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THE USE OF GASES ON SHIPS FOR FIRE EXTINCTION AND FUMIGATION.

By E. KILBURN SCOTT, A. M., Institute Civil Engineering.

A review by L. E. Cofer, Assistant Surgeon General, United States Public Health Service.

The above paper was read by Mr. Scott on November 18, 1912, before the London Institute of Marine Engineers and appears in the transactions of the Institute of Marine Engineers of February, 1913. The paper is for all persons interested in the subject a most absorbing and useful one.

As far back as the fall of 1911 the Bureau of Public Health Service considered the question of the adaptability of fire-extinguishing devices on marine carriers for fumigation and disinfection purposes. So far an ideal combination for the purposes above mentioned has not been suggested, but it may be said that there is no better way of stimulating thought and investigation along these lines than by the preparation of such papers on this subject as the one read by Mr. Scott, and it is hoped that in the near future other investigations will be made into this important economic and public-health subject and that eventually an apparatus will be devised which every ship-owner will be willing to install for the combined purpose of extinguishing fires in cargoes and of keeping vessels free from the carriers of quarantinable diseases.

Mr. Scott shows that fire is now one of the principal risks of sea transport, not only because it is an ever-present risk, but also because the interior fittings of passenger vessels have become more and more elaborate. He also claims that the possible damage due to fire increases with the size of the vessels, for the reason that the larger the holds the more nonconducting material there is between the seat of the fire and the cooled surfaces of the skin of the vessel or the deck above. It is shown that the problem of fire extinguishing on shipboard is somewhat similar to that with which fire brigades have to deal on shore, the ship being considered analogous to a theater

or hotel, where human life is principally involved, while a cargo boat is similar to the warehouse or store, where economic interests are at stake. The resemblance, it appears, ends there, because a ship's fire differs from a fire in a building in that it can be attacked only from above. Also it is in an inclosed space and partly below water level, and therefore water has to be carefully used. The principal difference lies in the fact that it is possible to make use of inert gases for fire extinction.

The methods of extinguishing fires on board ship are:

1. Closing the hatches.
2. Flooding the holds with water.
3. Blowing in steam.
4. Blowing in an inert gas, such as—
 - (a) Carbon dioxide gas.
 - (b) Sulphur dioxide gas.
 - (c) Flue gas.

The fire-extinguishing agencies enumerated in division 4 are equally effective against animal life. Therefore it is in the use of inert gases, both for fire extinction and fumigation, that the next important step in ship sanitation will lie.

It is not the purpose here to discuss any other means for fumigating vessels than that known as the fumigation by the flue-gas method. The Bureau of Public Health Service has given this method a trial extending over about eight months, with the result that the method, so far as it goes, is very satisfactory. The experiments were conducted by Passed Assistant Surgeon Norman Roberts, of the Public Health Service, who was detached from the Hygienic Laboratory for the purpose. The flue gases were derived from an apparatus invented by Dr. George Harker, of Sydney, Australia. Dr. Roberts reports that from the standpoint of fumigation the system has many possibilities which so far have not even been thought of. Many cargoes—for example, tea and silk, foodstuffs, etc.—which would be damaged if exposed to sulphur gas in the presence of moisture, are not damaged when exposed to flue gas which has been washed and cooled. As a practical destroyer of rats in vessels, the flue gas is an absolute success. Investigations thus far carried out under the auspices of the Public Health Service have not proved, nor, for that matter, disproved, the practical value of the gas for purposes of insect destruction.

The active life-destroying constituent of the flue gas is carbon monoxide, which destroys rats and other red-blooded animals, but does not destroy insects. This is on account of its specific action on the hemoglobin which is present in the blood of vertebrates but absent in the blood of insects. According to Roberts, the inert gases, nitrogen and carbon dioxide, in flue gas do not directly cause

death, as they are not present in sufficient concentration to kill unaided; but the partial replacement of the oxygen in flue gas by carbonic-acid gas taxes the respiratory powers and reduces the concentration necessary to kill.

This partial dependence of the flue gas upon carbon dioxide for its poisonous qualities makes it considerably safer than a carbon monoxide-air mixture of equal toxicity, because, it is stated, if the flue gas be diluted with air both the carbon monoxide and the carbon dioxide will be weakened, whereas with the carbon monoxide-air mixture there is nothing to weaken except the carbon monoxide. This principle, it appears, when carried out to its logical conclusion, shows, first, that it is possible by reducing the carbon monoxide almost to the vanishing point and replacing the carbon dioxide until the mixture is irrespirable, to get a gas which can be safely used to destroy rats, even under circumstances whereby human beings might breathe a considerable quantity of the gas slightly diluted. It shows, further, that by entirely eliminating the carbon monoxide and proportioning the carbon dioxide and oxygen so as to be respirable yet fire extinctive, a gas would result with which inhabited compartments threatened by fire might be safely flooded. An example of such a gas is given as composed of: Nitrogen, 80 per cent; oxygen, 8 to 15 per cent; carbon dioxide, 5 to 12 per cent.

As stated above, insects are not affected by the flue gas unmixed, as insects have no hemoglobin. At times it has been noted that there is some constituent in the coal gas which kills insects. This is supposed to be sulphur. It has therefore been necessary, in order to kill insects with flue gas, to add some substance to the fuel. All of the substances thus far considered are gaseous or volatile liquids, such as sulphur dioxide, hydrocyanic gas, carbon disulphide, and carbon tetrachloride.

The necessity for adding to flue gas some substance producing a pungent or distinctly noticeable odor lies in the danger of asphyxiation of persons who enter the holds of vessels without first making careful tests as to the presence of carbon-monoxide gas. This is equivalent to saying that one of the disadvantages of flue gas is the fact that it is a constant source of danger to persons engaged in handling the gas for fumigation or fire-extinguishing purposes. It is therefore necessary to provide persons engaged in the fumigation of vessels with this gas with either a gas-rescue apparatus, or in addition to this, perhaps, one of the oxygen-resuscitation devices. One more advantage of the use of flue gas in the eradication of rats from vessels is the fact that if the fumigation is done on a large scale the cost of the output of the gas is relatively very low, as compared with the cost of the production of sulphur gas. The use of flue gas, however, is not profitable for the fumigation of small or separate com-

partments. Such compartments are best fumigated by means of small, independent gas generators of various kinds. It happens not infrequently in the fumigation of vessels that the use of sulphur gas is best adapted to some compartments, which are rendered air-tight with difficulty, while flue gas is best adapted to the holds of the vessels, provided, of course, they can be made air-tight.

The Public Health Service is now experimenting with the use of hydrocyanic-acid gas in the eradication of rats from loosely crated fruits and vegetables.

Dr. Roberts suggests that the flue gases adapted by the Harker system could be used in destroying rats in sewers. Here, however, account must be taken of the possibility of the gas finding its way in sufficient concentration into cellars and other places where human beings might be accidentally suffocated.

It may be stated that the use of flue gas for the fumigation of vessels for the destruction of animal life has a distinct place in maritime quarantine practice, and it only remains for the investigators to improve upon the methods of handling the gas, and also to devise a fuel the gases from which will kill insects. There is still another important consideration, and that is the part which marine architects may play in aiding sanitarians by eliminating in their plans of construction, as far as possible, all spaces and runways which would enable rodents and insects to escape the gaseous fumes which are intended for their destruction.

EPIDEMIC CEREBROSPINAL MENINGITIS.

INFORMATION RELATIVE TO THE PREVENTION OF ITS SPREAD AND THE MANAGEMENT OF CASES.

By R. H. VON EZDORF, Surgeon, United States Public Health Service.

On the appearance of epidemic cerebrospinal meningitis in a community the following measures will be found to be practicable of enforcement when modified to suit local conditions:

1. Prompt and early report of cases.

Local health authorities should adopt and enforce an ordinance requiring the immediate report of any case or suspected case of cerebrospinal meningitis by physicians, or heads of families, to the local health authorities.

A certificate, signed by such person, stating name of disease, the name, age, sex, and color of the patient suffering therefrom; and setting forth by street and number, or by other sufficient designation, the location of the house, room, or other place in which said patient can be found, should be required.

When said patient recovers or dies immediate notice should be sent to the local health authority.

2. Special records to be kept.

Health departments will find it useful to keep special records of all cases reported, so as to follow the progress of the disease.

These records should contain: Serial number; date case reported; name; age; sex; color; address; date when taken sick; confirmed or not confirmed; number of persons in family or house; result, giving date of recovery or death; remarks, giving notes if treated in hospital; with or without serum, etc.

3. Placard and quarantine of the house.

A large placard giving the name of the disease and warning the public against entrance into the house should be placed in a conspicuous place. The removal of such placard, except by order of the health department, should be prohibited.

4. Establish an isolation hospital for the care and treatment with specific serum of cerebrospinal-meningitis cases only.

The establishment of an isolation hospital will afford the patients the best conditions and make for the best possible chances for their recovery.

This hospital should be open to all persons alike and should be free.

The mortality from this disease still remains high but has been greatly reduced by early and prompt treatment with the specific serum.

With the proper use of serum there have been noted a larger proportion of recoveries, a shorter and less severe course of the disease, and fewer complications and sequelæ.

No single measure will bring greater relief to an afflicted community during the prevalence of an epidemic than a properly equipped hospital with a trained corps of nurses and physicians.

5. Isolation of patients at their homes.

When patients are treated at their homes, it should be required that isolation of the cases be enforced by having such cases placed in a well ventilated and lighted room, cleared of all unnecessary furnishings.

Trained nurses should assist physicians to prepare patients and instruments for lumbar puncture and in treatment with serum.

Members of families should be instructed in precautions to be observed to restrict communication.

6. Dispensaries may be established where persons who have been exposed to the disease may come for observation.

At these dispensaries those who have come in contact with the sick or have been otherwise exposed to the disease may come for examination daily or oftener if desired. The conditions in their noses and throats can be kept under observation and, if indicated, attention can be given to the keeping of their noses and throats clean by the spraying or application otherwise of cleansing solutions. Among the solu-

tions that have been used for this purpose may be mentioned Dobell's solution and solutions of 1 per cent of common table salt in water.

7. Supply of specific serum.

Boards of health will find it advantageous to get an ample supply of serum on hand for use as needed. Where a hospital has been established, patients should be induced to enter the hospital for treatment.

8. Provide a medical-inspection service or board of diagnosis.

The members of this board will often be called upon by those who, for economic reasons, seldom call in a physician when sickness occurs in their families.

Reported suspicious cases should be seen by one or more members of the board on request of the attending physician, which service should be without charge.

The responsibility of transfer of such a case to the hospital would thereby rest with the representative of the board of health.

9. Discourage large public gatherings.

Adults are not infrequently attacked by this disease. While the disease is regarded as being proportionately more frequent among children, the epidemics which occurred in Texas and other places have shown that adults are, at the beginning of the epidemic, attacked as frequently as children. Toward the latter part of these epidemics the proportion became greater among children.

The colored race is proportionately more frequently attacked than the white.

Where epidemics have occurred the disease usually made its appearance first during the months of October, November, or December.

Public gatherings should therefore be avoided, particularly at the height of an epidemic or prospect of an epidemic.

10. Closing of schools, moving-picture shows, theaters, churches, etc.

The question of the advisability of closing schools is one of the first that confronts health authorities.

Where modern school buildings are in use, it does not seem advisable nor necessary to adopt this measure. Such schools afford the best sanitary surroundings, and teachers can instruct children regarding personal hygiene and the precautions to be taken. Circulars setting forth the measures which should be followed may be distributed to the children and explained.

If a school child is attacked, children in the same classroom should be inspected by a medical inspector, and those suffering with a nasal catarrh, sore throat, or cough should be sent home for treatment.

No child from a house where a case of the disease is under treatment should be allowed to attend school.

No child who has recovered from the disease should be allowed to return to school until shown not to be a carrier, or until such child

has received proper treatment by spraying of the nose and throat for a period of 7 to 10 days.

It is hardly necessary to close churches, particularly where persons attending will observe general instructions.

Theaters and moving-picture shows should be closed during an epidemic, and children should be kept at home when not attending school.

11. Crowding on street cars should be prohibited or avoided.

Notices should be placed advising persons riding on street cars, not to expectorate on floors, and to avoid coughing, sneezing, talking, which might cause a spraying of secretions from the mouth or nose to persons in close contact. Handkerchiefs or other means should be used to guard against this.

12. Laboratory should be established.

A laboratory should be established where spinal fluids may be examined to determine the presence of the meningococci for confirmation of the diagnosis, and for the examination of spinal fluids of patients under treatment, since the presence of the meningococci in such fluids is an indication for further serum treatment. This service should be made available to all physicians.

A bacteriological examination of the secretions taken from the nose and throat of persons, particularly school children who have recovered from the disease, to determine if they are carriers of the meningococcus, might be required. On proving negative after two or more examinations such persons may be safely released from further detention or quarantine.

13. General quarantine not necessary.

A general quarantine in this disease gives a false sense of security. It has been tried and has failed. It is not advisable owing to the fact that the spread of this disease does not follow the epidemiological characteristics of other infectious diseases.

Many healthy persons become carriers of this organism, the meningococcus. By the time an epidemic occurs carriers have become widespread, and are found beyond the boundaries of a single county, so that quarantine will not and can not accomplish the effect desired by adopting such a measure.

Localities in close communication with an infected place will often escape an outbreak of the disease. The reason and conditions for this are unknown.

Local authorities of near-by points having frequent communication with places where the disease has become epidemic will find it practical, as a substitute for quarantine, to advise recent arrivals to use sprays for nose and throat and mouth washes of antiseptic solutions during the period of a week or 10 days, for the purpose of protecting themselves as well as those with whom they may come into intimate contact.

14. Disinfection.

The meningococcus has not been found outside the human body. Moreover, it has a very low resistance and will not withstand drying or sunlight. Even in spinal fluids taken from patients the germ will lose its viability in 24 hours. Disinfection may therefore be limited. All sputum, nasal secretions from the sick, or from other persons in contact with the sick, should be disinfected, as may also articles in the sick room.

Free ventilation of rooms and exposure to sunlight should be insured.

It is needless to say that freight should not be subjected to disinfection or restriction.

15. Funerals.

On account of contact with possible carriers among the family no public funeral of any person who has died of cerebrospinal meningitis should be held.

16. Circular letter of instruction.

The following form for a circular of instruction is suggested:

INFORMATION REGARDING PREVENTION OF MENINGITIS.

1. The germ which causes epidemic cerebrospinal meningitis has been found only in the human body.

2. Healthy persons may carry the germ in their nose and throat without ever developing the disease. Such persons are known as carriers. There are about 10 carriers to every case of meningitis in an infected locality.

3. The measures for lessening the spread of the germs of this disease are as follows:

(a) The nose and throat should be kept clean. For this purpose cleansing sprays may be used.

(b) Careful attention to personal hygiene, mainly cleanliness. Avoid chilling of the body and other depressing influences. Dress to meet the changes in weather.

(c) Avoid close contact with persons. Healthy persons who are carriers may innocently transmit the germs, which may be in their nose and throat, by coughing, sneezing, kissing, talking, etc.

(d) Children should not use articles which may have come in contact with the mouths of others, such as pencils, particles of food, drinking cups, handkerchiefs, and the like.

(e) Cleanliness of premises and free ventilation of houses are necessary. The germ of this disease is easily killed when exposed to drying and sunlight. Hence it is important to thoroughly ventilate and expose to sunlight all occupied rooms.

(f) The disease is not carried by clothing, merchandise, etc.

(g) Persons suffering with "colds"—that is, nasal catarrh, sore throat, or coughs—should be careful in the presence of others, and seek early medical attention and relief.

Handkerchiefs wet with discharges from the nose or throat should be disinfected by boiling in water.

PREVALENCE OF DISEASE.

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

IN CERTAIN STATES AND CITIES.

SMALLPOX.

Indiana—Evansville.

Surg. Clark, of the Public Health Service, reported by telegraph that during the week ended May 3, 1913, 13 cases of smallpox had been notified in Evansville.

Maine—Rockport.

Acting Asst. Surg. Adams, of the Public Health Service, reported that 2 new cases of smallpox had been notified at Rockport, Me.

Oregon—Grand Ronde.

Acting Asst. Surg. Clausius, of the Public Health Service, reported that 6 cases of mild smallpox had occurred at Grand Ronde, Yamhill County, Oreg.

Miscellaneous State Reports.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Texas (Mar. 1-31):			Washington (Mar. 1-31):		
Counties—			Counties—		
Archer.....	12	.....	Asotin.....	2	.....
Baylor.....	17	.....	Chelan.....	1	.....
Bosque.....	4	.....	Clarke.....	3	.....
Brown.....	7	.....	Franklin.....	1	.....
Collin.....	8	.....	King.....	10	.....
Dallas.....	35	.....	Kitsap.....	2	.....
Denton.....	15	.....	Lewis.....	9	.....
Eastland.....	40	.....	Lincoln.....	6	.....
Ellis.....	4	.....	Pend Oreille.....	1	.....
Grayson.....	6	.....	Pierce.....	4	.....
Hill.....	5	.....	Skamania.....	5	.....
Johnson.....	2	1	Snohomish.....	3	.....
McLennan.....	6	.....	Spokane.....	50	.....
Milam.....	1	.....	Walla Walla.....	1	.....
Parker.....	1	1	Whatcom.....	1	.....
Reeves.....	12	2	Whitman.....	6	.....
Refugio.....	2	.....	Yakima.....	98	.....
Stephens.....	1	.....		
Tarrant.....	7	.....	Total.....	203	.....
Travis.....	3	.....		
Van Zandt.....	1	.....		
Wichita.....	15	.....		
Total.....	204	4			

City Reports for Week Ended Apr. 19, 1913.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Alameda, Cal.....	1	.....	Muscatine, Iowa.....	7	.....
Bayonne, N. J.....	2	.....	New Bedford, Mass.....	2	.....
Buffalo, N. Y.....	1	.....	New York, N. Y.....	1	.....
Chattanooga, Tenn.....	1	.....	Niagara Falls, N. Y.....	2	.....
Chicopee, Mass.....	6	.....	Oakland, Cal.....	1	.....
Cincinnati, Ohio.....	1	.....	Pasadena, Cal.....	1	.....
Danville, Ill.....	1	.....	Peoria, Ill.....	4	.....
Detroit, Mich.....	27	.....	Rochester, Minn.....	2	.....
Duluth, Minn.....	5	.....	St. Joseph, Mo.....	1	.....
Evansville, Ind.....	29	.....	St. Louis, Mo.....	1	.....
Kalamazoo, Mich.....	1	.....	San Diego, Cal.....	2	.....
Kansas City, Kans.....	3	.....	San Francisco, Cal.....	1	.....
Knoxville, Tenn.....	13	.....	South Bend, Ind.....	1	.....
La Crosse, Wis.....	2	.....	Spokane, Wash.....	8	.....
Los Angeles, Cal.....	1	.....	Springfield, Ill.....	1	.....
Manchester, N. H.....	1	.....	Toledo, Ohio.....	1	.....
Milwaukee, Wis.....	9	.....	Washington, D. C.....	1	.....
Montgomery, Ala.....	7	.....	Zanesville, Ohio.....	11	.....

TYPHOID FEVER.

Washington Report for March, 1913.

Places.	Number of new cases reported during month.	Places.	Number of new cases reported during month.
Washington:		Washington—Continued.	
Chelan County.....	4	Spokane County—	
Clallam County.....	1	Spokane.....	3
Clarke County.....	2	Skagit County.....	2
Cowlitz County.....	2	Walla Walla County.....	1
Jefferson County.....	1	Whatcom County—	
King County—		Bellingham.....	2
Seattle.....	5	Whitman County.....	2
Klickitat County.....	1	Yakima County.....	2
Lewis County.....	2		
Lincoln County.....	1	Total.....	31

CEREBROSPINAL MENINGITIS.

State Reports for March, 1913.

Places.	Number of new cases reported during month.	Places.	Number of new cases reported during month.
Texas:		Texas—Continued.	
Baylor County.....	2	Stephens County.....	1
Coleman County.....	4	Travis County—	
Collin County.....	1	Austin.....	1
Comanche County—		Total.....	16
Comanche.....	2		
Galveston County—		Washington:	
Texas City.....	1	King County.....	1
McLennan County.....	2		
Rockwall County—			
Rockwall.....	2		

California—Los Angeles.

Senior Surg. Brooks, of the Public Health Service, reported by telegraph that during the week ended May 3, 1913, 2 new cases of

cerebrospinal meningitis had been notified in Los Angeles, Cal., making a total of 62 cases since January 1, 1913.

Cases and Deaths Reported by Cities for Week Ended Apr. 19, 1913.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Baltimore, Md.....		1	Lexington, Ky.....		1
Boston, Mass.....	2	1	Los Angeles, Cal.....	4	3
Buffalo, N. Y.....	1		Lowell, Mass.....		1
Chattanooga, Tenn.....	1		Milwaukee, Wis.....	1	1
Chicago, Ill.....	3	3	Nashville, Tenn.....	4	
Cincinnati, Ohio.....	1	1	New Bedford, Mass.....	2	1
Cleveland, Ohio.....	4	3	New York, N. Y.....	8	6
Duluth, Minn.....	1		North Adams, Mass.....	1	1
Evansville, Ind.....	1		Oakland, Cal.....	1	1
Haverhill, Mass.....	1		Pittsburgh, Pa.....	1	
Jersey City, N. J.....		1	Richmond, Va.....		2
Kalamazoo, Mich.....	1	1	St. Louis, Mo.....	8	4

POLIOMYELITIS (INFANTILE PARALYSIS).

State Reports for March, 1913.

Place.	Number of new cases reported during month.	Place.	Number of new cases reported during month.
Texas:		Washington:	
Bexar County.....	3	King County.....	3
McLennan County.....	1		
Wichita County.....	1		
Total.....	5		

Cases and Deaths Reported by Cities for Week Ended April 19, 1913.

During the week ended April 19, 1913, poliomyelitis was reported by cities as follows: Cleveland, Ohio, 2 cases with 2 deaths; New Orleans, La., 3 cases; New York, N. Y., 2 cases with 1 death; Philadelphia, Pa., 1 case.

ERYSIPELAS.

Cases and Deaths Reported by Cities for Week Ended Apr. 19, 1913.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Binghamton, N. Y.....	4		New Castle, Pa.....	1	
Braddock, Pa.....	1		New York, N. Y.....		6
Buffalo, N. Y.....	6		Passaic, N. J.....	2	
Chicago, Ill.....	26	3	Philadelphia, Pa.....	11	2
Cincinnati, Ohio.....	3		Pittsburgh, Pa.....	6	
Cleveland, Ohio.....	9	1	Reading, Pa.....	3	
Erie, Pa.....	2		Rutland, Vt.....	1	
Elmira, N. Y.....	1		St. Louis, Mo.....	5	1
Harrisburg, Pa.....	1		San Francisco, Cal.....	4	
Kalamazoo, Mich.....	1		Taunton, Mass.....		1
Los Angeles, Cal.....	3	1	Waltham, Mass.....		1
Milwaukee, Wis.....	2		Wilkinsburg, Pa.....	2	
Muscatine, Iowa.....	1		Yonkers, N. Y.....	1	

PLAGUE.**Rats Collected and Examined.**

Places.	Week ended—	Found dead.	Total collected.	Examined.	Found infected.
California:					
Cities—					
Berkeley.....	Apr. 19, 1913	0	184	112	.....
Oakland.....	do.....	14	613	455	.....
San Francisco.....	do.....	25	1,806	1,292	.....
Washington:					
City—					
Seattle.....	do.....		957	900	.....

California—Squirrels Collected and Examined.

During the week ended April 19, 1913, there were examined for plague infection 147 ground squirrels from San Joaquin County. 406 from Contra Costa County, 44 from Santa Clara County, and 92 from Alameda County. No plague-infected squirrel was found.

RABIES.**Tacoma, Wash.**

Dr. Eugene R. Kelley, commissioner of health of the State of Washington, reported April 23 the occurrence of rabies in the city of Tacoma, Wash., and near-by portions of Pierce County. Dr. Kelley stated that so far as the records show this is the first occurrence of rabies in the State of Washington west of the Cascade Mountains. The introduction of the disease was reported by the city health officer of Tacoma to have been due to the importation last autumn of a dog from Arizona by a man living 13 miles out of Tacoma. In October the dog bit 2 men. It is not known whether the dog was suspected to be rabid at that time, nor what disposition was made of it except that it was killed.

In the case of one of the men bitten no precautions were taken and symptoms of rabies developed about the 1st of December, 1912. The patient died December 12. The other man bitten is reported to have applied for treatment at a Pasteur institute about Christmas time. Since then there have been a large number of cases of illness with paralysis among dogs in the city of Tacoma. That it was rabies was suspected from the first but it has only recently been definitely determined by examination that this was the true nature of the disease. During the last few weeks there have been 15 or 20 rabid dogs killed in Tacoma.

PNEUMONIA.

Cases and Deaths Reported by Cities for Week Ended Apr. 19, 1913.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Beaver Falls, Pa.....	1		Newport, Ky.....	1	1
Binghamton, N. Y.....	3	1	North Adams, Mass.....	3	
Braddock, Pa.....	1		Pasadena, Cal.....	1	1
Chicago, Ill.....	13	129	Philadelphia, Pa.....	28	45
Cleveland, Ohio.....	20	10	Pittsburgh, Pa.....	28	27
Dunkirk, N. Y.....	1	1	Reading, Pa.....	1	2
Galesburg, Ill.....	1	1	San Diego, Cal.....	2	2
Kalamazoo, Mich.....	2	2	San Francisco, Cal.....	5	
Lancaster, Pa.....	1		Saratoga Springs, N. Y.....	2	
Los Angeles, Cal.....	1		South Bethlehem, Pa.....	1	
Manchester, N. H.....	3	3	Wilkes-Barre, Pa.....	1	4
Mount Vernon, N. Y.....	6		Wilmington, N. C.....	2	2

SCARLET FEVER, MEASLES, DIPHTHERIA, AND TUBERCULOSIS.

Texas Report for March, 1913.

The State Board of Health of Texas reported that during the month of March, 1913, 83 cases of scarlet fever and 29 cases of diphtheria were notified in the State of Texas.

Washington Report for March, 1913.

The State Board of Health of Washington reported that during the month of March, 1913, 84 cases of scarlet fever, 987 cases of measles, and 65 cases of diphtheria, had been notified in the State of Washington.

Juneau, Alaska—Measles.

Passed Asst. Surg. Krulish, of the Public Health Service, reported that 4 cases of measles had occurred in Juneau, Alaska, during the week ended April 26, 1913.

Los Angeles, Cal.—Measles.

Senior Surg. Brooks, of the Public Health Service, reported by telegraph that during the week ended May 3, 1913, 609 cases of measles had been notified in Los Angeles, Cal., making a total of 3,621 cases notified since January 1, 1913.

Pittsburgh, Pa.—Measles.

Surg. Stoner, of the Public Health Service, reported by telegraph that during the week ended May 3, 1913, 151 cases of measles, with 2 deaths, had been notified in Pittsburgh, Pa., making a total of 8,717 cases, with 140 deaths, since the beginning of the outbreak November 1, 1912.

Cases and Deaths Reported by Cities for Week Ended Apr. 19, 1913.

Cities.	Popula- tion, United States census 1910.	Total deaths from all causes.	Diph- theria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Over 500,000 inhabitants:										
Baltimore, Md.	558,485	201	12	-----	414	3	31	2	27	17
Boston, Mass.	670,585	260	39	4	168	5	34	6	66	24
Chicago, Ill.	2,185,283	744	171	27	675	13	352	18	146	83
Cleveland, Ohio.	560,663	162	44	2	220	7	24	1	36	21
New York, N. Y.	4,766,883	1,567	326	36	1,170	23	394	25	525	195
Philadelphia, Pa.	1,549,008	515	52	7	674	9	87	-----	114	67
Pittsburgh, Pa.	533,905	179	21	4	166	6	41	-----	38	10
St. Louis, Mo.	687,029	249	48	1	249	4	25	3	38	21
From 300,000 to 500,000 inhab- itants:										
Buffalo, N. Y.	423,715	157	16	1	99	-----	15	-----	20	25
Cincinnati, Ohio.	364,463	136	23	-----	37	2	10	-----	30	28
Detroit, Mich.	465,766	194	33	2	-----	-----	54	4	-----	-----
Los Angeles, Cal.	319,198	112	11	7	469	-----	8	-----	37	18
Milwaukee, Wis.	373,857	108	15	4	46	1	43	-----	13	13
Newark, N. J.	347,469	109	36	-----	43	-----	23	-----	38	-----
New Orleans, La.	339,075	-----	21	2	279	3	4	-----	39	28
San Francisco, Cal.	416,912	133	6	1	18	-----	12	-----	30	11
Washington, D. C.	331,069	119	7	2	214	1	9	1	17	10
From 200,000 to 300,000 inhab- itants:										
Jersey City, N. J.	267,779	92	18	2	61	2	17	-----	17	6
Providence, R. I.	224,326	65	10	1	13	-----	8	-----	9	5
From 100,000 to 200,000 inhab- itants:										
Bridgeport, Conn.	102,054	28	3	-----	2	-----	12	-----	2	-----
Cambridge, Mass.	104,839	40	3	-----	46	1	1	-----	4	8
Dayton, Ohio.	116,577	54	8	2	6	-----	3	-----	-----	3
Fall River, Mass.	119,295	48	5	-----	50	1	22	1	8	1
Grand Rapids, Mich.	112,571	22	3	-----	34	1	9	-----	1	-----
Lowell, Mass.	106,294	34	2	-----	34	1	-----	-----	3	-----
Nashville, Tenn.	110,364	46	-----	-----	17	-----	-----	-----	5	5
Oakland, Cal.	150,174	51	1	-----	-----	-----	1	-----	2	6
Richmond, Va.	127,628	53	1	-----	50	-----	2	-----	6	-----
Spokane, Wash.	104,402	-----	-----	-----	1	-----	2	-----	-----	1
Toledo, Ohio.	168,497	53	-----	-----	96	3	3	-----	4	4
Worcester, Mass.	145,986	54	4	-----	22	2	9	-----	3	2
From 50,000 to 100,000 inhab- itants:										
Altoona, Pa.	52,127	11	7	1	-----	-----	3	-----	-----	1
Bayonne, N. J.	55,545	6	4	1	1	-----	6	-----	1	1
Brockton, Mass.	56,878	19	1	-----	1	-----	1	-----	2	-----
Camden, N. J.	94,538	-----	4	-----	30	-----	8	-----	2	-----
Duluth, Minn.	78,466	20	2	-----	65	-----	6	-----	-----	1
Elizabeth, N. J.	73,409	-----	3	-----	9	1	4	-----	8	2
Erie, Pa.	66,525	18	5	-----	64	-----	1	-----	3	-----
Evansville, Ind.	69,647	20	1	-----	5	-----	19	1	1	1
Fort Wayne, Ind.	63,933	17	1	-----	72	-----	4	-----	-----	11
Harrisburg, Pa.	64,186	14	2	-----	14	-----	-----	-----	5	1
Hartford, Conn.	98,915	-----	9	-----	36	1	10	-----	2	3
Hoboken, N. J.	70,324	-----	6	-----	17	-----	3	-----	8	-----
Houston, Tex.	78,800	27	-----	-----	-----	-----	1	-----	-----	2
Johnstown, Pa.	55,482	18	10	2	20	-----	-----	-----	-----	-----
Kansas City, Kans.	82,331	-----	1	-----	71	-----	9	-----	6	-----
Lancaster, Pa.	47,227	-----	5	-----	19	-----	2	-----	-----	-----
Lexington, Ky.	35,099	10	1	-----	8	1	1	-----	7	1
Lynchburg, Va.	29,494	6	-----	-----	47	-----	-----	-----	1	-----
Lynn, Mass.	89,336	14	2	-----	73	-----	6	-----	5	-----
Malden, Mass.	44,404	11	1	-----	121	-----	1	-----	4	-----
Manchester, N. H.	70,063	30	3	-----	7	-----	-----	-----	2	2
Montgomery, Ala.	38,136	19	1	-----	-----	-----	1	-----	-----	3
Mount Vernon, N. Y.	30,919	-----	4	-----	15	-----	1	-----	4	-----
New Bedford, Mass.	96,652	26	5	1	68	-----	7	-----	4	2
Newcastle, Pa.	36,280	-----	1	-----	66	-----	1	-----	-----	-----
Newport, Ky.	30,309	15	-----	-----	-----	-----	-----	-----	1	1
Newton, Mass.	31,806	1	-----	-----	16	-----	3	-----	-----	-----
Niagara Falls, N. Y.	30,445	13	-----	-----	11	-----	5	1	-----	1
Norristown, Pa.	27,875	10	1	1	1	-----	2	-----	-----	1
Orange, N. J.	29,630	12	1	-----	4	-----	2	-----	8	3
Pasadena, Cal.	30,291	5	-----	-----	3	-----	-----	-----	5	2
Passaic, N. J.	54,773	19	3	1	2	-----	-----	-----	2	2

Cases and Deaths Reported by Cities for Week Ended Apr. 19, 1913—Contd.

Cities.	Popula- tion, United States census 1910.	Total deaths from all causes.	Diph- theria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 50,000 to 100,000 inhabit- ants—Continued.										
Pawtucket, R. I.	51,622									1
Peoria, Ill.	66,950		6				3			1
Reading, Pa.	96,071	31	4	1	62	1	3			1
St. Joseph, Mo.	77,403	15	3		250		7			2
South Bend, Ind.	53,684	16	3		4		6			2
Springfield, Ill.	51,678	18	1		4		2			4
Springfield, Mass.	88,926	31	5	1	31		6	1	6	3
Trenton, N. J.	96,815	31	3		2		3		2	4
Wilkes-Barre, Pa.	67,105	20	3		1		3		3	
Yonkers, N. Y.	79,803	17	8	1	18		7		9	5
From 25,000 to 50,000 inhabitants:										
Atlantic City, N. J.	46,150	14	2		46		2		1	
Aurora, Ill.	29,807	6	1		1		2	1		
Binghamton, N. Y.	48,443	22	1		1		3		4	4
Chelsea, Mass.	32,452	15	4		17		1		3	2
Chicopee, Mass.	25,401						2		2	1
Danville, Ill.	29,292	11			8		2			1
East Orange, N. J.	34,371		1		12		1			
Elmira, N. Y.	37,176	6	1		18		1			1
Everett, Mass.	33,484	9			6		1		2	1
Fitchburg, Mass.	37,826	12			63		3		1	1
Haverhill, Mass.	44,115	20			32	1	2		6	5
Kalamazoo, Mich.	39,437	13			7		4		1	1
Knoxville, Tenn.	36,346	10	2		22					
La Crosse, Wis.	30,417		2		1					1
Pittsfield, Mass.	32,121	12	4		2		1		5	1
Portsmouth, Va.	33,190	10			15		2			
Racine, Wis.	38,002	4	2	1	13		4			
Roanoke, Va.	34,874	6			16		1		4	1
Salem, Mass.	43,697	6			1		1			
San Diego, Cal.	39,578	9			12				7	7
South Omaha, Nebr.	26,259	7								
Springfield, Ohio.	46,921		1		2					
Superior, Wis.	40,334	10	1				2			1
Taunton, Mass.	34,259	12	1	1			1		1	2
Waltham, Mass.	27,834	9	4		17					
West Hoboken, N. J.	35,403		7				4		1	
Wheeling, W. Va.	41,641	16	1		9		1		2	1
Williamsport, Pa.	31,860	9			17				1	2
Wilmington, N. C.	25,748	12			4					1
York, Pa.	44,750		2		2		4		1	
Zanesville, Ohio.	28,026	9			8					1
Less than 25,000 inhabitants:										
Alameda, Cal.	23,833	12					1		2	3
Ann Arbor, Mich.	14,817	13		1	10		1			
Beaver Falls, Pa.	12,191	0			6					
Biddeford, Me.	17,079									1
Braddock, Pa.	17,759		2		5					
Cambridge, Ohio.	12,327	5								1
Clinton, Mass.	13,015	3							1	
Columbus, Ind.	8,130	2			3					1
Concord, N. H.	21,479	13	2	1	15					1
Cumberland, Md.	21,839	7			34	1			1	1
Dunkirk, N. Y.	11,616	6			1					
Franklin, N. H.	6,132	5			9					
Galesburg, Ill.	22,089	4	1				1			
Harrison, N. J.	14,489	4								
Homestead, Pa.	18,713		1		10					
Kearny, N. J.	18,659		1		6					
Kokomo, Ind.	8,261	7			36				3	3
La Fayette, Ind.	20,081	10								1
Marinette, Wis.	16,195	2								
Marlboro, Mass.	14,759	9			6		1		1	2
Massillon, Ohio.	23,830	7								1
Medford, Mass.	23,150	7			17		3			
Melrose, Mass.	15,715	6			5					1
Montclair, N. J.	21,450	7	1		4					
Morristown, N. J.	12,507	9					1			
Muscataine, Iowa	14,073	5			30				2	
Nanticoke, Pa.	18,857	2			7		6			

IN INSULAR POSSESSIONS.

HAWAII.

Examination of Rodents.

During the week ended April 12, 1913, 386 rats and mongoose were examined at Honolulu for plague infection. No plague-infected rodent was found.

PHILIPPINE ISLANDS.

Manila—Plague.

Surg. Heiser, chief quarantine officer and director of health for the Philippine Islands, reports: During the week ended March 22, 1913, 1 case of plague with 1 death was notified in Manila.

Plague Conditions.

During the week covered by this report 1 case of plague occurred on Calle Perla in the city of Manila. In connection with this case it is interesting to observe that the relationship of bamboo in house construction, which has been found to be so intimately associated with plague cases in Java, was for the first time observed in Manila. A careful examination made of the horizontal bamboo poles which were used in the construction of the floor showed that one of them contained a rat nest with a dead rat that had died of plague. The victim slept very close to the opening in the end of the bamboo pole, and it is assumed that the plague-infected fleas in their search for food left the body of the rat and bit the individual, who was stricken with plague.

Rat catching is still extensively carried out, but the principal efforts of the bureau of health are now being confined to discovering rat nests. When found these are thoroughly sprayed with petroleum and then disinfected with larvæcide. Gangs of men are also employed in the infected rat districts in carrying out rat-proofing measures. In the sections which are built up with bamboo and nipa houses this process consists largely in closing with Portland cement the ends of bamboo poles, and more particularly those that are used in horizontal construction.

PORTO RICO.

Rodents Collected and Examined.

Passed Asst. Surg. Creel reports that during the week ended April 19, 1913, there were examined 1,617 rodents, collected from various points in Porto Rico, and that of these 573 were collected from various parts of San Juan municipality. None was found infected with plague.

FOREIGN REPORTS.

BRITISH GOLD COAST.

Akkra Declared Free from Quarantinable Diseases.

The American consul at Freetown, Sierra Leone, reported April 26, 1913, that Akkra had been declared free from quarantinable diseases. (Yellow fever was reported present at Akkra March 22, 1913.)

CHINA.

Shanghai—Communicable Diseases, 1912.

During the calendar year 1912 communicable diseases were reported in Shanghai as follows:

FOREIGN SETTLEMENT (POPULATION, 6,774).

Diseases.	Cases.	Diseases.	Cases.
Cholera.....	10	Tuberculosis.....	11
Diphtheria.....	33	Typhoid fever.....	66
Scarlet fever.....	49	Typhus fever.....	2
Smallpox.....	20		

NATIVE CITY (POPULATION, 600,000).

Diphtheria.....	103	Smallpox.....	124
Plague.....	9	Tuberculosis.....	1,006
Scarlet fever.....	146		

Plague-Infected Rats.

Plague-infected rats were found in the settlement throughout the year, with the exception of the months of July and August, and numbered 95 among 14,988 rats examined. All of the human cases of plague have occurred among Chinese, and were located, with one exception, in houses in an area bounded by Soochow Creek and Honan, Fokien, and Nanking Roads. This is in the very heart of the central district of the settlement, but it is not in this district that the major part of the cargo shipped to the United States is stored. The greatest number of plague-infected rats were found in the district across the Soochow Creek, west of Honan Road, and bounded on the south by the Soochow Creek, and it is in this section that many of the large godowns (warehouses) and packing establishments, storing and preparing goods for American markets, are located. Infected rats were found in all parts of the district of the foreign settlement.

Particular attention is paid to cargo from the area above described, with a view to keeping it free from rats as far as possible, and lighters conveying it to ships bound for the United States are fumigated from time to time to destroy any rats on board. Rat guards are used on the lines connecting lighters to the vessels.

Examination of Rats.

During the month of February, 1913, there were examined at Shanghai for plague infection 443 rats. Of this number 18 were found plague-infected.

CUBA.

Habana—Transmissible Diseases.

APR. 11-20, 1913.

Disease.	New cases.	Deaths.	Remain- ing under treat- ment.	Disease.	New cases.	Deaths.	Remain- ing under treat- ment.
Leprosy.....	1	.....	244	Scarlet fever.....	40	.....	39
Malaria.....	1	.....	1	Measles.....	93	.....	56
Typhoid fever.....	13	3	23	Varicella.....	18	.....	7
Diphtheria.....	20	1	10	Paratyphoid fever..	4	.....	12

SERVIA.

Typhus Fever.

The following information was received from the ministry of the interior at Belgrade, under date of April 7:

Typhus fever is reported present among Servian soldiers and Turkish prisoners as follows:

Cases of typhus fever in Servia.

Among Servian soldiers:		Among Turkish prisoners:	
Belgrade.....	12	Kujasevatz.....	85
Waljevo.....	11	Zaitchar.....	113
Yagodina.....	10	Negotin.....	150
Kujasevatz.....	5	Pirot.....	22
Zaitchar.....	15	Total.....	370
Negotin.....	15		
Tchatchak.....	1		
Paratchine.....	1		
Total.....	70		

The mortality percentage is very low, ranging between 2 and 3 per cent among Servian soldiers and 8 to 10 per cent among prisoners.

The first cases of this epidemic were discovered among Turkish prisoners and later among Servian soldiers returning from Adrianople; other cases among the troops who had been in the Adriatic territory and two or three cases originating in the recently liberated country.

Among the civil population the following cases were notified:

District of Krains.....	2
District of Waljevo.....	2
District of Timok.....	1

The epidemic was carried to the villages by soldiers returning from the war on leave and also by soldiers in charge of prisoners.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX.**Reports Received During Week Ended May 9, 1913.****CHOLERA.**

Places.	Date.	Cases.	Deaths.	Remarks.
China:				
Shanghai				Total 1912: Cases, 10, in the foreign settlement.
India:				
Bassein	Mar. 9-15	24	17	
Bombay	Mar. 23-29	1		
Madras	do.	1	1	
Japan:				
Kanagawa ken	Jan. 1-Feb. 4	4		
Servia:				Among returning soldiers and prisoners.
Pirot	Apr. 10	5		
Siam:				
Bangkok	Feb. 23-Mar. 22		2	
Straits Settlements:				
Singapore	Mar. 9-15	2	1	
Turkey in Europe:				
Constantinople	Apr. 8-14	1	1	

YELLOW FEVER.

Ecuador: ■				
Aqua Piedra	Mar. 1-31	2		
Bucay	do.	1		
Duran	do.	4	4	
Guayaquil	do.	26	16	
Milagro	do.	12	7	
Naranjito	do.	7	6	

PLAGUE.

Arabia: ¹				
Aden	Apr. 11	2	1	
Brasil:				3 cases in isolation hospital.
Rio de Janeiro	Mar. 16-22			
China:				
Shanghai	Mar. 31-Apr. 6		1	Total 1912: Cases, 9, among natives.
Dutch East Indies:				
Kediri, district	Feb. 1-28	141	125	Jan. 1-Feb. 28; deaths, 1,036.
Ecuador:				
Duran	Mar. 1-31	1	1	
Guayaquil	do.	22	9	
Milagro	do.	1	1	
Egypt:				Total Apr. 1-18: Cases, 80; deaths, 41.
Alexandria	Apr. 1-15	11	7	
Provinces—				
Assiout	Mar. 29-Apr. 17	5	3	
Behera	Apr. 2-8	1		
Galioubeh	Apr. 14	1		
Girgeh	Apr. 9	1	1	
Keneh	Apr. 15	1		
Menouf	Mar. 22-Apr. 14	22	13	
Minieh	Apr. 3-17	9	2	
Sohag	Apr. 4	15	6	
India:				
Bombay	Mar. 23-29	156	130	
Peru:				
Mollendo	Apr. 6-12	1		
Philippine Islands:				
Manila	Mar. 16-22	1	1	
Siam:				
Bangkok	Feb. 23-Mar. 22		25	
Turkey in Asia:				
Jiddah	Apr. 7-12	5	4	

¹ Bulletin Quarantenaire d'Egypte, Apr. 17, 1913.

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

Reports Received During Week Ended May 9, 1913—Continued

SMALLPOX.

Places.	Date.	Cases.	Deaths.	Remarks.
Arabia:				
Aden.....	Mar. 25-Apr. 7.....	4	1	
Argentina:				
Buenos Aires.....	Feb. 1-23.....		2	
Austria-Hungary:				
Trieste.....	Mar. 30-Apr. 5.....	2		
Brazil:				
Rio de Janeiro.....	Mar. 16-29.....	24	3	
Canada:				
Montreal.....	Apr. 20-26.....	8		
St. Johns.....	Apr. 13-19.....	1		
Toronto.....	Apr. 20-26.....	1		
Windsor.....	do.....	2		
China:				
Kulangsu.....	Mar. 16-22.....			Present.
Shanghai.....	Mar. 24-Apr. 6.....	18	6	Year 1912: Cases, 144.
Tientsin.....	Mar. 19-22.....	3	4	
Egypt:				
Alexandria.....	Apr. 2-8.....	9	2	
Cairo.....	Mar. 12-25.....	6	1	
France:				
Nice.....	Mar. 1-31.....	1		
Paris.....	Mar. 30-Apr. 12.....	2		
Great Britain:				
Liverpool.....	Apr. 13-19.....	1		
Greece:				
Athens.....	Mar. 31-Apr. 5.....		1	
Patras.....	Apr. 7-13.....		2	
Hawaii:				
Panauhau.....	May 2.....	1		
Mexico:				
Aguascalientes.....	Apr. 6-13.....		6	
Durango.....	Mar. 1-31.....		40	
Guadalajara.....	Mar. 24-Apr. 5.....	8	3	
Mexico.....	Feb. 16-Mar. 8.....	43	21	
Monterey.....	Apr. 6-13.....		2	
St. Louis Potosi.....	Feb. 9-15.....	1	1	
Portugal:				
Lisbon.....	Mar. 31-Apr. 12.....	9		
Russia:				
Moscow.....	Mar. 23-Apr. 5.....	17	2	
Odessa.....	Apr. 6-12.....	1		
St. Petersburg.....	Mar. 23-Apr. 5.....	5	2	
Siam:				
Bangkok.....	Mar. 16-22.....		4	
St. Petersburg.....	Mar. 31-Apr. 5.....	3		
Spain:				
Barcelona.....	Apr. 6-19.....		15	
Madrid.....	Mar. 1-31.....		22	
Valencia.....	Apr. 6-12.....		6	
Turkey in Asia:				
Beirut.....	Apr. 6-12.....	3		
Mersina.....	Mar. 31-Apr. 12.....	23	10	200 cases with 50 deaths estimated in the city.
Smyrna.....	Jan. 19-Mar. 22.....		11	

Reports Received from Dec. 27, 1912, to May 2, 1913.

CHOLERA.

Places.	Date.	Cases.	Deaths.	Remarks.
Bulgaria:				
Eski Saghara.....	Dec. 9.....	2		
Sofia.....	Nov. 21-Dec. 16.....	6	1	
Shumia.....	Dec. 30.....	18		
China:				
Fochow.....	Nov. 20-Dec. 2.....			Isolated cases.
Hongkong.....	Mar. 23-29.....	5	5	Among Chinese.
Dutch East Indies:				
Borneo—				
Bandermasin.....	Nov. 22-30.....	5	5	
Pontrank.....	Oct. 6.....	1		
Samarinda.....	Oct. 9-Nov. 2.....	26	25	
Singawang.....	Oct. 8-Nov. 1.....	2	2	

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

Reports Received from Dec. 27, 1912, to May 2, 1913—Continued.

CHOLERA—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Dutch East Indies—Continued.				
Java—				
Batavia.....	Nov. 9-Dec. 31....	40	28	
Do.....	Jan. 19-Mar. 15....	117	92	
Madison.....	Sept. 15-Nov. 9....	192	105	
Megalang.....	Oct. 7-12.....	9	6	
Paseroean Residency..	Sept. 20-26.....	2	1	
Samarang.....	July 19-Dec. 26....	591	485	
Do.....	Dec. 27-Jan. 30....	7	7	
Surabaya.....	Oct. 16-Nov. 28....	4	3	
Sumatra—				
Air Tiris.....	Dec. 3-22.....	11	11	
Benkoelen.....	Nov. 3-30.....	3	1	
Kocho.....	Dec. 3-15.....	4	9	
Jambi.....	Sept. 18-24.....	1	1	
Roembo.....	Dec. 3-15.....	2	2	
Telokbetong.....	Nov. 1-Dec. 31....	181	20	
India:				
Bassein.....	Jan. 25-Mar. 8....	67	62	
Bombay.....	Nov. 17-Mar. 15....	216	158	
Calcutta.....	Nov. 9-Mar. 8....	.....	573	
Cochin.....	Oct. 10-Nov. 9....	6	6	
Do.....	Feb. 17-23.....	5	5	
Madras.....	Nov. 24-Mar. 22....	37	25	
Moulmine.....	Feb. 23-Mar. 1....	1	1	
Negapatam.....	Nov. 11-Mar. 8....	34	34	
Rangoon.....	Nov. 1-Dec. 28....	3	3	
Do.....	Dec. 29-Mar. 1....	30	28	
Indo-China: Saigon.....	Aug. 20-Oct. 27....	42	38	
Japan				
Total year 1912: Cases, 2,722; deaths, 1,678, exclusive of Taiwan. Total Jan. 1-Feb. 18: Cases, 83.				
Aita Ken.....	Dec. 2.....	1	.....
Chiba Ken.....	Nov. 23-Mar. 8....	50	.....
Fukushima Ken.....	Dec. 5.....	1	.....
Hiogo Islands.....	Sept. 15-Dec. 1....	30	.....
Hioga Ken.....	Nov. 27-Dec. 19....	22	.....
Hiroshima Ken.....	Nov. 23.....	1	.....
Ibaraki Ken.....	Dec. 6.....	2	.....
Iwate Ken.....	Dec. 16.....	1	.....
Kanagawa Ken.....	.....	.....	.....
Total Nov. 23-Feb. 4: Cases, 55. Sept. 25-Dec. 7: 9 cases from vessels.				
Yokohama.....	Nov. 24-Jan. 14....	22	.....	Total Sept. 29, 1912, to Jan. 9, 1913: Cases, 39.
Kochi Ken.....	Nov. 28-Dec. 4....	3	.....
Minami Tokaki gun.....	Sept. 15-Dec. 2....	40	.....
Nagasaki Ken and outlying islands, Sept. 15-Dec. 2: Cases, 188; deaths, 134, including previous reports.				
Nagasaki city.....	Sept. 15-Dec. 2....	10	4	
Osaka Fu.....	Nov. 23-Dec. 3....	14	.....
Saga Ken.....	do.....	5	.....
Sasebo.....	Sept. 15-Dec. 2....	7	.....
Shidzuoka Ken.....	Dec. 3-Feb. 11....	57	.....
Taiwan (Formosa).....	.....	.....	.....	Total year 1912: Cases, 333, deaths, 256.
Tokushima Ken.....	Sept. 15-Dec. 1....	65	.....	Not previously reported.
Tokyo Fu.....	Nov. 23-Feb. 4....	108	.....
Tokyo.....	.....	.....	.....	Oct. 2-Dec. 7: Cases, 273, and in vicinity, 342.
Wakamatsu Ken.....	Nov. 26.....	1	.....
Russia:				
Odessa.....	Jan. 8-21.....	5	2	Nov. 18-20: 1 case from s. s. Bosnian from Constantinople. Confined in the quarantine barracks.
Siam:				
Bangkok.....	Oct. 13-Jan. 4....	.....	6	
Straits Settlements:				
Singapore.....	Nov. 17-23.....	2	2	
Do.....	Jan. 27-Feb. 1....	1	1	

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

Reports Received from Dec. 27, 1912, to May 2, 1913—Continued.

CHOLERA—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Turkey in Asia.....	.....	.....	.....	Total, Nov. 17-23: Cases, 160; deaths, 218.
Adana—				
Adana.....	Nov. 17-Dec. 2....	2	2	
Aleppo—				
Aleppo.....	Nov. 24-Dec. 2....	3	3	
Alexandretta.....	do.....	3	2	
Angora—				
Angora.....	Nov. 24-Dec. 11....	29	23	
Balikesir.....	Nov. 24-Dec. 2....		1	
Beirut—				
Merdijoun.....	Dec. 3-11.....		15	
Tabariyeh.....	Dec. 13-22.....			Present.
Brusa.....	Nov. 17-Dec. 11....	26	38	
Castamoni.....	Nov. 17-Dec. 2....	6	4	
Dierbekir.....	do.....	8	2	
Hedjaz—				
Jedda.....	Nov. 25-Dec. 14....	395	393	Among returning pilgrims.
Medina.....	Dec. 3-11.....		6	
Mekka.....	Nov. 17-23.....	111	172	Dec. 3-11: Deaths, 3,007.
Ismidt.....	Nov. 17-Dec. 2....	3	1	
Kartal.....	Dec. 30-Feb. 12....	9	3	
Khodavendikar—				
Karassi.....	Jan. 30-Feb. 12....		2	
Mosul.....	Nov. 17-Dec. 2....		2	
Sinope.....	Dec. 3-11.....	1	4	
Smyrna.....	Nov. 17-Dec. 2....	3	1	
Syria—				
Haifa.....	Dec. 21.....		1	
Tiberias.....	Dec. 3-25.....	129	68	
Tarsus.....	Nov. 24-Dec. 2....	2	1	
Turkey in Europe:				
Constantinople.....	Dec. 3-Jan. 28....	1,598	787	Total, Nov. 5-Jan. 28: Cases, 2,515; deaths, 1,245.
Do.....	Mar. 12-Apr. 7....	11	2	New outbreak.
Zanzibar.....	Nov. 8-Dec. 21....	131	130	Total, Aug. 5-Dec. 23: Cases, 943; deaths, 912, including previous reports from Mwera, Chwaka, and Mokoton. Chwaka district, Oct. 4-Dec. 31, 332 cases, not included in previous reports.
At sea.....				Nov. 18-20: 1 fatal case on s. s. Bosnian, en route from Constantinople to Odessa.

YELLOW FEVER.

Brazil:				
Bahia.....	Jan. 24-Mar. 8....	9	3	
Manaos.....	Jan. 5-Apr. 5....	21	21	
British Gold Coast:				
Akkra.....	Mar. 22.....			Present. April 26 free.
Ecuador:				
Agua Piedra.....	Dec. 1-31.....	7	4	
Do.....	Jan. 1-Feb. 28....	8	6	
Bucay.....	Nov. 15-Dec. 31....	3	2	
Do.....	Jan. 1-Feb. 28....	3	2	
Duran.....	Nov. 1-Dec. 31....	3	3	
Do.....	Jan. 1-Feb. 28....	11	5	
Guayaquil.....	Nov. 1-Dec. 31....	25	16	
Do.....	Jan. 1-Feb. 28....	94	48	Mar. 1-31 in Guayaquil and vicinity: Cases, 52; deaths, 33.
Milagro.....	Nov. 1-Dec. 31....	2	2	
Do.....	Jan. 1-Feb. 28....	19	11	
Naranjito.....	Nov. 1-Dec. 31....	3	2	
Do.....	Jan. 1-Feb. 28....	12	4	
Mexico:				
Merida.....	Apr. 2-10.....	1	1	From Campeche.
Senegal:				
Dakar.....	Dec. 7.....			Present.
Venezuela:				
Caracas.....	Nov. 1-Dec. 31....	9	2	In September 2 deaths and in October 1 death not previously reported. Feb. 7, 1 case.
Do.....	Jan. 1-31.....	2		

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

Reports Received from Dec. 27, 1912, to May 2, 1913—Continued.

PLAGUE.

Places.	Date.	Cases.	Deaths.	Remarks.
Afghanistan: Tchebel-Bagdareh.....	Sept. 1-30.....			And vicinity, 100 deaths daily. Present to Oct. 29.
Arabia: Oran— Debai.....	Feb. 16.....			Present.
Brazil: Bahia.....	Jan. 12—Mar. 8.....	11	4	
Pernambuco.....	Nov. 1—Jan. 31.....		11	
Rio de Janeiro.....	Nov. 3—Mar. 1.....	24	9	Year 1912: Cases, 21.
Santos.....	Dec. 1.....	2	2	
British East Africa: Dagoretti.....	Jan. 14—Feb. 26.....		17	
Kiambu.....	Jan. 14—Feb. 5.....	1		
Kisumu.....	Nov. 16—Dec. 8.....	2		
Do.....	Dec. 8-28.....	7		
Do.....	Jan. 14—Feb. 26.....	7		
Mombasa.....	Oct. 1—Dec. 25.....	16	12	Free Nov. 18.
Do.....	Feb. 6-26.....	5		
Nairobi.....	Nov. 16—Feb. 26.....	12	1	
Canary Islands: Teneriffe— Santa Cruz.....	Feb. 21-27.....			5
Chile: Antofagasta.....	Feb. 12.....			Present.
Iquique.....	Jan. 8—Mar. 8.....	11	5	
Taita.....	Oct. 22-28.....	3		
China: Amoy.....	Jan. 17—Feb. 15.....			Few sporadic cases. Pneumonic form present and in vicinity.
Hai An.....	Mar. 8.....			Present in pneumonic form in 2 localities in vicinity about 48 miles from Amoy.
Hoihow.....	Nov. 1-30.....			Present.
Kulangsu.....	Jan. 17.....	3		International settlement of Amoy.
Hongkong.....	Jan. 12—Mar. 29.....	11	11	Total January to September, 1912: Cases, 1,848; deaths, 1,728. Apr. 25, still present.
Manchuria.....	Dec. 14.....			Present along the railway be- tween Harbin and Chang- Chun.
Pakhoi.....	Dec. 1-31.....	30		Feb. 1, from 10 to 12 deaths daily.
Shanghai.....	Nov. 18—Dec. 15.....		2	Dec. 18, present in vicinity of the French settlement.
Swatow.....				Jan. 9, in vicinity.
Colombia: Santa Marta.....	Apr. 11.....			Epidemic at the barracks.
Dutch East Indies: Java— Kediri.....	Oct. 6—Dec. 31.....	406	377	Total Jan. 1—Feb. 28: Cases, 1,094; deaths, 1,039.
Do.....	Jan. 1—Feb. 28.....	320	287	
Madioen.....	Oct. 6—Jan. 1.....	98	96	
Do.....	Jan. 1—Feb. 28.....	156	146	Total year 1912: Cases, 1,477, deaths, 1,406, among natives; including Pasoeroean Resi- dency.
Do.....	Jan. 1—Feb. 28.....	586	575	
Surabaya.....	Oct. 6—Jan. 4.....	43	43	
Do.....	Jan. 1—Feb. 28.....	32	31	
Ecuador: Duran.....	Nov. 1—Dec. 31.....	4	1	
Do.....	Jan. 1—Feb. 28.....	8	5	
Guayaquil.....	Nov. 1—Dec. 31.....	139	52	
Do.....	Jan. 1—Feb. 28.....	117	66	And vicinity, Jan. 1—Feb. 24: Cases, 123; deaths, 61. Mar. 1-31, in Guayaquil and vicinity: Cases, 24; deaths, 11.
Milagro.....	Dec. 1-31.....	8	1	
Do.....	Jan. 1—Feb. 28.....	9	1	
Egypt: Alexandria.....	Mar. 2-31.....	25	19	Total Jan. 1—Dec. 31, 1912: Cases, 884; deaths, 441. Jan. 1—Mar. 31, 1913: Cases, 166; deaths, 87.
Cairo.....	Dec. 30.....	1	1	
Port Said.....	Dec. 29.....	1	1	
Do.....	Jan. 1—Mar. 5.....	4	2	

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

Reports Received from Dec. 27, 1912, to May 2, 1913—Continued.

PLAGUE—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Egypt—Continued.				
Provinces—				
Assiout.....	Jan. 22—Mar. 28....	25	23	
Behera.....	Nov. 29—Dec. 12....	2	1	
Do.....	Mar. 10—Apr. 1.....	4	4	
Benisouef.....	Jan. 22—Mar. 6.....	6	4	
Charkieh.....	Nov. 29—Dec. 12....	3	2	
Do.....	Jan. 2—Mar. 22....	16	7	
Fayoum.....	Jan. 19—Mar. 31....	36	16	
Galioubeh.....	Jan. 1—Mar. 17....	2	1	
Garbieh.....	Jan. 1—Feb. 26....	4	1	
Do.....	Nov. 23—Dec. 17....	3	1	
Girgeh.....	Jan. 1—Feb. 3.....	1	1	
Do.....	Dec. 21—25.....	1	1	
Gizeh.....	Jan. 1—Apr. 3.....	7	3	
Menouf.....	Jan. 1—Mar. 21....	21	8	
Do.....	Oct. 1—Dec. 31....	13	7	
Minieh.....	Nov. 28—Dec. 29....	7	4	
Do.....	Jan. 23—Apr. 2....	16	2	
Hawaii:				
Kukuihaele.....	Jan. 11—31.....	2	2	
India:				
Bombay.....	Nov. 17—Mar. 22....	565	363	
Calcutta.....	Nov. 9—Mar. 22....	151	151	
Madras.....	Dec. 29—Jan. 4....	1	1	
Karachi.....	Nov. 19—Dec. 28....	14	13	
Do.....	Mar. 2—22.....	15	12	
Rangoon.....	Oct. 1—Nov. 30....	68	68	
Do.....	Dec. 29—Mar. 1....	205	199	
Provinces.....				
Delhi.....	Oct. 27—Dec. 28....	31	14	
Bombay.....	do.....	6,785	5,121	
Madras.....	do.....	1,833	1,337	
Bengal.....	do.....	60	59	
Bihar and Orissa.....	do.....	1,269	1,025	
United Provinces.....	do.....	7,844	6,001	
Punjab.....	do.....	952	709	
Burma.....	do.....	95	85	
Central Provinces.....	do.....	404	301	
Mysore.....	do.....	1,506	1,114	
Hyderabad.....	do.....	1,498	1,212	
Central India.....	do.....	70	60	
Rajputana.....	do.....	2,862	2,824	
Kashmir.....	do.....	3	1	
Provinces.....				
Delhi.....	Dec. 29—Mar. 1....	49	37	
Bombay.....	do.....	4,523	3,468	
Madras.....	do.....	1,923	1,415	
Bengal.....	do.....	96	92	
Bihar and Orissa.....	do.....	9,257	7,336	
United Provinces.....	do.....	25,540	21,843	
Punjab.....	do.....	2,476	2,031	
Burma.....	do.....	1,173	1,055	
Central Provinces.....	do.....	324	239	
Mysore.....	do.....	1,425	1,072	
Hyderabad.....	do.....	1,008	831	
Central India.....	do.....	18	12	
Rajputana.....	do.....	921	882	
Kashmir.....	do.....	14	4	
Northwest Provinces.....	Dec. 29—Feb. 1....	1	1	
Indo-China: Saigon.....	Aug. 20—Dec. 16....	58	36	
Japan:				
Taiwan (Formosa).....				Total, year 1912: Cases, 223; deaths, 185.
Kagi.....	Apr. 2.....	10		
Mauritius.....	Oct. 11—Feb. 6....	253	165	
Morocco: Rabat.....	Nov. 1.....	3		Among the military.
New Caledonia:				
Numea.....	Sept. 17—Dec. 2....	62	32	7 cases with 2 deaths among Europeans.
Peru:				
Departments—				
Ancachs.....	July 1—31.....	4		
Do.....	Aug. 1—31.....	4	3	Mollendo, Nov. 17—Jan. 12: Cases, 15; deaths, 4. Jan. 21, 2 cases, with 1 death.

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

Reports Received from Dec. 27, 1912, to May 2, 1913—Continued.

PLAGUE—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Peru—Continued.				
Arequipa.....	July 1-Aug. 31.....	12	5	
Callao.....	July 1-31.....	1	1	Present in September; Dec. 2-Jan. 12: Cases, 7.
Ferrenaje.....	Dec. 23-Jan. 12.....	1		
Ica.....	do.....	1		
Lambayeque.....	Dec. 2-22.....	7		Present in September.
Jayanca.....	do.....	1		Present.
Libertad.....	July 1-Aug. 31.....	20	9	Huamachuco, Mar. 25, present Trujillo, Mar. 25, 15 cases in the lazaretto.
Cosma.....	Dec. 2-22.....			Present.
Paján.....	do.....			Do.
Salaverry.....	Dec. 23-Jan. 12.....	1		
San Pedro.....	Dec. 2-Jan. 12.....	27		
Trujillo.....	do.....	44		
Lima.....	July 1-31.....	3	2	
Do.....	Aug. 1-31.....	4	2	Dec. 2-22: Cases, 2.
Piura—				
Catacaos.....	Dec. 2-Jan. 12.....			Present.
Paita.....	do.....			Do.
Piura.....	Dec. 23-Jan. 12.....			Do.
Sulanna.....	Dec. 2-22.....			Do.
Philippine Islands:				
Manila.....	Nov. 10-Feb. 15.....	16	12	
Provinces.....				Third quarter, 1912: Cases, 8; deaths, 7. Fourth quarter, 1912: Cases, 39; deaths, 33. Jan. 1-Mar. 8: Cases, 5; deaths, 5.
Russia:				
Don, territory.....	Nov. 1-Jan. 12.....			In 6 localities: 38 cases, with 22 deaths.
Hutor Popova (estate).....	Nov. 1-15.....	20	12	Esacal district.
Moscow.....	Dec. 29-Jan. 11.....	3	1	
Transbalkal district—				
Verneudinsk.....	Oct. 18-28.....	3	3	Near Nerchinsk.
Trans-Caspian Ter., Merv.....	Dec. 9-21.....	29	29	Pneumonic.
Siam:				
Bangkok.....	Jan. 5-Feb. 22.....		2	
Turkey in Asia:				
Jiddah.....	Mar. 10-Apr. 6.....	18	17	

SMALLPOX.

Arabia: Aden.....	Jan. 14-Mar. 23.....	4		
Abyssinia: Adis Ababa.....	Nov. 24-Dec. 21.....			Present.
Algeria:				
Departments—				
Algiers.....	Oct. 1-31.....	11		
Constantine.....	do.....	11		
Do.....	Feb. 1-23.....	12		
Oran.....	Oct. 1-Dec. 31.....	170	10	
Do.....	Jan. 1-Feb. 23.....	25	5	
Argentina: Buenos Aires.....	Nov. 1-Dec. 31.....		7	
Australia:				
Darwin.....	Feb. 12.....			1 case in quarantine from s. s. Eastern en route from Japan to Sydney.
Austria-Hungary:				
Dalmatia.....	Feb. 9-15.....	1		
Galicia.....	Nov. 10-Dec. 7.....	3		
Flume.....	Jan. 14-Mar. 24.....	4	1	
Moravia.....	Jan. 17-25.....	2		
Trieste.....	Dec. 8-Mar. 8.....	45		Returning travelers.
Belgium:				
Antwerp.....	Mar. 24-31.....	1		
Brazil:				
Para.....	Dec. 8-Feb. 1.....	2		
Pernambuco.....	Nov. 1-Mar. 15.....		175	
Rio de Janeiro.....	Nov. 3-Mar. 15.....	38	12	
British Columbia: Vancouver.....	Feb. 2-Mar. 1.....	2		
British East Africa:				
Mombasa.....	Dec. 1-31.....	17	10	
Do.....	Feb. 1-23.....	16	3	

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

Reports Received from Dec. 27, 1912, to May 2, 1913—Continued.

SMALLPOX—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Canada:				
Provinces—				
British Columbia—				
Ferne.....	Feb. 23-Mar. 1.....	12		Apr. 22, 1 case in vicinity.
Vancouver.....	Apr. 13-19.....	1		
Manitoba—				
Winnipeg.....	Mar. 30-Apr. 19.....	11		
Ontario—				
Cornwall.....	Mar. 16-22.....	2		
Fort William.....	Mar. 31-Apr. 16.....	4		
Hamilton.....	Jan. 1-Mar. 31.....	60		
Niagara Falls.....	Feb. 1-23.....	9		
Ottawa.....	Jan. 4-Apr. 12.....	39		
Port Arthur.....	Mar. 16.....	1		
Toronto.....	Dec. 1-Apr. 19.....	11		
Windsor.....	Feb. 9-Apr. 19.....	10		
Quebec—				
Montreal.....	Dec. 15-Apr. 19.....	151	1	
Quebec.....	Dec. 15-Apr. 12.....	34		
St. John's.....	Jan. 12-Apr. 12.....	23		
Chile:				
Punta Arenas.....	Oct. 31-Nov. 30.....	3		Oct. 31, 1 case in vicinity.
Do.....	Jan. 1-31.....	1		
China:				
Amoy.....	Mar. 15.....		1	Jan. 4-Mar. 1, present.
Kulangsu.....	Jan. 12-Feb. 29.....	1	1	
An Kho.....	Jan. 4.....			Epidemic; 2 days' journey from Amoy.
Chungking.....	Nov. 3-Jan. 22.....			Present.
Dalny.....	Jan. 12-18.....	1	1	
Hankow.....	Dec. 29-Jan. 4.....	1		
Harbin.....	Dec. 1-31.....	6		
Do.....	Jan. 17-Feb. 13.....	2		
Hoihow.....	Jan. 3.....			Present.
Hongkong.....	Nov. 24-Mar. 29.....	71	49	
Nanking.....	Dec. 7-Mar. 8.....			Do.
Shanghai.....	Nov. 18-Mar. 23.....	32	165	Deaths among natives.
Tientsin.....	Nov. 17-Mar. 8.....	3	10	
Costa Rica: Limon.....	Feb. 1.....	2	2	
Dutch East Indies:				
Java—				
Batavia.....	Nov. 9-Mar. 15.....	42	12	Jan. 5-11, 10 cases, with 5 deaths in the district, mainly in Samarang.
Samarang.....	Oct. 4-24.....	57	23	
Do.....	Jan. 5-Mar. 15.....	906	202	
Egypt:				
Alexandria.....	Dec. 9-Apr. 1.....	34	8	
Cairo.....	Nov. 12-Mar. 4.....	19	4	
Port Said.....	Dec. 3-31.....	1	1	
France:				
Marseille.....	Nov. 1-Mar. 31.....		23	
Nantes.....	Jan. 5-Mar. 8.....	7		
Nice.....	Feb. 1-28.....	2		
Paris.....	Dec. 1-Mar. 29.....	45	1	
Germany:				
Breslau.....	Jan. 19-25.....	1		
Hamburg.....	Jan. 10-Mar. 29.....	4		
Kehl.....	Feb. 1-28.....		1	
Gibraltar.....	Dec. 9-Mar. 16.....	3	1	
Great Britain:				
Glasgow.....	Mar. 29-Apr. 2.....		2	
Hull.....	Mar. 8-Apr. 1.....	5		
Liverpool.....	Jan. 1-Mar. 15.....	3		
Newcastle on Tyne.....	Feb. 9-15.....	15		
Sheffield.....	Feb. 26-Mar. 2.....	1		
Greece:				
Athens.....	Feb. 10-22.....	1	2	Epidemic.
Patras.....	Mar. 3-Apr. 6.....		26	
Piræus.....	Jan. 1-31.....	16		
Honduras: Trujillo.....	Feb. 2-8.....	1		
India:				
Bombay.....	Nov. 17-Mar. 22.....	135	49	
Calcutta.....	Dec. 1-Mar. 8.....		27	
Karachi.....	Dec. 1-Mar. 22.....	40	10	
Madras.....	do.....	39	7	
Rangoon.....	Oct. 1-Feb. 22.....	55	15	

Total: Nov. 24-30, 5 cases not included in report, p. 2231, vol. xxvii; Dec. 1-Apr. 12, 59 cases.

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

Reports Received from Dec. 27, 1912, to May 2, 1913—Continued.

SMALLPOX—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Indo-China: Saigon.....	Aug. 20-Dec. 23...	3	3	
Italy:				
Naples.....	Mar. 16-29.....	4	1	
Palermo.....	Dec. 15-Feb. 15.....	7		
Turin.....	Feb. 3-Mar. 2.....	5		
Japan.....				Total, year 1912: Cases, 14; deaths, 1.
Hokkaido.....	Jan. 1-31.....	1		
Nagasaki.....	Nov. 1-Mar. 16.....	2	1	
Taiwan (Formosa).....				Year 1912: Cases, 4.
Kangawaken.....	Jan. 1-31.....	1		
Yokohama.....				Jan. 1-13, 2 cases from s. s. Pera from London via ports.
Malta.....	Feb. 1-28.....	1		
Mexico.....				Feb. 16: Cases, 1,500 to 2,000, with 10 per cent of deaths, mainly along the western coast. Jan. 30-Feb. 16: Present in Aguierre, Cajame, Corral, Esperanza, Navojca, Puga, and Tarin.
Aguascalientes.....	Dec. 9-Apr. 6.....		32	
Chihuahua.....	Dec. 9-Apr. 13.....		24	
Durango.....	Dec. 1-Feb. 28.....		117	
Guadaluajara.....	Jan. 5-Mar. 22.....	10		
Hermosillo.....	Feb. 16-Apr. 23.....	14		
Juarez.....	Mar. 1-29.....	2		
Maratlan.....	Jan. 1-7.....	2		
Mexico.....	Nov. 17-Feb. 15.....	75	22	
Montarey.....	Mar. 24-30.....		2	
Salina Cruz.....	Nov. 17-Mar. 29.....	11	5	
San Luis Potosi.....	Sept. 15-Feb. 1.....	6	2	
Sonora—				
Agua Zarca.....	Jan. 30.....	2		
Nogales.....	do.....	1		
Tamaulipas, State.....	Apr. 16.....			Epidemic in Chamal, 100 miles north of Tampico.
Veracruz.....	Jan. 26-Apr. 5.....	13	1	1 case imported from Pasco del Macho.
Netherlands: Rotterdam.....	Dec. 22-28.....		1	
Newfoundland: St. John.....	Feb. 23-Mar. 15.....	6		
Peru:				
Callao.....	Sept. 1-14.....			Present.
Lima.....	do.....			Do.
Mollendo.....	Nov. 24-Dec. 7.....	5	1	
Salaverry.....	Dec. 4-11.....	1		
Philippine Islands: Manila.....	Dec. 21.....			1 case removed from s. s. Maulban to the San Lazaro Hospital. Third quarter, 1912: Cases, 9; deaths, 0. Fourth quarter, 1912: Cases, 16; deaths, 0.
Portugal: Lisbon.....	Dec. 1-Mar. 29.....	39		
Roumania.....				Total, Oct. 1-31; Cases, 6.
Russia:				
Batoum.....	Dec. 1-31.....	1		
Libau.....	Dec. 16-Jan. 4.....	2		
Moscow.....	Dec. 8-Mar. 22.....	19	8	
Odessa.....	Nov. 17-Jan. 18.....	8	3	
St. Petersburg.....	Nov. 24-Mar. 22.....	120	14	
Warsaw.....	Sept. 22-Jan. 11.....	33	7	
Riga.....	Dec. 1-31.....	1		
Siberia—				
Omsk.....	Jan. 1-27.....	7		
Vladivostok.....	Dec. 15-28.....	4	1	
Do.....	Jan. 1-13.....	4		
Servia: Belgrade.....	Dec. 22-28.....	2		
Siam: Bangkok.....	Nov. 10-Feb. 22.....		7	
Spain:				
Almeria.....	Dec. 1-31.....		40	
Do.....	Jan. 1-Mar. 31.....		22	No longer epidemic.
Barcelona.....	Dec. 1-Apr. 5.....		178	
Cadiz.....	Nov. 1-Dec. 31.....		7	
Do.....	Feb. 1-28.....		1	
Madrid.....	Nov. 1-Dec. 31.....		34	
Do.....	Jan. 1-Feb. 28.....		42	
Malaga.....	Dec. 1-31.....		1	
Seville.....	do.....		27	
Do.....	Jan. 1-Mar. 31.....		27	
Valencia.....	Nov. 14-Apr. 5.....	107	2	

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.**Reports Received from Dec. 27, 1912, to May 2, 1913—Continued.****SMALLPOX—Continued.**

Places.	Date.	Cases.	Deaths.	Remarks.
Straits Settlements: Singapore.	Nov. 24–Mar. 1.....	11	4	
Sweden: Stockholm.....	Oct. 8–21.....	3		
Switzerland:				
Cantons—				
Aargau.....	Dec. 15–Jan. 18.....	2		
Basel.....	Nov. 14–Apr. 5.....	41		
Grisons.....	Dec. 1–Feb. 1.....	15		
Turkey in Asia:				
Beirut.....	Dec. 8–Apr. 5.....	88	14	
Damascus.....	Mar. 8.....			Present.
Mersina.....	Mar. 9–29.....	7	5	
Smyrna.....	Nov. 24–Dec. 14.....		5	
Trebizond.....	Mar. 9–15.....			Do.
Turkey in Europe:				
Constantinople.....	Dec. 1–28.....		43	
Do.....	Dec. 29–Apr. 12.....		141	
Union of South Africa: Durban.	Feb. 2–8.....	1		Imported.
Uruguay:				
Montevideo.....	Dec. 1–31.....	3		Last previous case in May, 1912. Feb. 18, present.
Do.....	Jan. 1–31.....	1		
West Indies:				
Barbados.....	Mar. 8.....	1		From Grenada.
Grenada.....	do.....	3		In vicinity of St. Georges.
Zanzibar.....	Nov. 8–Feb. 7.....	22	3	

SANITARY LEGISLATION.

STATE LAWS AND REGULATIONS PERTAINING TO PUBLIC HEALTH.

MISSISSIPPI.

The Mississippi State Board of Health is authorized to promulgate regulations, and a penalty for violating such regulations is provided by the following sections of the Mississippi Code of 1906:

SEC. 2489. *Power to make and publish rules.*—The State board of health is authorized to make and publish all reasonable rules and regulations necessary to enable it to discharge its duties and powers to carry out the purposes and objects of its creation and reasonable sanitary rules and regulations to be enforced in the several counties by the county health officer under the supervision and control of the State board of health.

SEC. 2511. *Penalty for violating rules of the State board of health.*—Any person who shall knowingly violate any of the provisions of this chapter, or any rule or regulation of the State board of health, or any order or regulation of the board of supervisors of any county herein authorized to be made, shall be guilty of a misdemeanor, and on conviction shall be punished by fine not exceeding \$50 or imprisoned in the county jail not more than one month, or both.

The Mississippi State Board of Health has published the regulations appearing herewith. In the introduction to these regulations as published appears the following statement which seems to indicate that the regulations are intended largely for educational purposes:

It is not the purpose of the State board to institute legal proceedings against any citizen of the State for the violation of the rules and regulations in protecting the public health unless it becomes absolutely essential. It is the desire and aim of the board to aid and educate the people upon sanitary subjects in every practicable way and thereby create a wholesome public sentiment in behalf of the proper sanitary environment. * * *

Hotels, Restaurants, and Boarding Houses—Regulation and Inspection of. (Reg. St. Bd. of H., Aug. 20, 1912.)

A hotel within the meaning of these regulations is any inn or lodging house of three or more rooms where transient guests are fed or lodged for pay in this State.

The term "restaurant" as used in these regulations also includes lunch counters.

1. The inspectors of the State board of health are hereby authorized to enter any hotel or restaurant at all reasonable hours to make such inspection as may be necessary, and it is hereby made the duty of every person in the management or control of such hotel or restaurant to afford free access to any and all parts of the same and

render all aid and assistance necessary to enable the inspector to make a full, thorough, and complete examination thereof, but no inspector shall violate the privacy of any guest in any room of a hotel without his consent.

2. It shall be the duty of every person keeping, managing, or operating a hotel to see that every room and bed which has been occupied by any person known to such keeper, proprietor, or operator to have any infectious, contagious, or communicable disease at the time of such occupancy to see that such room and bed are thoroughly disinfected in the method prescribed by the State board of health before permitting such room or bed to be occupied by any other person.

3. The proprietor of every hotel or restaurant shall keep the same clean and in a sanitary condition.

4. Every hotel or restaurant must be provided with pure and unpolluted water, and all cisterns or tanks from which water is taken to be drunk by the guests shall be screened with wire gauze so as to prevent the entrance of flies, mosquitoes, and other disease breeding insects. The use of the common drink cup is prohibited.

5. The proprietor or keeper of every hotel or restaurant must screen the doors, windows, and all openings of the kitchen and dining room with wire cloth or wire gauze with 18 mesh to the square inch. Every hotel must have all bedroom windows screened or else provide each bed with a mosquito bar for the use of its patrons for protection against flies, mosquitoes, and other insects.

6. All hotels shall hereafter provide each bed, bunk, cot, or other sleeping place for the use of guests with pillow slips, under and top sheets, the under sheet to be of sufficient size to completely cover the mattress thereof, the top sheet to be of at least equal width and to be at least 90 inches long and folded back at the head so as to cover all such top covering. All such pillow slips and sheets after being used by one guest must be washed and ironed before being used by another guest, a clean set being furnished each succeeding guest.

7. All bedding used in a hotel shall be thoroughly aired in such reasonable manner as shall be approved by the State board of health.

8. All hotels shall furnish each guest with a clean towel and the use of the roller towel is prohibited.

9. The refrigerator, ice boxes, and cold-storage rooms of all hotels or restaurants must be free from foul and unpleasant odors, mold, and slime. The kitchen must be well lighted and ventilated, the floor clean, and the side walls and ceiling free from cobwebs and accumulated dirt.

10. All dishes, tableware, and kitchen utensils must be thoroughly washed and rinsed in clean water after using; food served to customers and then returned to the kitchen or serving room must not again be served.

11. All garbage must be kept covered in barrels or galvanized iron cans and removed daily.

12. Spittoons must not be used in the dining room or other places where food is served.

13. Toilets for employees or public use shall not be located in rooms used for preparing or storing food.

14. In all cities, towns, or villages where a system of waterworks or sewerage is maintained for public use every hotel therein shall be equipped with suitable water-closets for its guests, which water-closets shall be connected by proper plumbing with such sewerage system. The washbowls in the main wash room of such hotel must be connected and equipped in similar manner.

15. In all towns and villages not having a system of waterworks every hotel must be provided with sanitary privies, which shall be kept in a clean and sanitary condition.

16. Persons suffering from cancer or any contagious or infectious disease or who have been exposed to a quarantinable disease shall not be employed in any hotel or place where food is served.

17. No hotel shall keep a hogpen in close proximity thereto.

18. The official representative of the State board of health shall, upon inspection, give each hotel a rating based on the equipment and method employed in the management of the kitchen, storeroom, dining room, bedrooms and its general sanitation. This rating shall be made purely upon sanitary conditions and the official scores shall be designated as A, B, C, and D classes. These symbols shall be used to mean hotels that are "first class" (A), those that are "second class" (B), "third class" (C), and those that are wholly insanitary (D).

Each hotel shall be informed of its scores and these scores shall be made public.

Meat. (Reg. St. Bd. of H., Aug. 20, 1912.)

SANITARY REGULATION OF MEAT MARKETS.

1. All meat condemned by any representative of the State board of health or authorized inspector shall be destroyed or rendered unfit for human food. Such destruction shall be effected by slashing the condemned meat and by saturating the same with kerosene or other chemical compound. Any inspector of the board of health is hereby empowered to seize and condemn any tainted or unwholesome meat in any meat market or when offered for sale upon the wagon. Any inspector is hereby authorized to enter any building, structure or premises to inspect and examine any meat contained therein.

2. All meat markets or other places where meat is sold or distributed must be kept clean, well lighted and ventilated. The back room of the meat market must be kept free from filth-collecting plunder and be at all times in a sanitary condition.

3. When an inspector or officer of the State board of health finds any meat market in an unsanitary condition, he is authorized to require such conditions as will make the sale of meat safe and sanitary.

4. The side walls, ceilings, furniture, receptacles, and implements of the meat market shall at no time be kept in an unclean, unhealthful and insanitary condition.

5. The floor of every meat market in the State shall be scrubbed at least three times each week and kept clean.

6. The meat must not be exposed outside to flies and dust.

7. In every meat market, each room wherein meat is handled or stored shall be completely screened at doors, windows, and other openings, with wire gauze, with 18 mesh to square inch, and such gauze, when rusted or otherwise rendered pervious to insects shall be removed and replaced with impervious gauze. All meat markets must be screened and free from flies.

8. No other business causing unsanitary conditions must be conducted in the same room with the market.

9. Managers or owners of meat markets must require employees to be cleanly. The aprons, frocks, or clothing worn by employees who handle meat or meat food products must be of a nature that is readily cleansed and made sanitary, and only clean garments shall be worn.

10. No person suffering from a contagious or infectious disease shall be employed in any capacity in any meat market in this State, nor shall any convalescent from diphtheria, pneumonia, variola, or typhoid be employed until permission is granted by the county health officer.

11. Scraps of meat, offal, bones and other organic matter shall not be left exposed to the atmosphere of the room, but must be kept in a closed receptacle, which must be emptied at least once daily. Also the meat for sale shall not be kept exposed to the air except in such quantities as are needed for immediate use, but it shall be kept in refrigerators or ice chests.

12. The refrigerators and all meat hooks must be kept perfectly clean. No tainted meat or cheese shall be placed in the refrigerator. The refrigerator or metal boxes

must be kept dry on the inside. The refrigerator and metal hooks must be scoured with hot water and lye not less than once a week, and oftener if necessary, to keep the refrigerator free from odor. After scouring it should be washed with a solution of common soda.

13. Every meat market shall have an ample supply of water, with a properly equipped lavatory convenient to the cutting block and counter, furnished with soap and towels for the use of operators.

14. All sausage meat must be made under sanitary conditions; and if there be double screening it shall be ground within the second inclosure.

15. All vehicles and wagons used for transporting meat shall be kept in a clean and sanitary condition. The meat must be protected from flies and dust while being transported from the slaughterhouse to the market, by being covered or wrapped in a clean, white cloth. The peddling of meat on the street is prohibited unless wrapped in clean cloths or kept in a clean, closed box so as to avoid contact with flies and dust.

16. Water-closets must not be in the compartment in which meat or meat products are stored, handled, prepared or offered for sale. Where a water-closet is located in a room opening into the meat market, the door connecting the room must be screened, and no meat must be handled in the room where the closet is located and said closet shall be kept fly proof and in a sanitary condition.

17. Spitting on the floor, wall, or any place other than in a cuspidor provided for such purpose with disinfectant solution, is prohibited, and it is made the duty of the market master, or such person as has charge of the market, either as owner, lessee, or manager, to report promptly any violation of this regulation to the local health officer.

18. The use of sawdust, shavings and other dust creating refuse for floor covering is prohibited.

SANITARY REGULATION OF SLAUGHTERHOUSES.

1. No person, firm, or corporation shall erect, maintain, or keep any slaughterhouse upon the bank of any river, running stream, or creek; or throw or deposit therein any dead animal, or part thereof, or any of the carcass or offal therefrom; nor throw or deposit the same into or upon the banks of any river, stream, or creek, which shall flow through any city, town, or village containing two hundred or more inhabitants; or erect, maintain, or use any building for slaughterhouse at any place within one-fourth of a mile of any dwelling house or building occupied as a place of business. Any slaughterhouse so situated is hereby a nuisance.

2. No person, firm, or corporation shall slaughter for sale any animal afflicted with a contagious or infectious disease which would be dangerous to men, to wit: Actinomycosis, anthrax, charbon, aphthous fever (foot and mouth disease), erysipelas, blackleg, cholera, pleuropneumonia, diphtheria, glanders or farcy, hog cholera, measles, cowpox, pyemia, septicemia, Texas or tick fever or tuberculosis.

3. No person, firm, or corporation shall slaughter for sale any young calf less than 4 weeks old, pigs less than 5 weeks old, or lamb or kid less than 8 weeks of age; or any fetal meat from an unborn or stillborn animal; or any animal which has died from any disease or injury or poison of any kind whatsoever; or any animal ill with parturient fever, or overheated or in an exhausted condition.

4. No meat which after slaughter is found to be abnormal or diseased shall be sold or offered for sale, but shall be condemned and destroyed.

5. No person when suffering or infected with any infectious or contagious disease, the contagion of which may be transmitted through the meat, shall slaughter any animals for sale or shall dress or handle the carcasses or meat which shall be offered for sale.

6. No blown, stuffed, putrid, impure, or unhealthy or unwholesome meat or fish, bird or fowl shall be bought, sold, or offered for sale for human food.

7. The ceilings, walls, pillars, shelves, doors, etc., of rooms in which slaughtering is done shall be whitewashed or painted at least once yearly, unless they are washed, scrubbed, or otherwise disinfected monthly, and shall be washed, scraped, painted or otherwise treated as required by the board of health or its agents; they shall be kept sanitary and free from dirt and cobwebs. When floors, tables, shelves, or other parts are so old or in such poor condition that they can not be made readily sanitary they shall be removed and replaced by suitable materials. The drainage of the slaughterhouse or slaughterhouse yard must be sufficient to prevent filth pools, the breeding of flies and hog wallows either round or under the slaughterhouse. The water supply used in connection with the cleaning or preparing must be pure and unpolluted. The storage of hides within the slaughterhouse is expressly prohibited and likewise there shall be no boiling of offal within the slaughterhouse.

8. Every person on leasing or operating any place, room, or building whereby cattle, sheep, or swine are killed or dressed or any market, public or private, shall cause such place, room, building, or market to be kept at all times thoroughly cleansed and purified, and all offal, fat, blood, garbage, manure, or other offensive refuse shall be removed therefrom at least once every 24 hours, if used continuously; or if used only occasionally within 24 hours after using; and the floors of such building, place, or premises shall be so constructed that they can be flushed and washed clean with water. No blood pit, offal pit, or privy well shall remain or be constructed within such place, room, or building. The doors and windows must be screened to exclude flies.

9. Where slaughtering is done in the open the blood, offal, and other offensive matter shall not be left upon the surface of the ground, but must be buried or burned. The blood and offal must be disposed of in such a way as not to permit therefrom offensive effluvia.

10. All water-closets shall be entirely separate from rooms in which carcasses are dressed or meat food products are cured, stored, packed, handled, or prepared.

11. The feeding of hogs or other animals, to be used for food, upon the refuse or offal of slaughterhouses is prohibited; nor shall swine be kept within 200 feet of the slaughterhouse.

12. No person, firm, or corporation shall keep or use any mark, stamp, or brand for marking, stamping, or branding any slaughtered meat as practiced by the Federal meat inspectors, unless allowed by the Federal Government or by the State board of health, or by the State live stock sanitary commission.

13. The State board of health, its officers, members, inspectors, and employees shall have access at all times of any slaughterhouse or other locality where the slaughtering is done and no one shall interfere with such visits or inspectors.

Milk. (Reg. St. Bd. of H., Aug. 20, 1912.)

REGULATION OF THE PRODUCTION AND SALE OF MILK AND MILK PRODUCTS.

1. No person, himself or his servant, agent or employee, or as the servant, agent or employee of another, shall sell or deliver for consumption as milk, or have in his possession or custody with intent to sell or deliver for consumption as milk—

(a) Any milk to which water or any foreign substance has been added, which then shall be known as adulterated milk.

(b) Milk concerning which any misrepresentation has been made, orally, by writing, by printing, by signs, marks, labels, or otherwise.

(c) Milk produced by diseased cows, or by cows which have been fed unwholesome food or have been furnished contaminated water.

(d) Milk which has been produced, stored, handled or transported in an improper, unlawful, unclean or unsanitary manner.

2. For the purposes of this order the term adulterated milk shall mean—

(a) Milk containing less than $3\frac{1}{2}$ per cent of butter fat.

- (b) Milk containing less than 8½ per cent of solids other than butter fat.
- (c) Milk containing any pathogenic or disease germs.
- (d) Milk drawn from cows within eight days before or five days after parturition.
- (e) Milk from which any part of the cream has been removed.
- (f) Milk which has been diluted with water or any other fluid.
- (g) Milk to which has been added or into which has been introduced any coloring matter or chemical or preservative or deleterious or filthy substance, or any foreign substance whatsoever.
- (h) Milk drawn from cows kept in a filthy or unhealthy condition.
- (i) Milk drawn from any sick or diseased cow, or cow having ulcers or other running sores.
- (j) Milk drawn from cows fed unwholesome food, brewer's grain, or vinegar slops or swill.
- (k) Milk in any stage of putrefication or showing any abnormal color, consistency, or stringiness.
- (l) Milk contaminated by being kept in stables containing cattle or other animals.

3. No person, by himself, or by his servant or agent or as the servant or agent of any other person, firm, or corporation, shall exchange or deliver within the State of Mississippi any milk, skimmed milk, or cream which contains more than 500,000 bacteria per cubic centimeter.

4. Nothing in this order contained, however, shall be so construed as to prohibit the sale of skimmed milk, or of soured milk, if the receptacle containing same, and in which or from which it is sold, is plainly marked with the words "skimmed milk" or "soured milk," respectively, distinct and conspicuous, permanently attached to the container and above the center of same, and to be of uncondensed roman letters and in length said letters to be at least one-tenth of the height of the container on which they are placed; or if such skimmed or soured milk shall be contained in glass bottles then the required words shall be distinctly printed on the top or cover of same and also shall be printed upon a red tag which shall be attached to same.

SANITARY REGULATION OF DAIRIES.

1. No person shall engage in the production of milk for sale in any town or city, nor shall any person engage in the handling of milk for shipment into any town or city until he has obtained a permit or license from the local health authority. This permit shall be renewed on or before the 1st of April of each year and may be suspended or revoked at any time by the local health officer or by the Mississippi State Board of Health or their agents.

2. The cow stables for the cows supplying milk or milk products for sale shall be used for no other purpose than for keeping cows, and shall be light, well ventilated, and clean. The entire inside of the dairy barn, including the cow stables, partitions, walls, beams, ceiling, and shelves shall be whitewashed or painted at least once each year, and in the springtime unless construction renders it unnecessary. The floors shall be sound.

3. Every milk farm should be provided with a milk room that is clean, light, and well screened, situated at a distance from the barn and all toilets and outhouses. It shall be used for no other purpose except the cooling, handling, and storage of milk and allied products. Where no separate milk room is provided the milk must be handled under conditions approved of by the State board of health.

4. When required by the State board of health or by the county or city health officer all dairy cows giving milk for sale shall be subjected to the tuberculin test by a competent veterinarian. Every diseased (reacting) cow shall be removed from the herd and no milk from such cows shall be offered for sale.

5. Cows, especially the udders, shall be clean at the time of milking.

8. No person shall milk cows, or strain, bottle, distribute, or otherwise handle milk for sale, or the utensils used in the production, handling, or distribution of milk when suffering or afflicted with, or convalescing from infectious, contagious disease, who has recently had typhoid fever, or who is suffering from a disease transmissible through milk, or who is nursing or tending to a person ill with an infectious disease.

9. The State board of health, its members, officers, agents, and appointees, shall at all times have access to all dairies or other places where milk is produced for sale and to all establishments, plants, depots, and stores wherein milk is kept or stored for sale; and it is unlawful for any person to prevent or attempt to prevent such access, and such prevention or attempted prevention shall be deemed a violation of this order.

6. All manure shall be removed daily from the dairy barn and deposited not within 200 feet of where the milk is obtained or handled or stored.

CARE OF DAIRY PREMISES AND UTENSILS.

1. The surroundings of every dairy must be kept in a sanitary condition. The utensils used in handling of milk, cream, and by-products of milk must at all times be kept in a clean and wholesome condition.

2. No person, firm, or corporation shall sell, or offer for sale, milk or milk products which are produced under unsanitary conditions.

3. No milk intended for sale shall be put into bottles or other utensils until the said bottles or other utensils have been thoroughly washed and cleansed.

4. Any person, firm, or corporation who receives from any dairy, farm, or creamery any cans, bottles, or other vessels any milk or cream intended to be sold as food for man, when such cans, bottles, or vessels are to be returned, shall cause the said cans, bottles, or vessels to be thoroughly washed and cleansed before return shipment.

5. No milk bottles, cans, pails, or other utensils shall be washed in any water which has been contaminated by sewerage of any kind.

6. At every dairy farm, or where milk is produced or sold, unless underground sewerage exists, there shall be maintained one or more sanitary privies or closets, which shall be built tight with spring doors, or spring lids on the seats, with tubs for retaining the excrementitious matter, and completely screened to prevent flies from having access to the body discharges; the wire screen must be in good repair; the material which collects in the tubs shall not be thrown upon the surface of the ground, nor into any stream, but shall be buried or burned. No urinal shall be adjoining any room in which milk is handled.

7. Bottles of milk shall not be left with any family in which there is a case of typhoid fever or any other infectious disease that may be transmitted through milk, but milk may be delivered to such families by pouring it into vessels furnished by the said families. In event these bottles are left they can not be removed without the written permission of the health authorities.

Foodstuffs—Manufacture, Care, and Sale. (Reg. St. Bd. of H., Aug. 20, 1912.)

PROTECTION.

1. In all grocery stores and wherever food products are sold the floors must be kept clean and free from litter and accumulated dirt.

2. The counters, shelves, drawers, and bins must be kept clean and free from foreign odors. All fruit and vegetables usually eaten without being cooked must be screened.

3. Whenever fruit, vegetables, and groceries are exposed near the door and on the sidewalk they must be placed at least 18 inches above the ground.

4. All lard, sugar, and such food products must be kept well covered and handled under sanitary conditions.

5. Back shops and cellars must be kept clean and well ventilated and lighted.

6. Persons suffering from cancer or infectious diseases shall not be employed in the sale of food products.

FRUITS AND VEGETABLES SOLD FROM VEHICLES.

No person or persons engaged in the peddling or vending of fruits, vegetables, or other perishable food products shall be permitted to openly display any of the aforesaid products on any wagon, hack, buggy, or any other vehicle used for the transportation of said products unless said fruits, vegetables, and other perishable products be encased in glass or properly screened with cloth so as to afford protection from flies and dust.

BOTTLES FOR CARBONATED AND OTHER DRINKS TO BE CLEANSSED.

Bottles of carbonated or other drinks, waters, etc., shall be thoroughly washed and rinsed in clean water. All bottles before same are filled shall be thoroughly cleansed inside and outside, removing therefrom all accumulated sediment or stain, particularly on or around the neck of the bottle. The sanitary requirements governing bottling establishments shall be thus provided for as in buildings and places wherein food is manufactured or sold.

SODA AND ICE CREAM UTENSILS TO BE CLEANSSED.

1. Glassware, spoons, etc., used at soda fountains or refreshment stands shall be thoroughly washed and rinsed in clean water. In soda fountains the cans and bottles shall be thoroughly washed before refilling. Draft tubes shall be kept clean. Drainage boards, sinks, shafts, etc., on which glasses are kept must be at all times in a sanitary condition.

2. All jars, dip cans, bowls, packers, or other containers used in dispensing ice cream, ices, crushed fruits, and nuts at soda fountains or other places must be kept covered so as to protect said articles from flies and dust. All stores in which soda water or refreshments of any kind are sold on draft must be screened with wire gauze not less than 18 mesh to the square inch, or else be provided with electric fans.

MANUFACTURE OF BAKERY PRODUCTS.

1. No person shall manufacture or offer for sale breadstuffs, cake, pastry, candy, confections, or other articles of food—

(a) Containing any substance which lowers, depreciates, or injuriously affects its quality, strength, purity, or wholesomeness.

(b) Containing any cheaper or inferior substances than it is represented to contain.

(c) Which is in imitation or sold under the name of any other article.

(d) From which any valuable or necessary ingredient has been abstracted or omitted.

(e) Which is colored, coated, polished, powdered, or by any other means is made to appear of greater value than it is.

EXPOSURE OF BAKERY PRODUCTS TO DUST AND FLIES.

2. No person shall expose, sell, or offer for sale any breadstuffs, cakes, pastry, candy, confectionery, or dried fruits outside of any buildings, in any open window or doorway, or on any sidewalk, street, alley, or thoroughfare, except they be covered so as to protect them thoroughly from flies, dust, and dirt.

3. No person shall sell or offer for sale any butter or cheese except the same be covered so as to protect it thoroughly from dust and dirt.

BAKERIES—CONSTRUCTION AND MAINTENANCE.

4. Any place used for producing, mixing, compounding, or baking, for selling or for the purpose of a restaurant, bakeshop, or hotel, any bread, biscuit, crackers, rolls, cakes, macaroni, pie, or any food products of which flour or meal is the principal ingredient shall be deemed a bakeshop. The regulations of this resolution shall apply also to places, rooms, or buildings where candy is prepared or manufactured.

5. Any place used as a bakeshop shall be provided with floors of closely joined, impervious material which can be thoroughly cleaned.

6. Every baker or other person in charge of any bakeshop shall keep the floors, side walls, ceilings, woodwork, fixtures, tools, machinery, and utensils in a thoroughly clean and sanitary condition, and every bakeshop shall be provided with adequate ventilation so as to insure a free circulation of air at all times.

7. The door and window openings of every bakeshop shall during fly season be provided with sound screens of mesh sufficiently fine to keep out flies and other insects (18 mesh to square inch).

8. The side walls and ceilings of every bakeshop shall be well plastered or sheathed with metal, wood, or tile. All plastered walls or ceilings shall be kept limewashed or calcimined or shall be painted with oil paint, and all woodwork in every bakeshop shall be well oiled and painted and washed clean or whitewashed every six months.

9. Every bakeshop shall be provided with adequate plumbing, including suitable washstands. No water-closets shall be entered from or shall be in direct communication with the bakeshop. Every washstand in a bakeshop shall be provided with clean towels at all times.

10. No person shall sleep in a bakeshop, and the sleeping places of persons employed in bakeshops shall be kept separate from the place where flour or meal or food products are handled or stored.

11. No domestic animals shall be permitted in a bakeshop or place where flour or meal is stored in connection with a bakeshop.

12. Every owner or person in charge of a bakeshop shall be required to keep himself and his employees in a clean condition and suitably clothed while engaged in the production, handling, or selling of bakery products and shall provide a dressing room separated from the place where flour and meal is stored or kept.

13. Receptacles for expectoration, of impervious material, cleaned at least once in every 24 hours, shall be maintained and kept by the person in charge of every bakeshop, and no attendant or other person shall spit on the floor, side walls, or on any place in such bakeshop.

NO PERSON WITH COMMUNICABLE DISEASE TO BE EMPLOYED IN BAKESHOPS.

14. No person who has tuberculosis, a venereal, or other communicable disease shall work in a bakeshop, and no person in charge of such bakeshop shall require, permit, or suffer such a person to be employed.

UNCLEAN BAKESHOPS DECLARED A NUISANCE.

15. Every bakeshop which shall not be kept in a cleanly condition, free from rats, mice, and vermin and from matter of an infectious or contagious nature, is hereby declared to be a public nuisance, and it shall be the duty of the sanitary inspector to cause the same to be abated.

ALL BREAD TO BE WRAPPED IN CLEAN PAPER.

16. All bread made in the bakery must be wrapped in clean paper, each loaf separately, before being distributed for sale. All bakeries must be thoroughly screened.

VEHICLES TO BE KEPT CLEAN.

17. All vehicles from which any biscuits, bread, candy, or other products are delivered or sold shall be kept in a clean and sanitary condition.

Railroad Coaches and Stations. (Reg. St. Bd. of H., Aug. 20, 1912.)**SANITARY REGULATION OF RAILROAD COACHES.**

1. All railroad coaches used by passengers shall be provided with toilet facilities, which shall at all times be kept in a clean and sanitary condition. The floors of the toilets shall be of impervious material, and shall be washed with an approved disinfectant solution at the end of every run. The seat, hopper, and woodwork of these toilets shall be cleaned and washed with a disinfectant solution at the end of every run. Every closet shall be provided with proper ventilation sufficient to maintain purity of atmosphere. The use of the roller towel is prohibited in railroad coaches.

2. No railroad coach shall be swept or dusted while occupied by passengers. All railroad coaches and street cars shall at all times be kept in a clean and sanitary condition. Necessary cleaning may be done with a hand brush and dustpan, if no dust is raised thereby. Sweeping shall be done only after sprinkling water, moist sawdust, or damp paper, or any material which prevents the rising of dust. Woodwork shall be wiped down with a damp cloth, and dry dusting with feathers or a dry cloth shall not be practiced; a vacuum cleaner is recommended wherever possible.

3. All spittoons or cuspidors shall contain sufficient water to stand one-half inch deep in the bottom. They shall be emptied, washed, and disinfected with an approved disinfectant at the end of every run.

4. All coaches shall be thoroughly cleaned, dusted, sunned, and aired at least once each month. Cleaning shall include the removal from the car of everything movable, thoroughly sweeping down the woodwork, scrubbing the floors, dusting the carpets and seats, and fumigating the interior of the car with a disinfectant whenever it has become infected by a person known to have a contagious disease.

5. All railroad coaches must be provided with pure and unpolluted water for drinking purposes, and the use of the common drinking cup is prohibited.

6. Conductors, brakemen, and porters shall be authorized by the railroad authorities to see that these regulations are complied with, and they shall be also required to call the attention of the passengers expectorating on the floor to the law prohibiting such a dangerous practice, and shall at once supply such passengers with cuspidors.

SANITARY REGULATION OF RAILROAD STATIONS.

1. Waiting rooms, offices, and other portions of railroad stations shall at all times be kept in a clean and sanitary condition. Sweeping shall not be done in the presence of waiting passengers except in stations which are open continuously. In these stations sweeping shall be done only after sprinkling the floors with water, or throwing on it damp sawdust or other absorbent material to prevent the rising of dust. The woodwork shall be rubbed down with a damp cloth, and dry dusting with feathers or dry cloths shall be prohibited.

2. Sufficient cuspidors shall be furnished for the use of waiting passengers. All cuspidors shall contain sufficient water to stand one-half inch deep in bottom, and shall be washed and disinfected with an approved disinfectant at least once every day.

3. All stations shall be thoroughly cleaned, dusted, and aired at least once each week. Cleaning shall include thoroughly wiping down the woodwork with a damp cloth and scrubbing the floors.

4. Every railroad station shall be provided with proper closets where water and sewerage are available; these shall be water-closets which shall be connected with the public sewerage. Where water and sewerage are not available, closets shall be built in accordance with the provisions regarding the construction of closets of the board of health; they shall at all times be kept in a clean and sanitary condition.

5. The use of the roller towel is prohibited in all railroad stations.

6. The use of the common drinking cup is prohibited in all railroad stations.

**Privy Vaults, Cesspools, and House Drains—Construction and Maintenance of.
(Reg. St. Bd. of H., Aug. 20, 1912.)**

1. No privy pit, cesspool, or reservoir into which any privy, water-closet, stable, sink, or other receptacle of refuse or sewage is drained, shall be constructed or maintained in any situation or in any manner whereby, through leakage or overflow of its contents, it may cause pollution of any well, spring, or other source of water used for drinking or culinary purposes; nor shall the overflow from any such reservoir or receptacle be permitted to discharge into any public place or in any wise whereby danger to health may be caused. And every such pit, reservoir, or receptacle shall be cleaned and the contents thereof removed at such times and under such precautions as the board of health may prescribe.

2. Sewers, drains, etc. All house sewers or drains for the conveyance of deleterious or offensive matters shall be watertight, and the plans and methods of their construction shall be subject to the approval of the local board of health. In streets or avenues where public sewers are or shall be constructed, the board of health may order house connections to be made therewith.

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

BAYONNE, N. J.

Vessels—Regulating the Landing of Passengers and Cargo. (Reg. Bd. of H., June 20, 1912.)

SEC. 159. A. Every vessel which may arrive in this port or harbor, or at or off any dock or wharf in the limits of said city, shall be subject to visitation and inspection by an officer designated by this board, and no person shall land from or go on board of any vessel arriving from any foreign port, or from any infected place, or from any port south of Cape Henlopen from May 1 to November 1, nor shall any baggage, cargo, or other article be landed from any such vessel until the permit required by section B of these regulations shall have been issued.

B. A permit to land passengers, crew, baggage, and cargo shall be issued (subject to the provisions of section E of these regulations) to the master of every vessel arriving in this port or harbor or at or off any of the docks, piers, or wharves of said city by the clerk or other officer designated by this board: *Provided*, That such vessel shall have been subjected to sanitary inspection by the proper officer at one of the quarantine stations of the port of New York: *And, provided*, That a written permit, issued by said quarantine officer of the port of New York, shall have been deposited in the office of the clerk of this board: *And, provided*, That said vessel, her passengers, crew, baggage, and cargo shall have been found (see sec. C of these regulations) by this board to be free from infection of yellow fever, cholera, typhus fever, diphtheria, measles, or other disease of a contagious, infectious, or pestilential nature.

That no permit to land passengers, crew, baggage, or cargo shall be issued to the master of any vessel from any foreign port until it shall be shown that the requirements of the act of Congress approved February 15, 1893, shall have been conformed to in the case of said vessel.

C. No fee shall be charged nor collected for the inspection of any vessel, passengers, crew, baggage, or cargo in cases when the said vessel has within 24 hours been inspected and allowed to proceed by the proper officer of the quarantine station of the port of New York, and when said vessel has already been charged with the fee for sanitary inspection which is prescribed by the laws of the State of New York.

D. No straw or bedding shall be landed from any vessel from any foreign port or from any infected place until said straw and bedding shall have been disinfected under the supervision of the officer designated by this board; said disinfection shall consist in exposure, in a closed chamber, to steam at a temperature not less than 240° F. for a period not less than 30 minutes.

E. No rags, hides, straw, or bedding shall be landed under the authority contained in the permit provided for in section B of these regulations, but all of said articles which may arrive in any infected vessel, or in any vessel from a foreign port, or from any infected place, or from any port south of Cape Henlopen, between May 1 and November 1, shall be landed, stored, and transported only in accordance with the terms of a special permit.

F. A record shall be kept by the clerk or a secretary of this board, showing (1) the name of every vessel which has been inspected, and also the following facts concerning every such vessel; (2) the name of every vessel for which a permit to land passengers, crew, baggage, or cargo has been issued; (3) the port of departure; (4) the name of the master; (5) the number of the crew; (6) the number of the passengers; (7) the number of cases of sickness during the voyage; (8) the character of the sickness; (9) the number and causes of deaths during the voyage; (10) the number of persons sick and the nature of the diseases with which they are affected upon arrival and during detention.

G. In all cases where it shall be found that any person or persons arriving in or at this port have been exposed to the infection of smallpox, said person or persons shall when deemed necessary by the health officer be vaccinated by the officer appointed by this board.

H. If any infected vessel or any vessel having on board any person suffering from yellow fever, cholera, typhus fever, bubonic plague, smallpox, scarlet fever, diphtheria, measles, relapsing fever, or any other dangerous disease of an infectious nature, shall arrive in or at this port or harbor, notice by telegraph of the arrival of said vessel shall be immediately sent to the board of health of the State of New Jersey, Trenton, by the clerk of this board; and if any such vessel shall arrive in his port or harbor, the said vessel shall, together with the passengers, crew, baggage, and cargo, be required by this board, or by some authorized officer of said board, to at once proceed to the quarantine station of the port of New York, and the commander of said vessel shall at once cause said vessel to be taken to the station for such detention and disinfection as may in each case be necessary.

I. No person shall cast overboard from any infected vessel or from any vessel undergoing quarantine detention any straw, bedding, clothing, nor any infected articles or substances. If any such straw, bedding, clothing, or article or substance shall be discovered afloat in any of the waters of this city, or shall be found on the shore of any waters of this city, said materials shall at once be seized and destroyed by an officer designated by this board.

Any person or persons who violate any of the provisions of the foregoing regulations are liable (see act approved Apr. 9, 1897) to be punished by a fine of \$250, or by imprisonment for a period not exceeding six months, or by both fine and imprisonment.

Railway and Street Cars—Sanitary Regulation of. (Reg. Bd. of H., June 20, 1912.)

Sec. 160. No railroad or street car or vehicle constructed for and engaged in the business of carrying passengers on any line of railroad in said city, and which car is propelled by horse, electric, or cable power, shall be used with cushions on the seats or the backs of the seats thereof, and shall be constructed as at all times to provide and secure good ventilation and shall be heated to a minimum of 50° during the winter months. In the center of each car there shall be hung a Fahrenheit thermometer.

Sec. 161. Each and every car used upon any railroad in said city for carrying or transportation of passengers shall on each and every day on which it may be used for the carrying or transportation of passengers be carefully and thoroughly washed and cleaned so that all filth and dirt are removed from the inside of said car.

Sec. 162. No person shall at any time carry or convey in or upon any passenger railroad car propelled by horse, electric, or cable power, nor shall any conductor or person in charge of any such railroad car allow to be carried or conveyed in or upon such car, except on the front platform, any soiled or dirty articles of clothing or bedding in baskets or bundles.

Sec. 163. No conductor, driver, gripman, or motorman of any railroad car or other vehicle running on tracks in this city shall allow or cause the same to be pulled, drawn, or propelled on or around any curve on the surface of any public street or avenue unless the means and appliances by which said car is operated and controlled are of

such character and efficiency that the movement of said car is entirely and at all times under absolute control, so the car can be stopped at will at any point of said curve and be held motionless upon it or be moved upon it or around it at any desired rate of speed less than the maximum speed of operation; and no director, president, superintendent, or other person who is interested in or who owns or controls any such car or vehicle shall permit it to be so pulled, drawn, or propelled, or placed in service, unless properly provided with means and appliances as aforesaid. No conductor, driver, gripman, or motorman of any railroad car or other vehicle running on tracks in this city shall allow or cause the same to be pulled, drawn, or propelled on or around any curve on the surface of any public street or avenue at a rate of speed which is dangerous or detrimental to life; and no director, president, superintendent, or other person who is interested in or who owns or controls any such car or vehicle shall permit it to be so pulled, drawn, or propelled.

SEC. 164. Every company, corporation, or person operating a line of railroad cars for the carriage of passengers for hire in this city shall, in connection with the running and operation of cars as aforesaid, have and provide closed cars to be run on said railroad at all seasonable times.

Spitting—Forbidden in Public Places. (Reg. Bd. of H., June 20, 1912.)

SEC. 165. Spitting upon the floors of public buildings and of railroad cars and of ferryboats is hereby forbidden, and officers in charge or control of all such buildings, cars, and boats shall keep posted permanently in each public building and in each railroad car and in each ferryboat a sufficient number of notices forbidding spitting upon the floors, and janitors of buildings, conductors of cars, and employees upon ferryboats shall call the attention of all violators of this ordinance to such notices.

Noises—Not to be Made by Peddlers, Venders, Hucksters, or Junkmen between the Hours of 7 a. m. and 8 p. m. (Reg. Bd. of H., June 20, 1912.)

SEC. 166. No peddler, vender, huckster, junkman, or any person engaged in a like business, or in any itinerant trade or occupation, shall outcry, peddle, or hawk his wares, merchandise, goods, trade, or business in the city of Bayonne between the hours of 7 a. m. and 8 p. m. to the prejudice or peril of the life or health of any human being; nor shall any such person ring any bell or gong, blow any horn, whistle, or instrument, or make any noise whatsoever in said city during the said interval of time, to the prejudice or peril of the life or health of any human being.

Explosives and Other Material Dangerous to Human Life—Permits Required for Transportation or Storage. (Reg. Bd. of H., June 20, 1912.)

SEC. 167. That no person or persons shall convey or transport through or store within said city any explosive or other material dangerous to human life in quantities exceeding 100 pounds without a permit from this board.

Acts Dangerous or Detrimental to Health. (Reg. Bd. of H., June 20, 1912.)

SEC. 168. That no person shall carelessly or negligently do or advise or contribute to the doing of any act or thing dangerous or detrimental to the health of any human being; nor shall any person knowingly do or advise or contribute to the doing of any such act or thing (not actually authorized by law) except with justifiable motives and for adequate reasons; nor shall any person omit to do any act or to take any precaution reasonable and proper to prevent or remove danger or detriment to the life and health of any human being. Any peddlers carrying bundles or packs of wearing material or other goods shall not open said bundle or pack in any house wherein there is contagion or said house is under quarantine, under penalty of \$5.

Barbers and Barber Shops—Regulation of. (Reg. Bd. of H., June 20, 1912.)

SEC. 169. Every owner or person in charge of any barber shop shall keep said shop at all times in a clean and sanitary condition. The wall and ceiling shall be properly painted, whitened, or papered, and all barber shops shall adhere to the following rules:

1. All barber shops must have sufficient light and ventilation.
 2. No person shall use a barber shop as a sleeping room or dormitory.
 3. All mugs, shaving brushes, razors, clippers, shears, and other metal instruments shall be sterilized in an approved manner after each separate use.
 4. A clean and separate towel shall be used for each customer.
 5. Shops shall have running hot and cold water.
 6. Hot-water tanks shall be used for no other purpose than that of heating water.
 7. Lump alum shall not be used, but alum in powder or in solution is allowed.
 8. Powder puffs and sponges are prohibited.
 9. Barbers shall not shave a person when the surface to be shaven is inflamed, broken out, or contains pus, unless said customer is provided with cup, razor, and brush for his individual use.
 10. No person with venereal or other contagious disease shall serve as a barber.
 11. Every barber or other person in charge of barber shop shall wash hands immediately before serving each customer.
 12. A roll of clean paper shall be placed on the back of each chair in such a way that it may be unrolled and act as a headrest for the customer; no portion of said paper shall be used for more than one customer, but each customer shall be provided with a fresh, clean section of said paper: *Provided, however,* That as a substitute for said paper a clean towel may be used as a headrest for each customer.
- Violations of any of the above rules is punishable by a fine of \$5.

Certificates or Bills of Health. (Reg. Bd. of H., June 20, 1912.)

SEC. 170. No person, officer, or board within said city (except this board or its proper officers, and as the regulations by this board shall provide) shall grant, sign, or deliver any certificate or "bill of health"; and any person or persons offending against the provisions of this section shall forfeit and pay a penalty of \$20.

CINCINNATI, OHIO.**Restaurants—Construction and Regulation of. (Reg. No. 65, Bd. of H., July 24, 1912.)**

The word "restaurant" as used in these regulations shall be held to include all hotels and eating houses of every description.

2. Every apartment or room in which food is served must be light, dry, airy, and properly drained, and all plumbing therein constructed must be in accordance with the rules and regulations of the city of Cincinnati.

3. All rooms, apartments, and buildings used for the purposes of cooking and in the preparation of foodstuffs shall be used exclusively for such purpose, and the rooms or places set apart for the storage of foodstuffs shall likewise be light, airy, and properly ventilated.

4. All rooms used for the cooking and preparing of foodstuffs shall have floors and side walls so constructed as to exclude vermin, rats, mice, and kept in a state of good repair. No dogs, cats, or other animals shall be allowed in said room. Said floor shall be smooth and constructed in such manner as to permit proper cleaning, and shall be kept in a sanitary state. The walls and ceilings of such apartments or rooms used for preparing foods shall be properly whitewashed, unless painted or finished in natural wood, as often as required by the health officer, but at least once in 12 months, and in all places along said walls where there is frequent contamination from use, there shall

be a lining of galvanized iron or other impervious material to the height of 6 feet. The furniture, tables, appurtenances, ranges, stoves, and all appliances in such rooms shall be so arranged and placed as to permit ready and easy cleaning on all sides, and all utensils, implements, furniture, and other appliances shall be kept and maintained in a clean and sanitary condition.

5. No sleeping rooms, water-closets, privy vaults, urinals, ash pits, or coal bins shall be within the rooms or apartments used for the preparation of foods and cooking of food or for its storage, nor shall they communicate directly with any such room.

6. No wearing apparel, boots, shoes, or other wearing effects not being worn shall be kept in any kitchen, and a suitable place, separate from such kitchen, shall be provided for their retention; and where the number of persons employed in the preparation of food in any manner exceeds in number four, there shall be provided a suitable dressing room in which to change their clothing.

7. All restaurants shall maintain for the use of cooks, helpers, and others engaged in the preparation and cooking of food, cuspidors, ample and sanitary toilet facilities for each sex, and washing facilities, with towels and soap, to enable those so employed to keep their hands and persons clean.

8. No person shall work or be employed in or about any restaurant or kitchen of same during the time a case of infectious or contagious disease exists at the place where he or she resides, nor thereafter until the quarantine has been removed and the premises disinfected. No person shall be employed in or about any such place at whose home there is a case of tuberculosis of the lungs, without such person first obtain a permit in writing from the health officer, who shall not grant such permission unless he is satisfied that all precautions are taken so that no infection therefrom shall be spread.

9. No person suffering from tuberculosis, ophthalmia, or any infectious or contagious disease, externally visible or not, or any skin disease, shall be employed in or about any part of a restaurant or its kitchen, or handle any foodstuffs or products used therein.

10. No person or employee shall expectorate or discharge from the human body or any organ thereof or in any method whatever, upon the walls, floors, or equipment of any such restaurant or kitchen thereof, nor upon any product or material that may be upon the premises.

11. No employee in any way connected with the handling, cooking, or preparing of any foodstuffs or products in any restaurant or kitchen thereof shall engage at work or his particular duty following a visit to a water-closet, urinal, or toilet room to relieve a call of nature, without first thoroughly cleansing his or her hands.

12. All restaurants shall provide, in places where foodstuffs are kept, prepared, cooked, or served to customers, full protection from dust, dirt, flies, and vermin, by glass cases, wire screens, and other modern methods, and shall cause the abatement and destruction of vermin and flies wherever found.

13. All restaurants shall be equipped with covered metallic cans for retaining and keeping their garbage and waste in a sanitary manner, which shall be kept in such place and manner as will preclude nuisance and contamination of the kitchen and such rooms from odors and from all possibilities therefrom, and when necessary shall use disinfectants.

14. All restaurant kitchens shall be provided with a storeroom or suitable place for the sanitary keeping of food and foodstuffs, and all refrigerators shall be thoroughly cleaned in all parts and drained in a sanitary manner, but no refrigerator shall drain by direct communication with any sewer drain.

15. All sweeping, dusting, and cleaning shall be done combined with sprinkling or other methods and by moist cloths to allay the dust, and during such sweeping, dusting, and cleaning all foodstuffs shall be protected by covering or otherwise, from contamination thereby.

16. Restaurants, kitchens, and other rooms connected therewith shall be provided with ample facilities for washing and cleaning all eating and cooking utensils and with a proper supply of hot and cold water, and no eating or drinking utensil soiled by use shall be used in the serving of food or foodstuffs in any manner without first being properly cleaned.

17. All restaurants and their kitchens must be kept clean and wholesome at all times, and precautions taken to prevent nuisance from the dissemination of odors and smells arising from the creating, keeping, or handling of garbage, and all odors, vapors, smells, smoke from cooking, must be disposed of, and, if necessary, by air shafts, fans, forced air, or other modern and approved methods.

Ice—Limiting Impurities in. (Reg. No. 71, Bd. of H., June 12, 1912.)

No person shall sell, offer for sale, deliver, or have in his possession within the city limits any ice which on analysis shows the presence of pathogenic bacteria or bacteria of the colon bacillus group in a cubic centimeter, which contains more than two-tenths part of nitrogen per million, as albumenoid ammonia; more than 1 part of nitrogen per million, as nitrates; or more than five one-thousandths part of nitrogen per million, as nitrites.

Meat—Diseased Cattle to be Confiscated and Destroyed. (Reg. No. 33, Bd. of H., June 5, 1912.)

No person shall bring into the city or sell or offer for sale any cattle unfit for use or cattle which have been exposed to or that are liable to communicate the "cattle disease," nor the meat nor milk of any such cattle. All such cattle, meat, and milk shall be confiscated and destroyed.

Meat—Inspection of. (Reg. No. 50, Bd. of H., July 24, 1912.)

No person shall sell or offer for sale within the city limits, or otherwise dispose of for human food therein, any meat or meat product of any cattle, calf, sheep, goat, or swine which does not bear the meat-inspection brand or other mark of identification of the board of health or of the United States Department of Agriculture.

2. No carcass, or any part thereof, of any slaughtered cattle, calf, sheep, goat, or swine shall be branded or otherwise marked for identification by the chief food inspector or his assistants until it has been carefully inspected and passed for food, and the viscera, head, tongue, tail, and caul of each and every cattle, calf, sheep, goat, or swine slaughtered when the inspector is not present shall be kept together and wholly separate from similar parts of any other carcass.

3. No dressed carcass, or any part thereof, of any slaughtered cattle, calf, sheep, goat, or swine to be used for human food shall be removed from any slaughterhouse or slaughtering place within the city limits before it has been branded or otherwise marked for identification by the chief food inspector or his assistants, or by the inspectors of the United States Department of Agriculture.

4. Meats slaughtered without the city, but brought into the city for sale, may be inspected and branded or otherwise marked for identification by the chief food inspector or his assistants, under the following rules to wit: All carcasses must have the head and all viscera, except the stomach, bladder, and intestines, held together by natural attachments, and all such carcasses shall be brought to the southeast corner of Ninth and Plum Streets between the hours of 8 a. m. and 10 a. m. of each week day, or to some other place designated by the chief food inspector, who shall be notified when such meat is ready for inspection.

Meat—Prohibiting Sale of Animals Bearing United States "Rejected" Tags, and of Dressed Calves Weighing Less Than 45 Pounds. (Reg. No. 47, Bd. of H., July 24, 1912.)

No cattle, calves, sheep, hogs, or lambs after being tagged at the Union Stock Yards with the United States "rejected" tags shall be sold, slaughtered, or otherwise disposed of, or the tags removed while such animals are within the city limits, except upon the written permission of the board of health or its officers.

No calf, or the meat thereof, shall be brought into the city of Cincinnati, held, sold, or offered for sale for human food, which, when killed and dressed (head, feet, and hide removed), weighs less than 45 pounds.

Meat—Diseased Cattle or Meat Not to be Brought Into the City—Condemnation of Cattle. (Reg. No. 34, Bd. of H., July 17, 1912.)

No person shall bring into this city or sell or offer for sale in any market, public or private, any cattle, sheep, hog, or lamb, nor any meat, fish, game, or poultry that is diseased, unsound, unwholesome, or that for any other reason is judged to be unfit for human food. The fact of any cattle, sheep, hog, or lamb being in any stockyard or slaughterhouse pen shall be considered sufficient evidence that the same is being exposed there for sale; and the fact that the carcass of any cattle, hog, sheep, or lamb, or any part thereof, is found in any slaughterhouse, or any public or private market or place, dressed and prepared as such meats usually are for market, shall be deemed sufficient evidence that the same is on sale; and no animal, or any part thereof, nor any fish, game, or poultry that has been examined and condemned by the inspector or his assistants shall be held, sold, or offered for sale for human food in any market or place in this city. When any diseased or unsound animals—cattle, sheep, hog, etc.—shall be condemned by the inspectors as unfit for human food, the health officer may, whenever he shall deem it necessary for the protection of the public, order the inspectors to kill such condemned animals. The carcasses of such condemned and killed animals shall be turned over to the party who may be under contract with the city to remove the bodies of dead animals; but in case no such contract exists, the owners of such animals may dispose of their carcasses for tanking purposes, and the inspectors shall supervise the delivery of the same.

Meat—Forbidding the Sale of Pigs or Lambs Less Than 1 Month Old. (Reg. No. 36, Bd. of H., July 17, 1912.)

No pig or lamb, or the meat thereof, shall be brought, held, or offered for sale for human food in this city, which when killed was less than 1 month old.

Meat—The Slaughtering of Pregnant or Overheated Animals Prohibited. (Reg. No. 37, Bd. of H., July 17, 1912.)

No person shall kill any cow, sheep, or hog that is in advanced pregnancy or showing signs of parturition, nor shall any animal be slaughtered while it is in an overheated or feverish condition; and the meat of any such animal shall not be held or sold, or offered for sale, for human food in any market or elsewhere in this city.

Meat—Cattle not to be Tied in Wagons. (Reg. No. 32, Bd. of H., June 5, 1912.)

No cattle shall be placed or carried while bound or tied by their legs, or bound down by their necks, in any vehicle in the city, but shall be allowed freely to stand in such vehicle when transported and while being therein.

Meat—Cattle not to be Slaughtered in Public. (Reg. No. 24, Bd. of H., June 5, 1912.)

No cattle shall be slaughtered, dressed, or hung, or the meat of any thereof, wholly or partly, within any street, avenue, or sidewalk, or public alley or place, nor in any place or position that said killing (or bodies or parts of such animals, when hung, and before they have ceased to bleed) shall be in view of any street, avenue, or alley, or of the persons who may be therein; nor shall any blood or dirty water or other substance from such cattle, meat, or place of killing, or the appurtenances thereof, be allowed to run, fall, or to be in any street, avenue, sidewalk, alley, or place.

Slaughter Houses—Sanitary Regulation of. (Reg. No. 52, Bd. of H., July 24, 1912.)

All houses or places in this city in which animals are slaughtered for human food or the meat and meat products are prepared, cured, packed, stored, handled, or sold for such purpose shall be suitably lighted and ventilated and maintained in a sanitary condition. All work in such establishments shall be performed in a cleanly and sanitary manner.

(a) Ceilings, side walls, pillars, partitions, etc., shall be frequently whitewashed or painted, or where this is impracticable they shall, when necessary, be washed, scraped, or otherwise rendered sanitary. Where floors or other parts of a building or tables or other parts of the equipment are so old or in such condition that they can not be readily made sanitary they shall be removed and replaced by suitable materials or otherwise put in a condition acceptable to the chief food inspector. All floors upon which meats are piled during the process of curing shall be so constructed that they can be kept in a clean and sanitary condition, and such meats shall also be kept clean.

(b) All trucks, trays, and other receptacles, all chutes, platforms, racks, tables, etc., and all knives, saws, cleavers, and other tools, and all utensils and machinery used in moving, handling, cutting, chopping, mixing, canning, or other process shall be thoroughly cleansed daily, if used.

(c) The aprons, smocks, or other clothing of employees who handle meat in contact with such clothing shall be of a material that is readily cleansed and made sanitary, and shall be cleansed daily, if used. Employees who handle meat or meat-food products shall be required to keep their hands clean.

(d) All toilet rooms, urinals, and dressing rooms shall be entirely separated from compartments in which carcasses are dressed or meat or meat-food products are cured, stored, packed, handled, prepared, or sold. They shall be sufficient in number, ample in size, and fitted with modern lavatory accommodations, including toilet paper, soap, running water, towels, etc. They shall be properly lighted, suitably ventilated, and kept in a sanitary condition.

(e) The rooms or compartments in which meats or meat-food products are prepared, cured, stored, packed, or otherwise handled shall be properly lighted and ventilated, and shall be so located that odors from toilet rooms, catch basins, casing departments, tank rooms, hide cellars, etc., do not penetrate them. All rooms or compartments shall be provided with cuspidors, which employees who expectorate shall be required to use.

(f) Persons affected with tuberculosis or any other communicable disease shall not be knowingly employed in any of the departments of establishments where carcasses are dressed, meats handled, or meat-food products prepared, and any employee suspected of being so affected shall be so reported by the chief food inspector to the manager of the establishment and to the health officer.

(g) No use incompatible with proper sanitation shall be made of any part of the premises on which a slaughter house is located. All yards, fences, pens, chutes, alleys, etc., belonging to the premises of such establishments shall, whether they are used or not, be maintained in a sanitary condition.

(h) Butchers who dress diseased carcasses shall cleanse their hands of all grease and then immerse them in a prescribed disinfectant and rinse them in clear water before engaging again in dressing or handling healthy carcasses. All butchers' implements used in dressing diseased carcasses shall be cleansed of all grease and then sterilized either in boiling water or by immersion in a prescribed disinfectant and rinsed in clear water before using again in dressing healthy carcasses. Facilities for such cleansing and disinfection, approved by the chief food inspector, shall be provided by the establishment. Separate trucks, etc., shall be furnished for handling diseased carcasses and parts. Following the slaughter of an animal affected with an infectious disease a stop shall be made until the implements have been cleansed and disinfected unless duplicate implements are provided.

(j) Meats and meat food products intended for rendering into edible products must be prevented from falling on the floor while being emptied into the tanks by the use of some device, such as a funnel.

(k) Butchers who dress carcasses are prohibited from holding in their mouths skewers to be used in such dressing.

2. No dog shall be permitted in any slaughter house or any place where meats are prepared.

Meat—Dealers in Required to Obtain Permits. (Reg. No. 62, Bd. of H., July 24, 1912.)

No person or persons shall sell, deliver, or offer for sale, or otherwise dispose of for human food within the city of Cincinnati any meat or meat products of any cattle, calf, sheep, goat, or swine without a permit so to do from the board of health of the city of Cincinnati. Such permit shall be furnished gratuitously to applicants on condition that all the laws, ordinances, and regulation concerning slaughtering houses, the slaughtering of food-producing animals, the inspection of meat and meat products, the manufacturing and processing of meat or meat-food products, and the sale thereof, be strictly complied with; and such permit shall be revoked by the board of health for violation of any of the above conditions.

Fish—Cleaning in Markets. (Reg. No. 35, Bd. of H., July 17, 1912.)

Fish shall not be cleaned of their scales or entrails in any market, public or private, where they may be offered for sale, unless there are proper sanitary facilities for maintenance and disposal of the offal and for the carrying on of the industry in a sanitary manner.

Fruits and Vegetables—To be Confiscated and Destroyed if Unwholesome. (Reg. No. 42, Bd. of H., July 17, 1912.)

It shall be unlawful for anyone to sell, offer for sale, or have in his possession with intent to sell, any unripe, overripe, decayed, or unwholesome fruit or vegetables; and the health officer and all officers of the department of health are authorized and directed to immediately confiscate and destroy any such fruit or vegetables when offered for sale.

Fruits and Vegetables—Ripening of in Dwelling Rooms Prohibited. (Reg. No. 42, Bd. of H., July 24, 1912.)

No person shall use or permit to be used, for the purpose of ripening any fruits or vegetables, any room, or part thereof, or any apartment occupied for domestic purposes; nor shall anyone sell, expose, or offer for sale, any fruit or vegetables as aforesaid ripened; nor shall any fruits or vegetables whatsoever be sold, or kept, or stored for sale in any such room or apartment as aforesaid.

Foodstuffs—Protection of. (Reg. No. 53, Bd. of H., July 24, 1912.)

No person shall expose, sell, or offer for human food any breadstuffs, cake, pastry, candy, confectionery, dried fruits, shelled nuts, or other unwrapped products to be eaten unpeeled and uncooked, outside of any building or in any open window or doorway, or on any sidewalk, street, alley, or thoroughfare, unless the articles so exposed for sale shall be covered in such a manner as to protect them from dust, dirt, and flies.

MANILA, P. I.**Tenement Houses and Stores with Living Quarters—To be Provided with Kitchens and Water-Closets. (Ord. No. 169, Apr. 2, 1912.)**

SEC. 229 (a). *Shops or stores with domestic quarters in connection.*—Buildings or parts of buildings intended for the dual purpose of shops or stores with living quarters in connection shall have suitable and separate living quarters for each tenant, proprietor, or established business. Such living quarters shall consist of suitable sleeping room or rooms, kitchen, toilet, and bathroom, and such quarters shall pertain to and form a part of the apartment. Living quarters of two or less rooms shall be provided with not less than one water-closet and bath for every three rooms, but common kitchens shall be prohibited.

SEC. 229 (b). *Kitchen and water-closet accommodations in tenements.*—In every tenement house hereafter erected there shall be a separate kitchen provided with running water, a paved floor, and a separate water-closet for and within each apartment.

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