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THE CULTIVATION OF AN ACID-FAST BACILLUS FROM A RAT SUFFERING WITH RAT LEPROSY (A PRELIMINARY REPORT).

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Since the cultivation of the *Bacillus lepra* in symbiosis with amœbas and the cholera vibrio,¹ I have attempted to cultivate by the same method the acid-fast bacillus found in the lesions of rats suffering with rat leprosy.

The amœbas used in these experiments were isolated from the intestines of a guinea pig and grown in symbiosis with cholera vibrio.

The method of isolating and growing in "pure mixed" culture was that of Musgrave and Clegg.²

Five-day old cultures of this "pure mixed" culture of amœbas and cholera vibrios were inoculated with blood taken from the heart of a rat. This rat was the descendant of 1 of 12 rats inoculated with rat leprosy by Passed Asst. Surg. McCoy in 1909. It was allowed to live in continuous contact with these inoculated rats and subsequently developed the disease. It showed advanced lesions of the disease known as rat leprosy. Smears from the lesions, as well as from the heart blood, showed numerous acid-fast bacilli.

The inoculated tubes were placed in the incubator at 37° C. and allowed to remain at this temperature for six days. Smear preparations from the inoculated tubes made at the end of this period showed many changes in the morphology of the acid-fast bacilli. The bacilli became longer, with the beads well marked, while a budding or branching process was also observed. The bacilli then became much smaller than those observed in the tissues of rats suffering with rat leprosy, in some cases being almost of a coccoid form. The number of bacilli present showed an increase over the number originally found in the rats' heart blood.

Transplants were then made to tubes of cholera vibrio with amœbas 5 days old, and placed at the same temperature, examinations of smears made at periods of from 6 to 13 days showed on a number of the sides evidences of multiplication of the microorganism. With the succeeding subcultures in 5-day old cholera vibrio with amœba tubes, the acid-fast bacilli increased proportionally in numbers.

In the ninth generation attempts were made to separate and to grow the acid-fast bacilli in pure culture. This was done by heating the

¹ Clegg, M. T., 1909. The Cultivation of the Leprosy Bacillus. Philippine Journal of Science, sec. B., 1909, vol. 4, No. 77, p. 403.

Currie, D. H., Brinckerhoff, W. R., and Hollmann, H. T., 1910. On the Cultivation of the Bacillus of Leprosy by the Method of Clegg. Public Health Reports, United States Public Health and Marine-Hospital Service, Aug. 26, 1910.

² Musgrave, W. E., and Clegg, M. T., Amœbas: Their Cultivation and Etiological Significance. Pub. I. I. Bur. Sci. Biol. Lab. (1904).

mixed cultures of amœbas, cholera vibrios, and the acid-fast bacilli for 30 minutes at a temperature of 62° C. This temperature was sufficient to kill the cholera vibrios and the amœbas.

Cultures were then made from the heated mixture on glycerin agar in tubes and incubated as before.

After a period of 21 days distinct colonies were observed on the media. These colonies were raised, had smooth irregular borders, and were pale yellow in color.

Stained preparations made from these colonies showed an acid-fast bacillus. Subcultures grew well on glycerin agar with a smooth raised, creamy-appearing growth of a lemon-yellow color, which was found to be easily removed from the media with the oese. On plain and nutrient agar, the growth was of a lighter lemon-yellow color, but not so profuse a growth as on glycerin agar.

ANIMAL INOCULATIONS.

Eight white rats were inoculated subcutaneously with a suspension in saline solution of the third generation of pure culture, each rat receiving an amount of the suspension equivalent to five oesen of the pure culture. One of these rats died on the thirty-seventh day after the inoculation. The autopsy revealed an inflammatory reaction around the site of the inoculation, in which acid-fast bacilli were found.

Another died on the forty-eighth day. The autopsy revealed an abscess at the site of inoculation, and minute areas of consolidation in the lungs. Smears made from the contents of the abscess contained acid-fast bacilli.

The remaining six rats were chloroformed on the one hundred and sixteenth day. The autopsies of these six rats revealed ulcerations at the site of the inoculations in which acid-fast bacilli were found.

In two there was consolidation of the lungs. Smears made from one of these consolidated lungs contained acid-fast bacilli. In one rat smears from a nasal lesion contained acid-fast bacilli.

Three white rats were inoculated intraperitoneally with the same amount of this suspension. They were chloroformed on the one hundred and sixteenth day. The autopsies revealed no apparent pathological change, but smears made from the spleens of two of these rats showed acid-fast bacilli.

Two guinea pigs were inoculated with the same amount of the suspension, one subcutaneously, the other intraperitoneally. They were chloroformed on the one hundred and ninety-seventh day. The autopsies revealed no pathological changes, nor were acid-fast bacilli found.

SUMMARY.

I have succeeded in cultivating in pure culture an acid-fast bacillus from a rat suffering with rat leprosy by the method described by Clegg in the cultivation of the human lepra bacillus.

Of the eight rats inoculated with the pure culture subcutaneously acid-fast bacilli were found in all, in the lesions of the skin of eight, in the lungs of two, and in the nasal discharge of one.

Of the three rats inoculated intraperitoneally no lesions of the skin nor of the internal organs were found, but the splenic pulp in two of them contained acid-fast bacilli.

UNITED STATES.

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

[Adopted since Jan. 1, 1910.]

AMSTERDAM, N. Y.

MILK—PRODUCTION, CARE, AND SALE.

SECTION 1.—*License.*—No person, corporation, firm, or association shall sell or exchange, or offer or expose for sale or exchange, or peddle, or deliver any milk or cream within the city of Amsterdam without a permit in writing from the board of health.

SEC. 2.—*Application for license.*—All applications for licenses shall be in writing on blanks furnished by the board of health, and the applicant shall therein furnish all such information and data as may be required by said board of health to properly protect the public health of the city. The application shall be deemed the basis on which the license is granted, and any statement contained therein which is not true shall nullify the license. All applications must be approved by the board of health before a license is granted thereon.

SEC. 3. *Inspection of dairies on application for license.*—No application for a license shall be approved and no license shall be granted on such application until the board of health of the city of Amsterdam satisfies itself by examination and inspection of the respective dairies that the product thereof is not detrimental to the public health of the city. A minimum standard shall be adopted by the board of health, and may be changed from time to time, and the failure of any dairy to conform to that standard at any time shall be good cause for the revocation of the license issued to sell the product or any part of the products of such dairy. The result of all examinations and inspections of dairies made by the board of health shall be in writing and preserved.

(The minimum standard required before an application for a license shall be approved and a license granted thereon shall be score of 40 points on the scale adopted by the United States Department of Agriculture, Dairy Division.)

SEC. 4. *Licenses.*—Licenses shall be granted for one year only from June 1 to June 1, by the board of health without fee or expense, but subject to such conditions as the said board of health may deem necessary for the preservation of the public health within the city of Amsterdam, and shall be subject at all times to revocation by the said board in its discretion. No license shall be granted or renewed save on written application of the applicant. The refusal of the owner or person in charge of any dairy at any time to allow a full and free examination and inspection of such dairy and the milk and cream produced thereat and its handling and treatment and the taking of samples thereof by the board of health or its agents shall be good cause for the revocation of the license or licenses issued to any person or persons, firm, corporation, or association to sell the product or any part of the product of such dairy.

SEC. 5. *License numbers to be exposed.*—No person, persons, firm, corporation, or association shall sell or exchange, or offer or expose for sale or exchange, or peddle or distribute within the city of Amsterdam, milk or cream from any vehicle unless said vehicle shall have plainly exposed on both sides thereof in gothic letters at least 2 inches in height the license number in the following words: "Health department license —," and no person, persons, firm, corporation, or association shall sell or exchange or offer or expose for sale or exchange any milk or cream in any building or structure within the city of Amsterdam unless there is exposed in a conspicuous place in said building or structure a sign in black gothic letters not less than 2 inches in height upon a white background the license number in the following words: "Health department license —."

SEC. 6. *Milk.*—Any person, persons, firm, corporation, or association to whom a license has been granted for the sale of milk or cream, their agents or employees, shall at all

times and places, on demand, furnish the board of health or its agents, and permit the said board of health and its agents to take from the milk or cream in its, his, or their possession or under their control, such samples as the said board of health may deem necessary for tests and analysis. Every sample of milk or cream taken by said board of health shall have a label attached to the vessel containing such sample, and the agent of the board of health, at the time of taking said sample, shall write thereon the number of the license, the number of the sample, the date of collection, and the name of the agent of the board of health taking said sample, who shall thereupon make a memorandum of the name of the owner and driver or clerk from whom collected, and a duplicate of the sample sealed in a bottle or vessel shall be delivered to the person from whom the sample is taken. Each sample shall be analyzed separately, and the license number, the sample number, the date of collection, the name of the person collecting the sample, the percentage of total solids, butter fats, and watery fluids, and such other data relative to the purity of the milk as the board may determine upon, shall be entered in a book permanently kept for that purpose, and the name of the owner shall be subsequently inserted. The records of said tests and analysis shall be open for public inspection. The result of the test and analysis in writing shall as soon as possible be delivered to the owner or dealer, and should the result show that the quality of milk or cream is below the standard adopted by the board of health it will constitute good cause for a revocation of the license.

SEC. 7. No person, persons, firm, corporation, or association shall—

(1) Sell or exchange, or offer or expose for sale or exchange or peddle or distribute within the city of Amsterdam, any unclean, impure, unhealthy, adulterated, or unwholesome milk or cream, or any article of food made therefrom. The term "adulterated milk" shall be construed to cover milk containing more than 88 per cent of water or fluids, or less than 12 per cent of milk solids, or less than 3 per cent of fats, or drawn from animals within 15 days before or 5 days after parturition, or drawn from cows kept in a crowded or unhealthy condition, or milk which has been diluted with water or any other fluid, or to which has been added or into which has been introduced any foreign substance whatever, or containing bacteria of any kind more than 500,000 per cubic centimeter, Bodinal count, or drawn from any animal suffering from a contagious or communicable disease, or produced at a dairy where any person engaged in handling or caring for the animals or milk is suffering from a contagious or communicable disease, or milk having a temperature of more than 50° F. at the time of delivery.

(2) Sell or exchange or offer or expose for sale or exchange, or peddle or distribute any milk from which the cream or any part of such cream has been removed, unless in a conspicuous place, above the center and on the outside of every vessel in which said milk is sold or kept the words "skimmed milk" are distinctly marked in gothic letters at least 1 inch high.

(3) Sell, exchange, or offer or expose for sale or exchange, or peddle or distribute any milk or cream in any vessel, unless said vessel has been thoroughly washed and cleaned before being last filled, and has not been placed or kept near any decaying vegetable or animal matter or so exposed as to render its contents unhealthful.

(4) Shall place or keep any milk or cream which is thereafter to be sold or exchanged or offered or exposed for sale or exchange or peddled or distributed, in any barn or stable, or any living room or sleeping room, or any other place where the said milk or cream is liable to contamination.

(5) Use milk tickets, save slip tickets, the same to be used only once.

(6) Shall refill any receptacle without being first washed, furnish any receptacle for the delivery of milk to a family or apartment in the city of Amsterdam where there is a contagious disease during the period of quarantine.

Penalties.—Any person violating any of the provisions of the foregoing ordinance shall forfeit and pay a penalty of \$50 for the first offense and for the second offense shall pay a penalty of \$100 and upon conviction of a second offense the license must be revoked. Such penalty or penalties shall be recoverable with costs in an action brought by the board of health in any court of competent jurisdiction and upon collection shall be paid in to the treasurer of the city of Amsterdam to be applied to such purposes as the common council of said city may direct. [Ordinance adopted by board of health, Apr. 12, 1911.]

NEWBURYPORT, MASS.

MILK—PRODUCTION, CARE, AND SALE.

SECTION 1. All persons in the city of Newburyport engaged in the production of milk for sale, or in the conveyance in carriages for the purpose of selling, delivering, or distributing milk in said city, shall, annually, on the 1st day of May, or within 30 days thereafter, make written application to the inspector of milk, on forms prescribed

by the board of health, for a license. All persons in the city of Newburyport, before selling milk, shall make written application to the inspector of milk on forms prescribed by the board of health for a license.

Sec. 2. No person in the city shall engage in the business of producing milk for sale, or in the sale or distribution of milk in the city of Newburyport, without a license so to do under this regulation and such other conditions as the board of health may impose; said license to be revoked if the licensee fails to comply with the conditions of his license and the regulations of this board.

Sec. 3. The conditions under which every cow is kept whose milk is brought into the city of Newburyport, or kept, delivered, distributed, sold, or offered for sale in said city, shall be made known by the licensee to the board of health if said board shall deem it necessary, and in such detail as the board of health may require, and shall be approved by said board; and no milk except that delivered from such cow shall be brought, kept, delivered, distributed, sold, or offered for sale in said city.

Sec. 4. No milk shall be sold, offered for sale, or distributed in the city of Newburyport which was drawn from cows within 15 days before or five days after parturition, nor unless the cows from which it was derived have, within one year, been examined by a competent authority and shown to be free from diseases dangerous to the public health.

Sec. 5. Every person having a license to sell, deliver, or distribute milk in the city of Newburyport shall keep a copy of the same constantly posted in a conspicuous place on his premises, and shall have his name, the number of his license, and his place of business marked in plain, uncondensed gothic letters not less than 1 inch in height on all vehicles used by him in the conveyance and sale of milk.

Sec. 6. No milk kept for sale or distribution shall be stored in any portion of a building which is used for stabling of horses, cows, or other animals, or for the storing of manure, or in any room used in whole or in part for domestic or sleeping purposes, unless the storage room for milk is separated from the other parts of the building to the satisfaction of the board of health.

Sec. 7. No person engaged in the business of producing milk for sale or in the business of storing, selling, or delivering milk in said city, shall store, cool, strain, or mix said milk in any room which is occupied by horses, cows, or other animals. All rooms in which milk is stored, cooled, or mixed shall be provided with tight walls and floor and kept constantly clean. The walls and floors of said room shall be of such construction as to allow easy and thorough cleansing. The room or rooms aforesaid shall contain proper appliances for washing or sterilizing all utensils actually employed in the storage, mixing, cooling, sale, or distribution of milk, and all such apparatus and utensils shall be washed with boiling water or sterilized by steam regularly after being used.

Sec. 8. No urinal, water-closet, or privy shall be located in the rooms called for in the preceding section, or so situated as to pollute the atmosphere of said rooms.

Sec. 9. All milk produced for the purpose of sale shall be strained, cooled, or stored as soon as it is drawn from the cow.

Sec. 10. Milk kept for sale in any store, restaurant, market, bakery, or other establishment shall be stored in a covered cooler, box, or refrigerator. No vessel containing milk for sale shall be allowed to stand outside the cooler, box, or refrigerator, except while sale of said milk is being made. Every such cooler, box, or refrigerator shall be properly drained and cared for, and be kept tightly closed, except during such intervals as are necessary for the introduction or removal of milk or ice, and they shall be kept only in such locations and under such conditions as shall be approved by the board of health.

Sec. 11. All cans, bottles, or other vessels of any sort used in the sale, delivery, or distribution of milk shall be cleansed or sterilized before they are again used for the same purpose, and all wagons or vehicles used in the conveyance of milk for sale or distribution shall be kept in a clean condition and free from offensive odors. No person shall use a milk vessel or container for any other substance than milk.

Sec. 12. Every person engaged in the production, storage, transportation, sale, delivery, or distribution of milk, immediately on the occurrence of any case or cases of infectious disease, either in himself or in his family, or among his employees or their immediate associates, or within the building or premises where milk is stored, sold, or distributed, shall notify the Newburyport Board of Health, and at the same time shall suspend the sale and distribution of milk until authorized to resume the same by the said board of health. No vessels which have been handled by persons suffering from such disease shall be used to hold or convey milk until they have been thoroughly sterilized.

Sec. 13. No person by himself or by his servant or agent or as the servant or agent of any other person, firm, or corporation, shall, in the city of Newburyport, sell,

exchange, or deliver any milk, skimmed milk, or cream which contains more than 200,000 bacteria per cubic centimeter, or which has a temperature higher than 50° F., or milk containing pus cells, or more than 2 per cent acidity, or that reacts to the usual tests from formalin, salicylic acid, or boric acid.

SEC. 14. All barns or other buildings where cows are kept, the milk from which cows is intended for sale in the city of Newburyport, in whole or in part, shall at all times be kept in a cleanly and sanitary condition and shall be properly lighted and ventilated and the walls shall be kept well painted or whitewashed. No accumulation of manure shall be allowed but shall be removed at least twice daily, and one hour before milking. All cows shall be thoroughly brushed at least once daily or before milking and the udder carefully wiped with damp cloths before milking.

SEC. 15. The milk inspector or any other person or persons designated by the board of health may at pleasure inspect any cow barn and rooms for storing, cooling, mixing, or handling milk intended for sale in the city of Newburyport and may inquire into and ascertain the methods of caring for the cows, milking, storing, and handling the milk; and if said inspector or other person finds that this or any other regulation of the Newburyport Board of Health is not being observed he may order the sale in the city of Newburyport of milk from such premises stopped until said regulations are complied with. And if the privilege of inspecting any such premises is refused, or any proper information is withheld from said inspector or other person, he shall immediately order the sale of milk or cream from such premises in the city of Newburyport stopped.

SEC. 16. No person or corporation shall sell, or offer, expose, or keep for sale in any shop, store, or other place where goods and merchandise are sold, milk or cream unless the same is sold or offered, exposed, or kept for sale in tightly closed or capped bottles or receptacles which have been approved by the board of health. Nothing contained herein shall prevent the sale of milk or cream from cans, crocks, coolers, or other receptacles, in restaurants, hotels, or boarding houses when the milk or cream is to be consumed in the premises by guests or patrons ordering the same.

SEC. 17. Every person or corporation engaged in the business of selling milk or cream shall, immediately upon receiving a written order from the board of health so to do, comply with any requirement of said board respecting the filling of milk or cream in bottles or receptacles, the manner and methods employed in such filling, or the conditions and surroundings under which such filling is done or carried on.

SEC. 18. No person or corporation shall sell, or offer, expose, or keep for sale at retail, milk or cream in the room or store where the same is put into bottles or receptacles.

SEC. 19. No person or corporation shall mix for the purpose of sale two or more of the following substances: Whole milk, skimmed milk, condensed milk, concentrated milk, or evaporated milk and water.

No person or corporation shall sell, or offer, expose, or keep for sale, deliver or have possession or custody of with intent to sell, mixtures of any of the substances named above.

SEC. 20. No person or corporation engaged in the sale of milk or cream other than condensed, concentrated, or other evaporated milk, shall keep in his place of business condensed, concentrated, or other evaporated milk, except in unopened cans or receptacles.

Nothing contained herein shall prevent the preparation and sale of "modified milk," when sold as such, to be used as food by infants and invalids.

This regulation shall take effect as soon as published. [Regulation board of health, adopted Apr. 25, 1910.]

NEW ORLEANS, LA.

POLIOMYELITIS—NOTIFICATION.

Resolved, That from and after this date poliomyelitis be included in the list of communicable diseases to be reported to the Board of Health of the City of New Orleans, under the provisions of section 27 of ordinance 6022, A. S., as amended by ordinance 3029, C. S., and 532, N. C. S., and by resolutions of the Board of Health of the City of New Orleans, dated August 12, 1901, and May 14, 1907, and April 13, 1909. [Resolution, board of health, adopted Mar. 14, 1911.]

PITTSBURGH, PA.

PREMISES—CARE OF.

SECTION 1. When any lot or excavation in the city of Pittsburgh shall from any cause whatsoever become the repository of stagnant water, or of any decaying or offensive substances, liquid or solid, it shall be the duty of the owner or occupant of said premises

within a specified time given in a written notice from the department of public health, to cause such lot or excavation to be drained or to be filled with clean earth or other inoffensive substance.

SEC. 2. Any person or persons who shall fail, neglect, or refuse to comply with or who shall violate any of the provisions of this ordinance, shall, upon conviction thereof in a summary proceeding before any police magistrate or alderman in the city of Pittsburgh, be sentenced to pay a fine of not more than \$50 and in default of payment thereof to be imprisoned in the county jail for a period of not more than thirty days. [Ordinance adopted Mar. 27, 1911.]

READING, PA.

HEALTH COMMISSIONER—DUTIES OF.

RULE 34. It shall be the duty of the health commissioner, with his assistant or assistants, to execute the rules and regulations of this board, and such directions as he shall from time to time receive from the president. He shall hear and investigate all complaints that may be made of a violation of these rules and regulations by any of our citizens, or of any nuisance, source of filth, or anything whatsoever that may impair the sanitary condition of this city, and if not explicitly provided for in the rules and regulations, refer them to the board for instructions. He shall from time to time make a visit of inspection through the several streets, lanes, and alleys of the city to manufactories, hospitals, slaughterhouses, stables for cows or horses, cellars, oyster saloons or restaurants, fish markets or stands, and green grocers, and shall also, upon complaint being made in writing, visit private alleys and residences, with a view of ascertaining whether any nuisance or source of filth or disease exists thereon. [Regulation, board of health, adopted May 15, 1911.]

PENALTY FOR VIOLATION OF REGULATIONS OF BOARD OF HEALTH.

RULE 35. Every person who shall willfully or knowingly obstruct or resist the said board of health, or any of the members thereof, or the said health commissioner, or any person by the said board of health appointed, in the execution of the powers to them given, or in the performance of the duties enjoined upon them by this act, shall be deemed guilty of a misdemeanor, and on conviction thereof shall be subject to pay a fine not exceeding \$1,000 and imprisonment not exceeding one year, or both, or either, at the discretion of the court.

RULE 36. Any person, persons, body or bodies corporate, who shall violate, or refuse or neglect to obey any of the foregoing rules other than those for which the penalty has already been provided, shall forfeit a penalty of not less than \$10 nor more than \$100, to be recovered as provided in section 13 of the act of the general assembly of April 22, 1873, establishing the board of health in the city of Reading. (P. L. 831.)

RULE 37. All rules and regulations previously adopted by this board and inconsistent herewith are hereby repealed. [Regulations, board of health, adopted May 15, 1911.]

ST. LOUIS, MO.

COMMON DRINKING CUP PROHIBITED—DISHES AND UTENSILS USED FOR EATING OR DRINKING TO BE CLEANSED.

SECTION 1. No drinking vessel used in common, or to be used in common, shall be exposed, kept, provided, or permitted in any railroad station, public or private school, public playground, public park, public building, or in any part of any other building or premises to which part the public is admitted.

SEC. 2. Any and every glass, cup, dish, and other eating or drinking vessel or utensil used in or at any hotel, saloon, restaurant, drug store, soda fountain, or other place of public refreshment in the city shall be thoroughly cleansed in running water or in clean water after each and every use thereof by any patron, and prior to any further use thereof in eating or drinking by any other patron; and no such glass, cup, dish, or other eating or drinking vessel or utensil, after use by one patron in eating or drinking, shall be offered or permitted to be used by any other patron without such glass, cup, dish, or other eating or drinking vessel or utensil having been first thoroughly cleansed in running water or in clean water.

SEC. 3. Any person, firm, or corporation in charge or control or possession of any such building, premises, place, or place of business herein provided for whereat any provision of this ordinance shall be violated shall be deemed guilty of a misdemeanor, and on conviction thereof shall be fined not less than \$5 nor more than \$25 for each and every offense. [Ordinance adopted Mar. 27, 1911.]

SAN FRANCISCO, CAL.

INSTITUTIONS AND PUBLIC BUILDINGS—CUBIC AIR SPACE.

SECTION 1. Ordinance No. 1008 (new series), known as "the building law," is hereby amended by adding a new section thereto, to be numbered section 189a, to read as follows:

SEC. 189a. In all buildings which are designated to be used in whole or in part as public buildings, public or private institutions, schoolhouses, churches, public places of assemblage, or places of public resort, and all buildings which are designed to be used in whole or in part as factory, workshop, mercantile, or other establishment, and with accommodations for 10 or more employees, provision shall be made for at least 15 square feet of floor space and 200 cubic feet of air space for each occupant to be accommodated in each room therein, and for supplying at least 30 cubic feet of pure air per minute for each occupant thereof.

In every building or part of building, intended for audience room only, as a theater, hall, or nickelodeon, provision shall be made for supplying at least 30 cubic feet of pure air per minute for each occupant thereof. [Ordinance adopted May 22, 1911.]

SPRINGFIELD, ILL.

SAMPLES OF MEDICINE—DISTRIBUTION OF.

SECTION 1. No person shall be permitted to give away or deposit or otherwise distribute any sample packages, parcels, boxes, or other quantity of any nostrum, pills, proprietary medicine or any other material of an alleged medical character or purporting to be a curative agency by means of depositing or leaving same in any street, alley, for public or private property in the city. Any person violating any of the provisions of this section shall, upon conviction, be fined not less than \$5 nor more than \$100. [Ordinance adopted May 31, 1910.]

SYRACUSE, N. Y.

COMMISSIONER OF PUBLIC SAFETY—DUTIES AND POWERS.

SEC. 3. *Duties and powers of the commissioner.*—The commissioner shall be charged with the enforcement of health laws and ordinances within the city. The commissioner shall appoint a health officer, who, by the authority and under the direction of the commissioner, may appoint a deputy health officer and employ such experts in the sciences or arts relating to health and employ such other subordinates for the carrying out of these ordinances as are authorized by the commissioner and the board of estimate and apportionment. The commissioner, health officer or any duly authorized employee shall have the power to examine into complaints made by responsible persons concerning nuisance or condition dangerous to life or the public health and may enter into and examine buildings, lots, and inclosures where said nuisance or condition are known or believed to exist, and no person shall prevent or attempt to prevent such inspection or examination. The commissioner shall have authority to print blanks, forms, notices, and such matter pertaining to the public health as he may deem necessary or useful. In the presence of imminent danger, of which he shall be the judge, the health officer shall use any adequate special means necessary to protect the public health against disease until the extraordinary situation may be called to the attention of the commissioner. It shall be the duty of the commissioner to report to the corporation counsel for prosecution violation of health laws and ordinances, with a statement of the offense and the names of witnesses. The commissioner has the power to make additional changes, as the charter may authorize. [Ordinance adopted Mar. 27, 1911.]

SEWER AND WATER CONNECTIONS—COMPULSORY FOR HUMAN HABITATIONS.

SEC. 7, SUBD. D. Every structure hereafter built to be used or used for human habitation shall be connected with the public water service and with the public sewer when it is within access. [Ordinance adopted Mar. 27, 1911.]

LODGING HOUSES AND TENEMENTS—OVERCROWDING OF—INSTALLATION OF WATER-CLOSETS.

SEC. 7, SUBD. E. No owner, lessee, or keeper of any tenement house, lodging house, or boarding house shall cause or allow any of such houses to be overcrowded, or allow so great number of persons to dwell, be, or sleep in such house or houses or any portion thereof as thereby to cause danger to health. Whenever it shall be certified by the

commissioner that any such place or room is so overcrowded that there shall be less than 500 cubic feet of air to each occupant of such building or room, with a floor space of 50 square feet, the health officer shall issue an order requiring the number of occupants of such building or room to be reduced so that the inmates thereof shall not exceed one person to each 500 cubic feet of air space or to a floor space of 50 square feet in any such building or room, and hereafter no room used as a living or sleeping room shall be built without a window open to the outdoor air.

SUBD. F. *Water closets in tenements, etc.*—All tenements, lodging houses, hotels, theaters, charitable institutions, manufactories, and other buildings frequented and used by the public shall have adequate water-closet facilities conveniently located. [Ordinance adopted Mar. 27, 1911.]

DOMESTIC ANIMALS—KEEPING OF.

SEC. 7, SUBD. H. No person shall keep or allow to be kept in the built-up portion of the city more cows than one to a city lot of 33 feet by 150 feet, or space equal thereto, and in the outlying portions of the city where premises are not subdivided into city lots or actually occupied as such, more than 15 cows to each acre of land, without a permit from the commissioner.

No person owning or occupying lands or buildings where cows, horses, dogs, or other animals are kept shall continue to keep such animals after they know them to have become infected with a contagious or pestilential disease without a permit from the commissioner, and no person owning or having the custody of any such animal shall kill or sell, or allow the same to be killed, sold, or removed from such premises without such permit. When anyone authorized by the commissioner discovers that any animal is infected with contagious or pestilential disease he may order such animal isolated. Any person owning or having the care or custody of such animal shall obey all such orders.

Wherever domestic animals or fowls are kept they shall be kept in a sanitary condition.

No person shall keep or permit to be kept any cattle in any place where the water, light, space, ventilation, and air are not sufficient for the preservation of the health of such cattle. The floor of the stable and the ground beneath it shall be well drained. Every cow shall be well bedded and kept clean. No cow shall be fed wholly on swill, slops, or undried brewer's grains. [Ordinance adopted Mar. 27, 1911.]

WELL WATER—REGULATION OF USE OF.

SEC. 7, SUBD. L. No person shall use water from wells located in the city for drinking or in the preparation of food for human beings, unless by written consent of the commissioner. [Ordinance adopted Mar. 27, 1911.]

LICENSES—MANNER OF ISSUE AND TO WHOM ISSUED.

SEC. 8, SUBD. A. *Licenses and permits.*—All licenses and permits referred to in the sanitary code and health ordinances shall be in writing and a duplicate copy thereof shall be kept in the office of the commissioner. Such licenses or permits shall be given by the commissioner, or, in case of his absence, sickness, or disability, by the health officer or by such person as the commissioner may designate.

SUBD. B. *Licenses without fee.*—No person shall carry on the business of ice dealer, plumber, or undertaker nor conduct any ambulance service for the care or transfer of sick or injured persons without registering with the commissioner and receiving a license, for which no fee shall be charged.

SUBD. C. *Licenses with fee.*—No person shall carry on the business of collector of garbage, scavenger, milk peddler, or lodging-house keeper where the charge for lodging is 25 cents or less per night without a license from the commissioner. The annual license fee for milk peddlers and scavengers, \$5 for each vehicle used in the business; for lodging-house keepers, \$5.

All licenses shall expire the December 31 after issue, shall not be transferred without the consent of the commissioner, and may be revoked by the commissioner for cause.

All license fees collected hereunder shall be paid to the commissioner and by him transmitted to the city treasurer.

SUBD. D. *Ice dealers, milk peddlers, garbage collectors, and scavengers.*—Every person carrying on the business of ice dealer, milk peddler, garbage collector, or scavenger (except those employed by the city) shall procure and exhibit in a conspicuous place on each vehicle so used a metal sign, issued annually by the commissioner at the time of paying the license fee, bearing the year, license number, and name of business.

Ice dealers and garbage collectors shall pay for each of such metal signs delivered to him the sum of 25 cents.

SUBD. E. Licenses revocable.—Any license may be revoked or canceled by the commissioner for cause or suspended until the conditions objected to are remedied. [Ordinance adopted Mar. 27, 1911.]

PENALTY FOR VIOLATION OF PROVISIONS OF SANITARY CODE AND HEALTH ORDINANCES, 1911.

SEC. 11. SUBD. A. Any person violating the provisions of these ordinances shall be guilty of a misdemeanor and be liable to a fine not exceeding \$150 or to imprisonment in the penitentiary of the county of Onondaga not exceeding 150 days, or to both such fine and penalty; or to pay the city of Syracuse a penalty not exceeding \$500, to be recovered in a civil action. [Ordinance adopted Mar. 27, 1911.]

WICHITA, KANS.

MEDICINES AND PROPRIETARY PREPARATIONS—DISTRIBUTION OF SAMPLES.

SECTION 1. Any person, firm, or corporation who shall, in the city of Wichita, distribute samples of medicines, foods, or other proprietary preparations by handing them to persons in the parks, streets, or other thoroughfares, or by leaving any of said samples in the yards or upon the premises of any residence or other private grounds or school buildings or grounds shall be deemed guilty of a misdemeanor, and on conviction fined in the sum of not less than \$5 nor more than \$100. [Ordinance adopted May 29, 1911.]

CEREBROSPINAL MENINGITIS IN TEXAS.

Surgeon Guiteras, at Galveston, reported, January 9, that the State health officer of Texas reports the presence of cerebrospinal meningitis in the following-named cities and towns in Texas: Taylor, Waco, Austin, Dallas, Houston, Italy, Teague, Fort Worth, Smithville, Clarksville, Rockwall, and Emory. A total of approximately 300 known cases, with a mortality of 50 per cent, was recorded to January 9.

PLAGUE-PREVENTION WORK.

DISTRIBUTION OF POISON.

In connection with the making and maintenance of a squirrel-free zone around the cities of California on San Francisco Bay, 1,735 acres of land in Alameda County were covered with poison during the week ended December 30, 1911.

During the same period 3,760 acres of land in San Joaquin County and 9,450 acres in Stanislaus County were covered with poison for the purpose of eradicating plague foci.

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.	Oct. 9, 1911	114 squirrels and 1 wood rat.
Contra Costa	July 21, 1911	None	Sept. 23, 1911	364 squirrels.
Fresno	None	do	Oct. 27, 1911	1 squirrel.
Merced	do	do	July 13, 1911	5 squirrels.
Monterey	do	do	Aug. 6, 1911	do.
San Benito	June 5, 1910	do	June 8, 1911	22 squirrels.
San Joaquin	Sept. 18, 1911	do	Aug. 26, 1911	18 squirrels.
San Luis Obispo	None	do	Jan. 29, 1910	1 squirrel.
Santa Clara	Aug. 23, 1910	do	Oct. 5, 1910	23 squirrels.
Santa Cruz	None	do	May 17, 1910	3 squirrels.
Stanislaus	do	do	June 2, 1911	13 squirrels.
Washington:				
City—				
Seattle	Oct. 30, 1907	Sept. 21, 1911	None	25 rats.

RATS COLLECTED AND EXAMINED FOR PLAGUE INFECTION.

Places.	Week ended—	Found dead.	Total collected.	Examined.	Found infected.
California:					
Cities—					
Berkeley.....	Dec. 30, 1911	2	1 112	75	
Fresno.....	do.		1 55	55	
Oakland.....	do.	10	1 500	399	
San Francisco.....	do.	12	1 317	987	
Counties—					
San Joaquin.....	do.		1 129	129	
Santa Clara.....	do.		1 67	67	
Washington:					
City—					
Seattle.....	do.		997	832	

- 1 Identified: *Mus norvegicus*, 79; *Mus musculus*, 33.
- 2 Identified: *Mus alexandrinus*, 54; unidentified, 1.
- 3 Identified: *Mus norvegicus*, 419; *Mus musculus*, 81.
- 4 Identified: *Mus norvegicus*, 644; *Mus rattus*, 185; *Mus musculus*, 326; *Mus alexandrinus*, 161.
- 5 Identified: *Mus norvegicus*, 116; *Mus rattus*, 3; *Mus musculus*, 4; *Mus alexandrinus*, 6.
- 6 Identified: *Mus norvegicus*, 67.

SQUIRRELS COLLECTED AND EXAMINED FOR PLAGUE INFECTION.

Places.	Week ended—	Shot or trapped.	Found dead.	Examined.	Found infected.
California:					
County—					
Alameda.....	Dec. 30, 1911		3		

SMALLPOX IN THE UNITED STATES.

In the following table the States indicated by an asterisk are those from which reports of smallpox are received only from certain city, and in some cases county, boards of health. In these States, therefore, the recorded cases and deaths should not be taken as showing the general prevalence of the disease. In the States not marked by an asterisk the reports are received monthly from the State boards of health, and include all cases reported to the State authorities.

REPORTS RECEIVED DURING WEEK ENDED JAN. 19, 1912.

Places.	Date.	Cases.	Deaths.	Remarks.
*Alabama:				
Montgomery.....	Jan. 1-5.....	1		
Colorado:				
Counties—				
Denver.....	Dec. 1-31.....	14		
Larimer.....	do.....	1		
Lincoln.....	do.....	5		
Rio Grande.....	do.....	3		
Total for State.....		23		
Connecticut.....	Dec. 1-31.....			No cases.
Florida:				
Counties—				
Duval.....	Dec. 24-30.....	1		
Hillsboro.....	do.....	1		
Lake.....	do.....	1		
Santa Rosa.....	do.....	1		
Washington.....	do.....	1		
Total or State.....		5		

SMALLPOX IN THE UNITED STATES—Continued.

Reports Received during week ended Jan. 19, 1912.

Places.	Date.	Cases.	Deaths.	Remarks.
Florida—Continued.				
Counties—Continued.				
Clay.....	Dec. 31—Jan. 6.....	5		
Dade.....	do.....	1		
Hillsboro.....	do.....	1		
Jackson.....	do.....	26		
Total for State.....		33		
Iowa:				
Counties—				
Adams.....	Dec. 1-31.....	1		
Appanoose.....	do.....	6		
Buchanan.....	do.....	1		
Butler.....	do.....	1		
Calhoun.....	do.....	1		
Carroll.....	do.....	2		
Cerro Gordo.....	do.....	1		
Des Moines.....	do.....	1		
Ida.....	do.....	1		
Jefferson.....	do.....	3		
Linn.....	do.....	1		
Madison.....	do.....	1		
Mitchell.....	do.....	1		
Oceola.....	do.....	1		
Pottawattamie.....	do.....	7		
Sac.....	do.....	10		
Sioux.....	do.....	4		
Woodbury.....	do.....	2		
Total for State.....		45		
*Louisiana:				
New Orleans.....	Jan. 1-6.....	3		
New Jersey:				
County—				
Hudson.....	Dec. 1-31.....	1		
North Dakota:				
Counties—				
Grand Forks.....	Dec. 1-31.....	1		
McHenry.....	do.....	20		
Ramsey.....	do.....	12		
Total for State.....		33		
Ohio:				
Counties—				
Defiance.....	do.....	21		
Hamilton.....	do.....	11		
Licking.....	do.....	1		
Marion.....	do.....	1		
Morgan.....	do.....	2		
Ottawa.....	do.....	9		
Total for State.....		45		
*Tennessee:				
Counties—				
Shelby.....	Dec. 1-31.....	5		
Utah:				
Counties—				
Box Elder.....	Nov. 1-31.....	1		
Carbon.....	do.....	1		
Emery.....	do.....	11		
Juab.....	do.....	27		
Salt Lake.....	do.....	7		
San Pete.....	do.....	3		
Sevier.....	do.....	56	1	
Uintah.....	do.....	93		
Utah.....	do.....	26		
Wasatch.....	do.....	6		
Weber.....	do.....	11		
Total for State.....		242	1	

SMALLPOX IN THE UNITED STATES—Continued.

Reports Received during week ended Jan. 19, 1912.

Places.	Date.	Cases.	Deaths.	Remarks.
Virginia:				
Counties—				
Augusta.....	Dec. 1-31.....	14	.....
Brunswick.....	do.....	4	.....
Carroll.....	do.....	8	.....
Lee.....	do.....	12	.....
Nansemond.....	do.....	21	.....
Norfolk.....	do.....	1	.....
Montgomery.....	do.....	1	.....
Prince William.....	do.....	2	.....
Southampton.....	do.....	2	.....
Washington.....	do.....	3	.....
Total for State.....		68	.....
Grand total for the United States.....		504	1	

For reports received from July 1 to December 29, see Public Health Reports for December 29, 1911. The cumulative table of reported cases of smallpox, heretofore published each week, has been discontinued, and in its place summaries will be published periodically.

MORBIDITY AND MORTALITY.

MORBIDITY AND MORTALITY TABLE, CITIES OF THE UNITED STATES, FOR WEEK ENDED DEC. 30, 1911.

Cities.	Population, United States census 1910.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Small-pox.		Tuberculosis.		Typhoid fever.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
<i>Cities having over 500,000 inhabitants.</i>														
Baltimore, Md.....	558,485	202	36	4	4	30	1	.....	27	31	10	2	.....	.....
Boston, Mass.....	670,585	231	43	2	80	2	28	.....	41	21	1	.....	.....	.....
Chicago, Ill.....	2,185,283	601	182	24	49	2	126	9	117	73	25	2	.....	.....
Cleveland, Ohio.....	560,663	129	34	2	40	2	40	1	19	9	4	2	.....	.....
New York, N. Y.....	4,766,883	1,441	298	36	419	7	215	8	425	149	60	9	.....	.....
Philadelphia, Pa.....	1,549,008	541	94	16	6	1	33	4	51	60	126	6	.....	.....
Pittsburg, Pa.....	533,905	136	45	6	10	.....	23	1	16	8	19	1	.....	.....
St. Louis, Mo.....	687,029	218	22	2	5	.....	13	.....	28	20	6	.....	.....	.....
<i>Cities having from 300,000 to 500,000 inhabitants.</i>														
Buffalo, N. Y.....	423,715	85	40	1	24	.....	20	.....	18	8	3	.....	.....	.....
Cincinnati, Ohio.....	364,463	121	10	1	3	.....	19	.....	25	19	2	.....	.....	.....
Detroit, Mich.....	465,766	152	28	3	.....	.....	20	2	4	.....	.....	.....	.....	.....
Los Angeles, Cal.....	310,198	118	10	.....	.....	.....	12	.....	7	19	4	.....	.....	.....
Milwaukee, Wis.....	373,857	86	19	2	25	.....	27	1	.....	15	11	12	.....	.....
Newark, N. J.....	347,469	99	28	1	.....	.....	13	.....	17	12	3	1	.....	.....
New Orleans, La.....	339,075	143	10	.....	.....	.....	13	.....	33	15	.....	.....	.....	.....
San Francisco, Cal.....	416,912	158	7	1	94	1	17	.....	25	18	2	1	.....	.....
Washington, D. C.....	331,069	126	15	.....	4	.....	3	.....	18	10	11	3	.....	.....
<i>Cities having from 200,000 to 300,000 inhabitants.</i>														
Denver, Colo.....	213,381	74	19	2	3	.....	7	.....	.....	9	.....	1	.....	.....
Jersey City, N. J.....	267,779	84	.....	.....	.....	.....	.....	1	.....	9	.....	2	.....	.....
Providence, R. I.....	224,326	47	20	3	11	1	9	.....	4	3	3	1	.....	.....
Seattle, Wash.....	237,194	38	5	.....	3	.....	5	.....	4	6	1	.....	.....	.....

MORBIDITY AND MORTALITY—Continued.

Weekly morbidity and mortality table, cities of the United States, for week ended
Dec. 30, 1911—Continued.

Cities.	Population United States census 1910.	Total deaths from all causes.	Diph- theria.		Measles.		Scarlet fever.		Small- pox.		Tubercu- losis.		Typhoid fever.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
<i>Cities having from 100,000 to 200,000 inhabitants.</i>														
Bridgeport, Conn.	102,054	24	2	2			4				6	2		
Cambridge, Mass.	104,839	27	13	1	6		4				4	4	1	
Columbus, Ohio	181,548	71	9	1	20		9				4	7	2	1
Dayton, Ohio	116,577	54	8		2		3					5	2	
Fall River, Mass.	119,295	26	3				1				3	1		1
Grand Rapids, Mich.	112,571	23	1				3				4	2	3	
Lowell, Mass.	106,294	44	6		13	1	6	1			2	3	1	
Nashville, Tenn.	110,364	33	4				1				1	3	1	
Oakland, Cal.	150,174	25					3					5	1	1
Omaha, Nebr.	124,096	30	5	2			1		1			4	1	
Spokane, Wash.	104,402	104	2		14		3		12			1	2	
Toledo, Ohio	168,497	34	9		8		6					2	2	1
Worcester, Mass.	145,986	37	2		1		7				3	3		
<i>Cities having from 50,000 to 100,000 inhabitants.</i>														
Altoona, Pa.	52,127	15	2				2				1	1	2	
Bayonne, N. J.	55,545	15	6		5		8				1	1		
Brockton, Mass.	56,878	15			9		3				8	2	2	
Camden, N. J.	94,538		3	2										
Duluth, Minn.	78,466	10	3				3		2		2		1	
Elizabeth, N. J.	73,409	29	4		12		5				2	2	1	
Evansville, Ind.	69,647	22	4		1						2	2	1	
Harrisburg, Pa.	64,186	23	5								10	2	2	
Hartford, Conn.	98,915	22	13		1		5					1	1	
Hoboken, N. J.	70,324		3	1							1	1		
Houston, Tex.	78,800	42	1	1								3		
Johnstown, Pa.	55,482	18					2	1			10	2	1	
Lawrence, Mass.	85,892	23	1		1		2						1	
Lynn, Mass.	89,336	28	6	1	4						3	1		
Manchester, N. H.	70,063	36	5		7						2	2	1	
New Bedford, Mass.	96,652	30	2		4						4	3		
Oklahoma City, Okla.	64,205	7	2				3							1
Passaic, N. J.	54,773	18	3				3						2	2
Pawtucket, R. I.	51,622		5				3					2		
Peoria, Ill.	66,950	23	3	1	1						2	3		
Portland, Me.	58,571	19	3									2	1	
Reading, Pa.	96,071	27	4				10					2	2	1
San Antonio, Tex.	96,614	47			6		6					5	3	1
Schenectady, N. Y.	72,826	24	1				1				5	1	2	
South Bend, Ind.	53,684	20	1				1							
Springfield, Ill.	51,678	14	1	1							2	1		
Springfield, Mass.	88,926	38	7		23		8	1	2		4	2	1	
Terre Haute, Ind.	58,157		4	1			3						2	
Trenton, N. J.	96,815	38	3	3	1		5				26	1	1	3
Wilkes-Barre, Pa.	67,105	26	14		182						1	1	1	
Wilmington, Del.	87,411	35	2									1	1	
Yonkers, N. Y.	79,803	26	2	1	4		23	1			4	2		
<i>Cities having from 25,000 to 50,000 inhabitants.</i>														
Auburn, N. Y.	34,668	8	1	1			1				1	1		
Aurora, Ill.	29,807	7	1											
Berkeley, Cal.	40,434	11	2								1	4		
Binghamton, N. Y.	48,443	25	2		1						9	2		
Brookline, Mass.	27,792	2	5		1									
Butte, Mont.	39,165	25	3		2									
Chattanooga, Tenn.	44,604												1	
Chelsea, Mass.	32,452	20					2				2	1		
Danville, Ill.	27,871	11	5	1								1		2
Dubuque, Iowa	38,494	9	2									1		
East Orange, N. J.	34,371	9	2	1			3				2	1		
Elmira, N. Y.	37,176	17	3									1		
El Paso, Tex.	39,279	27							1			10		
Everett, Mass.	33,484	3	3		4							2		
Haverhill, Mass.	44,115	12	4		5		3				1	1	1	

MORBIDITY AND MORTALITY—Continued.

Weekly morbidity and mortality table, cities of the United States, for week ended Dec. 30, 1911—Continued.

Cities.	Population United States census 1910.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Small-pox.		Tuberculosis.		Typhoid fever.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
<i>Cities having from 25,000 to 50,000 inhabitants—Continued.</i>														
Kalamazoo, Mich.	39,437	18	1											
Knoxville, Tenn.	36,346	8	1						2			1		
La Crosse, Wis.	30,417	20					1						1	
Lancaster, Pa.	47,227		7				3							
Lexington, Ky.	35,099	10	1		4		2					1		1
Lima, Ohio.	30,508	8			2		2					1		
Lynchburg, Va.	29,494	13	2		2		15			1				
Malden, Mass.	44,404	12	2		3		1			2		2		
McKeesport, Pa.	42,694		6	1	1								1	
Montgomery, Ala.	38,136	17	5				4					1		
Mount Vernon, N. Y.	30,919		1		22		1						3	
New Castle, Pa.	36,280		7				2						8	
Newport, Ky.	30,309	14	1				2		1		3	3		
Newton, Mass.	39,806	9	1		1									
Niagara Falls, N. Y.	30,445	9	1				1						17	
Norristown, Pa.	27,875	8	1		9		1							
Orange, N. J.	29,630	9	4		2		2							
Pasadena, Cal.	30,291	12												
Pittsfield, Mass.	32,121	9	4	1						1		5		
Portsmouth, Va.	33,190	8	4						3					
Racine, Wis.	38,002	7												2
Roanoke, Va.	34,874	9	4	5							4			
San Diego, Cal.	39,578	8			1	1					4	4		
South Omaha, Nebr.	26,259	14	1	1										
Superior, Wis.	40,384	12	4				3						1	
Taunton, Mass.	34,250	11	1										4	
Waltham, Mass.	27,834	9					1						2	
West Hoboken, N. J.	35,403	6	4				1						1	
Williamsport, Pa.	31,860	12												
York, Pa.	44,750		2				1							
Zanesville, Ohio.	28,026	11	2									1	3	1
<i>Cities having less than 25,000 inhabitants.</i>														
Ann Arbor, Mich.	14,817	7					2							
Beaver Falls, Pa.	21,191		6				2							4
Biddeford, Me.	17,079	1	5							1	1		4	
Butler, Pa.	20,782	9	1	1										
Cambridge, Ohio.	11,327	5										1		
Camden, S. C.		2												
Carbondale, Pa.	17,040	3					4							
Clinton, Mass.	13,075	4								1				
Coffeyville, Kans.	12,687													1
Columbus, Ga.	20,554	11												
Columbus, Ind.		4												
Concord, N. H.	21,497	12												
Cumberland, Md.	21,839	7	1											4
Dunkirk, N. Y.										1				1
Galesburg, Ill.	22,089	2							1					1
Greensboro, N. C.	15,895	2					4							2
Harrison, N. J.	14,498	4	1											
Homestead, Pa.	18,713	8	2	1										1
Hyde Park, Mass.	15,507	4				2								
La Fayette, Ind.	20,081	8												
Lebanon, Pa.	19,240		3											
Manistee, Mich.	12,381						4	1						
Marinette, Wis.	14,610				6									1
Marlboro, Mass.	14,579	2								1				
Massillon, Ohio.	13,879	3	1											
Medford, Mass.	23,150	5			3		1							1
Melrose, Mass.	15,715	3			1					1				1
Moline, Ill.	24,199	2												
Montclair, N. J.	21,550	2			1		1							1

MORBIDITY AND MORTALITY—Continued.

Weekly morbidity and mortality table, cities of the United States, for week ended
Dec. 30, 1911—Continued.

Cities.	Population United States census 1910.	Total deaths from all causes.	Diph- theria.		Measles.		Scarlet fever.		Small- pox.		Tubercu- losis.		Typhoid fever.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
<i>Cities having less than 25,000 inhabitants—Con.</i>														
Morristown, N. J.	12,507	6												
Nanticoke, Pa.	18,857	3			28									
Newburyport, Mass.	19,240	2	2											
North Adams, Mass.	22,012	10	1									1		
Northampton, Mass.	19,431	7			1							1		
Ottumwa, Iowa.	22,012	14					2							
Palo Alto, Cal.					3									
Peekskill, N. Y.		4												
Plainfield, N. J.	22,550	5			1						1			
Pottstown, Pa.		6										1		
Saratoga Springs, N. Y.		5	1											
South Bethlehem, Pa.	19,973	5	2		5							2	2	
Steelton, Pa.	14,246	4	5	1					1					
Warren, Pa.	11,080	1	2											
Wilksburg, Pa.	18,924	5	3				1							
Woburn, Mass.	15,308	5					1							

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

COLORADO.—Three months ended September 30, 1911. Population, 799,024. Total number of deaths from all causes 2,466, including diphtheria 15, measles 2, scarlet fever 6, tuberculosis 386, typhoid fever 94. Cases reported: Diphtheria 296, measles 49, scarlet fever 177, smallpox 68, typhoid fever 752.

FLORIDA.—Week ended December 30, 1911. Reports from the State board of health show diphtheria present in 3 localities with 6 cases; malaria in 3 localities with 8 cases; smallpox in 5 counties with 5 cases; tuberculosis in 4 localities with 7 cases; typhoid fever in 5 localities with 5 cases.

IOWA.—Month of November, 1911. Population, 2,224,771. Total number of deaths from all causes 1,600, including diphtheria 20, measles 5, scarlet fever 2, smallpox 27, tuberculosis 92, typhoid fever 47.

KANSAS.—Month of October, 1911. Population, 1,690,949. Total number of deaths from all causes not reported. The deaths include diphtheria 9, scarlet fever 1, smallpox 1, tuberculosis 17, typhoid fever 30. Cases reported: Diphtheria 111, measles 8, scarlet fever 170, smallpox 48, tuberculosis 39, typhoid fever 303.

PENNSYLVANIA.—Reports received from the State department of health show as follows:

Morbidity.—Month of September, 1911. The total number of communicable diseases reported was 6,230, including anterior poliomyelitis 30, cerebrospinal meningitis 11, chickenpox 134, diphtheria

1,349, epidemic dysentery 52, erysipelas 32, German measles 7, glanders 1, malarial fever 3, rabies 1, measles 210, mumps 84, pellagra 2, pneumonia 184, puerperal fever 1, scarlet fever 489, tetanus 13, trachoma 8, tuberculosis 1,170, typhoid fever 1,866, whooping cough 583.

Month of October, 1911. Total number of communicable diseases reported 8,265, including anterior poliomyelitis 22, anthrax 2, cerebrospinal meningitis 8, chickenpox 458, diphtheria 2,343, epidemic dysentery 1, erysipelas 89, German measles 5, glanders 1, malarial fever 18, measles 335, mumps 152, pneumonia 285, puerperal fever 4, scarlet fever 717, tetanus 9, trachoma 9, tuberculosis 1,072, typhoid fever 1,583, uncinariasis (Philadelphia) 1, whooping cough 1,149.

Month of November, 1911. Total number of communicable diseases reported 8,432, including anterior poliomyelitis 10, anthrax 2, cerebrospinal meningitis 4, chickenpox 1,145, diphtheria 2,242, epidemic dysentery 1, erysipelas 106, German measles 21, leprosy 2, malarial fever 12, measles 551, mumps 260, pneumonia 416, puerperal fever 6, scarlet fever 868, smallpox 7, tetanus 4, trachoma 3, tuberculosis 1,037, typhoid fever 1,018, whooping cough 717.

УТАН.—Month of November, 1911. Population, 373,351. Total number of deaths from all causes 255, including diphtheria 5, scarlet fever 5, smallpox 1, tuberculosis 3, typhoid fever 5. Cases reported: Diphtheria 65, measles 65, scarlet fever 153, smallpox 242, tuberculosis 4 (incomplete), typhoid fever 40.

FOREIGN AND INSULAR.

AUSTRALIA.

Sydney—Examination of Rats.

The following information was taken from bulletins issued by the department of public health of New South Wales: During the four weeks ended December 2, 1911, 2,014 rats were examined for plague infection. No plague-infected rat was found.

CHINA.

Amoy—Plague.

Information of the presence of plague at Amoy was received from the American consul at that port January 15.

HAWAII.

Record of Plague Infection.

The last case of human plague at Honolulu occurred July 12, 1910. The last plague-infected rat was found at Aiea, 9 miles from Honolulu, April 12, 1910.

A case of human plague was reported at Kapulena, Hawaii, October 28, 1911.

At Hilo the last case of human plague occurred March 23, 1910. At Honokaa, 60 miles from Hilo, a fatal case occurred April 20, 1911.

The last plague-infected rat was found at Honokaa December 18, 1911. A plague-infected rat was found at Hilo during the week ended June 10, 1911.

Honolulu—Plague-Prevention Work.

Chief Quarantine Officer Ramus reports, December 26:

Week ended Dec. 23, 1911.

Total rats and mongoose taken.....	448
Rats trapped.....	441
Mongoose trapped.....	7
Rats examined bacteriologically.....	384
Classification of rats trapped:	
<i>Mus alexandrianus</i>	77
<i>Mus musculus</i>	75
<i>Mus norvegicus</i>	22
<i>Mus rattus</i>	267
Average number of traps set daily.....	1,720

Mosquito-Eradication Measures at Honolulu.

The following statement of the progress of the campaign carried on for the destruction of mosquitoes in Honolulu was received from Passed Asst. Surg. McCoy: The work was inaugurated by Passed Asst. Surg. Currie, carried on by Surg. Blue, and is being continued by Passed Asst. Surg. McCoy acting in conjunction with the board of

health and the civic sanitation committee. The figures given below are those reported. They fall below and probably constitute only a fraction of the work actually done. The statement includes the work to December 9, 1911, inclusive.

Mosquito-eradication measures conducted at Honolulu from Nov. 9 to Dec. 9, 1911, both inclusive.

Inspections of—	Total inspections.	Larvæ found in—	Cleaned.	Oiled.	Drained.	Emptied.	Collected.	Filled.	Ordered repaired.	Fixtures installed.	Screened.	Stocked with fish that destroy mosquito larvæ.
Gutters:												
House.....	2,566	341	1,464	336	1,020				62			
Street.....	763	171	188	470	107							
Standing water.....	2,168	734		1,525	599			119				38
Cesspools.....	2,459	337	129	2,111				27	70	4	94	
Privy vaults.....	2,950	329	290	2,293		13		29	339		91	
Holes and low places.....	3,188	586	141	1,573	232			1,627	1,627			
Catch basins.....	1,176	116	262	956		108		30	13	12		
Leaky fixtures.....	1,972	32		910					1,371	26		
Banana and other plants.....	26,129	1,291					26,129					
Swamps.....	278	144		174	58			3				30
Ponds.....	175	45		51	27			5				82
Troughs and tanks.....	990	149		338		805			9		69	28
Tubs and other receptacles.....	2,159	278		180		2,009					19	14
Tin cans, bottles, etc.....	205,590	1,771					205,590					
Water barrels.....	1,071	322		223		718					100	19
Vacant houses.....	178	25	43	32	1							

Miles of ditch dug for drainage (approximately)..... 12
 Holes in trees filled or drained (approximately)..... 8,000

INDIA.

Calcutta—Cholera and Plague.

Acting Asst. Surg. Allan reports, December 14: During the week ended November 18, 1911, 42 deaths from cholera and 8 from plague were reported in Calcutta; in all Bengal, 231 cases of plague with 160 deaths; in all India, 9,267 cases of plague with 7,252 deaths.

ITALY.

Naples—Examination of Emigrants.

Surg. Geddings reports:

Vessels inspected during the week ended December 23, 1911.

NAPLES

Date.	Name of ship.	Destination.	Steerage passengers inspected and passed.	Pieces of baggage inspected and passed.	Pieces of baggage disinfected.
Dec. 17	Taormina.....	Philadelphia.....	397	90	720
23	Adriatic.....	New York.....	523	128	690
	Total.....		920	218	1,410

PALERMO

Dec. 18	Teresa.....	New York.....			
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MEXICO.

Yellow Fever at Merida.

During the week ended December 30, 1911, one case of yellow fever with 1 death was officially reported at Merida. The total number of cases reported from August 1 to December 30, 1911, was 50, with 26 deaths.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX.

REPORTS RECEIVED DURING WEEK ENDED JAN. 19, 1912.

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

CHOLERA.

Places.	Date.	Cases.	Deaths.	Remarks.
India:				
Calcutta.....	Nov. 12-18.....		42	
Madras.....	Nov. 26-Dec. 9.....	216	167	Madras presidency, Dec. 1-31: Cases 3,879; deaths, 2,412.
Rangoon.....	Oct. 1-31.....	2	1	
Italy.....				Dec. 10-17: Cases 18, deaths 10.
Provinces—				
Caltanissetta.....	Dec. 10-17.....	2		
Girgenti.....	do.....	16	10	
Java:				
Batavia.....	Nov. 19-Dec. 2.....	8	3	
Persia:				
Adaban.....	Nov. 4.....	1	1	
Turkey in Asia:				
Adana.....	Dec. 2-6.....	16	5	
Basra.....	Oct. 22-28.....	14	10	
Erzeroum, vilayet.....	Sept. 11-16.....	50	28	
Erzeroum.....	do.....	11	8	
Kaifa.....	Dec. 8.....			Present.
Jiddah.....	Dec. 2-10.....	77	46	
Mekka.....	Dec. 4-10.....	716	678	
Mersina.....	Dec. 6.....	1		
Osmania.....	Dec. 1-6.....	2	4	
Sinope.....	Dec. 7.....	2	1	
Trebizond and vicinity.....	Sept. 18-23.....	64	34	

YELLOW FEVER.

Mexico:				
Merida.....	Dec. 24-30.....	1	1	
At Sea.....	Dec. 17-23.....	1	1	On a vessel en route from Manaus to Para.

PLAGUE.

Brazil:				
Bahia.....	Sept. 1-30.....		2	
British East Africa:				
Kismayu.....	Oct. 15-25.....	12		One case pneumonic.
Chile:				
Iquique.....	Nov. 26-Dec. 9.....	2	1	
China:				
Amoy.....	Jan. 15.....			Present.
India:				
Bombay.....	Dec. 3-9.....	8	7	
Calcutta.....	Nov. 12-18.....		8	
Rangoon.....	Oct. 1-31.....	26	27	
Mauritius.....	Nov. 10-16.....	2	1	
Straits Settlements:				
Singapore.....	Nov. 19-25.....	1	1	

¹ From the Veröffentlichungen des Kaiserlichen Gesundheitsamtes, Dec. 29, 1911.

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

Reports Received during week ended Jan. 19, 1912.

SMALLPOX.

Places.	Date.	Cases.	Deaths.	Remarks.
Arabia:				
Aden.....	Nov. 28-Dec. 4.....	1		
Canada:				
Ontario—				
Ottawa.....	Dec. 24-30.....	5		
Quebec—				
Quebec.....	Dec. 10-Jan. 6.....	120		Jan. 6, 14 cases present; diminishing.
France:				
Paris.....	Dec. 10-16.....	11	2	
India:				
Bombay.....	Dec. 3-9.....	6	5	
Madras.....	Nov. 26-Dec. 9.....	18	10	
Rangoon.....	Oct. 1-31.....	18	6	
Italy:				
Leghorn.....	Dec. 17-23.....	38		
Naples.....	do.....	10		
Java:				
Batavia.....	Nov. 19-Dec. 2.....	7	2	
Mexico:				
Mazatlan.....	Dec. 27-Jan. 2.....		1	
Porfirio Diaz.....	Dec. 17-Jan. 6.....	17	17	
San Luis Potosi.....	Nov. 12-25.....	2		
Portugal:				
Lisbon.....	Dec. 9-23.....	8		
Russia:				
Libau.....	Dec. 17-23.....	1		
St. Petersburg.....	Dec. 9-16.....	7	1	
Spain:				
Cadiz.....	Nov. 1-30.....		5	
Valencia.....	Dec. 19-23.....	11	1	
Straits Settlements:				
Singapore.....	Nov. 19-25.....	2		
Teneriffe:				
Santa Cruz.....	Dec. 17-23.....		10	
Turkey in Asia:				
Beirut.....	do.....	12	4	

REPORTS RECEIVED FROM DEC. 30, 1911, TO JAN. 12, 1912.

[For reports received from July 1, 1911, to Dec. 29, 1911, see PUBLIC HEALTH REPORTS for Dec. 29, 1911. In accordance with custom, the tables of epidemic diseases are terminated semiannually and new tables begun.]

CHOLERA.

Places.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary:				
Croatia and Slavonia:				
Sriem.....	Oct. 22-Dec. 3.....	31		Total Oct. 22-Dec. 3: Cases, 31.
Hungary:				
Torontal.....	Nov. 19-Dec. 9.....	16	2	Total Nov. 19-Dec. 9: Cases 16.
Bulgaria:				
Varna.....	Nov. 6.....	1		
Dutch East Indies:				
Batavia.....	Nov. 12-18.....	6	2	Total Sept. 24-Oct. 9: Cases, 322; deaths, 256.
India:				
Calcutta.....	Nov. 5-11.....		39	
Italy:				
Provinces—				
Caltanissetta.....	Nov. 26-Dec. 2.....	5	5	
Girgenti.....	Nov. 26-Dec. 9.....	69	40	
Messina.....	Nov. 26-Dec. 2.....	3	2	
Syracuse.....	do.....	1	1	
Malta.....	Nov. 19-Dec. 10.....	6	6	Dec. 23 declared free from cholera.
Montenegro.....	Nov. 4-11.....	9	5	
Philippine Islands:				
Province—				
Union.....	Oct. 29-Dec. 4.....	5	5	
Straits Settlements:				
Singapore.....	Nov. 5-18.....	3	3	

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

Reports Received from Dec. 30 to Jan. 12, 1912.

CHOLERA—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Tunis Regency.....				Total Nov. 25-Dec. 7: Cases 169; deaths, 210.
Beja district.....	Nov. 25-Dec. 7.....	30	35	
Bizerta district.....	Nov. 25-Dec. 5.....	9	15	
Turkey in Asia:				
Kharput.....	Nov. 19-Dec. 9.....	29	22	
Mersine.....	Dec. 1-7.....	1	1	
Turkey in Europe:				
Constantinople.....	Oct. 24-30.....	5	1	
Saloniki vilayet.....	Nov. 6-19.....	4	3	In Serres.

YELLOW FEVER.

Brazil:				
Manaos.....	Nov. 19-Dec. 2.....		4	
Para.....	Dec. 9-16.....	1	1	
Ecuador:				
Bucay.....	Nov. 16-30.....	2		
Duran.....	Dec. 1-15.....	3	2	
Guayaquil.....	Nov. 16-Dec. 15.....	20	11	
Milagro.....	do.....	8	1	
Mexico:				
Merida.....	Nov. 12-Dec. 30.....	5	6	Total Aug. 1-Dec. 30: Cases, 50; deaths, 26.
Venezuela:				
Caracas.....	Nov. 16-Dec. 7.....	11		
Sabana Grande.....	Dec. 12.....			Epidemic.

PLAGUE.

Algeria:				
Philippeville.....	Oct. 19-Nov. 11.....	8	2	Including 5 cases, p. 2096. Vol. XXVI.
Brazil:				
Rio de Janeiro.....	Nov. 12-Dec. 2.....	3	1	
Chile:				
Iquique.....	Nov. 12-25.....	1	2	
Dutch East Indies:				
Java—				
Pasoeroean Residency, Malang District.	Nov. 12-Dec. 2.....	23	12	
Soerobaya.....	Oct. 17-27.....	2		
Ecuador:				
Guayaquil.....	Nov. 16-Dec. 15.....	102	42	
Egypt:				
Provinces—				
Assiout.....	Oct. 14-Dec. 13.....	16	14	
Kena.....	Nov. 20-Dec. 13.....	3	3	
Minieh.....	Dec. 13.....	1		
India:				
Bombay.....	Nov. 19-Dec. 2.....	17	16	
Calcutta.....	Nov. 11.....		6	
Karachi.....	Nov. 26-Dec. 2.....		3	
Indo-China:				
Saigon.....	Nov. 13-19.....	3		
Mauritius.....	Nov. 3-9.....	4	4	
Philippine Islands:				
Cebu quarantine station.....	Dec. 4.....	1		On s. s. Montrose from Shanghai.
Russian Empire:				
Astrakhan, government.....	Nov. 28-Dec. 20.....	87	84	
Straits Settlements:				
Singapore.....	Nov. 5-18.....	3	3	

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

Reports Received from Dec. 30, 1911, to Jan. 12, 1912.

SMALLPOX.

Places.	Date.	Cases.	Deaths.	Remarks.
Algeria:				
Algiers.....	Nov. 1-30.....		1	
Argentina:				
Buenos Aires.....	Oct. 1-31.....		6	
Rosario.....	do.....		25	
Austria-Hungary:				
Trieste.....	Dec. 3-9.....	1		
Brazil:				
Bahia.....	July 1-31.....		1	
Pernambuco.....	Oct. 16-Nov. 15.....		179	Report for Oct. 1-15 not received.
Rio de Janeiro.....	Nov. 26-Dec. 2.....	1	1	
Canada:				
British Columbia—				
Nelson.....	Dec. 24-30.....	1		
Ontario—				
Kingston.....	Dec. 19-23.....	1		
Ottawa.....	Dec. 10-23.....	12		
Sarnia.....	Oct. 17-23.....	1		
Quebec—				
Montreal.....	Dec. 17-23.....	2		
Ceylon:				
Colombo.....	Nov. 12-18.....	1		
Chile:				
Talcahuano.....	Nov. 26-Dec. 9.....	7	2	
Valparaiso.....	Dec. 3-9.....	43		
China:				
Canton.....	Nov. 11-25.....	15	3	Present.
Chungking.....	Nov. 18.....			
Hongkong.....	Nov. 12-25.....	16	10	
Cuba:				
Habana.....	Dec. 19.....	1		From German s.s. Frankenwald from Spain and Canary Islands.
France:				
Marseille.....	Nov. 1-30.....		1	
Paris.....	Dec. 3-9.....	15		
India:				
Bombay.....	Nov. 19-Dec. 2.....	19	8	
Indo-China:				
Saigon.....	Nov. 13-19.....	2		
Italy:				
Genoa.....	Dec. 1-15.....	6	1	
Leghorn.....	Dec. 16.....	5	1	
Naples.....	Dec. 3-16.....	16		
Palermo.....	Nov. 26-Dec. 16.....	950	322	
Japan:				
Arima-Mura.....	Nov. 12-18.....	6	1	11 miles east from Kobe.
Java:				
Batavia.....	do.....		1	
Mexico:				
Aguascalientes.....	Dec. 18-24.....		1	
Chihuahua.....	Nov. 20-Dec. 26.....	30	6	
Cosahuila, State.....	Oct. 1-30.....		16	
Juarez.....	Dec. 19-23.....	1		
Magdalena.....	Dec. 23.....	45	13	
Mazatlan.....	Dec. 11-26.....		3	
Mexico.....	Nov. 26-Dec. 9.....	4	2	
Monterey.....	Dec. 11-24.....		2	
Porfirio.....	Dec. 3-9.....	3	3	
Sandoval.....	Dec. 16.....			Present.
Tampico.....	Dec. 1-20.....	4	4	
Tapachula.....	Nov. 1-22.....		13	
Russia:				
Moscow.....	Nov. 19-Dec. 9.....	7	2	
Odessa.....	Nov. 26-Dec. 16.....	5	1	
St. Petersburg.....	Nov. 19-Dec. 9.....	23	6	
Spain:				
Valencia.....	Dec. 3-16.....	16	2	
Switzerland:				
Zurich, Canton.....	Dec. 3-9.....	1		From the Orient.
Teneriffe:				
Santa Cruz.....	Dec. 3-16.....		10	
Turkey in Asia:				
Beirut.....	do.....	18	6	
Turkey in Europe:				
Constantinople.....	Dec. 4-24.....		16	
Uruguay:				
Montevideo.....	Sept. 1-Oct. 31.....	19	3	
Zanzibar:				
Zanzibar.....	Oct. 28-Dec. 1.....	3	1	

MORTALITY.

WEEKLY MORTALITY TABLE, FOREIGN AND INSULAR CITIES.

Cities.	Week ended—	Estimated population.	Total deaths from all causes.	Deaths from—										
				Tuberculosis.	Plague.	Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Typhoid fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
Aberdeen.....	Dec. 23	153,108	70										1	1
Aden.....	Dec. 4	45,859	29	5										1
Agascalientes.....	Dec. 3	40,000	50											
Do.....	Dec. 10		30											
Do.....	Dec. 17		34	1									1	
Amsterdam.....	Dec. 23	579,705	126	13										
Antwerp.....	Dec. 16	327,668	74	6									2	2
Athens.....	do	250,010	97	16									1	
Barcelona.....	do	533,180	240	22									3	
Barranquilla.....	Dec. 23	40,000	34										1	
Batavia.....	Nov. 25	217,630	10			2		1		1				
Do.....	Dec. 2		10			1		1						
Beirut.....	Dec. 23	80,000	20	2						6				
Belfast.....	do	385,492	134	23							1	2		8
Belgrade.....	do	90,050	32								4	1		
Birmingham.....	do	842,512	276								2	3	2	9
Do.....	Dec. 30		264								2	2		15
Bristol.....	do	357,509	111	13								1		
Bombay.....	Dec. 9	977,822	635	34	7			5						
Bordeaux.....	Dec. 23	253,000		14						1				
Bradford.....	Dec. 16	288,725	96	8									3	
Do.....	Dec. 23		85	3							1	2		
Bremen.....	Dec. 9	246,850	70	13								1	3	1
Brunswick.....	Dec. 3-16	145,000		9							6	26		
Calcutta.....	Nov. 18	890,493	543	37	8	42								
Cartagena.....	Dec. 16	30,000	16	2										1
Christiania.....	Dec. 23	245,000	66	11									2	
Colombo.....	Dec. 2	213,974	181	17						9				
Copenhagen.....	Dec. 9	462,000	110	16							1			1
Do.....	Dec. 16		111	18							2		1	
Dundee.....	Dec. 23	171,006	63	5								2		1
Edinburgh.....	do	320,829	108	6							1	1	2	1
Glasgow.....	Dec. 29	784,655	273							1	1	1	25	5
Hongkong.....	Dec. 2	336,488						8				3		
Iquique.....	do	40,000		4										
Do.....	Dec. 9		5	1						1				
Hamburg.....	Dec. 23	931,035	270	27						1	4	15	4	
Juarez.....	Dec. 30	6,500	12									1		
Kobe.....	Dec. 10	404,851	129							2				
Do.....	Dec. 17		164									3		
Leeds.....	Dec. 23	445,568	173	8							2	7	1	
Do.....	Dec. 30		125	3								4	1	
Leith.....	Dec. 23	80,674	25	3								1		
Liverpool.....	do	747,627	239	21						1	1	1	3	
Do.....	Dec. 30		267	32							2	3	5	3
London.....	Dec. 23	7,269,752	2,014							5	7	27	14	12
Lubec.....	do	100,000	26	4									1	
Lyon.....	Dec. 16	523,796	166	43						1		2		
Madras.....	Dec. 2	518,650	691			94		5		1			1	
Do.....	Dec. 9		639			73		5						
Magdeburg.....	do	285,518	130	8								7		
Mazatlan.....	Jan. 2	22,000	29	1				1						
Manchester.....	Dec. 23	631,533	235							2	3	1	2	1
Montreux.....	Dec. 31	100,000	68	7								1		
Montreal.....	Jan. 6	466,197	150	20						2	2	4		6
Munich.....	Dec. 16	597,000	174	21								2		1
Nagoya.....	Dec. 9	418,627	114							4		1		
Nantes.....	Dec. 17	161,908	70	11						2				
Newcastle-on-Tyne.....	Dec. 16	267,261	96	11						1				
Do.....	Dec. 23		75	8								2	1	
Nottingham.....	Dec. 16	259,942	98									2	4	
Do.....	Dec. 23		90									1	10	1
Palermo.....	do	340,000	252	12				106		2	2			
Paris.....	Dec. 16	2,846,986	902	215				2		8	1	6	6	2
Patras.....	Dec. 24	40,000	14	2						1				
Porfirio Diaz.....	Dec. 23	16,000	19											
Do.....	Dec. 30		7					10						
Do.....	Jan. 6		5					4						
Ottawa.....	Dec. 30	90,000	16					3				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.		
Quebec.....	Dec. 16	78,200														
Do.....	Jan. 6															
St. Petersburg.....	Dec. 16	1,907,708	728	134				1		29	15	9	27	4		
San Luis Potosi.....	Nov. 18	82,943	45	3												
Do.....	Nov. 25		47	4						1						1
Santa Cruz de Tenerife.....	Dec. 23	46,000	21	2				10								
Santiago de Cuba.....	Dec. 30	53,614	18	2						1						
Sarnia.....	Jan. 6	9,936	7							3						
Shanghai.....	Dec. 10	492,000	129	14				1					1			
Singapore.....	Nov. 25	303,328	233	34	1						2					
Southampton.....	Dec. 30	119,324	27	2												1
Stettin.....	Dec. 16	237,000	87	12								1		1		
Swansea.....	Dec. 23	115,100	42											2		
Turin.....	Dec. 17	401,555	121	17											1	
Valencia.....	Dec. 23	240,000	97	3				1								
Vladivostok.....	Oct. 28	84,578	7	3							1	1	1			
Do.....	Nov. 3		11	1								2				
Do.....	Nov. 13									2	1	1	1			1
Winnipeg.....	Dec. 23	151,958	31	1										1		
Do.....	Jan. 6		33	3							1	1	2	2		
Yokkaichi.....	Dec. 2	44,564	13													

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

ARGENTINA—*Buenos Aires*.—Month of October, 1911. Population, 1,343,156. Total number of deaths from all causes 2,054, including diphtheria 24, measles 10, scarlet fever 10, smallpox 6, tuberculosis 266, typhoid fever 13.

Rosario.—Month of October, 1911. Population, 207,260. Total number of deaths from all causes 378, including diphtheria 6, measles 3, smallpox 25, tuberculosis 38, typhoid fever 1.

AUSTRALIA—*New Castle*.—Month of October, 1911. Population, 60,500. Total number of deaths from all causes 25, including diphtheria 1, tuberculosis 1.

BRAZIL—*Bahia*.—Month of July, 1911. Population, 292,000. Total number of deaths from all causes 422, including measles 1, plague 1, smallpox 1, tuberculosis 64, typhoid fever 2.

Month of August, 1911. Total number of deaths from all causes 399, including plague 1, tuberculosis 58, typhoid fever 2.

Santos.—Month of October, 1911. Population, 85,000. Total number of deaths from all causes 100, including measles 1, typhoid fever 2.

GREAT BRITAIN.—Week ended December 16, 1911.

England and Wales.—The deaths registered in 77 great towns correspond to an annual rate of 16.4 per 1,000 of the population, which is estimated at 16,157,797.

Ireland.—The deaths registered in 21 principal town districts correspond to an annual rate of 20.9 per 1,000 of the population, which is estimated at 1,149,495. The lowest rate was recorded at Kilkenny, viz, 5, and the highest at Newry, viz, 39.3, per 1,000.

Scotland.—The deaths registered in 8 principal towns correspond to an annual rate of 17.9 per 1,000 of the population, which is estimated at 1,710,291. The lowest rate was recorded at Perth, viz, 7.3, and the highest at Aberdeen, viz, 21.4, per 1,000. The total number of deaths from all causes was 587, including diphtheria 6, measles 32, scarlet fever 4, typhoid fever 1.

MEXICO—*State of Coahuila.*—Month of October, 1911. Population, 280,899. Total number of deaths from all causes 458, including diphtheria 3, scarlet fever 5, smallpox 16, tuberculosis 30.

SIERRA LEONE—*Freetown.*—Month of November, 1911. Population 40,000. Total number of deaths from all causes 60. No contagious diseases.

URUGUAY—*Montevideo.*—Month of October, 1911. Population 321,224. Total number of deaths from all causes 488, including diphtheria 1, scarlet fever 1, smallpox 1, tuberculosis 76, typhoid fever 1.

By authority of the Secretary of the Treasury:

RUPERT BLUE,

Surgeon General,

United States Public Health and Marine-Hospital Service.

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