to the board of health the name of every patient he shall find to be affected with cholera, smallpox (including varioloid), chicken pox, diphtheria, membranous croup, typhus fever, typhoid fever, scarlet fever, yellow fever, measles, whooping cough, leprosy, plague, trichinosis, infantile paralysis, epidemic cerebro spinal meningitis, or any other contagious or infectious disease that may be hereafter publicly declared by the State board of health to be dangerous to the public health, together with the precise locality where such patient may be found; and such report shall be made within 12 hours after the first visit of such physician to such person.

“Any person or persons failing to comply with, violating, or offending against any of the provisions of this section shall forfeit and pay a penalty of \$50.”

[Ordinance, board of health, adopted Oct. 2, 1911, as a supplement to the sanitary and plumbing code adopted Dec. 1, 1900.]

### SANDUSKY, OHIO.

#### GARBAGE—PREPARATION AND COLLECTION.

**SECTION 1.** That all “garbage” or “offal” and all substances embraced within the meaning of said terms as defined in section 97 of the revised and codified ordinances of the city of Sandusky, passed April 4, 1904, shall be drained of all water or fluid, and

said garbage or offal securely wrapped in paper before the same is deposited in any garbage vessel or tank provided for by section 95 of the ordinance herein referred to.

SEC. 2. That it shall be unlawful for any garbage collector or any person or persons engaged in the collection of garbage to receive, remove, or to empty the contents of any garbage vessel or tank unless the garbage therein shall have been drained and wrapped in paper as provided in section 1 hereof.

That all persons engaged in the collection of garbage shall be provided with and use water-tight and covered wagons, and shall remove and transport all garbage in said wagons so as to prevent the scattering of garbage along the streets and the exposition of same to view.

Any person or persons violating any of the provisions of this section shall, for every such violation, upon conviction thereof be subject to a fine of not more than \$5 and the cost of prosecution.

[Resolution, board of health, adopted Aug. 1, 1911.]

#### SEATTLE, WASH.

#### INFECTIOUS OR CONTAGIOUS DISEASES AMONG ANIMALS—NOTIFICATION TO COMMISSIONER OF HEALTH AND CONTROL OF ANIMALS.

SECTION 1. It shall be unlawful for any person having possession or control of any animal sick or afflicted with any infectious or contagious disease or any animal that may be suspected of having any infectious or contagious disease, to suffer or permit such diseased or suspected animal to run at large, or come in contact with animals not afflicted with the same disease or to drink at any public or common watering trough or stream accessible to other animals, or to purposely drive, work, or use such diseased animal in or upon any public street, avenue, alley, or other public place, or upon any private premises, not his own, within the limits of the city of Seattle, or to interfere with or obstruct any officer in the discharge of any duty with reference to such animal, provided by this ordinance: *Providing, however,* That the exact location of the place where quarantine shall be maintained, upon private property, shall be selected by the owner, person in charge or control, agreeable to the commissioner of health.

SEC. 2. It shall be unlawful for any veterinarian, being called upon to attend any animal and finding such animal sick of any infectious or contagious disease or finding such animal showing such symptoms as indicating that it may have any infectious or contagious disease, or in case there be no attending veterinarian, for any person in charge or control and having reason to believe that such animal is afflicted with any infectious or contagious disease, or for any other person having reason to believe that any animal is suffering with an infectious or contagious disease, to fail or neglect to immediately report in person or by telephone, to be followed forthwith by a report in writing, to the commissioner of health of the city of Seattle the existence of such diseased animal, the location and description of the animal afflicted or believed to be afflicted therewith, or to fail or neglect to report immediately to the commissioner of health the death of any animal occurring from any infectious or contagious disease, or the death of any animal suspected of dying from any infectious or contagious disease.

SEC. 3. That whenever the owner or person having possession or control of any such diseased animal shall fail to keep the same confined upon his own premises and separated from all animals not affected by the same disease, it shall be the duty of the chief of police, under the direction of the commissioner of health, to take such diseased animal in custody and confine or destroy the same as the commissioner of health shall direct; and it shall be lawful for the commissioner of health to cause any such animal to be destroyed if the same be affected by any infectious or contagious disease and incurable. All animals taken into custody and impounded by the chief of police, under the provisions of this ordinance, shall be fed and cared for at the expense of the city in the first instance, and all such expenses shall be a lien upon such animal, and the owner of such animal shall also be liable to the city for all such expenses for taking, feeding, and caring for the same, to be recovered by a civil action.

SEC. 4. Any person violating any of the provisions of this ordinance shall be deemed guilty of a misdemeanor and upon conviction thereof shall be fined in any sum not exceeding \$100 or imprisoned in the city jail for a term not to exceed 30 days, or be both so fined and imprisoned.

SEC. 5. This ordinance shall take effect and be in force 30 days from and after its passage and approval, if approved by the mayor; otherwise it shall take effect at the time it shall become a law under the provisions of the city charter.

[Ordinance No. 28229, adopted Oct. 23, 1911.]

## YONKERS, N. Y.

## MILK—PRODUCTION, CARE, AND SALE.

SEC. 48. No person, corporation, or association of persons shall sell or expose for sale milk or cream in the city of Yonkers without first making application to the health bureau of said city in writing on blanks furnished by said health bureau nor thereafter until said application shall have been approved and a permit issued by said health bureau for such sale or exposure for sale. Milk supplies found to contain over 500,000 bacteria per cubic centimeter on two or more different days shall not be used or offered for sale nor handled in the city of Yonkers until satisfactory evidence is shown that the milk may be reasonably expected to contain less than this number of bacteria. A violation of this section shall be punished by a fine of not less than \$50 nor more than \$150.

SEC. 49. No milk, cream, buttermilk, or skimmed milk which has been watered, adulterated, reduced, or changed in any respect by the addition of water or other substance, or milk known as swill milk, or milk from cows or other animals that feed on swill, beet-sugar refuse, garbage, or other similar substances, and no cream, butter, or cheese made from any such milk or any unwholesome butter or cheese shall be brought into, held, kept, or offered for sale at any place in the city of Yonkers; and no person shall keep, have, or offer for sale in the said city any such cream, milk, butter, or cheese.

SEC. 50. No person or persons, corporation, or corporations shall sell or offer for sale or expose for sale within the limits of the city of Yonkers, nor have in possession with intent to sell, exchange, or deliver any milk or cream taken from diseased or sick cows.

SEC. 51. No person or persons, corporation or corporations shall sell, exchange, or deliver, or offer or expose for sale or exchange, or have in his, their, or its possession for the purpose of sale or exchange any milk from which the cream, or any part of such cream has been removed, unless in a conspicuous place, about the center and on the outside of every vessel, can, or package from which or in which such milk is sold or kept, the words "skimmed milk" are distinctly marked in visible gothic letters, such letters to be not less than 2 inches in height, and in case of cans, such letters are to be securely soldered thereto; if such sale is made from wagons, such wagons shall be marked "skimmed milk" in plain gothic letters not less than 3 inches in height on both sides of said wagon. If such sale is made from store, there shall be exposed in plain sight of anyone entering a sign, "skimmed milk," and vessels marked as hereinbefore stated also there shall be affixed to the vessels of the customer a sticker 1 inch by 2 inches marked "skimmed milk."

SEC. 52. No person or persons, corporation or corporations shall sell, or offer or expose for sale, within the limits of the city of Yonkers, milk from any wagon or vehicle, unless such wagon or vehicle shall have exposed on both sides of such wagon or vehicle the license number of the person, persons, or corporation selling or offering for sale such milk; such license number shall be painted on such wagon or vehicle in numbers not less than 2 inches in height, in what is known as gothic characters, and the words "Health bureau permit No. —" in letters at least 2 inches in height shall be placed on such wagon or vehicle under the direction of the health bureau or its milk inspector; and in case milk is sold from cans or vessels where no wagon or other vehicle is used, then the license number of the person, persons, or corporation selling or offering for sale such milk shall be placed in a conspicuous place on such can or vessel, in such a manner as to style of number and method of fastening the same on such can or vessel as to meet the approval of the health board or its milk inspector; or if such milk is sold or exposed for sale within a store or house, then such license number shall be exposed in some conspicuous place in said store or house.

SEC. 53. Every person, persons, corporation or association of persons who shall sell or expose for sale milk or cream, such place of sale being a store or depot, shall have provided an ice box or tub with tight-fitting cover, into which the vessel containing said milk or cream shall be placed at once when received at said store or depot. and at no time shall said milk or cream be permitted to reach a temperature exceeding 50° F. Said ice box, if stationary, shall have outlet, and in no case shall water be allowed to stand therein, but be discharged as fast as ice shall melt. When movable tub is used, water shall be discharged therefrom at close of business each day and said ice box or tub shall be used for no other purpose than that of keeping milk or cream, and closed at all times, excepting when milk or cream is being sold, and top and inside of said ice box or tub shall be kept scrupulously clean at all times.

SEC. 54. All licenses for the sale of milk or cream will be furnished gratuitously by the health bureau but will be granted subject to such conditions as may seem best to the commissioner of public safety for the preservation of health within the limits of said city, and shall be subject at all times to revocation by said commissioner in

his discretion. On or before July 1 each year, after a license is issued, the person or persons, corporation or corporations to whom the same is issued shall register with the milk inspector of the health bureau his or their names and license numbers, and shall make a statement to said inspector covering the subjects hereinbefore required to be made by applicants for licenses. Such statements to be registered in a register to be supplied by the health bureau and kept for that purpose.

SEC. 55. Inspections of milk in all dairies and of all milk venders, shall be made under the direction of the health bureau by the milk inspector, and any person or persons, corporation or corporations having for sale or exchange or offering or exposing for sale or exchange any milk or cream shall at all times permit the said inspector to inspect or test the same.

SEC. 56. Any person or persons, corporation or corporations, selling or having in possession for sale, delivery or exchange, either on their own account or for any other person or corporation, milk or cream, shall at all times on demand, furnish to the milk inspectors of the health bureau, or permit such inspectors to take from them such samples as said inspectors may require, and such sample shall be given or permitted to be taken, at such time and places as may be demanded by said inspector.

SEC. 57. Every sample of milk or cream delivered to or taken by any of the milk inspectors of the health bureau shall have a label attached to the vessel containing such sample, which shall have written thereon, at the time of the delivery of such sample, the number of the dealer's license, the number of the sample, the date of collection, and the name of the inspector; and a memorandum shall be made by the inspector collecting such sample in a book kept for that purpose, the number of such sample and the name of the owner and driver from whom the same was collected, and a duplicate of such sample, sealed in a bottle or vessel, shall be delivered to the person from whom such sample is taken.

SEC. 58. Each sample shall be analyzed separately by the chemist or milk inspector who shall register the percentage of total solids, butter fats, and water fluids in a book kept for that purpose.

SEC. 59. In all proceedings under this ordinance for the keeping or sale or offering or exposing for sale or delivering of unclean, impure, unhealthful, adulterated, or unwholesome milk, the test shall be as follows: If the milk be shown to contain more than 88 per cent of water fluids or less than 12 per cent of milk solid, or shall contain less than 3 per cent of butter fat, it shall be declared to be adulterated, and the milk drawn from cows within 15 days before or 5 days after parturition, or from animals fed on distillery waste, or any substance in the state of putrefaction or fermentation, or upon any unhealthful food whatsoever, shall be declared unhealthful, impure, and unwholesome milk.

SEC. 60. No dealer shall be allowed to refill a bottle with milk for delivery to any person or persons in the city of Yonkers without having first washed the same with boiling water in a manner satisfactory to the health bureau or its milk inspector.

SEC. 61. No dealer shall be allowed to furnish any receptacle for the delivery of milk into any family or apartment in the city of Yonkers where there is a contagious disease during the time of quarantine.

SEC. 62. A. When milk or cream is brought from localities outside of the city of Yonkers, each year at time of registration a detailed statement concerning the condition of each stable and the cows producing said milk shall be filed with the health bureau on blanks furnished by said health bureau by the person or persons selling or exposing for sale said milk or cream within the city of Yonkers.

B. No herd shall be considered as having had the tuberculin test applied unless chart showing the test of each animal thereof in detail shall have been filed with this health bureau, verified by a registered veterinarian, the same to be valid for a period of not more than one year from date of test; a supplementary report to be made for test of each addition to herd.

[Blank referred to in above section.]

REPORT OF CONDITION OF STABLE AND COWS AT

Dairy of.....

Town.....

County.....

State.....

Shipping station.....

Railroad.....

Marks on cans.....

Time shipped.....

Cows, number of.....

Cows, condition of.....

Water supply.....	
Stables, size of.....	
Feed.....	
Milk, how cooled.....	
Milk, where kept.....	
Has tuberculin test been applied to herd?.....	
If so, when.....	

SEC. 63. All persons engaged in the bottling of milk in the city of Yonkers shall provide a suitable room, having floor of cement connected with a public sewer or properly constructed cesspool; also furnished with hot and cold water, and in no case shall bottles be filled by means of siphons of rubber hose, but either with a bottling machine or tank provided with a faucet, which can be easily taken apart and cleaned.

SEC. 64. The use of milk tickets is prohibited, excepting slip tickets, the same to be used only once.

SEC. 65. All persons, corporations, or associations of persons engaged in the selling of milk or cream at wholesale shall at time of registration each year file with the health bureau a complete list of retailers, together with street and numbers of places of business, and thereafter when a new customer is secured notice shall be given in writing to said health bureau within 24 hours after the first delivery of milk.

SEC. 66. No person, corporation, or association of persons shall leave or permit to be left any milk bottles or case containing milk bottles on any public highway in the city of Yonkers.

SEC. 67. Between May 1 and November 1 of each year it shall be unlawful to sell or offer for sale or consumption in the city of Yonkers milk from cows fed upon brewery grains, except kiln dried, which have been kept for a longer period than 48 hours after ejection from the vats of the brewery where the same were produced.

Between each November 1 and the following May 1 it shall be unlawful to sell or offer for sale or consumption in said city milk from cows fed upon brewery grains, except kiln dried, which have been kept for a longer period than 96 hours after ejection from the vats of the brewery where the same were produced.

SEC. 68. No person or persons shall sell, offer, or expose for sale milk or cream in the city of Yonkers in any store or room used for domestic or sleeping purposes, or opening directly into any room used as a sleeping room.

SEC. 69. No person or persons shall sell, offer, or expose for sale milk or cream in the city of Yonkers in any butcher market or store where fresh meats are sold, offered, or exposed for sale.

SEC. 70. No adulterated or deleterious coffee, tea, butter, sugar, flour, or other substances used for human food or drink shall knowingly be brought, sold, held, or offered for sale in the city of Yonkers; and no substance used for human food or drink shall knowingly be brought, sold, held, or offered for sale, labeled or represented in said city under a false name or quality, or as being what the same is not, as respects wholesomeness, soundness, or safety for food or drink.

SEC. 71. No person shall throw or allow to run or pass into any public reservoir, water pipe, or aqueduct, or into or upon any border or margin thereof, or excavation of stream therewith connected, or into any spring or well in the city of Yonkers used for drinking purposes, any animal, vegetable, or mineral substances whatever; nor shall any person allow the same to be done (having power or right to prevent the same); nor shall any person do or permit to be done (having right or power to prevent the same) any act or thing that will impair or imperil the purity or wholesomeness of any water or other fluid used or designed as a drink in any part of said city; nor shall any person bathe any part of his person in any stream, reservoir, or spring in said city containing water used for drinking or culinary purposes.

SEC. 72. Whenever, upon examination, it shall appear that water from a well or spring is contaminated with substances which are injurious to health, or which may become injurious to health, the use of such water shall be discontinued, and the well or spring shall be filled in, unless a permit be obtained from the public health officer for such use of the water as will not endanger the public health.

SEC. 73. No person or persons, firm, or corporation shall sell or use or cause to be sold or used or in any manner provide ice for drinking or eating purposes which has been obtained from any polluted or unclean pond, creek, river, lake, or stream.

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

PLAGUE.

PLAGUE-INFECTED SQUIRRELS FOUND.

During the week ended August 10, 1912, positive diagnosis was made of 28 plague-infected ground squirrels found in Alameda and Contra Costa Counties, Cal., as follows: Alameda County, August 5, 2 squirrels; August 6, 2 squirrels; August 8, 1 squirrel; August 9, 1 squirrel. Contra Costa County, July 31, 1 squirrel; August 1, 2 squirrels; August 5, 3 squirrels; August 7, 11 squirrels; August 8, 3 squirrels; August 10, 2 squirrels.

DISTRIBUTION OF POISON.

In connection with the making and maintenance of a squirrel-free zone around the cities of California on San Francisco Bay, 5,005 acres of land in Alameda County were covered with poison during the week ended August 10, 1912.

RECORD OF PLAGUE INFECTION.

Places.	Date of last case of human plague.	Date of last case of rat plague.	Date of last case of squirrel plague.	Total number of rodents found infected since May, 1907.
California:				
Cities—				
San Francisco.....	Jan. 30, 1908.....	Oct. 23, 1908.....	None.....	398 rats.
Oakland.....	Aug. 9, 1911.....	Dec. 1, 1908.....	do.....	126 rats.
Berkeley.....	Aug. 27, 1907.....	None.....	do.....	None.
Los Angeles.....	Aug. 11, 1908.....	do.....	Aug. 21, 1908.....	1 squirrel.
Counties—				
Alameda (exclusive of Oakland and Berkeley).	Sept. 26, 1909.....	Wood rat, Oct. 17, 1909.	Aug. 9, 1912.....	249 squirrels and 1 wood rat.
Contra Costa.....	July 21, 1911.....	None.....	Aug. 10, 1912.....	1,100 squirrels.
Fresno.....	None.....	do.....	Oct. 27, 1911.....	1 squirrel.
Merced.....	do.....	do.....	July 13, 1911.....	5 squirrels.
Monterey.....	do.....	do.....	Aug. 6, 1911.....	6 squirrels.
San Benito.....	June 5, 1910.....	do.....	June 8, 1911.....	22 squirrels.
San Joaquin.....	Sept. 18, 1911.....	do.....	Aug. 26, 1911.....	18 squirrels.
San Luis Obispo.....	None.....	do.....	Jan. 29, 1910.....	1 squirrel.
Santa Clara.....	Aug. 23, 1910.....	do.....	Oct. 5, 1910.....	23 squirrels.
Santa Cruz.....	None.....	do.....	May 17, 1910.....	3 squirrels.
Stanislaus.....	do.....	do.....	June 2, 1911.....	13 squirrels.
Louisiana:				
City—				
New Orleans.....	do.....	July 27, 1912.....	None.....	1 rat.
Washington:				
City—				
Seattle.....	Oct. 30, 1907.....	Sept. 21, 1911.....	do.....	25 rats.

## PLAGUE—Continued.

## RATS COLLECTED AND EXAMINED FOR PLAGUE INFECTION.

Places.	Week ended—	Found dead.	Total collected.	Examined.	Found infected.
<b>California:</b>					
Cities—					
Berkeley.....	Aug. 10..	3	1 165	104	.....
Oakland.....	..do.....	23	2 588	407	.....
San Francisco.....	..do.....	4	1,700	1,298	.....
<b>Washington:</b>					
City—					
Seattle.....	..do.....	.....	943	870	.....

<sup>1</sup> Identified: *Mus norvegicus*, 137; *Mus musculus*, 28.

<sup>2</sup> Identified: *Mus norvegicus*, 487; *Mus musculus*, 101.

<sup>3</sup> Identified: *Mus norvegicus*, 917; *Mus alexandrinus*, 228; *Mus rattus*, 248; *Mus musculus*, 307.

## SQUIRRELS COLLECTED AND EXAMINED FOR PLAGUE INFECTION.

During the week ended August 10, 1912, 91 squirrels from Alameda County, 500 from Contra Costa County, and 102 from Stanislaus County, Cal., were examined for plague infection. Six from Alameda County and 22 from Contra Costa County were found infected.

## CEREBROSPINAL MENINGITIS.

## CASES AND DEATHS REPORTED BY CITY HEALTH AUTHORITIES FOR THE WEEK ENDED AUG. 10, 1912.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Baltimore, Md.....	1	1	New York, N. Y.....	3	3
Boston, Mass.....	1	1	Philadelphia, Pa.....	2	1
Dayton, Ohio.....	1	2	Providence, R. I.....	.....	2
Nashville, Tenn.....	.....	1	Reading, Pa.....	1	.....
New Orleans, La.....	1	.....	San Francisco, Cal.....	.....	1

## ERYSIPELAS.

## CASES AND DEATHS REPORTED BY CITY HEALTH AUTHORITIES FOR THE WEEK ENDED AUG. 10, 1912.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Boston, Mass.....	.....	1	Los Angeles, Cal.....	1	.....
Braddock, Pa.....	1	.....	New York, N. Y.....	11	2
Cincinnati, Ohio.....	1	.....	Passaic, N. J.....	1	.....
Cleveland, Ohio.....	1	1	Philadelphia, Pa.....	3	1
El Paso, Tex.....	.....	1	Pittsburgh, Pa.....	1	.....
Harrisburg, Pa.....	1	.....	St. Louis, Mo.....	1	.....

## LEPROSY.

## MICHIGAN.

Dr. R. L. Dixon, secretary of the Michigan State Board of Health, forwards the following reports regarding two cases of leprosy reported in Michigan during the present year:

H. H., a Russian Jew, age 47 years, born in Courland, Russia, was clinically diagnosed as being affected with leprosy at Detroit, April

14, 1912. The diagnosis was verified bacteriologically. The patient had lived at Bay City, Mich., during the past 19 years, and before that had lived in Cape Colony, South Africa, for about 7 years. Previous to his residence in Cape Colony he had lived in Russia. His father and an uncle are reported to have died of a peculiar skin disease, characterized by the loss of fingers and the mutilation of their noses. The patient is now quarantined in his own home in Bay City.

S. I., a Russian Jew, male, age 34 years, born in Courland, Russia, was found to have leprosy about May 17, 1912. The patient was known to have lived in and around Bay City, Mich., as a tramp junk dealer for about three years. At the time this case was reported to the State department of health the patient had broken quarantine and his whereabouts was unknown. However, about June 20 he returned to Bay City and was placed under quarantine by the city health department. On June 30 he again broke quarantine and was later apprehended in Buffalo, N. Y. He later escaped from detention in Buffalo and his present whereabouts is unknown.

PELLAGRA.

During the week ended August 10, 1912, pellagra was reported by city health authorities as follows: Columbus, Ga., 1 death; Lexington, Ky., 2 deaths; Lynchburg, Va., 1 death; Nashville, Tenn., 1 death; New Orleans, La., 1 death; Roanoke, Va., 1 death; Richmond, Va., 1 death.

PNEUMONIA.

CASES AND DEATHS REPORTED BY CITY HEALTH AUTHORITIES FOR THE WEEK ENDED AUG. 10, 1912.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Altoona, Pa.		1	Manchester, N. H.	1	1
Auburn, N. Y.	2	2	Mount Vernon, N. Y.	1	
Aurora, Ill.		1	Nashville, Tenn.		1
Baltimore, Md.		5	Newark, N. J.		4
Binghamton, N. Y.	2	2	Newburyport, Mass.		2
Boston, Mass.		10	New Orleans, La.		3
Bridgeport, Conn.		1	Newport, Ky.	1	1
Braddock, Pa.	1		New York, N. Y.		52
Cambridge, Mass.		1	Oakland, Cal.		1
Chicago, Ill.	7	33	Omaha, Nebr.		4
Cincinnati, Ohio		3	Pasadena, Cal.		1
Cleveland, Ohio	10	6	Pawtucket, R. I.		1
Cumberland, Md.		1	Philadelphia, Pa.	7	22
Dunkirk, N. Y.	2	2	Pittsburgh, Pa.	10	11
Elizabeth, N. J.		1	Reading, Pa.		1
El Paso, Tex.		2	Richmond, Va.		2
Evansville, Ind.		1	Salem, Mass.		1
Fall River, Mass.		1	San Diego, Cal.	1	1
Galesburg, Ill.	1		San Francisco, Cal.	6	
Hartford, Conn.		4	Saratoga Springs, N. Y.		1
Kalamazoo, Mich.	2		South Bethlehem, Pa.	1	
Lexington, Ky.		2	Springfield, Mass.		1
Logansport, Ind.		1	Washington, D. C.		3
Los Angeles, Cal.		3	Wheeling, W. Va.		1
Lowell, Mass.		3	Wilkes-Barre, Pa.		1
Lynn, Mass.		2	Woburn, Mass.		1

## POLIOMYELITIS (INFANTILE PARALYSIS).

CASES AND DEATHS REPORTED BY CITY HEALTH AUTHORITIES  
FOR THE WEEK ENDED AUG. 10, 1912.

City.	Cases.	Deaths.	City.	Cases.	Deaths.
Baltimore, Md.....	4	3	Los Angeles, Cal.....	33	7
Binghamton, N. Y.....	1		New York, N. Y.....	7	6
Boston, Mass.....	2		Philadelphia, Pa.....	2	
Cambridge, Mass.....	1		San Diego, Cal.....	2	
Chicago, Ill.....		3	San Francisco, Cal.....	2	
Cleveland, Ohio.....	12	2	Springfield, Mass.....	4	1
Dayton, Ohio.....	3	2			

## BUFFALO, N. Y., AND VICINITY.

Passed Asst. Surg. Frost reports further in regard to the outbreak of poliomyelitis at Buffalo as follows:

During the week ended August 24, 1912, there were reported to the commissioner of health of Buffalo 38 cases of poliomyelitis. Of these, 3 were found to have been wrongly diagnosed, 4 are considered abortive cases, and 2, reported as suspicious, have not yet been further investigated, leaving 29 definitely diagnosed paralytic cases.

Following is a summary of the cases of poliomyelitis reported in the city of Buffalo during the present year, corrected so far as is at present possible by the omission of wrongly reported and duplicate cases:

	Total cases.	Fatal cases.
Prior to June 22.....		
Week ending—	3	1
June 29.....	3	
July 6.....	2	
July 13.....	4	
July 20.....	12	1
July 27.....	26	1
Aug. 3.....	28	6
Aug. 10.....	18	4
Aug. 17.....	32	4
Aug. 24.....	29	3
Total.....	157	20

In addition to the above, which include only positively diagnosed paralytic cases, 4 cases have been reported as doubtful and 5 as abortive.

Epidemiologic records have been obtained of approximately one-half of the reported cases during the 10 days that the collection of such records has been in progress.

No further official information has been received, since the last report was rendered, as to the prevalence of poliomyelitis in communities adjacent to Buffalo, but according to unofficial but apparently authentic accounts 7 cases have recently occurred at Niagara Falls, Ontario, and 2 or 3 at Crystal Beach, Ontario, a summer resort patronized by Buffalo people.

LOS ANGELES, CAL.

Surg. Brooks of the United States Public Health Service, on duty in Los Angeles, reports as follows regarding the outbreak of poliomyelitis (infantile paralysis) at that place:

*Record of cases and deaths.*

	Cases.	Deaths.		Cases.	Deaths.
Week ended—			Week ended—		
June 15, 1912.....	1	1	July 27, 1912.....	41	8
June 22, 1912.....	7	1	Aug. 3, 1912.....	29	6
June 29, 1912.....	11	2	Aug. 10, 1912.....	28	9
July 6, 1912.....	34	6	Aug. 17, 1912.....	21	2
July 13, 1912.....	25	5			
July 20, 1912.....	29	3	Total.....	226	43

*Record of ages.*

Ages.	Cases.	Deaths.	Ages.	Cases.	Deaths.
Under 1 year.....	21	6	20 to 25 years.....	1	.....
1 to 2 years.....	47	7	25 to 30 years.....	1	.....
2 to 3 years.....	47	6	30 to 35 years.....	1	.....
3 to 4 years.....	26	4	35 to 40 years.....	1	.....
4 to 5 years.....	20	8	40 to 45 years.....	1	.....
5 to 10 years.....	32	7	45 to 50 years.....	1	.....
10 to 15 years.....	13	4	Age not recorded.....	9	.....
15 to 20 years.....	5	1			

*Record by sex.*—Cases, male 122, female 100; not recorded 4; deaths, male 28, female 15.

Quarantine, as in diphtheria, without guards, was instituted with the first case, but since August 6 strict isolation with guards day and night, as in smallpox, has been maintained.

A municipal hospital was opened August 12 and on August 17 4 cases had been received. Patients are recommended for admission for protection of other members of the family or neighboring families when strict isolation is difficult.

INDIANA.

A death from poliomyelitis occurred in Posey County, Ind., during the month of June, 1912.

RABIES.

During the month of June, 1912, there were reported in the State of Indiana 12 cases of rabies, occurring in 6 counties.

TETANUS.

During the week ended August 10, 1912, tetanus was reported by city health authorities as follows: Baltimore, Md., 1 death; Chicago, Ill., 1 death; New York, N. Y., 1 death; Wilkes-Barre, Pa., 1 case.

## SMALLPOX IN THE UNITED STATES.

## CITY REPORTS.

Cases and Deaths Reported by City Health Authorities for the Week Ended Aug. 10, 1912.

City.	Cases.	Deaths.	City.	Cases.	Deaths
Dayton, Ohio.....	2	.....	Oakland, Cal.....	1	.....
Detroit, Mich.....	1	.....	Pittsburgh, Pa.....	1	.....
Evansville, Ind.....	1	.....	Rockford, Ill.....	1	.....
Los Angeles, Cal.....	10	3	Saginaw, Mich.....	1	.....
Manchester, N. H.....	1	.....	St. Louis, Mo.....	1	.....
Milwaukee, Wis.....	3	.....	San Francisco, Cal.....	2	.....
New Orleans, La.....	1	.....	Spokane, Wash.....	1	.....
Niagara Falls, N. Y.....	7	.....			

## Los Angeles City and County, Cal.

During November and December, 1911, the virulent type of smallpox appeared in the city of Los Angeles. The first case was found in a district occupied by Mexicans. From March to November, 1911, smallpox had been present during each month in the city. The cases were comparatively few, however, there being only 26 reported. These were all of the benign type of the disease so prevalent throughout the country and among the 26 cases there was no fatality. During the two months of November and December, 1911, however, the disease appeared in virulent form, and out of the 25 cases reported during these two months, 6 ended fatally. During January, 1912, there were 30 cases with 1 death; during February, 16 cases with 1 death. From March to June, inclusive, there were 32 cases without fatality. During July, however, the disease again appeared in virulent form and during this month there were 13 cases with 2 deaths. During the first 16 days of August there were 5 deaths. In the neighboring city of Pasadena there were, during the month of July, 3 cases of smallpox with 2 deaths.

In one family in Los Angeles the father and three children, none of whom had ever been vaccinated, were attacked. Three of these cases ended fatally. The mother, who was the only member of the family who had ever been vaccinated, was also the only one who did not contract the disease. None of the other fatal cases in the city were in persons who had ever been successfully vaccinated.

This outbreak is of especial interest, as being an instance of the occurrence of the virulent type of smallpox in a community in which the benign form of the disease had been present more or less continuously for a considerable time.

## STATE REPORTS.

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

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

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

## SMALLPOX IN THE UNITED STATES—Continued.

Reports Received During Week Ended Aug. 30, 1912.

Places.	Date.	Cases.	Deaths.	Remarks.
<b>Indiana:</b>				
Counties—				
Allen.....	July 1-31.....	6		
Brown.....	do.....	2		
Cass.....	do.....	1		
Delaware.....	do.....	2		
Henry.....	do.....	1		
Howard.....	do.....	2		
Laporte.....	do.....	1		
Lawrence.....	do.....	1		
Madison.....	do.....	1		
Marion.....	do.....	6		
Shelby.....	do.....	2		
Vanderburg.....	do.....	4		
Wabash.....	do.....	1		
Wells.....	do.....	1		
Total for State.....		31		
<b>Illinois:</b>				
Counties—				
Bond.....	July 1-31.....	2		
Clinton.....	do.....	1		
Cook.....	do.....	4	1	
Gallatin.....	do.....	13		
Henderson.....	do.....	1		
Kane.....	do.....	1		
Lasalle.....	do.....	10		
St. Clair.....	do.....	1		
Macoupin.....	do.....	1		
Winnebago.....	do.....	2		
Total for State.....		36	1	
<b>North Carolina:</b>				
Counties—				
Bertie.....	July 1-31.....	2		
Buncombe.....	do.....	12		
Burke.....	do.....	1		
Craven.....	do.....	6		
Gates.....	do.....	1		
Granville.....	do.....	3		
Hoke.....	do.....	3		
Lee.....	do.....	1		
Lenoir.....	do.....	1		
Mecklenburg.....	do.....	1		
New Hanover.....	do.....	3		
Robeson.....	do.....	2		
Warren.....	do.....	5		
Wayne.....	do.....	1		
Yancy.....	do.....	1		
Total for State.....		43		
<b>Texas:</b>				
Counties—				
Dallas.....	May 1-31.....	2	1	
Goliad.....	do.....	4		
Gonzales.....	do.....	1		
Nueces.....	do.....	1		
Refugio.....	do.....	16		
Tarrant.....	do.....	2	2	
Travis.....	do.....	3		
Valverde.....	do.....	30	1	
Wood.....	do.....	18		
Total for State.....		77	4	
Valverde.....	June 1-30.....	3	1	
Wichita.....	do.....	1		
Total for State.....		4	1	
Refugio.....	July 1-31.....	1		
Van Zandt.....	do.....	2		
Total for State.....		3		

## SMALLPOX IN THE UNITED STATES—Continued.

Reports Received During Week Ended Aug. 30, 1912.

Places.	Date.	Cases.	Deaths.	Remarks.
Wisconsin:				
Counties—				
Adams.....	July 1-31.....	1		
Buffalo.....	do.....	3		
Clark.....	do.....	3		
Dane.....	do.....	2		
Douglas.....	do.....	1		
Fond du Lac.....	do.....	1		
La Crosse.....	do.....	1		
Milwaukee.....	do.....	10		
Monroe.....	do.....	1		
Richland.....	do.....	13		
Sauk.....	do.....	5		
Vernon.....	do.....	2		
Waukesha.....	do.....	6		
Waupaca.....	do.....	4		
Winnebago.....	do.....	1		
Wood.....	do.....	5		
Total for State.....		59		
Grand total.....		253	6	

## MORBIDITY AND MORTALITY.

MORBIDITY AND MORTALITY TABLES FOR CERTAIN DISEASES,  
CITIES OF THE UNITED STATES, FOR WEEK ENDED AUG. 10, 1912.

Cities.	Population, United States cen- sus, 1910.	Total deaths from all causes.	Diph- theria.		Measles.		Scarlet fever.		Tuber- culosis.		Ty- phoid fever.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
<i>Cities having over 500,000 inhabitants.</i>												
Baltimore, Md.....	558,485	200	7	2	4	11	1	50	21	25	2	
Boston, Mass.....	670,585	191	35	2	30	10		53	16	10		
Chicago, Ill.....	2,185,283	594	75	9	58	4	7	119	56	21	4	
Cleveland, Ohio.....	560,663	176	29	1	7	20	4	24	12	11		
New York, N. Y.....	4,766,883	1,267	210	20	187	4	73	5	438	161	201	9
Philadelphia, Pa.....	1,549,008	447	43	2	6	1	26	123	42	47	6	3
Pittsburgh, Pa.....	533,905	164	15	3	73	2	17	3	22	13	9	3
St. Louis, Mo.....	687,029	160	19	3	3	2		42	14	21		7
<i>Cities having from 500,000 to 500,000 in- habitants.</i>												
Cincinnati, Ohio.....	364,463	110	9		2	3		26	23	6	1	
Detroit, Mich.....	465,766	156	19	2		10	1					
Los Angeles, Cal.....	319,198	92	1		1	3		15	14	2	3	
Milwaukee, Wis.....	373,857	79	5	1	19	1	17	18	6	4		
Newark, N. J.....	347,469	87	18	1	4	1		29	13	10	1	
New Orleans, La.....	339,075	124	3		2	5	1	12	14	6		
San Francisco, Cal.....	416,912	109	7	1	1	1		27	9	15		
Washington, D. C.....	331,069	126			14			20	8	24		
<i>Cities having from 200,000 to 300,000 in- habitants.</i>												
Jersey City, N. J.....	267,779	77							6			
Providence, R. I.....	224,326	72	11			1	10	1	14	9	7	1
<i>Cities having from 100,000 to 200,000 inhabitants.</i>												
Bridgeport, Conn.....	102,054			1	1		2		6	2	2	
Cambridge, Mass.....	104,839	13	2		1		2		5	3	1	
Columbus, Ohio.....	181,548	44	5		4		6		1	4	3	
Dayton, Ohio.....	116,577		4		1				3	3	2	1
Fall River, Mass.....	119,295	31							3	1		

MORBIDITY AND MORTALITY—Continued.

Morbidity and mortality tables for certain diseases, cities of the United States, for week ended Aug. 10, 1912—Continued.

Cities.	Popula- tion, United States census 1910.	Total deaths from all causes.	Diph- theria.		Mea- sles.		Scarlet fever.		Tuber- culosis.		Ty- phoid fever.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
<i>Cities having from 100,000 to 200,000 in- habitants—Continued.</i>												
Lowell, Mass.	106,294	27			1		6		1	3		
Nashville, Tenn.	110,364	35					3		7	2	8	
Oakland, Cal.	150,174	43	2	1			1		3	3	3	1
Omaha, Nebr.	124,096	36	2							4	3	
Richmond, Va.	127,628	52	5				7		5	3	22	
Spokane, Wash.	104,402	1	1				2				3	
Toledo, Ohio.	168,497	52	1				1			6	6	1
Worcester, Mass.	145,986	43	6			8	1		4	3	5	
<i>Cities having from 50,000 to 100,000 inhabitants.</i>												
Altoona, Pa.	52,127	22	1				1				2	
Bayonne, N. J.	55,545	15	1		5	1	4		1	1	1	1
Brockton, Mass.	56,878	17	6	1	2				1	2	1	
Camden, N. J.	94,538	3	3				1		4	4	1	
Elizabeth, N. J.	73,409	35	4	1	2		3		2	2	2	
Erie, Pa.	66,525	11	6		14		2		2		1	
Evansville, Ind.	69,647	16	1						1	1	1	
Harrisburg, Pa.	64,186	21	2						4	1	1	
Hartford, Conn.	98,915	43	5	1	6		2		4	1	1	
Hoboken, N. J.	70,324						1		5	1	1	
Johnstown, Pa.	55,482	16	1		3		2		1	1	1	
Kansas City, Kans.	82,331	1	1		1				3			
Lynn, Mass.	89,336	24	3	1	3		1		5		1	
Manchester, N. H.	70,063	19	1									1
New Bedford, Mass.	96,652	43	1				3		2	5	7	1
Passaic, N. J.	54,773	24	1		14				1		1	1
Pawtucket, R. I.	51,622									1		
Peoria, Ill.	66,950	22	1						1	1		
Reading, Pa.	96,071	37	2	1	4		1		2	2	9	2
Saginaw, Mich.	50,510	6			3				1	3		
San Antonio, Tex.	96,614	44					1			8	5	3
Schenectady, N. Y.	72,826	20			2				3	1	7	
South Bend, Ind.	53,684	19					5		1	3		
Springfield, Ill.	51,678	12			1						2	
Springfield, Mass.	88,926	34							4	2	3	1
Trenton, N. J.	96,815	35	1		1		2		11	3	4	1
Wilkes-Barre, Pa.	67,105	15	6	1	2		1		6			
Wilmington, Del.	87,411	29								3		
Yonkers, N. Y.	79,803	17	7		1		4		3		1	
<i>Cities having from 25,000 to 50,000 in- habitants.</i>												
Atlantic City, N. J.	46,150	14	2		1				1		2	
Auburn, N. Y.	34,668	13									3	
Aurora, Ill.	29,807	7								1		
Berkeley, Cal.	40,434	6	2						2	2	1	
Binghamton, N. Y.	48,443	18	1		1		1		3	2	1	
Brookline, Mass.	27,792	8	2		1							
Chattanooga, Tenn.	44,604		3				1		2			
Chelsea, Mass.	32,452	3			3				1		1	
Chicopee, Mass.	25,401	12	1	1								
Danville, Ill.	27,871	12					2			7		
East Orange, N. J.	34,371								1	1		
Elmira, N. Y.	37,176	6	2								1	1
El Paso, Tex.	39,279	34	1							3	9	
Everett, Mass.	33,484	8	1						3			
Fitchburg, Mass.	37,826	9							2		1	
Haverhill, Mass.	44,115	14	3						2		2	
Kalamazoo, Mich.	39,437	12	1						4	3	2	
La Crosse, Wis.	30,417	8	2									
Lancaster, Pa.	47,227				4				2		1	
Lexington, Ky.	35,099	12					1		4			2
Lynchburg, Va.	29,494	11	1				1		2		2	
Malden, Mass.	44,404	7			2				3	1	1	
Montgomery, Ala.	38,136	13					1			2	2	
Mount Vernon, N. Y.	30,919				1				2			



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

**CONNECTICUT**—Month of July, 1912. Population, 1,114,756. Total number of deaths from all causes 1,438, including diphtheria 13, measles 13, scarlet fever 3, tuberculosis, pulmonary, 110, typhoid fever 13. Cases reported: Diphtheria 90 in 34 towns, measles 326 in 51 towns, scarlet fever 76 in 26 towns, smallpox 8 in 2 towns, tuberculosis, pulmonary, 174 in 46 towns, typhoid fever 117 in 34 towns

**INDIANA**—Month of June, 1912. Population, 2,700,876. Total number of deaths from all causes 2,365, including diphtheria 7, measles 11, scarlet fever 5, smallpox 3, tuberculosis 290, typhoid fever 29. Cases reported: Diphtheria 93 in 27 counties, scarlet fever 146 in 33 counties, smallpox 91 in 17 counties, typhoid fever 153 in 49 counties.

**KANSAS**—Month of June, 1912. Population, 1,690,949. The deaths include scarlet fever 1, tuberculosis 26, typhoid fever 4. Cases reported: Diphtheria 24, measles 104, scarlet fever 47, smallpox 30, tuberculosis 204, typhoid fever 48.

**MICHIGAN**—Month of July, 1912. Population, 2,810,173. Cases of communicable diseases reported: Diphtheria 149, measles 80, scarlet fever 126, smallpox 13, tuberculosis 145, typhoid fever 148

# FOREIGN AND INSULAR.

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## ALGERIA.

### An Outbreak of Pneumonic Plague in the Vicinity of Algiers.

With further reference to the 6 fatal cases of plague occurring at Le Ruisseau, a small village 4 miles from the port of Algiers between July 6 and 13, 1912, noted in the Public Health Reports of August 16, 1912, page 1347, the French ministry for foreign affairs in compliance with the requirements of the International Sanitary Convention of December 3, 1903, advised, July 20, that the cases were all of the pneumonic form; that the precautions taken had been successful in confining the disease to the house in which it originated and to those immediately associated with the people living therein; and that the examination of rodents had not shown the existence of infected rats. The measures carried out were the isolation of the infected persons, the placing under observation of the persons who had come in contact with them, the disinfection of effects and premises, and the extermination of rats. The origin of the disease has not been discovered.

Consul Mason at Algiers reports August 5 that deratization was carried out in the village of Le Ruisseau and its vicinity, and that from July 6 to 26 there were collected 1,610 rats, of which about 600 were examined for plague infection. No plague-infected rat was found.

## CHINA.

### Hoihow Declared Cholera-Infected.

By Government notification at Hongkong, dated July 5, Hoihow was declared to be a cholera-infected port.

Hoihow is a seaport on the island of Hainan, which separates the Gulf of Tonkin from the China Sea.

### Hongkong-Plague-Plague-infected Rats.

Surg. Brown reports: During the week ended July 6, there were reported 60 cases of plague with 50 deaths, and during the week ended July 13, there were reported 43 cases of plague with 33 deaths at Hongkong.

During the two weeks ended July 15, there were examined for plague infection 3,000 rats. Of this number 26 were found infected.

## CUBA.

### Declared Free from Plague.

In Cuba there have been 3 cases of plague in Habana. None has been reported elsewhere in the island. The last case was reported July 22 and terminated fatally July 27. Many thousands of rats have been caught in the city of Habana, but of those examined none has been found plague infected.

Pursuant to Article IX (see p. 1409) of the International Sanitary Convention, signed at Washington, October 14, 1905, to which both the Governments of Cuba and the United States are signatory, the Cuban authorities have advised that Cuba is now to be considered free from plague, but that the collection and examination of rats in Habana will continue. In compliance with the terms of the convention referred to, the Secretary of the Treasury of the United States has waived, until further notice, restrictions on passenger traffic from Cuba to the United States. Precautions against the importation of rats from Cuba to the United States on vessels will be continued, in conformity with the policy being carried out by the Cuban authorities.

#### Habana—Inspection of Vessels Clearing for the United States.

Passed Asst. Surg. von Ezdorf reports as follows regarding the inspection at Habana of vessels clearing for United States ports:

*Week ended August 17, 1912.*

Bills of health issued.....	22
Vessels inspected and passed.....	15
Members of crews of outgoing vessels inspected.....	885
Passengers of outgoing vessels inspected.....	396
Number of vessels certified as complying with paragraph 35, United States Quarantine Regulations, 1910.....	10
Vessels fumigated to kill rats.....	9
Vessels fumigated by Cuban authorities, under the supervision of the United States Public Health Service.....	3
Passengers individually certified.....	260
Passengers certified after detention at Tricornia:	
For New York.....	13
For Key West.....	42
For New Orleans.....	8

#### Examination of Rats—Disposal of Garbage.

During the week ended August 17 there were examined 675 rats. No plague-infected rat was found.

The sanitary authorities are enforcing the regulations in the infected zone requiring householders to procure and use metal garbage cans with covers. During the week ended August 17 about 2,000 persons were fined for noncompliance with the regulation.

#### HAWAII.

##### Examination of Rodents for Plague Infection.

During the week ended July 27, 1912, 801 rats and mongoose were examined at Hilo and 1,747 at Honokaa. No plague infection was found.

At Honolulu during the same week 265 rats were examined. No plague infection was found.

The last case of human plague occurred at Honokaa March 15, 1912. The last plague-infected rat was found between Honokaa and Kapulena April 24, 1912.

**INDIA.****Calcutta—Cholera and Plague.**

Dr. Allan, surgeon to the American consulate general, reports: During the week ended July 6, 27 deaths from cholera and 10 from plague were reported at Calcutta; in all Bengal, 10 cases of plague with 10 deaths were reported; in all India, 368 cases of plague, with 266 deaths.

**JAPAN.****Cholera Epidemic on the Miyako Islands.**

Surg. Irwin at Yokohama reports: According to information received from Naha, Loochoo Islands, an epidemic of cholera is raging on one of the islands of the Mikayo group, which lies between the Loochoos and Formosa. To July 10 there had been reported 81 cases. On July 29 nearly half of the population was reported to be affected.

**MEXICO.****Yellow Fever at San Juan Bautista.**

During the week ended August 17, 1912, there were reported at San Juan Bautista 6 cases of yellow fever, with 3 deaths. The total number of cases of yellow fever reported at San Juan Bautista from May 4 to August 17 was 49, with 21 deaths.

**PORTO RICO.****The Plague Situation.**

From August 21 to 27, both dates inclusive, no case of plague was reported in Porto Rico. The total number of cases reported, therefore, remains the same as that noted last week, namely, 49 cases, of which 33 occurred in San Juan. The work for the control and eradication of the disease is progressing rapidly and satisfactorily. Passed Asst. Surg. Creel, in charge of the work, reported August 21 that Asst. Surg. Williams would be ordered to Ponce for the purpose of opening a laboratory, supervising the ratproofing of buildings, and superintending the catching and poisoning of rats; that Asst. Surg. Ridlon would be ordered to Mayaguez to inaugurate and carry out similar work at that place; that the work to be performed at Ponce and Mayaguez would be similar to that being carried on in San Juan, although necessarily on a lesser scale; and that the work would include the catching and poisoning of rats, house to house inspection, enforcement of ratproofing laws, and especial attention to garbage disposal. A foreman and a gang of rat trappers have begun operations in Caguas, and all rats caught there will be forwarded to the laboratory at San Juan for examination. Ratproofing in San Juan is progressing rapidly, and within a comparatively short period this work will be completed in Puerta de Tierra and Santurce. Ratproofing in the older part of the city of San Juan will be slower of accomplishment, due to the greater congestion and the construction of the buildings.

Passed Asst. Surg. Creel further reports as follows:

*Rats examined Aug. 10 to 17, 1912.*

Place.	Rats examined.	Rats found infected.	Rats found suspicious.
All Porto Rico.....	1,334		
San Juan municipality:			
San Juan.....	257		
Puerta de Tierra.....	136	1	
Santurce.....	240		

A summary of the plague situation to August 17, including all human and rodent cases reported or discovered, was as follows: Rats examined, 9,085; rats found infected, 59; human cases, 49; deaths, 30.

*Inspections made Aug. 10 to 17, 1912, inclusive.*

Buildings inspected.....	1,006
Cars inspected.....	115
Packages of freight fumigated.....	835
Packages of freight repacked.....	129
Packages of freight inspected and passed.....	11,173
Oxcarts and wagons carrying outgoing overland freight inspected.....	740
Packages inspected.....	9,571
Packages fumigated.....	11
Packages repacked.....	322
Packages inspected.....	9,904
Express packages inspected.....	534
Express packages repacked.....	256
Rats found in freight and express packages inspected.....	8

**SOUTH AFRICA.**

**Durban, Natal—Plague.**

Consul Stewart reports July 27 that the diagnosis of plague in a case which ended fatally at Durban July 4 was confirmed July 14. The total number of cases from January 14 to date was 32, with 26 deaths.

**VENEZUELA.**

**Yellow Fever.**

Acting Asst. Surg. Stewart at La Guaira reports the occurrence of a death from yellow fever at Maiquetia July 28.

**ZANZIBAR.**

**Zanzibar—Examination of Rats.**

Consul Weddell reports that during the two weeks ended July 5, 1912, there were examined for plague infection 1,957 rats. No plague-infected rat was found.

# CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX.

## Reports Received During Week Ended Aug. 30, 1912.

[These tables include cases and deaths recorded in reports received by the Surgeon General, United States Public Health Service, from American consuls through the Department of State and from other sources.]

### CHOLERA.

Places.	Date.	Cases.	Deaths.	Remarks.
China:				
Holhow.....	July 5.....			Present. The seaport of the island of Hainan.
India:				
Bombay.....	July 14-20.....	81	67	
Calcutta.....	June 30-July 6.....		27	
Madras.....	July 14-20.....	1	1	
Indo-China:				
Saigon.....	June 25-July 1....	67	51	
Do.....	July 2-8.....	36	19	
Japan:				
Formosa.....	June 30-July 6....	11	9	
Miyako Islands.....	July 10.....	81		
Straits Settlements:				
Singapore.....	June 30-July 13...	19	15	

### YELLOW FEVER.

*Correction.*—A death from plague July 27, 1912, at Habana, noted in the Public Health Reports of August 2, 1912, p. 1258, was erroneously inserted in the table for yellow fever in the Public Health Reports of Aug. 23, 1912.

The last case of yellow fever at Habana was one imported on a vessel June 21, 1909.

Brazil:				
Manaos.....	July 27-Aug. 3....	1	1	
Mexico:				
San Juan Bautista.....	Aug. 11-17.....	6	3	May 4-Aug. 10: 10 cases and 14 deaths not previously reported.

### PLAGUE.

Algeria:				
Algiers.....				The 6 fatal cases of plague reported on p. 1353 in vicinity of Algiers were of the pneumonic form.
Chile:				
Iquique.....	July 7-20.....	1	1	
China:				5 deaths daily.
Amoy.....	July 20.....		5	
Hongkong.....	do.....	67	55	
India:				
Bombay.....	July 14-20.....	8	6	
Calcutta.....	June 30-July 6.....		10	
Indo-China:				
Saigon.....	June 26-July 1....	2*	2	
Do.....	July 2-8.....	4	2	
Japan:				
Formosa.....	June 30-July 6....	6	9	
Porto Rico.....	Aug. 4-10.....		1	
South Africa:				
Durban.....	July 4.....	1	1	Confirmed July 14.

### SMALLPOX.

Canada:				
Montreal.....	Aug. 11-17.....	11		
Chile:				
Coquimbo.....	July 21-27.....	5		
China:				
Dalny.....	July 7-13.....		1	
Hongkong.....	July 7-20.....	8		July 20, present.
Nanking.....				

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

Reports Received During Week Ended Aug 30, 1912.

## SMALLPOX—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Egypt:				
Cairo .....	July 2-8.....	2	2	
France:				
Paris.....	July 22-Aug. 3.....	1		
Germany:	Aug. 4-10.....	1		
Great Britain:				
Bristol.....	July 28-Aug. 3.....		1	
India:				
Bombay.....	July 14-20.....	12	11	
Calcutta.....	June 30-July 6.....		2	
Madras.....	July 14-20.....	2	1	
Italy:				
Naples.....	July 28-Aug. 3.....	1		
Mexico:				
Aguascalientes.....	Aug. 12-18.....		1	
Mexico.....	July 7-13.....	35	10	
San Luis Potosi.....	June 2-8.....		2	
Newfoundland:				
St. Johns.....	Aug. 1-7.....	2		
Portugal:				
Lisbon.....	July 28-Aug. 3.....	4		
Russia:				
Odessa.....	July 21-27.....	2	2	
Spain:				
Barcelona.....	July 28-Aug. 3.....		1	
Madrid.....	July 1-31.....		5	
Straits Settlements:				
Penang.....	June 23-July 13.....	3	1	
Singapore.....	June 30-July 13.....	2	1	
Turkey in Asia:				
Beirut.....	July 28-Aug. 3.....	15		

## Reports Received from June 29 to Aug. 23, 1912.

[For reports received from Dec. 30, 1911, to June 28, 1912, see PUBLIC HEALTH REPORTS for June 28, 1912, in accordance with custom, the tables of epidemic diseases are terminated semiannually and new tables begun.]

## CHOLERA.

Ceylon:				
Colombo.....	May 19-25.....	1		In the port.
China:				
Amoy.....	June 16-29.....	9		June 1-20, present in vicinity.
Swatow.....	June 1-22.....			Sporadic cases occurring in the port. July 13, epidemic.
Dutch East Indies:				
Java—				
Batavia.....	June 16-22.....	1	1	
Rembang, province.....	July 4.....			Present.
Sumatra—				
Bovenlandes, province.....	June 27-July 4.....			Do.
Tapanoei, province.....	July 11.....			Do.
India:				
Bassein.....	May 5-June 25.....	21	18	
Bombay.....	May 19-July 13.....	1,461	1,141	
Calcutta.....	Apr. 21-27.....		87	Received out of date.
Do.....	May 5-June 29.....		288	
Madras.....	May 19-July 6.....	11	8	Madras Presidency, May 1-June 30: Cases, 15,858; deaths, 9,104.
Maulmain.....	May 5-June 25.....	19	19	
Rangoon.....	Apr. 1-May 31.....	34	31	
Indo-China:				
Saigon.....	May 14-June 24.....	245	194	
Japan:				
Formosa.....				Total June 16-29: 31 cases, 13 deaths.
Kelung.....	June 27.....			Epidemic.
Russian Empire:				
Astrakhan.....	June 11-July 12.....	2	1	July 19, present.
Vitebsk.....	July 29.....	2	1	
Siam:				
Bangkok.....	Apr. 21-June 15.....		941	

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

Reports Received from June 29 to Aug. 23, 1912.

## CHOLERA—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
<b>Straits Settlements:</b>				
Singapore.....	May 12-June 29...	19	20	
<b>Turkey in Asia:</b>				
<b>Provinces—</b>				
<b>Adana—</b>				
Adana.....	May 14-June 15...	11	6	
Ak Keupru.....	Apr. 8-June 13....	12	6	
Ayas.....	June 11-15.....	2	2	
Bor.....	May 28-June 15...	6	4	
Djihan.....	do.....	11	1	
Dorach Bache.....	do.....	4	5	
Oula Kichla.....	May 28-July 6....	5	10	
Sis.....	May 28-June 15...	5	5	
Tarsus.....	May 28-June 17...	4	4	
<b>Aleppo—</b>				
Aleppo.....	May 19-July 27...	297	260	
Alexandretta.....	May 28-June 15...	7	3	
Amk.....	July 1-6.....	5	4	
Anitab.....	do.....	1	1	
Antioch.....	Apr. 17.....	2	1	
Arka.....	do.....	10	4	
Gisser.....	July 7-13.....	13	6	
Harem.....	June 23-July 14...	32	27	
Hersem.....	July 1-6.....	5	4	
Idlib.....	June 23-29.....	4	3	
Keudige.....	do.....	4	4	
Killis.....	June 16-July 13...	14	6	
Marach.....	June 15-July 13...	146	62	
Sarenda.....	July 1-6.....	7	6	
Talacrin.....	do.....	3	3	
<b>Mersina.....</b>	June 9-July 28...	40	33	
<b>Zanzibar.....</b>	Aug. 10.....			Present.

## YELLOW FEVER.

<b>Brazil:</b>				
Manaos.....	June 2-July 27.....		27	
Pernambuco.....	Apr. 16-July 15...		6	
<b>Chile:</b>				
Toco district.....	May 1-16.....	62	17	
Tocopilla.....	May 1-June 17...	502	195	Total Jan. 28-June 17: Cases, 1,072; deaths, 374, including report, p. 1058, Pt. I.
<b>Colombia:</b>				
Barranquilla.....	July 14-20.....		1	From up Magdalena River.
<b>Ecuador:</b>				
Bucay.....	June 1-15.....	1	1	
Chobo.....	June 15-30.....	2	1	
Duran.....	May 1-June 30....	2	1	
Guayaquil.....	do.....	45	27	
Milagro.....	May 16-June 30...	10	6	
Naranjito.....	May 1-June 30....	6	4	
Yaguachi.....	May 16-June 30...	2	1	
<b>Mexico:</b>				
Frontera.....	Aug. 19.....			2 cases on a Swedish vessel.
Merida.....	July 14-25.....	2	1	From Motul, 29 miles distant.
San Juan Bautista.....	June 23-Aug. 10...	21	3	Total May 4-Aug. 10: Cases 43, deaths 18, including previous reports.
<b>Peru:</b>				
Iquitos.....	Jan. 1-May 31.....		42	Endemic. Year 1908, deaths, 11; 1910, 1; 1911, 76.
<b>Venezuela:</b>				
Caracas.....	May 1-June 30....		5	July 22, 3 cases from El Valle; 1 case from Villa de Cura about 29 miles distant; and to July 31, 2 other cases.
<b>Cua.....</b>	July 20.....			Present.
La Guaira.....	May 1.....	1		
La Victoria.....				Endemic. July 20, present.
Macuto.....	June 1.....	1	1	
Maiquetia.....	June 17-Aug. 3....	2	2	

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

Reports Received from June 29 to Aug. 23, 1912.

## PLAGUE.

Places.	Date.	Cases.	Deaths.	Remarks.
Algeria:				
Algiers.....	July 12.....		1	In Hospital El Kettar in vicinity.
Le Ruisseau.....	July 9-13.....		5	4 miles from Algiers.
Arabia:				
Aden.....	July 1.....		1	From s. s. India.
Oman—				
Maskat.....	June 1-22.....	1		
Brazil:				
Nichteroy.....	Mar. 25.....	8	2	
Rio de Janeiro.....	June 23-29.....	1		
Chile:				
Iquique.....	May 26-June 22.....	16	10	
China.....				May 13-June 15 present in the magistracies of Fungshun, Cayung, and Puning.
Amoy.....	May 20-June 1.....	46	40	Present May 13-June 29 in Amoy and vicinity.
Ampo.....	May 18-June 29.....			Present.
Canton.....	May 18-July 7.....			Do.
Chefu.....	June 2-8.....			2 deaths on s. s. Cheongshing between Tientsin and Taku.
Eng Chhun.....	July 6.....			Present. 100 miles inland from Amoy, and prevalent in the surrounding country.
Hongkong.....	May 12-July 7.....	1,275	1,042	
Packhoi.....	May 1-29.....		35	
Tientsin.....	June 2-8.....	1	1	From s. s. Cheongshing from Hongkong.
Wenchang.....	June 4.....			On the island of Hainan, 10 to 20 cases daily.
Cuba:				
Habana.....	July 4-27.....	3	2	
Ecuador:				
Guayaquil.....	May 1-31.....	4	2	
Dutch East Indies.....				May 12-June 29. Cases, 65; deaths, 56; in the eastern part.
Java—				
Provinces—				
Kediri.....	Mar. 31-Apr. 6.....	2	2	
Madiven.....	do.....	3	3	
Egypt.....				Total, June 1-July 2: Cases, 748; deaths, 389, including report p. 1059, Pt. I.
Alexandria.....	May 27-July 12.....	8	1	
Port Said.....	May 29-July 16.....	5		
Provinces—				
Assiout.....	May 25-June 27.....	12	5	
Beni Souef.....	May 30-June 26.....	12	9	
Carchieh.....	Apr. 23-July 2.....	7	2	
Fayoum.....	Apr. 23-July 14.....	49	26	
Galioubeh.....	Apr. 23-June 3.....	1		
Girgeh.....	May 26-July 6.....	50	42	
Minieh.....	May 27-July 14.....	33	7	
Great Britain:				
Liverpool.....	July 26.....	1		
India:				
Bombay.....	May 19-July 6.....	248	196	
Calcutta.....	Apr. 21-June 29.....		418	Report Apr. 27 received out of date.
Karachi.....	Apr. 1-June 24.....	60	60	
Rangoon.....	Apr. 1-May 31.....	81	69	
Bombay Presidency and Sind.....	Apr. 21-June 29.....	1,878	1,538	
Madras Presidency.....	do.....	110	88	
Bengal.....	do.....	564	553	
Bihar and Orissa.....	do.....	5,346	4,658	
United Provinces.....	do.....	7,386	6,900	
Punjab.....	do.....	15,865	13,028	
Burma.....	do.....	344	318	
Central Provinces.....	Apr. 21-May 25.....	283	238	
Mysore State.....	Apr. 21-June 29.....	154	123	
Hyderabad State.....	do.....	218	176	
Central India.....	Apr. 21-May 25.....	276	227	
Rajputana and Ajmere.....	Apr. 21-June 29.....	570	474	
Merwara.....				
Kashmir.....	do.....	289	170	Total for India Apr. 21-June 29; Cases, 33,283; deaths, 28,491.
Indo-China:				
Saigon.....	May 14-June 24.....	25	15	

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

Reports Received from June 29 to Aug. 23, 1912.

## PLAGUE—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Japan:				
Formosa.....	Apr. 22-June 29...	81	59	
Persia:				
Bushir.....	May 12-June 15...	130	116	Total Feb. 4-June 15: Cases 1,045, deaths 719, including report, p. 1060, Pt. I. June 1-7, on the route to Shiraz, 4 fatal cases.
Philippine Islands:				
Manila.....	June 14-29.....	2	2	
Marivetes quarantine station.	Apr. 30-May 7.....	1	1	From s. s. Taisang from Amoy.
Porto Rico.....				Total June 14-Aug. 16: Cases, 49; deaths, 30.
Arroyo.....	June 22.....	1		On the schooner Guillermito from San Juan.
Carolina.....	June 25-July 19...	2	2	
Dorado.....	July 15.....	1	1	
Loiza.....	June 28.....	1	1	
San Juan.....	June 21-Aug. 16...	21	17	Total June 14-Aug. 16: Cases, 33; deaths, 17.
Santurce.....	June 22-Aug. 2...	11	3	
Russian Empire:				
Districts—				
Liblstchensky—				
Balaptubek.....	May 15-June 2...	2	2	
Karabas.....	do.....	5	2	
Do.....	June 3-16.....	8	10	
Kudeymula.....	May 27-June 16...	5	5	
Ural—				
Tschelirtinsky.....	May 20-June 16...	13	11	
Siam:				
Bangkok.....	Apr. 21-May 18.....		1	
South Africa:				
Durban.....				Jan. 14-June 21: Cases 31, deaths 25, including report, p. 1060, Pt. I.
Straits Settlements:				
Kwala Lampour.....	Apr. 15.....	3	1	
Singapore.....	May 5-June 29...	16	10	
Turkey in Asia:				
Adalia.....	May 28-June 13...	1	1	July 4, present.
Basra.....	May 20.....	1	1	
Middah.....	May 18.....	1		
West Indies:				
Trinidad.....				Total Apr. 1-June 13: Cases 11, deaths 7, including report, p. 1060, Pt. I; 3 of these cases were in Tunapuna.
Do.....	July 2-11.....	2		
Venezuela:				
Caracas.....	June 1-July 22...	4	4	
At sea.....	July 15-20.....	3		On s. s. Ezan Maru en route from Miike, Japan, to Hongkong.

## SMALLPOX.

Algeria:				
Departments—				
Algiers.....	Jan. 1-May 31.....	23		
Constantine.....	Apr. 1-30.....	4		
Oran.....	May 1-31.....	5		
Arabia:				
Aden.....	June 18-24.....		1	
Australia:				
Fremantle quarantine station.	Apr. 19.....	1		From s. s. Malwa from London via Colombo.
Townsville.....	May 24.....			1 case on s. s. Yawata Maru from Japan.
Austria-Hungary:				
Bohemia.....	May 13-July 13...	17		
Galicia.....	do.....	18		
Brazil:				
Ferrambuco.....	Apr. 16-May 15...		73	
Rio de Janeiro.....	May 19-July 6.....	11	5	
British East Africa:				
Mombasa.....	May 1-June 30...	7		

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

Reports Received from June 29 to Aug. 23, 1912.

## SMALLPOX—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
<b>Canada:</b>				
<b>Provinces—</b>				
British Columbia—				
Vancouver	July 14-20.....	1		
Newfoundland—				
St. Johns	do.....	5		
Nova Scotia—				
Halifax	July 7-13.....	1		
Ontario—				
Ottawa	June 9-15.....	1		
Windsor	June 12-22.....	2		
Quebec—				
Montreal	June 16-Aug. 3.....	7		
Quebec	July 28-Aug. 3.....	2		
<b>Chile:</b>				
Coquimbo	May 26-July 20.....	48	13	Mar. 1-May 1—30 cases.
La Serena	Nov. 30-May 7.....	300	40	
<b>China:</b>				
Amoy	May 21-June 8.....			Present in vicinity.
Chungking	May 5-June 15.....			Present.
Dainy	June 23-July 6.....	2		
Hongkong	May 12-June 29.....	20	13	
Nanking	May 19-June 29.....			Do.
Shanghai	May 28-July 14.....	3	15	Deaths among natives
Tientsin	June 2-8.....		1	
<b>Egypt:</b>				
Cairo	May 14-July 1.....	7	2	
Port Said	May 14-27.....	2	1	
<b>France:</b>				
Nantes	June 17-July 6.....	4		
Paris	June 2-July 20.....	6	1	
<b>Germany</b>				Total June 2-July 20: 30 cases.
<b>Great Britain:</b>				
Bristol	June 22-28.....	2		
Liverpool	June 2-8.....	1		
<b>Hawaii:</b>				
Honolulu	July 9-13.....	1		
<b>Honduras</b>				Present in vicinity of the terminus and along the Honduras National Railway
La Pimienta	July 29.....			Present.
Portorillas	July 31.....			Do.
Santa Barbara	July 29.....			Do.
Zacapa	do.....			Do.
<b>India:</b>				
Bombay	May 19-July 13.....	175	145	
Calcutta	May 5-June 29.....		15	Apr. 21-27, 2 cases.
Karachi	May 19-July 13.....	2	2	
Madras	May 19-July 6.....	10	6	
Maulmain	Jan. 1-May 4.....		85	
Rangoon	Apr. 1-May 31.....	194	73	
<b>Indo-China:</b>				
Saigon	May 14-20.....	3	2	
<b>Italy:</b>				
Leghorn	June 9-July 6.....	9		
Naples	June 2-July 27.....	21	2	
Palermo	May 26-July 6.....	4	2	
Rome	Mar. 31-Apr. 6.....	1	1	
Turin	June 3-9.....	1		
<b>Japan:</b>				
Kobe	June 3-23.....	3		
<b>Java:</b>				
Batavia	May 12-July 6.....	37	11	
Surabaya	Apr. 1-30.....	155	70	June 4-17, still epidemic, but decreasing.
<b>Mexico:</b>				
Aguascalientes	June 9-Aug. 4.....		10	
Chihuahua	Mar. 11-July 14.....	98	39	
Durango	June 1-30.....	1	1	
Frontera	July 7-11.....	1		
Guadalajara	June 9-Aug. 3.....	7	3	
Guaymas	July 14-20.....			Present in small towns in vicinity.
Juarez	June 16-22.....		1	
Mazatlan	June 19-July 16.....		4	Total Jan. 1-June 30: Deaths, 29
Minatitlan	July 29.....	2		
Mexico	May 19-July 6.....	272	136	
Puerto Mexico	July 11-23.....	5	2	
Salina Cruz	June 29-July 6.....	2	1	

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

Reports Received from June 29 to Aug. 23, 1912.

## SMALLPOX—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
<b>Mexico—Continued.</b>				
San Geronimo.....	Aug. 1.....			Present.
San Luis Potosi.....	Apr. 7–May 25....	3	5	
Tehuantepec.....	Aug. 1.....			Do.
<b>Peru:</b>				
Callao.....	May 19–June 29....			Do.
<b>Portugal:</b>				
Lisbon.....	May 27–July 27....	30		
<b>Russia:</b>				
Libau.....	May 14–June 13....		1	
Do.....	June 22–28.....	2		
Moscow.....	May 19–June 22....	19	3	
Odessa.....	May 19–25.....		1	
Do.....	June 2–July 2.....	11	2	
Reval.....	June 1–30.....		1	
Riga.....	June 9–29.....	8		May 1–31, 2 deaths.
St. Petersburg.....	May 27–July 6....	62	20	
Warsaw.....	Apr. 21–May 25....	28	12	
<b>Siam:</b>				
Bangkok.....	Apr. 21–June 15....		62	
<b>Siberia:</b>				
Vladivostok.....	May 17–23.....	1		
<b>South Africa:</b>				
Durban.....	Apr. 28–June 29....	21	3	
<b>Spain:</b>				
Almeria.....	June 1–30.....		3	
Barcelona.....	July 1–6.....		1	
Cadiz.....	May 1–June 30....		4	
Seville.....	June 1–July 31....		15	
Valencia.....	June 2–July 27....	86	4	
<b>Straits Settlements:</b>				
Singapore.....	July 14–20.....	2	2	
Singapore.....	May 5–June 29....	7	5	
<b>Switzerland:</b>				
Berne.....	May 5–11.....	2		
Geneva.....	do.....	1		
Lucerne.....	May 12–18.....	1		
Neuchatel.....	do.....	1		
<b>Turkey in Asia:</b>				
Beirut.....	May 26–July 27....	100		
Dardanelles.....	June 23–July 20....		7	
<b>Turkey in Europe:</b>				
Constantinople.....	May 27–Aug. 4....		107	
<b>Uruguay:</b>				
Montevideo.....	May 1–31.....	1		
<b>Venezuela:</b>				
La Guaira.....	June 6.....	1		

## MORTALITY.

## WEEKLY MORTALITY TABLE, FOREIGN AND INSULAR CITIES.

Cities.	Week ended—	Estimated population.	Total deaths from all causes.	Deaths from—												
				Tuberculosis.	Plague.	Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Typhoid fever.	Scarlet fever.	Diphtheria.	Menses.	Whooping cough.		
Aguascalientes.....	Aug. 18	40,000	63					1		4	4					
Aix la Chapelle.....	July 20	157,912	61	7												1
Do.....	July 27	157,931	60	6									1			2
Asuncion.....	July 13	75,000	15							1						
Athens.....	Aug. 3	250,000	89	19						1						
Barmen.....	July 13	171,300	44	2											1	
Do.....	July 20		36	7											1	
Barcelona.....	Aug. 3	591,272	201	35				1		2						2
Birmingham.....	do.....	842,512	152	18							2				6	

MORTALITY—Continued.

Weekly mortality table, foreign and insular cities—Continued.

Cities.	Week ended—	Estimated population.	Total deaths from all causes.	Deaths from—												
				Tuberculosis.	Plague.	Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Typhoid fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.		
Bradford.....	Aug. 3	289,618	51	4						2		2				
Bremen.....	July 27	246,850	54	9								3		1		1
Batavia.....	July 13	217,630						1	1							
Berlin.....	July 27	2,077,418	494	69								5	7	4		7
Do.....	July 20		486	61								5	7	2		3
Bombay.....	do.....	979,445	723	7	6	67		11						1		
Bristol.....	Aug. 3	359,400	76	13				1						2	1	
Do.....	Aug. 10		65	8								1				2
Brunswick.....	July 20	145,000	7									3	10			
Brussels.....	Aug. 3	679,735	160	21								1		1		
Budapest.....	July 13	1,000,000										1	4	1		
Do.....	July 20											1	3	3		
Do.....	July 27							2	11			3	3			
Cairo.....	July 8	689,439	835	37											29	
Calcutta.....	July 6	896,067	376	28	10	27		2		5				7		
Catania.....	Aug. 9	207,000	68	4								1		1		
Charlottetown.....	Aug. 14	93,728												1		
Chemnitz.....	July 27	305,425	63	2										1		2
Cologne.....	do.....	531,616	160	12								2		1		
Do.....	Aug. 3		215	18								1		1		
Copenhagen.....	July 27	465,000	118	15								1		1	4	1
Coquimbo.....	do.....	14,000	9	1												
Dalny.....	July 13	46,451	19	1				1						2		
Do.....	July 20		32	1										2		
Cornwall.....	Aug. 17	6,500	4													
Dardanelles.....	June 29	11,875										2	2			
Do.....	July 6											2	2			
Do.....	July 13											2	2			
Do.....	July 20							1								
Dresden.....	do.....	559,700	152	26										2	2	
Do.....	July 27		125	20								1		1		
Do.....	Aug. 3	559,300	114	17												1
Dublin.....	do.....	406,536	155	26								1		4	10	
Durban.....	July 13	69,165	14	2								1				
Do.....	July 20		15	1												
Edinburgh.....	July 27	321,200	85	9										1		1
Do.....	Aug. 3		85											1		1
Erfurt.....	July 27	126,837		2										2		
Frankfort on the Main.....	July 20	428,800	111													
Do.....	July 27		102											1	1	
Georgetown.....	July 13	57,577	56	3												
Do.....	July 27		34	2												
Glasgow.....	Aug. 2	782,600	220									2		1		
Do.....	Aug. 9		235											2	1	
Gothenberg.....	July 27	170,100	31	8										1		
Do.....	Aug. 3		31	4								1				
Hamburg.....	July 27	953,079	217	30								3	1	4	2	4
Do.....	Aug. 3		230	25								1	8	2		1
Hongkong.....	July 13	336,488						33				2				1
Do.....	July 20							22				2				
Hull.....	Aug. 3	282,988	59									1			7	
Iquique.....	July 13	40,000		9												
Do.....	July 20			8												
Do.....	July 27			4												
Kingston, Ontario.....	Aug. 17	21,000										1				
Kobe.....	July 21	425,023	164									1				
Do.....	July 28		133									1				
Konigsberg.....	July 20	252,200	101	14											2	1
Do.....	July 27		80	10								1		1	1	1
Do.....	Aug. 3		116	12												1
Leeds.....	do.....	445,568	95	6								1		1	5	
Leipzig.....	July 20	605,755	163	24						1						1
Do.....	July 27		176	27											2	
Do.....	Aug. 3		144	20										1	1	
Liege.....	July 20	168,804	41	2										1	1	1
Do.....	July 27		33	2											2	
Liverpool.....	Aug. 3	752,065	241	13								1	2	1	25	5
London.....	July 27	7,340,079	1,423									2	6	20	40	15

<sup>1</sup> Imported.

## MORTALITY—Continued.

Weekly mortality table, foreign and insular cities—Continued.

Cities.	Week ended—	Estimated population.	Total deaths from all causes.	Deaths from—										
				Tuberculosis.	Plague.	Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Typhoid fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
London.....	Aug. 3		1,425							5	3	12	36	21
Lyon.....	June 16	523,796	136	20								2	2	
Do.....	June 23		155	21								3		
Do.....	June 30		147	16							2	1	2	
Do.....	July 7		157	22						2		2	1	
Do.....	July 14		162	28								3		
Do.....	July 21		193	31						2	2	3	1	
Do.....	July 28		157	21						1		1		
Madras.....	July 13	518,661	297							1			1	
Do.....	July 20		311			1				1			2	
Magdeburg.....	July 27	288,788	145	3				1		1		4		
Manaos.....	July 20	52,000	42	4			3							
Do.....	July 27		39	2			4							
Do.....	Aug. 3		20	2			1							
Manchester.....	July 13	714,427	189	17								2	6	5
Do.....	July 20		176	19						1		1	3	3
Do.....	July 27		207	22						1	1	2	3	3
Do.....	Aug. 3		177	13						1	3	2	2	2
Mannheim.....	July 6	202,239	39	11									1	
Do.....	July 13		54	6										3
Do.....	July 20		65	4									1	2
Do.....	July 27		56	10								1		4
Mexico.....	July 13	719,052	413	8				10	7				4	
Monterey.....	July 28	100,000	58	3						1			2	1
Do.....	Aug. 4		66	5									1	
Montreal.....	Aug. 3	466,197	183	20						1				3
Do.....	Aug. 10		194	13						3				
Do.....	Aug. 17		162						2	8				
Moscow.....	July 6	1,621,322	1,015	92							8	5	13	3
Do.....	July 13		1,072	99						3	4	10	3	11
Do.....	July 20		892	87						3	3	6	5	10
Munich.....	July 13	610,000	166	25								2	2	
Do.....	July 20		153	22								1		
Nagasaki.....	July 14	179,257	43	4						1				
Nagoya.....	July 6	429,297	131	8						1		1		
Nottingham.....	July 13	263,562	59	8							1		5	1
Do.....	July 20		51	8								1	1	1
Do.....	July 27		60	9							1	1		
Nuremberg.....	June 29	344,797	72	12									2	1
Odessa.....	July 13	575,000	190	23						3	4			1
Do.....	July 20		207	23						3	3		2	1
Do.....	July 27		198	15				2						3
Ottawa.....	Aug. 3	90,000	45	1										
Do.....	Aug. 10		1	2						9		1		
Palermo.....	Aug. 3	340,000	122	5					2	13			1	
Paris.....	do.	2,888,110	733	203						1	4	4	5	4
Penang.....	June 15	102,167	90	14									1	
Do.....	June 22	102,167	78	13						1				
Do.....	July 13	102,167	70	14				1				1		
Porfirio Diaz.....	Aug. 10	16,000	2	2										
Prague.....	July 20	225,817	70	15						1	1			
Do.....	July 27		56	9									1	
Do.....	Aug. 3		56	7										1
Port Elizabeth.....	June 8	31,692	9	3						3				
Do.....	June 15		19	5										
Do.....	June 22		10	5							1			
Quebec.....	Aug. 17	78,200										1		
Rangoon.....	June 22	293,316	204		18			1						
Do.....	June 29		233		27	14		1						
Rio de Janeiro.....	July 6	921,987	364	76				1					3	1
Rome.....	Mar. 25	564,913	168	14				1					6	1
Do.....	Mar. 30		196	26						2	2	4	2	1
Do.....	Apr. 6	566,453	167	17				1		1	1	2	2	1
Do.....	Apr. 13		175	9						3		4	8	4
Rotterdam.....	July 20	441,338	109							1				
Do.....	July 27		121									1		
Do.....	Aug. 3		105							1	1	1		
Saigon.....	July 1	250,000	53		2	51								
Do.....	July 8		21		2	19								
Salina Cruz.....	July 27	6,000	13							1				

MORTALITY—Continued.

Weekly mortality table, foreign and insular cities—Continued.

Cities.	Week ended—	Estimated population.	Total deaths from all causes.	Deaths from—												
				Tuberculosis.	Plague.	Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Typhoid fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.		
Salina Cruz.....	July 27	6,000	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	Aug. 3	.....	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. Johns, Newfoundland	Aug. 17	33,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. Petersburg.....	July 20	1,962,400	936	117	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
San Luis Potosi.....	May 25	82,946	61	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	June 1	.....	69	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	June 8	.....	56	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Santa Cruz de Tenerife.	July 13	46,000	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	Aug. 3	.....	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Santiago de Cuba.....	July 27	58,544	26	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	Aug. 3	.....	34	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	Aug. 10	.....	35	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Shanghai.....	July 7	500,000	165	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	July 14	.....	173	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sheffield.....	July 13	455,000	123	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	July 20	.....	78	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Singapore.....	July 6	303,328	247	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	July 13	.....	287	35	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Southampton.....	July 20	120,896	24	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Stettin.....	July 27	240,000	96	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Stockholm.....	July 13	346,599	77	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	July 20	.....	86	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	July 27	.....	82	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Stoke-on-Trent.....	July 20	237,153	45	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	July 27	.....	60	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	Aug. 3	.....	62	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Talcahuano.....	July 13	30,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tientsin.....	July 6	465,000	21	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Toronto.....	Aug. 3	392,000	136	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	Aug. 10	.....	133	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Trieste.....	July 19	235,999	96	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	July 26	.....	99	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	Aug. 3	.....	89	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tripoli-in-Barbary.....	July 14	50,000	40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	July 21	.....	37	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	July 28	.....	43	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	Aug. 4	.....	33	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Turin.....	July 21	430,770	147	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	July 28	.....	144	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	Aug. 4	.....	151	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Valencia.....	July 20	235,000	53	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	July 27	.....	71	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	Aug. 3	.....	85	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Vancouver.....	July 27	110,000	21	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	Aug. 10	.....	35	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Vienna.....	July 13	2,681,335	551	107	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	July 20	.....	536	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	July 27	.....	523	82	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Vladivostok.....	May 28	90,299	4	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	June 5	.....	12	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Winnipeg.....	July 30	166,553	58	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do.....	Aug. 3	.....	75	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Yokohama.....	July 22	444,039	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

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

CANADA—*Hamilton*.—Month of July, 1912. Population 85,000. Total number of deaths from all causes 103, including diphtheria 2, tuberculosis 7.

FRANCE—*Calais*.—Month of July, 1912. Population 80,000. Total number of deaths from all causes 100, including tuberculosis 25, typhoid fever 1.

*Nice*.—Month of June, 1912. Population 168,185. Total number of deaths from all causes 191, including tuberculosis 29, typhoid fever 2.

JAMAICA—*Kingston*.—Month of July, 1912. Population 53,739. Total number of deaths from all causes 142, including tuberculosis, pulmonary, 15; typhoid fever 3.

SOUTH AFRICA—*Johannesburg*.—Four weeks ended July 20, 1912. Population 237,220. Total number of deaths from all causes 333, including diphtheria 3, measles 5, scarlet fever 1, tuberculosis 49, typhoid fever 5.

SPAIN—*Seville*.—Month of July, 1912. Population 158,235. Total number of deaths from all causes 424, including diphtheria 4, small-pox 9, tuberculosis 63, typhoid fever 17.

By authority of the Secretary of the Treasury.

RUPERT BLUE,  
Surgeon General,  
United States Public Health Service.

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