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SNUFF AND TOBACCO.

THEIR USE BY SCHOOL BOYS AND GIRLS IN COUNTY Z.

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In taking the clinical histories of 96 boys and 83 girls (a total of 179 children), in connection with certain studies on hookworm disease, record was made of their answers in reply to the question as to whether they dipped snuff and chewed or smoked tobacco. These children vary from 8 to 18 years of age, and nearly all of them are in attendance at seven schools in County Z of one of our South Atlantic States.

The answers obtained have been tabulated in reference to the presence or absence of a privy at the house or farm where they live, on the assumption that better sanitation (as presence of a privy) and increased refinement (such as absence of snuff dipping) would probably parallel each other.

In not all cases could we obtain reliable data, so that our statistics as to the number who chew, dip, and smoke represent simply the number who admitted the habits. The data may be summarized as follows:

	Home with or without privy.										Ag- gre- gate.
	With.		Without.		No data.		Total.				
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.			
Total number.....	50	43	42	36	4	4	96	83	179		
Data incomplete or lacking.....	9	9	16	11	2	4	27	24	51		
Data available.....	41	34	26	25	2	.....	69	59	127	
Deny use of snuff or tobacco.....	32	32	17	14	2	.....	51	46	97	
Admit use of snuff or tobacco.....	9	2	9	11	.....	.....	18	13	31
Admit dipping, chewing, and smoking.....	1	.....	2	1	.....	.....	3	1	4
Admit dipping and chewing.....	1	.....	3	5	.....	.....	4	5	9
Admit chewing and smoking.....	1	.....	1	.....	.....	.....	2	.....	2
Admit only dipping snuff.....	.....	1	.....	3	.....	.....	.....	4	4
Admit only chewing tobacco.....	1	.....	2	2	.....	.....	3	2	5
Admit smoking tobacco.....	5	1	1	.....	.....	.....	6	1	7

Thus, of 69 boys, for whom data are available, 18 boys (26 per cent) admit the use of tobacco, and half of these children live at houses provided with privies while the other half live at homes not so provided. Of 11 who smoke, 7 live at homes provided with privies and 4 at homes not so provided; of 12 who chew, 4 live at homes

with privies and 8 without privies; of 7 who dip, 2 live at homes with privies and 5 without privies. Accordingly, so far as can be judged by the figures presented from these cases, boys not yet refined enough to have privies are more likely to dip snuff and to chew tobacco; smoking, however, is more prevalent among the boys from the more refined than from the less refined homes.

Thus, also, of the 59 girls, for whom data are available, 13 girls (or 22 per cent) admit the use of tobacco, and of these, only 2 girls (or 15 per cent) live in homes provided with privies, while 11 girls (or 84 per cent) live in less refined homes, namely, in homes without privies. Of the 2 girls who smoke, one lives in a home with, and the other without a privy; all 8 girls who chew live in homes without privies; of the 10 girls who dip snuff, 1 lives in a home with a privy, and 9 in homes without privies. Thus the statistics for the girls agree in general with those for the boys.

Taking the aggregates, it is seen that of the 127 boys and girls in question, 31 children (or 24 per cent) admit the use of snuff or tobacco; of the 13 smokers (11 boys and 2 girls), 8 come from homes provided with privies, and 5 from homes without privies; accordingly, increased refinement in these particular cases has paralleled an increase in smoking. Of the 20 tobacco chewers (12 boys and 8 girls), 4 come from more refined, 16 from less refined homes. Of the 17 snuff dippers, 3 come from the more refined, and 14 from the less refined homes.

It may be admitted that the foregoing statistics are too small to quote as definite proof, but so far as they go they are distinctly in harmony with our personal experience extending over many years, that as we go among people without privies we find that this primitive and filthy condition is generally paralleled with an increase in tobacco chewing and snuff dipping.

Classification by age.—The tobacco and snuff users referred to in the foregoing are tabulated as to age as follows:

Age in years.	Snuff.			Tobacco.					
	Dip.			Chew.			Smoke.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.
8.....							1		1
9.....		1	1		1	1			
10.....	2	2	4	4	2	6	3		3
11.....	2		2	2		2	2	1	3
12.....		5	5		2	2	2		2
13.....		2	2		2	2	1	1	2
14.....	1		1	2		2	1		1
15.....				1	1	2			
16.....									
17.....	1		1	1		1	1		1
18.....	1		1	1		1			
Total.....	7	10	17	12	8	20	11	2	13

Causes of snuff dipping and tobacco using among these children.— Admitting without argument that there may be certain general causes back of the tobacco and snuff habits that are operative in one part of the country just as much as in other parts, it is legitimate to inquire whether there are any special causes for these habits to be found in that part of our land in which these customs (especially snuff dipping and tobacco chewing) are strikingly widespread among children, namely among the tenant class in the rural districts of the South Atlantic States and of the Appalachian region.

One of the cases given in the foregoing table presents a clue to at least one such cause. This girl is 13.7 years old. She dips snuff and chews tobacco. She is only 4 feet 3½ inches in height, standing (barefoot), weighs 64½ pounds (barefoot, no coat), has a hemoglobin of 75 per cent of normal, a red blood count of 3,448,000, an eosinophilia of 32 per cent, and is a very typical case of hookworm disease of long standing. Her apparent age is about 8 years. She does not remember when she began to dip and chew, but as nearly as even approximately correct deductions could be drawn from her statements she probably began the habit when she was about 4 to 6 years old. Now, at the age of 13.7 years, she is distinctly a heavy chewer, as are also her father and 11.6 year old brother. *According to her definite statement she began the use of snuff and tobacco upon the advice of her family physician as a preventive against growing pale (namely, in this instance undoubtedly hookworm disease) and apparently this advice was given not later than 1905, namely 7 years ago.*

It is self-understood that we do not claim or even intimate that the average southern physician advises children to dip snuff or to chew tobacco as a preventive against anemia, but the case cited above represents only one of many instances we (at least one of us) have met in the past 10 to 20 years, in which some ignorant country or cotton-mill physician, who in all probability began his practice before the days of the State medical examining boards, has directly advised children to dip snuff and to chew tobacco as a health measure. We have met children as young as 4 years of age who either dip or chew.

Further, among the illiterate classes there is a geographically widespread folk belief that snuff dipping and tobacco chewing are preventives against anemia. This folk belief one of us has encountered at various points from eastern North Carolina to Mississippi, and there can be no question that it has received professional sanction from the more ignorant of the rural physicians.

With the passing away of the ignorant physician, as his place is rapidly being taken by the modernly trained man, the professional sanction of these habits for children will rapidly pass away, and with the phenomenal strides now being made in extending the public

school system, a more enlightened rising generation will see the folly of the old popular belief.

It is not infrequent, nor is it unnatural, that a traveler, unacquainted with the South, is shocked when he or she sees the prevalence of snuff dipping among cotton-mill employees and rural tenants.

Snuff dipping and tobacco chewing by children are, however, such everyday observations with us in our work that they make little impression upon us. We view the habits as based upon a thoroughly rational explanation, traceable to conditions that existed years ago, and as dependent for their decrease upon a social evolution which involves an improvement in the sanitary life of hundreds of thousands of people. It will take at least a school generation to eradicate these widespread habits from among the rural school children of the South, and until the lives of these children are made happier by better sanitary surroundings we are not inclined to begrudge them the little happiness they seem to find in the use of snuff and tobacco, or to criticize them in the slightest for these habits.

THE RAT.

ITS HABITS AND THEIR RELATION TO ANTIPLAGUE MEASURES.

By R. H. CREEL, Passed Assistant Surgeon, United States Public Health Service.

The habits of the rat, on account of the rôle this rodent plays in the transmission of plague, are of the greatest interest. A thorough knowledge of the subject is a prerequisite in devising rat-proofing methods and in effecting a destruction of these animals. Much loose information has been circulated concerning the rat, which, being an animal of nocturnal habits, is not nearly so well known as the majority of people lead themselves to believe. In view of such conditions, experiments with rats have been performed at the San Juan quarantine station, simulating natural conditions as nearly as possible, and notations have been made bearing on the habits of the rat as observed under natural conditions and environment.

SWIMMING.

As the ability of the rat to swim concerns quarantine measures, attempts were made to ascertain how far and for how long a rat could swim, and to what extent it could orient itself while swimming at some distance from land.

The rodents were taken in cage traps to a point in San Juan Bay well away from the land, and released. Notes were made as to the tide and the water.

First experiment.—A full grown gray rat (*Mus norvegicus*) when released 1,200 feet from shore, swam for one hour and a half but apparently without sense of direction. The tide was ebbing at the rate of 2 miles an hour. The surface of the water was roughened by a fair breeze, but not choppy. The animal maintained its position against the tide, swimming fairly well, using the hind legs and tail, the fore legs being held close to the body and not being used. This rodent came from the residence district of San Juan, and presumably was wholly unaccustomed to the conditions to which it was subjected.

Second experiment.—A full grown gray rat (*Mus norvegicus*) was released 450 feet from the shore and swam to land in six minutes. The tide was favorable, the water smooth with a slight adverse breeze. This rat had been trapped in the swamp shrubbery in the vicinity of San Juan, and had adapted itself to semiaquatic habits.

Third experiment.—A full grown gray rat (*Mus norvegicus*) was released 1,300 feet from the shore, with an incoming tide and adverse breeze. The sea had a slight "wash" but was not choppy. The animal swam around rather aimlessly for 15 minutes; then apparently got its bearings and struck out for land, making the distance in 55 minutes from the time of its release. The total distance traveled was calculated at 1,500 feet.

Fourth experiment.—One full grown black rat (*Mus rattus*) and one full grown *Mus alexandrinus* were released 1,200 feet from land, with adverse tide and wind, the surface of the water being slightly roughened by the wind. The *Mus rattus* swam for 45 minutes, chiefly in an effort to maintain its position against the outgoing tide. The *Mus alexandrinus* survived 35 minutes. Both of these rodents, while using chiefly the hind legs and tail, at intervals also made use of the forelegs. Neither of these two animals seemed to have any sense of direction.

No observations were made as to the swimming ability of rats under natural conditions. It is known, however, that a large number of rodents frequent the swamp shrubbery and are well accustomed to swimming.

BURROWING.

First experiment.—Five full grown gray rats (*Mus norvegicus*) were placed within a stockade made of galvanized iron sunk into the ground 3 feet. The soil was quite firm. All five rodents commenced at once to burrow. Within 12 hours extensive excavations had been made. Within 48 hours these rat burrows were found to extend downward $2\frac{1}{2}$ feet, branching out toward the center and circling the circumference of the stockade.

Second experiment.—Two full grown and two half grown black rats (*Mus rattus*) were placed in a stockade similar to the above. During

three days they made no attempt to burrow, hiding themselves under tufts of grass.

Third experiment.—Two full grown black rats (*Mus rattus*) and two *Mus alexandrinus* were kept in the stockade three days, with the same result as indicated in experiment 2. There was no attempt to burrow. One hybrid, a cross probably between *Alexandrinus* and *Norvegicus*, made shallow excavations, sufficient only to hide its body.

Under natural conditions it has been noted in San Juan that the *Mus norvegicus* is essentially a burrowing animal, preferring to make excavations in the earth when it already has sufficient covert beneath flooring space. In the majority of instances the depth of the burrows would extend from one-half foot to a foot. The most extensive burrowing noted was in those cases where rats would choose as harborage a concrete floor unprotected by side walls. While the depth a rat will burrow under natural conditions has generally been observed as being not greater than one and a half feet, burrows have been noticed passing beneath walls of two-foot depth.

The gray rat (*Mus norvegicus*) apparently burrows with the greatest ease, even in the hardest ground, such as well-packed clay. The same species will pass through walls made of brick or irregular stones, provided the mortar is not composed of cement. Observations have been made of places where a *Mus norvegicus* has perforated walls of brick in which the construction was of sun-dried brick held together by sand and lime mortar. In some instances the rat run actually pierced the body of a brick, a smooth, well-beveled hole having been produced; more frequently, though, the wide interstices filled by a sand and lime mortar were the points perforated. Whether this operation was performed by burrowing or by gnawing can not be stated, but it was probably accomplished by gnawing. The English Plague Commission has credited the *Mus norvegicus* with the ability to gnaw through brick or concrete, but it is incredible that rodents can successfully attack concrete. No such instances have ever been noted in San Juan.

CLIMBING.

First experiment.—A full-grown *Rattus*, a full-grown *Alexandrinus*, and a full-grown *Norvegicus* were placed in a stockade surrounding the outer corner of a concrete building. None of these rodents was able to climb this outer corner.

A similar experiment was performed using an inner corner, with the same negative result.

Second experiment.—Full-grown rats of the three species were put in a stockade around a cocoanut palm. They climbed the tree with the greatest ease, but were not able to pass over a 12-inch band of zinc which encircled the trunk. The *Mus norvegicus*, however,

jumped upward and outward to the top of the stockade, a distance of 17 inches.

Third experiment.—Full-grown rodents of the three species were put in a stockade surrounding a 1-inch standpipe, which they climbed with the greatest ease.

Observation of the climbing proclivities of rats under natural conditions makes it evident that the black rat and the *Alexandrinus* climb cocoanut trees to any height with facility for the purpose of obtaining food. Both of these species will likewise gain the upper story of a building by climbing pipes or wires, and will run from one building to another on wires. No observations have been made as to the climbing proclivities of the *Mus norvegicus* under natural conditions.

JUMPING.

As has been noted in one of the experiments above, a *Mus norvegicus* jumped upward and outward a distance of 17 inches. In several of the experiments, where *Alexandrinus* and *Rattus* were confined within a stockade, they often jumped upward a distance of 2 feet in their efforts to scale the stockade. In one instance a *Mus rattus*, confined within a perfectly smooth galvanized iron garbage can of 24-inch depth, by a series of jumps spiraled its way to the top of the can and escaped.

PREFERENCE FOR FOOD.

It has been said that the rat is an epicure. While this is hardly true, rats in different localities do show marked preference for certain articles of diet. A rodent that frequents a grain warehouse is most successfully trapped by use of grain as bait; those that frequent meat markets are similarly most successfully trapped in those places by using different kinds of meat for bait; and again, those rodents that are found in green groceries or where vegetables are kept are most easily captured by baiting the traps with vegetables. The use of cheese, the best known of all rat bait, is less effective in different classes of food depots than the food which the rat has been accustomed to. The sewer rat apparently easily accommodates himself to any class of diet.

Passed Asst. Surg. G. W. McCoy has made extensive observations on the bionomics of the rat as to its breeding or fecundity, and its endurance without food and water, so experiments and observation of this nature were not repeated.

CANNIBALISM.

The *Mus norvegicus* is very cannibalistic. Considerable trouble was encountered in maintaining a sufficient supply of these animals on account of their habits of killing and eating each other. Each morning it would be discovered that several rats had been killed

during the night and partially devoured. The *Mus rattus* and *Mus alexandrinus*, while cannibalistic to a certain extent, are very markedly less so than the *Mus norvegicus*. The *Mus rattus* and *Mus alexandrinus* were kept separate from the *Norvegicus*, so that any antagonism of the species was not noted, but it is highly probable that the *Norvegicus* would have quickly destroyed the smaller species.

SUMMARY.

The *Mus norvegicus*, while essentially a burrowing animal and not addicted to climbing or swimming, is nevertheless quite capable of doing either. It burrows readily in the hardest earth, even to the depth of 2½ feet, and can pass through, probably by gnawing, all wooden material, soft brick, or mortar. The black rat and *Alexandrinus* (at least in Porto Rico) do not burrow at all, but are very adept at climbing or jumping, and therefore are the species chiefly found in the rural districts, removed from human habitations.

It is possible for rats to escape from ships anchored a quarter or even half a mile from shore and make a landing, the water being smooth and tide favorable. It is questionable whether rats under natural conditions would make the attempt, though unusual conditions aboard ship might determine this kind of migration.

RABIES.

A REPORT OF A CASE IN A CHILD AT ALEXANDRIA, VA.

By J. P. LEAKE, Assistant Surgeon, United States Public Health Service.

Cases of human rabies are sufficiently rare to justify the report of single instances, for only by the collation of the data of numerous observers can the variant symptomatology be clearly defined. The experience of one individual is hardly enough for the numerical method.

The present case was seen in consultation with Dr. Warfield and Dr. Hugh McGuire, of Alexandria, Va., and it is reported through their courtesy. The patient, a white boy aged 8, was bitten December 13, 1912, by a large bulldog whose identity is uncertain. The wound was a severe laceration of the right cheek, about 4 inches long, irregular, and reaching nearly to the corner of the mouth. It was cleaned, irrigated with corrosive sublimate solution, and sutured on the day of the occurrence. No abnormalities were noted in healing. On the evening of February 10, 1913—the sixtieth day after the bite—the child was taken sick with pain in the region of the wound and in the throat, some pain in the abdomen and left ear, and vomiting. Spasms on attempting to drink soon became pro-

nounced and it was stated that the patient had taken nothing by mouth since the onset of symptoms save a small part of a hypnotic dose. There was said to have been no bowel movement since 48 hours before onset. The outstanding symptoms had been the severe and frequent spasms of deglutition and the vomiting.

When seen by the writer at noon of February 13, two and a half days after onset, the condition of the patient was said to be improved. He was conscious and rational, very weak, but moved all parts of his body in bed, somewhat restlessly. The right cheek presented the red scar of the wound above described. His articulation was not distinct though his jaws and lips moved readily. He said that he was not suffering much and no marked tenderness was found, only general irritability. There was no paralysis made out, and the throat and abdomen were normal. The tongue had a thick, moist, greenish coat; salivary secretion was slightly increased, but to no such degree as is often noticed in rabies. The axillary temperature was 100.4 and the pulse about 180, but feeble and at times imperceptible at the wrist. Even when lying quietly in bed there were slight spastic movements of the throat and mouth muscles; these were increased by fanning, and the patient complained when fanned. He reached for a glass of water as if thirsty, but the spasm was much increased when the water touched his lips, so that none reached the mucous membrane. He said that the feeling of water on the scar was painful. By means of a spoon some water was introduced into his mouth, and immediately a violent convulsion began, involving principally the throat, face, and head muscles, with respiratory spasm. This lasted for about half a minute.

In this case as in the majority of cases the typical symptom of spasm or convulsion at attempted or even suggested deglutition of water was the one sign which made the diagnosis clear. There was no possibility of feigning or hysteria; a critical observer of the patient could not consider lyssophobia here. The length of the incubation period would exclude tetanus were it not for the fact that an unnoticed injury may have been received subsequent to the dog bite; however, the muscles of mastication were not involved and the jaw could be opened readily. There was no definite evidence of meningeal irritation, such as stiffness of the neck, nor of breaks in the reflex arcs, as would have been expected in a case of poliomyelitis. The history as well as the local examination excluded irritability from a local injury to the throat.

The boy died at 4 a. m., February 14, two months after the injury and three days after onset of symptoms. No autopsy was obtainable. This is the third known death¹ from hydrophobia in Alexandria and

¹ The other cases were reported, one by Anderson and Goldberger in *Medical Record*, June 12, 1909, and the other by G. T. Vaughan in *Washington Medical Annals*, 1912-13, vol. 11, 168-170.

vicinity in the last five years. None of the patients had received antirabic treatment.

The writer can not conclude this clinical report without remarking on the number of unmuzzled dogs seen at large in the streets of Alexandria, in spite of the fact that the progress of rabies through the United States would indicate that hardly any region can be considered free from infection.¹ The disease in man appeals particularly to the instincts of prevention in that children are the most frequent victims. It is to be hoped that public sentiment in this country may soon be awakened to the extent that an unmuzzled, unleashed dog at large will be a rarity—and thus many valuable animals be saved, as well as the lives of many children.

¹ J. W. Kerr and A. M. Stimson, Public Health Bulletin No. 29, and A. M. Stimson, Public Health Reports, July 12, 1912.

PREVALENCE OF DISEASE.

IN CERTAIN STATES AND CITIES.

SMALLPOX.

State Reports for January, 1913.

Place.	Number of new cases reported during month.	Vaccination history of cases.			
		Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
Massachusetts: ¹					
Essex County—					
Lynn.....	4		1	2	1
Salisbury.....	3				3
Hampshire County—					
South Hadley.....	1			1	
Middlesex County—					
Lowell.....	1				1
Total.....	9		1	3	5
Michigan: ¹					
Allegan County—					
Otsego.....	1			1	
Berrien County—					
Lincoln Township.....	1			1	
Cheboygan County—					
Benton Township.....	1				1
Eaton County—					
Charlotte.....	1				1
Emmet County—					
Pellston.....	2				2
Genesee County—					
Flint.....	1				1
Gratiot County—					
Wheeler Township.....	6			6	
St. Louis.....	1				1
Ingham County—					
Alaiedon Township.....	1			1	
Aurelius Township.....	4			1	3
Delhi Township.....	2			2	
Meridian Township.....	2			2	
Onondaga Township.....	2		1	1	
Stockbridge Township.....	1			1	
Vevay Township.....	1				1
White Oak Township.....	4				4
Williamston Township.....	1				1
Lansing.....	2			1	1
Mason.....	3				3
Kent County—					
Sparta.....	3		2	1	
Lapeer County—					
Burnside Township.....	3			3	
North Branch Township.....	2			1	1
Lenawee County—					
Blissfield Township.....	1			1	
Menominee County—					
Menominee.....	1				1

¹ No deaths from smallpox were recorded during the month of January.

SMALLPOX—Continued.

State Reports for January, 1913—Continued.

Place.	Number of new cases reported during month.	Vaccination history of cases.			
		Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
Michigan—Continued.¹					
Monroe County—					
Bedford Township.....	1			1	
Whiteford Township.....	2			2	
Monroe.....	8		2	5	1
Newaygo County:					
Denver Township.....	2				2
Fremont.....	1				1
Oakland County:					
Avon Township.....	1			1	
Otsego County:					
Charlton Township.....	6			3	3
Sanilac County:					
Bridgehampton Township.....	3			2	1
Shiawassee County:					
Perry.....	1			1	
St. Clair County:					
Marine City.....	1			1	
Tuscola County:					
Elkland Township.....	1			1	
Wayne County:					
Hamtramck Township.....	4			4	
Detroit.....	50			40	10
Hamtramck.....	2		1	1	
Highland Park.....	3			3	
St. Clair Heights.....	2			1	1
Wyandotte.....	43	2	4	28	9
Total.....	178	2	10	117	49
Minnesota:¹					
Aitkin County—					
Quadna Township.....	5				5
Blue Earth County—					
Decoria Township.....	1			1	
Lake Crystal.....	1			1	
Mankato.....	17		1	16	
Mapleton.....	4			4	
Carlton County—					
Moose Lake.....	1			1	
Chippewa County—					
Montevideo.....	5			5	
Tunberg Township.....	1			1	
Clearwater County—					
Eddy Township.....	2			2	
Leon Township.....	3			3	
Dakota County—					
Mendota.....	12			12	
Mendota Township.....	3				3
Nininger Township.....	2		1	1	
Rosemount Township.....	1			1	
South St. Paul.....	5			5	
West St. Paul.....	3			1	2
Dodge County—					
Westfield Township.....	2			2	
Fillmore County—					
Jordan Township.....	1			1	
Spring Valley Township.....	2				2
Hennepin County—					
Minneapolis.....	78			77	1
Plymouth Township.....	1			1	
Kanabec County—					
Ogilvie.....	1			1	
Koochiching County—					
Grand Falls Township.....	1			1	
Le Sueur County—					
Kilkenny Township.....	1			1	
Lincoln County—					
Limestone Township.....	6			6	

¹ No deaths from smallpox were recorded during the month of January.

SMALLPOX—Continued.

State Reports for January, 1913—Continued.

Places.	Number of new cases reported during month.	Vaccination history of cases.			
		Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
Minnesota—Continued. ¹					
Lyon County—					
Eidsvold Township.....	1			1	
Island Lake Township.....	4			4	
Nordland Township.....	2			2	
Taunton.....	7			7	
McLeod County—					
Hutchinson.....	3			3	
Meeker County—					
Collinwood Township.....	6			6	
Dassel Township.....	1		1		
Union Grove Township.....	9			9	
Mower County—					
Austin.....	16		1	15	
Red Rock Township.....	2			2	
Windom Township.....	1			1	
Nicollet County—					
North Mankato.....	3			3	
Olmsted County—					
Farmington Township.....	4			4	
Haverhill Township.....	4			4	
Oronoco Township.....	9			9	
Pleasant Grove Township.....	4			4	
Rochester.....	7		2	5	
Otter Tail County—					
Richville Township.....	13		1	12	
Pine County—					
Hinckley.....	1			1	
Windemere Township.....	8		1	7	
Polk County—					
McIntosh.....	1				1
Mentor.....	54	1	8	43	2
Ramsey County—					
New Canada Township.....	8			8	
St. Paul.....	51	3	7	14	27
Redwood County—					
Revere Township.....	1		1		
Rice County—					
Faribault.....	30	1	1	25	3
St. Morristown.....	1			1	
St. Louis County—					
Buhl.....	1			1	
Duluth.....	33			33	
Virginia.....	7			7	
Scott County—					
Belleplaine.....	1			1	
Jordan.....	1			1	
Sibley County—					
Arlington.....	1			1	
Steele County—					
Blooming Prairie.....	6		1	5	
Blooming Prairie Township.....	2			2	
Clinton Falls Township.....	4			2	2
Deerfield Township.....	2			2	
Havana Township.....	2			2	
Owatonna.....	1	1			
Washington County—					
Oneka Township.....	1			1	
Stillwater.....	30		5	25	
Stillwater Township.....	2			2	
Watsonwan County—					
Madelia Township.....	1		1		
Riverdale Township.....	1			1	
Wright County—					
Stockholm Township.....	3			2	1
Yellow Medicine County—					
Canby.....	3		1	2	
Lisbon Township.....	1			1	
Omro Township.....	5			5	
Stony Run Township.....	2		1	1	
Swede Prairie Township.....	1			1	
Total.....	521	6	34	432	49

¹ No deaths from smallpox were recorded during the month of January.

California—Imperial County.

Acting Asst. Surg. Richter, of the Public Health Service, reported by telegraph February 22, 1913, that 3 new cases of smallpox had been notified in Imperial County during the week ended February 22.

New York—Niagara Falls.

Acting Asst. Surg. Bingham, of the Public Health Service, reported by telegraph February 22, 1913, that 8 new cases of smallpox had been reported in Niagara Falls during the week ended February 22, 1913.

Pennsylvania—Allegheny Home, Woodville.

Surg. Stoner, of the Public Health Service, reported February 19, 1913, that 4 new cases of smallpox had been notified, the last on February 9, in the Allegheny Home at Woodville, making a total of 19 cases reported in that institution since the beginning of the outbreak, January 23, 1913.

Texas—Galveston.

Surg. Guiteras, of the Public Health Service, reported by telegraph February 22, 1913, that 1 new case of smallpox had been reported in Galveston February 18.

Miscellaneous State Reports.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Iowa (Jan. 1-31):			Kansas (Jan. 1-31):		
Counties—			Counties—		
Adair.....	3	.....	Clay.....	7	.....
Audubon.....	2	.....	Crawford.....	1	.....
Benton.....	4	.....	Elk.....	6	.....
Boone.....	3	.....	Harvey.....	1	.....
Calhoun.....	3	.....	Leavenworth.....	1	.....
Cerro Gordo.....	2	.....	McPherson.....	1	.....
Chickasaw.....	1	.....	Montgomery.....	9	.....
Clarke.....	1	.....	Osborne.....	6	.....
Dallas.....	26	.....	Reno.....	1	.....
Emmet.....	13	.....	Sedgwick.....	1	.....
Hamilton.....	6	.....	Sheridan.....	4	.....
Hancock.....	4	.....	Thomas.....	1	.....
Harrison.....	5	.....	Wyandotte.....	2	.....
Henry.....	1	.....	Total.....	41	.....
Humbolt.....	1	.....		
Jasper.....	2	.....	North Dakota (Jan. 1-31):		
Keokuk.....	1	.....	Counties—		
Kossuth.....	2	.....	Billings.....	1	.....
Lee.....	2	.....	Burleigh.....	4	.....
Linn.....	1	.....	Cass.....	2	.....
Lyon.....	1	.....	Emmons.....	5	.....
Madison.....	1	.....	Morton.....	4	.....
Monona.....	11	.....	Total.....	16	.....
Montgomery.....	2	.....		
Polk.....	80	.....		
Pottawattamie.....	5	.....		
Sac.....	1	.....		
Sioux.....	1	.....		
Story.....	3	.....		
Webster.....	38	.....		
Winnebago.....	1	.....		
Total.....	227	.....		

SMALLPOX—Continued.

City Reports for Week Ended Feb. 8, 1913.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Ann Arbor, Mich.	7	.....	Moline, Ill.	1	.....
Baltimore, Md.	9	.....	New Orleans, La.	.....	1
Berkeley, Cal.	2	.....	New York, N. Y.	1	.....
Butte, Mont.	3	.....	Niagara Falls, N. Y.	4	.....
Cambridge, Ohio.	3	.....	Oakland, Cal.	5	.....
Chicago, Ill.	2	.....	Omaha, Nebr.	14	.....
Duluth, Minn.	14	.....	St. Louis, Mo.	1	.....
Evansville, Ind.	25	.....	San Diego, Cal.	1	.....
Kalamazoo, Mich.	1	.....	San Francisco, Cal.	1	.....
Kearny, N. J.	1	.....	Spokane, Wash.	6	.....
Knoxville, Tenn.	9	.....	Superior, Wis.	3	.....
La Crosse, Wis.	1	.....	Taunton, Mass.	1	.....
Lexington, Ky.	1	.....	Toledo, Ohio.	4	.....
Los Angeles, Cal.	2	.....	Washington, D. C.	1	.....
Manchester, N. H.	1	.....	Zanesville, Ohio.	4	.....
Milwaukee, Wis.	13	.....		

TYPHOID FEVER.

State Reports for January, 1913.

Place.	Number of new cases reported during month.	Place.	Number of new cases reported during month.
Indiana:		Kansas—Continued.	
Allen County	1	Hamilton County	1
Bartholomew County	2	Hodgman County	1
Cass County	5	Jackson County	1
Clark County	3	Jewell County	.....
Daviess County	3	Labette County	2
Elkhart County	4	Morris County	1
Floyd County	2	Neosho County	1
Gibson County	1	Pratt County	4
Hamilton County	1	Reno County—	.....
Hancock County	1	Hutchinson	1
Hendricks County	1	Wyandotte County—	.....
Jackson County	1	Kansas City	5
Jefferson County	1	Total	32
Jennings County	1		
Johnson County	6	Massachusetts:	
Lake County	9	Berkshire County—	.....
Lawrence County	2	Beckett	1
Madison County	1	Pittsfield	6
Marion County	5	Bristol County—	.....
Montgomery County	1	Easton	1
Newton County	2	Fall River	4
Noble County	1	New Bedford	4
Parke County	4	Taunton	1
Perry County	1	Essex County—	.....
Porter County	1	Haverhill	1
Scott County	1	Lawrence	12
St. Joseph County	4	Lynn	1
Tipton County	1	Methuen	1
Vanderburgh County	2	Franklin County—	.....
Vigo County	1	Leverett	2
Washington County	1	Hampden County—	.....
Wayne County	1	Chicopee	6
Wells County	2	Springfield	8
White County	1	Westfield	1
Total	74	Middlesex County—	.....
Kansas:		Arlington	1
Atchison County—	.....	Cambridge	5
Atchison	1	Everett	1
Barber County	1	Lexington	5
Bourbon County	2	Lowell	7
Fort Scott	2	Norfolk County—	.....
Butler County	2	Milton	1
Cowley County	1	Stoughton	6
Ellis County	3	Plymouth County—	.....
Franklin County	1	Brockton	2
Greenwood County	1	Whitman	1

TYPHOID FEVER—Continued.

State Reports for January, 1913—Continued.

Place.	Number of new cases reported during month.	Place.	Number of new cases reported during month.
Massachusetts—Continued.		Michigan—Continued.	
Suffolk County—		Marquette County—Continued.	
Boston.....	20	Negaunee.....	1
Chelsea.....	28	Midland County—	
Winthrop.....	1	Ingersoll Township.....	1
Worcester County—		Mason County—	
Gardner.....	7	Ludington.....	1
Hubbardston.....	1	Newaygo County—	
Leominster.....	1	Fremont.....	1
Princeton.....	5	Oakland County—	
Southbridge.....	2	Pontiac.....	2
Spencer.....	5	Oceana County—	
Sterling.....	4	Hesperia.....	2
Winchendon.....	3	Osceola County—	
Worcester.....	1	Richmond Township.....	1
Total.....	156	Presque Isle County—	
Michigan:		Onaway.....	1
Allegan County—		Saginaw County—	
Oshtemo.....	1	Albee Township.....	1
Alpena County—		Saginaw.....	4
Green Township.....	1	Shiawassee County—	
Long Rapids Township.....	1	Bennington Township.....	1
Alpena.....	1	Middlebury Township.....	1
Antrim County—		Vernon Township.....	1
Bellaire.....	2	St. Clair County—	
Berrien County—		Clyde Township.....	1
Benton Harbor.....	6	Wayne County—	
St. Joseph.....	2	Detroit.....	16
Calhoun County—		Wyandotte.....	6
Athens.....	1	Total.....	100
Charlevoix County—		Minnesota:	
St. James Township.....	1	Aitkin County—	
Cheboygan County—		Aitkin.....	2
Cheboygan.....	2	Becker County—	
Cass County—		White Earth (Indian reserva- tion).....	7
Ontwa Township.....	1	Frazee.....	1
Delta County—		Dakota County—	
Wells Township.....	1	Empire Township.....	2
Gladstone.....	1	Hennepin County—	
Eaton County—		Minneapolis.....	7
Brookfield Township.....	3	Plymouth Township.....	1
Genesee County—		Lac Qui Parle County—	
Fenton.....	1	Madison.....	1
Flint.....	1	Le Sueur County—	
Grand Traverse County—		Le Sueur.....	2
Traverse City.....	1	Lincoln County—	
Gratiot County—		Ivanhoe.....	1
Fulton Township.....	2	Lake Benton.....	1
Ithaca.....	1	Lyon County—	
Huron County—		Marshall.....	1
Caseville.....	1	Nicollet County—	
Ingham County—		St. Peter.....	1
Delhi Township.....	1	Otter Tail County—	
Lansing.....	2	Fergus Falls.....	7
Isabella County—		Polk County—	
Mount Pleasant.....	1	Angus Township.....	1
Iosco County—		Crookston.....	2
Whittemore.....	1	Ramsey County—	
Jackson County—		St. Paul.....	3
Jackson.....	1	Red Lake County—	
Kent County—		Equality Township.....	1
Byron Township.....	1	Roseau County—	
Grand Rapids.....	13	Roseau.....	1
Leelanau County—		St. Louis County—	
Suttons Bay.....	1	Duluth.....	1
Lenawee County—		Hibbing.....	1
Riga Township.....	1	Virginia.....	1
Livingston County—		Sherburne County—	
Brighton.....	1	Livonia Township.....	1
Manistee County—		Stearns County—	
Brown Township.....	1	Farming Township.....	1
Marquette County—		Freeport.....	1
Powell Township.....	1	Total.....	48
Ishpeming.....	2		
Marquette.....	1		

CEREBROSPINAL MENINGITIS.**State Reports for January, 1913.**

Place.	Number of new cases reported during month.	Place.	Number of new cases reported during month.
Indiana:		Massachusetts:	
Delaware County.....	1	Bristol County—	
Gibson County.....	1	Dartmouth.....	1
Total.....	2	New Bedford.....	1
		Essex County—	
Iowa:		Haverhill.....	1
Harrison County.....	6	Hampden County—	
Monona County.....	1	East Longmeadow.....	1
Pottawattamie County.....	3	Middlesex County—	
Total.....	10	Cambridge.....	1
		Lowell.....	1
Kansas:		Reading.....	1
Cowley County.....	1	Woburn.....	1
Crawford County—		Plymouth County—	
Pittsburg.....	1	Brockton.....	2
Shawnee County—		Suffolk County—	
Topeka.....	1	Boston.....	2
Wyandotte County—		Norfolk County—	
Kansas City.....	4	Sharon.....	1
Total.....	7	Worcester County—	
		Gardner.....	1
		Total.....	14

Arizona—Tucson.

Acting Asst. Surg. Crepen, of the Public Health Service, reported by telegraph February 22, 1913, that 3 cases of cerebrospinal meningitis, with 2 deaths, had been notified in Tucson since February 17.

California—Los Angeles.

Senior Surg. Brooks, of the Public Health Service, reported by telegraph February 24, 1913, that 3 new cases of cerebrospinal meningitis, with 2 deaths, had been notified in Los Angeles during the week ended February 22.

Cases and Deaths Reported by Cities for Week Ended Feb. 8, 1913.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Baltimore, Md.....	1	3	New York, N. Y.....	9	5
Chicago, Ill.....	1		Omaha, Nebr.....	1	
Cincinnati, Ohio.....	3	2	Reading, Pa.....	1	
Cleveland, Ohio.....	3	3	Roanoke, Va.....	1	1
Los Angeles, Cal.....	2		St. Louis, Mo.....		1
Newark, N. J.....	1		San Francisco, Cal.....	2	1
New Orleans, La.....	2	2	Saratoga Springs, N. Y.....	1	1

POLIOMYELITIS (INFANTILE PARALYSIS).**State Reports for January, 1913.**

Place.	Number of new cases reported during month.	Place.	Number of new cases reported during month.
Indiana:		Massachusetts—Continued.	
Allen County.....	1	Plymouth County—	
Clay County.....	1	Mattapoisset.....	1
Johnson County.....	1	Worcester County—	
Total.....	3	Northbridge.....	1
Iowa:		Total.....	4
Adair County.....	1	Michigan:	
Allamakee County.....	1	Calhoun County—	
Total.....	2	Battle Creek.....	1
Kansas:		Minnesota:	
Greenwood County.....	1	Olmsted County—	
Harvey County.....	1	Oronoco Township.....	1
Jackson County.....	1	Wright County—	
Wallace County.....	1	Cokato.....	1
Washington County.....	1	Total.....	2
Total.....	5	Rhode Island:	
Massachusetts:		Providence County—	
Essex County—		Providence.....	1
Lawrence.....	1	Total.....	1
Salem.....	1		

Cases and Deaths Reported by Cities for Week Ended February 8, 1913.

During the week ended February 8, 1913, poliomyelitis was reported by cities as follows: Cleveland, Ohio, 1 case; Los Angeles, Cal., 1 case; New York, N. Y., 2 deaths; Schenectady, N. Y., 1 case.

ERYSIPELAS.**Cases and Deaths Reported by Cities for Week Ended Feb. 8, 1913.**

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Baltimore, Md.....	1	1	New Castle, Pa.....	1	.....
Binghamton, N. Y.....	3	.....	New Orleans, La.....	.....	1
Buffalo, N. Y.....	8	2	New York, N. Y.....	.....	7
Chicago, Ill.....	12	5	Oklahoma, Okla.....	1	.....
Cincinnati, Ohio.....	9	1	Omaha, Nebr.....	1	.....
Cleveland, Ohio.....	17	2	Passaic, N. J.....	1	.....
Concord, N. H.....	.....	1	Philadelphia, Pa.....	11	3
Dayton, Ohio.....	1	.....	Pittsburgh, Pa.....	13	2
Erie, Pa.....	2	.....	Reading, Pa.....	3	.....
Kalamazoo, Mich.....	1	.....	Rutland, Vt.....	1	.....
Lancaster, Pa.....	1	.....	St. Louis, Mo.....	12	1
Los Angeles, Cal.....	5	.....	San Francisco, Cal.....	5	.....
Milwaukee, Wis.....	1	.....	Toledo, Ohio.....	.....	1
New Bedford, Mass.....	.....	1	Yonkers, N. Y.....	1	1

PELLAGRA.**Cases and Deaths Reported by Cities for Week Ended February 8, 1913.**

During the week ended February 8, 1913, pellagra was reported by cities as follows: Lexington, Ky., 1 death; Lynchburg, Va., 1 death.

PNEUMONIA.

Cases and Deaths Reported by Cities for Week Ended Feb. 8, 1913.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Alameda, Cal.	1	3	Marinette, Wis.		1
Altoona, Pa.		2	Marlboro, Mass.		2
Auburn, N. Y.	2	2	Medford, Mass.		1
Aurora, Ill.		2	Moline, Ill.		2
Baltimore, Md.	20	2	Mount Vernon, N. Y.	2	
Bayonne, N. J.		2	Nashville, Tenn.		1
Berkeley, Cal.		2	Newark, N. J.		7
Binghamton, N. Y.	13	5	New Castle, Pa.	2	
Boston, Mass.		40	New Orleans, La.		17
Braddock, Pa.	2		Newton, Mass.		1
Bridgeport, Conn.		3	New York, N. Y.		167
Buffalo, N. Y.		6	Norristown, Pa.		1
Butte, Mont.	1	1	North Adams, Mass.		1
Cambridge, Mass.		10	Oakland, Cal.		5
Chelsea, Mass.	1	1	Oklahoma, Okla.		3
Chicago, Ill.	58	143	Omaha, Nebr.		6
Chicopee, Mass.		4	Passaic, N. J.		4
Cincinnati, Ohio.		14	Pawtucket, R. I.		3
Cleveland, Ohio.	38	15	Philadelphia, Pa.	36	74
Coffeyville, Kans.	1		Pittsburgh, Pa.	20	38
Columbus, Ga.		3	Pittsfield, Mass.		5
Columbus, Ind.		1	Plainfield, N. J.		1
Concord, N. H.		1	Portsmouth, Va.		2
Cumberland, Md.		2	Providence, R. I.		14
Danville, Ill.		1	Reading, Pa.		6
Dayton, Ohio.		6	Richmond, Va.		8
Elizabeth, N. J.		3	Roanoke, Va.		2
Elmira, N. Y.	1	1	Saginaw, Mich.	1	
Erie, Pa.		2	St. Joseph, Mo.		5
Evansville, Ind.		2	Salem, Mass.		5
Everett, Mass.		2	San Diego, Cal.	3	3
Fall River, Mass.		8	San Francisco, Cal.	17	
Galesburg, Ill.		2	Saratoga Springs, N. Y.		1
Grand Rapids, Mich.		1	Schenectady, N. Y.	10	2
Harrisburg, Pa.		2	South Bethlehem, Pa.	1	1
Haverhill, Mass.	4	4	Spokane, Wash.		2
Jersey City, N. J.		7	Springfield, Mass.		4
Kalamazoo, Mich.	12	3	Superior, Wis.		3
Knoxville, Tenn.		2	Taunton, Mass.		3
La Crosse, Wis.		1	Toledo, Ohio.		4
Lancaster, Pa.	1		Waltham, Mass.		2
Lexington, Ky.		3	Washington, D. C.		6
Los Angeles, Cal.	3	27	Wheeling, W. Va.		1
Lowell, Mass.		3	Wilkes-Barre, Pa.	1	2
Lynchburg, Va.		1	Wilkinsburg, Pa.	2	
Lynn, Mass.		5	Wilmington, N. C.	1	1
Malden, Mass.		2	Yonkers, N. Y.		1
Manchester, N. H.	4	4			

TETANUS.

Cases and Deaths Reported by Cities for Week Ended Feb. 8, 1913.

During the week ended February 14, 1913, tetanus was reported by cities as follows: Boston, Mass., 1 death; Milwaukee, Wis., 1 death; New Orleans, La., 1 death; Philadelphia, Pa., 2 cases, 2 deaths.

SCARLET FEVER, MEASLES, DIPHTHERIA, AND TUBERCULOSIS.

State Reports for January, 1913.

	Scarlet fever.	Measles.	Diphtheria.
Indiana.....	540	1,142	400
Iowa.....	109		117
Kansas.....	233	229	71
Massachusetts.....	961	3,238	605
Michigan.....	429	607	444
Minnesota.....	264	338	222
North Dakota.....	28	40	23

Pittsburgh—Measles.

Surg. Stoner, of the Public Health Service, reported by telegraph February 22, 1913, that during the week ended February 15 there had been notified in Pittsburgh 539 cases of measles, with 6 deaths, making a total of 5,070 cases, with 71 deaths, since the beginning of the outbreak November 1, 1912.

SCARLET FEVER, MEASLES, DIPHTHERIA, AND TUBERCULOSIS—Contd

Cases and Deaths Reported by Cities for Week Ended Feb. 8, 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	214	33	2	97	.....	35	1	37	23
Boston, Mass.	670,585	203	45	5	190	2	35	.....	60	18
Chicago, Ill.	2,185,283	745	266	27	671	13	361	42	161	85
Cleveland, Ohio.	560,663	155	62	6	94	1	20	.....	24	9
New York, N. Y.	4,766,883	1,568	338	38	459	9	291	13	446	160
Philadelphia, Pa.	1,549,008	521	80	15	630	5	116	3	81	46
Pittsburgh, Pa.	533,905	208	30	5	500	3	35	2	28	19
St. Louis, Mo.	687,029	228	64	3	366	4	30	.....	40	33
From 300,000 to 500,000 inhabit- ants:										
Buffalo, N. Y.	423,715	86	13	1	7	.....	10	.....	26	4
Cincinnati, Ohio.	364,463	149	14	1	185	8	9	.....	20	20
Los Angeles, Cal.	319,198	147	8	.....	34	1	10	.....	30	32
Milwaukee, Wis.	373,857	107	23	3	15	.....	18	1	16	12
Newark, N. J.	347,469	108	64	1	22	.....	19	1	30	9
New Orleans, La.	339,075	151	23	1	88	2	4	.....	30	28
San Francisco, Cal.	416,912	128	16	.....	6	.....	12	.....	38	13
Washington, D. C.	331,069	136	4	.....	265	1	10	1	40	15
From 200,000 to 300,000 inhabit- ants:										
Jersey City, N. J.	267,779	82	.....	.....	.....	1	.....	1	.....	9
Providence, R. I.	224,326	78	10	1	3	.....	9	.....	5	7
From 100,000 to 200,000 inhabit- ants:										
Bridgeport, Conn.	102,054	25	1	.....	.....	.....	15	1	2	4
Cambridge, Mass.	104,339	40	4	.....	8	.....	1	.....	6	9
Columbus, Ohio.	181,548	55	3	.....	7	.....	9	.....	12	7
Dayton, Ohio.	116,577	.....	8	.....	1	.....	1	.....	.....	5
Fall River, Mass.	119,295	29	5	.....	6	.....	18	.....	4	3
Grand Rapids, Mich.	112,571	52	7	1	19	.....	5	1	1	3
Lowell, Mass.	106,294	30	1	1	3	.....	5	.....	4	.....
Nashville, Tenn.	110,364	32	1	.....	11	.....	2	.....	6	4
Oakland, Cal.	150,174	50	2	.....	1	.....	1	.....	.....	2
Omaha, Nebr.	124,096	29	1	1	3	.....	3	.....	5	.....
Richmond, Va.	127,628	61	3	.....	546	3	4	1	9	5
Spokane, Wash.	104,402	.....	1	.....	.....	.....	1	.....	1	.....
Toledo, Ohio.	163,497	49	11	.....	45	.....	8	.....	.....	7
Worcester, Mass.	145,986	58	11	.....	11	1	9	3	10	5
From 50,000 to 100,000 inhabit- ants:										
Altoona, Pa.	52,127	14	7	1	.....	.....	4	1	.....	1
Bayonne, N. J.	55,545	10	3	.....	3	.....	3	.....	1	.....
Brockton, Mass.	56,878	13	2	.....	7	.....	.....	.....	11	1
Camden, N. J.	94,538	.....	10	.....	33	.....	12	.....	12	.....
Duluth, Minn.	78,466	15	.....	.....	1	.....	8	.....	.....	1
Elizabeth, N. J.	73,409	30	3	.....	10	.....	2	.....	2	5
Erie, Pa.	66,525	19	5	1	22	.....	5	1	1	2
Evansville, Ind.	69,647	.....	7	1	.....	.....	33	.....	1	5

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

Cases and Deaths Reported by Cities for Week Ended Feb.-8, 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.										
Reading, Pa.	96,071	30	4		93	1			4	2
Saginaw, Mich.	50,510	33	2	1	20	4			7	1
St. Joseph, Mo.	77,403	26	1		4				2	
Schenectady, N. Y.	72,826	15	2		9	18	2		13	2
South Bend, Ind.	53,684	21	1			2			3	3
Springfield, Mass.	88,926	23	2	1	16	12			1	1
Trenton, N. J.	96,815	51	12	1	22	4	2		10	9
Wilkes-Barre, Pa.	67,105	28	9	2		2			4	4
Yonkers, N. Y.	79,803	16	12	1	3	5			6	1
From 25,000 to 50,000 inhabit- ants:										
Atlantic City, N. J.	46,150	13	3		2				2	
Auburn, N. Y.	34,668	12			26	2			3	
Aurora, Ill.	29,807	8	2							
Berkeley, Cal.	40,434	5	2			1				
Binghamton, N. Y.	48,443	24	1		2	3		2		3
Butte, Mont.	39,165	17	3		6	8				4
Chelsea, Mass.	32,452	19		1	1	1		5		1
Chicopee, Mass.	25,401	11	1		4	1				2
Danville, Ill.	27,871	4	1			1				1
East Orange, N. J.	34,371		2			1				1
Elmira, N. Y.	37,176	12			14	4		2		2
Everett, Mass.	33,484	13	2		14	13	2		2	4
Haverhill, Mass.	44,115	15	1		120	6			1	
Kalamazoo, Mich.	39,437	22							3	
Knoxville, Tenn.	36,346	10			5					1
La Crosse, Wis.	30,417	13				1				1
Lancaster, Pa.	47,227				11	3		2		
Lexington, Ky.	35,099	11			3					
Lynchburg, Va.	29,494	7			44	1		5		
Malden, Mass.	44,404	11	5	1	11	3		1		1
Mount Vernon, N. Y.	30,919		1		3	1		1		
Newcastle, Pa.	36,280		5		15	2		7		
Newton, Mass.	39,806	7	1		1	3				
Niagara Falls, N. Y.	30,445	9	3		70	2				
Norristown, Pa.	27,875	7	1	1	1					1
Orange, N. J.	29,630	10	2			2				
Pasadena, Cal.	30,291	9								2
Pittsfield, Mass.	32,121	16	1			1		2		
Portsmouth, Va.	33,190	8	3							
Racine, Wis.	38,002	14	1			1				
Roanoke, Va.	34,874		1		11	2	1	2		2
Salem, Mass.	43,697	12	2			2	1			
San Diego, Cal.	39,578	5	1					2		2
South Omaha, Nebr.	26,259	4								
Superior, Wis.	40,384	14								2
Taunton, Mass.	34,259	15				3				1
Waltham, Mass.	27,834	6	8			2			1	
West Hoboken, N. J.	35,403		11		7	3		2		
Wheeling, W. Va.	41,641	13	1		29	1		1		
Williamsport, Pa.	31,860	4		1	2					
Wilmington, N. C.	25,748	13	1					1		3
York, Pa.	44,750		3	1	41		2			
Zanesville, Ohio	28,026	12				1				1
Less than 25,000 inhabitants:										
Alameda, Cal.	23,833	6	1		1		1		1	
Ann Arbor, Mich.	14,817	5			3		2			
Beaver Falls, Pa.	12,191				2		1			
Biddeford, Me.	17,079	3								
Braddock, Pa.	17,759		2		14		2		2	
Cambridge, Ohio.	17,327	2								1
Clinton, Mass.	13,075	3	2	1	47	1				
Columbus, Ga.	20,554	9								1
Columbus, Ind.		1								
Concord, N. H.	21,479	10			30		2			1
Cumberland, Md.	21,839	11	2		5		2		2	
Dunkirk, N. Y.		2							1	1
Galesburg, Ill.	22,089	4								
Harrison, N. J.	14,489		1						4	
Kearny, N. J.	18,659	4			5		4			
La Fayette, Ind.	20,081	3								

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

Cases and Deaths Reported by Cities for Week Ended Feb. 8, 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.
Less than 25,000 inhabitants— Continued.										
Marinette, Wis.....	14,610	2								
Marlboro, Mass.....	14,759	4							1	1
Medford, Mass.....	23,150				39		3			
Melrose, Mass.....	15,715	6							3	
Moline, Ill.....	24,190	11								
Nanticoke, Pa.....	18,857	2	1		7					
Newburyport, Mass.....	19,240	3								1
North Adams, Mass.....	22,019	8			3					1
Northampton, Mass.....	19,931	8			1		3		1	
Ottumwa, Iowa.....	23,012	10	13	2			4			1
Palmer, Mass.....		4								
Plainfield, N. J.....	23,550	4							1	
Rutland, Vt.....	13,546				77					
Saratoga Springs, N. Y.....		2								
South Bethlehem, Pa.....		8	1	1	5				1	
Springfield, Ohio.....			2				3			
Steelton, Pa.....	14,476	1	4		1		1			
Wilkinsburg, Pa.....		5			3				2	
Woburn, Mass.....	18,594	2			1		1			

IN INSULAR POSSESSIONS.

PHILIPPINE ISLANDS.

Summary of Plague.

Passed Asst. Surg. Heiser, chief quarantine officer and director of health for the Philippine Islands, reported January 8: The total number of cases of plague reported in the Philippine Islands from the beginning of the outbreak in June, 1912, to December 25, 1912, was 58. Of this number, 50 cases occurred on Manila and 8 in Iloilo. The last case at Iloilo occurred September 16, 1912, and the last at Manila December 25, 1912. No case of plague has been reported in the islands since December 25, 1912.

PORTO RICO.

Plague Situation.

Passed Asst. Surg. Creel reports:

RATS EXAMINED FEB. 1 TO 3, 1913.

Places.	Rats examined.	Rats found infected.
All Porto Rico.....	1,196	.....
San Juan municipality:		
San Juan.....	165	.....
Puerta de Tierra.....	86	.....
Santurce.....	243	.....

The last case of plague in man occurred at San Juan September 12, 1912; the last plague-infected rat was found at Caguas December 19, 1912.

FOREIGN REPORTS.

BRAZIL.

Bahia—Yellow Fever.

The American consul reports February 23 the occurrence at Bahia of 5 cases of yellow fever since February 3, making a total from January 24 of 9 cases.

CHINA.

Amoy—Plague.

Acting Asst. Surg. Bonthius reports, January 17: Plague is present in Amoy city and vicinity. Three cases have been reported in the international settlement on Kulangsu Island.

Hongkong—Examination of Rats.

Surg. Brown reports: During the week ended January 11 there were examined at Hongkong for plague infection 1,689 rats. No plague-infected rat was found.

ECUADOR.

Guayaquil—Plague and Yellow Fever.

Passed Asst. Surg. Parker reports February 24: During the past week plague and yellow fever were reported in Guayaquil as follows: Plague, 22 cases with 11 deaths; yellow fever, 16 cases with 11 deaths; total from January 1, plague 123 cases with 61 deaths; yellow fever 124 cases with 69 deaths.

PERU.

Status of Plague.

During the period from December 23, 1912, to January 12, 1913, there were reported in Peru 55 new cases of plague. Of this number 19 cases occurred in the vicinity of Trujillo and 17 in Chiclayo, capital of the department of Lambeyeque.

RUSSIA.

Odessa—Cholera.

According to information received from the foreign office at St. Petersburg through Ambassador Guild, two cases of cholera were reported at Odessa on January 2 and 7, respectively. The total number of cases at Odessa from December 26, 1912, to January 7, 1913, was 4, with one death.

ZANZIBAR.

Declared Free From Cholera.

The island of Zanzibar was officially declared free from cholera January 7, no case having occurred since December 23, 1912. The town of Zanzibar has remained free from cholera except for a few imported cases.

The cholera outbreak in Zanzibar began in August, 1912. From August 5 to December 21, 1912, a total of 391 cases with 390 deaths was reported.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX.

Reports Received During Week Ended Feb. 28, 1913.

CHOLERA.

Places.	Date.	Cases.	Deaths.	Remarks.
Bulgaria:				
Shumlia ¹	Dec. 30.....	18	.....
India:				
Bombay.....	Jan. 12-25.....	17	16	
Russia:				
Odessa.....	Dec. 26-Jan. 7.....	4	1	
Turkey in Europe:				
Constantinople.....	Jan. 28.....	1	.....	Total Nov. 5-Jan. 28: Cases, 2,515; deaths, 1,245.

YELLOW FEVER.

Brazil:				
Bahia.....				Feb. 14-23. 5 cases.
Ecuador:				
Guayaquil.....	Feb. 18-24.....	16	11	Total Jan. 1-Feb. 24: Cases, 124; deaths, 69.

PLAGUE.

Brazil:				
Bahia.....	Jan. 12-25.....	4	1	
Rio de Janeiro.....	Jan. 12-18.....	1	1	Year 1912: Cases 21.
Chile:				
Iquique.....	Jan. 5-19.....	4	2	
China:				
Amoy.....	Jan. 17.....	.....	.....	Present and in vicinity.
Kulansu.....	do.....	3	.....	International settlement of Amoy.
Ecuador:				
Guayaquil.....	Feb. 18-24.....	22	11	Jan. 1-Feb. 24: Cases, 123; deaths, 61.
India:				
Bombay.....	Jan. 12-25.....	18	13	
Mauritius.....	Dec. 6-19.....	73	46	
Peru:				
Departments—				
Arequipa.....				
Mollendo.....	Dec. 23-Jan. 12.....	8	.....	Jan. 21, 2 cases, with 1 death.
Callao.....	do.....	1	.....
Ferrinhate.....	do.....	1	.....
Lambayeque—				
Jayanca.....	do.....	.....	.....	Present.
Libertad—				
Cosma.....	Dec. 2-22.....	.....	.....	Do.
Pailjan.....	do.....	.....	.....	Do.
Salaverry.....	Dec. 23-Jan. 12.....	1	.....
San Pedro.....	do.....	2	.....
Trujillo.....	do.....	19	.....

¹ From the Veröffentlichungen des Kaiserlichen Gesundheitsamtes, Jan. 8, 1913.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.**Reports Received During Week Ended Feb. 28, 1913—Continued.****PLAGUE—Continued.**

Places.	Date.	Cases.	Deaths.	Remarks.
Peru—Continued.				
Departments—Continued.				
Lima.....	Dec. 23-Jan. 12....	2		
Lima.....	.....do.....	4		
Piura—				
Catacaos.....	Dec. 2-Jan. 12....			Present.
Paíta.....	.....do.....			Do.
Piura.....	Dec. 23-Jan. 12....			Do.
Sulanna.....	Dec. 2-22.....			Do.

SMALLPOX.

Brazil:				
Bahia.....	Jan. 12-25.....	2		
Rio de Janeiro.....	Jan. 12-18.....	1	1	
Canada:				
Montreal.....	Feb. 8-15.....	15		
Ottawa.....	Feb. 2-8.....	5		
St. Johns.....	Feb. 8-15.....	7		
Toronto.....	Feb. 9-15.....	3		
Vancouver.....	Feb. 2-8.....	1		
Windsor.....	Feb. 9-15.....	2		
China:				
Hongkong.....	Jan. 5-11.....	3	3	
Shanghai.....	Jan. 9-13.....	2	4	
Costa Rica:				
Limon.....	Feb. 1.....	2	2	
Dutch East Indies:				
Java—				
Batavia.....	.....			Ten cases, with 5 deaths in the district, mainly in Samarang.
Egypt:				
Cairo.....	Jan. 1-7.....	1		
France:				
Paris.....	Jan. 19-25.....	2		
Germany:				
Breslau.....	.....do.....	1		
Honduras:				
Trujillo.....	Feb. 2-8.....	1		
India:				
Bombay.....	Jan. 19-25.....	5	1	
Karachi.....	Jan. 12-18.....	2		
Italy:				
Palermo.....	Jan. 29-Feb. 4....	1		
Turin.....	Feb. 3-9.....	1		
Mexico:				
Aguascalientes.....	.....do.....		2	
Chihuahua.....	Feb. 3-16.....		4	
Portugal:				
Lisbon.....	Jan. 19-Feb. 1....	8		
Straits Settlements:				
Singapore.....	Dec. 19-Jan. 4....	1		
Switzerland:				
Basel.....	Jan. 19-25.....	3		
Zanzibar.....	Jan. 1-14.....	13		

Reports Received from Dec. 27, 1912, to Feb. 21, 1913.**CHOLERA.**

Places.	Date.	Cases.	Deaths.	Remarks.
Bulgaria:				
Eski Saghra.....	Dec. 9.....	2		
Sofia.....	Nov. 21-Dec. 16...	6	1	
China—Foochow	Nov. 20-Dec. 2....			Isolated cases.
Dutch East Indies:				
Borneo—				
Pontrank.....	Oct. 6.....	1		
Samarinda.....	Oct. 9.....	1		
Singakawang.....	Oct. 8-Nov. 1.....	1	1	

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

Reports Received From Dec. 27, 1912, to Feb. 21, 1913—Continued.

CHOLERA—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Dutch East Indies—Continued.				
Java—				
Batavia.....	Nov. 9-23.....	32	21	Feb. 6, present.
Madison.....	Sept. 15-Nov. 2....	189	103	
Megalang.....	Oct. 7-12.....	9	6	
Paseroean Residency..	Sept. 20-26.....	2	1	
Samarang.....	July 19-Nov. 7....	515	423	
Surabaya.....	Oct. 16-25.....	2	1	
Sumatra—Jambi.....	Sept. 18-24.....	1	1	
India:				
Bombay.....	Nov. 17-Jan. 11...	157	113	
Calcutta.....	Nov. 9-Jan. 11...		309	
Cochin.....	Oct. 19-Nov. 9....	6	6	
Madras.....	Nov. 24-Jan. 4....	21	23	
Negapatam.....	Nov. 11-16.....	9	9	
Rangoon.....	Nov. 1-30.....	2	2	
Indo-China: Saigon.....	Aug. 20-Oct. 27...	42	38	
Japan.....				Total July 10-Jan. 14: Cases, 2,736; deaths, July 10-Dec. 31, 1,584. Nov. 1-30: Cases, 623; deaths, 397.
Aita Ken.....	Dec. 2.....	1		
Chiba Ken.....	Nov. 23-Dec. 17...	25		
Fukushima Ken.....	Dec. 5.....	1		
Hiogo Islands.....	Sept. 15-Dec. 1....	30		
Hiogo 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-Dec. 20: Cases, 53.
Yokohama.....	Nov. 24-Jan. 14...	22		Sept. 25-Dec. 7: 9 cases from vessels.
Kochi Ken.....	Nov. 28-Dec. 4....	3		
Minami Tokaki gun.....	Sept. 15-Dec. 2....	40		
Nagasaki Ken.....				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		
Shizuoka Ken.....	Dec. 3-29.....	12		
Taiwan (Formosa).....				Total Nov. 3-23: Cases, 48; deaths, 42.
Tokushima Ken.....	Sept. 15-Dec. 1....	65		Not previously reported.
Tokyo Fu.....	Nov. 23-Jan. 5....	102		
Tokyo.....				Oct. 2-Dec. 7: Cases, 273, and in vicinity, 342.
Wakumatsu Ken.....	Nov. 26.....	1		
Russia: Odessa.....				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	
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—				
Merdjion.....	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	
Mosul.....	do.....		2	

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.**Reports Received From Dec. 27, 1912, to Feb. 21, 1913—Continued.****CHOLERA—Continued.**

Places.	Date.	Cases.	Deaths.	Remarks.
Turkey in Asia—Continued.				
Sinope.....	Dec. 3-11.....	1	4	
Smyrna.....	Nov. 17-Dec. 2.....	3	1	
Tarsus.....	Nov. 24-Dec. 2.....	2	1	
Turkey in Europe:				
Constantinople.....	Dec. 3-Jan. 27.....	1,597	487	Total, Nov. 5-Jan. 27: Cases, 2,514; deaths, 1,245.
Zanzibar.....	Nov. 8-Dec. 21.....	131	130	Total, Aug. 5-Dec. 23: Cases, 943; deaths, 912, including previous reports from Mwera, Chwaka, and Mokotoni. 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-Feb. 3.....	4	1	
Manaos.....	Jan. 5-25.....	2	2	
Ecuador:				
Agua Piedra.....	Dec. 1-31.....	7	4	
Bucay.....	Nov. 15-Dec. 31.....	3	2	
Duran.....	Nov. 1-Dec. 31.....	3	3	
Guayaquil.....	do.....	25	16	
Milagro.....	do.....	2	2	
Naranjito.....	do.....	3	2	
Senegal:				
Dakar.....	Dec. 7.....			Present.
Venezuela:				
Caracas.....	Nov. 1-30.....	7	1	In September 2 deaths and in October 1 death not previously reported.

PLAGUE.

Afghanistan:				
Tchihil-Bagdareh.....	Sept. 1-30.....			And vicinity 100 deaths daily. Present to Oct. 29.
Brazil:				
Pernambuco.....	Nov. 1-Dec. 31.....		9	
Rio de Janeiro.....	Nov. 3-Jan. 4.....	10	5	
Santos.....	Dec. 1.....	2	2	
British East Africa:				
Kilambu.....	Nov. 16-Oct. 21.....	2		
Kisumu.....	Dec. 8-28.....	7		
Mombasa.....	Oct. 1-Dec. 25.....	16	12	Free Nov. 18.
Nairobi.....	Nov. 16-Dec. 25.....	3	1	
Chile:				
Iquique.....	Jan. 8.....	3	2	
Taltal.....	Oct. 22-28.....	3		
China:				
Amoy.....	Jan. 16.....			Present.
Hothow.....	Nov. 1-30.....			Do.
Manchuria.....	Dec. 14.....			Present along the railway, between Harbin and Chang-Chun.
Pakhoi.....	Dec. 1-31.....	30		
Shanghai.....	Nov. 18-Dec. 15.....		2	Dec. 18, present in vicinity of the French settlement.
Dutch East Indies:				
Java—				
Kediri.....	Oct. 6-Dec. 16.....	105	103	
Madioen.....	do.....	66	64	
Paserocean Residency.....	do.....	244	247	
Surabaya.....	do.....	10	10	
Ecuador:				
Duran.....	Nov. 1-Dec. 31.....	4	1	
Guayaquil.....	do.....	139	52	
Milagro.....	Dec. 1-31.....	8	1	

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.**Reports Received from Dec. 27, 1912, to Feb. 21, 1913—Continued.****PLAGUE—Continued.**

Places.	Date.	Cases.	Deaths.	Remarks.
Egypt.....				Total Jan. 1-Dec. 31: Cases, 884 deaths, 441, Jan. 1-16: Cases, 11; deaths, 8.
Cairo.....	Dec. 30.....	1	1	
Port Said.....	Dec. 29.....	1	1	
Do.....	Jan. 1-2.....	2	1	
Provinces—				
Behera.....	Nov. 29-Dec. 12.....	2	1	
Do.....	Jan. 1-2.....	2	1	
Charkieh.....	do.....	3	2	
Galloubeh.....	Jan. 1-7.....	1	1	
Garbieh.....	Jan. 1-16.....	1	1	
	Nov. 23-Dec. 17.....	3		
Girgeh.....	Jan. 1-3.....	1	1	
	Dec. 21-25.....	1	1	
Menouf.....	Jan. 1-9.....	5	3	
	Oct. 1-Dec. 31.....	13	7	
Minieh.....	Nov. 28-Dec. 29.....	7	4	
Hawaii:				
Kukuihaele.....	Jan. 11.....	1	1	
India:				
Bombay.....	Nov. 17-Jan. 11.....	43	39	
Calcutta.....	Nov. 9-Jan. 11.....		61	
Madras.....	Dec. 29-Jan. 4.....	1	1	
Karachi.....	Nov. 19-23.....	2	2	
Rangoon.....	Oct. 1-Nov. 30.....	68	68	
Provinces.....				Total Oct. 27-Dec. 28: Cases, 25,212; deaths, 19,863.
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	
Indo-China: Saigon.....	Aug. 20-Dec. 16.....	58	36	
Mauritius.....	Oct. 11-Nov. 14.....	129	83	
Morocco: Rabat.....	Nov. 1.....	3		Among the military.
New Caledonia:				
Numea.....	Sept. 17-Oct. 17.....	8	5	
Do.....	Oct. 29-Dec. 2.....			7 cases with 2 deaths among Europeans and 22 fatal cases among natives.
Peru:				
Departments—				
Ancachs.....	July 1-31.....	4		
Do.....	Aug. 1-31.....	4	3	
Arequipa.....	July 1-31.....	7	2	Mollendo, Nov. 17-Dec. 7: Cases, 7; deaths, 4. Jan. 10, present.
Do.....	Aug. 1-31.....	5	3	
Callao.....	July 1-31.....	1	1	Present in September; Dec. 2-22: Cases, 6.
Ica.....	do.....	1		
Lambayeque.....	Dec. 2-22.....	7		Present in September.
Libertad.....	July 1-31.....	8	2	
Do.....	Aug. 1-31.....	12	7	
San Pedro.....	Dec. 2-22.....	25		
Trujillo.....	do.....	26		
Lima.....	July 1-31.....	3	2	
Do.....	Aug. 1-31.....	4	2	Dec. 2-22: Cases, 2.
Piura.....	Dec. 2-22.....	6		Dec. 2-22: Present in Paita.
Philippine Islands:				
Manila.....	Nov. 10-Dec. 28.....	13	10	
Russia:				
Don, territory.....	Nov. 1-Jan. 12.....			In 6 localities. 38 cases with 22 deaths.
Hutor Popova (estate).....	Nov. 1-15.....	20	12	Esaul district.
Moscow.....	Dec. 29-Jan. 11.....	3	1	
Transbaikal district—				
Verneudinsk.....	Oct. 18-28.....	3	3	Near Nerchinsk.
Trans-Caspian Ty. Merv.....	Dec. 9-21.....	29	29	Pneumonic.

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

Reports Received from Dec. 27, 1912, to Feb. 21, 1913—Continued.

SMALLPOX.

Places.	Date.	Cases.	Deaths.	Remarks.
Arabia: Aden.....	Jan. 14-20.....	1		Present.
Abyssinia: Adis Ababa.....	Nov. 24-Dec. 21.....			
Algeria:				
Departments—				
Algiers.....	Oct. 1-31.....	11		
Constantine.....	do.....	11		
Oran.....	do.....	118		
Argentina: Buenos Aires.....	Nov. 1-30.....		2	
Austria-Hungary:				
Galicia.....	Nov. 10-Dec. 7.....	3		
Trieste.....	Dec. 8-Jan. 18.....	22		
Brazil:				
Para.....	do.....	2		
Pernambuco.....	Nov. 1-Dec. 31.....		135	
Rio de Janeiro.....	Nov. 3-Jan. 11.....	20	6	
British East Africa: Mombasa.....	Dec. 1-21.....	5		
Canada:				
Ontario—				
Hamilton.....	Jan. 1-31.....	31		
Ottawa.....	Jan. 4-Feb. 1.....	20		
Toronto.....	Dec. 1-21.....	5		
Quebec—				
Montreal.....	Dec. 15-Feb. 8.....	63		
Quebec.....	do.....	23		
St. Johns.....	Jan. 12-25.....	9		
Chile: Punta Arenas.....	Oct. 31-Nov. 30.....	3		Oct. 31, 1 case in vicinity.
China:				
Amoy.....	Jan. 16.....			Present.
Chungking.....	Nov. 3-16.....			Do.
Hankow.....	Dec. 29-Jan. 4.....	1		
Hoihow.....	Jan. 3.....			Do.
Hongkong.....	Nov. 24-Jan. 4.....	6	4	
Nanking.....	Dec. 7.....			Do.
Shanghai.....	Nov. 18-Jan. 12.....	17	92	Deaths among natives.
Tientsin.....	Nov. 17-Dec. 14.....		2	
Dutch East Indies:				
Java.....				
Batavia.....	Nov. 9-Jan. 4.....	26	7	
Samarang.....	Oct. 4-24.....	57	23	
Egypt:				
Alexandria.....	Dec. 9-Jan. 21.....	4		
Cairo.....	Nov. 12-Dec. 31.....	7	3	
Port Said.....	Dec. 3-31.....	1	1	
France:				
Marseille.....	Nov. 1-Dec. 31.....		2	
Nantes.....	Jan. 5-18.....	2		
Paris.....	Dec. 1-Jan. 18.....	17		
Germany.....				Total: Nov. 24-30, 5 cases not included in report, page 2231, vol. xxvii; Dec. 1-Jan. 11, 15 cases.
Hamburg.....	Jan. 10-25.....	2		
Gibraltar.....	Dec. 9-15.....	1		
Great Britain: Liverpool.....	Jan. 1-4.....	1		
India:				
Bombay.....	Nov. 17-Jan. 11.....	16	6	
Calcutta.....	Dec. 1-Jan. 11.....		12	
Karachi.....	do.....	9	1	
Madras.....	Dec. 1-28.....	4	3	
Rangoon.....	Oct. 1-Nov. 30.....	11	3	
Indo-China: Saigon.....	Aug. 20-Oct. 20.....	2	2	
Italy: Palermo.....	Dec. 15-Jan. 18.....	4		
Japan:				Jan. 1-Nov. 30, 1911: Cases, 14; death, 1.
Nagasaki.....	Nov. 1-30.....	1		
Yokohama.....	Jan. 1-13.....	2		From s. s. Pera from London via ports.
Mexico:				
Agascalientes.....	Dec. 9-Jan. 12.....		4	
Chihuahua.....	Dec. 9-Feb. 1.....		3	
Durango.....	Dec. 1-Jan. 31.....		65	
Guadalajara.....	Jan. 5-11.....	1		
Mazatlan.....	Jan. 1-7.....	2		
Mexico.....	Nov. 17-Jan. 4.....	36	15	
Salina Cruz.....	Nov. 17-Jan. 25.....	6	2	
San Luis Potosi.....	Sept. 15-21.....	1		
Sonora.....				Jan. 30: Present in Esperanza, Navojca, and Tarin.
Agua Zarca.....	Jan. 30.....	2		
Nogales.....	do.....	1		
Veracruz.....	Jan. 26-Feb. 1.....	3		1 case imported from Pasco del Macho.

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

Reports Received from Dec. 27, 1912, to Feb. 21, 1913—Continued.

SMALLPOX—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Netherlands: Rotterdam.....	Dec. 22-23.....	.....	1	
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. Mauban to the San Lazaro hospital.
Portugal: Lisbon.....	Dec. 1-Jan. 13.....	29	.....
Roumania.....				Total Oct. 1-31; Cases, 6.
Russia:				
Batoum.....	Dec. 1-31.....	1	.....
Libau.....	Dec. 16-Jan. 4.....	2	.....
Moscow.....	Dec. 8-28.....	3	2	
Odesa.....	Nov. 17-Dec. 14.....	3	.....
St. Petersburg.....	Nov. 24-Dec. 23.....	96	10	
Warsaw.....	Sept. 22-Oct. 5.....	5	.....
Siberia—				
Omsk.....	Jan. 1-27.....	7	.....
Vladivostok.....	Dec. 15-28.....	4	1	
Servia: Belgrade.....	Dec. 22-23.....	2	.....
Siam: Bangkok.....	Nov. 10-Jan. 4.....		5	
Siberia: Vladivostok.....	Oct. 28-Dec. 28.....	4	3	
Spain:				
Almeria.....	Dec. 1-31.....	.....	40	
Barcelona.....	Dec. 1-Feb. 1.....	.....	87	
Cadiz.....	Nov. 1-Dec. 31.....	.....	7	
Madrid.....	do.....	.....	34	
Malaga.....	Dec. 1-31.....	.....	1	
Seville.....	do.....	.....	27	
Valencia.....	Nov. 14-Jan. 11.....	39	.....
Straits Settlements: Singapore.....	Nov. 24-30.....	1	1	
Sweden: Stockholm.....	Oct. 8-21.....	3	.....
Switzerland:				
Cantons—				
Aargau.....	Dec. 15-Jan. 18.....	2	.....
Basel.....	Nov. 14-Jan. 18.....	12	.....
Grisons.....	Dec. 1-Jan. 18.....	13	.....
Turkey in Asia: Beirut.....	Dec. 8-Jan. 18.....	53	7	
Turkey in Europe: Constantinople.....	Dec. 1-Jan. 18.....	.....	84	
Zanzibar.....	Nov. 9-14.....	.....	1	

SANITARY LEGISLATION.

STATE LAWS AND REGULATIONS PERTAINING TO PUBLIC HEALTH.

IOWA.

Sewage and Garbage—Disposal of (Regulations State Board of Health, adopted July 21, 1911).

RULE VI, SECTION 1. No privy vault, cesspool, or reservoir into which a privy, water-closet, sink, or stable is drained, except it be water tight, shall be established or permitted in water-bearing strata or within 100 feet of any well, spring, or any other source of water used for drinking or culinary purposes.

SEC. 2. All privy vaults, reservoirs, or cesspools named in section 1 shall be cleaned and emptied of their contents at least once every year, before the 1st day of May, and shall be kept thoroughly deodorized and disinfected by adding to the contents thereof, at least once each month or oftener if necessary, calcium hypochlorite as follows: Take the calcium hypochlorite in powder form and sprinkle over the contents until the odor is abated, stirring contents if necessary. All privy vaults within the limits of any city or town shall not be less than 5 feet deep, and shall be constructed of brick set in cement, or of concrete construction, or two-inch tight lumber.

SEC. 3. No privy vault, water-closet, cesspool, sink, or stable drain shall open into any ditch, stream, or drain, except into the public sewers of the city or into disposal tanks equipped with aerated contact or trickling filters of ample area.

SEC. 4 (a) All sewer drains leading to outfalls or disposal plants shall be constructed of standard vitrified sewer pipe, or standard cement sewer pipe, with the joints properly set in cement in such a manner as to make them water tight; and no sewer drain or outlet from any sewage-disposal plant, except as hereinafter provided, shall empty into any lake, pond, creek, stream, or open field.

(b) Septic tanks or other disposal tanks shall be made of water-tight concrete or masonry construction. The filters of disposal plants, except in isolated locations in non-water-bearing strata, shall be installed in basins with water-tight bottom and side walls.

All disposal plants not discharging their effluent into an established sewer system shall be provided with aerated filter beds constructed of proper filtering materials and of sufficient capacity to render the effluent clear and nonputrescible at all seasons of the year; provided, that in the case of country residences and other isolated locations, the effluent from septic tanks or cesspools, or other types of sewage disposal, need not be subjected to filtration if such effluent can be discharged in sufficient isolation to prevent the creation of a nuisance or a menace to health; and, in any case, the pollution of any source of domestic or public water supply must be avoided.

(c) Nonputrescibility of effluents may be determined by means of the following:

1. The oxygen absorbed test.
2. The organic sulphur method.
3. The methylene blue test.
4. The method recommended by the Royal Commission on Sewage Disposal or by any of the standard chemical methods.

(d) If the effluent from the filters shall be discharged into any watercourse, open drain, stream or pond, or source of water supply, or upon any low land, where, in any manner, by drinking the effluent or water polluted by it or by contact with the same, either by man or beast, pathogenic germs may be transmitted, such effluent shall be sterilized by calcium hypochlorite or other suitable and safe chemical means.

(e) The discharge of the effluent from septic disposal plants or any other type of disposal plant into abandoned wells or into creviced strata, reaching water-bearing strata, from which domestic or public water supply is drawn, is absolutely prohibited.

(f) The different methods of irrigation and intermittent filtration are not intended to be excluded by the above requirements, but are also permitted and recommended where the conditions and surroundings will allow such methods of sewage disposal to be safely employed without creating a nuisance or menace to health, and without polluting any source of domestic or public water supply.

SEC. 5. (a) No offal, slops, or other wastes from any creamery, factory, shop, chicken house, slaughterhouse, tannery, hotel, boarding house, restaurant, laundry, meat market or private residence, or any other source, shall be thrown or deposited, except in accordance with properly provided garbage disposal, upon any lot or land, or into any ravine or open ditch, stream or pond, or upon any land adjoining which is subject to overflow.

(b) Any of the wastes above mentioned, not properly disposed of as garbage and common sewage, shall be disposed of by independent disposal plants, which latter provision shall particularly apply to creameries, slaughterhouses, factories, and shops.

SEC. 6. (a) All dead animals and all decomposed animal matter shall be deodorized and immediately removed to dump grounds provided by the city and there buried at least 3 feet under ground.

(b) The dump grounds so used must be so located and of such a character as not to affect or contaminate any domestic or public water supply, either by overflow or percolation.

SEC. 7. No slops, offal, garbage, manure or any other refuse shall at any time be deposited in any of the streets or alleys, or upon any lot in the city, except it be deposited in a regulation garbage box, as provided for in section 8 of this rule. All property owners shall be held responsible for the sanitary condition of the alley abutting on their premises.

SEC. 8. Each and all property owners within a city shall provide a suitable garbage box for each of his premises; said garbage box shall be so constructed as to be not more than 3 feet wide, 3 feet high and 5 feet long, and shall be made of tight-matched lumber or galvanized iron, and shall stand at least 9 inches from the ground and shall be fitted with an attached cover which shall be fly proof and shall be kept closed.

SEC. 9. All garbage boxes and their contents shall be kept thoroughly deodorized, and the contents of all such boxes shall be removed at least twice each week, and oftener if so ordered by the health officer.

SEC. 10. All cellars, caves, and outbuildings shall be cleansed and disinfected at least twice each year, and all cattle yards, chicken yards, barns or stables, when in use, shall be cleaned each day, and at all times kept free from all offensive odors.

SEC. 11. No privy vault shall be allowed upon any premises where there is a possible connection to the city sewer.

SEC. 12. A violation of any provision or section of this rule shall be deemed to be the commitment of a nuisance and shall subject the violator to the full penalty provided by statute and the ordinances of any city in Iowa having like regulations.

SEC. 13. It shall be the duty of the city marshal and other sanitary police officers to enforce these regulations, as herein set forth, under the supervision of the health officer.

MINNESOTA.**Milk—Standard For When Sold as "Inspected Milk" (Regulations State Board of Health Adopted Since June 30, 1911).**

103a. All milk sold in Minnesota as inspected milk must not contain more than 100,000 bacteria per cubic centimeter at the time of delivery to consumers, and in all other respects shall conform to the requirements of certified milk as laid down in regulations 101, 102, and 103 of the Minnesota State Board of Health.

101. All milk sold in Minnesota as certified milk must be free from pus and injurious bacteria and must not contain more than 10,000 bacteria of any kind to the cubic centimeter at the time of delivery to consumers. Such milk must have a specific gravity ranging from 1.029 to 1.034 and must be neutral or at most but faintly acid in reaction; must contain not less than 3.5 to 4.5 per cent proteids, from 3.5 to 4.5 per cent butter fat, and from 4 to 5 per cent sugar. It must be free from all contaminating foreign matter or chemical substances added for preservative or coloring purposes. Immediately after milking, the milk must be cooled and thereafter kept at a temperature below 50° F. until delivered to consumers.

102. The dairy herds supplying certified milk must be under rigid veterinary supervision approved by the Minnesota State Board of Health. Such milk must be taken only from cows that have been shown by clinical examinations and the tuberculin test to be free from tuberculosis. The cows must also be free from all other diseases.

103. All employees in and about the dairy producing certified milk must be free from any communicable disease, such as smallpox, scarlet fever, diphtheria, typhoid fever, tuberculosis, syphilis, etc.

WASHINGTON.**Communicable Diseases—Notification of Cases (Regulation State Board of Health Adopted July 15, 1912).**

SECTION 1. In accordance with the provision of an act approved March 12, 1903, Session Laws 1903, viz, "The board may have special or standing orders or regulations for the prevention of the spread of contagious or infectious diseases * * *" the State board of health hereby declares the following diseases to be contagious or infectious and dangerous to the public health:

Actinomycosis, amoebic dysentery, anterior poliomyelitis (infantile paralysis), anthrax, Asiatic cholera, chickenpox, diphtheria and membranous croup, echinococcus disease, epidemic cerebrospinal meningitis, favus, German measles, glanders, Japanese lung fluke disease, leprosy, malaria, measles, ophthalmia neonatorum, pellagra, plague, pulmonary and laryngeal tuberculosis, rabies, relapsing fever, Rocky Mountain tick or spotted fever, scarlet fever, scarlatina or scarlet rash, smallpox, trachoma, trichinosis, typhoid fever and para typhoid fever, typhus fever, uncinariasis or hookworm disease, whooping cough, yellow fever, and all cases of so-called cedar, Cuban, Dobe, Egyptian, Japanese, kangaroo, Manila, or Philippine itch.

2. The above-mentioned diseases must be reported in writing within 24 hours by the physician to the health officer within whose jurisdiction they occur. The report filled out by the doctor shall specify the following particulars: Name of patient, age, sex, residence, occupation, diagnosis of the disease, place where probably contracted, date of exposure, and date of onset.

3. Every physician shall report immediately within 24 hours to the health officer every case suspicious of being a contagious or infectious disease and every case of an obscure eruptive disease of the nature of which he is in doubt.

NOTE.—The requirement that all diseases must be reported to the local health office within 24 hours from date of attendance is fixed by statute. See section 4, chapter 85, Laws 1907. This provision was evidently made with special reference to the acute eruptive diseases which can either be diagnosed or will present suspicious symptoms sufficient to indicate the need of report to the health officials within 24 hours from the time of medical attendance being summoned. In the case of the chronic or noneruptive diseases requiring to be reported, it is not reasonable to expect a diagnosis to be made in most cases on the first day of attendance, but the provisions of this rule shall be interpreted to be fulfilled by physicians reporting such cases as soon as they have had reasonable time in which to establish diagnosis.

4. Every teacher or principal of school shall report immediately to the health officer the occurrence of any rash in any school child under his or her charge, and shall

exclude such child from the public schoolrooms until the pupil has been seen by the family physician or health officer.

5. Whenever any householder shall know that any person within his household is affected with any acute disease, accompanied with an eruption of the skin, and no physician in attendance, said householder must immediately notify either the health officer or the family physician.

6. The State commissioner will from time to time, as necessary or convenient, modify, omit, or add to the requirements on the part of physicians and health officers relative to the form or manner governing the reporting of the above-mentioned diseases to the local health officer.

7. The State commissioner may at any time require any or all the above-mentioned diseases to be reported either temporarily or permanently to the State board of health in addition to the reports to the local health officer. This requirement may be confined to special sections of the State or may be made general.

8. Whenever it can be conveniently and properly done, and in order to secure greatest uniformity and benefit possible from such records, the State commissioner of health shall specify in detail the manner and form in which the permanent records of all reported diseases shall be kept by city and county boards and officers of health.

Communicable Diseases—Quarantine and Isolation of (Regulation State Board of Health adopted July 15, 1912.)

SEC. II. 1. For the purpose of the best protection of the health of the general public, the State board of health has been given authority in all matters of quarantine. ("The board shall have supreme authority in matters of quarantine, and may declare and enforce it when none exists, may modify, relax, or abolish it when it has been established." Section 2, Chapter CXVI, Laws 1901.) And in accordance with these powers the State board of health hereby establishes the following degrees of control to be carried out in all cases of contagious or infectious diseases.

2. Whenever the term quarantine is used in connection with any disease it is meant that the person or persons affected with such disease and their attendants and all persons who come in contact with such person or persons, shall not be allowed to leave the premises designated as under quarantine; neither shall any person, except the attending physician, be allowed to enter or leave such premises, except upon the written order of the health officer, until the quarantine shall have been raised. Guard must be maintained if necessary to enforce this rule.

3. When any building or house or portion of a house or other place is quarantined, because of a contagious disease, the health officer shall cause to be fastened upon each entrance of such quarantined premises, a placard upon which is printed the name of the disease, in letters at least 2½ inches in height, and the words "Keep out! This place is quarantined in accordance with the law, by order of the health officer." This placard must not be removed by anyone except the health officer or his deputy, and not by him until the premises have been thoroughly disinfected.

4. All persons exposed to, but not evidently sick with, a contagious disease placed in quarantine, the same rules as to quarantine shall be maintained as if they were sick with the disease to which they have been exposed.

5. The following diseases are hereby declared to be included in the class of quarantinable diseases:

Diphtheria and membranous croup, scarlet fever, scarlatina, or scarlet rash, Asiatic cholera, plague, typhus fever, yellow fever.

All cases of these diseases must be quarantined immediately by the health officer and such other precautions taken as are required for each disease.

NOTE.—The term premises in the above regulations is meant to include that area in which the diseased person must be confined. Where fields, yards and porches are considered by the health officer to be so situated as to not endanger the public, liberty may be given to patients to use them during convalescence.

6. The responsibility of placing quarantine rests solely with the health officer, who must satisfy himself of the existence of the disease in question before enforcing quarantine, and also that it is consistent with the public safety to do so before ordering the removal of quarantine.

7. Whenever any disease is declared by the rules of this board to be subject to isolation, and any premises are placarded as containing a contagious or infectious disease subject to isolation, it shall mean that the house, patient, and other inmates thereof, shall be subject to the following restrictions:

(a) The patient shall be isolated from the other inmates of the house, and, as far as possible, given a separate room.

(b) A placard shall be affixed to the house in a conspicuous place by the health officer, whereon is printed in legible letters not less than 2 inches in height, the name of the disease, and a warning as to its contagious nature.

(c) Such placard shall remain until its removal is authorized by the health officer.

(d) Other restrictions governing this class of diseases shall be carried out according to the rules laid down for each individual disease.

(e) Persons permitted ingress and egress from houses which are placarded for a disease requiring isolation may go about their occupations provided they do not bring them in contact with assemblages of children, but must refrain from visiting places of amusement, worship, or education.

8. The following diseases are hereby declared to be diseases which must be placed under isolation:

Anterior poliomyelitis (infantile paralysis), anthrax, chickenpox, epidemic cerebrospinal meningitis, German measles, glanders, malaria, measles, ophthalmia neonatorum, relapsing fever, Rocky Mountain tick or spotted fever, smallpox, typhoid fever, paratyphoid fever, whooping cough, and all cases of so-called Cuban, dobe, Egyptian, Japanese, kangaroo, Manila, or Philippine itch.

9. When persons confined in a house have recovered from the disease for which the quarantine or isolation was established, or when the quarantine or isolation is for exposure to a contagious disease, and the period of incubation has elapsed, they shall be discharged from quarantine or isolation on the order of the health officer, provided that before being discharged from such quarantine or isolation, each case shall have been inspected by the health officer or his representative, and they shall have taken a thorough antiseptic bath and put on clothing free from contagion, under directions of the health officer.

10. When all persons contained in a quarantined or placarded house or building are, in the opinion of the health officer, free from danger of spreading the disease, the quarantine or isolation shall be raised by order of the health officer, but not until every room, together with all furniture, bedding, clothing and other articles contained therein or exposed to the infection, have been disinfected with formaldehyde gas. Such disinfection must be done by or under the direction of the health officer, or his deputy.

11. Physicians visiting patients under quarantine or isolation must take all possible precautions to avoid spreading the disease.

12. Quarantine shall not be established by one county or city against another county or city or part of a county or city without the consent of the State board of health.

13. The following diseases are hereby declared reportable diseases without quarantine or isolation, and precautions must be taken by health officers to prevent the transmission of these diseases, in accordance with the instructions laid down for the individual disease: Actinomycosis, amoebic dysentery, echinococcus disease, favus, uncinariasis or hookworm disease, Japanese lung fluke disease, leprosy, pellagra, rabies, trachoma, trichinosis, tuberculosis, pulmonary and laryngeal.

14. The State commissioner of health may at any time between meetings of the State board of health declare any disease to be transferred from the class of reportable diseases to the class of isolated or quarantined diseases, or any diseases from the class of

isolated to the class of quarantined diseases, and such ruling shall be in effect until passed upon at the next regular or special meeting of the State board of health.

15. Temporary quarantine or isolation. Whenever a case of obscure illness shall be reported to the health officer, which upon investigation presents symptoms of a disease subject to quarantine or isolation, but in which in the judgment of the health officer sufficient time has not elapsed to render a positive diagnosis of the disease possible, all health officers shall thereupon impose a temporary quarantine or isolation, which quarantine or isolation shall be in all respects governed by the same rules and regulations as a permanent quarantine or isolation, but shall be only in effect as long as the case remains in doubt. If the disease proves not to be one of a contagious or infectious nature, he shall then declare the temporary quarantine or isolation terminated.

16. All dogs, cats, or other pet animals owned in premises containing quarantine or isolation diseases shall be either—

(a) Excluded from house for all quarantinable disease.

(b) Excluded from room of sick person in all diseases requiring isolation and placarding.

(c) Given disinfectant bath or wash under direction of health officer when disinfection of persons is carried out.

17. In all cases under quarantine or isolation restrictions, if the case terminates by death, the health officer shall continue quarantine or isolation measures as long as the period of incubation for such disease in susceptible persons who have been on the same premises shall extend from the date of death. If the disease be an exanthematous disease of childhood, or diphtheria, infantile paralysis, or epidemic cerebro spinal meningitis, and no other nonimmune children survive, or if the death be from smallpox and no person unprotected by recent successful vaccination or previous attack of smallpox survive, the surviving persons may be released from quarantine immediately following proper disinfection.

18. Any adult person living on premises under quarantine may be released from quarantine after proper disinfection by the health officer, but such persons shall not be permitted to reenter the premises until after quarantine is raised.

19. In case of death from a quarantinable disease no one except a licensed embalmer or clergyman shall be allowed to enter the premises under quarantine, unless under direct orders of the health officer, until after disinfection.

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

ALEXANDRIA, VA.

Foodstuffs—Protection of (Ordinance Adopted July 23, 1912.)

SEC. 15. It shall be the duty of every butcher, grocer, dealer in fish or meats and every occupant of any stall in the market or store within the city limits to keep his place of business clean of all vegetable, leaves, filth, and rubbish of every kind. And every butcher, grocer, dealer in fish or meats, and every occupant of any stall in the market and any store within the city limits shall provide and keep special boxes or barrels with tight covers in which he shall keep all refuse, meats, decayed fish, waste, trash, and rubbish of every kind, and shall remove the same every morning except Sunday. And it shall be unlawful for any butcher, grocer, or dealer in fresh meats, fish, fruit, or vegetables to expose the same on the street or sidewalks unless inclosed in glass or other dust-proof receptacle. Every manager of a store, dairy, café, lunch room, or any other place in the city where a food or beverage, confectionery, or other similar article is manufactured or prepared for sale, stored for sale, offered for sale, or sold, shall cause the same to be screened effectually so as to prevent flies and other insects from obtaining access to such foods, beverages, confectionery, or other articles, and shall keep the same free from flies and other insects at all times.

BAYONNE, N. J.

Garbage—Disposal of (Regulations Board of Health adopted June 20, 1912).

SECTION 3. Every proprietor, lessee, tenant, and occupant of any oyster house, oyster saloon, or other premises where any refuse matter, offal, or shell from oysters, clams, lobsters, or any shell or other fish are consumed, used or sold, or where any of the refuse matter, offal or shells thereof accumulate, or who shall expose the same, shall daily cause all such shells, offal, and refuse matter to be removed therefrom to some proper place, and shall keep his house, saloon, stands, and premises at all times free from any offensive or unhealthy smells and accumulations.

SEC. 4. The owner, lessee, tenant, or occupant of every dwelling, market, restaurant, or other premises where refuse matter shall accumulate shall provide and keep on the premises suitable barrels or receptacles for receiving and holding garbage.

SEC. 5. It shall be the duty of every owner, agent, lessee, or tenant or tenants, of any and every building or place of business within the city, to provide, and at all times keep, or cause to be kept and provided, within such building or place of business, or upon the premises thereof, a suitable and sufficient box, barrel, or tub, and several thereof, if needful, for receiving and holding, without leakage, all the ashes, rubbish, garbage, and liquid substances that may accumulate, from said building or place of business, and all ashes, garbage, rubbish, and liquid substances that should be removed from such building, place of business, or premises (and none other) shall be placed therein, and no such box, barrel, or tub shall remain on any sidewalk, or in any public place longer than may be needful for the removal of the contents thereof; and all such boxes, barrels, and tubs shall be placed and kept in such position (unless kept within or upon private grounds within the sidewalks) as the health officer shall direct, and no person not for the purpose authorized shall interfere therewith, or with

the contents thereof; said contents of such boxes shall be removed at such times as may be designated by the street commissioner, or by the city authorities, or by this board.

SEC. 6. No rags, bones, scraps, or refuse matter shall be brought into or kept in any building used as a dwelling house, or be stored or kept on any lot or lots, or in any yard or yards, or in any building within 20 feet of any dwelling house, except on the permit of this board, which reserves the right of revocation for cause, which permit shall cost the sum of \$2 annually. And any person or persons, charitable or religious organization, desiring to conduct a sale of second-hand articles of clothing, household goods, or other such articles, shall, before selling or offering for sale any such articles, apply to the health officer for a permit to conduct such sale. Any person or persons violating any of the provisions of this section shall, on conviction thereof, pay a penalty of \$10.

SEC. 7. No ship, boat, or other vessel shall be taken or allowed by any person to come into or lay to, or at or within any dock, pier, bulkhead, or slip, or be placed thereon for the purpose of the shipment or removal of any offal, garbage, rubbish, blood, or offensive animal or vegetable matter, dirt, or dead animals, or for the use of any contractor about the removal of any of the foregoing substances, without a permit from this board, which permit shall cost the sum of \$5 annually.

SEC. 8. No swill, brine, urine of animals or other noxious animal nuisance, nor any stinking, noxious, liquid, or other filthy matter of any kind, shall be allowed to run or flow from or out of any building, vehicle, or erection upon any lot or any street or public place within the city or into any of the waters surrounding said city.

SEC. 9. No blood, butcher's offal, or garbage, nor any dead animal, nor any putrid or stinking animal, or any vegetable matter shall be thrown by any person or persons, or be allowed to drop into or upon any street, place, sewer, or receiving basin, or into any of the waters surrounding said city, or into any excavation, or upon, or buried in, any ground or premises in said city.

SEC. 10. No person shall allow (and it shall be the duty of every contractor and person who has ordered or procured, or who is having any of the following articles carried, or who is driving the same, to prevent) any cart or vehicle to be so fully loaded, or being in such bad condition of repair, or of such faulty construction, or being so improperly driven or managed, that any offensive liquid, or any manure, garbage, rubbish, offal, dirt, or material thereon, shall fall upon or in any place, street, or premises; and it shall be the duty of every such person to at once replace on such vehicle and remove what has fallen.

SEC. 11. No part of the contents of, or substance from, any sink, privy, or cesspool, nor any manure, ashes, garbage, dirt, or waste water shall be thrown by any person or persons, or be allowed to run or drop upon, or remain in any street or public place, nor shall the same be thrown or allowed to fall or run into any of the waters surrounding said city, save through the public sewers.

SEC. 12. No owner, agent, lessee, tenant, resident, occupant of any house, building, or part of any house or building used as a dwelling shall allow or shall cast off or let escape from the same any waste water or other liquid substance or matter into any pipe, drain sewer, cesspool, or sink, which said pipe, drain, sewer, cesspool, or sink empties its contents into or upon any vacant lot or lots or other grounds, public or private, in the city of Bayonne.

SEC. 13. Every tub or other receptacle necessary in any house, sink, or privy (or placed or allowed to stand therein by any owner, tenant, or occupant of any building or premises) and used to contain any liquid or partially liquid substance, shall be sufficiently strong, perfectly tight, and adequately provided with a strong cover and with hoops and handles, and shall not be allowed to be filled to within 4 inches of any part of the top, and shall not be allowed (or its contents) to be offensive; and the provisions of this code relative to emptying cesspools and to throwing any substance therein shall apply to said tubs and receptacles as if here repeated and applied thereto.

And no person shall throw, drop, or allow to fall into any waters surrounding this city, or into any ditch or stream therein, or into any street or place, any substance being or having been part of the contents of any such vault, cesspool, privy, sink, tub, or receptacle, or any offal

SEC. 14. No person shall throw into or deposit in any vault, sink, privy, or cesspool, or receiving basin, any offal, ashes, meat, fish, or garbage, nor shall any slops or kitchen waste be permitted to run into any privy or cesspool, except the same be connected with the sewer.

SEC. 15. No person or persons shall place or throw, or cause to allow to be thrown, having power to prevent the same, on any street, sidewalk, highway, alleyway, road, or other place wherein the public have a right to be in the city of Bayonne, any bottles, broken glass, or crockery ware, iron, wire, or other matter or things dangerous to the life, limb, or health of man or beast.

SEC. 16. No lime, ashes, coal, dry sand, hair, feathers, or other substance that is liable to be blown by the wind, shall be seived or agitated, or exposed, nor shall any mat, carpet, or cloth be shaken or beaten, nor any cloth, yarn, garment, or material or substance be scoured, cleaned, or hung, nor any business be conducted over or in any street, public or private place, or where it, or particles therefrom, or set in motion thereby, will pass into any such street or public or private place, or into any occupied premises. Neither any usual nor reasonable precaution shall be omitted by any persons to prevent fragments or other substances from falling, to the peril of life, or dust and light material flying into any street, place, or building, from any building or erection, while the same is being altered, repaired, or demolished, or otherwise.

SEC. 17. No person shall deposit upon any street or public place within the city, or upon any paved street, dirt or brick or other material or dirt taken from any ground therein, or any building material, in such manner as to obstruct the free flowage along any gutter.

SEC. 18. It shall be the duty of every owner or owners, lessee or lessees, tenant or tenants, occupant or occupants of any lot or lots of ground in the city of Bayonne, on notice in writing from this board, or its proper officer, to forthwith remove from off said lot or lots any rubbish, garbage, or other offensive matter or thing which may be upon said lot or lots.

SEC. 19. The drivers of all carts for the removal of any garbage, offal, rubbish, or dirt from any building or premises shall give adequate notice to those dwelling in any street whose buildings or premises such cart is about to or should approach for the removal of any substance aforesaid.

SEC. 20. All occupants so preferring may deliver their ashes, garbage, and rubbish directly to the proper carts, to be taken away at any hour of the day when said carts may be present; and said carts may take such articles from receptacles delivered at any such hour, provided that such garbage or rubbish be not highly filthy or offensive; and in the latter case the same shall not be so delivered or received during the period from 7 o'clock a. m. of any day until 10 o'clock p. m. of the same day.

CHELSEA, MASS.

Fowls—Keeping of Within the City (Regulation Board of Health, Adopted Oct. 29, 1912).

RULE 131. No person shall keep, sell, kill, pluck, or offer for sale in any building used wholly or in part as a dwelling, store, vehicle, or market place any (live) hens, pigeons, geese, ducks, or other fowl without a permit therefor from the board of health, which shall be subject to revocation by said board at any time.

DES MOINES, IOWA.**Lodging Houses and Tenement Houses—Sanitary Regulation of (Ordinance adopted Nov. 11, 1912).**

SECTION 1. That it shall be, and is hereby, made the duty of the owner of any premises or building situated in Des Moines to provide and furnish such premises and building with adequate facilities for heating, ventilating, and light the same, and with proper and sufficient water closets or privies; to keep the roof thereof tight and in good repair; and to cause the yard or area, or both, to be so graded and paved that all drainage shall flow freely from all parts of it into such sewer traps as may have been provided for the purpose, or, if there be none, shall flow away from any inhabited building on such premises.

SEC. 2. That it shall be the duty of every person occupying any premises or any part of any premises in the city of Des Moines, or if such premises be not occupied, of the owner thereof, to keep such premises or part, and all buildings, yards, stables, grounds and outhouses connected therewith, clean and wholesome; if, upon inspection by the health officer or any inspector of the health department it be ascertained that any such premises or any part thereof, or any building, yard, stable, grounds, alley or outhouse connected therewith, is not in such condition as herein required, the occupant or occupants of such premises or part, or the owner thereof as herein-before specified, shall be notified thereof and required to place the same in a clean and wholesome condition; and in case any person shall fail or neglect to place said premises or part in such condition within the time allowed by said notice, he shall be liable to the penalties hereinafter provided.

SEC. 3. That no person, being the owner, proprietor, lessee, manager, or superintendent of any store, factory, or other structure or place of employment where workmen or workwomen are employed for wages, shall cause, permit, or allow the same or any portion or apartment, thereof, or any room therein, to be overcrowded, or inadequate, faulty, or insufficient in respect to lighting, heating or ventilation. Every such store, factory, workshop, or place shall be kept in a clean and wholesome condition, and, as far as practicable, free from all gases, vapors, dust or other impurities generated by manufacturing processes or otherwise and injurious to health. Sufficient and separate urinals and privies shall be provided for male and female employees.

SEC. 4. That no person shall in the city of Des Moines use any building for any purpose for which it has not been lawfully used for a period of 30 days, at least, immediately preceding the promulgation of these regulations, unless said building is located and constructed in accordance with the requirements of the laws, building regulations, and health ordinances in force in this city governing the location and construction of buildings intended to be used for such purposes.

SEC. 5. That no room in any tenement or lodging house shall be occupied as a sleeping room unless there are at least 400 feet cubic contents for each person therein. The health officer is hereby authorized, if in his judgment it is necessary to secure compliance with this requirement, to cause to be affixed to or near the door of each such room a placard stating the number of occupants allowed under this regulation, and shall in any case where such placard has been affixed cause a notice stating such number to be served on the owner, agent, or person having charge of the premises. No person having authority to prevent shall permit to occupy any such room as a sleeping room any greater number of persons than are specified on such placard, if any, or otherwise authorized under this section.

SEC. 6. That it shall be the duty of the owner or owners of every tenement or lodging house to provide a suitable place or places in connection therewith for the reception of garbage and other refuse matter.

SEC. 7. That whenever there shall be more than five families residing in any tenement house in which the owner does not reside, there shall be placed therein by the owner or owners, lessee or lessees thereof when required by the health department of the city of Des Moines, a janitor, housekeeper, or some other responsible person who shall reside in said house and have charge thereof.

SEC. 8. That no person shall use any tenement or lodging house or any portion thereof as a place of storage for any combustible article or any article dangerous or detrimental to health.

SEC. 9. That no old rags, paper, or other like refuse material gathered or recovered from any source, shall be brought into or allowed to remain within any building used as a dwelling.

SEC. 10. That the term "tenement," wherever used in these regulations, shall be held to mean any building or portion thereof which is occupied or intended for occupation, as the residence of more than two families living independently of one another, and doing their cooking upon the premises; and the term "lodging house," wherever used in these regulations, shall be held to mean any building or portion thereof in which persons are lodged for hire for less than a week at a time.

SEC. 11. Any person, company or corporation desiring a permit to use, conduct or operate as a lodging house any building or any part of any building, in city of Des Moines, shall file with the health department of said city a written application for such permit, giving in such application the full name and address of the proprietor of the proposed lodging house, the name of the owner of the premises and the location and proportion of the building or buildings intended to be used as a lodging house. No such permit shall be issued until all regulations relating to lodging houses have been complied with by the applicant for such permit.

SEC. 12. No beds or bunks shall be placed one above the other, and no one shall be permitted to sleep, lodge, or dwell in a cellar or basement. All mattresses shall be provided with waterproof coverings and shall be so arranged as to be at all times inspected. All beds, bed clothing, mattresses, and pillows shall always be kept clean and free from vermin. No comforters shall be permitted, but blankets shall be used instead. Clean sheets and clean pillow cases shall be furnished for each bed, and shall be changed as often as necessary to keep the same clean or as may be required by the department of health.

All cubicles shall be so constructed that the partitions thereof shall not extend to within 2 feet of the ceiling, and there shall be provided in said partitions a space of at least 2 square feet in area for the purpose of ventilation, such space to be within 18 inches of the floor.

SEC. 13. All plumbing fixtures mentioned in this ordinance except washbowls shall be placed in a room or compartment entirely shut off from sleeping rooms by an airtight partition extending from floor to ceiling. The entrance to this room or compartment must not connect directly with a sleeping room; such room or compartment must be provided with a window which will open to the outer air and have at least 300 square inches of glass area: *Provided, however*, that in buildings not to exceed three stories in height now in use as lodging houses where plumbing is now installed in inside rooms or compartments, said compartments can be ventilated by well lighted and ventilated light shafts with at least an area of 9 square feet, said area or light well to continue up and through roof with skylight and ventilators to meet with the approval of the health department. All interior partitions in toilet rooms or compartments shall be dwarfed and must not extend closer than 6 inches to the floor nor more than 7 feet high. Provisions shall be made to light said compartments with gas or electric light and the same shall be lighted continuously during the night. The floors and side walls up a height of 3 feet shall be made of marble, tile, slate, plastic, mastic asphalt,

or other water-proof and noncorrosive materials that will meet with the approval of the health department. Each room or compartment shall have a floor drain properly constructed in same: *Provided, however*, that wash room and toilet rooms as above provided may be combined into one room of sufficient size to meet with the approval of the health department. In every lodging house there shall be provided in above-mentioned toilet rooms one or more water-closets on each floor. All water-closets shall be connected with brass floor flange approved by the health department. There shall be provided in each toilet room above mentioned one or more urinals on each floor. In every lodging house there shall be at least one wash room on every floor. Every such wash room shall be provided with hot and cold water, set wash basins or washing appliances with running water, both in number and character satisfactory to the health department. Such individual appliances or set basins shall be provided on each floor satisfactory to the health department. In every lodging house, shower or tub baths shall be provided. All such baths shall be provided with hot and cold water and shall at all times be accessible for the use of lodgers: *Provided, however*, that in addition to the above requirements, the installation of the plumbing system and all pipes and fixtures shall be installed and subject to the provisions of the plumbing ordinances of this city relating to the installation and maintenance of such plumbing. All alterations or construction of above-mentioned rooms shall be in accordance with the building ordinance of this city.

SEC. 14. *Water and towels.*—In every lodging house there shall be at all times provided for the use of lodgers an adequate supply of water and clean towels. Every lodging house and every part thereof shall be at all times kept clean and free from dirt, vermin, filth, garbage, and rubbish in or upon the premises belonging to or connected with the same. All water-closets, wash basins, baths, windows, fixtures, fittings, and painted surfaces shall be at all times kept thoroughly clean and in good repair. The floors of all rooms, passages, and stairways shall be sound, in good repair and either be shellacked or painted and the same shall be either scrubbed, wet swept, or otherwise treated as often as is necessary to keep them thoroughly clean. All walls and ceilings shall be thoroughly cleaned and whitewashed at least twice each year, or as often as the department of health may require.

In each hall, room, cubicle, water-closet, wash room, and bathroom of every lodging house there shall be provided a sufficient number of cuspidors or spittoons. In every such room there shall be continuously and conspicuously displayed a sign, "Spitting forbidden except in proper receptacles." All such cuspidors or spittoons shall be constructed of durable waterproof material, shall at all times contain a sufficient quantity of disinfecting liquid as the health department may direct, and the same shall be thoroughly cleansed and disinfected at least once daily.

It shall be the duty of the keeper, agent, or owner of every lodging house to report forthwith to the department of health any person suffering from any of the following infectious diseases: Diphtheria, membranous croup, scarlet fever, smallpox, epidemic cholera, typhoid fever, plague, or tuberculosis. Each lodging house shall be provided with a room sufficiently tight to be used for a fumigating room if necessary.

SEC. 15. All permits granted or issued under this ordinance shall be subject to revocation at any time by the health department in its discretion.

SEC. 16. Any person violating any of the provisions of this ordinance shall, on conviction thereof before the municipal court of the city of Des Moines, be punished by a fine of not to exceed \$100 nor less than \$10 for each offense, or upon default in the payment of such fine, by imprisonment not to exceed 30 days.

SEC. 17. All ordinances or parts of ordinances in conflict herewith are hereby repealed.

SEC. 18. This ordinance shall be in full force and effect from and after its passage and publication as required by law.

LOS ANGELES, CAL.**Communicable Diseases in Animals—Notification, Care of in Stables, Isolation
(Ordinance Adopted May 1, 1912).**

SECTION 50. It shall be unlawful for any person having under treatment, or owning, or having possession, control, or knowledge of any animal affected with glanders, farcy, tuberculosis, or anthrax, or with any other infectious or contagious disease, to fail, refuse, or neglect to report, in writing, to the health commissioner immediately upon obtaining knowledge that such animal is so affected, giving the location of such animal, the name of the disease with which the same is affected, and the name and address of the owner of such animal.

SEC. 51. It shall be unlawful for any person, firm, or corporation to establish, conduct, or maintain any stable, hospital, or other place for the treatment of diseased horses or other animals within the city of Los Angeles without first applying for and receiving a permit, in writing, from the health commissioner so to do.

SEC. 52. It shall be unlawful for any person, firm, or corporation owning or having the control or possession of any animal affected with glanders, farcy, tuberculosis, or anthrax, or with any other infectious or contagious disease, to permit such animal to go or to be in or upon any public street, alley, or other public place, or to come in contact with any other animal not so affected.