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## THE CONTROL OF COMMUNICABLE DISEASES.

In a recent number of the monthly bulletin of the New York State Department of Health there appeared an account of an epidemic of septic sore throat which had occurred at Rockville Center, just out of New York City. The epidemic was due to infected milk from a dairy at which cases of septic sore throat were found among the employees. The epidemic was stopped by prohibiting the sale of milk from the dairy. The report concludes with the following statement:

The experience of this epidemic leads to the conclusion that the following measures are of the utmost importance in every municipality:

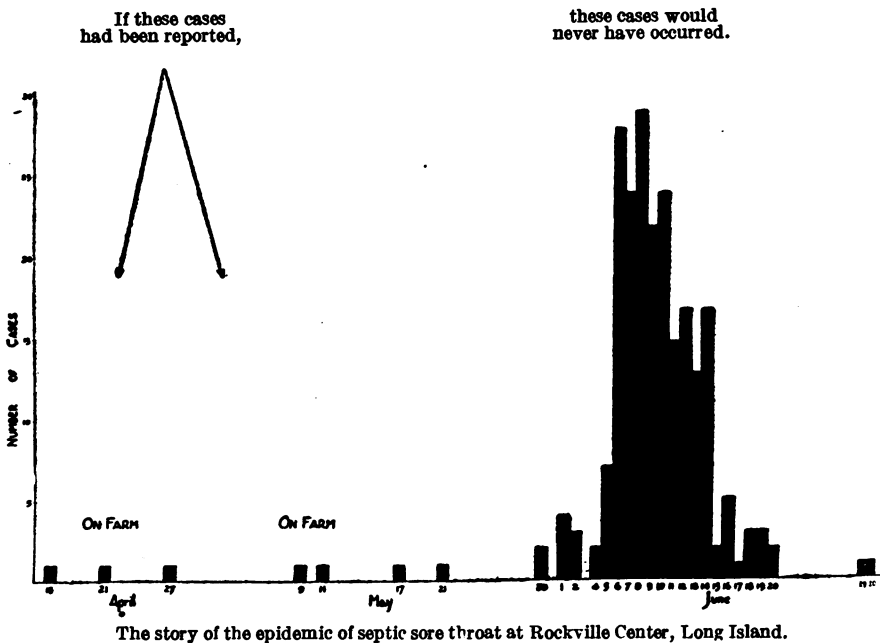
1. The prompt reporting by practicing physicians of all cases of sore throats and other infectious diseases among employees in dairies.
2. The exclusion from dairies of every person having an infectious disease, even if it appears only to be a common sore throat.
3. A prompt quarantine by the local health officer of every dairy whose owner or manager fails to exclude helpers who are known to be infected.
4. The pasteurization of all milk supplies.

A chart showing the numbers and dates of occurrence of the cases of septic sore throat was included in the report. This chart was apparently used to emphasize the importance of having cases of communicable diseases reported to the health department and the absolute necessity that this be done if these diseases are to be controlled. The chart illustrates the necessity for morbidity reports so well that it was reprinted in the weekly bulletin of the New York City Department of Health in its issue of September 12, 1914. The New York City Department of Health was especially interested in the outbreak because of its proximity to the city. The chart brings out the function of morbidity reports so clearly that it is reproduced herewith.

Epidemics of sore throat spread by milk have been of not infrequent occurrence in England. They have probably occurred not only there, but also in other countries where raw milk is used. The English, however, have associated the outbreaks with the milk and reports of the epidemics have appeared in English medical literature.

During the last few years epidemics of septic sore throat of considerable size, and spread through the agency of milk, have occurred in a number of American cities. Several of the larger of these outbreaks have been reported in the medical press.

The occurrence of such outbreaks could be avoided if pasteurized milk only was used. However, owing to the prejudice of many people against pasteurized milk, this method of preventing the spread by milk of septic sore throat and of other diseases—among which are typhoid fever, scarlet fever, and diphtheria—is not practicable in all instances. The time may come when pasteurized milk only will be used, and then there will be no more epidemics of these diseases spread by milk. In the meantime, however, it will be the duty of health



departments to prevent their occurrence in so far as possible. To do this, it is necessary that early information be obtained of the occurrence of cases of these diseases.

In septic sore throat this is not always easy, for the differential diagnosis between septic sore throat and other and more common types of pharyngitis and tonsillitis is not always a simple matter and must frequently be in doubt. This is one of the difficulties encountered in securing satisfactory morbidity reports of the disease. However, since septic sore throat must be controlled by the health department, the matter of having cases reported is a thing which the health officer must work out satisfactorily. As previously mentioned, milk outbreaks could be prevented by the use of pasteurized milk. However, this would not lessen the necessity for the early reporting

of cases, for the diseases which are spread by milk are frequently, and in fact generally, spread in other ways as well and the milk route of infection is not the only one to be guarded against.

The chart shown above illustrates the purpose of morbidity reports and their relation to the control of disease and the prevention of epidemics. That the securing of morbidity reports is attended in many diseases with considerable difficulty is true. This constitutes an obstacle in the control of many of the commoner communicable diseases, an obstacle, however, which health departments must solve and overcome if they are to continue to have a cause for being.

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## THE CHEMICAL DISINFECTION OF WATER.

By EARLE B. PHELPS, Professor of Chemistry, Hygienic Laboratory, United States Public Health Service.

The chemical disinfection of water supplies has come into such general use that there can no longer be any doubt of its practical value. Most of the large cities of the country and hundreds of smaller communities are now using the disinfection process with entire satisfaction. It is so economical and so simple to install and to operate and furnishes such assurance of freedom from water-borne infection that its use should be encouraged whenever there is any possible doubt as to the sanitary character of the water supply.

There are few untreated water supplies in the United States to-day, except those taken from wells, which are so well protected that they do not at times show evidences of pollution. Whether the pollution is only remote and occasional or whether it is continual but only slight in amount, the installation of a disinfecting plant for continuous use or for use during danger periods represents a cheap insurance against epidemics. As an adjunct to filtration it furnishes an additional safeguard against occasional failure and often permits more rapid rates of filtration and important economies in the use of chemicals and in other ways.

Of the various agencies that have been proposed for the chemical disinfection of water only three—ozone, hypochlorite of calcium, and gaseous chlorine—have thus far proven satisfactory.

Ozone has had an extensive development in Europe and will undoubtedly be more widely used as the electrical and mechanical features of the process are better understood and worked out. It is undoubtedly efficient when properly applied, but mechanical imperfections and the high cost of operation have thus far delayed its adoption in this country.

The gaseous chlorine process is of recent introduction and as yet is not generally known. It is covered by general process patents, and

the various mechanical devices necessary in its application are likewise controlled by a few companies engaged in installing plants. Although there is but little published information upon its use, the indications are that it is cheap and efficient.

The hypochlorite process is in quite general use throughout the cities of the United States. The chemical, calcium hypochlorite, or, commercially, "bleaching powder" or "chloride of lime," is an active disinfectant even when highly diluted.

The proper application to a water of the requisite quantities of this disinfectant will bring about a practically complete removal of pathogenic organisms without affecting the water to any noticeable extent. The disinfectant later undergoes a chemical change whereby it is converted into perfectly harmless substances normally present in most natural waters. To secure this result, however, it is necessary to apply the proper quantity of disinfectant in the proper way. Too little hypochlorite gives imperfect disinfection, while an excess will produce an unpleasant taste in the water. If the flow of water by the point of application is subject to wide fluctuations, some adjustment of the rate of application is necessary. Finally most waters undergo seasonal changes in their chemical composition and accordingly require a variation in the dosage, the latter being determined to a large extent by the chemical character of the water.

In any important installation the services of a qualified expert who has had experience in this particular line are almost indispensable. It is his duty to design durable and workable apparatus, adjusted to the particular supply in question; to determine the proper point and mode of application to the water; to study the characteristics of the water and determine the proper normal dosage, and the daily and seasonal variation from the normal; and, finally, to control the operation by bacterial and chemical tests and to establish simple working rules and tests by which the untrained attendant will be enabled to produce good results.

In so far as it is possible to formulate these various matters in general terms, plans and directions for small hypochlorite installations will be given here. It is hoped thereby to encourage the use of hypochlorite whenever it is needed and especially among those smaller communities where the services of an expert may not be available. Such services, however, will usually be found to be cheapest in the end and should be secured whenever possible.

Bleaching powder is obtained commercially in iron drums weighing from 500 to 800 pounds net. It should be bought on specification to contain not less than 33 per cent available chlorine, and an occasional sample should be submitted to a chemist for analysis. Market prices range about  $1\frac{1}{4}$  to  $1\frac{3}{4}$  cents per pound, plus freight

from Buffalo or Philadelphia. The American (electrolytic) product is less likely to give troublesome odors to the water than the imported product which usually comes in wooden hogsheads.

The minimum quantity of solution which can be properly controlled and measured is about 15 gallons per hour or 350 gallons if the plant is to run 24 hours without attention. A pair of concrete tanks each having a capacity of one day's supply makes a desirable arrangement. These may conveniently be 3 by 4 feet by 4 feet deep or 4 by 4 feet by 3 feet deep, inside and to the flow line or water level. These tanks will be designated the solution tanks.

In emergencies or when economy or other requirement makes it desirable, a set of six or seven vinegar barrels, properly connected with galvanized iron piping, makes a satisfactory temporary plant. They should be well painted on the outside with asphaltum or some good mineral paint.

At some higher elevation, so that its contents will flow by gravity into the solution tanks, a mixing tank is necessary for mixing the bleach with water. This may have a capacity of not less than 25 to 35 gallons for small plants and of 2.5 gallons per pound of bleaching powder for larger installations. It may, of course, be used twice a day so that a 35-gallon tank could handle 28 pounds per day, but this will double the labor charge. For small plants hand mixing is satisfactory. The solution in the mixing tank is allowed to stand four hours or longer and may then be drawn off into the solution tanks, where it is diluted to the proper strength. It is best to provide a space in the mixing tank for the insoluble sludge that remains so that only the clear supernatant solution is drawn off. A blow-off at the bottom provides means for emptying this sludge to the sewer or of disposing of it otherwise.

#### Regulating the Dose.

A constant rate of dosage is maintained by discharging through an orifice, pipe, or other fixed opening under a constant head or level. Variation in the rate may be obtained by varying the level or by increasing the size of the orifice.

As the level in the solution tanks undergoes continuous change a constant level device is essential. Satisfactory devices of this character and made of suitable material resistant to the strong hypochlorite solution are obtainable on the market. One such device which is both simple and serviceable is shown in figure 1. It is made wholly of vulcanite and glass. For emergency and temporary use an ordinary toilet flush tank with ball-cock regulator is satisfactory.

A lead-lined tank with glass ball and bronze valve parts will give fair service for some time. A still more simple device is shown in

figure 2. A piece of lead pipe of quarter inch inside diameter serves as feed pipe. To its down-turned end is attached a flexible rubber tubing, the other end of which is supported by a wooden or glass float. (An electric bulb makes an excellent float.) The tube is so adjusted that at the proper water level it is kinked and the supply cut off.

A suitable orifice for regulating and varying the rate of flow may be made of hard rubber, glass, or other resistant material. The most satisfactory apparatus is one in which an opening moves over a long wedge-shaped slot in such a way that the area of effective opening is increased or decreased. Such an apparatus, properly graduated, is capable of delivering solution at any required

rate and is almost necessary for the proper control of the plant. A similar result is obtained by varying the level in the orifice box, over an orifice of constant size; or two or three replaceable orifices of various sizes may be used in conjunction with the variable head feature. This is more complicated and more liable to error in manipulation.

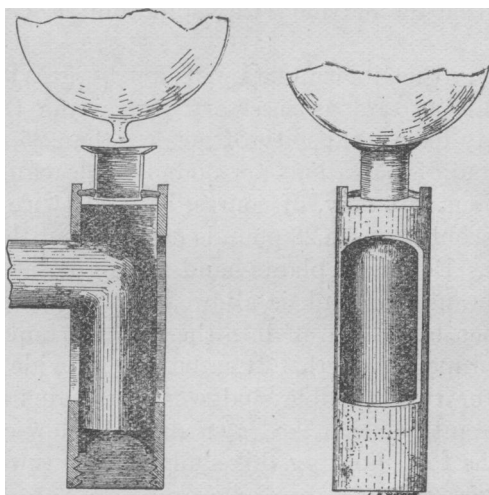


FIG. 1.—Cross sectional and perspective view of automatic constant level regulator valve.

Any druggist can construct a simple glass siphon of glass tubing drawn out at the end to a small opening. Save for the danger

of breakage this makes a very good orifice. (See fig. 2.) The effective working head is measured from the end of the outer arm, vertically to the water level in the box. If the tube be supported with a clamp so that vertical adjustment is possible the working head and consequently the rate of flow can be adjusted at will. Doubling the head over any orifice device increases the flow in the ratio 1:1.4. To double the rate of flow increase the head four times.

#### Addition of Disinfectant on "Constant-Strength" Plan.

Small plants are most easily run on the "constant-strength" basis, as this permits the simplest control and can be intrusted to any intelligent attendant. Suppose, for example, the consumption is 1,000,000 gallons per day and this supply is pumped at a regular rate of 100,000 gallons per hour for 10 hours. The solution will be made

up at a strength of 1,000 parts of available chlorine per million parts of water or 1:1,000. If this be added at a rate of 15 gallons per hour it is diluted in the 100,000 gallons of water in the ratio of 15:100,000 or 150:1,000,000. Since the solution is 1:1,000, the water is then being treated at a rate of 0.15 parts of available chlorine per million. Twenty gallons of solution per hour gives 0.2 parts, 30 gallons 0.3 parts, etc.

To obtain the initial solution of required strength a much stronger solution is made up in the small mixing (upper) tank and allowed to settle. This solution is then tested chemically or by a special hydrometer, which can be obtained in the market, giving readings directly in terms of available chlorine in parts per thousand. This test gives a measure of the amount of strong solution to be diluted into a full solution tank to give a solution containing 1,000 parts chlorine per million of water. Thus if the test shows 15 parts per thousand and the solution tank holds 350 gallons, 23.4 gallons of strong solution are run off and diluted to 350. The quantities in gallons corresponding to given strengths of solution may be tabulated for use by the attendant or they may be actually laid off on a yardstick or wall float gauge so that for a strength of 14 the attendant merely draws down the strong solution to 14 on the gauge, this being equivalent to 23.4 gallons.

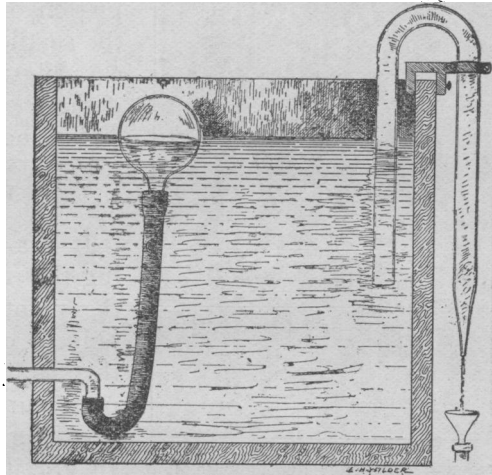


FIG. 2.—Sectional view of homemade regulator valve and orifice device.

#### Amount of Disinfectant Necessary.

Thus far attention has been given to preparing and measuring the disinfectant solution. The amount actually necessary for disinfection is finally controlled by modifying the rate of flow at the orifice. The amount necessary can be determined by the expert from a study of the water. Otherwise it is largely a matter of experiment. A few general instructions may be given.

On the basis of 33 per cent bleaching powder (which allows for losses in extraction) 25 pounds per million gallons of water will give one part per million of available chlorine. Clear colorless ground

water, free from iron, or the clear water of large lakes requires as a rule from 0.1 to 0.3 parts of chlorine or 2.5 to 7.5 pounds of bleaching powder per million gallons. Mountain streams and upland water free from color and turbidity and without storage in ponds require from 0.2 to 0.5 parts. Colored river waters, swamp waters, and highly polluted surface waters may require as much as one part or more.

Contrary to expectation waters requiring a moderately large amount of disinfectant are most easily handled. This is because the reaction is rapidly completed and the excess disinfectant eliminated by the organic matter. Very pure water, organically (lakes and springs), react slowly, require more time for the completion of the disinfection (owing to the smaller dosage), and require more careful supervision to prevent over-dosage and consequent unpleasant tastes and odors.

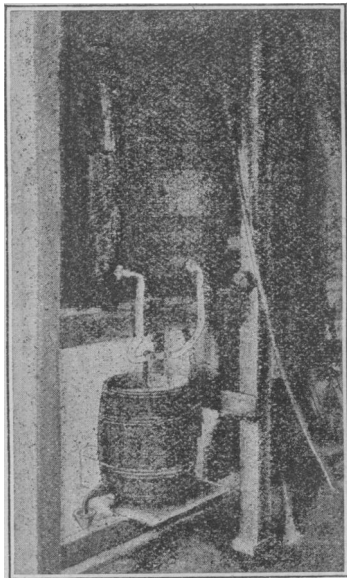


FIG. 3.—Emergency hypochlorite plant installed by Mr. H. P. Letton, U. S. Public Health Service (then assistant engineer, New Jersey State Board of Health). This plant was put in in one day. The mixing tank (a third barrel above the other two) does not show. The constant level device shown in Fig. 2 was used, and the orifice is an ordinary water cock.

#### Variable Flow Systems.

It has been assumed in the foregoing that the rate of flow of water past the point of application of disinfectant is constant. In most instances this is not the case. Even where pumping is resorted to, the rate of pumping varies from hour to hour. In gravity systems the flow fluctuates with the demand from almost nothing, in the night, to a maximum in the morning hours. It is obvious that the disinfectant must be applied at a proportionate rate for the best results.

In the case of pumping plants the orifice may be regulated to compare with the pump revolutions, a table of comparative values being prepared for the engineer's use, or a small chemical pump may be connected by belt to the main pump system so that the two are always proportional. This constant proportion, however, does not permit of the "constant-strength" method of making the solution, unless some other factor, i. e., length of feed-pump stroke, be made adjustable. With a variable-strength solution made up from day to day of a strength corresponding to the required dose, a proportionate



rate of pumping is satisfactory. If Venturi or other meters are in use, the meter reading may be made the basis for adjustment.

In gravity systems, where the fluctuations are greatest, the greatest difficulty arises. There is no simple method of adjusting the rate of dosage to the flow in such cases. Certain mechanical devices are obtainable for accomplishing this result and should be used whenever possible.

Desirable and even necessary as many of these requirements are it can not be too strongly emphasized that much can be accomplished in a short time and by simple home-made means.

A few barrels, some piping, a toilet flush tank, and some bleaching powder are all that are absolutely required. Pending the installation of a better plant, the water supply of any community can be absolutely safeguarded within a few hours after beginning work. These may be called the "first-aid" remedies, after which the question of securing the services of an experienced water-works engineer should properly come up for consideration.

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## THE SOURCE AND SUPPLY OF MEDICINES.

WITH SPECIAL REFERENCE TO THE INTERFERENCE CAUSED BY THE EXISTING EUROPEAN WAR.

By MARTIN I. WILBERT, Technical Assistant, Division of Pharmacology, Hygienic Laboratory, United States Public Health Service.

The European war has demonstrated as no other combination of circumstances possibly could the degree to which we in this country are dependent on Europe for the ordinary supplies of our drugs and medicines. This dependence has been particularly emphasized by the unprecedented increase in the price of some of the more widely used drugs and the practical exhaustion for the time being of some few of the more important articles of materia medica that are made or controlled in the European countries now at war.

Probably the chief reason for the rapid rise in values was the fact that the available stocks of many of the staple articles during the summer months are usually at a rather low level and that practically all of the great drug markets of the world are in the war zone, so that stocks on hand in these ports are not available for export, either because of blockade or because the local government has interdicted the exporting of drugs.

It is not generally known that by far the greater number of drugs sold in the different countries of the world are marketed through London, Hamburg, or Trieste. A few drugs, like the products of the Dutch colonies, are marketed through Amsterdam, and some of the

drugs produced in Turkey and western Asia come to us directly from Constantinople or Smyrna. The bulk of the drugs used, however, even those of American origin, is distributed from the great drug markets of the world in the cities mentioned above.

The greatest uncertainty in the American supply of drugs is in connection with what are commonly known as botanicals. During the summer months the available stocks of these drugs are usually at an exceptionally low level because of the fact that many vegetable drugs deteriorate more or less on keeping, and, of some at least, supplies are not kept over from year to year, the new crop of drugs being available for distribution late in the summer or early in the fall, just about the period in which the war had its origin. A few of these drugs, like digitalis, stramonium, dandelion, and burdock root have become acclimated in different sections of this country and would be available in large quantities for the gathering. Up to the present time, however, the price at which the foreign drug could be purchased was such that the margin of profit was not sufficiently great to warrant their collection.

Farmers' Bulletin No. 188, entitled "Weeds used in medicine," contains illustrations of a number of drug plants and the necessary directions for gathering and curing many of the now scarce drugs. This pamphlet is sold by the Superintendent of Documents, Government Printing Office, Washington, D. C., for 5 cents, and the directions given therein are sufficiently explicit to identify the plants and insure marketable products.

The greatest difficulty in securing supplies of drugs during the coming year will no doubt be encountered in connection with the so-called "synthetics," articles made directly or indirectly from coal-tar. Practically from its beginning this business has been monopolized by European manufacturers, largely because of the better equipment of their manufacturing establishments, and also because of the marked difference in the cost of labor. Even the simplest products, like benzol, aniline oil, carbolic acid, salicylic acid, and benzoic acid, are made almost exclusively in Europe, and the prices at which these several products are being held at the present time in this country is entirely out of keeping with their cost of production, were American manufacturers equipped with the necessary apparatus to make them. Benzoic acid, for instance, is being quoted at ten times the price at which it could be purchased two months ago, while salicylic acid commands five times the price and phenol ten times the price asked for them before the outbreak of the war. These inordinately high prices must be paid despite the fact that we in this country have unlimited amounts of the raw material and produce probably more coke than any other country in the world. Unfortunately but a comparatively small amount of this coke is now made in by-product plants because

of the limited market for the coal tar produced. Heretofore much of the domestic coal tar was sent to Europe to be manufactured there into phenol, aniline oil, benzol, toluol, and the thousand and one products made from them which in turn were sent back to us to buy at very much enhanced values. During the fiscal year ending June 30, 1913, the coal-tar products entered for consumption in the United States aggregated a total declared value at the port of entry of more than \$15,000,000.

An important branch of the drug and spice industry which has as yet not been developed to any appreciable extent in this country is the production of volatile oils, perfumes, and related products which in 1913 were imported to the value of nearly \$7,000,000. The prices asked for some of these products, even for the few oils made in this country, have advanced materially and it will be some months before normal conditions can again be brought about. Many of these oils could or should be produced in this country from materials imported direct from the East or West Indies and other tropical or subtropical countries not involved in the present war.

An interesting illustration of the need for establishing an independent source for products of this type is to be found in thymol. This article less than three months ago was quoted at the then rather high price of approximately \$1 per pound, while at the present time the price quoted is \$15 a pound with the available stock on hand practically exhausted. In a commercial way this substance is obtained principally from ajowan oil, the volatile product obtained from the seed of an umbelliferous plant in India. Thymol also occurs in the oils of horse mint, dittany, thyme, and wild thyme. Horse mint, *Monarda punctata*, is an American labiate that could be gathered in large quantities or cultivated, like peppermint or spearmint, for the economic production of thymol. For the immediate future, however, there is no good reason why ajowan seed should not be imported into this country directly from India and other countries where it is grown and thymol produced economically in sufficiently large quantities to supply the demand.

A few drugs and chemicals, notably the alkaloids, such as cocaine, morphine, and quinine, will of necessity be very widely used in the countries now at war, in the treatment of the sick and wounded, and this greater demand for these commodities will probably tend to prevent any decrease of their price to the normal in the near future.

The scarcity and accompanying increase in the price of drugs is, of course, only one of the many burdens that have been or will be imposed on us by the interruption of normal trade conditions, but this burden may have a redeeming feature in that it will teach us to exercise greater care in the use of these commodities, will tend to encourage their production in this country, and should suggest the

practicability of establishing for ourselves and for the American continent generally a distributing center for the drug products of the world that will be independent of the now existing drug markets in European ports.

## PLAGUE-ERADICATIVE WORK.

### CALIFORNIA.

The following report of plague-eradication work in California for the week ended September 19, 1914, has been received from Surg. Long, of the United States Public Health Service, in charge of the work:

SAN FRANCISCO, CAL.		RATS IDENTIFIED—continued.	
Number of premises inspected.....	1,431	<i>Mus alexandrinus</i> .....	80
Number of premises destroyed.....	8	<i>Mus rattus</i> .....	90
Number of nuisances abated.....	169	PORT COSTA, CAL.	
Number of poisons placed.....	22,900	Number of rats trapped in warehouses.....	19
Average number of traps set daily.....	1,734	Number of rats trapped on water front.....	15
RATS COLLECTED AND EXAMINED FOR		Number of rats trapped in sugar refinery...	15
PLAGUE.		Number of rats examined.....	49
Collected.....	501	Amount poison placed on Port Costa	
Found dead.....	1	hills (pounds).....	8
Examined.....	306	RATS IDENTIFIED.	
Found infected.....	None.	<i>Mus norvegicus</i> .....	24
RATS IDENTIFIED.		<i>Mus musculus</i> .....	7
<i>Mus norvegicus</i> .....	237	<i>Mus alexandrinus</i> .....	18
<i>Mus musculus</i> .....	94	<i>Mus rattus</i> .....	

### Record of plague infection.

Places in California.	Date of last case of human plague.	Date of last case of rat plague.	Date of last case of squirrel plague.	Total number rodents found infected since May, 1907.
<b>Cities:</b>				
San Francisco.....	Jan. 30, 1908	Oct. 23, 1908	None.....	398 rats.
Oakland.....	Aug. 9, 1911	Dec. 1, 1908	.....do.....	126 rats.
Berkeley.....	Aug. 28, 1907	None.....	.....do.....	None.
Los Angeles.....	Aug. 11, 1908	.....do.....	Aug. 21, 1908	1 squirrel.
<b>Counties:</b>				
Alameda (exclusive of Oakland and Berkeley).....	Sept. 24, 1909	Oct. 17, 1909 (wood rat).	Aug. 7, 1914	286 squirrels, 1 wood rat.
Contra Costa.....	May 17, 1914	None.....	Aug. 25, 1914	1,563 squirrels.
Fresno.....	None.....	.....do.....	Oct. 27, 1911	1 squirrel.
Merced.....	.....do.....	.....do.....	July 12, 1911	5 squirrels.
Monterey.....	.....do.....	.....do.....	Apr. 10, 1914	6 squirrels.
San Benito.....	June 4, 1913	.....do.....	July 3, 1914	35 squirrels.
San Joaquin.....	Sept. 18, 1911	.....do.....	Aug. 26, 1911	18 squirrels.
San Luis Obispo.....	None.....	.....do.....	Jan. 29, 1910	1 squirrel.
Santa Clara.....	Aug. 31, 1910	.....do.....	July 23, 1913	25 squirrels.
Santa Cruz.....	None.....	.....do.....	May 17, 1910	3 squirrels.
Stanislaus.....	.....do.....	.....do.....	June 2, 1911	13 squirrels.

*Squirrels collected and examined for plague.*

County.	Shot.	Exam-ined.	Found infected.
Alameda.....	52	52	None.
Contra Costa.....	393	393	None.
San Benito.....	114	114	None.

*Ranches inspected and hunted over.*

Alameda County.....	7
Contra Costa County.....	71
San Benito County.....	20
Total.....	98

*Operations on waterfront.*

Number of vessels inspected for rat guards.....	23
Number of reinspections made on vessels.....	37
Number of new rat guards procured.....	20
Number of defective rat guards repaired.....	23
Number of vessels on which cargo was inspected.....	5

	Condition.	Rat evidence.
Steamer <i>Wilhelmina</i> , from Hilo:		
8 boxes household goods.....	O. K.....	None.
25 bundles empty cement sacks.....	O. K.....	None.
60 cases merchandise.....	O. K.....	None.
Steamers <i>Governor</i> , <i>Admiral Farragut</i> , <i>Admiral Dewey</i> , <i>Congress</i> :		
100 boxes merchandise.....	O. K.....	None.
150 cases merchandise.....	O. K.....	None.
30 crates household goods.....	O. K.....	None.
70 rolls paper.....	O. K.....	None.
650 sacks flour, bran, and wheat.....	O. K.....	None.

Rats trapped on wharves and water front....	12	Poisons placed on water front (pieces).....	9,000
Rats trapped on vessels.....	14	Amount of bread used in poisoning water	
Traps set on wharves and water front.....	182	front (loaves).....	30
Traps set on vessels.....	146	Poison used on water front..... pounds..	15
Vessels trapped on.....	16		

Operations are being carried on under Federal supervision on the following-named properties, labor and material being furnished by owners.

*Poisoned grain and destructors.*

Names.	Location.	Acres treated.		Holes treated.
		Pumps.	Grain.	
Hooper Co.....	Contra Costa County.....		1,821.02	
Moraga Co.....	do.....		1,852.55	
Moraga grant.....	do.....		150.00	
Bookwood acres.....	do.....		600.00	
W. J. White Ranch.....	do.....		100.00	
McLaughlin Land Co.....	Alameda County.....		3,360.00	
Planada development.....	Merced County.....		1,515.00	
Morse Realty Co.....	do.....		680.00	
McCollum ranch.....	do.....		320.00	
Southern Pacific Co.....	do.....	5½ miles.		2,171
Peoples Water Co.....	Contra Costa County.....		1,900.00	

Alameda County.....	acres inspected..	3,360
Merced County.....	miles..	5½

The work is being carried on in the following-named counties: San Francisco, Alameda, Santa Clara, Contra Costa, San Joaquin, Merced, Stanislaus, San Benito, Santa Cruz, and Monterey.

### LOUISIANA—NEW ORLEANS.

The following report of plague-eradivative work in New Orleans for the week ended September 26, 1914, has been received from Asst. Surg. Gen. Rucker, of the United States Public Health Service, in charge of the work:

OUTGOING QUARANTINE.		DESTINATION AND NUMBER OF RAILROAD CARS INSPECTED WEEK ENDED SEPT. 26—contd.	
Vessels fumigated with sulphur.....	70	North Carolina.....	16
Vessels fumigated with carbon monoxide...	13	North Dakota.....	7
Sulphur burned, pounds.....	8,274	Ohio.....	58
Coke consumed in carbon monoxide fumi- gation, pounds.....	38,200	Oklahoma.....	14
Outgoing freight inspected, tons.....	8,030	Pennsylvania.....	12
Total packages freight inspected.....	128,853	South Carolina.....	17
Clean bills of health issued.....	29	South Dakota.....	11
Foul bills of health issued.....	3	Tennessee.....	102
		Texas.....	249
OVERLAND FREIGHT INSPECTION.		Virginia.....	5
Cars inspected.....	3,758	Washington.....	3
Cars rat-proofed.....	2,074	West Virginia.....	3
Cars condemned.....	32	Wisconsin.....	12
DESTINATION AND NUMBER OF RAILROAD CARS INSPECTED WEEK ENDED SEPT. 26.		Canada.....	3
Alabama.....	134	FIELD OPERATIONS.	
Arizona.....	4	Number of rats trapped.....	8,399
Arkansas.....	47	Premises fumigated.....	13
California.....	65	Premises disinfected.....	210
Colorado.....	4	Premises inspected.....	6,876
Connecticut.....	3	Poisons placed.....	332,335
Delaware.....	6	Notices served.....	3,906
District of Columbia.....	1	Buildings rat-proofed during week ended Sept. 26.....	199
Florida.....	51	Buildings rat-proofed to date.....	1,300
Georgia.....	57	Number of abatements week ended Sept. 26.....	1,357
Illinois.....	509	Number of abatements to date.....	7,556
Indiana.....	43	Number of dead inspected.....	116
Iowa.....	21	LABORATORY OPERATIONS.	
Kansas.....	15	Rats examined.....	5,776
Kentucky.....	34	Mus norvegicus.....	5,593
Louisiana.....	1,304	Mus alexandrinus.....	124
Maryland.....	4	Mus rattus.....	53
Massachusetts.....	10	Mus musculus.....	2,383
Michigan.....	27	Unclassified, putrid.....	194
Minnesota.....	10	Total rodents received at laboratory.....	8,347
Mississippi.....	449	Number of suspicious rats.....	16
Missouri.....	94	Plague rats confirmed.....	35
Montana.....	2		
Nebraska.....	1		
New Mexico.....	2		
New York.....	4		

*Plague rats.*

Case No.	Address.	Captured.	Diagnosis confirmed.	Treatment of premises.
128, 129 130	1017 Common Street.....	Sept. 20	Sept. 20	See case 100.
131, 132	160 South Rampart Street.....	...do....	...do....	See case 101.
133, 134	.....do.....	Sept. 22	Sept. 22	Do.
135	2815 Dumaine Street.....	Sept. 16	Sept. 23	Summary destruction rat harborage; rat-proofing initiated; disinfection; intensive trapping and poisoning.
136	Elevator "D" Stuy. Docks.....	Sept. 23	...do....	Disinfection; rat-proofing initiated.
137	Trapped in sewer, corner Rampart and Common Streets.	Sept. 24	Sept. 24	Intensive trapping and poisoning.
138	Girod Street Wharf.....	...do....	...do....	Do.
139	2009 Spain Street.....	Sept. 18	Sept. 25	Do.
140, 141	1013 Magazine Street.....	Sept. 25	...do....	Fumigation; summary destruction of rat harborage; rat-proofing initiated; disinfection.
142-147	.....do.....	Sept. 26	Sept. 26	See case 140.
148	2904 Melpomene Street.....	...do....	...do....	Summary destruction of rat harborage; rat-proofing initiated; trapping and poisoning.
149-162	1013 Magazine Street.....	...do....	...do....	See case 140.

These rodents were taken as result of summary destruction of rat harborage.

*Human plague cases.*

Suspicious human cases examined.....	1
Number of human plague cases.....	3
Total number of human cases to date.....	28

Case No.	Name and place of infection.	Date suspicious.	Diagnosis confirmed.	Treatment of premises.
26	C. A., 824 Burgundy Street.....	Sept. 21	Sept. 22	Fumigated; intensive trapping and poisoning.
27	J. J. V., 1463 Bourbon Street.....	...do....	...do....	Fumigation; rat-proofing initiated; intensive trapping and poisoning.
28	Mrs. H. S., 910 Elysian Fields....	Sept. 22	Sept. 23	Do.

Total rodents captured to Sept. 26.....	96,794
Total rodents examined to Sept. 26.....	86,639

Rodent cases to Sept. 26, by species:

Mus rattus.....	6
Mus alexandrinus.....	3
Mus norvegicus.....	153
Total rodent cases to Sept. 26.....	162

A later telegraphic report from New Orleans, dated October 5, 1914, states that two additional cases of plague in man have been notified in that city.

**WASHINGTON—SEATTLE.**

The following report of plague-eradication work in Seattle for the week ended September 19, 1914, has been received from Surg. Lloyd, of the United States Public Health Service, in charge of the work:

## RAT PROOFING.

New buildings inspected.....	35
Basements concreted, new buildings (15), square feet.....	31,026
Floors, concreted, new buildings (14), square feet.....	47,152
Yards, etc., concreted, new buildings (4), square feet.....	3,396
Sidewalks concreted.....square feet..	5,830
Total concrete laid, new buildings, square feet.....	87,404
New buildings elevated.....	5
Old building inspected.....	1
Premises rat proofed.....	31
Basement concreted, old building.....	1
Openings screened.....	36
Rat holes cemented.....	42
Doors rat proofed.....	4
Wire screening used.....square feet..	750
Buildings razed.....	5

## WATER FRONT.

Vessels inspected and histories recorded....	8
Vessels fumigated.....	2
Sulphur used.....pounds..	2,125
New rat guards installed.....	37
Port sanitary statements issued.....	54

## LABORATORY AND RODENT OPERATIONS.

Dead rodents received.....	11
Rodents trapped and killed.....	268
Total.....	279

Rodents examined for plague infection.....	394
Rodents proven plague infected.....	None.
Poison distributed.....pounds..	20

## CLASSIFICATION OF RODENTS.

Mus rattus.....	16
Mus alexandrinus.....	91
Mus norvegicus.....	305
Mus musculus.....	67

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

## HAWAII—HILO.

The following report of plague-eradication work in Hilo for the week ended August 29, 1914, has been received from Surg. Trotter, of the United States Public Health Service:

Number of rats and mongoose taken.....	10,053	Number of rats and mongoose plague infected.	
Number of rats trapped.....	9,911	Classification of rats trapped and found dead:	
Number of rats found dead.....	11	Mus norvegicus.....	2,237
Number of mongoose taken.....	131	Mus alexandrinus.....	1,210
Number of rats and mongoose examined macroscopically.....	10,053	Mus rattus.....	3,113
Number of rats and mongoose examined microscopically.....	3	Mus musculus.....	3,362
Number of rats and mongoose examined bacteriologically.....	1	Rats not classified, found dead and trapped in plantation camps destroyed by burning.	1,041
		Poisoned food placed, pieces.....	13,642
		Poisoned food taken, pieces.....	1,107

Last case of rat plague, Pacific Sugar Mill, January 30, 1914.

Last case of human plague, Paauhau Sugar Co., August 16, 1914.

## PORTO RICO.

The following is a summary of reports of plague-eradication work in Porto Rico for the two weeks ended September 25, 1914:

*Rodents examined for infection.*

	Rats.	Mice.		Rats.	Mice.
San Juan.....	126	85	Arecibo.....	41	7
Puerta de Tierra.....	47	2			
Sancti Spiritus.....	403	22	Total.....	620	116
Rio Piedras.....	3				



# PREVALENCE OF DISEASE.

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

## IN CERTAIN STATES AND CITIES.

### CEREBROSPINAL MENINGITIS.

City Reports for Week Ended Sept. 19, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Boston, Mass.....	1	1	New York, N. Y.....	3	3
Chicago, Ill.....	1	1	Niagara Falls, N. Y.....	1	1
Cleveland, Ohio.....	1	.....	Pittsburgh, Pa.....	2	2
Marinette, Wis.....	1	1	Plainfield, N. J.....	10	.....
Milwaukee, Wis.....	2	2	Saginaw, Mich.....	.....	1
Newark, N. J.....	.....	1	San Diego, Cal.....	1	1

### DIPHTHERIA.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2726.

### ERYSIPELAS.

City Reports for Week Ended Sept. 19, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Binghamton, N. Y.....	1	.....	Los Angeles, Cal.....	1	.....
Chicago, Ill.....	5	1	Newark, N. J.....	.....	1
Cincinnati, Ohio.....	1	.....	New York, N. Y.....	.....	2
Cleveland, Ohio.....	4	.....	Philadelphia, Pa.....	1	2
Fall River, Mass.....	.....	1	Pittsburgh, Pa.....	9	.....
Jersey City, N. J.....	1	.....	St. Louis, Mo.....	1	.....

### MEASLES.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2726.

### PELLAGRA.

City Reports for Week Ended Sept. 19, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Charleston, S. C.....	.....	2	Nashville, Tenn.....	1	.....
Galveston, Tex.....	.....	1	New Orleans, La.....	1	.....
Hoboken, N. J.....	1	.....	New York, N. Y.....	1	2
Lynchburg, Va.....	1	.....	San Diego, Cal.....	1	1

**PNEUMONIA.****City Reports for Week Ended Sept. 19, 1914.**

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Auburn, N. Y.....	2	.....	Los Angeles, Cal.....	4	3
Berkeley, Cal.....	1	.....	Manchester, N. H.....	3	3
Chicago, Ill.....	62	36	Philadelphia, Pa.....	9	23
Cleveland, Ohio.....	3	4	Pittsburgh, Pa.....	4	13
Duluth, Minn.....	1	1	Rochester, N. Y.....	1	4
Galesburg, Ill.....	1	1	Rutland, Vt.....	1	1
Kalamazoo, Mich.....	1	1	South Bethlehem, Pa.....	1	.....
Lancaster, Pa.....	2	.....			

**POLIOMYELITIS (INFANTILE PARALYSIS).****City Reports for Week Ended Sept. 19, 1914.**

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Ann Arbor, Mich.....	1	.....	Haverhill, Mass.....	1	.....
Bellingham, Wash.....	1	.....	Lowell, Mass.....	2	.....
Butte, Mont.....	.....	1	Manchester, N. H.....	1	.....
Berkeley, Cal.....	1	.....	New Bedford, Mass.....	1	.....
Chicago, Ill.....	3	.....	Wilkesburg, Pa.....	1	.....
Cleveland, Ohio.....	1	.....	Worcester, Mass.....	.....	1

**RABIES.****City Reports for Week Ended Sept. 19, 1914.**

During the week ended September 19, 1914, rabies was notified by cities as follows: Boston, Mass., 1 death; Fall River, Mass., 4 cases.

**SCARLET FEVER.**

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2726.

**SMALLPOX.****California—Holtville.**

Acting Asst. Surg. Richter, of the United States Public Health Service, reports by telegraph, under date of October 3, 1914, that four cases of smallpox of the mild type have been notified at Holtville, Imperial County, Cal.

**Miscellaneous State Reports.**

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Colorado (July 1-31):			Colorado (Sept. 1-30)—Contd.		
Counties—			Counties—Continued.		
Denver.....	13	.....	Ouray.....	1	.....
La Plata.....	3	.....	Teller.....	1	.....
Larimer.....	1	.....	Total.....	19	.....
Logan.....	1	.....	Oregon (Aug. 1-31):		
Morgan.....	1	.....	Counties—		
Routt.....	4	.....	Clatsop.....	3	.....
Weld.....	2	.....	Jackson.....	1	.....
Total.....	25	.....	Morrow.....	2	.....
Colorado (Aug. 1-31):			Multnomah.....	20	.....
Counties—			Total.....	26	.....
Boulder.....	1	.....	Utah (Aug. 1-31):		
Denver.....	6	.....	Counties—		
Las Animas.....	4	.....	Davis.....	1	.....
Total.....	11	.....	Juab.....	6	.....
Colorado (Sept. 1-30):			Salt Lake.....	16	.....
Counties—			Utah.....	1	.....
Denver.....	16	.....	Total.....	24	.....
Mesa.....	1	.....			

**SMALLPOX—Continued.****City Reports for Week Ended Sept. 19, 1914.**

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Butte, Mont.....	1	.....	Muncie, Ind.....	1	.....
Cleveland, Ohio.....	1	.....	Portland, Oreg.....	1	.....
Detroit, Mich.....	5	.....	Superior, Wis.....	4	.....
Milwaukee, Wis.....	2	.....	Toledo, Ohio.....	3	.....

**TETANUS.****City Reports for Week Ended Sept. 19, 1914.**

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Binghamton, N. Y.....	1	.....	Philadelphia, Pa.....	.....	1
Brownsville, Tex.....	1	.....	Pittsburgh, Pa.....	1	.....
Haverhill, Mass.....	1	.....	St. Louis, Mo.....	1	.....
Los Angeles, Cal.....	1	1			

<sup>1</sup> Neonatorum.**TUBERCULOSIS.**

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2726.

**TYPHOID FEVER.****City Reports for Week Ended Sept. 19, 1914.**

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Altoona, Pa.....	2	1	Lynchburg, Va.....	4	.....
Atlantic City, N. J.....	1	.....	Lynn, Mass.....	3	1
Aurora, Ill.....	11	1	Manchester, N. H.....	.....	2
Baltimore, Md.....	36	3	Milwaukee, Wis.....	2	.....
Beaver Falls, Pa.....	1	.....	Mobile, Ala.....	5	.....
Bellingham, Wash.....	1	1	Moline, Ill.....	6	.....
Berkeley, Cal.....	7	.....	Nanticoke, Pa.....	1	.....
Binghamton, N. Y.....	2	1	Nashville, Tenn.....	23	5
Boston, Mass.....	14	2	Newark, N. J.....	5	.....
Brockton, Mass.....	2	.....	New Bedford, Mass.....	20	1
Brookline, Mass.....	5	.....	New Castle, Pa.....	2	.....
Cambridge, Mass.....	2	.....	New Orleans, La.....	4	.....
Cambridge, Ohio.....	2	.....	Newton, Mass.....	1	.....
Camden, N. J.....	5	.....	New York, N. Y.....	126	13
Charleston, S. C.....	6	.....	Niagara Falls, N. Y.....	1	.....
Chelsea, Mass.....	1	.....	Norfolk, Va.....	1	.....
Chicago, Ill.....	30	3	Norristown, Pa.....	3	1
Chicopee, Mass.....	2	.....	North Adams, Mass.....	3	.....
Cincinnati, Ohio.....	5	.....	Oakland, Cal.....	1	.....
Cleveland, Ohio.....	5	2	Pascagoula, Miss.....	1	1
Coffeyville, Kans.....	1	.....	Philadelphia, Pa.....	28	2
Columbus, Ohio.....	3	.....	Pittsburgh, Pa.....	10	2
Concord, N. H.....	1	.....	Portland, Oreg.....	1	.....
Cumberland, Md.....	2	.....	Providence, R. I.....	13	1
Dayton, Ohio.....	3	.....	Reading, Pa.....	8	2
Detroit, Mich.....	30	4	Richmond, Va.....	5	1
Duluth, Minn.....	5	1	Roanoke, Va.....	2	.....
East Orange, N. J.....	1	.....	Rochester, N. Y.....	3	.....
Elmira, N. Y.....	2	.....	Rutland, Vt.....	1	.....
Evansville, Ind.....	2	.....	Sacramento, Cal.....	1	1
Fitchburg, Mass.....	4	.....	St. Louis, Mo.....	40	4
Florence, S. C.....	1	.....	Saratoga Springs, N. Y.....	.....	1
Galveston, Tex.....	1	.....	Schenectady, N. Y.....	4	.....
Grand Haven, Mich.....	2	1	South Bend, Ind.....	1	.....
Grand Rapids, Mich.....	2	.....	Springfield, Ill.....	7	3
Hartford, Conn.....	5	.....	Springfield, Mass.....	1	2
Haverhill, Mass.....	4	.....	Superior, Wis.....	.....	1
Jersey City, N. J.....	3	1	Taunton, Mass.....	1	.....
Johnstown, Pa.....	20	.....	Trenton, N. J.....	3	.....
Kalamazoo, Mich.....	1	.....	Toledo, Ohio.....	10	1
Kansas City, Kans.....	5	.....	Waltham, Mass.....	1	.....
Kokomo, Ind.....	4	.....	Wilkes-Barre, Pa.....	2	.....
Lancaster, Pa.....	2	.....	Wilkinsburg, Pa.....	1	.....
Lexington, Ky.....	5	1	Wilmington, N. C.....	1	.....
Little Rock, Ark.....	3	.....	Worcester, Mass.....	6	1
Los Angeles, Cal.....	4	2	York, Pa.....	2	.....
Lowell, Mass.....	2	.....	Zanesville, Ohio.....	1	.....

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

City Reports for Week Ended Sept. 19, 1914.

Cities.	Population as of July 1, 1914 (estimated by United States Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.		
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
Over 500,000 inhabitants:											
Baltimore, Md.	579,590	182	20	3	3		6		16	19	
Boston, Mass.	733,802	209	25		11		31		62	19	
Chicago, Ill.	2,398,325	581	116	8	6		31		145	60	
Cleveland, Ohio.	639,431	153	42	4	2		4		27	16	
Detroit, Mich.	537,650	173	35	3			10	2	9	10	
New York, N. Y.	5,333,537	1,330	212	10	48	1	49	1	415	168	
Philadelphia, Pa.	1,637,810	416	43	1	12		12		89	45	
Pittsburgh, Pa.	564,878	171	50	8	14		45	1	27	14	
St. Louis, Mo.	734,667	213	71	7	2		19		37	20	
From 300,000 to 500,000 inhabitants:											
Cincinnati, Ohio.	402,175	98	24		1		12		34	18	
Los Angeles, Cal.	438,914	86	12	1	3		3		53	20	
Milwaukee, Wis.	417,054	84	18	1	1	17			19	9	
Newark, N. J.	389,106	105	20		2	7			42	13	
New Orleans, La.	361,221	96	50		2				34		
From 200,000 to 300,000 inhabitants:											
Columbus, Ohio.	204,567	53	10	1			2		2	6	
Jersey City, N. J.	293,921	51	13	2			7		24	10	
Portland, Oreg.	260,601	40	8	1			3		13	5	
Providence, R. I.	245,090	73	10	1	2		7		3	14	
Rochester, N. Y.	241,518	69	7	1	3		5		12	7	
From 100,000 to 200,000 inhabitants:											
Cambridge, Mass.	110,357	31	1		1		3		1	3	
Camden, N. J.	102,465	4	4						3		
Dayton, Ohio.	123,794	39	3				4			3	
Fall River, Mass.	125,443		2		3		3		3	2	
Grand Rapids, Mich.	123,227	28	10	1	1		7		3	1	
Lowell, Mass.	111,004		3	1					6	1	
Nashville, Tenn.	114,899	48					6		6	7	
New Bedford, Mass.	111,230	40	1				2		6	5	
Oakland, Cal.	183,002	40	(1)		2					5	
Reading, Pa.	103,361	26					1		1	5	
Richmond, Va.	134,917	50	6				2		4	4	
Springfield, Mass.	100,375	21	1	1					2		
Toledo, Ohio.	184,126	52	10		1		5		4	5	
Trenton, N. J.	106,831	35	1		1				5	4	
Worcester, Mass.	157,732	42	4				4		9	3	
From 50,000 to 100,000 inhabitants:											
Altoona, Pa.	56,553	13	3								
Atlantic City, N. J.	53,952	6									
Bayonne, N. J.	65,271	10	5				1		4		
Berkeley, Cal.	52,105	8			11				1		
Binghamton, N. Y.	52,191	16	6						4	3	
Brookton, Mass.	64,043	15	2						3	5	
Charleston, S. C.	60,121	20			6					2	
Duluth, Minn.	89,331		6				1		7	1	
Erie, Pa.	72,401	14	6		1		1		3		
Evansville, Ind.	71,284	22	2				1			2	
Harrisburg, Pa.	69,493	18	2						4	1	
Hoboken, N. J.	74,004		2				1		9		
Johnstown, Pa.	64,642	24	4	1			2		4	2	
Kansas City, Kans.	94,271								2	2	
Little Rock, Ark.	53,811	16	1				3				
Lynn, Mass.	98,207	27	3	1					4	1	
Manchester, N. H.	75,635	32	1				2	2	1	1	
Mobile, Ala.	55,573	21	1							3	
Norfolk, Va.	86,540		3				1	3	1		
Passaic, N. J.	66,276	22	3	3	1		3		2		
Pawtucket, R. I.	56,901	14	1								
Saginaw, Mich.	53,988	14	8		1		3			2	
Schenectady, N. Y.	90,503	19	2		2		3		6	1	
South Bend, Ind.	65,114		1							4	
Springfield, Ill.	57,972	23					1		2	2	
Springfield, Ohio.	50,058	7					1				
Wilkes-Barre, Pa.	73,680	29	3						4	2	
Yonkers, N. Y.	93,383	22	3				1		8	2	

\* Carrier.

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

City Reports for Week Ended Sept. 19, 1914—Continued.

Cities.	Population as of July 1, 1914 (esti- mated by United States Census Bureau).	Total deaths from all causes.	Diph- theria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 25,000 to 50,000 inhab- itants:										
Alameda, Cal.	26,330	6	1	1	1		1		1	
Auburn, N. Y.	36,509	8								
Aurora, Ill.	33,022	12								
Austin, Tex.	33,218	3	6							
Brookline, Mass.	31,138	4					1			
Butte, Mont.	41,781	24	1						2	2
Chelsea, Mass.	32,452	11	1		1				2	
Chicopee, Mass.	28,057	5	1						1	
Danville, Ill.	30,847	10								2
East Orange, N. J.	39,852		2		1					
Elmira, N. Y.	37,816	18	1						4	4
Everett, Mass.	37,381	12							3	
Fitchburg, Mass.	40,507	10		1					3	1
Galveston, Tex.	40,289	16	3	1						
Haverhill, Mass.	47,071	9					2		5	
Kalamazoo, Mich.	45,842	26							4	1
Lancaster, Pa.	49,685						1		2	
Lexington, Ky.	38,819	19					1			4
Lynchburg, Va.	31,830	2							5	1
Malden, Mass.	48,979	12	4							
Medford, Mass.	25,240	3	2							
Moline, Ill.	26,402	4	1						1	
Newcastle, Pa.	39,569		1							
Newport, Ky.	31,517	6	1				2		2	2
Newport, R. I.	29,154	5					1			
Newton, Mass.	42,455	7							1	
Niagara Falls, N. Y.	35,127	18	2	1					1	
Norristown, Pa.	30,265	5	2							
Orange, N. J.	31,968	11	1				1		1	1
Pasadena, Cal.	40,880	12							3	
Portsmouth, Va.	37,569	5	1							1
Racine, Wis.	44,528	13	3						1	1
Roanoke, Va.	40,574	14	19				4	1	6	2
Sacramento, Cal.	62,717	18			4					2
San Diego, Cal.	48,900	6	7						4	4
South Omaha, Nebr.	26,368	13				1				
Superior, Wis.	44,344	7				1				1
Taunton, Mass.	35,631	13				1			1	
Waltham, Mass.	29,688	6	6			4			1	
Wheeling, W. Va.	42,817	17	4							1
Wilmington, N. C.	27,781	12				1			1	1
York, Pa.	49,430		3						1	
Zanesville, Ohio.	29,949								1	1
Less than 25,000 inhabitants:										
Ann Arbor, Mich.	14,948	7	1				4		5	
Beaver Falls, Pa.	13,100		1							
Braddock, Pa.	20,935						2			
Cairo, Ill.	15,392	9	3		1	1			1	1
Cambridge, Ohio.	12,640	7								1
Clinton, Mass.	13,075	1							1	
Concord, N. H.	22,291	8					1			
Cumberland, Md.	23,846	3					4		2	1
Dunkirk, N. Y.	19,607	5							1	
Florence, S. C.		1							1	
Galesburg, Ill.	23,570	2					1			
Grand Haven, Mich.		3								
Kearney, N. J.	21,967	5	3							
Kokomo, Ind.	19,694	10					2			
Marionette, Wis.	14,610	3					1			
Massillon, Ohio.	14,912	4	1							1
Melrose, Mass.	16,887	2					3	1		
Montclair, N. J.	24,732	3	1							
Morristown, N. J.	13,033	6								1
Muncie, Ind.	24,969	1								
Muscatine, Iowa	17,074	4								
Nanticoke, Pa.	21,756	9	4		3					
Newburyport, Mass.	15,147	3								
New London, Conn.	20,557	6								
North Adams, Mass.	22,019	8			1					2
Northampton, Mass.	19,766	8							2	

**DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Contd.****City Reports for Week Ended Sept. 19, 1914—Continued.**

Cities.	Population as of July 1, 1914 (esti- mated by United States Census Bureau).	Total deaths from all causes.	Diph- theria.		Measles.		Scarlet fever.		Tubercu- losis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
<b>Less than 25,000 inhabitants— Continued.</b>										
Palmer, Mass.....	8,955	2								1
Palo Alto, Cal.....					1					
Pascagoula, Miss.....		2								
Plainfield, N. J.....	22,755	5	1		8				1	
Pottstown, Pa.....	16,408	5	1							1
Rutland, Vt.....	14,417	14	2				1			1
Saratoga Springs, N. Y.....	12,813	4								
South Bethlehem, Pa.....	22,840	1	1	1					1	
Steelton, Pa.....	15,126				1				1	
Vineyard Haven, Mass.....		1								
Wilkinsburg, Pa.....	21,701	6	4				1			
Woburn, Mass.....	15,755	3								

# FOREIGN REPORTS.

## CHINA.

### Plague—Plague-Infected Rats—Hongkong.

During the two weeks ended August 15, 1914, 11 cases of plague with 11 deaths were notified at Hongkong. During the same period 3,481 rats were examined at Hongkong for plague infection. Three plague-infected rats were found.

### Examination of Rats—Shanghai.

During the week ended August 22, 1914, 240 rats were examined at Shanghai for plague infection. No plague-infected rat was found.

## CUBA.

### Communicable Diseases—Habana.

Communicable diseases were notified in Habana during the period from September 1 to 10, 1914, as follows:

Places.	Cases.	Deaths.	Remain- ing under treat- ment.	Places.	Cases.	Deaths.	Remain- ing under treat- ment.
Diphtheria.....	13	1	8	Paratyphoid fever...	1	1	1
Leprosy.....	13		264	Scarlet fever.....	7	2	7
Malaria.....	1		16	Typhoid fever.....	16	2	59
Measles.....							

<sup>1</sup> Imported.

## ECUADOR.

### Plague—Yellow Fever.

During the month of August, 1914, plague and yellow fever were notified in Guayaquil as follows: Plague, 8 cases; yellow fever, 4 cases. A rather high mortality among rats was observed at Guayaquil for a month before the human cases appeared.

## GREAT BRITAIN.

### Examination of Rats—Liverpool.

During the week ended September 12, 1914, 433 rats were examined at Liverpool for plague infection. No plague-infected rat was found.

**GREECE.**

**Plague—Piræus.**

During the period from August 7 to September 9, 1914, 14 cases of plague were notified at Piræus, Greece.

**ITALY.**

**Quarantine Against Piræus.**

Vessels arriving at Italian ports from Piræus, Greece, were made subject, September 22, 1914, to the regulations against plague.

**JAPAN.**

**Cholera—Vicinity of Nagasaki.**

Cholera was reported present in the vicinity of Nagasaki October 2, 1914.

**Plague—Taihoku.**

During the week ended August 22, 1914, 1 case of plague and 2 deaths were notified at Taihoku, capital of the island of Taiwan, Japan.

**MEXICO.**

**Yellow Fever—Merida.**

A case of yellow fever was notified at Merida, State of Yucatan, Mexico, September 14, 1914.

**PORTUGAL.**

**Pneumonic Plague—Lisbon.**

Six cases of the pneumonic form of plague have been reported in Lisbon, Portugal.

**VENEZUELA.**

**Yellow Fever—La Guayra.**

A fatal case of yellow fever was notified at La Guayra during the period from August 16 to 31, 1914. The source of the infection has not been determined.

**ZANZIBAR.**

**Plague—Plague-Infected Rats—Zanzibar.**

A case of plague was notified at Zanzibar during the week ended July 21, 1914. During the same period 885 rats were examined at Zanzibar for plague infection. Of this number 4 were found plague infected.

During the week ended August 21, 1914, 2 cases of plague with 1 death were notified and 964 rats examined. Three plague-infected rats were found.



**CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX.****Reports Received During Week Ended Oct. 9, 1914.**

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

**CHOLERA.**

Places.	Date.	Cases.	Deaths.	Remarks.
Dutch East Indies:				
Celebes—				
Macassar.....	Aug. 2-18.....	47	40	
Samatra—				
Palembang.....	.....do.....	29	11	
India:				
Bombay.....	Aug. 18-22.....	51	31	
Madras.....	Aug. 16-22.....	81	57	
Indo-China:				
Saigon.....	Aug. 2-17.....	4	2	
Japan:				
Nagasaki.....	Oct. 2.....			Present in vicinity.
Siam:				
Bangkok.....	June 14-July 11.....		24	
Straits Settlements:				
Singapore.....	July 5-11.....	12	9	
Do.....	July 26-Aug. 8....	13	9	
Turkey in Europe:				
Saloniki.....	Aug. 30-Sept. 5....		4	

**YELLOW FEVER.**

Brazil:				
Bahia.....	Aug. 23-29.....	1	1	
Ecuador:				
Guayaquil.....	Aug. 1-31.....	4	2	
Mexico:				
Merida.....	Sept. 14.....	1		
Venezuela:				
La Guayra.....	Aug. 16-31.....	1	1	

**PLAGUE.**

Ecuador:				
Guayaquil.....	Aug. 1-31.....	8	1	
Greece:				
Piræus.....	Aug. 7-Sept. 9....	14	2	Sept. 30, ended.
India:				
Bombay.....	Aug. 16-22.....	23	16	
Indo-China:				
Saigon.....	Aug. 4-17.....	24	14	
Japan:				
Taiwan—				
Taihoku.....	Aug. 16-22.....		2	
Portugal:				
Lisbon.....	Oct. 8.....	6		Pneumonic form.
Siam:				
Bangkok.....	July 5-11.....		1	
Zanzibar:				
Zanzibar.....	July 15-Aug. 21...	3	1	

**SMALLPOX.**

Austria-Hungary:				
Galicia.....	May 24-July 25....	2		
Lower Austria.....	May 31-June 20....	2		
Styria.....	July 5-11.....	2		
Upper Austria.....	.....do.....	1		
Brazil:				
Rio de Janeiro.....	Aug. 2-22.....	688	122	
Ceylon:				
Colombo.....	Aug. 8-15.....	3	1	
Dutch East Indies:				
Java.....				Aug. 2-8: Cases, 206; deaths, 38.
Batavia.....	Aug. 2-8.....	8	3	
Tegal.....	.....do.....	19	6	
Egypt:				
Alexandria.....	Aug. 27-Sept. 2....	3	4	
Cairo.....	July 30-Aug. 19....	21	7	
Do.....	Aug. 20-26.....	2	1	

**CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.****Reports Received During Week Ended Oct. 9, 1914—Continued.****SMALLPOX—Continued.**

Places.	Date.	Cases.	Deaths.	Remarks.
India:				
Bombay.....	Aug. 16-22.....	3	2	
Madras.....	do.....	1	1	
Japan:				
Nagasaki.....	Aug. 24-30.....	3		
Mexico:				
Monterey.....	Sept. 14-20.....		1	
Norway:				
Trondhjem.....	Aug. 1-31.....	2		
Portugal:				
Lisbon.....	Aug. 16-Sept. 21..	8		
Russia:				
Moscow.....	July 26-Aug. 8....	5	4	
Riga.....	July 19-25.....	2		
St. Petersburg.....	July 5-11.....	9	9	
Warsaw.....	June 27-May 2.....	54	17	
Switzerland:				
Canton—				
Zurich.....	Aug. 2-8.....	1		
Siam:				
Bangkok.....	June 13-July 11....		1	
Turkey in Asia:				
Beirut.....	Aug. 16-Sept. 5....	20	8	
Damascus.....	June 21-Aug. 1.....	275	152	
Trebizond.....	Aug. 22-Sept. 5....			Present.

**Reports Received from June 27 to Oct. 2, 1914.****CHOLERA.**

Places.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary:				
Hungary.....				Sept. 26, present in 5 localities.
Budapest.....	Sept. 26.....	1		
Vienna.....	Sept. 13.....	1		
Ceylon:				
Colombo.....	June 14-20.....	1	1	
Uda Pusselawa, district.....	June 7-13.....			Present in Kumbalagamuwa and the neighboring tea estates.
China:				
Amoy—				
Kulangsu.....	Aug. 1.....	1		
Hankow.....	July 12-18.....	1		From up-country districts.
Chaochow fu.....	July 4.....			Present.
Canton.....	Jan. 1-Apr. 30.....	4		
Hongkong.....	May 17-23.....	1	1	
Dutch East Indies.....				June 6-13: In Bali and Lombok: Cases, 44; deaths, 23.
Celebes.....	July 19-Aug. 1.....	85	85	
Java—				
Batavia.....	Aug. 28-July 18....	2	2	Epidemic.
Moluccas—				
Menado.....	June 21-27.....	42	14	
India:				
Bassein.....	Apr. 26-June 20....	82	64	
Bombay.....	May 17-Aug. 15....	198	125	
Calcutta.....	May 10-Aug. 15....		258	
Cocanada.....	July 18-24.....		5	
Madras.....	May 31-Aug. 15....	162	116	
Moulmine.....	June 7-13.....	1	1	
Negapatam.....	May 14-July 25....	30	30	
Rangoon.....	Apr. 1-June 30....	10	9	
Indo-China.....				Jan. 1-June 10: Cases, 146; deaths, 77. May 21-June 20: Cases, 22.
Battambang.....	June 11-20.....	4		
Cholon.....	July 1-10.....	4		
Saigon.....	June 2-Aug. 3.....	33	12	
Persia:				
Anzali.....	June 15.....	1		
Philippine Islands:				
Manila.....	July 4-Aug. 8.....	65	55	
Provinces.....	do.....			Present in 6 Provinces.

**CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.****Reports Received from June 27 to Oct. 2, 1914—Continued.****CHOLERA—Continued.**

Places.	Date.	Cases.	Deaths.	Remarks.
Russia:				
Podolia.....	.....	.....	.....	July 19-Aug. 2: Cases, 254; deaths, 85.
Bratslaw.....	July 26-Aug. 2....	1	.....	
Jampol.....	July 19-Aug. 2....	25	8	
Letichev.....	July 10.....	2	2	
Litna.....	July 26-Aug. 8....	8	3	
Vinnitza.....	July 19-Aug. 2....	220	74	
Siam:				
Bangkok.....	Apr. 19-June 13....	.....	253	
Straits Settlements:				
Singapore.....	May 10-July 25....	96	86	
Turkey in Europe:				
Adrianople.....	May 14-19.....	.....	2	
Constantinople.....	July 15.....	1	.....	
Via.....	July 22.....	1	.....	
Turkey in Asia:				
Eski-Cheri.....	July 23-24.....	2	1	
Tagadima.....	July 29.....	2	.....	

**YELLOW FEVER.**

Brazil:				
Bahia.....	May 10-Aug. 15....	18	15	
Pernambuco.....	May 1-15.....	.....	1	
Ecuador:				
Guayaquil.....	May 1-31.....	3	1	
Venezuela:				
Caracas.....	June 1-30.....	1	1	
Maracaibo.....	June 15.....	.....	.....	Present in light form. No cases since.

**PLAGUE.**

Brazil:				
Bahia.....	May 17-Aug. 22....	9	8	
Pernambuco.....	May 1-Aug. 15....	.....	5	
British East Africa:				
Mombasa.....	June 1-30.....	.....	1	
Ceylon:				
Colombo.....	May 19-Aug. 8....	121	109	
China.....	.....	.....	.....	Jan. 1-Apr. 30, present in Hokschan, Shuntak, Tangsching, and Tungkun. Apr. 3-17, present in Kan-lai and San-hu, 20 miles distant from Pakhoi. June 6, still present in vicinity of Swatow. June 20, improving in the Chaochow and Punning districts.
Amoy.....	June 20-July 18....	.....	.....	Present: July 13, present in inland villages. Aug. 10, diminishing.
Kulangsu.....	May 20.....	1	.....	
Canton.....	Jan. 1-June 11....	1,156	.....	
Chinchew.....	May 30-June 6....	.....	.....	Present 30 miles north from Amoy.
Fatshan.....	May 13.....	.....	.....	Present.
Hongkong.....	May 10-Aug. 8....	908	746	Total, Jan. 4-July 25: Cases, 2,127; deaths, 1,679.
Pakhoi.....	June 18.....	2	.....	From a vessel from Hongkong. Apr. 3-June 18: Cases, 100. In Kan-lai and San-hu, 20 miles distant.
Cuba.....	.....	.....	.....	Total, Mar. 5-Aug. 14: Cases, 43; deaths, 9.
El Aceite (near El Caney).....	July 27-Aug. 2....	4	.....	Including 2 cases previously reported from vicinity of El Caney; all removed to and previously reported as from Santiago.

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

Reports Received from June 27 to Oct. 2, 1914—Continued.

## PLAGUE—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Cuba—Continued.				
Santiago.....				June 30-Sept. 23: Cases, 12 (case Sept. 17 from El Caney); deaths, 4. One of these deaths was a case from El Aceite.
Dutch East Indies:				
Provinces.....				Total, Apr. 1-June 30: Cases, 3,787; deaths, 3,385.
Kediri.....	Apr. 1-June 30....	718	692	
Madison.....	do.....	252	220	
Paseroean.....	do.....	2,628	2,301	
Surabaya.....	do.....	189	172	
Ecuador:				
Guayaquil.....	May 1-July 31....	7	4	
Egypt.....				Total, Jan. 1-Aug. 16: Cases, 184; deaths, 95.
Alexandria.....	June 2-Aug. 22....	29	15	
Damietta.....	July 17.....	1		
Port Said.....	June 9-Aug. 22....	21	9	
Provinces—				
Assiout.....	May 25-June 20....	5	1	
Charkeh.....	July 13.....	1	1	
Fayoum.....	May 27-Aug. 13....	8	2	
Garbieh.....	July 24.....	1		
Gizeh.....	May 27-June 24....	6	3	
Menouf.....	June 17.....	1		
Minieh.....	May 23-July 12....	10	5	
German East Africa:				
Dar-es-Salaam.....	May 2-June 10....	7	3	
Muanza.....	Feb. 21-Mar. 18....	7	5	
Great Britain:				
Liverpool.....	Aug. 8-12.....	9	3	
Hawaii:				
Pauhan.....	Aug. 17.....	1	1	
India.....				Total, Apr. 27-Aug. 1: Cases, 47,605; deaths, 41,811.
Bassein.....	Apr. 26-July 25....	31	31	
Bombay.....	May 17-Aug. 15....	539	456	
Calcutta.....	May 10-Aug. 8.....		157	
Karachi.....	May 24-July 18....	28	27	
Maulmine.....	Apr. 26-July 25....	83	82	
Rangoon.....	Apr. 1-June 30....	557	524	
Indo-China.....				Total, Jan. 1-June 10: Cases, 1,414; deaths, 1,146. June 11-July 20: Cases, 132.
Cholon.....	Jan. 1-July 20....	81		
Phanitet.....	Jan. 1-July 10....	389		
Phanrang.....	do.....	852		
Pnum Penh.....	do.....	24		
Saigon.....	May 19-Aug. 3.....	121	40	
Soctrang.....	May 1-July 10....	22		
Italy:				
Catania.....				Reported present.
Japan.....				Total, Jan. 1-July 31: Cases, 78; deaths, 64.
Hodogaya.....	June 9-July 3.....	3		Near Yokohama.
O-No district.....	June 9-15.....	1		
Taiwan (Formosa)—				
Kagi.....	May 3-Aug. 8.....	303	273	
Tokyo.....	June 22-Aug. 8.....	14	4	
Yokohama.....	July 5-Aug. 15....	4	4	Total, Apr. 18-July 25: Cases, 45. And vicinity. Total, May 23-Aug. 15: Cases, 23; deaths, 19.
Mauritius.....	Apr. 17-23.....	2		
Peru:				
Ancachs.....				No reports of deaths received.
Casma.....				Total, Feb. 9-Mar. 22: Cases, 4, including 2 cases, p. 1319, pt. 1.
Chimbote.....	Mar. 23-May 2.....			Present.
Quarhuay (Huaylas).....	do.....			Do.
Samanca.....	do.....			Do.
Arequipa—				
Mollendo.....	Mar. 23-July 5....	14		
Cahamarca—				
Contumaza.....	Mar. 23-May 2.....	3		
Lambayecue—				
Chiclayo.....	do.....	3		
Guadalupe.....	do.....	1		

**CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.****Reports Received from June 27 to Oct. 2, 1914—Continued.****PLAGUE—Continued.**

Places.	Date.	Cases.	Deaths.	Remarks.
Peru—Continued.				
Libertad—				
Duacamarca (Otsuco)...	Mar. 23–May 30....	.....	.....	Present.
Pichipampa (Otsuco)...	Mar. 24–30.....	4	.....	
Salavarry.....	Mar. 23–May 2.....	1	.....	
San Pedro.....	do.....	8	.....	From Pacasmayo.
Trujillo.....	Mar. 23–June 7.....	16	.....	
Lima—				
Unigambal (Santiago de Chuco).....	do.....	16	.....	
Lima.....	Mar. 23–July 5.....	17	.....	
Surco (Matucana).....	do.....	11	.....	July 7, still present.
Piura—				
Catacaos.....	do.....	4	.....	
La Huaca.....	June 8–July 5.....	1	.....	
Piura.....	Mar. 23–July 5.....	12	.....	
Philippine Islands:				
Manila.....	May 17–Aug. 8....	6	6	May 17, 1 case from s. s. Taisang from Amoy; May 23, 1 case from s. s. Linan from Amoy; June 12–20, a fatal case from s. s. Linan from Amoy; June 17, a fatal case in the Philippine General Hospital.
Cebu.....				May 20, 1 case on s. s. Rubi from Hongkong.
Russia:				
Astrakhan government.....				Total, May 25–July 15: Cases, 49; deaths, 46.
Kirghis steppe—				
Betas-Tschagal.....	May 25–July 15....	2	.....	
Bulanai.....	May 25–June 14....	10	10	7 of these cases pneumonic.
Manyseh-Tschagal.....	do.....	5	.....	
Kalmuck steppe—				
Archanskoge-Tebe.....	do.....	4	.....	
Gubja.....	do.....	4	.....	
Schitkur.....	do.....	1	.....	
Senegal:				
Dakar.....	May 15.....	12	.....	May 17–23, 5 deaths daily among natives.
Siam:				
Bangkok.....	Apr. 19–June 13....	.....	9	
Straits Settlements:				
Singapore.....	May 10–16.....	2	2	
Tripoli.....				July 15, present in Azizia, Tarhuna, and Zanzur, vicinity of Tunis.
Turkey in Asia:				
Basra.....	June 24–July 19....	16	8	
Beirut.....	June 16–Aug. 23....	5	.....	
Chios.....	Aug. 2.....	.....	.....	Epidemic.
Jaffa.....	June 5–27.....	4	3	
Kut.....	July 6.....	.....	1	From a steamboat from Bagdad to Basra.
Samos.....	Aug. 2.....	.....	.....	Epidemic.
Smyrna.....	July 2–Aug. 29....	5	3	
Turkey in Europe:				
Saloniki.....	Sept. 15.....	3	.....	
Union of South Africa:				
Cape Town.....	Sept. 24.....	.....	.....	"Few cases plague outlying districts reported localized."
Zanzibar:				
Zanzibar.....	July 1–14.....	5	4	

**SMALLPOX.**

Algeria:			
Departments—			
Algiers.....	Mar. 1–May 31....	7	.....
Constantine.....	do.....	7	.....
Oran.....	do.....	57	.....
Arabia:			
Aden.....	June 10–16.....	.....	1
Argentina:			
Buenos Aires.....	June 1–30.....	.....	1

**CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.****Reports Received from June 27 to Oct. 2, 1914—Continued.****SMALLPOX—Continued.**

Places.	Date.	Cases.	Deaths.	Remarks.
<b>Australia:</b>				
New South Wales— Sydney.....				Total May 8-Aug. 20: Cases, 213 in the metropolitan area and 70 cases in the country districts.
Western Australia— Bunbury quarantine station.	May 5-June 12....	8	1	From s. s. Kilchattan, from Bombay, including previous report.
<b>Austria-Hungary:</b>				
Galicia.....	May 17-23.....	10		
Upper Austria.....	.....do.....	3		
<b>Belgium:</b>				
Liege.....	June 1-6.....		3	
<b>Brazil:</b>				
Bahia.....	June 1-Aug. 8....	14		
Para.....	May 24-30.....		1	
Pernambuco.....	May 1-Aug. 15....		41	
Rio de Janeiro.....	May 10-Aug. 1....	1,089	164	
<b>Canada:</b>				
British Columbia— Vancouver.....	Aug. 18-Sept. 5....	4		
Manitoba— Winnipeg.....	June 14-July 25....	8		
Ontario— Hamilton.....	Aug. 1-31.....	3		
Niagara Falls.....	July 15-21.....	1		
Ottawa.....	July 26-Aug. 1....	1		
Prince Edward Island— Charlottetown.....	July 16-22.....	1		
Quebec— Quebec.....	July 11-Sept. 12...	3		
<b>Canary Islands:</b>				
Teneriffe— Santa Cruz.....	June 28-Aug. 29....		14	
<b>Ceylon:</b>				
Colombo.....	May 19-Aug. 8....	4	2	
Uva district— Passara.....	June 7-13.....	39	11	Among coolies from India. May 16-23, present in Kaying and increasing in Choa Chow.
<b>China</b> .....				Present.
Amoy.....	May 17-June 13....			
Canton.....	Jan. 1-Apr. 30....	21		
Chungking.....	May 23.....			Endemic.
Dairen.....	June 7-July 4....	2		
Hongkong.....	May 10-July 18....	15	12	Total Jan. 4-May 30: Cases, 93; deaths, 65.
Nanking.....	May 23.....			Always prevalent.
Newchwang.....	June 13.....			Do.
Pakhoi.....	Apr. 17.....			Present, and in San-hu, 20 miles distant.
Shanghai.....	May 18-Aug. 9....	10	16	Deaths among natives.
Tientsin.....	June 6.....	1		
Tsingtau.....	May 19-July 5....	21	3	
<b>Dutch East Indies:</b>				
Borneo.....	May 17-July 25....	440	91	In the western part.
Java.....				In the western part. May 3-Aug. 1: Cases, 1,761; deaths, 341, including Batavia.
Batavia.....	May 3-July 25....	121	37	
<b>Egypt:</b>				
Alexandria.....	June 4-Aug. 12....	19	9	
Cairo.....	May 21-Aug. 19....	191	73	
Port Said.....	May 21-June 6....	4		
<b>France:</b>				
Bordeaux.....	June 7-July 11....		4	
Marseille.....	May 1-31.....		2	
Paris.....	May 24-Aug. 15....	25	1	
<b>Germany</b> .....				May 31-Aug. 22: Cases, 10.
Hamburg.....	June 7-27.....	5		
Kehl.....	May 1-31.....		1	
Gibraltar.....	June 8-27.....	1	1	
<b>Great Britain:</b>				
Leeds.....	June 6-July 18....	4		
Southampton.....	June 29-July 4....	1		
<b>Greece:</b>				
Athens.....	July 6-12.....		1	
Patras.....	Sept. 2-8.....	3	1	

**CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.****Reports Received from June 27 to Oct. 2, 1914—Continued.****SMALLPOX—Continued.**

Places.	Date.	Cases.	Deaths.	Remarks.
<b>India:</b>				
Bombay.....	May 19-Aug. 15....	78	47	
Calcutta.....	May 10-Aug. 15....		230	
Karachi.....	May 24-July 25....	13	4	
Madras.....	May 17-Aug. 15....	23		
Rangoon.....	Apr. 1-June 30....	9	1	
<b>Indo-China:</b>				
Saigon.....	May 12-18.....	2		
<b>Italy:</b>				
Turin.....	July 20-26.....	2		
<b>Japan:</b>				
Kobe.....	June 19-23.....	1		Total Jan. 1-July 31: Cases, 414;
Nagasaki.....	May 18-Aug. 7....	55	17	deaths, 89; exclusive of Taiwan.
Taiwan (Formosa).....	May 3-Aug. 8....	15	6	Aug. 23, 1 death.
Yokohama.....	June 23-29.....	1		
<b>Mexico:</b>				
Chihuahua.....	May 18-Sept. 6....		45	
Juarez.....	Aug. 1.....	2		
Mazatlan.....	June 17-Sept. 1....		4	
Mexico.....	Jan. 17-Feb. 21....	99	16	
Monterey.....	June 30-Aug. 16....		8	
Tampico.....	May 11-July 31....		70	
Vera Cruz.....	June 1-Sept. 5....	16	6	
<b>Norway:</b>				
Trondhjem.....	June 1-July 31....	12		
<b>Peru:</b>				
Callao.....	June 22.....			Decreased.
Lima.....	do.....			Do.
<b>Portugal:</b>				
Lisbon.....	June 14-Aug. 15....	9		
<b>Russia:</b>				
Batum.....	Feb. 1-Apr. 30....	7		
Moscow.....	May 10-July 18....	40	3	
Odesa.....	May 10-Aug. 4....	6		
Riga.....	May 31-July 11....	12		
St. Petersburg.....	May 24-July 4....	75	19	
Vladivostok.....	Apr. 22-May 13....	8	1	
Warsaw.....	Feb. 1-Apr. 25....	92	44	
<b>Servia:</b>				
Belgrade.....	May 25-July 19....	12	2	
<b>Spain:</b>				
Almeria.....	July 1-31.....		1	
Barcelona.....	June 14-July 31....		28	
Cadiz.....	May 1-31.....		5	
Madrid.....	June 1-Aug. 31....		6	
Valencia.....	June 7-Aug. 15....	41	13	
<b>Switzerland:</b>				
Basel, Canton.....	May 31-June 20....	14		
Geneva.....	July 5-11.....	1		
Grisons, Canton.....	June 7-13.....	1		
Zurich, Canton.....	July 19-25.....	1		
<b>Turkey in Asia:</b>				
Beirut.....	June 1-Aug. 15....	41	18	
Damascus.....	Mar. 15-July 11....	570	277	
Jerusalem.....	May 3-July 25....	33	2	
Mersina.....	Aug. 2-8.....	2		
Smyrna.....	May 13-June 13....		5	
Trebizond.....	May 19-June 27....			Present.
<b>Turkey in Europe:</b>				
Constantinople.....	June 14-July 25....		5	
Saloniki.....	May 31-Aug. 29....		49	June 6: Present in a mild form
				among 20,000 refugees from
				Asiatic Turkey, Chio, and
				Mitylene.
<b>Union of South Africa:</b>				
Pretoria.....	May 9-23.....	1		

# **SANITARY LEGISLATION.**

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## **STATE LAWS AND REGULATIONS PERTAINING TO PUBLIC HEALTH.**

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### **PORTO RICO.**

#### **Trachoma—Prevention and Suppression of. (Proclamation Aug. 28, 1914.)**

The following rules and regulations, in accordance with the provisions of act No. 81, approved March 14, 1912,<sup>1</sup> having been approved by the executive council on August 18, 1914, are hereby promulgated for the information and guidance of all concerned:

**ARTICLE 1.** The provisions of this regulation shall be exclusively applied to the proven or suspicious cases of trachoma, it being indispensable that the diagnosis of the disease be made by a competent physician in the matter.

**ART. 2.** So far as this regulation is concerned, trachoma is understood to be all contagious affections of the orbital mucous membrane of a chronic evolution and characterized by localized nodular lesions in the mucosa of the eye lids and of the conjunctival sac.

**ART. 3.** The service of sanitation shall organize the sanitary inspection of the schools, private colleges, asylums for children, factories, and other similar establishments, in order to investigate the existence and extension of trachoma, and as to proven cases shall adopt such measures as may be necessary.

**ART. 4.** Every child upon enrollment in the public and private schools and asylums shall present a certificate issued by a physician certifying as to his indemnity respecting trachoma, and without this requirement shall not be admitted in any of said establishments.

The director of sanitation shall order that the school population be examined in the month of January and during the second fortnight of April.

**ART. 5.** It is the duty of the principal, graded, or rural teacher of the public schools and the director of private colleges and asylums, as well as the physicians authorized to practice, to report any case of trachoma which they know of or attend.

**ART. 6.** The children affected with acute conjunctivitis or suspicious of trachoma shall be eliminated from the schools or private colleges until the acute process has disappeared.

In the chronic period they may be readmitted, provided they are separated in their respective classrooms, in such a way as to have no contact with the other pupils.

The service of sanitation shall determine as to the time in which these pupils may be readmitted to their classes.

**ART. 7.** Every infraction of any of the provisions of this regulation shall be punished in accordance with the provisions of section 33 of "An act to reorganize the service of sanitation," approved March 14, 1912, and in defect of this shall be liable to punishment as under the Civil Code.

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<sup>1</sup> Public Health Reports, Aug. 15, 1913, p. 1715.



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

## **MANILA, P. I.**

### **Plague Prevention—New Buildings Required To Be of Rat-Proof Construction. (Ord. 217, June 25, 1914.)**

**SECTION 1.** All buildings hereafter to be erected within the city of Manila shall be so designed, planned, and constructed that they will not have hollow walls or partitions, hollow ceilings, hollow stairs, hollow floors, nor hollow columns or other hollow structural parts which may serve or tend to harbor, shelter, or provide access or entrance to rats or other similar vermin. All walls, with the exception of solid wood framing and of partition walls not extending below the floor surface, shall be of concrete, brick, stone, mortar, or other material proof against the incursion of rats to a height of one meter from the ground and shall extend below the ground to a depth of at least twice the thickness of the wall.

Nothing in this ordinance shall be construed to prohibit the construction of double concrete, masonry or steel walls, or hollow steel, iron, or concrete columns, provided that no entrance to hollow spaces are allowed.

**SEC. 2.** All buildings hereafter undergoing repairs to parts having hollow spaces shall be repaired in such a manner as to remove such hollow spaces as are reached by the repair work, provided the safety of the building permits such removal.

**SEC. 3.** It shall be unlawful for any person to construct or to cause or undertake the construction of any building or part thereof, or to repair or to cause or undertake the repair of any building or part thereof, which construction or repair shall not be designed so as, or shall fail in any respect, to conform to any of the requirements of this ordinance.

Every violation hereof by any person shall be punished by a fine not exceeding 200 pesos, or by imprisonment not exceeding six months, or by both such fine and imprisonment, in the discretion of the court.

The word "person" as used in this ordinance shall be construed to import both the plural and the singular, as the case demands, and to include copartnerships or other commercial associations and corporations. When construing and enforcing the provisions of this ordinance, the act, omission, or failure of any officer, agent, or other person acting for or employed by any copartnership or other commercial association or corporation, within the scope of his employment or office, shall in every case be also deemed to be the act, omission, or failure of such copartnership, association, or corporation, as well as that of the person.

**SEC. 4.** This ordinance shall take effect on July 6, 1914.

## **COUNTY AND CITY OF DURHAM, N. C.**

### **Meat—Inspection, Care, and Sale—Slaughtering. (Reg. Bd. of H., Mar. 2, 1914.)**

**ART. 5, SECTION 1.** It shall be the duty of the market police to see that the market house of the city of Durham is kept clean and to have the market house thoroughly washed at least once a week from October 1 to April 1, and at other times daily. Failure to perform this duty shall be cause for removal from office.

SEC. 2. Any butcher or other person in the city of Durham and sanitary districts of East and West Durham who shall sell, or offer for sale at the markets, any sturgeon not previously skinned, or any unsound meat, fish, flesh, fowl, eggs, or other unsound articles, or any meat which is distempered or blown, raised or stuffed, or which is dressed or garnished falsely, or in any way calculated to deceive shall pay a fine of \$25, and forfeit what is sold or offered for sale.

SEC. 3. The clerk of the market shall examine daily all meats, fish, and fowls offered for sale at the market, and take possession of all such as, by the preceding section, are prohibited from being so offered, and immediately report the same to the meat inspector or superintendent of health. If his decision is sustained, then the clerk shall cause what he so takes possession of to be burned or buried in a suitable place. The market clerk shall keep a record of all meats, fish, and fowls, or other article condemned by him under this section, and it shall be his duty to condemn all unwholesome and unsound meats, fish, and fowl, eggs, vegetables, fruits, or other unsound provision or article offered for sale at the market, and place upon such article a tag or card showing that the same is condemned, and it shall be the duty of the owner of such articles so condemned to immediately remove the same from the market house and city, and such owner so failing shall be fined \$5 for each hour after one hour from the time the said article is condemned and tagged.

SEC. 4. It shall be unlawful for any person to bring into the city of Durham or the sanitary districts of East or West Durham for sale therein any fresh meat of cattle, of swine, or of sheep in an uncovered wagon exposed to dust, dirt, or flies, and it shall be the duty of all persons bringing fresh meats of cattle, of swine, or of sheep into the city of Durham or the sanitary districts of East or West Durham for sale therein to transport the same in a covered wagon or to have said meat covered so as not to be exposed to dust, dirt, or flies, and it shall be unlawful for any person to bring into the city of Durham or the sanitary districts of East or West Durham for the purpose of sale therein any meat covered with a dirty cloth, dirty net, or other dirty covering, or to bring into the city of Durham or the sanitary districts of East or West Durham for the purpose of sale therein any fresh meat in a dirty and unsanitary wagon. Any person violating any of the provisions of this ordinance shall, upon conviction, be fined \$5.

SEC. 5. Any person knowingly selling in the market house of the city of Durham or in the sanitary districts of East or West Durham, or keeping or offering for sale in the market house of the city of Durham or the sanitary districts of East or West Durham, or having in his possession with intent to sell in the market house of the city of Durham or in the sanitary districts of East or West Durham, any fresh meat brought into the city of Durham or the sanitary districts of East or West Durham in an uncovered wagon, or any fresh meat brought into the city of Durham or in the sanitary districts of East or West Durham, exposed to dust, dirt, or flies, or brought into the city of Durham or in the sanitary districts of East or West Durham covered with a cloth, dirty net, or other dirty covering, or any fresh meat brought into the city of Durham or in the sanitary districts of East or West Durham in a dirty or unsanitary wagon, shall be guilty of a misdemeanor, and, upon conviction, shall be fined \$5.

SEC. 6. It shall be unlawful for any person to make for sale in the city of Durham any sausage in a dirty, unsanitary place, or to fail to keep clean any machine used for the purpose of making sausage for sale in the city of Durham. Any person violating the provisions of this ordinance shall, upon conviction, be fined \$5.

SEC. 7. It shall be the duty of the meat inspector or the health officer of the city of Durham to make a weekly inspection of all cold-storage houses or plants in the city of Durham wherein is kept any meat, food, or food products for the purpose of sale in the city of Durham. Any person or persons, firm, association, or corporation keeping, maintaining, or operating any cold-storage house or plant in the city of Durham wherein is kept any meat, food, or food products for the purpose of sale, who shall fail or refuse to allow an inspection of the same by the meat inspector or health officer of the city of Durham, or hinder, delay, or obstruct the meat inspector or health officer of said city in inspecting the same, shall be guilty of a misdemeanor, and, upon conviction, shall be fined \$5.

SEC. 8. It shall be the duty of all persons, firms, associations, or corporations keeping, maintaining, or operating any cold-storage house or plant in the city of Durham wherein is kept any meat, food, or food products for the purpose of sale, to keep the same in a clean and sanitary condition, including the surroundings thereof. Any person violating the provisions of this ordinance shall, upon conviction, be fined \$5.

SEC. 9. It shall be unlawful for any person to sell or offer for sale for the purpose of human food, or have in his possession with intent to sell for the purpose of human food, in the city of Durham, the flesh of any calf weighing less than 50 pounds. Any person violating this ordinance shall, upon conviction, be fined \$5.

ART. 6. *Meat and milk inspector.*—SECTION 1. There is hereby created the office of meat and milk inspector of the city of Durham and the county of Durham.

This inspector shall be a competent, regular veterinary.

He shall be appointed or elected by the board of health of said city and county of Durham, and his salary to be fixed by board of health, and paid monthly. His duties shall be:

First. To inspect all cattle, hogs, sheep, goats, and other animals intended for slaughter for human consumption within this city, and at such other places as are designated by the said board of health, both before, during, and after slaughter, and all animals, poultry, game, fish, and their products kept or exposed for sale for human consumption in said city of Durham and sanitary districts of East and West Durham, and it shall be his duty as milk and dairy inspector to see that all of the laws relating to the inspection of milk and dairies are enforced, and shall perform all duties required of him by the laws of this city and the orders of the board of health. He shall keep a daily written report of the work done in his department.

Second. To stamp carcasses of all slaughtered animals according to regulations laid down by the United States Government. Order 150, Bureau of Animal Industry, or the board of health.

Third. He shall make such disposition of diseased meats and animals as is required by the United States Government, Order 150, Bureau of Animal Industry, or the board of health.

Fourth. To inspect all buildings erected, converted, or used as slaughter-houses, to determine that they are adequately ventilated and in all other ways conform to the provisions of this ordinance.

Fifth. To inspect all stores, shops, markets, hotels, restaurants, and other premises where such meats and products are kept for sale and see that such meats and products are in a sanitary condition.

Sixth. To see that no carcasses are offered for sale for human consumption within said city of Durham and sanitary districts of East and West Durham,

without carrying a United States Government inspector's stamp or that of the inspector of the city and county of Durham or other duly authorized inspector.

Seventh. Whenever any meat, game, fish, poultry, or the products thereof upon inspection and examination be found to be unwholesome or corrupted from any cause or infected with any form of disease, said inspector shall condemn the same as unfit for human food, and shall mark, mutilate, or make the fact of such condemnation and unfitness apparent, and shall treat it in accordance with regulation 18, governing meat inspection, of the United States Department of Agriculture.

Eighth. To inspect dairies and dairy cattle whose products are offered for sale in the said city or sanitary districts of East and West Durham, and to determine and exclude such cattle as are diseased or dangerous in such a way as to render their products unfit for human consumption; to inspect all stores, dairies, and depots where milk and dairy products are kept for sale and to see that such premises and dairy products are in a sanitary condition.

SEC. 2. It shall be unlawful for any person, either as owner, agent, or employee, to sell, have, keep, or expose for sale for human food, or to have in his possession, the flesh of any cow, ox, calf, sheep, swine, or goat, for the purpose of sale, unless the same shall have been slaughtered under the supervision of a United States Government inspector, in accordance with the regulations relating to the inspection of meat as prescribed by the Department of Agriculture of the United States, or a meat inspector of the city of Durham and county of Durham, or any other authorized agent, in accordance with the provisions of this ordinance, and unless there has been placed on each primal part thereof, by and under the personal supervision of an inspector of the United States or of the city and county of Durham, a mark, stamp, or brand, showing that the same has been inspected and passed for food purposes by such United States inspector or such meat inspector of the city of Durham or other authorized inspector.

SEC. 3. Carcasses of animals which have had no ante-mortem inspection by inspectors of the Bureau of Animal Industry, the city inspector, or other authorized inspector, will not, except as herein provided, be admitted into an official establishment or city market or in the sanitary districts of East and West Durham (or offered for sale in the city of Durham or in the sanitary districts of East and West Durham). The exception to this rule applies only to carcasses to which the head and all viscera, except the stomach, bladder, and intestines, are held by the natural attachments. Such carcasses, if offered for admission into official establishments or markets, shall be inspected, and if found to be free from disease, and otherwise sound, healthful, wholesome, and fit for human food, they shall be marked "Inspected and passed" and admitted. If found to be diseased, unsound, unhealthful, unwholesome, or otherwise unfit for human food, they shall be marked "Inspected and condemned," and they shall be disposed of as required by the United States Government, Order 150, Bureau of Animal Industry, or by the board of health.

SEC. 4. The clerk of the city market shall also examine daily all meats, fish, and fowls offered for sale at the market and take possession of all meats that are not marked "Inspected and passed." If any meat, fish, or fowl offered for sale is diseased, unsound, unhealthful, unwholesome, or otherwise unfit for human food, he shall take possession of same and notify at once the meat and milk inspector or the superintendent of health, or both.

It shall be the duty of the owners of such articles if condemned to immediately remove the same from the market house and city, and such condemned articles shall not be offered for sale. The owner of such meat, fish, or fowl shall be

fined for each hour after one hour from the time he or she is notified that such article has been condemned.

**SEC. 5.** Any person, firm, or corporation desiring to slaughter in the city of Durham or the county of Durham any of the animals mentioned in section 1 hereof, for use for food purposes in the city of Durham or sanitary districts of East and West Durham, shall, before engaging in such business, make application in writing to the board of health of the county and city of Durham for a permit to do so, which application shall be signed by the person, firm, or corporation making the same, and shall specify the location of the house or place where it is proposed to slaughter such animals. Upon the filing of such application with the said board of health, the said inspector shall inspect said slaughterhouse, and if the same shall be found to comply with the provisions of this ordinance relative to construction and equipment of slaughterhouses, he shall issue a temporary permit and make a written report thereof to the board of health at its next meeting, whereupon said board shall issue the permit applied for and cause a record thereof to be kept in the health office. But if said place shall not be in strict accordance with the requirements of this ordinance, then such permit shall be withheld.

**SEC. 6.** No permit shall be issued to any person, firm, or corporation to engage in the business of slaughtering animals within or without the city limits of the city of Durham for use for food purposes in the city of Durham or sanitary districts of East and West Durham, unless the house or place in which the same are to be slaughtered shall conform strictly to the following regulations:

The floor or floors of the slaughter rooms shall be constructed of cement, tile, or stone, and made water-tight, and all such floors shall be constructed on an incline to provide adequate drainage toward a gutter, which shall be so constructed with the same as to drain the same to a tub or reservoir, which said tub or reservoir shall be placed to receive blood or offal. Said tub or reservoir shall be emptied or cleaned at the end of each day upon which killing has been done in such a manner that no offensive odor shall emanate from the same. The walls of the killing, meat-dressing, and cooling rooms shall be covered to the height of 6 feet with some nonabsorbant material and made water-tight.

The blood and offal shall be handled and disposed of in such a manner as not to permit decay or offensive effluvia to emanate therefrom while in or near the slaughterhouse.

All waste or other fluids from the building or slaughterhouse shall be conducted by means of good and efficient pipes or cement gutters to a cooling or settling tank, where the same shall be cooled and all grease removed therefrom before the said waste water or fluids shall be permitted to enter a city sewer.

That the said slaughterhouse has been constructed in accordance with the provisions of this ordinance.

**SEC. 7.** That all slaughtering shall take place Monday, Wednesday, and Friday between the hours of 6 o'clock a. m. and 4 o'clock p. m. of any one day, unless a special permit in writing authorizing slaughtering at another time is granted by the superintendent of health.

Any person, firm, or corporation desiring to slaughter any animal mentioned in this ordinance, the flesh or meat of which is to be disposed of for food in the city of Durham or sanitary districts of East or West Durham, shall give notice to the inspector of said city at least 12 hours before such slaughtering is to take place, that the services of the inspector thereof will be required:

*Provided*, The person in charge of the slaughtering may notify the inspector at the close of each day at what time on the following day the work of slaughtering will be commenced, and if no slaughtering is to be done on the day following, then he shall notify the inspector at what time and on what succeeding day the work of slaughtering will be commenced.

SEC. 8. It shall be unlawful for any person, firm, or corporation, except the meat inspectors herein provided for and the health officer, to have in possession, keep, or use any mark, stamp, or brand provided or used for stamping, marking, or branding any article herein required to be stamped, marked, or branded, or to keep, make, or use any mark, stamp, or brand having thereon a device or words similar in character or import to the marks, stamps, or brands provided or used for marking, stamping, or branding such articles.

SEC. 9. No one shall kill and offer for food animals affected with the following-named diseases:

- (1) Anomalies of the blood (anemia, leucemia, hemoglobinemia, icterus, uremia).
- (2) Poisoning from any mineral drug or vegetable.
- (3) Parturient paresis (milk fever).
- (4) Animal parasitism, the parasite known to be directly or indirectly transmissible to man.
- (5) Putrid intoxication (sapremia).
- (6) Pyemia.
- (7) Septicemia.
- (8) Malignant edema.
- (9) Anthrax.
- (10) Foot-and-mouth disease.
- (11) Cowpox, sheep pox when animals show fever.
- (12) Rabies.
- (13) Glanders.
- (14) Tuberculosis.
- (15) Anticomycosis, actinomycosis.
- (16) Contagious pleuropneumonia.
- (17) Hemorrhagic septicemia.
- (18) Diphtheritis.
- (19) Dysentery.
- (20) Hog cholera.
- (21) Swine plague.
- (22) Chicken cholera.
- (23) Mycotic gastro-enteritis.
- (24) Texas fever.
- (25) Tetanus.
- (26) Malignant epizootic head catarrh.
- (27) Malignant tumors.
- (28) Puerperal fever.
- (29) Emaciation.
- (30) Advanced pregnancy.
- (31) Recent parturition (at least 15 days must have elapsed).
- (32) Overheated, feverish animals.
- (33) Exhausted, fatigued animals should have eight hours rest before being slaughtered.
- (34) Fractures, bruises, contusions (when fever is present).
- (35) Advanced stages of mange.
- (36) Advanced stages of footrot.

(37) Suppurative or gangrenous inflammation of the udder (when fever is present).

(38) Wounds (when fever is present).

(39) Any disease of the heart, lungs, liver, kidney, spleen, peritoneum, pleura, or any organ which would render the meat unfit for human food.

(40) Animals less than 30 days old. (Calves must dress at least 45 pounds.)

(41) Animals wounded or killed by accident.

SEC. 10. That every slaughterhouse shall keep in a conspicuous position a copy of the regulations governing slaughterhouses.

Every person, firm, or corporation violating any provision of this ordinance shall be guilty of a misdemeanor, and, upon conviction thereof, shall be punishable by a fine of \$25.

SEC. 11. This is an ordinance for the immediate preservation of the public peace, health, and safety, and one of urgency, and shall take effect from and after its passage and approval. Any laws and regulations of the city of Durham in conflict with this ordinance are hereby repealed.

#### **Privies—License—Construction, Care, and Disposal of Contents—Sewer Connections—Sanitary Districts. (Reg. Bd. of H., Mar. 2, 1914.)**

**ART. 7. Water-closets and dry closets.**—SECTION 1. That every person owning a house and lot in the city of Durham, which lot abuts or adjoins a street or alley along which is a public sewer, shall, after notification by the board of health, make water and sewer connections with his, their, or its house, when in the judgment of the board of health such connection shall be deemed necessary for the preservation of the public health: *Provided*, Such owner can make sewer connections within 200 feet, and water connections within 300 feet of said house: *Provided further*, No person shall be required to cross the private property of any other person to make such connections. Any person, firm, or corporation who shall fail and refuse to make such water and sewer connections within 15 days after such notification shall be fined the sum of \$1 for each and every day he so fails and refuses thereafter; and each day he so fails and refuses shall constitute a separate offense and shall subject the owner of such house to a like penalty.

SEC. 2. No surface closets or urinal shall be allowed within the fire district, except the same be connected with the city sewer.

SEC. 3. It shall be unlawful for the owner of any lot or premises within the city limits to use or maintain, or permit the same to be used or maintained, by any other person, a surface privy, closet, or urinal not connected with city sewer, unless a license therefor shall have first been granted by the sanitary police, and the owner of any lot or premises on which is located a house in connection with which house a surface privy is used shall pay a license tax herein provided for each dwelling house in connection with which a surface closet is used or maintained. Such license shall be issued to a person named, and for a specified lot, giving street and number, and shall date from the 1st day of May and run for a period of 12 months: *Provided*, If the owner of such license shall sell any lot for which license has been granted during the continuance of said license he shall, at his option, have the right to have such license transferred to the purchaser of such lot. A tax of \$2 shall be paid to the sanitary police upon the issuance of said license, and the proceeds of said license tax shall go into the city treasury.

No person shall remove any excremental deposits from any lot or privy within the corporate limits through the streets of the city except under the direction and authority of the sanitary police.

The holders of license under this ordinance are hereby relieved from all responsibility concerning the cleansing and condition of such surface privies, and it shall be the duty of the sanitary police to see that all surface privies within the city limits are regularly and properly cleansed, and excremental deposits removed therefrom, at proper intervals of time, without cost or expense to the holders of such license.

The sanitary police shall provide suitable wagons and barrels for the purposes herein required, and shall employ such labor as is necessary to operate the same. Any member of the force so employed is hereby given authority to enter upon any lot within the limits of the city between the hours of 5 a. m. and 7 p. m. for the purpose of cleansing said privies and removing the excremental deposits therefrom.

Any person violating any of the provisions of this ordinance, or failing to comply with any provision thereof, or who shall in any manner hinder, obstruct, or delay any officer or agent of the city in the discharge of his duties herein required, shall be fined \$25.

SEC. 4. The health officer shall have full power and authority to require the owner, lessee, or agent of any improved real estate in the city or county of Durham (the term improved real estate shall be construed to mean all lots or parcels of land which have or may hereafter have erected thereon any dwelling house, storehouse, workshop, factory, schoolhouse, college, place of amusement, livery stable, hotel, railway station, wood and coal yards, and manufacturing establishments of every kind) to provide suitable privy or water-closet accommodations upon such improved premises whenever in his judgment such improvements are necessary to the health of the occupants, or to protect the sanitary interests of the neighboring citizens. All top privies shall be built and located in such a manner that no persons using them would be exposed to public view. After 10 days' notice served upon the owner, lessee, or agent in charge of any such property by the sanitary police to make and provide such accommodations aforesaid, if such owner, lessee, or agent in charge shall fail to have the same made and provided, he shall pay a fine of \$10.

SEC. 5. No privy shall be built or maintained within the corporate limits of Durham until a permit has been issued by the board of health. Every privy built shall conform to the following specifications: It shall be at least 30 feet from any public street and as far from other residences or kitchens as it is from the residence or kitchen of the person or persons using it. It shall not be allowed across or connected with any street gutter, drain, or branch leading into any of the street gutters or across any lot or street within the city or within 15 feet of said gutter, drain, or branch. It shall be as far from any well as twice the depth of such well, and at least 7 feet from any fence or other obstruction. Whenever conditions are such that these specifications can not be conformed to, the location of the privy shall be decided by the board of health. It shall be built and located in such a manner that no persons using it would be exposed to public view. At each end of the privy shall be an aperture at least 6 inches in diameter opening into the space beneath the seat, which shall be kept securely screened and fly proof. Behind the privy shall be a hinged board or flap which shall at all times, except in cleaning, be kept fastened to the privy in such a manner as to make the space beneath the seat fly proof. Over the seat shall be a hinged board which shall be wide enough to cover the apertures. A block of wood shall be placed back of the board covers so that the board will fall by force of gravity when not in use.

SEC. 6. In every privy there shall be placed a keg, box, or other receptacle containing dry earth, ashes or lime or a mixture of these, and a cup or small



shovel with which to apply the same. The tubs in such privy shall be sprinkled at least once a day. The privy shall be kept clean and sanitary. Any person or persons using the privy who fail to comply with the provision of this ordinance shall, after 24 hours' notice from the sanitary police, be fined \$1, and every day thereafter such ordinance is violated shall constitute a separate offense.

SEC. 7. No person shall throw or deposit any human excrement within the city at any place other than a privy or water-closet. Any person violating this ordinance shall, upon conviction, be fined \$1.

SEC. 8. Any person violating any of the provisions of this article not heretofore specified shall, upon conviction, be fined \$5.

SEC. 9. Permit for the construction of privies for the city of Durham as adopted March 28, 1912, shall be as follows:

PERMIT FOR THE CONSTRUCTION OF PRIVIES, CITY OF DURHAM.

Mr. \_\_\_\_\_ is hereby given permission to build a privy on a lot No. \_\_\_\_\_ on \_\_\_\_\_ Street, according to the following specifications:

1. *Size and dimensions.*—The inside measurements: 7½ feet in height, 4 feet in width (from side to side), and 3½ feet in depth (front to rear).

2. *Material.*—All privies shall be constructed of good quality dressed, tongue-and-grooved ceiling, not less than ½ inch in thickness, and no board shall be over 6 inches in width. It is recommended that the house be painted.

3. *Location on premises.*—It shall be at least 30 feet from any public street and as far from other residences or kitchens as it is from the residence or kitchen of the person or persons using it. It shall not be allowed across or connected with any street gutter, drain, or branch leading into any of the street gutters or across any lot or street within the city or within 15 feet of said gutter, drain, or branch. It shall be as far from any well as twice the depth of such well, and at least 7 feet from any fence or other obstruction. Whenever conditions are such that these specifications can not be conformed to, the location of the privy shall be decided by the board of health. It shall be built and located in such manner that no persons using it would be exposed to public view.

4. *Floor.*—The bottom frame of the house shall be of not less than 3 by 4 inch heart sills, and the floor shall be of heart pine, tongue-and-groove flooring, laid on that portion of the framework outside of the seat; or the floor, or the seat, may be of concrete.

5. *Roof.*—The roof shall be covered with tin or other water-tight metal material and shall be painted. If the roof slopes to the rear of the house it shall project not less than 6 inches beyond the rear wall of the house.

6. *Door.*—The door shall be of sufficient size and well jointed and shall be self-closing.

7. *Seat.*—The riser for the seat shall be 16 by 18 inches high. The seat shall be provided with a substantial, tight, wood cover, hinged to the back of the house and of sufficient size to cover the opening, or openings, in the seat. A block of wood shall be placed back of the board covers so that the cover will fall by force of gravity when not in use.

8. *Box opening.*—The opening for the removal of the night-soil box shall be at the rear of the house, where this is practicable; otherwise it shall be at the side of the house. The opening shall be provided with a tightly fitting, let-down, board cover, and so constructed as to prevent the access of flies to the night soil. For the purpose of ventilating the box there shall be at each end

of the house, and immediately over the box, an opening not less than 6 inches square. This opening shall be covered with wire "fly screen" gauze.

The box shall be of tight construction, and shall not project beyond the house.

Failure to meet any of the above minimum requirements is hereby declared by the board of health to constitute a public nuisance and a menace to the public health, and will be condemned.

This the ---- day of -----, 191---

-----, *Health Officer.*

**Foodstuffs—Production, Care, and Sale. (Reg. Bd. of H., Mar. 2, 1914.)**

ART. 10.—SECTION 1. Every manager of a store, dairy, café, lunch room, or hotel or other place in the city of Durham or the sanitary districts of East and West Durham where a food or a beverage or confectionery or other similar article is manufactured or prepared for sale, sold, or otherwise dispensed, shall cause such place to be screened or inclosed so as to prevent flies and other insects from obtaining access to such food, beverages, confectioneries, or other article. And it shall be unlawful for any person or persons, firm, corporation, or their agent to sell or offer for sale or otherwise dispense ice cream or similar products on the streets, sidewalks, or alleys in the city of Durham or in the sanitary districts of East and West Durham.

SEC. 2. All meat, dressed poultry or fish, confectionery, bread, pastry, or other foods, berries, vegetables, fruit, or other article which may be used as human food without cooking or peeling, shall not be kept exposed for sale in any street or public place, or outside of any shop or store, or in the open window or doorway thereof, except the same to be kept covered or screened so that it shall be protected from dirt and flies.

SEC. 3. No article which may be used as human food shall be stored, exposed, or displayed on the surface of any street or floor of any market house or store, nor shall such article be placed in any doorway or in front of any place of business, or in any other place accessible to dog or other lower animals, but all such articles of food shall be placed upon a table, or otherwise properly supported so that it, and the surface of its container or support, shall be raised at least 24 inches above the street, sidewalk, platform, or landing.

SEC. 4. All meat, dressed poultry, fish, bread, pastry, confectionery, or other provisions which may be used as human food or drink while being transported through the streets or alleys of the city of Durham, or the sanitary districts of East or West Durham, shall be so covered or screened as to be protected from dirt and flies.

SEC. 5. That every person selling any meat, fish, or dressed fowl in the markets of the city of Durham or the sanitary districts of East or West Durham, shall at all times have clean hands and short finger nails, and while in the markets wear a clean white apron and shall extend from the neck of said person to at least the knees and be sufficiently wide to cover the body.

SEC. 6. It shall be unlawful for any person or persons, firm or corporation, or their agent, to sell or offer for sale any milk, ice cream, "soft drink," water (spring or well) in the city of Durham or the sanitary districts of East or West Durham in bottles or other retainers before such retainer, can, or bottle has been thoroughly washed with pure water and soda and soap, or by some other approved means, and then sterilized by steam or boiling water.

SEC. 7. It shall be unlawful for any person or persons, firm or corporation, or their agent, who delivers or sells milk, ice, or other articles to residences in the city of Durham or the sanitary districts of East or West Durham, to distribute or use tickets that have been used before.

**SEC. 8.** Any persons violating any of the provisions of the foregoing sections shall be, on conviction, fined not less than \$5 nor more than \$25 and cost for each offense.

**SEC. 9.** Section 1 of this ordinance shall be in force from the 1st day of April to the 31st day of October, inclusive, of each year. This ordinance shall be in force from and after its adoption, but no person or persons, firm or corporation, shall be fined until 10 days after its adoption and publication. Any laws and regulations of the city of Durham in conflict with this ordinance are hereby repealed.

**Barber Shops—Sanitary Regulation. (Reg. Bd. of H., Mar. 2, 1914.)**

**ART. 8. SECTION 1.** Every barber shop within the city of Durham shall be open to the board of health for inspection at any time, and the following rules shall be observed therein:

(a) All barber shops, together with all furniture, shall be kept in a clean and sanitary condition.

(b) Mugs, shaving brushes, razors, scissors, clipping machines, pinchers, needles and other instruments shall be sterilized by immersion in boiling water, steam, or in alcohol of at least 60 per cent strength, after each separate use. Combs and brushes shall be thoroughly cleaned with soap and water after each day's use.

(c) Clean towels shall be used for each person.

(d) Alumn, or other material used to stop the flow of blood, shall be applied only on a clean towel or other clean cloth. The use of powder puffs is prohibited, except that a sponge owned by a customer may be used on him.

(e) Every barber shall thoroughly cleanse his hands immediately before serving each customer.

(f) Every barber shop shall be well ventilated and provided with hot and cold water.

(g) A copy of this article shall be kept posted in plain view in every barber shop.

**SEC. 2.** Any person violating any of the provisions of this article shall, upon conviction thereof, forfeit and pay a penalty of \$1 for each offense.

**Health Officer and Sanitary Police—Duties of. (Reg. Bd. of H., Mar. 2, 1914.)**

**ART. 9. SECTION 1.** The health officer shall perform duties as follows:

Report to the board of health at each regular meeting the sanitary condition of the city and county, and shall perform such other duties as are designated in this code, and such duties as may be directed from time to time by the board of health. As such health officer he shall have power to enter any inclosure in the city or county, and when he deems it necessary shall take a policeman with him.

**SEC. 2.** It shall be the duty of the health officer to keep constantly on hand a barrel of formalin and 100 pounds of permanganate of potash, or other approved disinfectants, for the purpose of fumigation, said disinfectants to be paid for by the city of Durham.

**SEC. 3. (a)** The sanitary police shall report daily at the health department, in writing, the work done the preceding day.

(b) They shall investigate the condition of privies, urinals, water-closets, back yards, and other places in the city, and shall serve notice to the owners or agents when any premises are found in any insanitary or unhealthy condition.

(c) They shall remove carrion or other nuisances from the street, and shall be paid the actual expense thereof.

(d) They shall be conversant with the laws of the board of health and shall at all times endeavor to enforce them to the best of their ability.

(e) They shall obey all orders issued by or through the health officer or officially by the board of health.

(f) They shall have control of employees under them and shall be responsible for the efficiency of their work.

**Rabies—Muzzling of Dogs Required. (Reg. Bd. of H., Mar. 2, 1914.)**

ART. 12. It shall be unlawful for any person or persons to let his or her dog run at large on the streets of the city of Durham or on the public highways of the sanitary districts of East and West Durham without a proper and safe muzzle. (Which muzzle must be satisfactory to the superintendent of health.) All dogs that are not properly muzzled on or after June 15 to October 15 shall be declared a nuisance, and the owner or owners shall be fined \$1 and costs for each day that the dog remains unmuzzled.

**Pig Pens—Location. (Reg. Bd. of H., Mar. 2, 1914.)**

ART 13. SECTION 1. It shall be unlawful for any person, firm, or corporation to build, erect, construct, maintain, or use, or cause to be built, erected, constructed, maintained, or used, any hog or pig pen in the county of Durham nearer than 300 feet to any residence, church, schoolhouse, or well or spring. (If located on slope of hill below well or spring, 100 feet.)

SEC. 2. Any person, firm, or corporation who shall, after due notice, in writing, from the superintendent of health of the county and city of Durham, who refuses or neglects to comply with this law shall be guilty of a misdemeanor and fined \$5 and costs for each and every day it shall remain after such notice is given.

**Eggs—Sale of After Cold Storage. (Reg. Bd. of H., Mar. 2, 1914.)**

ART. 14. SECTION 1. Whenever eggs that have been in cold storage are sold at retail or offered or exposed for sale, the basket, box, or other container in which the eggs are placed shall be marked plainly and conspicuously with the words "Cold-storage eggs," or there shall be attached to such container a placard or sign having on it the said words. If eggs that have been in cold storage are sold at retail or offered or exposed for sale without a container, or placed upon a counter elsewhere, a sign or placard having the words "Cold-storage eggs" plainly and conspicuously marked upon it shall be displayed in, upon, or immediately above the said eggs, the intent of this act being that cold-storage eggs sold at retail or offered or exposed for sale shall be designated in such a manner that the purchaser will know that they are cold-storage eggs. The display of the words "Cold-storage eggs" as required by this act shall be done in such a manner as hereafter set forth in sections 2 and 3.

SEC. 2. The sign or placard required by section 1 of this act to be placed upon or immediately above cold-storage eggs, or upon the basket, box, or other container in which cold-storage eggs are placed, shall consist of the words "Cold-storage eggs" printed in uncondensed Gothic type in letters not less than 1 inch in height, printed in black on a white background, no other lettering to appear on or to be attached to said sign or placard. (This sign or placard to be used only where eggs are offered or exposed for sale.)

SEC. 3. The marking required by section 1 to be placed upon the bag, basket, box, or other container in which cold-storage eggs are placed, *after having been sold to a purchaser*, shall consist of the words "Cold-storage eggs," printed or

stamped in uncondensed gothic type, in letters not less than one-half inch in height, in black, purple, or red ink, no other lettering to appear in connection with the words "Cold-storage eggs." (This method of marking to appear on the bag, basket, box, or other container in which eggs are delivered to the purchaser.)

SEC. 4. Violation of any provision of this act shall be punished by a fine of \$2 for each offense.

**Communicable Diseases—Notification of Cases—Educational Work—Publicity Given to Cases—Quarantine—Placarding—Disinfection. (Reg. Bd. of H., Mar. 2, 1914.)**

The following rules were prepared by the State Board of Health of North Carolina, with a view to their adoption by county boards of health. They were adopted by the board of health of the county and city of Durham, N. C., on March 2, 1914:

**GENERAL RULES.**

**RULE 1.** It shall be the duty of every physician to notify the county health officer of any person suffering with typhoid fever, whooping cough, measles, diphtheria, scarlet fever, or smallpox within 24 hours after obtaining reasonable evidence for believing a person is suffering from one of the aforesaid diseases.

**RULE 2.** Where the county health officer has reason to believe that any one of the five diseases mentioned in rule 1 has not been reported to him by the physician in charge he is hereby ordered to visit such cases in order to establish a correct diagnosis, as well as institute the necessary precautions for the control of the disease.

**RULE 3.** It shall be the duty of every parent, guardian, or householder, in the order named, to notify the county health officer within 24 hours after it is known, or reasonably apparent, to such parent, guardian, or householder, that a person living in their family or household is afflicted with typhoid fever, whooping cough, measles, diphtheria, scarlet fever, or smallpox.

**RULE 4.** The county health officer shall supply monthly the editors of the county papers with the names and addresses of all persons reported as suffering from typhoid fever, whooping cough, measles, diphtheria, scarlet fever, and smallpox, and shall request the said editors to publish the list of names in their papers, with an explanatory note from the county health officer.

**RULE 5.** The principals or teachers of all public or private day schools shall report within one month of receiving a notice from the county health officer the following: (a) The names of all children attending the school in the alphabetical order of their family names; (b) The names of all children who have been vaccinated; (c) the names of all children who have had whooping cough; (d) the names of all children who have had measles; (e) the names of all children who have had scarlet fever; (f) the names of all children who have had smallpox; (g) the number of families represented in the school where there are children under 2 years of age.

**SPECIAL RULES.**

**RULES GOVERNING MANAGEMENT OF TYPHOID FEVER.**

*Rules governing the county health officer.*—**RULE 1.** Within 48 hours after receiving notice of the existence of typhoid fever, the county health officer shall communicate with the parent, guardian, or householder, in the order named, in

whose family or household the above disease exists, and instruct such householder in the methods of sanitation necessary to prevent the communication of the aforesaid disease to other members of the family or household and to the people of the community, and he shall leave with such parent, guardian, or householder suitable literature describing briefly the dangers of the disease, the ways in which it is contracted, and the methods for preventing its spread.

**RULE 2.** The county health officer shall ascertain, as promptly and so far as is possible, the origin of each case of typhoid fever reported to him, and shall do all in his power to destroy or remedy the source of the disease.

*Rules governing the parent, guardian, or householder.*—**RULE 1.** It shall be the duty of every parent, guardian, or householder, in whose family or household there exists a case of typhoid fever, not to sell any food usually consumed uncooked, such as milk, butter, fruits, and certain vegetables, except in accordance with the regulations prescribed by the county health officer.

**RULE 2.** It shall be the duty of every parent, guardian, or householder, in whose family or household a case of typhoid fever exists, to thoroughly disinfect the bladder and bowel discharges from the sick person in accordance with the method described in the pamphlet on typhoid fever supplied such parent, guardian, or householder by the county health officer before otherwise disposing of such discharges.

#### RULES GOVERNING THE MANAGEMENT OF WHOOPING COUGH.

*Rules governing county health officer.*—**RULE 1.** Within 24 hours after receiving notice of the existence of whooping cough, the county health officer shall send by registered mail to the parent, guardian, or householder, in the order named, in whose family or household the above disease exists, an official letter calling said parent's or guardian's or householder's attention to an inclosed placard, a printed list of rules and regulations of the county board of health governing families and households in which the aforesaid disease exists, and a pamphlet setting forth the dangers, mode of conveyance, and mode of preventing whooping cough.

**RULE 2.** Within 24 hours after receiving notice of the existence of whooping cough, the county health officer shall notify officially in writing the teacher or principal in charge of the school or schools that have been attended recently by the children of a family or household in which whooping cough exists, and with such notice the county health officer shall furnish the aforesaid teacher or principals a sufficient quantity of suitable literature on the said disease for distribution through the children attending the school to all the families represented in the school.

**RULE 3.** Within 24 hours after receiving notice of the existence of a case of whooping cough the county health officer shall write the ministers of the churches in the community in which the disease exists and respectfully request the ministers to lend their influence to restricting the spread of the disease by calling the attention of their congregations to the existence of the disease in the community, to the dangers of the disease, to the way it is spread, and the way in which it may be checked (as indicated on a leaflet on the disease inclosed to the ministers with the above request), and by impressing upon the members of their congregations their religious duty in seeing that the laws of the country protecting health and life receive their loyal support.

*Rules governing the parent, guardian, or householder.*—**RULE 1.** It shall be the duty of every parent, guardian, or householder, in the order named, in whose family or household whooping cough exists to post securely a placard with the name of the above disease printed thereon in a conspicuous place on the front

of his or her house immediately upon the receipt of such placard from the county health officer, and no one shall remove the said placard until six weeks have passed since the disease was reported or until written permission by the county health officer has been obtained.

**RULE 2.** So far as practicable the parent, guardian, or householder, in the order named, shall isolate the child or minor sick with whooping cough from the other members of the family.

**RULE 3.** No parent, guardian, or householder, in the order named, shall permit a child or a minor who has whooping cough or who has never had whooping cough and who lives in their family or household when whooping cough exists in such family or household to attend any public or private day school.

**RULE 4.** No parent, guardian, or householder, in the order named, shall permit any child or minor living in their family or household when whooping cough exists in such family or household to attend Sunday school or other church meetings, theaters, parties, or picnics.

**RULE 5.** No parent, guardian, or householder, in the order named, shall permit a child or minor suffering from whooping cough or a child or minor who has never had whooping cough and who lives in their family or household when whooping cough exists in such family or household to play out of doors within 25 yards of any public thoroughfare or park.

**RULE 6.** No wearing apparel, bed clothing, curtains, or carpets with which a child or minor suffering from whooping cough comes in contact shall be sent away from the family or household in which the disease exists without first being boiled or exposed to the rays of the sun for at least eight hours. And upon the removal of the placard designated in rule 1 the room or rooms occupied by the person with whooping cough shall be thoroughly aired for at least two days, and all cotton, woolen, and linen fabrics or materials used in such room or rooms shall be thoroughly sunned.

**RULE 7.** Rules 2, 3, 4, 5, and 6 shall be enforced until the placard is removed from the house.

*Rules governing teachers.*—**RULE 1.** Upon the receipt of an official notice from the county health officer that whooping cough exists in a family or household from which children attend or have recently attended the school, the teacher or principal of such school is hereby empowered and required to enforce the following precautions against the spread of the disease:

(a) No teacher residing in a family where there is a person sick with whooping cough shall conduct or attend a public or private day school.

(b) The teacher or principal shall make a statement to the school, calling the attention of the pupils to the presence of the disease in the community and setting forth the dangers of whooping cough, its mode of conveyance and the means for preventing its spread.

(c) The teacher or principal of the school that has been attended recently by a family in which whooping cough exists, shall distribute to the children or pupils of the school the literature on the disease supplied by the county health officer, and shall direct the children to give the said literature to their parents or guardians.

(d) The teacher or principal of any school shall exclude from the school all children who have never had whooping cough and who live in families where the disease exists.

(e) The teacher or principal of any school attended or that has been attended recently by children from a family or household where whooping cough exists shall examine the pupils daily for nasal discharge and cough and history of association during the previous three weeks with known cases of whooping cough.

and on finding a pupil with such history and symptoms, shall exclude immediately such pupil from school until the symptoms have disappeared or until a period of three weeks have elapsed.

(f) The teacher or principal of a school attended or recently attended by children from families or households in which whooping cough exists, shall urge those children living in such families or households and those children where there is no whooping cough but where there are children under three years of age to remain apart as much as is practicable, not to come to school together nor to play close together on the school grounds, and shall seat such children as far apart in the schoolroom as is practicable.

(g) The pupils of the school shall be cautioned frequently during the existence of whooping cough in the community as to the danger from coughing and sneezing without holding a handkerchief or cloth in front of their mouths and noses, and they shall also be cautioned as to the danger from eating from the same morsel of food, using the same slate and pencil and other things in common that might convey small particles of saliva or nasal secretion from child to child.

(h) The common dipper and drinking cup, as well as the open bucket, shall be absolutely prohibited in all schools patronized by any community or family in which whooping cough exists.

#### RULES GOVERNING THE MANAGEMENT OF MEASLES.

*Rules governing county health officer.*—**RULE 1.** Within 24 hours after receiving notice of the existence of measles, the county health officer shall send by registered mail to the parent, guardian, or householder, in the order named, in whose family or household the above disease exists, an official letter calling said parent's or guardian's or householder's attention to an inclosed placard, a printed list of rules and regulations of the county board of health governing families and households in which the aforesaid disease exists, and a pamphlet setting forth the dangers, mode of conveyance, and mode of preventing measles.

**RULE 2.** Within 24 hours after receiving notice of the existence of measles, the county health officer shall notify officially in writing the teacher or principal in charge of the school or schools that have been attended recently by the children of a family or household in which measles exists, and with such notice the county health officer shall furnish the aforesaid teacher or principal a sufficient quantity of suitable literature on the said diseases for distribution through the children attending the school to all the families represented in the school.

**RULE 3.** Within 24 hours after receiving notice of the existence of a case of measles, the county health officer shall write the ministers of the churches in the community in which the disease exists and respectfully request the ministers to lend their influence to restricting the spread of the disease by calling the attention of their congregations to the existence of the disease in the community, to the dangers of the disease, to the way it is spread, and the way in which it may be checked (as indicated on a leaflet on the disease inclosed to the minister with the above request), and by impressing upon the members of their congregations their religious duty in seeing that the laws of the country protecting health and life receive their loyal support.

*Rules governing the parent, guardian, or householder.*—**RULE 1.** It shall be the duty of every parent, guardian, or householder, in the order named, in whose family or household measles exists, to post, securely, a placard with the name of the above disease printed thereon, in a conspicuous place on the



front of his or her house, immediately upon the receipt of such placard from the county health officer, and no one shall remove the said placard until two weeks have passed since the disease was reported or until a written permission by the county health officer has been obtained.

**RULE 2.** So far as practicable, the parent, guardian, or householder, in the order named, shall isolate the child or minor, sick with measles, from the other members of the family.

**RULE 3.** No parent, guardian, or householder, in the order named, shall permit a child or minor who has measles or who has never had measles and who lives in their family or household when measles exists in such family or household to attend any public or private day school.

**RULE 4.** No parent, guardian, or householder, in the order named, shall permit any child or minor living in their family or household, when measles exists in such family or household, to attend Sunday school or other church meetings, theaters, parties, or picnics.

**RULE 5.** No parent, guardian, or householder, in the order named, shall permit a child or minor suffering from measles or a child or minor who has never had measles and who lives in their family or household, when measles exists in such family or household, to appear out of doors within 25 yards of any public thoroughfare or park.

**RULE 6.** No wearing apparel, bed clothing, curtains, or carpets with which a child or minor suffering from measles comes in contact shall be sent away from the family or household in which the disease exists without first being boiled or exposed to the rays of the sun for at least eight hours. And upon the removal of the placard designated in rule 1 the room or rooms occupied by the person with measles shall be thoroughly aired for at least two days, and all cotton, woolen, and linen fabrics or materials used in such room or rooms shall be thoroughly sunned.

**RULE 7.** Rules 2, 3, 4, 5, and 6 shall be enforced until the placard is removed from the home.

*Rules governing teachers.*—**RULE 1.** Upon the receipt of an official notice from the county health officer that measles exists in a family or household from which children attend or have recently attended the school, the teacher or principal of such school is hereby empowered and required to enforce the following precautions against the spread of the disease:

(a) No teacher residing in a family where there is a person sick with measles shall conduct or attend a public or private day school.

(b) The teacher or principal shall make a statement to the school, calling the attention of the pupils to the presence of the disease in the community and setting forth the dangers of measles, its mode of conveyance and the means of preventing its spread.

(c) The teacher or principal of the school that has been attended recently by a family in which measles exists shall distribute to the children or pupils of the school the literature on the disease supplied by the county health officer, and shall direct the children to give the said literature to their parents or guardians.

(d) The teacher or principal of any school shall exclude from the school all children who have never had measles and who live in families where the disease exists.

(e) The teacher or principal of any school attended or that has been attended recently by children from a family or household where measles exists shall examine the pupils daily for nasal discharge, skin eruption, and history of association during the previous two weeks with known cases of measles,

and on finding a pupil with such history and symptoms shall exclude immediately such pupil from school until the symptoms have disappeared or until a period of two weeks has elapsed.

(f) The teacher or principal of a school attended or recently attended by children from families or households in which measles exists shall urge those children living in such families or households and those children where there is no measles, but where there are children under 3 years of age, to remain apart as much as is practicable, not to come to school together nor to play close together on the school grounds, and shall seat such children as far apart in the schoolroom as is practicable.

(g) The pupils of the school shall be cautioned frequently during the existence of measles in the community as to the danger from coughing and sneezing without holding a handkerchief or cloth in front of their mouths and noses, and they shall also be cautioned as to the danger of eating from the same morsel of food, using the same slate and pencil and other things in common that might convey small particles of saliva or nasal secretion from child to child.

(h) The common dipper and drinking cup, as well as the open bucket, shall be absolutely prohibited in all schools patronized by any community or family in which measles exists.

(i) The teacher or principal of a school recently attended by a child sick with measles shall continue the school for a period of five days from the last day on which the sick child attended school and shall then discontinue school for six days, at the expiration of which time the school shall be reopened.

(j) Rule *a* must not be enforced until rules *b* and *c* have been carried out. Rule 1 shall only apply to primary cases of measles in school separated by at least four weeks' interval.

#### RULES GOVERNING THE MANAGEMENT OF DIPHTHERIA.

*Rules governing the county health officer.*—RULE 1. Within 24 hours after receiving notice of the existence of diphtheria the county health officer shall send by registered mail to the parent, guardian, or householder, in the order named, in whose family or household the above disease exists an official letter calling said parent's or guardian's or householder's attention to an inclosed placard, a printed list of rules and regulations of the county board of health governing families and households in which the aforesaid disease exists, and a pamphlet setting forth the dangers, mode of conveyance, and mode of preventing diphtheria.

RULE 2. Within 24 hours after receiving notice of the existence of diphtheria the county health officer shall notify officially, in writing, the teacher or principal in charge of the school or schools that have been attended recently by the children of a family or household in which diphtheria exists, and with such notice the county health officer shall furnish the aforesaid teacher or principals a sufficient quantity of suitable literature on the said disease for distribution through the children attending the school to all the families represented in the school.

RULE 3. Within 24 hours after receiving notice of the existence of a case of diphtheria the county health officer shall write the ministers of the churches in the community in which the disease exists and respectfully request the ministers to lend their influence to restricting the spread of the disease by calling the attention of their congregations to the existence of the disease in the community, to the dangers of the disease, to the way it is spread, and the way in which it may be checked (as indicated on a leaflet on the disease inclosed to the minister

with the above request), and by impressing upon the members of their congregations their religious duty in seeing that the laws of the country protecting health and life receive their loyal support.

**Rules governing the parent, guardian, or householder.**—**RULE 1.** It shall be the duty of every parent, guardian, or householder, in the order named, in whose family or household diphtheria exists to post securely a placard with the name of the above disease printed thereon in a conspicuous place on the front of his or her house immediately upon the receipt of such placard from the county health officer, and no one shall remove the said placard until two weeks have passed since the disease was reported or until written permission by the county health officer has been obtained.

**RULE 2.** So far as practicable, the parent, guardian, or householder, in the order named, shall isolate the child or minor sick with diphtheria from the other members of the family.

**RULE 3.** No parent, guardian, or householder, in the order named, shall permit any child or minor living in their family or household when diphtheria exists in such family or household to attend a public or private day school, Sunday school, or church meetings, theaters, parties, or picnics.

**RULE 4.** No parent, guardian, or householder, in the order named, shall permit a child or minor suffering from diphtheria, or a child or minor who lives in their family or household when diphtheria exists in such family or household, to play out of doors within 25 yards of any public thoroughfare or park.

**RULE 5.** No wearing apparel, bed clothing, curtains, or carpets with which the child or minor suffering from diphtheria comes in contact shall be sent away from the family or household in which the disease exists without first being boiled. And upon the removal of the placard designated in rule 1, the floors and woodwork of the room or rooms occupied by the person with diphtheria shall be washed thoroughly with a 1-500 solution of bichloride of mercury, as described in the pamphlet supplied the parent or householder by the county health officer, and then aired for at least two days. All cotton, woolen, and linen fabrics or materials used in such room or rooms shall be thoroughly sunned for three days.

**RULE 6.** Rules 2, 3, 4, and 5 shall be enforced until the placard is removed from the house.

**Rules governing teachers.**—**RULE 1.** Upon the receipt of an official notice from the county health officer that diphtheria exists in a family or household from which children have recently attended the school, the teacher or principal of such school is hereby empowered and required to enforce the following precautions against the spread of the disease:

(a) No teacher residing in a family where there is a person sick with diphtheria shall conduct or attend a public or private day school.

(b) The teacher or principal shall make a statement to the school, calling the attention of the pupils to the presence of the disease in the community and setting forth the dangers of diphtheria, its mode of conveyance, and the means for preventing its spread.

(c) The teacher or principal of the school that has been attended recently by a family in which diphtheria exists shall distribute to the children or pupils of the school the literature on the disease supplied by the county health officer, and shall direct the children to give the said literature to their parents or guardian.

(d) The teacher or principal of any school shall exclude from the school all children who live in families where diphtheria exists.

(e) The teacher or principal of any school that has been attended recently by children from a family or household where diphtheria exists shall examine

the pupils daily for nasal discharge and sore throat and history of association during the previous three weeks with known cases of diphtheria, and on finding a pupil with such history and symptoms shall exclude immediately such pupil from school until the symptoms have disappeared.

(f) The teacher or principal of a school that has been attended recently by children from families or households in which diphtheria exists shall urge those children living in such families or households and those children where there is no diphtheria, but where there are children under 3 years of age, to remain apart as far as is practicable, not to come to school together, nor to play together on the school grounds, and shall seat such children as far apart in the school-room as is practicable.

(g) The pupils of the school shall be cautioned frequently during the existence of diphtheria in the community as to the danger from coughing and sneezing without holding a handkerchief or cloth in front of their mouths and noses, and they shall also be cautioned as to the danger of eating from the same morsel of food, using the same slate and pencil, and other things in common that might convey small particles of saliva or nasal secretion from child to child.

(h) The common dipper and drinking cup, as well as the open bucket, shall be absolutely prohibited in all schools patronized by any community or family in which diphtheria exists.

#### RULES GOVERNING THE MANAGEMENT OF SCARLET FEVER.

*Rules governing the county health officer.*—RULE 1. Within 24 hours after receiving notice of the existence of scarlet fever the county health officer shall send by registered mail to the parent, guardian, or householder, in the order named, in whose family or household the above disease exists an official letter calling said parent's or guardian's or householder's attention to an inclosed placard; a printed list of rules and regulations of the county board of health governing families and households in which the aforesaid disease exists, and a pamphlet setting forth the dangers, mode of conveyance, and mode of preventing scarlet fever.

RULE 2. Within 24 hours after receiving notice of the existence of scarlet fever the county health officer shall notify officially in writing the teacher or principal in charge of the school or schools that have been attended recently by the children of the family or household in which scarlet fever exists, and with such notice the county health officer shall furnish the aforesaid teacher or principal a sufficient quantity of suitable literature on the said disease for distribution, through the children attending the school, to all the families represented in the school.

RULE 3. Within 24 hours after receiving notice of the existence of a case of scarlet fever the county health officer shall write the ministers of the churches in the community in which the disease exists and respectfully request the ministers to lend their influence to restricting the spread of the disease by calling the attention of their congregations to the existence of the disease in the community, to the dangers of the disease, to the way it is spread, and the way in which it may be checked (as indicated on a leaflet on the disease inclosed to the minister with the above request), and by impressing upon the members of their congregations their religious duty in seeing that the laws of the country protecting health and life receive their loyal support.

*Rules governing the parent, guardian, or householder.*—RULE 1. It shall be the duty of every parent, guardian, or householder, in the order named, in whose

family or household scarlet fever exist, to post, securely, a placard with the name of the above disease printed thereon, in a conspicuous place on the front of his or her house immediately upon the receipt of such placard from the county health officer, and no one shall remove the said placard until six weeks have passed since the disease was reported, or until a written permission by the county health officer has been obtained.

**RULE 2.** So far as practicable, the parent, guardian, or householder, in the order named, shall isolate the child or minor sick with scarlet fever from the other members of the family.

**RULE 3.** No parent, guardian, or householder, in the order named, shall permit any child or minor living in their family or household, when scarlet fever exists in such family or household, to attend a public or private day school, Sunday school, or other church meetings, theaters, parties, or picnics.

**RULE 4.** No parent, guardian, or householder, in the order named, shall permit a child or minor suffering from scarlet fever, or a child or minor who lives in their family or household when scarlet fever exists in such family or household, to play out of doors within 25 yards of any public thoroughfare or park.

**RULE 5.** No wearing apparel, bed clothing, curtains, or carpets with which a child or minor suffering from scarlet fever comes in contact shall be sent away from the family or household in which the disease exists without first being boiled. And upon the removal of the placard designated in rule 1, the floors and woodwork of the room or rooms occupied by the person with scarlet fever shall be washed thoroughly with a 1:500 solution of bichloride of mercury, as described in the pamphlet supplied the parent or householder by the county health officer, and aired for at least two days. All cotton, woolen, and linen fabrics or materials used in such room or rooms shall be thoroughly sunned for three days.

**RULE 6.** Rules 2, 3, 4, and 5 shall be enforced until the placard is removed from the house.

*Rules governing teachers.*—**RULE 1.** Upon the receipt of an official notice from the county health officer that scarlet fever exists in a family or household from which children have recently attended the school, the teacher or principal of such school is hereby empowered and required to enforce the following precautions against the spread of the disease:

(a) No teacher residing in a family where there is a person sick with scarlet fever shall conduct or attend a public or private day school.

(b) The teacher or principal shall make a statement to the school calling the attention of the pupils to the presence of the disease in the community, and setting forth the dangers of scarlet fever, its mode of conveyance, and the means for preventing its spread.

(c) The teacher or principal of the school that has been attended recently by a family in which scarlet fever exists shall distribute to the children or pupils of the school the literature on the disease supplied by the county health officer, and shall direct the children to give the said literature to their parents or guardians.

(d) The teacher or principal of any school shall exclude from the school all children who live in families where scarlet fever exists.

(e) The teacher or principal of any school that has been attended recently by children from a family or household where scarlet fever exists shall examine the pupils daily for nasal discharge, sore throat, skin eruption, and history of association during the previous week with known cases of scarlet fever, and on finding a pupil with such history and symptoms shall exclude immediately such pupil from school until the symptoms have disappeared or until a period of one week has elapsed.

(f) The teacher or principal of a school that has been attended recently by children from families or households in which scarlet fever exists shall urge those children living in such families or households and those children where there is no scarlet fever but where there are children under 3 years of age to remain apart as much as is practicable, not to come to school together, nor to play close together on the school grounds, and shall seat such children as far apart in the schoolroom as is practicable.

(g) The pupils of the school shall be cautioned frequently during the existence of scarlet fever in the community as to the danger from coughing and sneezing without holding a handkerchief or cloth in front of their mouths and noses, and they shall also be cautioned as to the danger of eating from the same morsel of food, using the same slate and pencil, and other things in common that might convey small particles of saliva or nasal secretion from child to child.

(h) The common dipper and drinking cup, as well as the open bucket, shall be absolutely prohibited in all schools patronized by any community or family in which scarlet fever exists.

#### RULES GOVERNING THE MANAGEMENT OF SMALLPOX.

**RULE 1.** Within 48 hours after the attention of the county health officer has been called to the existence of a case of smallpox in any community he shall enforce the following regulations:

(a) He shall post, or have posted, placards, furnished by the State board of health, in conspicuous places in the said community for the notification of the public of the existence of smallpox and the means of avoiding it.

(b) He shall notify the teacher or teachers of the public schools of the aforesaid community of the existence of smallpox in that community, and the teacher or teachers so notified are hereby required to exclude from their schools all unvaccinated children until permission from the county health officer is granted to such children to return to school.

(c) The county health officer shall offer to the editors of the county newspapers an article stating that smallpox exists at a certain place or at certain places in the county; that disease can be avoided by being vaccinated, and that vaccination will be the only protection that the county government will afford those in danger of contracting the disease; that the disease will not be quarantined.

#### RULES GOVERNING THE MANAGEMENT OF OTHER CONTAGIOUS DISEASES COMMON TO CHILDREN.

*Rules governing county health officer.*—**RULE 1.** The county health officer shall immediately exclude from school any child or children showing to be infected by a rapidly spreading rash impetigo contagiosa, pediculosis (lousiness), scabies (itch), ringworms, tinæ tonsurous (ringworm of the scalp), and favus (scalp disease), until such infections have been cured.

**RULE 2.** Children who have suffered from the following diseases: A rapidly spreading rash impetigo contagiosa, pediculosis (lousiness), scabies (itch), ringworms, tinæ tonsurous (ringworm of the scalp), and favus (scalp disease), shall not be permitted to enter school without the written consent of the county health officer.

*Rules governing teachers.*—**RULE 1.** When it is known that any of the following diseases—a rapidly spreading rash impetigo contagiosa, pediculosis (lousi-

ness), scabies (itch), ringworms, tinea tonsurous (ringworm of the scalp), and favus (scalp disease)—exist among the children in a school the teacher in charge shall immediately exclude from school such children.

**RULES GOVERNING COUNTY HEALTH OFFICERS' RECORDS AND REPORTS.**

**RULE 1.** The county health officer shall keep in his office the following records:

(a) A card index system arranged in alphabetic order of the disease reported and under each disease the name and address of the sick person, the name and address of the doctor making the report, the date on which the report was received, and, in case the disease is a quarantinable disease, the dates on which the disease was quarantined and released.

(b) The county health officer shall keep a map of the county attached to the walls of the office, on which map is indicated by colored routing tacks the location of the different reportable diseases reported to the county health officer.

(c) A chronological chart attached to the wall of his office on which shall be indicated the number and the date on which the reports of the different reportable diseases as they are reported to the health officer throughout the year.

**RULE 2.** The county health officer shall report to the chairman of the county board of health monthly on a blank form adopted by the board.

**PENALTY RULE.**

If any person shall violate any of the rules and regulations made by the county board of health he shall be deemed guilty of a misdemeanor, and upon conviction thereof shall, for the first offense, be fined not less than \$5 nor more than \$50, and for each subsequent offense not less than \$10 nor more than \$50, or be imprisoned in the county jail not more than 30 days, or be both fined and imprisoned, in the discretion of the court.