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INFECTIOUS JAUNDICE.

The issue of the Public Health Reports of February 12 contained a report from Dr. L. J. Richards regarding an outbreak of infectious jaundice at Elizabeth, N. J.

Since then Dr. Youngman, health officer of Williamsport, Pa., has reported that during November and December, 1914, there were in Williamsport probably a hundred or more cases of this disease.

Dr. Edge has also reported that there was an outbreak in Stevens County, Ga., beginning last November.

CONTROL OF MALARIA.

OILING AS AN ANTIMOSQUITO MEASURE.

By J. A. A. LE PRINCE, Sanitary Engineer United States Public Health Service

Oiling of water surfaces as an antimalaria measure should be supplementary to proper drainage. When funds are not available for drainage, mosquito propagation can be largely controlled by oiling.

The object to be attained in using petroleum or other oils is to destroy larvæ of mosquitoes. To attain this, the surface of the water must be completely and continuously covered with a film of oil.

The effects thus produced in preventing mosquito breeding are:

1. Where mosquito larvæ are present, such larvæ can not penetrate the oil film with their breathing tube, and so drown and die.
2. Mosquitoes do not lay eggs on the oiled surface of water.

The larvæ of the malaria-conveying species of mosquitoes rest and feed in a horizontal position at the water surface. They are more easily destroyed in nature by the application of oils or larvacide than are larvæ of most other mosquitoes.

Grades of Oil.

There are many grades of oil on the market that will serve for mosquito destruction, ranging from the very light oils such as kerosene, to the heavier oils, known as crude oil.

Kerosene or illuminating oil is useful but has disadvantages such as rapid evaporation, high cost, and possible waste due to the invisible oil film formed. It has three advantages: It forms a thin film; it spreads rapidly, and it is readily obtained in small or large quantities.

Examples of Control of Malaria by Oiling.

While the use of oil is supplementary to proper drainage, its relative importance is very great.

In the antimalaria campaign at Habana, Cuba, oiling was relied upon to supplement the drainage for mosquito control.

Oiling was largely used in maintaining the force of 50,000 men on the Isthmus of Panama sufficiently free from malaria to construct the canal.

Dr. Malcomb Watson, who has had extensive experience in malaria eradication and who directed the successful control of malaria in the Federated Malay States, after inspecting the methods of procedure at Panama reported to the Royal Colonial Institute as follows:

I went there because I wanted to study the details of their methods, in particular how much of their excellent results were due to drainage, and how much to screening, oiling, and quinine. From my visit I concluded the results were mainly from oiling, which was done for practically half a mile on each side of the canal, or at least the inhabited portions of the zone. The great majority of the population do not live in screened houses and very few take quinine.

Intermediate grades of oil between the illuminating oils and heavier crude oils may be obtained. They are not as expensive as kerosene, and when applied they spread fairly rapidly, and give a visible oil film. They have been used extensively for mosquito control and have proved satisfactory.

The thicker oils of varying density and constituents, frequently referred to as crude oil, having a paraffin or asphalt base, are cheapest in their first cost. They do not spread as much nor as rapidly as the lighter oils and the heavier constituents are apt to gravitate to the bottom of the container and become too thick and heavy for use.

More of this grade of oil must be applied per unit of area to form a film on the surface of the water to be oiled. Since larger quantities would be required the cost of its transportation may be a determining factor in its selection.

Where crude oil is available at a low cost it may be treated and used to advantage, as will be described.

Larvacides, or substitutes for oil, should not be used, unless their practical value and the possible dangers that may result from their use are thoroughly understood. Such substances may be poisonous, less effective, and more costly for field work than oil.

The writer has obtained very satisfactory results at Panama by using a larvacide as a substitute for oil. It was used because the

local problem consisted of controlling mosquito propagation in hot weather when showers occurred every day for several weeks. Extensive construction work made proper drainage impossible and oil applied to water surfaces was washed away before it killed mosquito larvæ. It then became necessary to use a substance which would mix with water and kill mosquito larvæ rapidly when they came into contact with it. Such a larvacide could be applied with success during time of rain and was so used. It consisted of a mixture of crude carbolic acid, resin, and caustic soda. In addition to being a satisfactory larvacide, it proved to be useful in destroying algæ (spirogyra), and was also a good disinfectant.

It was used to treat the thick oils so that they would spread more rapidly and give a more extensive and uniform film.

Crude oils, to which from 5 to 10 per cent of this larvacide was added, were used in knapsack sprayers. Owing to the poisonous properties of the larvacide it is advised that this product be used only under the direction of boards of health or health officers. Its constituents, method of manufacture, and application are fully described by S. T. Darling in the American Journal of Public Health for February, 1912. It is made as follows: One hundred and fifty gallons of crude carbolic acid containing not less than 15 per cent of phenols are heated in an iron tank having a steam coil with steam at 50 pounds pressure; 200 pounds of finely crushed and sifted common rosin are dissolved in the boiling acid, and then 30 pounds of caustic soda dissolved in 6 gallons of water are added. There is a mechanical stirring rod attached to the mixing tank. The product is ready in a few minutes, yielding about 3½ barrels. As a mosquito larvacide it is used by spraying an aqueous emulsion (one part of larvacide to five of water) over the surface to be treated and along the margin of pools and ponds or other mosquito-breeding places, so that the resulting dilution of the larvacide has a thin, milky opalescence representing approximately a dilution of 1 to 5,000. A 1 to 1,000 dilution kills the larvæ more rapidly, and was used for destruction of larvæ in overflowing pools, etc., and where the use of oil was not practicable.

Storage and Precautions Against Fire.

Laborers who use oil daily soon become careless and therefore certain precautions and regulations to guard against fire should be adopted. In purchasing oil for mosquito control a safe flash test oil (as 140° F. flash test) should be used if the oil is to be kept near any building. Whenever possible, oil should be stored in isolated buildings. A small shack made of galvanized-iron sheets is preferable and its location should be at a safe distance from other buildings.

Oil stored in unsafe containers, as wooden barrels or improperly covered tanks near railroad tracks, is very apt to catch fire. Small quantities are usually shipped in wooden barrels and if left exposed in the sun, leakage occurs and danger from fire is increased. Provision must be made for fire protection and precautions taken to avoid spilling on the ground at or near the place of storage. Sufficient sand or loose earth should be kept available close to where the oil is stored for use in extinguishing a flame. Oil-storage houses and faucets of storage tanks or barrels should be kept locked when not actually being used. No smoking is to be allowed near them.

Where Oiling is Applicable.

Oil may be applied to water surfaces of pools, ditches, streams, shallow lagoons, and edges of deep ponds, lakes, and rivers, when necessary. Large water containers that are not protected against the entrance of mosquitoes should be protected with oil. It is unnecessary and expensive to oil collections of water that may be more economically treated by filling or drainage.

Larvæ of mosquitoes do not occur in bodies of water of considerable depths, unless aquatic plants, algæ, or débris are present. They are to be found near the banks of such bodies of water.

Oil should not be applied in places where mosquito larvæ do not occur. It may be applied to moving water in ditches and streams. More oil is required when used in oiling ditches overgrown with vegetation, shallow ponds containing grass, etc., because such vegetation impedes the formation of a complete film.

It is not advisable to oil water when the film will not remain effective, as just before rainstorms. During rainy periods the value of oiling is decreased. The ability of larvæ of mosquitoes to live under an oil film for an hour should be considered. Oil films will not penetrate a barrier of grass in water or move around similar obstructions. When such obstructions to the oil film occur on the water surface and are not removed, sufficient oil must be used to cover both the obstructions and the spaces between them. Wind will break up an oil film and transport all oil to one shore of the body of water.

In moving water, obstructions such as sticks, stones, brush, roots, and algæ, will sometimes interfere with the uniform spread of the oil film due to the division of surface currents.

Shallow bodies of water containing much grass may be too low to drain, as well as difficult and expensive to oil properly. They may in some cases be treated by either filling or ditching and collecting the water into a small area which will then be more easily oiled.

Methods of Application.

Water surfaces may be oiled by using:

1. A garden watering pot.
2. Knapsack sprayer.

3. A spraying apparatus in a small flat-bottom boat.
4. A drip can or drip barrel for intermittent or continuous oiling.
5. A small bundle of cotton waste soaked in oil.

It is not practicable to state how much oil should be used per unit of area. The density and spreading qualities of different shipments of commercial oils, and even of oil from the top and bottom of the same barrel, may vary so much as to upset all calculations. All oils spread better in warm weather. Just sufficient oil should be used to form a complete film. Laborers sometimes have difficulty in seeing where a film of kerosene is present on water, but can soon be so trained in the use of the other oils as not to apply more oil than is necessary.

(1) The watering pot is useful for limited areas, small pools, and where it is easy to get close to all parts of the propagation area. Relatively thick oil can be so applied.

(2) The knapsack sprayer with adjustable nozzle is useful for all purposes. It will spray the lighter oils and distribute in a satisfactory manner the heavy commercial crude oils that have been treated with phenol compounds. By its use oil may be placed wherever desired from 1 to 20 feet from the operator. This machine holds five gallons and rests on the shoulders and back of the operator. He pumps with one hand and directs the oil stream or spray with the other. While traveling over rough ground and not operating the pump the laborer has both hands free. With this apparatus the work is less tiring than using a watering pot. No oil is spilled or wasted by too rapid application. The knapsack sprayer was extensively used in the antimalaria campaign at Panama and found to give excellent results as to proper distribution of oil and as a preventive against wasting oil. In using the treated heavier oils, spraying machines with adjustable nozzles do not really give an oil spray of particles of liquid as small as is used in the application of insecticides. Such fineness is not essential. The oil is so distributed that its subsequent spread soon takes place and that is all that is desired.

(3) Spraying machines with hand pumps are used in small, flat-bottom boats for oiling parts of lagoons, lakes, bayous, edges of stagnant rivers, etc., near settlements, where such bodies of water can not be more economically controlled by drainage, or cleaning and fish control.

(4) The use of "oil drips" for intermittent or continuous application on ditches or streams containing moving water has proved satisfactory. Where the heavy oils are used the drip can is placed 3 to 4 feet above the water surface so that the drops of oil strike the moving water with a blow and at once change into a thin oil film. The stand, base, or object that supports the drip can must be secure and beyond

danger of removal by flood waters. Cans of from 5 to 30 gallons' capacity are used for dripping. The drip outlet is placed several inches from the bottom to allow of the settling of the heavier constituents of the oil that might clog up the outlet. The oil being warm in the daytime flows more freely than at night. The object of dripping a stream is to allow a sufficient number of drops of oil to fall on the moving water surface to form a continuous thin film. The water in ditches or streams so treated and kept fairly well cleaned or free from obstructions will convey the oil to all parts of the stream below the drip can and it will keep a film of oil on the places of minimum or zero current. It is in this quiet water that most mosquito larvæ are apt to occur.

On ditches and streams having an average width of water surface of 1 foot, from 10 to 20 drops of oil per minute are applied. The quantity of oil required depends upon the spread of oil, the alignment of the stream, roughness of banks, grade, obstructions, etc. For economic control a trial should be made at each ditch or stream where a drip can is used to determine the desired rate of flow. The drip can should be regulated accordingly. In many cases the drip need be operated continuously for only one or two days of each week. With larger streams it may be found necessary to operate the drip continuously day and night. On long streams or ditches it is at times necessary to use several drip cans. They are then so located that the next drip can is installed approximately at the point where the effect of the drip at the source disappears. Continuous dry weather may make it become necessary to discontinue the use of some drips or to change their location. At such season, pools will be left isolated at the sides of a stream and will have to be filled, or separately treated with oil by other methods. When the stream stops running the use of drips is discontinued and any water left in the stream bed is oiled with a knapsack sprayer or watering pot. With the best care oil drips will clog, due to suspended solids or heavy constituents in the oil, and must be adjusted as often as necessary. The disadvantage of oil drip cans is that they will not give satisfactory service without proper attention, may become clogged, or be washed away by floods. Their use is generally more effective and economical than the direct application of oil by sprinkler or knapsack sprayer for water in motion. A thinner, but satisfactory, film of oil is obtained from the heavier cheap oils. Several types of drip cans are described below and shown in the illustrations. (See figs. 1 to 5.)

A crude but cheap and easily made drip can consists of a 5-gallon can such as is used for shipping illuminating oil. A hole is made in its bottom with a 2 or 3 inch round nail. A wad of loose cotton is wrapped around the nail just below its head. The nail is then pushed

through the hole on the inside of the can, and crude oil is put in the can, which is suspended or placed on a stand over the ditch. By pulling the point of the nail downwards and gently pushing it upward the flow of oil may be decreased or increased as desired. (See Fig. 1.)

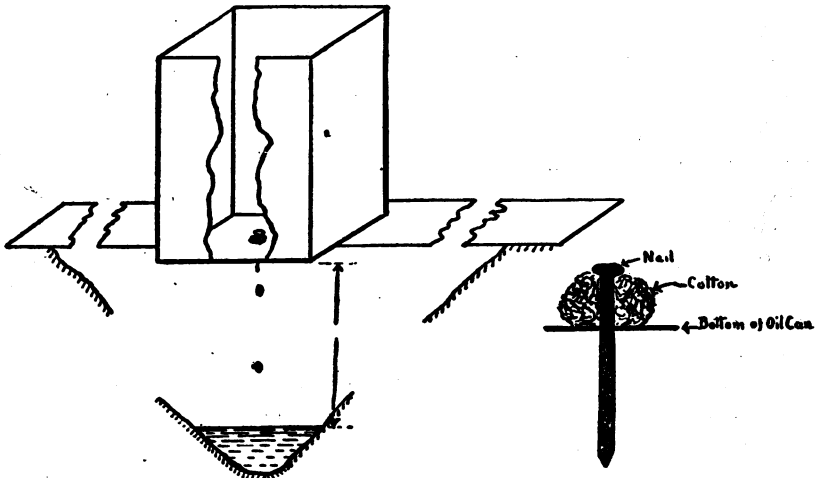


FIG. 1.—Oil drip made by inserting nail in bottom of container.

For thinner oils the 5-gallon oil can with metal discharge tap may be used and the tap adjusted to give within a few drops of the number desired to be discharged per minute (see Fig. 2). When oils less fluid than kerosene are used the spout or discharge point should be 1 or more inches above the bottom of the container, in order to prevent clogging of the very small escape outlet used.

A heavy crude oil of asphalt base was extensively used by the writer at Panama for mosquito control. It was cheap, but became thick when not exposed to the sun. It was what is termed "run of pipe" and contained thick constituents. When allowed to remain at rest a heavy thick oil more like grease than oil would collect at the bottom of the container. Different shipments would vary in density. This oil was often treated with about 5 per cent of the larvacide above mentioned, well mixed, and then used in drip cans. The drip used is shown in the illustration. (See Figs. 3 and 4.) It consists of a piece of thin metal similar to that part of a flat-wick kerosene-oil lamp burner which holds the lamp wick. It is made so that the flat wick fits loosely into it and is attached in a horizontal position to the outside of the can 2 or 3 inches above the base, in order to allow a space for the heavier oil constituents to settle. A lamp wick is inserted into this opening and water placed in the lower 2 inches of the container. Oil is then poured into the drip can. By com-

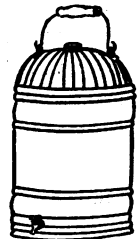


FIG. 2.—Oil can used to drip light oils.

pressing the wick holder the flow of oil is reduced and by widening it the flow is increased. The colored laborers soon became expert in adjusting the oil flow and were able to operate the drips to within a few drops per minute of the amount ordered for use on any particular drip can. Each can was numbered and records were kept of amounts of oil used in refilling. Thirty-gallon drip cans were frequently used.

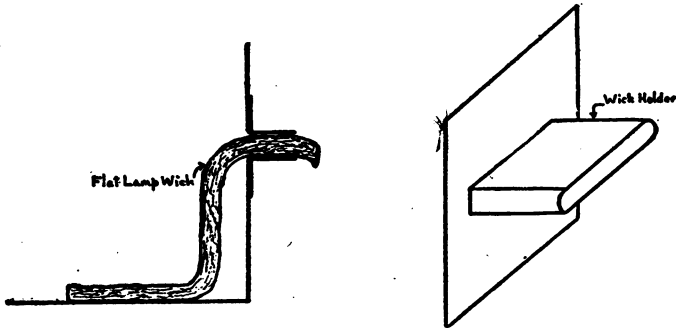


FIG. 3.—Detail of drip used for heavy oils.

Other devices may be invented and used to advantage for dripping different grades of oil, the density of which may vary daily. The main objects to be attained are to keep the rate of flow fairly constant with varying temperatures to prevent clogging of the outlet, to make use of containers that are available, and not to use an apparatus that can easily be rendered useless by incompetent labor.

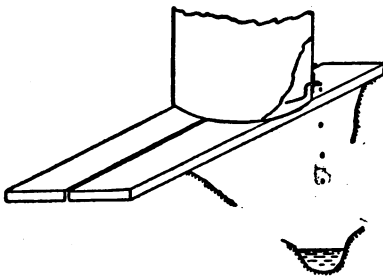


FIG. 4.—Oil drip for heavy oils.

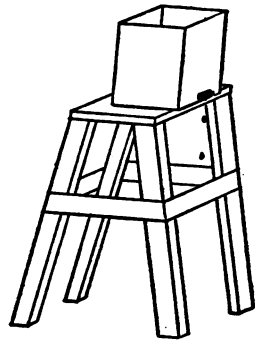


FIG. 5.—Oil drip can support.

(5) Where the quantity of moving water is too small to warrant the use of a drip can, as in ditches that are becoming dry, in limited seepage water outcrops, slow-running springs, etc., a small bundle of oil-soaked cotton waste is placed at the source of the water. It gives off a thin film of oil continuously for about a week. This waste,

after serving its purpose, is resoaked in oil and used again. The heavier oils are useful for this method of oiling.

Personnel.

In all mosquito-control work it is economy to select intelligent laborers who take an interest in the work, and to pay them a higher wage as they become skilled. The extra pay is saved many times over in results and saving of materials as compared with the work of untrained labor. The man who notes at a glance whether oil drips he sees are working properly and goes out of his way to remove an obstruction in a stream because he knows it may save extensive regrading, and attends to other apparently trivial but important details, is worth two ordinary laborers. Incompetent laborers are apt to increase operating expenses and are careless about using oil properly. The work to be done may be scattered over a relatively large area, and the inspector can not watch the men closely. His work is of such a character that he must often leave his laborers and devote his time to inspection.

Inspections.

The success of the work will depend very largely on the ability and personal interest taken in the work by the inspector or foreman in charge of the oiling and the oiling squad. Where oiling is being done for a community, there must be one reliable and active person held responsible for the efficiency of the field work. He must go to all possible production areas at frequent intervals and see and know that the work is being satisfactorily performed, that no known places are missed, that no mosquito larvæ reach the pupal stage of development, and that places needing attention are promptly attended to. A knowledge of the local conditions of topography and possibilities of water being retained in any locality during unusually wet seasons is essential. When the pools, ditches, and stream beds become dry, they must be reinspected after showers, as some of them may retain water in pools and need attention. This frequently happens in out of the way places. The inspector must never assume that everything is in satisfactory condition, but must go and see and be certain of it.

Working Maps and Records.

It is advisable wherever possible to have, or make, a map of the district showing the location of all streams, ditches, pools and other possible mosquito-production areas. Each breeding place may be denoted by a letter or number, and the inspector's daily report or daybook will show the work done and oil used at each place. If the extent of the breeding place is recorded so much the better. The

data thus obtained will show the cost of treatment or maintenance of any ditch or other breeding place. Oil drip cans should be numbered and record kept of dates of filling and amounts supplied. The entries, or system of recording, should be made as simple as possible. It is very discouraging to a man anxious to get at the field work and not fitted for clerical work to be held back by such causes. The object of the records are:

(1) For the health officer or other person to whom the inspector reports to know what is going on and to be able to make intelligent inspections.

(2) In case there is a change of inspectors, if costs of work are increased or decreased the fact may be at once noted.

(3) No known breeding places can be accidentally neglected.

(4) The high unit-cost of oiling any one pond, ditch or stream will indicate the advisability of using other methods of control.

An excellent example of the results which may be obtained in our Southern States by the intelligent application of oiling as an antimalaria measure is the work accomplished under the direction of Dr. T. W. M. Long during the Anopheles propagation season of 1914, at Roanoke Rapids, N. C.

The settlement is a mill town. In 1913 malaria was rife and people were leaving town on that account. The mills could not get sufficient labor. Senior Surg. H. R. Carter and Surg. R. H. von Ezdorf, United States Public Health Service, inspected the existing conditions in 1913 and made appropriate recommendations. The mill owners wisely subscribed \$3,600 to carry out the proposed measures. The $6\frac{1}{2}$ miles of streams and ditches were controlled by oil during 1914. Three thousand gallons of oil were used from May 20 to November 1, 1914, costing about \$300. The oil was used to supplement the drainage. Very few cases of malaria existed at Roanoke Rapids in 1914 and the change is so satisfactory to the mill owners that they propose to continue the oiling as a means of malaria control in the future.

The writer desires to acknowledge the suggestions and assistance received from Surg. R. H. von Ezdorf during the preparation of this paper.

HYPOCHLORITE TREATMENT OF WATER SUPPLIES.

PORTABLE PLANT AND FIELD EQUIPMENT FOR ITS ADMINISTRATION

By H. A. WHITTAKER, Assistant Director, Division of Sanitation, Minnesota State Board of Health.

In 1910 the Minnesota State Board of Health constructed portable emergency hypochlorite plants (*a*) to be kept in readiness for immediate transportation to localities within the State where water supplies were suspected or known to be contaminated. These plants

have rendered great service, as their constant readiness and portability have made it possible to reach practically any public water supply in the State, install a plant, and treat the water within a period of 24 hours after notice has been received by the division in charge of this work. Since the original plant was designed, many improvements have been made which have greatly facilitated its portability, simplified its installation, and increased the accuracy of administering the chemical to the water. The plant here described consists of the usual features—i. e., one mixing and two storage barrels, a mixing apparatus, a solution-controlling device, and the necessary

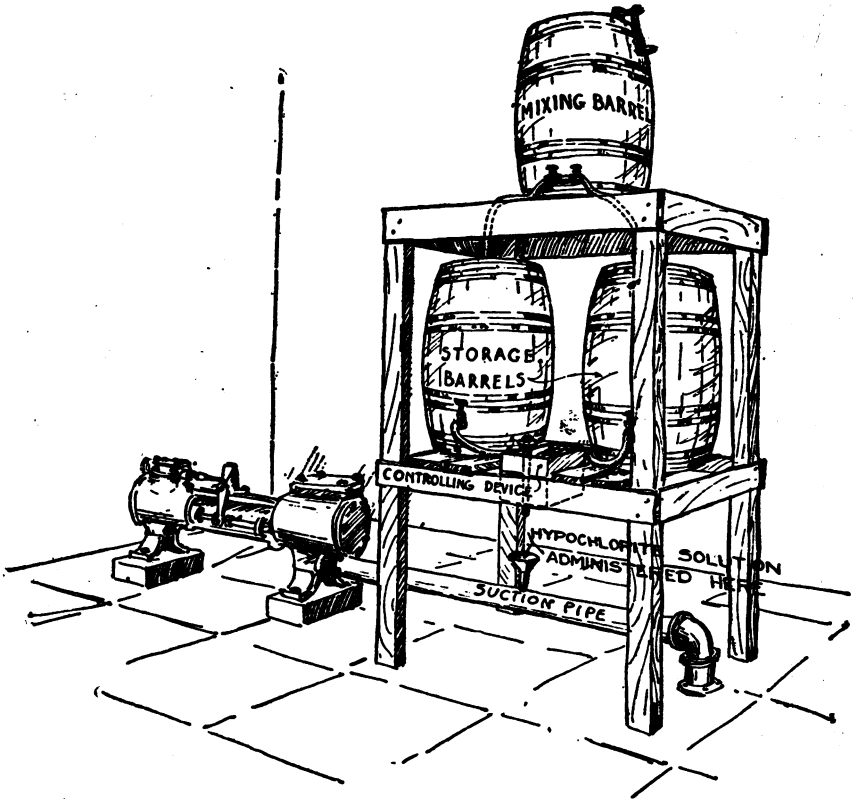


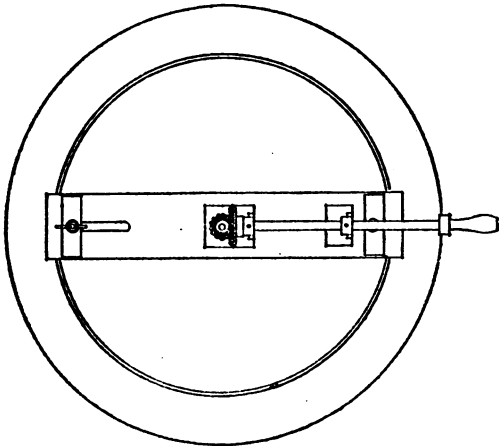
FIG. 1.—Sketch showing plant set up for operation.

valves and connections. The portability of this plant has been very much improved over the former type by its collapsible features, thus making it possible to pack all the necessary equipment for the plant, exclusive of the barrels and stand, in a small trunk which can either be carried by the investigator or shipped. The trunk holds, in addition to the plant, a 10-pound can of calcium hypochlorite or "bleach."

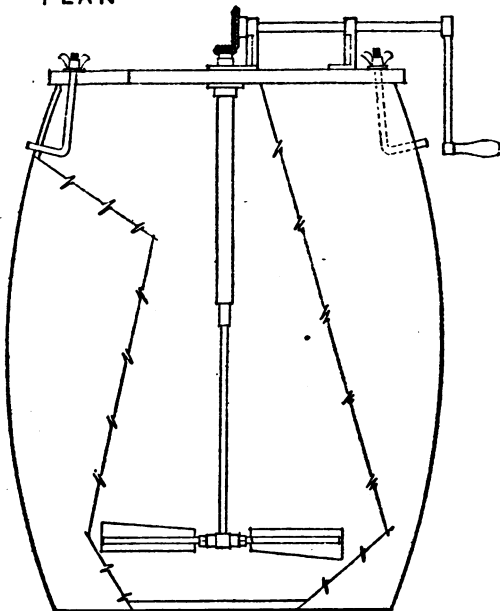
It was found impracticable and expensive to ship the necessary barrels and the portable stand to the locality, as these parts were easily obtainable where such a plant could be used, and an order for this material could be given to the local officials by telephone or telegraph and it could thus be in readiness when the other equipment arrived.

A sketch of this plant installed and ready for use is shown in figure 1. This is a typical case so far as the arrangement of the plant is concerned, and it should be understood that installations must necessarily be made to fit the conditions found at the different localities.

Figures 2, 3, and 4 show a plan and detail drawings of the collapsible mixing device and the method of attaching the same to the barrel. The mixing device consists of a horizontal shaft connected by means of a bevel gear to a vertical shaft on which are attached the mixing paddles. The bearings of these shafts are bolted to a substantial wooden base, which in turn is clamped to the mixing barrel. The barrels usually employed for both mixing and storage purposes are the ordinary 50-gallon oak barrels used in commerce.



PLAN



ELEVATION OF MIXING DEVICE



Fig. 2.—Mixing device, assembled.

Figure 5 shows a side and end elevation and plan drawing of the chemical feed box. The parts of this consist of a wooden box, a float valve, and a control valve. This drawing shows the arrangement of

these valves in the feed box. The float valve is used to maintain a constant level, while the control valve is used to administer definite amounts of solution to the water under treatment.

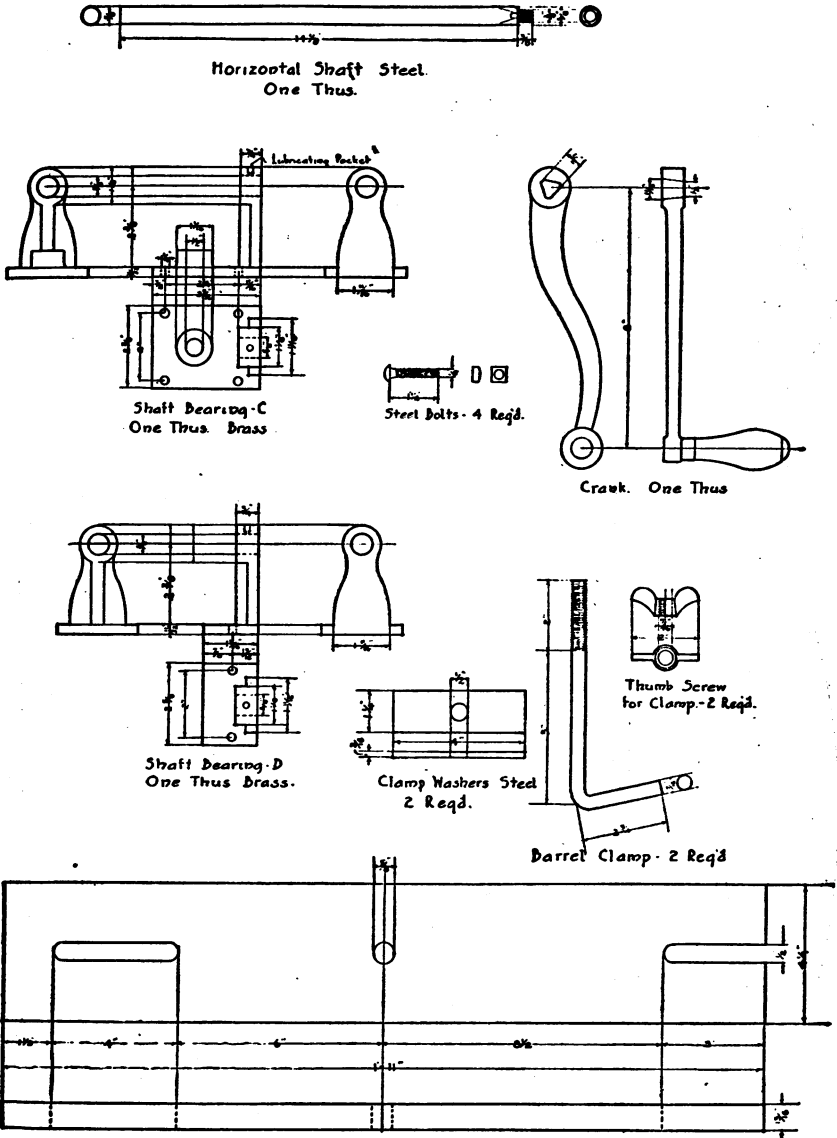


FIG. 3.—Mixing device details—Plate No. 1.

Figure 6 shows detailed drawings of the float valve. The important feature of the float valve is a hard-rubber lining which protects it

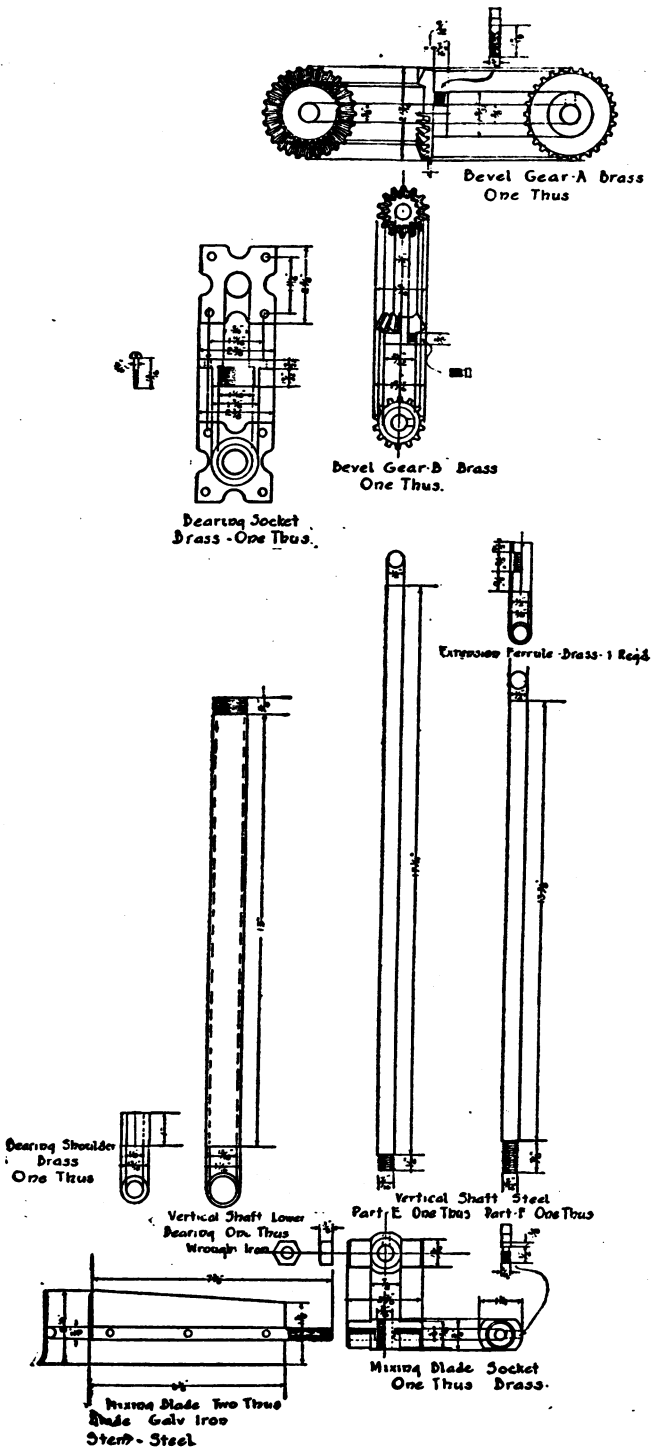


Fig. 4.—Mixing device details—Plate No. 2.

from the corrosive action of the chemical. It is so designed that it can be easily lined with standard hard-rubber tubing. The float here shown is of ordinary copper composition covered with an "acid-proof" paint. If these floats are kept well painted they will last for

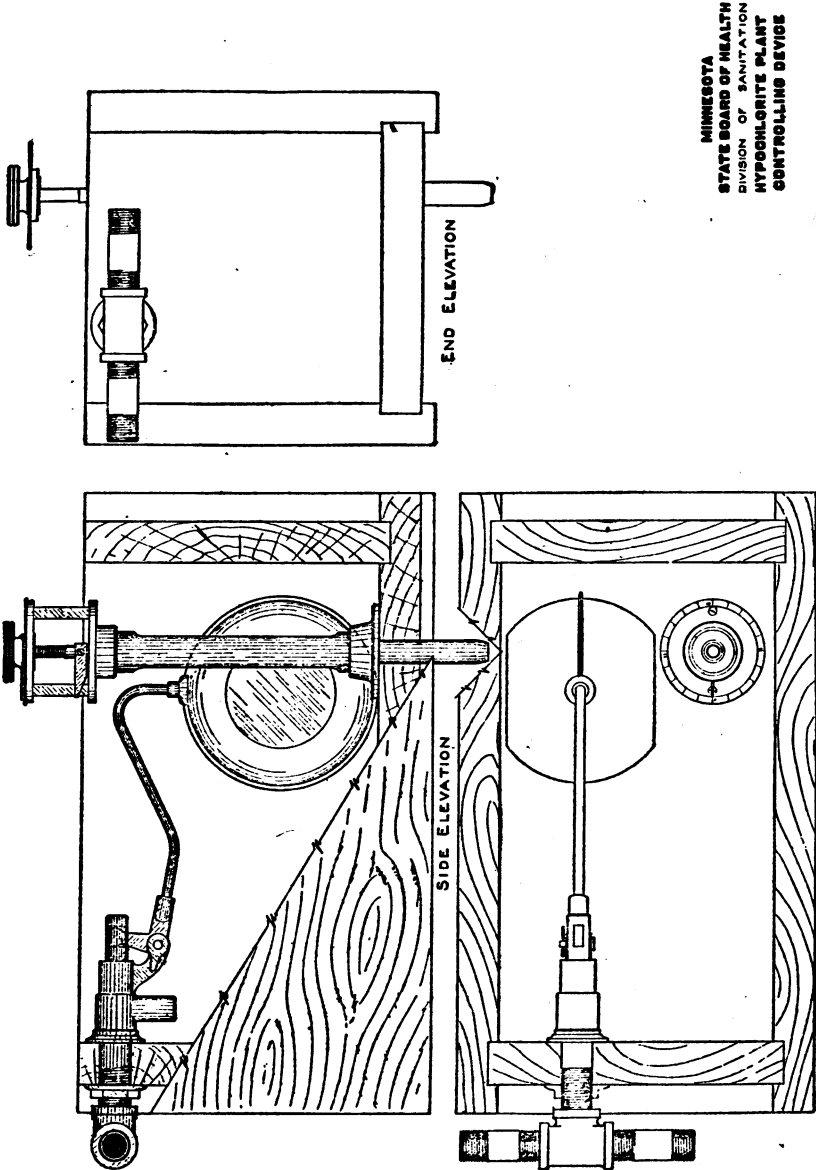


Fig. 5.—Chemical feed box with float valve and control valve in place.

a long time and they are satisfactory for temporary installations. For permanent installations a hard-rubber or glass float is to be preferred. The wooden feed box is also covered with the same "acid-proof" paint.

Figures 7 and 8 show detailed drawings of the control valve. This valve consists primarily of two hard-rubber tubes which telescope. The inner tube has a narrow slot, which when uncovered permits the solution to flow from the box into the tube and discharge from its lower end. This telescoping arrangement is controlled by a thumb screw supported above the outer casing of the valve. There are two

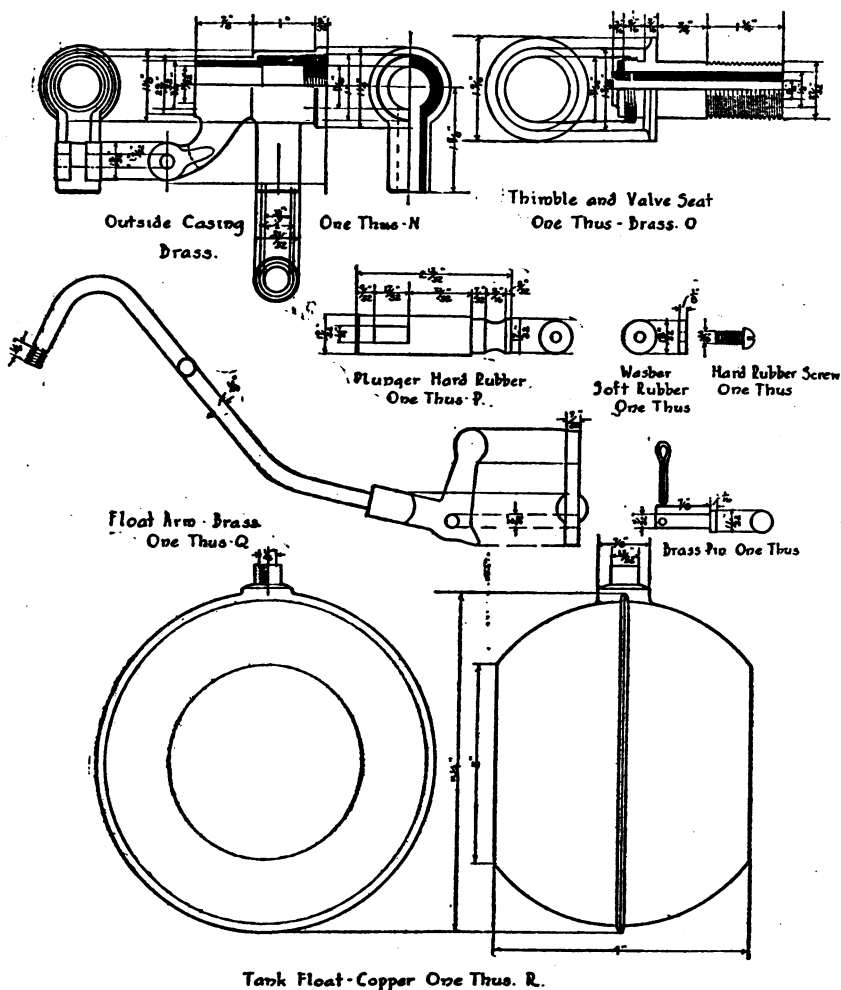
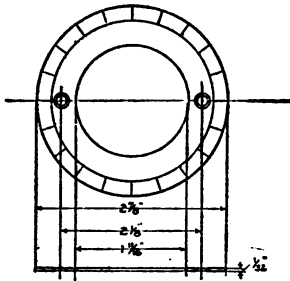
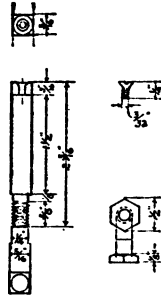


FIG. 6.—Float valve details.

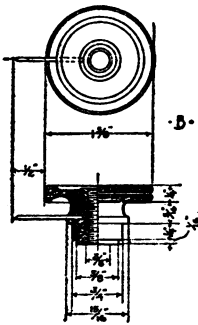
indicators for setting the valve to discharge varying amounts of solution. The coarse adjustment indicates by means of a pointer on one side of the supports to the thumb screw, while the more accurate adjustment indicates on the circular dial at the top. The slot in the inner tube is kept clean by means of a hard-rubber pin which is screwed into the outer tube and passes through and moves in the slot



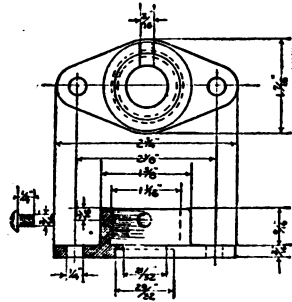
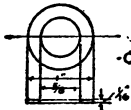
Dial Brass - One Thus - A



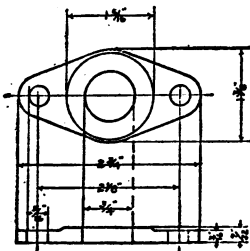
Thumb Screw Bearing Post
Two Thus - Brass - E



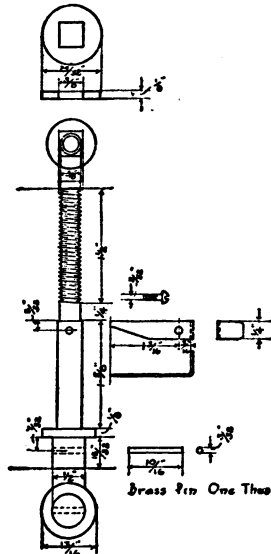
Thumb Screw and Lock Ring
Brass - One Thus - D. C.



Top Flange - Brass - One Thus - F



Thumb Screw Bearing - Brass.
One Thus - D.



Lift Screw - Brass.
One Thus - G.

Brass Pin One Thus

FIG. 7.—Control valve details—Plate No. 1.

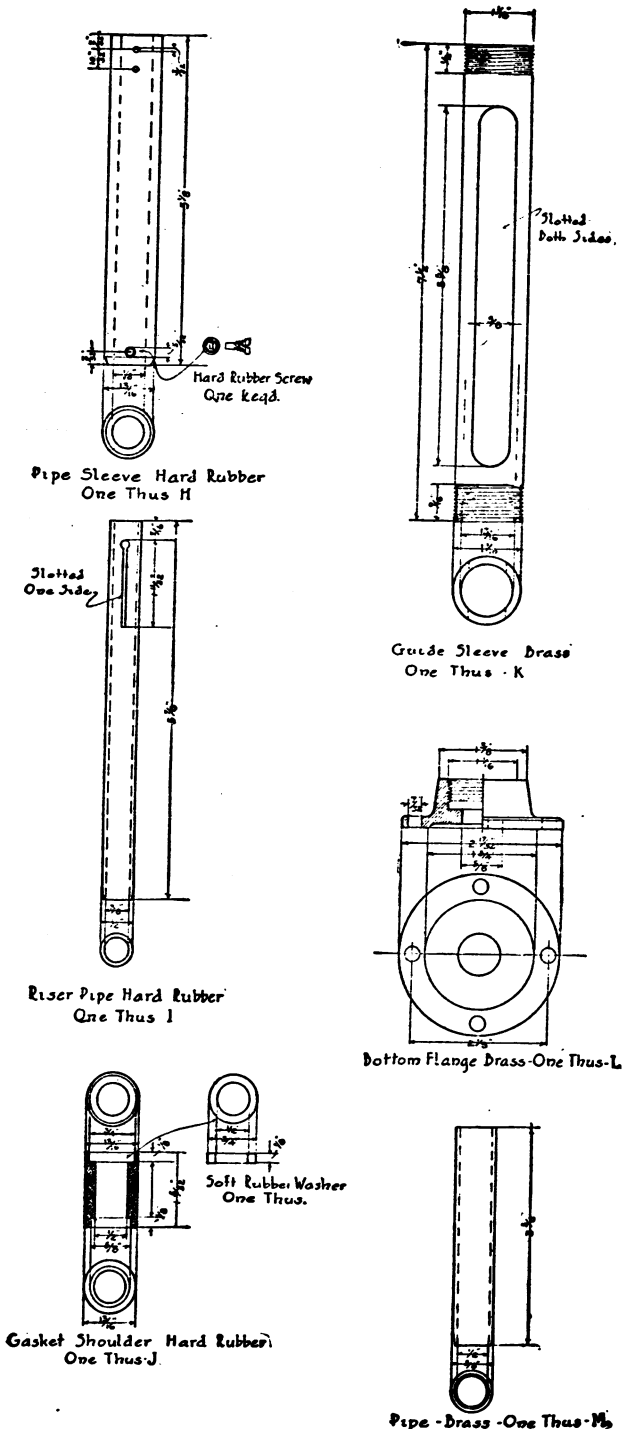


FIG. 8.—Control valve details—Plate No. 2.



FIG. 9.—TRUNK USED TO TRANSPORT PLANT PACKED FOR SHIPMENT.



FIG. 10.—COMPLETE FIELD EQUIPMENT FOR ADMINISTERING AND TESTING THE HYPOCHLORITE TREATMENT OF A WATER SUPPLY, PACKED AND READY FOR SHIPMENT.

in the inner tube. This control valve has several desirable features; it is self-contained and can be easily and quickly set up in the field. The orifice part of the valve is constructed of material which is not destroyed by the chemical, and it is provided with a device which insures proper cleaning of the orifice. The float valve and control valve were originally designed for emergency plants, but they have been used with success for permanent installation.

The trunk shown in figure 9 and figure 10, No. 2, in which the plant is shipped, is constructed of three-ply wood covered with vulcanized fiber. The corners and cover are protected with brass fittings. The cover is provided with three ordinary brass hinges, with two bolts at the front to hold the cover in place, as well as a hasp for locking the trunk with a padlock. A strong leather handle is located in the center of the top of the cover. The trunk is 25 inches long, 10 inches wide, and $12\frac{1}{2}$ inches deep, inside measurements. The interior is divided into two compartments, one 17 inches in length and the other $7\frac{3}{4}$ inches in length. The partition separating these two compartments is constructed of $\frac{3}{4}$ -inch wood material.

Figure 9 shows the trunk packed for shipment. It contains the following material: One chemical feed box, one float valve, one control valve, one collapsible mixing device, four $\frac{1}{2}$ -inch brass gate valves, eleven $\frac{1}{2}$ by 3 inch iron nipples, two $\frac{1}{2}$ -inch iron tees, 12 feet of $\frac{3}{4}$ -inch rubber garden hose, and one 10-pound can of calcium hypochlorite, or "bleach." This constitutes the entire equipment necessary to set up the plant and put it into operation, exclusive of the barrels and stand. The weight of the trunk and contents complete is 67 pounds.

This plant will conveniently treat water supplies distributing amounts up to 1,000,000 gallons per day and with additional effort on the part of the operators can be made to treat quantities up to 4,000,000 gallons per day.

The portable equipment shown in figure 10 which accompanies this plant, No. 2, when it is shipped into the field for service is as follows: An outfit (*b*) for testing the chemical phases of the hypochlorite treatment, No. 3, weight 18 pounds; a small portable incubator (*b*), No. 5, weight 24 pounds; an outfit for carrying the necessary media for field work, No. 1, weight 7 pounds; and at least one of each of the regular routine sampling outfits for the collection of bacteriological samples (*c*); No. 4, weight 27 pounds; and chemical samples, No. 6, weight 19 pounds, of water in the field. The total weight of the entire equipment here mentioned is 162 pounds. The media case, No. 1, is usually carried into the field; as it is difficult to ship liquid media already tubed for use, thus reducing the total shipping weight of the remaining apparatus to 155 pounds.

For rapid bacteriological work on water supplies in the field, presumptive tests (*d*) are made. After these tests have failed to show

the presence of *B. coli* in 100 c. c. amounts in the treated water, final bacteriological samples are collected, plated, and prepared in the field, and shipped to the main laboratory, with the routine sampling outfit previously mentioned. These final bacteriological samples serve as a check on the presumptive tests which were made in the field. Whenever necessary, samples are collected for physical and chemical examination.

The plant and equipment described in this article make it possible for a trained worker to enter the field equipped to handle in an emergency the problems met with in treating a polluted water supply. The Minnesota State Board of Health keeps this equipment constantly on hand and in readiness for immediate shipment to any locality requiring such assistance. This work is in charge of the division of sanitation.

The writer wishes to acknowledge the valuable assistance of Mr. J. A. Childs and Mr. J. B. Hills in preparing the sketches and drawings of this article, and the excellent work of Mr. H. Rotschka on the mechanical parts of the portable plant.

References.

- (a) Engineering News, vol. 65, No. 14, 1911, p. 402.
- (b) American Journal of Public Health, vol. 2, No. 12, p. 948.
- (c) Public Health Reports, United States Public Health Service, vol. 29, No. 20, p. 1224.
- (d) American Journal of Public Health, vol. 2, No. 12, p. 954.

VENEREAL DISEASE.

ITS PROBABLE PREVALENCE—AN ATTEMPT TO REACH A DEFINITE BASIS OF STATISTICAL VALUE.

By CHARLES E. BANKS, Senior Surgeon, United States Public Health Service.

It must be conceded that the efforts of students of social conditions to estimate the prevalence of venereal disease in any community, State, or nation have been inherently imperfect in results by reason of the absence of any authentic records of definite value. The best that can be said of the estimates is that they are the personal guesses of the men engaged exclusively in venereal work, balancing their impressions into concrete statements of percentages, or that they have been based on the statistics of some municipal dispensary of a large city with its thousands of clients annually by checking off the ratio of venereal cases. Those guesses vary all the way from the extravagant opinion that 80 per cent of the adult male population has been infected, to the more modest suggestion that 20 per cent would cover it.

As there is no present method of getting satisfactory reports of the occurrence of cases of venereal diseases, and as practically every case is concealed by the patient and his physician, if he employs one,

or by the druggist who prescribes cures over the counter, it will be seen that only some definite class of persons bearing a known relation to the community at large whose general medical treatment is under special jurisdiction can furnish a fairly proximate evidence of the amount of venereal disease in the body politic. Neither hospitals nor dispensaries of cities can furnish this evidence in a satisfactory way. A near approach to such a class would be the enlisted men of the military services, but they live under peculiar conditions, are selected for physical standards, and bear an abnormal relation to society as a whole. It should be added that they are now under the protection of a scheme of sexual hygiene which has greatly minimized the dissemination of the venereal infection because of the penalties attached for nonobservance of the regulations governing illicit intercourse.

The basis of estimate which I suggest as probably the nearest approach to a normal comparison with the general population is the class known as seamen, or persons engaged in the care and navigation of merchant vessels. To anticipate the objection that the sailor is proverbially a roysterer and not a fair standard of comparison in methods and morals let me say that this is conceded in advance and will be estimated in the results. We can never reduce this question to decimal fractions; it must be by its very quality an indeterminate, not an absolute, factor in social demography. It is well known that the General Government has for 112 years provided a hospital service for the care and treatment of sick and disabled seamen; and as the beneficiaries paid a monthly tax for about 90 years (until 1884) to support these relief stations, it can be fairly said that a vast proportion of eligibles sought its ministrations. In other terms, it was their medical service; they had helped to establish and support it, and they drifted to it whenever sick or disabled when in port. If infected with venereal disease they had no motive for concealment and came at once to the service for treatment.

The next question to consider is that they are all males, a situation which has to be adjusted in any application of statistics. But it can be said that they are of all ages, classes, and conditions of men from 16 to 70 years, and therefore a fairly good representative class to use. They are not picked men physically, just the ordinary run of human kind, although of a somewhat undeveloped type from the social standpoint. The only adjustment necessary is to eliminate from the problem the female element in making comparisons, and thus we shall get, as far as I can see, a logical workable standard. To arrive at the proper conditions we can now make this preliminary proposition: Given the number of males in the United States as shown by decennial censuses and given the number of seafaring men in the United States as shown by the classification of occupations in the

census reports, we can determine the relative strength of sailors to the whole male population. This being determined, we may apply the third test, the number of sailors treated in marine hospitals annually for all diseases, which will represent the relative general morbidity in this class. Of this number a certain proportion will be found infected with venereal disease, and the conclusion will follow that out of a known number of seafaring men, at a given year, so many were treated for this specific complaint. Then we can state the last equation and obtain the answer sought: If a certain percentage of seafaring men have venereal disease in 1900, it is reasonable to conclude that the rest of the adult male population in the United States in 1900 will be similarly infected.

The figures on the first of these points may be shown in the following table, giving the total male population for four decennial censuses and the total classed as mariners.

Year.	Boatmen and sailors.	Fisher-men, etc.	Total mariners.	Total males in United States.	Per cent of seamen.
1880.....	88,537	41,352	129,889	25,518,820	0.50
1890.....	76,874	60,162	137,036	32,237,101	.40
1900.....	78,406	68,540	147,346	38,816,448	.37
1910.....	77,715	68,275	145,990	47,332,277	.31
Average.....	80,383	59,682	140,065	35,976,161	.40

These figures show that the percentage of sailors to males at large has been 0.5, 0.4, 0.37, and 0.31, an average of 0.4 per cent.

The next factor in the problem is to obtain from the marine hospital records of the Public Health Service the total cases treated yearly and the number of venereal cases to the sum total. Fortunately the annual reports for 35 years past give us the results of the observations of trained men selected for their professional skill, and we may be certain that this element of the human equation may be considered as properly established. During that period nearly sixteen hundred thousand cases (1,593,042) have been treated by its officers, an average of about 47,000 annually. In the last 25 years, however, 1886-1910, the work of the service has reached its capacity, and it has been maintained practically at its present figures ever since. These evidences can be sustained for a quarter of a century and will be used for that reason as being more indicative of an actual standing and settled condition.

During that period one and one-third million cases of all kinds have been treated (1,333,600), an average slightly in excess of 50,000 annually. In the tables which follow I have made a division into two general classes—syphilis of the constitutional variety (primary, secondary, and tertiary) and gonorrhoea, with its complications of gleet, stricture, epididymitis, etc., all lumped under one head. That

is, the table shows syphilis and gonorrhœa, comprising all the sequelæ of each. These factors produce the following results:

1886-1910.

All cases treated.....	1,333,600
Syphilis.....	111,001
Gonorrhœa.....	174,365
Total venereal.....	285,366

The percentage of venereal diseases of both kinds to the whole number treated is 21.4. It is to be said that there is some small duplication in these figures. A patient is not a "case"; that is, the individual may be treated at several hospitals for the same "case" during the progress of his disease—say, for example, stricture of the urethra. His case, therefore, becomes recorded occasionally several times. This is more likely to happen in venereal diseases than in other classes, because they are largely ambulatory. Making due allowance for this, it seems to be fair to reduce it to "round numbers" and call it 20 per cent to strike a balance. Now, reverting to our first table, we find that there was an average of 35,976,161 males of all ages in the United States in the period 1880-1910, and an average of 140,065 seafaring men in the United States in the same period. Out of this latter number, 11,414 cases were annually treated in the marine hospitals and their connecting out-offices for venereal diseases of all kinds. This shows, if it is accepted as conclusive, a percentage of 8.15 venereal infections among the entire class of males known as mariners, or seafaring men.

It would not be correct to use the total number of males in the United States as one of the factors in this proportion, as 15 years of age is approximately the minimum at which persons are found in the vocation of seaman, as well as the minimum year when males contract venereal infection, and it will be necessary to subtract a definite number from the total to represent this minority. Compilations from the census returns make it safe to say that 20 per cent of the males are under 15 years of age, and this would leave the total number males of infective age at 28,780,929. The factors are therefore 140,065 seamen in their relation to 28,780,929 males of 15 years and over. If the percentage of annual venereal infection among mariners is 8.15, we can estimate the number of infected males of the adult population throughout the country and say that in the period 1880-1910 there were approximately 2,431,988 cases of venereal disease in each year; that is, cases treated or under treatment.

This does not seem so startling as one might expect, though we have eliminated a half of the population and taken a class for a standard known throughout the ages as an exceptional class. "Jack Tar" is a synonym for a care-free, reckless unit. Indeed, the popular

impression is that he is capable of but two human functions, getting drunk and having venereal disease. The statistics of the Public Health Service, as already stated, show that but one case in five among seamen is of venereal origin, and if the professional and popular conception is different from the facts, we may be prepared to admit the now obvious conclusion that the same class of disease is not prevalent among the general public to the extent claimed by some. Indeed, it may be said further that "Jack Tar" is the extreme probability, numerically speaking, of the gonorrhoeic and syphilitic in our problem. Doubtless he represents high-water mark in the possibilities. Unmarried usually, a rover always, he never dodges a chance for free rum, free fight, or free love. Hence if he shows up but 8 per cent of infection annually it is fair to say that not more than 5 per cent of adult males can be properly under suspicion as original annual venereal victims. Of these males, 2 per cent, in round numbers, would be syphilized and capable of transmitting the constitutional infection to offspring and the remaining 3 per cent could have gonorrhoea and its complications. As the number of males in the United States in 1910 was 47,000,000 to 44,000,000 females, it will be seen that the percentage of persons acquiring venereal infection is less than 3 per cent annually. It would be an impossibility to ascertain the number of persons actually infected with venereal disease at any single date without a complete census. The above figures are at best the nearest proximate proportions which can be obtained of the annual intake.

If we were starting fresh to-day, an uninfected Nation, it would take 33 years at the rate of 3 per cent annual infection to syphilize the entire body politic, but each year brings in a new class of the clean humankind and automatically reduces the ratio. The experience of the past is probably not different from the present, and the obvious conclusion as to the percentage of "damaged goods" we have with us, as affected by our remote ancestors, is not obvious at all. It is beyond the practical possibility of determination, because of the existence of so many factorial modifications, such as attenuation, immunity, and accident. The real interest centers practically in facing the problem for the future, not in estimating the exact damages of the past. It is a campaign for prevention, and we can start out by saying that we have to meet with nearly two and a half million cases of venereal diseases annually treated in the United States—about 1 person in every 40.

PLAGUE-PREVENTION WORK. CALIFORNIA.

The following report of plague-prevention work in California for the week ended February 6, 1915, has been received from Passed Asst. Surg. Hurley, of the United States Public Health Service, in temporary charge of the work:

San Francisco, Cal.

RAT PROOFING.		RAT PROOFING—continued.	
New buildings:		Old buildings—Continued.	
Inspections of work under construction.....	324	Cubic feet new foundation walls installed.....	6,887
Basements concreted (47,760 square feet).....	46	Concrete floors installed (32,047 square feet).....	37
Floors concreted (4,866 square feet).....	13	Basements concreted (11,765 square feet).....	15
Yards, passageways, etc. (18,481 square feet).....	110	Yards and passageways, etc., concreted (10,610 square feet).....	51
Total area of concrete laid... square feet.....	71,107	Total area concrete laid... square feet.....	54,422
Class A, B, and C (fireproof) buildings:		Floors rat proofed with wire cloth (6,427 square feet).....	6
Inspections made.....	254	Buildings razed.....	20
Roof and basement ventilators, etc., screened.....	1,065	New garbage cans stamped approved.....	454
Wire screening used..... square feet.....	9,400	Nuisances abated.....	323
Openings around pipes, etc., closed with cement.....	7,638		
Sidewalk lens lights replaced.....	2,800	OPERATIONS ON THE WATER FRONT.	
Old buildings:		Vessels inspected for rat guards.....	25
Inspections made.....	428	Reinspections made on vessels.....	41
Wooden floors removed.....	43	New rat guards procured.....	10
Yards and passageways, planking removed.....	11	Defective rat guards repaired.....	9
		Vessels on which cargo was inspected.....	2

	Condition.	Rat evidence.
Steamers Governor and Congress from Seattle:		
230 cases milk, salmon, apples, and household goods.....	O. K.....	None.
800 sacks flour, bran, beans, corn, etc.....	O. K.....	None.
50 tubs cheese.....	O. K.....	None.

Rats trapped on wharves and water front.....	24
Rats trapped on vessels.....	14
Traps set on wharves and water front.....	221
Traps set on vessels.....	56
Vessels trapped on.....	10
Poisons placed on water front (pieces).....	3,300
Bait used on water front and vessels, bacon (pounds).....	6
Amount of bread used in poisoning water front (loaves).....	11
Number of pounds of poison used on water front.....	53

RATS COLLECTED AND EXAMINED FOR PLAGUE.		RATS IDENTIFIED.	
Collected.....	277	Mus norvegicus.....	133
Examined.....	231	Mus rattus.....	53
Found infected.....	0	Mus alexandrinus.....	65
		Mus musculus.....	27

Squirrels collected and examined for plague.

Contra Costa County.....	83
Found infected.....	None.

Ranches inspected and hunted over.

Contra Costa County.....	14
San Benito County.....	4
Total.....	18

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.
Cities:				
San Francisco.....	Jan. 30, 1908	Oct. 23, 1908	(1)	398 rats.
Oakland.....	Aug. 9, 1911	Dec. 1, 1908	(1)	126 rats.
Berkeley.....	Aug. 28, 1907	(1)	(1)	(1).
Los Angeles.....	Aug. 11, 1908	(1)	Aug. 21, 1908	1 squirrel.
Counties:				
Alameda (exclusive of Oakland and Berkeley).....	Sept. 24, 1909	Oct. 17, 1909 ²	Aug. 7, 1914	236 squirrels; 1 wood rat.
Contra Costa.....	May 17, 1914	(1)	Oct. 23, 1914	1,565 squirrels.
Fresno.....	(1)	(1)	Oct. 27, 1911	1 squirrel.
Merced.....	(1)	(1)	July 12, 1911	5 squirrels.
Monterey.....	(1)	(1)	Apr. 10, 1914	6 squirrels.
San Benito.....	June 4, 1913	(1)	Sept. 26, 1914	26 squirrels.
San Joaquin.....	Sept. 18, 1911	(1)	Aug. 26, 1911	18 squirrels.
San Luis Obispo.....	(1)	(1)	Jan. 29, 1910	1 squirrel.
Santa Clara.....	Aug. 31, 1910	(1)	July 23, 1913	25 squirrels.
Santa Cruz.....	(1)	(1)	May 17, 1910	3 squirrels.
Stanislaus.....	(1)	(1)	June 2, 1911	13 squirrels.

¹ None.

² Wood rat.

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

LOUISIANA—NEW ORLEANS.

The following report of plague-prevention work at New Orleans for the week ended February 13, 1915, has been received from Surg. Corput, of the United States Public Health Service, in charge of the work:

OUTGOING QUARANTINE.		DESTINATION AND NUMBER OF RAILROAD CARS INSPECTED FOR WEEK ENDED FEBRUARY 13—contd.	
Vessels fumigated with sulphur.....	41	Colorado.....	8
Vessels fumigated with carbon monoxide..	24	Florida.....	25
Vessels fumigated with hydrocyanic gas...	1	Georgia.....	43
Pounds of sulphur used.....	6,425	Illinois.....	173
Coke consumed in carbon monoxide fumigation (pounds).....	42,200	Indiana.....	37
Pounds of potassium cyanide used in hydrocyanic gas fumigation.....	102½	Iowa.....	8
Pounds of sodium carbonate used in hydrocyanic gas fumigation.....	120	Kansas.....	2
Pounds of sulphuric acid used in hydrocyanic gas fumigation.....	104	Kentucky.....	15
Clean bills of health issued.....	35	Louisiana.....	939
Foul bills of health issued.....	5	Maryland.....	1
OVERLAND FREIGHT INSPECTION.		Massachusetts.....	2
Cars inspected (found in good order; permitted to load).....	1,852	Michigan.....	5
Cars ordered repaired before loading.....	1,344	Minnesota.....	7
Total cars inspected.....	3,196	Mississippi.....	369
DESTINATION AND NUMBER OF RAILROAD CARS INSPECTED FOR WEEK ENDED FEBRUARY 13.		Missouri.....	45
Alabama.....	115	Montana.....	1
Arizona.....	6	Nebraska.....	2
Arkansas.....	28	New York.....	20
California.....	15	Ohio.....	91
Carolina, North.....	1	Oklahoma.....	5
Carolina, South.....	4	Pennsylvania.....	16
		Tennessee.....	53
		Texas.....	183
		Utah.....	33
		Virginia.....	1
		Wisconsin.....	10
		Wyoming.....	1
		Canada.....	1

FIELD OPERATIONS.

Number of rats trapped.....	7,825
Number of premises inspected.....	10,579
Notices served.....	2,122

BUILDINGS RAT PROOFED.

By elevation.....	197
By marginal concrete wall.....	220
By concrete floor and wall.....	3-3
By minor repairs.....	275
Square yards of concrete laid.....	15,703
Total buildings rat proofed.....	1,075
Total buildings rat proofed to date.....	21,3-6

BUILDINGS RAT PROOFED—continued.

Number of abatements.....	261
Number of abatements to date.....	19,051

LABORATORY OPERATIONS.

Rodents examined.....	3,923
Mus norvegicus.....	1,659
Mus rattus.....	100
Mus alexandrinus.....	185
Mus musculus.....	4,441
Unclassified.....	1,423
Putrid.....	88
Total rodents received at laboratory.....	7,813
Number of suspicious rats.....	13
Plague rats confirmed.....	1

Rodent cases.

Case No.	Address.	Captured.	Diagnosis confirmed.	Treatment of premises.
229	Sixth Street Dock.....	Feb. 1, 1915	Feb. 11, 1915	Intensive trapping.

Last case of human plague Oct. 4, 1914.

Last case of rodent plague Feb. 11, 1915.

Total number of rodents captured to Feb. 13..... 264,966

Total number of rodents examined to Feb. 13..... 203,557

Total cases of rodent plague to Feb. 13, by species:

Mus musculus.....	
Mus rattus.....	15
Mus alexandrinus.....	9
Mus norvegicus.....	201

Total rodent cases to Feb. 13..... 229

WASHINGTON—SEATTLE.

The following report of plague-prevention work at Seattle for the week ended February 6, 1915, has been received from Surg. Lloyd, of the United States Public Health Service, in charge of the work:

RAT PROOFING.

New buildings inspected.....	56
Basements concreted, now buildings (42,280 square feet).....	11
Floors concreted, new buildings (19,200 square feet).....	17
Yards, etc., concreted, new structures (1,500 square feet).....	6
Sidewalks concreted (square feet).....	35,460
Total concrete laid, new structures (square feet).....	98,440
New buildings elevated.....	9
New premises rat proofed, concrete.....	28
Old buildings inspected.....	3
Premises rat proofed, concrete, old buildings.....	1
Floors concreted, old buildings (square feet).....	750
Wooden floors removed, old buildings.....	1
Copies rat-proofing ordinance sent.....	24
Buildings razed.....	2

WATER FRONT.

Vessels inspected and histories recorded.....	10
Vessels fumigated.....	None

WATER FRONT—continued.

New rat guards installed.....	16
Defective rat guards repaired.....	12
Canal Zone certificates issued.....	2
Port sanitary statements issued.....	42

LABORATORY AND RODENT OPERATIONS.

Dead rodents received.....	29
Rodents trapped and killed.....	382
Total.....	411

Rodents examined for plague infection.....	330
Rodents proven plague infected.....	None
Poison distributed (pounds).....	16

CLASSIFICATION OF RODENTS.

Mus rattus.....	10
Mus alexandrinus.....	65
Mus norvegicus.....	285
Mus musculus.....	51

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

Rodents examined in Bellingham.

Mus norvegicus trapped.....	26
Mus norvegicus found dead.....	3
Mus alexandrinus trapped.....	5
Mus rattus trapped.....	2
Mus musculus trapped.....	3
Total.....	39
Rodents examined for plague infection.....	35
Rodents found plague infected.....	0

HAWAII.

The following reports of plague-prevention work in Hawaii have been received from Surg. Trotter, of the United States Public Health Service:

Honolulu.

WEEK ENDED JAN. 23, 1915.

Total rats and mongoose taken.....	508	Classification of rats trapped—Continued.	
Rats trapped.....	502	Mus musculus.....	163
Mongoose trapped.....	6	Mus norvegicus.....	72
Examined microscopically.....	420	Mus rattus.....	42
Showing plague infection.....	0	Average number of traps set daily.....	1,085
Classification of rats trapped:		Cost per rat destroyed.....	15½ cents.
Mus alexandrinus.....	225		

WEEK ENDED JAN. 30, 1915.

Total rats and mongoose taken.....	470	Average number of traps set daily.....	1,085
Rats trapped.....	461	Cost per rat destroyed.....	17½ cents.
Mongoose trapped.....	9	Last case rat plague, Aiea, 9 miles from Honolulu.	
Examined microscopically.....	409	Apr. 12, 1910.	
Showing plague infection.....	0	Last case human plague, Honolulu, July 12, 1910.	
Classification of rats trapped:		Last case rat plague Kalopa stable, Paauhau,	
Mus alexandrinus.....	236	Hawaii, Aug. 29, 1914.	
Mus musculus.....	144	Last case human plague, Paauhau Landing, Hawaii,	
Mus norvegicus.....	40	Aug. 17, 1914.	
Mus rattus.....	41		

Hilo.

WEEK ENDED JAN. 16, 1915.

Rats and mongoose taken.....	2,236	Classification of rats trapped and found dead—	
Rats trapped.....	2,179	Continued.	
Rats found dead.....	13	Mus alexandrinus.....	349
Mongoose taken.....	44	Mus rattus.....	664
Rats and mongoose examined microscopically.....	2,236	Mus musculus.....	716
Rats and mongoose plague infected.....	0	Last case of rat plague, Paauhau Sugar Co., Aug. 29,	
Classification of rats trapped and found dead:		1914.	
Mus norvegicus.....	463	Last case of human plague, Paauhau Sugar Co.,	
		Aug. 16, 1914.	

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.

State Reports for January, 1915.

Places.	New cases reported.	Places.	New cases reported.
District of Columbia.....	1	Massachusetts—Continued.	
Louisiana:		Middlesex County—Continued.	
Ascension Parish.....	2	Somerville.....	1
Lincoln Parish.....	1	Melrose.....	1
Ouachita Parish.....	1	Plymouth County—	
Terrebonne Parish.....	2	Brookton.....	1
Total.....	6	Suffolk County—	
Maryland, exclusive of Baltimore City:		Boston.....	3
Montgomery County—		Total.....	14
Kensington.....	1	South Carolina:	
Wicomico County—		Florence County.....	1
Fruitland.....	1	Lexington County.....	1
Total.....	2	Spartanburg County.....	3
Massachusetts:		Total.....	5
Bristol County—		Washington:	
Fall River.....	1	King County—	
Westport.....	1	Seattle.....	1
Essex County—		Wisconsin:	
Lawrence.....	1	Dane County.....	1
Hampshire County—		Douglas County.....	1
Huntington.....	1	Lafayette County.....	1
Framingham.....	1	Milwaukee County.....	7
Middlesex County—		Winnebago County.....	1
Cambridge.....	1	Total.....	11
Lowell.....	2		

City Reports for Week Ended Feb. 6, 1915.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Boston, Mass.....	1	1	New York, N. Y.....	2	2
Buffalo, N. Y.....	1	1	Philadelphia, Pa.....	1	1
Chicago, Ill.....	1	2	Portland, Oreg.....	1	1
Columbus, Ohio.....	1	1	Rochester, N. Y.....	1	1
Elmira, N. Y.....	1	1	St. Louis, Mo.....	1	2
Lexington, Ky.....	1	1	Worcester, Mass.....	1	1
Milwaukee, Wis.....	2	2			

DIPHTHERIA.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 638.

ERYSIPILAS.**City Reports for Week Ended Feb. 6, 1915.**

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Baltimore, Md.....	1	.....	New York, N. Y.....	.....	6
Binghamton, N. Y.....	2	.....	Norristown, Pa.....	1	.....
Boston, Mass.....	.....	1	Passaic, N. J.....	2	.....
Brockton, Mass.....	1	.....	Philadelphia, Pa.....	14	2
Buffalo, N. Y.....	2	.....	Pittsburgh, Pa.....	11	1
Chicago, Ill.....	25	.....	Portland, Oreg.....	1	.....
Cincinnati, Ohio.....	4	.....	Reading, Pa.....	3	.....
Cleveland, Ohio.....	3	.....	Richmond, Va.....	.....	1
Clinton, Mass.....	1	.....	Rochester, N. Y.....	1	.....
Columbus, Ohio.....	.....	1	St. Louis, Mo.....	9	.....
Detroit, Mich.....	1	.....	Seattle, Wash.....	2	3
Harrisburg, Pa.....	2	.....	Springfield, Ill.....	.....	.....
Los Angeles, Cal.....	5	.....	York, Pa.....	3	.....
Milwaukee, Wis.....	3	.....		

GONORRHEA.**State Reports for January, 1915.**

During the month of January, 1915, gonorrhoea was notified in States as follows: Louisiana, 38 cases; Wisconsin, 77 cases.

MALARIA.**State Reports for January, 1915.**

During the month of January, 1915, malaria was notified in States as follows: Maryland (exclusive of Baltimore city), 3 cases; New Jersey, 3 cases; South Carolina, 18 cases.

MEASLES.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 638.

PELLAGRA.**State Reports for January, 1915.**

During the month of January, 1915, pellagra was reported in States as follows: District of Columbia, 2 cases; Louisiana, 8 cases; Maryland, 1 case; Massachusetts, 1 case; South Carolina, 14 cases.

City Reports for Week Ended February 6, 1915.

During the week ended February 6, 1915, pellagra was notified by cities as follows: Charleston, S. C., 5 deaths; Galveston, Tex., 1 death; Los Angeles, Cal., 1 case with 1 death; Pascagoula, Miss., 1 death; Richmond, Va., 1 case.

PNEUMONIA.

City Reports for Week Ended Feb. 6, 1915.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Binghamton, N. Y.....	9	2	Newport, Ky.....	3	3
Chicago, Ill.....	213	95	Norfolk, Va.....	1	1
Cleveland, Ohio.....	53	16	Norristown, Pa.....	1	.....
Florence, S. C.....	1	1	Philadelphia, Pa.....	56	56
Galesburg, Ill.....	2	2	Pittsburgh, Pa.....	29	35
Grand Rapids, Mich.....	3	4	Reading, Pa.....	1	1
Kalamazoo, Mich.....	1	1	Rochester, N. Y.....	5	5
Lancaster, Pa.....	3	.....	Rock Island, Ill.....	1	1
Los Angeles, Cal.....	16	7	Sacramento, Cal.....	2	1
Manchester, N. H.....	2	2	Stcelton, Pa.....	1	1
Muscatine, Iowa.....	1	.....	York, Pa.....	2	.....
New Castle, Pa.....	2	.....	Zanesville, Ohio.....	3	.....

POLIOMYELITIS (INFANTILE PARALYSIS).

State Reports for January, 1915.

Places.	New cases reported.	Places.	New cases reported.
Louisiana:		Michigan:	
St. Martin Parish.....	1	Huron County—	
Maryland, exclusive of Baltimore City:		Sebewaing.....	1
Charles County—		New Jersey:	
Wisconsin.....	1	Essex County.....	1
St. Marys County—		Mercer County.....	1
Great Mills.....	1	Total.....	2
Total.....	2	Washington:	
Massachusetts:		Whatcom County.....	1
Berkshire County—		Wisconsin:	
Pittsfield.....	1	Chippewa County.....	1
Essex County—		Kenosha County.....	1
Haverhill.....	1	Total.....	2
Middlesex County—			
Newton.....	1		
Norfolk County—			
Weymouth.....	1		
Hamden County—			
West Springfield.....	1		
Total.....	5		

RABIES.

Mississippi—Rabies in Animals.

Collaborating Epidemiologist Watkins has submitted the following statement concerning the distribution of rabies in the State of Mississippi: The report contains only information concerning persons who have reported to the laboratory of the State board of health for Pasteur treatment.

The first treatment was begun on December 24, 1914. In each of the cases the animal with which the patient came in contact was examined, either in our laboratory or a laboratory in Memphis, Tenn., or New Orleans, La. In each animal the examination was reported as positive for rabies.

A report of the 26 cases by sex, color, age, and geographic distribution is as follows:

Sex.	Color.	Age in years.	Post office.	County.
Male.....	White.....	53	Madison Station.....	Madison.
Do.....	do.....	14	Carpenter.....	Copiah.
Do.....	do.....	38	Greenwood.....	Leflore.
Female.....	do.....	5	Minter City.....	Do.
Male.....	do.....	13	.....	Attala.
Do.....	do.....	12	Durant.....	Holmes.
Do.....	do.....	3	Schlater.....	Leflore.
Do.....	do.....	28	Minter City.....	Do.
Do.....	do.....	19	Mount Olive.....	Covington.
Female.....	Colored.....	8	.....	Neshoba.
Male.....	White.....	14	Mount Olive.....	Covington.
Do.....	do.....	30	McComb.....	Pike.
Do.....	do.....	33	do.....	Do.
Female.....	do.....	28	do.....	Do.
Male.....	do.....	35	Magnolia.....	Do.
Do.....	Colored.....	41	Collins.....	Covington.
Do.....	do.....	14	Mount Olive.....	Do.
Do.....	White.....	24	Laurel.....	Jones.
Do.....	do.....	13	Collins.....	Covington.
Do.....	do.....	18	Jackson.....	Hinds.
Do.....	do.....	30	V est.....	Holmes.
Female.....	do.....	12	Carthage.....	Leake.
Male.....	do.....	11	do.....	Do.
Do.....	do.....	10	Mount Olive.....	Covington.
Do.....	Colored.....	23	do.....	Do.
Do.....	White.....	19	Collins.....	Do

The number of cases from each of the counties referred to in the preceding table are as follows: Madison 1, Leflore 4, Holmes 2, Neshoba 1, Jones 1, Leake 2, Copiah 1, Attala 1, Covington 8, Pike 4, Hinds 1; total 26.

In addition to the above cases, we have received information through the county health officers that one case is being treated in Newton County by a local physician, and two cases in Panola County by the county health officer.

It is the intention of the State board of health to prepare a blank and to obtain full information concerning each person that is bitten by, or comes in contact with, a rabid animal, and get a detailed statement concerning each case as to whether the patient received treatment, and if so, from whom. Since the present epidemic of rabies came to notice it has been learned that the disease has existed in the city of Jackson for the past two years, but that it did not spread much until the latter part of December, when we began receiving reports of rabid animals from various portions of the State. At this time, Feb. 12, 1915, we have knowledge of infected animals over an area extending from Panola County in the northern part of the State to Pike County in the southern part; from Newton County in the east to Claiborne in the west. This means that we have an area of more than 20,000 square miles of our State in which this infection is present.

The secretary of the State board of health, realizing the gravity of the situation, sent a letter to each of the county health officers,

asking them to appear before their respective county boards of supervisors and request the boards to take some action to handle the rabies situation. After close inspection of the statutes it was found that there was no authority by which the county boards of supervisors could pass regulations which would in any way prevent dogs from running at large.

Therefore, the secretary of the State board of health called the executive committee of the board for a meeting on February 4, at which time regulations were adopted to be put in operation only in counties in which rabies exists, or in border counties which are probably infected.

A copy of the rules and regulations above referred to will be found on page 649.

South Carolina—Florence.

During the week ended February 6, 1915, a case of rabies in a dog was notified at Florence, S. C.

SCARLET FEVER.

See Diphtheria, measles, scarlet fever, and tuberculosis, p. 638.

SMALLPOX.

Alabama—Austinville.

Passed Asst. Surg. Preble reported by telegraph February 23, 1915, that 6 cases of smallpox had been notified at Austinville, Ala.

California—Imperial County.

Acting Asst. Surg. Richter reported by telegraph February 22, 1915, that during the week ended February 20, 1915, 3 cases of smallpox were notified in Imperial County, Cal.

Minnesota.

Collaborating Epidemiologist Bracken reported by telegraph February 23, 1915, that several new foci of smallpox infection had been reported in the State of Minnesota, cases of the disease having been notified during the seven days ended February 23, as follows: Becker County, Lake View Township, 3; Detroit, 2; Brown County, North Star Township, 1; Cottonwood County, Southbrook Township, 1; Lac qui Parle County, Lake Shore Township, 1; Lincoln County, Hendricks, 2; Nicollet County, Oshawa Township, 1; Nobles County, Adrian, 1; Ramsey County, St. Paul, 3; Steele County, Blooming Prairies Township, 1.

SMALLPOX—Continued.

State Reports for January, 1915.

Places.	New cases reported.	Deaths.	Vaccination history of cases.			
			Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
Maryland, exclusive of Baltimore City:						
Queen Annes County—						
Centreville.....	1				1	
Somerset County—						
Princess Anne.....	12				12	
Marion.....	5				5	
Crisfield.....	1				1	
Pocomoke R. F. D.....	2				2	
Worcester County—						
Pocomoke.....	5				5	
Total.....	26				26	
Michigan:						
Allegan County—						
Heath Township.....	4				3	1
Trowbridge Township.....	7				7	
Allegan.....	1				1	
Alpena County—						
Alpena.....	1				1	
Barry County—						
Hastings.....	2				2	
Benzie County—						
Homestead Township.....	8				7	1
Inland Township.....	2				2	
Calhoun County—						
Marshall Township.....	1			1		
Delta County—						
Baldwin Township.....	5				5	
Dickinson County—						
Iron Mountain.....	3			1	2	
Genesee County—						
Flint.....	1				1	
Grand Traverse County—						
Paradise Township.....	5				5	
Kingsley.....	2				2	
Houghton County—						
Franklin Township.....	3				2	1
Portage Township.....	1					1
Houghton.....	5				5	
Lake Linden.....	4				4	
Hancock.....	5			2	3	
Huron County—						
Bad Axe.....	1					1
Ingham County—						
Lansing.....	3				2	1
Iron County—						
Hematite Township.....	1					1
Iron River.....	2				1	1
Crystal Falls.....	7			1	6	
Kalamazoo County—						
Cooper Township.....	1			1		
Kent County—						
Grand Rapids.....	5				5	
Lapeer County—						
Rich Township.....	1				1	
Lapeer.....	1				1	
Mackinac County—						
Newton Township.....	5				4	1
Macomb County—						
Armada.....	1					1
Manistee County—						
Bear Lake Township.....	4				4	
Dickson Township.....	3				3	
Marquette County—						
Marquette.....	3			1	1	1
Ishpeming.....	2				2	

SMALLPOX—Continued.

State Reports for January, 1915—Continued.

Places.	Now cases reported.	Deaths.	Vaccination history of cases.			
			Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain
Michigan—Continued.						
Newaygo County—						
Dayton Township.....	1				1	
Denver Township.....	1				1	
Sherman Township.....	1					1
Fremont.....	1					1
Oceana County—						
Hesperia.....	4				4	
Ontonagon County—						
Carp Lake Township....	1					1
Saginaw County—						
Frankenmuth Township	1				1	
St. Clair County—						
Port Huron.....	30			2	28	
Shawassee County—						
Lainsburg.....	1					1
Owosso.....	1				1	
Washtenaw County—						
Ann Arbor.....	1				1	
Wayne County—						
Springwells Township...	3				3	
Highland Park.....	6				5	1
Detroit.....	23				23	
Total.....	175			9	150	16
Wisconsin:						
Barron County.....	4				4	
Brown County.....	5	2			5	
Clark County.....	8				8	
Columbia County.....	5	2	3		2	
Crawford County.....	1			1		
Dane County.....	1			1		
Dodge County.....	2				1	1
Douglas County.....	2				2	
Eau Claire County.....	2			1		1
Florence County.....	1	1	1			
Fond du Lac County.....	28			26	2	
Forest County.....	31			2	11	18
Iron County.....	42		32	10		
Jefferson County.....	35		4	4	18	9
Juneau County.....	3					3
Kenosha County.....	4			1		1
La Crosse County.....	6		2		3	
Manitowoc County.....	1		1			
Marinette County.....	11				5	6
Milwaukee County.....	78					78
Oconto County.....	1		1			
Ozaukee County.....	9		3	1	3	2
Racine County.....	18		5	11		2
Richland County.....	11		1		10	
Rock County.....	5			1	4	
Rusk County.....	11			1	8	2
St. Croix County.....	7		1		2	
Sawyer County.....	2				2	
Sheboygan County.....	24		1		20	3
Vernon County.....	6			1	2	3
Walworth County.....	6				6	
Washburn County.....	8					8
Washington County.....	11				7	4
Waukesha County.....	10					10
Wauzara County.....	1				1	
Winnebago County.....	9			1	8	
Total.....	409	5	55	62	138	151

SMALLPOX—Continued.

Miscellaneous State Reports.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Arizona (Jan. 1-31):			Illinois (Jan. 1-31)—Contd.		
Maricopa County—			Madison County—		
Glendale.....	1	.....	Alton.....	11	.....
Gilbert.....	11	.....	Moran (county—		
Mesa.....	6	.....	Waverly.....	16	.....
Phoenix.....	1	.....	Rock Island County—		
Total.....	19	.....	Fast Moline.....	1	.....
			Moline.....	6	.....
Illinois (Jan. 1-31):			Rock Island.....	15	.....
Adams County—			St. Clair County—		
Honey Creek Town-			Lebanon.....	9	.....
ship.....	5	.....	Saline (county—		
Quincy.....	5	.....	Eldorado.....	4	.....
Bond County—			Sanramon County—		
Mulberry Grove.....	7	.....	Springfield.....	2	.....
Bureau County—			Schuyler County—		
Sheffield.....	7	.....	Fushville.....	2	.....
Calhoun County—			Stephenson County—		
Hamburg.....	5	.....	Freeport.....	2	.....
Cass County.....	3	.....	Williamson County—		
Beardstown.....	3	.....	Herrin.....	3	.....
Champaign County—			Winnebago County—		
Champaign.....	1	.....	Rockford.....	1	.....
Christian County—			Total.....	243	.....
Mount Auburn Town-					
ship.....	2	.....	Louisiana (Jan. 1-31):		
Pana.....	6	.....	Parishes—		
Cook County—			Acadia.....	43	.....
Chicago.....	1	.....	Allen.....	1	.....
River Forest.....	1	.....	Pearreard.....	4	.....
Cumberland County—			Fossier.....	1	.....
Neoga.....	2	.....	Caddo.....	4	.....
Effingham County—			Calcesieu.....	16	.....
Altamont.....	5	.....	Ileria.....	1	.....
Franklin County—			Jefferson.....	1	.....
West Frankfort.....	25	.....	Jefferson Davis.....	25	.....
Fulton County—			Lafayette.....	4	.....
Buehert Township..	12	.....	Et. James.....	1	.....
Canton.....	8	.....	Et. Martin.....	1	.....
Canton Township...	1	.....	Et. Mary.....	1	.....
Gallatin County—			Terrelonne.....	4	.....
Equality Township...	3	.....	Vermilion.....	8	.....
Greene County—			Total.....	115	.....
Carrollton.....	3	.....		
Grundy County—			South Carolina (Jan. 1-31):		
Morris.....	1	.....	Counties—		
Hancock County—			Calhoun.....	12	.....
Augusta.....	1	.....	Charleston.....	7	.....
Henry County—			Chesterfield.....	1	.....
Cambridge.....	20	.....	Georgetown.....	16	.....
Galva.....	1	.....	Greenville.....	16	.....
Jackson County—			Orangeburg.....	3	.....
Gorham.....	4	.....	Total.....	55	.....
Murphysboro.....	1	.....		
Jasper County—			Washington (Jan. 1-31):		
Crooked Creek Town-			King County—		
ship.....	6	.....	Seattle.....	3	.....
Grove Township.....	1	.....	Kittitas County.....	1	.....
Kane County—			Mason County.....	12	.....
West Dundee.....	2	.....	Spokane County—		
Knox County—			Spokane.....	7	.....
Galesburg.....	3	.....	Whatcom County—		
Lake County—			Lellingham.....	2	.....
Zion City.....	12	.....	Total.....	25	.....
Lawrence County—					
Lawrenceville.....	1	.....		
Logan County—					
Atlanta.....	2	.....		
McLean County—					
Bloomington.....	2	.....		

SMALLPOX—Continued.

City Reports for Week Ended Feb. 6, 1915.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Bayonne, N. J.....	2	.....	Moline, Ill.....	1	.....
Buffalo, N. Y.....	1	.....	Muncie, Ind.....	4	.....
Cairo, Ill.....	1	.....	Nashville, Tenn.....	1	.....
Chattanooga, Tenn.....	4	.....	New Orleans, La.....	1	.....
Cincinnati, Ohio.....	1	.....	Newport, Ky.....	2	.....
Cleveland, Ohio.....	2	.....	Norfolk, Va.....	1	.....
Covington, Kans.....	1	.....	Portland, Oreg.....	6	.....
Covington, Ky.....	1	.....	Racine, Wis.....	3	.....
Detroit, Mich.....	8	.....	Rock Island, Ill.....	4	.....
Evansville, Ind.....	1	.....	St. Louis, Mo.....	5	.....
Grand Rapids, Mich.....	3	.....	San Diego, Cal.....	3	.....
La Crosse, Wis.....	1	.....	Springfield, Ill.....	2	.....
Lexington, Ky.....	1	.....	Toledo, Ohio.....	1	.....
Milwaukee, Wis.....	12	.....		

SYPHILIS.

State Reports for January, 1915.

During the month of January, 1915, syphilis was notified in States as follows: Louisiana, 37 cases; Wisconsin, 9 cases.

TUBERCULOSIS.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 638.

TYPHOID FEVER.

State Reports for January, 1915.

Places.	New cases reported.	Places.	New cases reported.
District of Columbia.....	11	Maryland, exclusive of Baltimore City—	
Louisiana:		Continued.	
Allen Parish.....	7	Baltimore County—Continued.	
Ascension Parish.....	1	Gwynnbrook.....	1
Bienville Parish.....	1	Mount Winans.....	1
Caddo Parish.....	13	Riderwood.....	1
Franklin Parish.....	1	Calvert County—	
Morehouse Parish.....	1	Wallville.....	3
Natchitoches Parish.....	1	Island Creek.....	1
St. James Parish.....	1	Carroll County—	
St. John Parish.....	2	Asbestos.....	2
Terrebonne Parish.....	3	Union Mills.....	1
Vermillion Parish.....	2	Sykesville.....	1
Webster Parish.....	2	Union Bridge.....	1
Total.....	35	Cecil County—	
Maryland, exclusive of Baltimore City:		Chesapeake City.....	1
Alleghany County—		Rising Sun, R. F. D.....	1
Midland.....	1	Childs, R. F. D.....	1
Westernport.....	16	Charles County—	
Cumberland.....	5	Indianhead.....	2
Cumberland, R. F. D.....	1	Nanjemoy.....	1
Barton.....	1	Dorchester County—	
Baltimore County—		Vienna.....	1
Catonsville.....	2	Cambridge.....	9
Hamilton.....	1	Eldorado.....	1
Sparrows Point.....	1	Frederick County—	
Granite.....	1	Frederick.....	2
Waverly.....	1	Middletown.....	1
Arlington.....	1	Garrett County—	
Rossville.....	1	Maysville.....	1
Highlandtown.....	3	Harford County—	
Roland Park.....	1	Havre de Grace.....	2
		Howard County—	
		Ellicott City.....	3
		Ilchester.....	1

TYPHOID FEVER—Continued.

State Reports for January, 1915—Continued.

Places.	New cases reported.	Places.	New cases reported.
Maryland, exclusive of Baltimore City—Continued.		Massachusetts—Continued.	
Howard County—Continued.		Worcester County—Continued.	
Dayton.....	1	Gardner.....	1
West Friendship.....	1	Worcester.....	2
Kent County—		Total.....	105
Worton.....	1	Michigan:	
Kennerlyville.....	1	Alpena County—	
Prince Georges County—		Alpena.....	33
Piscataway.....	2	Bay County—	
Croom.....	2	Bay City.....	1
Laurel.....	1	Genesee County—	
Queen Annes County—		Vienna Township.....	2
Centerville.....	3	Flint.....	4
Somerset County—		Hillsdale County—	
Crisfield.....	1	Somerset Township.....	1
Crisfield, R. F. D.....	1	Houghton County—	
Talbot County—		Houghton.....	1
Easton.....	1	Huron County—	
Washington County—		Fairhaven Township.....	1
Sharpsburg.....	2	Ingham County—	
Security.....	1	White Oak Township.....	1
Hagerstown.....	1	Jackson County—	
Wicomico County—		Waterloo Township.....	1
Eden, R. F. D.....	1	Jackson.....	1
Wetipquin.....	2	Kalamazoo County—	
Worcester County—		Kalamazoo.....	2
Pocomoke City.....	2	Kent County—	
Snow Hill.....	1	Wyoming Township.....	1
Total.....	100	Grand Rapids.....	15
		Livingston County—	
Massachusetts:		Fowlerville.....	1
Barnstable County—		Marquette County—	
Harwich.....	3	Marquette.....	2
Provincetown.....	1	Mason County—	
Berks County—		Ludington.....	2
North Danvers.....	2	Monroe County—	
Pittsfield.....	1	Monroe.....	1
Bristol County—		Montcalm County—	
Dartmouth.....	1	Stanton.....	1
Fairhaven.....	1	Muskeren County—	
Fall River.....	1	Casnovia Township.....	1
New Bedford.....	23	Presque Isle County—	
Essex County—		Cnaway.....	1
Beverly.....	1	Saginaw County—	
Haverhill.....	2	Euena Vista Township.....	1
Lawrence.....	1	Marion Township.....	1
Lynn.....	5	Swan Creek Township.....	3
Manchester.....	1	Saginaw.....	5
Lowley.....	1	Saint Clair County—	
Franklin County—		Port Huron.....	2
Greenfield.....	5	Saint Joseph County—	
Orange.....	1	Sturgis.....	1
Hampden County—		Tuscola County—	
Chicopee.....	1	Colonia Township.....	1
Springfield.....	1	Van Buren County—	
Hampshire County—		Paw Paw Township.....	1
Northampton.....	1	Wayne County—	
Middlesex County—		Mongtagon Township.....	1
Cambridge.....	1	Detroit.....	17
Chelmsford.....	3	Wyandotte.....	6
Lexington.....	1	Total.....	112
Lowell.....	5	New Jersey:	
Marlboro.....	1	Atlantic County.....	2
Newton.....	2	Bergen County.....	4
Waltham.....	2	Burlington County.....	5
Winchester.....	1	Camden County.....	2
Norfolk County—		Cumberland County.....	4
Quincy.....	1	Essex County.....	10
Suffolk County—		Hudson County.....	2
Chelsea.....	1	Hunterdon County.....	1
Boston.....	28	Mercer County.....	4
Worcester County—		Middlesex County.....	1
Athol.....	1		
Clinton.....	2		

TYPHOID FEVER—Continued.

State Reports for January, 1915—Continued.

Places.	Now cases reported.	Places.	New cases reported.
New Jersey—Continued.		Washington—Continued.	
Monmouth County.....	8	Pierce County—	
Morris County.....	1	Tacoma.....	2
Passaic County.....	2	Snohomish County.....	3
Salem County.....	2	Spokane County—	
Union County.....	5	Spokane.....	1
Warren County.....	2	Walla Walla County.....	31
Total.....	55	Whatcom County—	
		Bellingham.....	1
		Total.....	51
South Carolina:		Wisconsin:	
Abbeville County.....	1	Barron County.....	1
Aiken County.....	1	Calumet County.....	1
Calhoun County.....	1	Dano County.....	1
Charleston County.....	7	Douglas County.....	1
Chester County.....	3	Fond du Lac County.....	4
Clarendon County.....	2	Grant County.....	2
Greenville County.....	8	Manitowoc County.....	2
Greenwood County.....	3	Marinette County.....	7
Orangburg County.....	3	Milwaukee County.....	13
Pickens County.....	1	Monroe County.....	1
Spartanburg County.....	1	Pierce County.....	1
Sumter County.....	2	Polk County.....	1
Total.....	33	Price County.....	1
		Racine County.....	1
		Sheboygan County.....	4
		Trempealeau County.....	1
		Waupaca County.....	3
		Total.....	45
Washington:			
Columbia County.....	8		
Franklin County.....	1		
King County—			
Seattle.....	2		
Lewis County.....	1		
Mason County.....	1		

City Reports for Week Ended Feb. 6, 1915.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Alameda, Cal.....	1		Milwaukee, Wis.....	2	
Baltimore, Md.....	2	3	Newark, N. J.....	2	
Beaver Falls, Pa.....	1		New Bedford, Mass.....	2	
Berkeley, Cal.....	1		New Orleans, La.....	4	2
Boston, Mass.....	3		New York, N. Y.....	26	3
Buffalo, N. Y.....	2		Norfolk, Va.....	2	1
Butte, Mont.....	1		North Adams, Mass.....	1	
Cam ridge, Mass.....	1		Northampton, Mass.....	1	
Chelsea, Mass.....		1	Philadelphia, Pa.....	12	1
Chicago, Ill.....	20	3	Phoenix, Ariz.....	1	
Cleveland, Ohio.....	1		Pittsburgh, Pa.....	6	1
Columbus, Ohio.....	1		Portland, Me.....	2	
Danville, Ill.....		1	Portland, Oreg.....		1
Dayton, Ohio.....	3		Providence, R. I.....	1	
Detroit, Mich.....	2		Reading, Pa.....	3	1
Duluth, Minn.....	2		Rochester, N. Y.....	5	
Evansville, Ind.....	1		Sacramento, Cal.....	9	2
Fitchburg, Mass.....	1	1	St. Louis, Mo.....	4	
Galesburg, Ill.....	1	1	San Juan, P. R.....	1	1
Grand Rapids, Mich.....		4	Seattle, Wash.....	1	
Jersey City, N. J.....		1	Superior, Wis.....	1	
Kalamazoo, Mich.....	1		Toledo, Ohio.....	4	
Kansas City, Kans.....	1		Waltham, Mass.....	1	
Lancaster, Pa.....	1		Wilmington, N. C.....	2	
Los Angeles, Cal.....	4		Wilkes-Barre, Pa.....	1	
Lynn, Mass.....	3		Zanesville, Ohio.....	7	

TYPHUS FEVER.

Massachusetts—Webster.

The State Board of Health of Massachusetts reported by telegraph February 23, 1915, that a case of typhus fever had been notified at Webster, Mass., and that the patient had been taken to a hospital in Worcester, Mass.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

State Reports for January, 1915.

States.	Cases reported.			States.	Cases reported.		
	Diphtheria.	Measles.	Scarlet fever.		Diphtheria.	Measles.	Scarlet fever.
District of Columbia.....	36	69	70	Michigan.....	287	525	271
Louisiana.....	18	16	5	New Jersey.....	801	.....	560
Maryland, exclusive of				South Carolina.....	82	3	19
Baltimore city.....	103	50	180	Washington.....	36	100	97
Massachusetts.....	921	1,118	953	Wisconsin.....	293	115	323

City Reports for Week Ended Feb. 6, 1915.

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.....	579,560	191	27	4	2	42	1	31	23	23
Boston, Mass.....	733,002	244	48	7	80	1	64	2	43	21
Chicago, Ill.....	2,363,365	684	109	15	177	1	68	1	193	114
Cleveland, Ohio.....	339,311	183	37	1	11	.....	15	.....	24	17
Detroit, Mich.....	537,650	137	35	1	.....	.....	20	1	17	8
New York, N. Y.....	5,333,537	1,464	300	27	424	2	205	11	493	198
Philadelphia, Pa.....	1,457,810	497	43	7	114	5	17	1	87	44
Pittsburgh, Pa.....	564,873	163	31	3	127	2	3	2	34	13
St. Louis, Mo.....	734,667	244	82	2	26	.....	50	1	44	17
From 300,000 to 500,000 inhabitants:										
Buffalo, N. Y.....	474,112	118	17	1	6	.....	40	1	59	7
Cincinnati, Ohio.....	406,175	177	6	1	4	.....	8	.....	21	23
Los Angeles, Cal.....	438,914	116	11	3	80	.....	29	1	60	25
Milwaukee, Wis.....	417,054	160	28	3	5	.....	10	1	18	13
Newark, N. J.....	389,106	104	33	1	8	.....	21	.....	28	18
New Orleans, La.....	361,221	151	26	2	7	.....	2	.....	31	26
Washington, D. C.....	353,378	128	13	.....	21	.....	15	.....	23	14
From 200,000 to 300,000 inhabitants:										
Columbus, Ohio.....	204,567	69	2	1	1	.....	4	.....	5	6
Jersey City, N. J.....	293,421	80	2	.....	.....	.....	.....	.....	.....	6
Portland, Oreg.....	260,601	.....	2	.....	.....	.....	4	.....	1	1
Providence, R. I.....	245,190	73	11	.....	6	.....	18	.....	6	4
Rochester, N. Y.....	241,418	49	4	1	35	.....	5	.....	7	4
Seattle, Wash.....	313,029	56	4	.....	3	.....	2	.....	19	4
From 100,000 to 200,000 inhabitants:										
Cambridge, Mass.....	110,357	29	7	3	15	.....	10	.....	8	5
Camden, N. J.....	162,465	.....	12	.....	24	.....	1	.....	7	.....
Dayton, Ohio.....	123,794	51	3	1	22	.....	1	.....	.....	3
Grand Rapids, Mich.....	123,227	58	2	1	5	.....	5	.....	8	3
Hartford, Conn.....	107,033	36	8	.....	1	.....	1	.....	9	2
Lowell, Mass.....	111,004	26	.....	.....	.....	.....	.....	.....	.....	1
Nashville, Tenn.....	114,899	45	4	1	.....	.....	3	.....	1	3
New Bedford, Mass.....	111,730	42	3	1	2	.....	6	.....	4	6
Oakland, Cal.....	183,002	.....	2	.....	21	.....	.....	.....	4	2

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

City Reports for Week Ended Feb. 6, 1915—Continued.

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.
From 100,000 to 200,000 inhabitants—Continued.										
Reading, Pa.	103,361	30	1				3		14	4
Richmond, Va.	137,917	65	1		1		13		1	7
Springfield, Mass.	100,375	24	2	1			3		3	2
Tacoma, Wash.	103,413	1		1						
Toledo, Ohio.	184,126	82	6		13		4		4	6
Trenton, N. J.	105,831	39	6				2		7	3
Worcester, Mass.	157,732	58	4	1			7		4	4
From 50,000 to 100,000 inhabitants:										
Altoona, Pa.	56,553	9	2				1			
Atlantic City, N. J.	53,952	10	1				3		2	
Bayonne, N. J.	65,271		5				1			1
Berkeley, Cal.	52,105	10	1		16				2	
Binghamton, N. Y.	52,191	25	2		3		2		4	4
Brockton, Mass.	64,043	12	2		2		5		4	
Charleston, S. C.	60,121	30	2		2		2			5
Covington, Ky.	55,896		2				2		2	
Duluth, Minn.	89,331		3	1			9		1	
Evansville, Ind.	71,284	30	2		36		9			5
Harrisburg, Pa.	69,413	18	3				1		2	
Jonestown, Pa.	64,642	17	5		1		1		2	3
Kansas City, Kans.	94,171		3						4	3
Little Rock, Ark.	53,811	8			3		2		2	
Lynn, Mass.	98,107	28	6				4		4	4
Manchester, N. H.	75,635	24	3				1			3
Mobile, Ala.	55,573	23	3							3
New Britain, Conn.	50,612	6							1	3
Norfolk, Va.	86,540						1		4	3
Passaic, N. J.	66,276	27	5	2			2		3	4
Pawtucket, R. I.	56,601	20								
Portland, Me.	62,161	22	1	1			1			
Schenectady, N. Y.	90,503	32	6		99	3	6		3	2
South Bend, Ind.	65,114	12					1			3
Springfield, Ill.	57,972	25	3		59	1	2		5	2
Wilkes-Barre, Pa.	73,660	37	10	2	3				6	5
From 25,000 to 50,000 inhabitants:										
Alameda, Cal.	26,330	7			8					1
Auburn, N. Y.	36,509	12								
Aurora, Ill.	33,022	6	4							
Brookline, Mass.	31,138	6			2		1			
Butte, Mont.	41,781	14	2					4		1
Chelsea, Mass.	32,457	16	1				2		1	1
Chicopee, Mass.	28,057	9	1		1			2		
Danville, Ill.	30,847	12	2				1			2
East Orange, N. J.	39,457				1			1		1
Elgin, Ill.	27,785	7								2
Elmira, N. Y.	37,816		3		6		1			1
Fitchburg, Mass.	40,507	10	9	1			1	2		
Galveston, Tex.	40,899	22					1			
Haverhill, Mass.	47,071	13	2		4		10		1	
Kalamazoo, Mich.	45,842	17	1					2		2
Lafayette, Wis.	31,367	11					1			
Lancaster, Pa.	49,685		1		1		2		2	
Lexington, Ky.	38,819	21					2		8	5
Lynchburg, Va.	31,830	2	5		2			5		1
Malden, Mass.	48,979	14			3		5		2	
Medford, Mass.	25,240	6	1	1	3		3			
Moline, Ill.	26,402	12			40					1
Newcastle, Pa.	39,569						6		11	
Newport, Ky.	31,517	16	1				4		1	1
Newport, R. I.	29,154	6								
Newton, Mass.	47,455				3					2
Niagara Falls, N. Y.	35,177	11	2		2		3			
Norristown, Pa.	30,265	8								
Orange, N. J.	31,968	9	2						1	
Pasadena, Cal.	40,880	11			10					
Perth Amboy, N. J.	38,265	9	4	1	3		1		1	1
Portsmouth, Va.	36,531	4		3						
Racine, Wis.	44,528	13					1			
Rock Island, Ill.	26,945	11			1		1			
Sacramento, Cal.	62,717	16	1		9					

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

City Reports for Week Ended Feb. 6, 1915—Continued.

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.
From 25,000 to 50,000 inhabitants—Continued.										
San Diego, Cal.	48,900	2	2		1				5	2
South Omaha, Nebr.	26,368	8								
Superior, Wis.	44,344	2	1					2		
Taunton, Mass.	35,631	12					1			
Waltham, Mass.	29,688	9	2							1
West Hoboken, N. J.	40,647	4	4	1			2		2	
Wheeling, W. Va.	42,817	8	1				3		1	
Wilmington, N. C.	27,781	15								
York, Pa.	49,430		4				1			
Zanesville, Ohio.	29,949						1			
Less than 25,000 inhabitants:										
Ann Arbor, Mich.	14,948	3					3		6	
Braddock, Pa.	20,935	2	2				1		1	
Cairo, Ill.	15,392	8	1		1					
Clinton, Mass.	13,922	4								
Coeyville, Kans.	15,922								1	
Concord, N. H.	22,291	6								1
Cumberland, Md.	23,846	7	2							
Dunkirk, N. Y.	19,607		1		6				1	
Florence, S. C.		3	1							
Galesburg, Ill.	23,570	2							1	1
Grand Haven, Mich.		2								
Kearny, N. J.	21,967	15	1		1		8			
Key West, Fla.	21,150	4	1							
Kokomo, Ind.	19,694	4	1							
Marquette, Wis.	14,610	3	1				7			
Masillon, Ohio.	14,912	4								
Melrose, Mass.	16,987	5	1		1		1			1
Montclair, N. J.	24,782	5	1						2	
Morristown, N. J.	13,933	3					4			
Muncie, Ind.	24,969	6								
Muscatine, Iowa.	17,074	3								
Newburyport, Mass.	21,756	5			2		1			
New London, Conn.	15,147	5								1
North Adams, Mass.	29,557	5			3		1			2
Northampton, Mass.	22,019	17					4		3	
Palmer, Mass.	19,766	4			1					
Palo Alto, Cal.	8,955	1								
Pascagoula, Miss.		2			1					
Phoenix, Ariz.	16,870	8	1				2			4
Plainfield, N. J.	22,755	6			5		1		1	
Rome, Ga.	14,146	5								1
Rutland, Vt.	14,417	5	2				2		5	
Saratoga Springs, N. Y.	12,813	5			2		2		5	
South Bethlehem, Pa.	22,840						1			
Steelton, Pa.	15,126	1					1		1	
Vineyard Haven, Mass.					1					
Wilkinsburg, Pa.	21,701	5	2		2		3			1
Woburn, Mass.	15,755	5		1			1			

FOREIGN REPORTS.

AUSTRIA-HUNGARY.

Smallpox.

During the period from October 31 to December 31, 1914, 97 cases of smallpox were notified in Vienna. Of these cases, 7 occurred among the military.

CHINA.

Plague—Examination of Rats—Hongkong.

During the week ended January 2, 1915, a fatal case of plague was notified at Hongkong. During the three weeks ended on the same date, 5,401 rats were examined for plague infection. No plague-infected rat was found.

Quarantine Against Wuchow Withdrawn—Hongkong.

The quarantine restrictions enforced at Hongkong against Wuchow on account of cholera¹ were withdrawn December 18, 1914.

Plague-Infected Rats—Shanghai.

During the three weeks ended January 9, 1915, 630 rats were examined at Shanghai. Of this number 19 rats were found plague infected.

CUBA.

Plague-Infected Rat—Santiago.

The finding of a plague-infected rat was reported at Santiago, February 24, 1915.

GERMANY.

Cholera.

During the period from January 17 to 23, 1915, cholera was present in Germany in a few isolated cases in camps for prisoners from the east.

Smallpox.

During the week ended January 16, 1915, there were notified in the German Empire 11 cases of smallpox.

¹ Public Health Reports, Jan. 22, 1915, p. 277.

GREAT BRITAIN.**Examination of Rats—Liverpool.**

During the two weeks ended January 16, 1915, 490 rats were examined at Liverpool. No plague-infected rat was found. The total number of rats examined from July 25, 1914, to January 16, 1915, was 5,272. No plague infection was found.

GREECE.**Plague—Piræus.**

A case of plague was notified at Piræus during the period from January 17 to 27, 1915.

ITALY.**Typhus Fever—Florence.**

Typhus fever has been notified in Florence as follows: Month of November, 1914, 17 cases with 2 deaths; month of December, 1914, 2 cases.

MAURITIUS.**Plague.**

During the period from November 13 to December 17, 1914, 32 cases of plague were notified on the island of Mauritius.

PERSIAN GULF.**Plague—Bahrein.**

Plague was reported present on the island of Bahrein, in the Persian Gulf, December 29, 1915.

RUSSIA.**Typhus Fever.**

Typhus fever has been notified in Russia as follows: Petrograd, week ended December 26, 1914, 8 cases with 2 deaths; Vladivostok, December 20 to 28, 1914, 5 cases with 1 death.

TURKEY.**Plague—Bagdad.**

During the period from December 26 to January 5, 1915, inclusive, 12 cases of plague with 8 deaths were notified at Bagdad, and from January 12 to 19, 1915, 11 cases with 7 deaths.

Quarantine Measures.

Quarantine measures have been ordered by the superior council of health at Constantinople to be enforced at ports in the Ottoman Empire as follows: January 3, 1915, arrivals from the islands of Chios

and Mitylene subject to medical inspection at the first port provided with a sanitary physician; January 5, arrivals from the islands of Chios and Mitylene subject to medical inspection, disinfection, de-ratization, and five full days' quarantine at one of the lazarettos of the Ottoman Empire.

Quarantine measures have been suspended as follows: January 2, 1915, medical inspection at Haneguine of arrivals from Persia; January 2, all measures against arrivals from Saloniki by land or sea routes; January 6, all measures against pilgrims to Mecca returning home by land or sea routes.

ZANZIBAR.

Plague-Infected Rats—Zanzibar.

During the three weeks ended December 21, 1915, 2,418 rats were examined at Zanzibar for plague infection. Ten plague-infected rats were found.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX.

Reports Received During Week Ended Feb. 26, 1915.¹

CHOLERA.

Places.	Date.	Cases.	Deaths.	Remarks.
Dutch East Indies:				
Java—				
Batavia.....	Dec. 20-26.....	4	2	
Sumatra—				
1 alembang.....	Dec. 13-19.....	2	1	
India:				
Bombay.....	Dec. 13-Jan. 9....	2	2	
Ma Iras.....	Dec. 20-Jan. 9....	6	5	
Indo-China:				
Cochin China—				
Saigon.....	Dec. 21-Jan. 3....	107	64	
Philippine Islands:				
Manila.....	Dec. 20-Jan. 2....	5	3	
Straits Settlements:				
Singapore.....	Nov. 29-Dec. 5....	1	1	

PLAGUE.

Ceylon:				
Colombo.....	Dec. 13-26.....	12	10	
China:				
Hongkong.....	Dec. 28-Jan. 2....	1	1	Chinese.
Dutch East Indies:				
Java—				
Surabaya.....	Dec. 13-19.....	11	11	Surabaya city, 10; Surabaya district, 1.
Egypt:				
Port Said.....	Dec. 18.....	1		Jan. 1-Dec. 18; 44 cases.
Greece:				
Piraeus.....	Jan. 17-27.....	1		
India:				
Bombay.....	Dec. 13-Jan. 9....	2	2	
Karachi.....	Dec. 28-Jan. 9....	4	2	
Straits Settlements:				
Singapore.....	Nov. 29-Dec. 19...	6	3	

¹ From medical officers of the Public Health Service, American consuls, and other sources.

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

Reports Received During Week Ended February 26, 1915—Continued.

SMALLPOX.

Places.	Date.	Cases.	Deaths.	Remarks.
Arabia:				
Aden.....	Dec. 31-Jan. 6....	1	1	
Australia:				
New South Wales—				
Sydney.....	Jan. 8-14.....	1		In metropolitan area.
Austria-Hungary:				
Hungary—				
Fiume.....	Jan. 18-24.....	1		
Canada:				
Ontario—				
Toronto.....	Jan. 31-Feb. 13....	2	1	
Windsor.....	Feb. 7-13.....	1		
Ceylon:				
Colombo.....	Dec. 13-26.....	26	4	
Egypt:				
Cairo.....	Dec. 3-31.....	4	1	
Greece:				
Kavala.....	Jan. 10-16.....	2		
Patras.....	Jan. 18-24.....		2	Jan. 24, epidemic.
Saloniki.....	Jan. 10-16.....	8	1	
India:				
Bombay.....	Dec. 13-Jan. 9....	44	16	
Karachi.....	Jan. 3-9.....	1	1	
Madras.....	do.....	3		
Japan.....				Total, Jan. 1 to Nov. 30, cases, 468; deaths, 108, exclusive of Taiwan.
Nagasaki.....	Jan. 18-24.....	3		
Nagasaki-ken.....	Nov. 1-30.....	18	6	
Mexico:				
Aguascalientes.....	Feb. 1-7.....		3	
Mazatlan.....	Jan. 13-26.....	4	5	
Nuevo Laredo.....	Jan. 31-Feb. 6....	1		
Philippine Islands:				
Manila.....	Dec. 20-26.....	2		From steamship Ixion.
Portugal:				
Lisbon.....	Jan. 17-30.....	3		
Russia:				
Petrograd.....	Dec. 20-26.....	99	11	
Spain:				
Valencia.....	Jan. 24-30.....	64	4	
Straits Settlements:				
Singapore.....	Nov. 29-Dec. 19...	7	1	
Switzerland:				
Basel.....	Jan. 3-23.....	21		
Turkey in Asia:				
Beirut.....	Jan. 10-16.....	4	2	
Jaffa.....	do.....	1		

Reports Received from Dec. 26, 1914, to Feb. 19, 1915.

CHOLERA.

Places.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary:				
Austria.....				Total Sept. 15-Dec. 5: Cases, 3,467; deaths, 937.
Do.....				Total Nov. 18-Dec. 22: Cases, 741; deaths, 133.
Bohemia.....				Total Sept. 23-Dec. 5: Cases, 176; deaths, 56.
Bosnia-Herzegovina.....				Total Oct. 4-10: Case, 1.
Coast land—				
Trieste.....	Nov. 15-21.....	5		
Croatia-Slavonia.....				Total Oct. 4-10: Case, 1; death, 1.
Galicia.....				Total Sept. 23-Dec. 5: Cases, 2,047; deaths, 793.
Kracow.....	Oct. 4-Dec. 5.....	109	4	
Lisko.....	Sept. 23-Nov. 7....	355	186	
Przemysl.....	Nov. 1-14.....	132	3	
Lower Austria.....				Total Sept. 1-Dec. 5: Cases, 473; deaths, 67.
Vienna.....	Sept. 1-Dec. 5....	386	42	

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

Reports Received from Dec. 26, 1914, to Feb. 19, 1915—Continued.

CHOLERA—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary—Continued.				
Galicia—Continued.				
Moravia.....				Total Sept. 15–Dec. 5: Cases, 362; deaths, 93.
Brunn.....	Sept. 15–Nov. 21..	18	3	
Silesia.....				Total Sept. 23–Dec. 5: Cases, 283; deaths, 39.
Styria.....				Sept. 23–28: Cases, 55; deaths, 13.
Grat.....	Oct. 3–Nov. 14..	10		
Upper Austria.....	Oct. 4–Nov. 7..	3		
Hungary.....				
Do.....				Total Sept. 15–Nov. 30: Cases, 3,024; deaths not yet reported. Total Nov. 18–Dec. 22: Cases, 452; deaths not reported.
Budapest.....	Dec. 25–31.....	1		
Ceylon:				
Colombo.....	Sept. 5.....	1	1	
China:				
Nanking.....	Nov. 15–21.....			Present.
Wuchow.....	Nov. 27.....			Do.
Dutch East Indies:				
Banca—				
Muntok.....	Dec. 6–12.....	11	7	
Celebes—				
Menado.....	Oct. 18–Dec. 5....	425	409	
Java—				
Batavia.....	Oct. 25–Dec. 10....	357	341	
Sumatra—				
Lampong.....	Nov. 8–14.....	27	7	
Mengals.....	Oct. 18–Nov. 7....	65	69	
Palembang.....	Oct. 18–Dec. 12....	173	146	
Telok Betong.....	Nov. 14–Dec. 12....	47	44	
Germany.....				
Brandenburg.....	Dec. 6–23.....	4		Total Nov. 8–Jan. 16: Cases, 54. Vicinity of Frankfurt on the Oder.
Torgau.....	Jan. 5–16.....	1		At Birnbaum.
Posen.....	Dec. 20–26.....	2		
Zirka.....	Jan. 5–16.....	5		In 23 localities.
Silesia.....				
Rosenberg.....	Nov. 8–Dec. 26....	46		
Rosenberg.....	Jan. 5–16.....	1		
India:				
Bombay.....	Nov. 1–Dec. 12....	7	1	
Calcutta.....	Nov. 1–28.....		42	Oct. 25–31: Deaths, 17. Not previously reported.
Madras.....	Nov. 8–Dec. 19....	149	106	
Rangoon.....	Sept. 1–Nov. 30....	5	2	
Indo-China.....				
Cambodia—				
Pnum Penh.....	Aug. 1–31.....	1		
Cochin China—				
Baria.....	.....do.....	6	6	And vicinity, Nov. 3–23: Cases, 20; deaths, 10.
Cholon.....	.....do.....	9	7	Total Jan. 1–Dec. 20: Cases, 154; deaths, 79.
Saigon.....	.....do.....	1	1	
Laos—				
Pakse.....	.....do.....	1	1	
Japan:				
Kyoto fu.....	Oct. 1–31.....	1	1	
Philippine Islands:				
Manila.....	Oct. 25–Dec. 12....	44	22	
Russia:				
Moscow.....	Nov. 8–14.....		1	
Siam:				
Bangkok.....	Sept. 27–Nov. 28....		8	
Straits Settlements:				
Singapore.....	Oct. 4–10.....	1	1	

YELLOW FEVER.

Brazil:				
Rio de Janeiro.....	Dec. 13–26.....	2	1	
Ecuador:				
Guayaquil.....	Nov. 1–30.....	1		
Venezuela:				
Caracas.....	Dec. 31.....	1		

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.**Reports Received from Dec. 26, 1914, to Feb. 19, 1915—Continued.****PLAGUE.**

Places.	Date.	Cases.	Deaths.	Remarks.
Brazil:				
Bahia.....	Nov. 16-Jan. 9....	13	11	
Pernambuco.....	Oct. 11-Nov. 30....		5	
Rio de Janeiro.....	Dec. 20-Jan. 5....	2		
Ceylon:				
Colombo.....	Oct. 25-Dec. 12....	20	19	
China:				
Canton.....				June 12-July 12: Cases, 325.
Shanghai.....	Dec. 6-Jan. 2.....		3	Among natives.
Cuba:				
Habana.....	Feb. 9-16.....	3	3	
Dutch East Indies:				
Provinces.....				Total, Oct. 1-Nov. 30: Cases,
Kediri.....	Oct. 1-Nov. 30....	730	678	2,562; deaths, 2,278.
Madioen.....	do.....	128	110	
Paseroean.....	do.....	1,405	1,211	
Surabaya.....	do.....	299	279	
Ecuador:				
Duran.....	Nov. 1-Dec. 31....	9	4	
Guayaquil.....	do.....	536	91	
Milagro.....	Dec. 1-31.....	1	1	
Sant'orondon.....	Nov. 1-Dec. 31....	4	3	
Egypt.....				Total, Jan. 1-Nov. 28: Cases, 218;
Alexandria.....	Nov. 5-28.....	1	1	deaths, 110.
Port Said.....	Oct. 22-Dec. 16....	7	7	
Greece.....				Sept. 12, present in Drama and
India:				Kavala.
Bassein.....	Jan. 4-Dec. 5.....	13	10	Not previously reported.
Bombay.....	Nov. 1-Dec. 12....	7	6	
Karachi.....	Nov. 8-Dec. 12....	7	6	
Madras.....	Nov. 22-Dec. 12....	6	6	
Rangoon.....	Sept. 1-Nov. 30....	59	91	
Japan:				
Tokyo.....	Dec. 29-Jan. 4....	1	1	
Indo-China.....				Jan. 1-Aug. 31: Cases, 1,780;
Anam—				deaths, 1,413. Aug. 1-31: Cases,
Phanrang.....	Aug. 1-31.....	8	7	155; deaths, 121.
Phanitet.....	do.....	4	1	
Cambodia—				
Pnum Penh.....	do.....	41	39	
Cochin China—				
Cholon.....	do.....	26	11	
Saigon.....	do.....	23	15	And vicinity Nov. 3-30: Cases, 5.
Kouang-Tcheou-Wan.....	do.....	45	45	
Libia (Tripoli).....				Present in Derna and Marsa-
Mauritius.....	Nov. 6-12.....	14		Susa among native laborers.
Persia:				
Belessavar.....	Oct. 30-Nov. 9....	80	80	On Caspian coast.
Kasri Shireen.....	Dec. 12.....	1		
Peru:				
Salaverry.....	Dec. 29-Jan. 4....	1	1	Nov. 17-23: Cases, 2; deaths, 1.
Russia:				Dec. 14: Cases, 10 in hospital at
Moscow.....	Dec. 6-26.....	4		Trujillo.
Senegal:				
Dakar.....	Dec. 5.....			Present.
Straits Settlements:				
Singapore.....	Nov. 1-23.....	3	3	
Turkey in Asia:				
Bagdad.....	Nov. 1-Dec. 3....	11	9	
Union of South Africa:				
Queenstown.....	Feb. 5.....			Present.
Zanzibar.....	Oct. 25-31.....	2	3	

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

Reports Received from Dec. 26, 1914, to Feb. 19, 1915—Continued.

SMALLPOX.

Places.	Date.	Cases.	Deaths.	Remarks.
Arabia:				
Aden.....	Nov. 5-Dec. 30....	11	13	
Argentina:				
Rosario.....	Oct. 1-31.....		1	
Australia:				
New South Wales—				
Penrith.....	Dec. 11-17.....	1		
Sydney.....	Dec. 11-Jan. 7....	10		Total Nov. 13-19: Cases, 7 in the metropolitan area and 2 in the country districts.
Queensland—				
Brisbane.....				Nov. 19, in Colmslie quarantine station, 1 case from s. s. Kano Na from Melbourne, via Sydney.
Austria-Hungary:				
Austria—				
Vienna.....	Dec. 28-Jan. 9....	44	15	
Hungary—				
Fiume.....	Dec. 6-Jan. 10....	3	1	
Brazil:				
Pernambuco.....	Oct. 1-Nov. 30....		40	
Rio de Janeiro.....	Nov. 1-Dec. 26....	636	193	
Sao Paulo.....	Nov. 9-15.....	2		
Bulgaria:				
Sofia.....	June 30-Nov. 28..	121	2	
Canada:				
Manitoba—				
Winnipeg.....	Jan. 24-30.....	1		
Ontario—				
Hamilton.....	Jan. 1-31.....	3		
Earnia.....	Dec. 13-1 cb. 6....	5		
Toronto.....	Dec. 6-Jan. 30....	13		
Windsor.....	Jan. 17-23.....	1		Jan. 13: Cases, 4 from Grand Trunk ferryboat Lansdowne.
Quebec—				
Montreal.....	Dec. 28-Jan. 9....	4		
Quebec.....	Dec. 13-Jan. 16....	3		
Canary Islands:				
Tenerife—				
Santa Cruz.....	Dec. 6-26.....		2	
Ceylon:				
Colombo.....	Oct. 25-Dec. 12....	80	19	
China:				
Hongkong.....	Nov. 22-28.....	1	1	Nov. 22, present.
Newchwang.....				Deaths among natives.
Shanghai.....	Nov. 9-Jan. 9....	14	43	
Tientsin.....	Dec. 6-12.....		1	
Dutch East Indies:				
Borneo.....	Nov. 8-14.....	50	30	Oct. 18-24: Cases, 112; deaths, 44, mainly in Pontianak.
Java.....				In the western part, including Batavia, Oct. 18-Nov. 21: Cases, 2,607; deaths, 424.
Batavia.....	Oct. 18-Nov. 21....	166	44	
Surabaya.....	Nov. 1-7.....	1		
Egypt:				
Alexandria.....	Nov. 19-Jan. 7....	61	16	
France:				
Havre.....	Dec. 20-26.....	1		
Paris.....	Nov. 15-Dec. 26....	4	2	Nov. 15-Dec. 19: Cases, 14.
Germany:				
Great Britain:				
Cardiff.....	Nov. 30-Dec. 5....	5		
Liverpool.....	Dec. 19.....	1		
Greece:				
Kavala.....	Nov. 22-28.....	5		
Patras.....	Nov. 23-Jan. 17....		14	Jan. 17: Epidemic.
Saloniki.....	Nov. 15-Jan. 9....	61	48	
India:				
Bombay.....	Nov. 1-Dec. 12....	45	11	
Calcutta.....	Oct. 25-Nov. 28....		37	
Madras.....	Nov. 1-Dec. 19....	0	7	
Rangoon.....	Oct. 1-31.....	2	2	
Italy:				
Turin.....	Dec. 21-Jan. 10....	4		

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.**Reports Received from Dec. 26, 1914, to Feb. 19, 1915—Continued.****SMALLPOX—Continued.**

Places.	Date.	Cases.	Deaths.	Remarks.
Japan.....	.....	.....	.....	Jan. 1-Oct. 31: Cases, 470; deaths, 162, exclusive of Taiwan.
Nagasaki-ken.....	Oct. 1-31.....	25	4	
Taiwan.....	Oct. 25-Dec. 5.....	8		
Mexico:				
Aguascalientes.....	Dec. 7-Jan. 31.....		9	
Chihuahua.....	Nov. 30-Dec. 26.....	19	10	
Juarez.....	Dec. 4.....			Prevalent.
Mazatlan.....	Dec. 9-Jan. 12.....	18	8	
Monterey.....	Dec. 14-20.....		2	Feb. 10: Epidemic.
Salina Cruz.....	Nov. 1-7.....	1		
Tampico.....	Dec. 1-31.....		6	Prevalent among the military.
Vera Cruz.....	Dec. 1-Jan. 17.....		16	Jan. 5: Epidemic.
Newfoundland:				
St. Johns.....	Jan. 23-29.....	1		
Norway:				
Christiansand.....	Nov. 1-30.....	7	2	Including report, vol. 29.
Stavanger.....	Nov. 30-Dec. 5.....	1		
Portugal:				
Lisbon.....	Nov. 22-Jan. 15.....	12		
Russia:				
Moscow.....	Nov. 8-Dec. 26.....	26	6	
Odessa.....	Oct. 25-Nov. 18.....	10	1	
Do.....	Nov. 30-Dec. 19.....	73	7	
Petrograd.....	Oct. 25-Dec. 19.....	214	52	
Riga.....	Oct. 11-Dec. 12.....	69		
Spain:				
Barcelona.....	Nov. 22-Jan. 22.....		32	
Madrid.....	Nov. 1-Dec. 31.....	5	4	
Seville.....	Dec. 1-31.....		1	
Valencia.....	Nov. 15-Jan. 23.....	404	18	
Straits Settlements:				
Singapore.....	Oct. 10-Nov. 28.....	5	2	
Sweden:				
Stockholm.....	Dec. 13-19.....		1	
Switzerland:				
Basel.....	Nov. 7-Jan. 2.....	18		
Turkey in Asia:				
Beirut.....	Nov. 1-Jan. 9.....	79	18	
Haifa.....	Nov. 2-Dec. 6.....	14	6	
Zanzibar.....	Nov. 14-21.....		7	

SANITARY LEGISLATION.

STATE LAWS AND REGULATIONS PERTAINING TO PUBLIC HEALTH.

MISSISSIPPI.

Rabies—Notification of Cases. (Reg. Bd. of H., Feb. 4, 1915.)

Amendment to the rules and regulations governing morbidity reports:

SEC. 12. That the reporting of rabies, as required in section 2 of these rules and regulations, shall be that any physician who treats or examines any person that has been bitten, scratched, or otherwise having come in contact with an animal suffering from or suspected to be suffering from rabies in such manner that rabies may be contracted shall immediately report such fact to the county health officer of the county in which it occurred, giving the name of the person, the manner in which the person came in contact with the rabid or supposedly rabid animal, the age, color, or race, and the place at which it occurred: *Provided*, That when a person does not have the services of a physician, it shall be the duty of the person to make a report to the county health officer, as hereinbefore required of physicians: *Further provided*, That if this person is a minor, then it shall be the duty of the father or mother, or guardian, to report such fact to the county health officer, as hereinbefore required.

Rabies—Control of—Muzzling of Dogs. (Reg. Bd. of H., Feb. 4, 1915.)

SECTION 1. Whenever animal rabies is known to exist in any county of the State of Mississippi, the secretary of the State board of health shall immediately notify the county health officer of the county in which infection exists, and when he may deem it necessary for the protection of the people he shall notify the county health officers of each adjoining county, and these rules and regulations as hereinafter provided shall be put into force in such county.

SEC. 2. When a county health officer is notified that rabies exists in his county or in adjoining county, it shall be his duty to promulgate these rules and regulations.

SEC. 3. Any person owning or having in his or her possession a dog or dogs shall be required to keep them securely within an inclosure for such period as the county health officer may designate any dog or dogs that he may own or have in his or her possession: *Provided*, That if it is not the desire of the owner or person having a dog or dogs in his or her possession to keep them secure within an inclosure, as hereinbefore required, that each such dog shall at all times wear a muzzle, constructed of metal, which shall prevent biting, shall permit of the dog opening its mouth, and shall be fitted to the dog, being changed from time to time, if necessary, with the animal's growth, except at such time as necessary to water or feed the dog or dogs.

SEC. 4. It shall be the duty of all persons to report to the county health officer the existence of any animal suffering from, or suspected to be suffering from, rabies of which he or she may have knowledge.

SEC. 5. It shall be the duty of all police officials, and any citizen may kill or otherwise destroy any and all dogs that are found running at large, unmuzzled, within the area in which these rules and regulations are in force.

SEC. 6. It shall be the duty of the county health officer when notified that animal rabies exists or is suspected to exist in his county to immediately make an investigation and furnish the secretary of the State board of health with all information desired.

SEC. 7. It shall be the duty of the county health officer in each county in which these rules and regulations are in force to make a report each week to the secretary of the State board of health. Such reports are to be made until such time as the secretary of the State board of health may deem it wise to withdraw the enforcement of these rules and regulations from such county.

SEC. 8. These rules and regulations are adopted under the authority vested in the State board of health by section 2489 of the Mississippi Code of 1906.

Poorhouses, Paupers' Homes, and Pesthouses—Sanitary Regulation. (Reg. Bd. of H., Jan. 26, 1915.)

1. It shall be unlawful for any board of supervisors, board of aldermen, or city commissioners to own, maintain, or support, in whole or in part, any poorhouse, paupers' home, or pesthouse, except under the following regulations for the protection of inmates therein against contagious and infectious disease, and for the humane treatment of all inmates.

2. A poorhouse, paupers' home, or pesthouse must be kept in a clean condition, in good repair, painted white inside, screened, well lighted and ventilated, and properly heated.

3. The fireplaces or heaters in a poorhouse, paupers' home, or pesthouse must be so arranged with metal bars surrounding them as to prevent the inmates from falling against heaters or in the fireplaces.

4. Excelsior, hay, or straw mattresses will not be allowed in poorhouses or paupers' homes, but cotton mattresses must be used instead. Blankets, comforts, and sheets must be kept clean. Iron beds or hammocks to be used. The room must be kept free from worn-out bedding, old clothing, plunder of any description, such as empty cans, boxes, etc.

5. Efficient bathing facilities must be furnished in each poorhouse, paupers' home, or pesthouse, and all inmates thereof be bathed at regular intervals so as to be kept in a cleanly condition at all times, and must be furnished with clean clothing. An abundant supply of wholesome, well-cooked food must also be furnished all inmates of poorhouses, paupers' homes, or pesthouses. Necessary care must be given those sick, in the preparation of foodstuff, as may be directed by the State board of health or their representative.

6. The water supply for poorhouses, paupers' home, or pesthouses must be pure and unpolluted, care being exercised that the pump or well is so located as not to become infected from toilets. If water is supplied from a well, the same must be kept carefully covered, so as to prevent the breeding of mosquitoes.

7. Sufficient toilet facilities must be furnished each poorhouse, paupers' home, or pesthouse. Where no waterworks are available, there must be furnished a thoroughly screened fly-proof closet, built in accordance with the rules and regulations of the State board of health. At least one closet must be maintained for each race and sex.

8. No person suffering with consumption or any other contagious or infectious disease shall be placed in a room or any poorhouse, paupers' home, or pesthouse with any other person, except those suffering with a like disease, without authority from the State board of health or its authorized representatives; nor shall more than one person occupy the same bed in any room at any time.

9. When any poorhouse, paupers' home, or pesthouse is kept without complying with these regulations, the officials responsible for same, boards of supervisors, city commissioners, or boards of aldermen shall be proceeded against according to section 2511, chapter 64, laws of 1906.

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

DETROIT, MICH.

Milk—Pasteurization of. (Reg. Bd. of H., Nov. 18, 1914.)

1. Pasteurization of milk shall be performed by a process whereby every portion of the milk is raised to a temperature of 145° F. and retained at that temperature for a period of 25 minutes by the holding process, and no other process shall be adopted or used, and immediately thereafter cooled to a temperature below 50° F.

2. No pasteurizing equipment shall be used that is not approved by the Detroit Board of Health.

3. Each pasteurizing apparatus shall be equipped with a time and temperature recording apparatus approved by the board of health. The record shall be filed at the pasteurizing plant and mailed to the Detroit Board of Health Thursday of each week.

4. All pasteurized milk shall be plainly marked on each bottle cap or other container in which such milk is delivered to consumers, with a label bearing the inscription, "Pasteurized milk."

5. Pasteurized milk shall contain not more than 100,000 nonpathogenic colonies of bacteria per c. c. in samples taken from containers being delivered to consumers.

6. Immediately after the process of pasteurization and cooling the milk must be put into the final containers.

7. Milk shall not be pasteurized more than once.

8. Pasteurized milk shall be delivered to the consumer not later than 24 hours after pasteurization.

9. All cream and skim milk shall be pasteurized or made from pasteurized milk.

10. Buttermilk shall be made from milk or cream pasteurized before churning.

[The above regulations take effect May 1, 1915, which is the time when licenses for the sale of milk are renewed.]

DUNKIRK, N. Y.

Milk and Cream—Labeling. (Reg. Bd. of H., Dec. 1, 1914.)¹

SEC. 6. ART. 2. No milk, cream, or skim milk shall be sold within the corporate limits of the city of Dunkirk except it shall be conspicuously labeled in black ink "From tuberculin-tested cows"; milk from untested cattle shall be labeled in red ink as follows: "From cows not tuberculin tested."

HUNTINGTON, W. VA.

Board of Health—Members and Officers—Powers and Duties. (Ord. May 25, 1914.)

ARTICLE 1. SECTION 1. The health officer, mayor, commissioner of health and charity, sanitary officer, and the city clerk of the city of Huntington shall be ex officio members of and shall constitute the local board of health for the city of Huntington. The commissioner of health and charity shall be the executive officer of such board.

¹ Public Health Reports, Mar. 27, 1914, p. 797.

And such board of health shall perform such duties and have such powers as is prescribed by law, and in addition thereto perform such duties and have such powers as shall be prescribed by ordinance by the board of commissioners of the city of Huntington.

SEC. 2. The board of health, as it may deem it necessary or advisable, shall make recommendation to the board of commissioners in all matters respecting the health and sanitary conditions of the city of Huntington.

ART. 2. SECTION 1. It shall be the duty of the commissioner of health and charity to look after the general health and sanitary conditions of the city of Huntington, and to see that all provisions of the health and sanitary code are enforced and obeyed within the said city.

SEC. 2. There shall be appointed a sanitary officer for the city of Huntington, who shall serve for a period of three years, unless sooner removed at the pleasure of the board of commissioners of said city, and who shall receive such salary as is prescribed by the board of commissioners. He shall be under the direct supervision of the commissioner of health and charity. He shall see that all of the provisions of the health and sanitary code of the city of Huntington are observed and obeyed, and as ex officio member of the board of health he shall see that all lawful orders and regulations of the board of health are obeyed.

SEC. 3. It is the intention of this ordinance that the board of health and the department of health and charity shall work in conjunction for the purpose of preventing the spread of disease and for the purpose of creating the best sanitary conditions in the city of Huntington.

SEC. 4. The specific duties of the sanitary officer shall be:

(a) The prevention and abatement or suppression of nuisances.

(b) Supervision of the collection and disposal of garbage.

(c) He shall when it is ascertained that any nuisance or other condition detrimental to the public health exists on any premises or in any building or other place, serve written notice upon the owner, occupant, or other person in charge of such premises, building, or other places to abate or remove such nuisance or condition within a reasonable time, such time to be stated in said notice, and upon refusal or neglect to obey such notice he shall take such steps as shall be provided in this code to secure the enforcement of the order.

(d) He shall, subject to the approval of the board of commissioners, grant or refuse to grant permits to establish and conduct restaurants, bakeries, meat shops, or any other business involving the sale or preparation of food.

(e) The sanitary officer shall perform all other acts necessary to the proper enforcement of the several sections of this code, and such other duties as may be prescribed by the board of commissioners.

(f) The sanitary officer shall make monthly reports to the commissioner of health and charity of all work done by his department.

SEC. 5. If any owner or occupant of any premises, building, or other place, or other person in charge thereof shall fail, neglect, or refuse to remove or abate any nuisance or condition when ordered so to do by the sanitary officer as provided in the preceding section, such person shall be guilty of a violation of this ordinance and upon conviction thereof before the police judge of said city shall be fined not to exceed \$50 and in addition thereto such person may be confined in the city jail for not more than 30 days.

SEC. 6. It shall be the duty of the sanitary officer to cause complaint to be made before the police judge of all violations of this ordinance and to attend as a witness or otherwise all trials of such cases. And for the purpose of enforcing the provisions of this ordinance the sanitary officer is given all the power of a police officer of the city of Huntington, including the authority to make arrests.

Health Officer—Appointment and Duties. (Ord. May 25, 1914.)

ARTICLE 3. SECTION 1. The board of commissioners shall appoint a health officer for the city of Huntington, who must be a practicing physician, and who shall serve for the term of three years, unless sooner removed at the pleasure of the board of commissioners, and shall receive such salary as shall be prescribed by the board of commissioners.

SEC. 2. The specific duties of the health officer shall be:

(a) The control of contagious, infectious, and communicable diseases.

(b) Preservation and classification of vital statistics.

(c) He shall keep and file suitable records of inspections and analyses provided for in this code.

(d) He shall perform such other duties as shall be prescribed by the board of health or the board of commissioners, and do all other acts necessary for the proper enforcement of the several sections of this code.

Physicians—Charity—Appointment and Duties. (Ord. May 25, 1914.)

ARTICLE 4. SECTION 1. The board of commissioners shall appoint six physicians, to be known as charity physicians. The first to be appointed shall be a resident physician of the first ward, the second a resident physician of the second ward, the third a resident physician of the third ward, the fourth a resident physician of the fourth ward, the fifth a resident physician of the fifth ward, and the sixth a colored physician appointed at large. Each physician shall have charge of the charity patients within his respective ward, except the physician appointed from the fifth ward, who shall have charge of the charity patients in the territory north of the C. & O. R. R. and between Twenty-fourth Street and the Guyandotte River, as well as the patients in his ward, and the colored physician shall have charge of all colored charity patients within the city of Huntington: *Provided, however,* That in emergency cases any such physician shall attend patients in any ward at the direction of the commissioner of health and charity. Said physicians shall be employed for a period of three years, or until their successors are appointed and qualified, unless sooner removed at the pleasure of the board of commissioners; and each shall receive such salary as shall be prescribed by the board of commissioners.

SEC. 2. It shall be the duty of the charity physician to render medical attention to all charity patients of the city of Huntington in their respective territories as aforesaid. All calls for service for such physicians shall be made through the office of the department of health and charity. Said physicians shall make report to the commissioner of health and charity at the end of each month, showing the number of patients treated, giving their names, place of residence, kind of disease, result of treatment, number of deaths, and any other information that they may deem important, or which may be required by the commissioner of health and charity.

SEC. 3. Charity physicians on visiting patients at their homes for the first time, shall note on a form supplied for this purpose, a brief report of the sanitary surroundings of said patient, and shall promptly transmit this report properly filled out to the commissioner of health and charity.

Nuisances. (Ord. May 25, 1914.)

ARTICLE 5. SECTION 1. Whatever is dangerous to human health, whatever renders the ground, the water, the air, or food a hazard or an injury to human health, comfort, or convenience, and the following specific acts, conditions, and things are, each and all of them, hereby prohibited and made unlawful and declared nuisances:

(a) The deposit or accumulation of any foul, decaying, or putrescent substance, or other offensive matter, in or upon any lot, street, or highway, or in or upon any public or private place; the overflow of any foul liquids, or the escape of any gases to such

an extent that the same, or any one of them, shall become, or be likely to become hazardous to health; or that the same shall, by reason of offensive odors, become a source of discomfort to persons living or passing in the vicinity thereof.

(b) A polluted well, spring, or stream, or the pollution of any body of water used for drinking purposes.

(c) The maintenance of any privy vault or cesspool except as hereinafter provided.

(d) Keeping any building or room in such a state of uncleanness, or the crowding of persons in any building or room in such a manner as to endanger the health of the persons dwelling therein or thereabout; or so that there shall be less than 400 cubic feet of air to each adult and 150 cubic feet of air to each child under 12 years of age occupying such building or room.

(e) Allowing cellars to be used as sleeping rooms.

(f) A building or portion of a building occupied as a dwelling which is not lighted and ventilated by means of at least one window in each room, or air and light shaft or ventilator, said window or shaft or ventilator opening to the outer air, or which is not provided with a plentiful supply of pure water.

(g) The accumulation of manure unless it be in a properly constructed pit or receptacle.

(h) The accumulation of water in which mosquito larvæ breed.

(i) The maintenance, in a public place, of a roller-towel for the use of more than one person.

(j) The slopping or feeding of cattle or other animals on distillery swill, within the sanitary limits of the city, unless the inclosure wherein such slopping or feeding is done be provided with means for preventing and removing the insanitary conditions associated with such slopping or feeding.

(k) The allowing of water to stand on any lot, land, or premises, or to permit weeds to grow on any lot, land, or premises, by the person owning, having control or possession of the same, so as to work any material annoyance, inconvenience, discomfort, or injury to others, or damage the property of others.

SEC. 2. Any person violating any of the provisions of this article shall, upon conviction, be fined not less than \$10 nor more than \$100, and each day's continuance of any such nuisance or condition mentioned herein shall be a separate offense; and it shall be no defense upon the trial of any such offense that such person has not been notified of such nuisance or condition by the sanitary officer, as provided for elsewhere in this ordinance.

SEC. 3. If the owner, agent, tenant, lessee, or occupant of any premise, lot, property, building, or structure shall fail or refuse to abate or remove any such nuisance or condition as is mentioned herein or comply with the provisions of this ordinance and the regulations herein contained, the commissioner of health and charity may have said nuisance or condition abated or removed, after reasonable notice to such owner, occupant, tenant, agent, or lessee of the intention so to do, and the expense of abating or removing such nuisance or condition, with 1 per cent per month interest, shall be collected from such owner, occupant, tenant, agent, or lessee, by distress or sale, in the same manner in which taxes levied upon real estate are authorized to be collected, and such expense shall remain a lien upon said lot or part of lot, the same as taxes levied upon real estate in said city. In case of nonresident owners of real estate such notice may be served upon any tenant, occupant, lessee, or rental agent, or by publication thereof for not less than two successive weeks in two newspapers of opposite politics in said city. The commissioner of health and charity shall certify to the auditor the description of such property and the cost of abating and removing any such nuisance or condition thereon and therefrom, and the auditor shall certify the same to the treasurer to be by him collected as provided for by law.

Stables and Disposal of Manure. (Ord. May 25, 1914.)

ARTICLE 6. SECTION 1. Every person owning or leasing any stable or other building where any horse, mule, or any cattle are kept, shall maintain a substantial and sufficient receptacle which must be so constructed and kept as to protect the contents from rain, and to be so screened as to prevent access to flies, and all manure from such horses, mules, or cattle must be placed in such receptacle.

SEC. 2. All persons owning or leasing any stable, where more than six head of horses, mules, or cattle are kept shall have all manure from such animals removed from their premises twice in each week, from the 1st of May to the 30th of September and at no time shall the same be allowed to accumulate in such a manner as to become a nuisance. In no event or circumstance shall any manure be thrown or deposited in any alley, street, or public place, or suffered to remain in such places.

SEC. 3. Every owner or lessee of any stable shall at all times keep, or cause to be kept, the building and premises in a clean and sanitary condition.

SEC. 4. No person hauling manure through the streets shall permit the same to litter the streets.

SEC. 5. Any person violating any part of this article shall, upon conviction, be fined not less than \$10 nor more than \$100, and each day's continuance of any such nuisance or condition mentioned herein shall be a separate offense.

Barbers and Barber Shops—Regulation of. (Ord. May 25, 1914.)

ARTICLE 7. SECTION 1. Every barber shop within the city of Huntington shall be open to the health officer 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) Mirrors, shaving brushes, razors, scissors, clipping machines, pincers, needles, and other instruments shall be sterilized either by immersion in boiling water or in alcohol of at least 95 per cent strength or other effective disinfectant approved by the health officer after each separate use. Combs and brushes shall be kept thoroughly cleaned.

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

(d) Alum or other material used to stop the flow of blood shall be applied on a clean towel or other clean cloth.

(e) The use of powder puffs and sponges is prohibited, except that a sponge or puff owned by a customer may be used on him.

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

(g) No barber shop shall be used as a sleeping room. No person shall be employed or shall operate as a barber who has any communicable disease.

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

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

SEC. 2. Any person violating any part of this article shall, upon conviction, be fined not less than \$10 nor more than \$100, and each day's continuance of any such nuisance or condition mentioned herein shall be a separate offense.

Garbage and Refuse—Care and Disposal. (Ord. May 25, 1914.)

ARTICLE 8. SECTION 1. It shall be the duty of every resident, householder, tenant, hotel keeper, boarding-house keeper, retail dealer, and all parties or persons occupying dwellings within the city of Huntington to provide, or cause to be provided, and at all times keep, or cause to be kept, portable vessels or tanks for holding garbage, said vessels or tank to be perfectly water-tight, and provided with handles on the outside, and a closely fitting cover, which cover shall not be removed except when absolutely

necessary. Said vessels or tanks shall be kept in the rear of the premises, in the basement, or in passage ways most accessible to the collector, and never upon the street or sidewalk, and shall be of a capacity of not more than 2 bushels. All such vessels, where not easily accessible shall be promptly delivered to the collector when called for, and shall be returned by him to their places without unnecessary delay, and no person shall in any manner interfere with said vessels or tanks, or the contents thereof, except those authorized for such duty.

SEC. 2. No resident householder, tenant, hotel keeper, boarding-house keeper, or any other person shall deposit in the garbage vessel or tank, any ashes, bottles, glass, tin cans, night soil, or other rubbish, and the collector shall refuse to collect such garbage until all other refuse matter has been removed therefrom, and the collector shall report at once to the sanitary officer all such offenses.

SEC. 3. All other accumulation of rubbish and including such ashes, bottles, glass, and tin cans not permitted to be deposited in the garbage receptacle shall be gathered and deposited in a separate receptacle with closely fitting cover, so that the same may be conveniently removed by the garbage collector.

SEC. 4. No manure or putrescible matter of any kind shall be permitted to accumulate in such a way as to become offensive or objectionable.

SEC. 5. Rubbish shall be removed from all premises at least once in six months.

SEC. 6. No garbage, ashes, or rubbish shall be thrown or deposited in any street or alley, and the presence of such upon any street or alley shall be held to constitute a violation of this section on the part of the owner or occupant of the property upon whose half of the street or alley such garbage, ashes, or rubbish is permitted to lie for 24 hours.

SEC. 7. The sanitary officer shall prescribe, make, and enforce such reasonable regulations as are necessary and proper for the collection and handling of all garbage, and such regulation may include the wrapping of certain kind of garbage. And any person failing to observe or comply with any regulation prescribed by the sanitary officer shall be deemed guilty of a violation of this ordinance and be subject to the penalty prescribed in the following section:

SEC. 8. Any and every person failing to perform the duties required of him, or to comply with the provisions of this article shall for every offense, upon conviction, be subject to a fine of not less than \$10 nor more than \$100, and each day's continuance of any such nuisance or condition mentioned herein shall be a separate offense.

Spitting—Prohibited in Public Places—Spittoons. (Ord. May 25, 1914.)

ARTICLE 9. SECTION 1. No person shall spit, expectorate, or deposit any sputum, phlegm, tobacco juice, or wads of tobacco upon the floor or stairway or any part of any theater, public hall, or building, or upon the floor or any part of any railway car or street car, or any other public conveyance in the city, or upon any sidewalk abutting on any public street, lot, or lane.

SEC. 2. The owner, occupant, tenant, or other person in charge of any such theater, public hall, building, or public conveyance in the city shall when required so to do by the sanitary officer, by notice in writing, provide such premises with sufficient spittoons or cuspidors, as required or prescribed by order of the sanitary officer, and to thoroughly cleanse and disinfect daily with some disinfectant solution to be approved by the sanitary officer.

SEC. 3. Any person who shall violate any provision of this article or fail to comply with the requirements thereof shall upon conviction thereof be fined not less than \$10 nor more than \$100 for each offense, and each day's continuance of such violation shall be a separate offense.

Sewers—Connections with. (Ord. May 25, 1914.)

ARTICLE 10. SECTION 1. Every building situate on any street in the city of Huntington where there is a public sanitary sewer shall be connected with said sewer in accordance with the ordinance of the city governing such connections, so that all sewage from the premises shall empty into the sewer, provided that such building is used, or intended to be used, as a dwelling or in which persons are employed or intended to be employed, in any manufacture, trade, or business. It is hereby made the duty of each owner of any such building to cause the same to be connected with any public sewer already constructed, as herein provided, within 30 days after the passage of this ordinance, as herein provided, and hereafter within 30 days after a public sewer is constructed and available for use; and it is hereby made unlawful for any person to occupy or use any such building, for any of the purposes above mentioned, after the expiration of such 30 days unless the building is connected with the sewer, as herein provided.

SEC. 2. It shall be the duty of the sanitary officer to notify in writing the owner or controller and the tenants or occupants of every building required by this section to be connected with the public sewer and to so connect such building; but a failure of the sanitary officer to give such notice shall in no case relieve any such owner, tenant, or occupant of the penalty prescribed in this article.

SEC. 3. Any person who shall violate section 1 of this article or fail to comply with the requirements thereof shall, upon conviction, be fined not less than \$10 nor more than \$100 for each offense, and each day's continuance of such violation shall be deemed a separate offense.

Privies and Cesspools—Construction and Location. (Ord. May 25, 1914.)

ARTICLE 11. SECTION 1. In those parts of the city not provided with sewer and water main privy vaults shall be constructed, and the construction of privy vaults and cesspools will be permitted only on premises where water and sewer are not accessible.

SEC. 2. All privy vaults and dry wells shall be constructed in such manner as may be approved by the sanitary officer, and all vaults shall be uncovered until inspected and approved by the sanitary officer or inspector.

SEC. 3. No old vaults shall be connected with a sewer.

SEC. 4. Vaults now existing on premises abutting city sewer and provided with city water shall be cleaned to within at least 4 feet of the surface and filled with earth and ashes.

SEC. 5. All buildings not connected with sewers used as residences and occupied by one family shall be provided with a privy. No privy shall be constructed within 20 feet of any street except it be an alley, or within 3 feet of any party line, or within 10 feet of any window or door of a residence.

SEC. 6. All buildings not connected with sewers used as tenement or apartment houses and occupied by more than one family shall be provided with one privy or a suitable separate division of the same for each family. All buildings not connected with sewer and used as lodging houses and all such buildings where persons work or are employed shall be provided with not less than one separate seat or convenience for each 15 persons employed or lodged in such building.

SEC. 7. Cesspools may be constructed only by permission of the sanitary officer, and must be cleaned on order of the sanitary officer at the expense of the owner, occupant, or controller of the property.

SEC. 8. The term "sewer" as used in this ordinance shall be construed to mean a sanitary sewer.

SEC. 9. A cesspool is defined to mean a privy vault intended to recover liquid wastes from a building where persons live or are employed.

SEC. 10. Any person violating any part of this article shall, upon conviction, be fined not less than \$10 nor more than \$100, and each day's continuance of any such violation shall be a separate offense.

Births and Deaths—Registration of. (Ord. May 25, 1914.)

ARTICLE 12. SECTION 1. Every practicing physician, undertaker, and midwife shall register his name, address, and the nature of his duties with the health officer, and shall notify the health officer of any change of address, and the health officer shall send to each a copy of this ordinance.

SEC. 2. That all physicians, surgeons, or midwives who shall attend upon the birth of any child in this city, or in the absence of such professional attendants, the father of such child, or if the child has no father, then its mother, shall report the fact of the birth, together with the name, sex, color, and such other data relating thereto as may be prescribed by the health officer, within five days from the date of the birth of said child. Said report to be made to the health officer.

SEC. 3. Any person acting as undertaker shall file with the city health officer a certificate of death and obtain a burial permit from said officer in each case, including stillbirths, in which he so engages so to act. All persons furnishing a coffin or box in which to bury the dead shall be included within the term "undertaker."

It shall be the duty of such undertaker to accurately file the death certificate, giving the name, age, sex, the nativity and such other personal and statistical particulars as may be required; and said undertaker shall obtain from the physician or coroner the answers to such other questions as may be prescribed by the health officer.

SEC. 4. It shall be unlawful for any superintendent, sexton, or other person in charge of a place of burial or sepulcher or place of cremation to permit the interment or cremation of any body without first having obtained from the undertaker or other person in charge thereof the burial permit therefor furnished by the health officer. And it shall be the duty of such superintendent, sexton, or other person in charge of said place of burial or cremation to retain and place on file a copy of said permit as a matter of permanent record.

SEC. 5. The body of any person whose death or burial occurs in this city shall not be interred, deposited in any vault or tomb, cremated, or otherwise disposed of, or removed or transported from the city until a permit for burial, removal, or other disposition shall have been issued by the health officer of this city. And no such burial or removal permit shall be issued by said health officer until a complete certificate of death has been filed with him as hereinbefore provided: *Provided*, That a transit permit be issued in accordance with the law and health regulations of the place where the death occurred may be accepted by the health officer as a basis upon which to issue said burial permit.

SEC. 6. It shall be the duty of every physician in the event of a death, including stillbirths, occurring in any case to which said physician is the last in attendance, or in the event a coroner shall hold the inquest to ascertain the cause of death, it shall be the duty of said physician or coroner to promptly and accurately fill out the required form of death certificate when said death certificate is presented by the undertaker.

SEC. 7. It shall be the duty of the health officer to prescribe the form and furnish all of the certificates provided for in this article.

SEC. 8. In the event of a death occurring without a physician in attendance and the services of a coroner are not necessary, it shall be the duty of the health officer to investigate any such case and issue the certificate of death.

SEC. 9. It shall be the duty of said health officer to record in a well-bound book all births and deaths which are reported to him, together with such statistics and data as shall be required by him and furnished by the birth certificate and death certificate hereinbefore mentioned.

SEC. 10. Any person violating any part of this article shall, upon conviction, be fined not less than \$10 nor more than \$100, and each day's continuance of any such violation shall be a separate offense.

Communicable Diseases—Notification of Cases—Placarding—Quarantine—Vaccination—Burial—Hospitals—Examination of Persons—School Attendance—Disinfection. (Ord. May 25, 1914.)

ARTICLE 13. SECTION 1. Every physician shall report in writing to the health officer the name of every patient he (or she) may have in the city of Huntington with cholera, smallpox, diphtheria, typhus, typhoid or scarlet fever, measles, tuberculosis in any form, varicella, whooping cough, epidemic dysentery, trachoma, ophthalmia neonatorum, epidemic cerebrospinal meningitis, pellagra, infantile paralysis, hookworm disease, rabies, tetanus, pneumonia, or any other communicable disease that may be hereinafter declared and published by the board of health to be dangerous to the public health, which report shall include the name, age, sex, color, and address of the patient, together with the nature of the disease, immediately after such physician shall have ascertained the nature of such disease.

If any physician, or midwife, knows or has reason to believe that one or both eyes of an infant whom or whose mother he (or she) is called to visit, or treat, has become inflamed, swollen, and red and shows an unnatural discharge within two weeks after the birth of such infant, he (or she) shall, within six hours give notice thereof to the health officer, or in his absence to the commissioner of health and charity.

SEC. 2. It shall be the duty of the board of health to cause a suitable placard to be displayed from the front of any premises where any case of measles, smallpox, scarlet fever, diphtheria, chicken-pox, epidemic cerebrospinal meningitis, or whooping cough is present. It shall be unlawful for any person to remove such placard, when so placed, without the permission of the board of health, and it shall be the duty of the said board, in conjunction with the attending physician to issue the necessary instructions for the isolation of the patient.

SEC. 3. Any bodies of persons dying of contagious diseases, the bodies of persons who have died of smallpox, cholera, plague, yellow fever, typhus, diphtheria, scarlet fever or other dangerous contagious diseases, shall be buried within 24 hours after death (except by special permission of the board of health); and no public or church funeral shall be held in connection with the burial of persons who have died of any of the above named diseases, and the body of such person shall not be taken into any church, chapel, or any public place, and only the adult persons as are actually necessary, shall be present at the burial of such body.

SEC. 4. The board of health shall have control of the hospitals for contagious disease, and shall adopt rules and regulations for the proper management of same. Said board shall have authority to order and secure the removal and isolation of any person afflicted with a contagious disease.

SEC. 5. Any person having smallpox on his or her premises, and unwilling to have such person or persons afflicted moved to the smallpox hospital, shall be required to keep a guard on such premises at his or her expense, and failure to comply with the provisions of this section shall subject the offender to a fine of not less than \$10 nor more than \$100, and for each day he or she fails to comply shall constitute a separate offense, and any owner or other person having control of any house where there shall be one or more cases of smallpox and who, knowing the same, shall fail to give notice thereof to the board of health within six hours after its discovery, shall, on conviction, be subject to the penalties of this paragraph.

SEC. 6. No person shall fail or refuse to be vaccinated or refuse any minor under his or her control to be vaccinated, when visited for that purpose by the physician employed by the city, unless such person or minor has already been effectually vaccinated at the time of said visit, or is vaccinated by some competent physician within 24 hours thereafter. The medical inspector of the city schools shall examine each pupil not submitting satisfactory evidence of vaccination, or not submitting evidence from a physician that vaccination is dangerous to the health of the child, and prevent

the entrance of any one who has no vaccine mark, and notify the parent or guardian of said pupil that vaccination is an indispensable prerequisite to admission to the public schools of the city.

SEC. 7. Whenever it shall be deemed necessary by the board of health to establish the true character of any disease which is suspected to be communicable, a medical examination of the person or persons affected by such disease may be ordered by said board. Any person or persons interfering with or refusing to permit such examination shall be guilty of violating this article.

SEC. 8. No principal, teacher, or superintendent of any school shall knowingly permit any child sick from any disease mentioned in section 1 of this article, or from any other communicable disease; or any child residing in any house in which whooping cough, chicken-pox, infantile paralysis, scarlet fever, diphtheria, measles, mumps, smallpox, or epidemic cerebrospinal meningitis, shall exist, to attend any school until such time as the board of health certifies to such teacher, principal, or superintendent that the said child may attend school without danger of communicating the disease to others.

SEC. 9. No person from any dwelling wherein a disease dangerous to public health exists shall take any book or magazine to or from any circulating library. The board of health shall inform the librarian of all cases of said diseases, and until a written permit is given he (or she) shall allow neither books nor magazines to be taken or returned from a dwelling where such cases exist.

SEC. 10. Any person in the city of Huntington having any communicable disease shall be isolated as the board of health may direct, and all buildings, clothing, property, premises, and vehicles which may be infected by emanations from such persons shall be disinfected as the board of health may direct. No premises will be disinfected after diphtheria until at least two negative cultures, taken on successive days, have been obtained from the throat of the patient, or from the nose, if a case of nasal diphtheria.

SEC. 11. No person shall knowingly bring or cause to be brought into the city of Huntington any person infected with any communicable disease, except upon a permit granted by the board of health.

SEC. 12. Whenever a placard shall be placed, showing the presence of smallpox, scarlet fever, or diphtheria, no person or persons, except medical attendants and nurses, shall either enter therein or depart therefrom without the permission of the board of health.

SEC. 13. Whenever a person having tuberculosis moves out of a house or an apartment, the attending physician, if there be one, or the active head of the family, shall so notify the board of health within 24 hours, and both the above-mentioned persons shall be held responsible for a violation of this section.

Domestic Animals—Communicable Diseases—Notification of Cases. (Ord. May 25, 1914.)

ART. 13. SEC. 14. Every veterinarian or other person who is called to examine or professionally attend any animal within the city of Huntington, having the glanders or farcy, rabies, tuberculosis, or other communicable disease, shall, within 24 hours thereafter, report in writing to the board of health the following facts:

- (a) A statement of the location of such diseased animal.
- (b) The name and address of the owner thereof.
- (c) The type and character of the disease.

Rabies—Care of Animals Affected with. (Ord. May 25, 1914.)

ART. 13. SEC. 15. Every animal which is mad, or which has hydrophobia, or which shows symptoms thereof, shall, if possible, be at once securely confined until the diagnosis is accurately made. Every animal that has been exposed to such disease

shall be at once confined in some secured place for such length of time as to show that such exposure has not given such animal said disease, and the body of any animal that has died of such disease, or which, being suspected to have such disease, has been killed, shall not be disposed of, except as may be directed by the board of health.

SEC. 16. Any person violating any part of this article shall, upon conviction, be fined not less than \$10 nor more than \$100, and each day's continuance of any such violation or condition herein shall be a separate offense.

Foodstuffs—Factories and Markets—Sanitary Regulation—Inspection. (Ord. May 25, 1914.)

ARTICLE 14. SECTION 1. Every building, room, basement, or cellar occupied by or used as a bakery, confectionery, cannery, packing house, slaughterhouse, dairy, creamery, cheese factory, restaurant, hotel, grocery, meat market, or other place or apartment used for the preparation for sale, manufacture, packing, storing, sale, or distribution of food shall be properly lighted, drained, plumbed, and ventilated, and conducted with strict regard to the influence of such condition upon the health of the operatives, employees, clerks, or other persons therein employed, and the purity and wholesomeness of the food therein produced; and for the purpose of this ordinance the term "food" as used herein shall include all articles used for food, drink, confectionery or condiment, whether simple, mixed, or compound, and all substances or ingredients used in the preparation thereof.

SEC. 2. The floors, walls, ceilings, furniture, receptacles, implements, and machinery of every establishment or place where food is manufactured, packed, stored, sold, or distributed, and all cars, trucks, and vehicles used in the transportation of food products shall at no time be kept in unclean, unhealthful, and unsanitary condition, and for the purpose of this ordinance unclean, unhealthful, and unsanitary conditions shall be deemed to exist if food in the process of manufacture, preparation, packing, storing, sale, distribution, or transportation is not securely protected from flies, dust, dirt, and as far as may be necessary, by all reasonable means, from all other foreign, or injurious contamination: and if the refuse, dirt, and the waste products subject to decomposition and fermentation incident to the manufacture, preparation, packing, storing, selling, distributing, and transportation of food, are not removed daily, and if all trucks, trays, boxes, baskets, buckets, and other receptacles, chutes, platforms, racks, tables, shelves, and all knives, saws, cleavers, and other utensils and machinery used in the moving, canning, handling, cutting, chopping, mixing, and all other processes are not thoroughly cleansed daily, and if the clothing of operatives, employees, clerks, and other persons therein employed is unclean.

SEC. 3. The walls and ceiling of every bakery, confectionery, creamery, cheese factory, hotel and restaurant kitchen shall be well plastered, wainscoted, or ceiled with metal or lumber, and shall be oil painted or kept well lime washed, and all interior woodwork in every bakery, confectionery, creamery, cheese factory, hotel or restaurant kitchen shall be kept clean with soap and water, and every building, room, basement, or cellar occupied or used for the preparation, manufacture, packing, storage, sale, or distribution of food shall have an impermeable floor made of cement or tile laid in cement, brick, wood, or other suitable nonabsorbant material which can be flushed and washed clean with water.

SEC. 4. The doors, windows, and other openings of every food producing or distributing establishment during the fly season shall be fitted with self-closing screen doors and wire window screens of not coarser than 14-mesh wire gauze.

SEC. 5. Every building, room, basement, or cellar occupied or used for the preparation, manufacture, packing, canning, sale, or distribution of food shall have convenient toilet rooms, separate and apart from the room or rooms where the process of production, manufacture, packing, canning, selling, or distributing is conducted.

The floors of such toilet rooms shall be of cement, tile, wood, brick, or other non-absorbent material and shall be washed and scoured daily. Such toilet or toilets shall be furnished with separate ventilating flues or pipes, discharging into soil pipes, or on the outside of the building in which they are situated. Lavatories and wash-rooms shall be adjacent to the toilet rooms, and shall be supplied with soap, running water, and towels, and shall be maintained in a sanitary condition. Operatives, employees, clerks, and all persons who handle the material from which food is prepared as the finished products, before beginning work, or after visiting toilet or toilets, shall wash their hands and arms thoroughly in clean water.

SEC. 6. Cuspidors for the use of operatives, clerks, employees, or other persons shall be provided whenever necessary and each cuspidor shall be thoroughly emptied and washed out daily with disinfectant solution to be approved by the sanitary officer, and 5 ounces of such solution shall be left in each cuspidor while it is in use. No operative, employee, or other person shall expectorate on the floor or walls of any building, room, basement, or cellar where the production, manufacture, packing, storing, preparation, or sale of any food is conducted.

SEC. 7. No person or persons shall be allowed to live or sleep in any workroom of a bakery, kitchen, dining room, confectionery, creamery, cheese factory, or place where food is prepared for sale, served, or sold.

SEC. 8. No employer shall require, permit, or suffer any person to work, nor shall any person work in a building, room, basement, cellar, or vehicle occupied or used for the production, preparation, manufacture, packing, storage, sale, distribution, and transportation of food, who is affected with any venereal disease, smallpox, diphtheria, scarlet fever, yellow fever, tuberculosis, consumption, bubonic plague, Asiatic cholera, leprosy, trachoma, typhoid fever, epidemic dysentery, measles, mumps, German measles, whooping cough, chicken pox, or other infectious or contagious diseases.

SEC. 9. The sanitary officer of the city of Huntington, or other authorized officer of the city of Huntington, shall have full power at all times to enter every building, room, basement, or cellar occupied or used or suspected of being occupied or used for production for sale, manufacture for sale, storage, sale, distribution, or transportation of food, and to inspect the premises and all utensils, fixtures, and machinery used as aforesaid, and if upon inspection any food producing or distributing establishment, conveyance, employer, operative, employee, clerk, driver, or other person is found to be violating any of the provisions of this section, or if the production, preparation, manufacture, packing, storing, sale, distribution, or transportation of food is being conducted in a manner detrimental to the health of the employees and operatives, or to the character or quality of the food therein produced, manufactured, packed, stored, sold, distributed, or conveyed, the officer or the inspector making the examination or inspection shall make complaint to the police judge of this city, and prosecute all persons violating any of the provisions of this section: *Provided, however,* That as constructive administrative means, under this section and for such purpose only, the sanitary officer may issue a notice to the person or persons in authority at the establishment to abate the condition, or to make such improvements as may be necessary to abate it, within a period of such reasonable time as the sanitary officer may direct. Such notice shall be in writing, and the person receiving the notice may within five days from the issuance of the notice appear in person or by attorney, before the board of commissioners of the city of Huntington to give reason why such notice or instructions shall not be obeyed.

SEC. 10. Any and all places producing, handling, or transporting food for sale in the city of Huntington, whether located in the city or not, shall, as a requisite for the sale of food in the city of Huntington, open to inspection as provided in this section. And any person who shall offer for sale in the city of Huntington any food products which have been produced or handled outside of the city of Huntington and concerning which sanitary inspection has been denied, as provided for in this section, shall, upon

conviction, be subject to the penalties provided for violation of provisions of this section.

SEC. 11. Any person who violates any of the provisions of this article shall be guilty of a misdemeanor, and, upon conviction, shall be punished by a fine of not less than \$10 nor more than \$100, or be imprisoned not to exceed 50 days, or both such fine and imprisonment.

Foodstuffs—Cold Storage. (Ord. May 25, 1914.)

ARTICLE 15. SECTION 1. All cold-storage meats, poultry, fish, ice creams, and other cold-storage animal products shall be plainly labeled or branded to show the facts of cold storage to the consuming public. The term "cold storage" shall be construed to mean the storing and preservation of food products by cold. Except, however, such labeling and branding shall not be necessary where the ice or refrigeration is incident to the preservation of the fresh, unstored product from the producer to the consumer, and without unnecessary delay.

SEC. 2. No retailer shall handle cold-storage products or other products required to be preserved with ice, without efficient icing arrangements or refrigeration therefor. All such products shall not be exposed to warm temperature, and shall be handled as otherwise specified in the sanitary provisions of the health code of the city of Huntington and the laws of the State of West Virginia.

SEC. 3. No product shall be served or sold in the city of Huntington which has been once removed from cold storage and exposed in the retail market for sale and sent back into cold storage; this to include turkeys, chickens, and similar products which are taken out, for example, for the Thanksgiving and other markets and exposed in the retail market, and which, not being sold, are returned to storage for the Christmas or other markets. Cold-storage food shall be delivered direct from cold storage, through proper facilities and sanitary conditions in the retail market, to the consuming public, and the sale of any such product which has been subjected to any condition which would render it contaminated, unwholesome, or unfit for food shall be prohibited.

SEC. 4. The signs and labeling as specified herein shall obtain with respect to products coming into Huntington between the producer or packer and the wholesale trade, between the wholesale and retail trade, and between the retail trade and the general public. Restaurants and hotels supplying such stored products shall display signs on the menu, or otherwise, to that effect. No product shall be sold as "fresh," "strictly fresh," "from the country," or by similar description, which is a stored product or which is not as represented; nor, on the other hand, shall any product be sold as a cold storage when such is not the case, or which has been so exposed or kept as to deteriorate in quality after leaving cold storage, but shall have such additional facts stated on the signs and labeling in the manner as may be directed by the board of health.

SEC. 5. Any person who violates any of the provisions of this article shall be guilty of a misdemeanor and upon conviction shall be punished by a fine of not less than \$10 nor more than \$100, or be imprisoned not to exceed 50 days, or both such fine and imprisonment.

Foodstuffs—Adulteration—Condemnation and Destruction—Samples for Examination. (Ord. May 25, 1914.)

ARTICLE 16. SECTION 1. Whenever the health officer or sanitary officer shall find any article of milk, meat, or other food which is adulterated within the meaning of this ordinance, or any other article or substance which is detrimental to public health, such article shall be tagged or otherwise properly marked, giving notice that the product is suspected of being adulterated or detrimental to public health, and warn-

ing all persons not to remove the same until given permission by such officer or the courts, and it shall be unlawful for any person or persons, firm, or corporation to remove or otherwise dispose of same in violation of this section, and any person or persons, firm, or corporation doing so shall be fined not less than \$10 nor more than \$100, or be imprisoned not to exceed 50 days, or both fine and imprisonment.

SEC. 2. Such tag or notice shall give notice that the article has been quarantined. The health officer or sanitary officer shall then petition the board of commissioners for the condemnation and destruction of any such product. The owner or defendants shall be given the right to a hearing, if they so desire, before the board of commissioners. The board of commissioners shall state the length of time within which such hearing may be had.

SEC. 3. In case the finding of the board is with the health officer or sanitary officer the article shall be destroyed by the health department at the expense of the owner of the property, or by the owner of the property under the supervision of the health department, and in such case all other costs shall be taxed against the owners or defenders of the property, if such appear, against the owner or agent properly ascertained: *Provided, however,* That if the cost of the article quarantined be less than \$20, the health officer or sanitary officer may condemn and destroy such article forthwith.

ART. 17. SEC. 1. Dairymen and other food dealers, on being tendered the market price, shall deliver to the health officer or other authorized officers of the city of Huntington a sufficient sample of food for examination under this ordinance. Such health officer or other authorized officer shall take, or know that there has been taken, a sample which is representative of the food as actually sold on the market. No dairyman or other food dealer shall treat or in any way tamper with sample of food delivered to such health officer or other officer, or in any way provide a sample of milk or other food so treated or tampered with as to have the examination and analysis not show the actual condition of the product as sold in the market. The work of inspection and examination under this ordinance shall in no way be employed so as to give special advantages to any individual or any firm in the sale of goods. The inspectors, bacteriologists, chemists, and others operating under this ordinance shall as far as possible help any dairyman or other food dealer in locating the cause of trouble; but any such help or assistance shall not be used for private advertisement except in cases where the certificate of the health officer is required to certify that a product or a process is clean and wholesome. All such help or assistance given one individual or firm shall likewise be at the service of all individuals or firms.

SEC. 2. Any person violating any part of this article shall, upon conviction, be fined not less than \$50 nor more than \$100, and in the case of the dairyman or food dealer, in addition to such fine he shall be refused a permit to do business in the city of Huntington; and in the case of an employee or officer of the city of Huntington, in addition to such fine he shall be discharged from such employment.

Definition of Terms. (Ord. May 25, 1914.)

ARTICLE 18. The word "person" as used anywhere in this ordinance shall be construed to mean any person, persons, firm, or corporation, who shall commit, or be responsible for the committing, of any acts which are made unlawful herein.

MANCHESTER, CONN.

Communicable Diseases—Notification of Cases—Quarantine—Disinfection—Placarding—School Attendance—Funerals. (Reg. Ed. of H., Jan. 27, 1914.)

REG. 2. Every physician shall report in writing to the board of health, within 12 hours after his recognition of the disease, every case of cholera, yellow fever, typhus fever, leprosy, smallpox, diphtheria, membranous croup, typhoid fever, scarlet fever, cerebrospinal fever, whooping cough, measles, pulmonary tuberculosis, or other contagious or infectious diseases except those of a venereal nature.

REG. 3. Every householder in whose house any person shall be ill with any of the following diseases, to wit: Cholera, yellow fever, typhus fever, leprosy, smallpox, diphtheria, membranous croup, typhoid fever, scarlet fever, cerebrospinal fever, whooping cough, measles, pulmonary tuberculosis (consumption) or other contagious or infectious diseases, except those of a venereal nature, shall report the same to the board of health within 12 hours of the first appearance of such disease, provided no physician shall be in attendance.

REG. 4. Until permission has been received from the board of health, no clothing or other property that may have been exposed to the infection of cholera, yellow fever, typhus fever, leprosy, smallpox, diphtheria, membranous croup, or scarlet fever shall be removed from the house, nor shall any occupant of such infected dwelling change his residence without the consent of said board of health.

REG. 5. No superintendent, principal, or teacher of any school, and no parent or guardian of any child attending school, shall permit a child sick with smallpox, scarlet fever, diphtheria, membranous croup, measles, whooping cough, consumption, chicken pox, mumps, sore throat, scabies (itch), or child afflicted with lice, to attend school. Nor shall any child residing in any household in which such disease shall exist, or any child afflicted with a rash or an eruption, be allowed to attend school without a written permit from the board of health.

REG. 6. No person affected with smallpox, diphtheria, membranous croup, scarlet fever, whooping cough, or measles shall attend any public meeting or assembly or travel in any public conveyance.

REG. 7. Warning of the existence of diphtheria, membranous croup, typhus fever, measles, smallpox, whooping cough, typhoid fever, or scarlet fever in any building shall be given to the public by placing in a place conspicuous to the public, on the outside near each common entrance to said building, a placard giving the name of said disease.

REG. 8. All cases of diphtheria, membranous croup, typhus fever, smallpox, scarlet fever, and primary cases of measles reported in the town, or of which the board of health has information, shall be quarantined in such manner as they may direct.

REG. 9. Funerals.—No person shall allow to be retained, unburied, the dead body of any human being for a longer time than four days, or where death has been caused by cholera, yellow fever, typhus fever, smallpox, typhoid fever, diphtheria, membranous croup, or scarlet fever for a longer time than 36 hours after the death of such person, without a permit from the board of health, which permit shall specify the length of time during which such body may remain unburied; and when death has been caused by one of the diseases herein mentioned, the body shall be immediately thereafter disinfected, or inclosed in a hermetically sealed coffin, which shall not thereafter be opened; and the funeral of such person, except when death is caused by typhoid fever, shall be attended at the house only by the undertaker, his assistants, and persons living in the house where such person died, and by a clergyman, who shall take such precautions as the board of health may direct. In the removal thereof, for burial or otherwise, the body shall not be carried in a vehicle with other passengers. The bedding, clothing, and furniture of the room wherein such person died shall be thoroughly disinfected and otherwise treated as the board of health may order.

* * * * *

REG. 23. When any malignant or contagious disease shall exist in any house the owner, occupant, or person in charge of said house shall carry out such quarantine and shall disinfect the premises at such times, and in such manner, as the board of health shall order.

REG. 24. Clothing, furniture, schoolbooks, library books, etc., must not be removed from the quarantined premises until thoroughly disinfected.

REG. 25. All necessary disinfection shall be done under the supervision of the board of health.

REG. 26. As soon as the patient is convalescent, the board of health shall be notified by the attending physician; in case of death, by the undertaker or person in charge of the body.

REG. 27. When death occurs from pulmonary tuberculosis, the board of health shall be notified by the undertaker or person in charge of the body. No clothing or bedding shall be removed from the house or room in which the patient was last sick except upon order from the board of health.

REG. 28. All persons are forbidden to enter or leave quarantined premises unless permitted to do so by the board of health.

Privies, Cesspools, and Drains—Location and Care—Filling Vaults. (Reg. Ed. of H., Jan. 27, 1914.)

REG. 10. No privy vault, cesspool, or reservoir into which a privy, water-closet, or sink is drained, except it be water-tight, nor any other than a water-tight sewer or drain shall be established or permitted so near a well, spring, or other source of water used for drinking or culinary purposes as, in the judgment of the board of health, to contaminate the same. When any privy vault or cesspool is discontinued, the contents shall be entirely removed and the vault filled with earth or other suitable material except as otherwise ordered by the board of health.

REG. 11. No person shall keep and maintain upon his premises at any time any privy, water-closet, sink, drain, cesspool, stable, or pigsty except in a cleanly and inoffensive condition.

REG. 12. No sewage drain, privy vault, cesspool, or sink shall empty into any stream, pond, or other source of water or ice supply, nor shall any privy, pigsty, or stable be constructed so near such stream, pond, or other source of water or ice supply that its contents will drain into the same.

* * * * *

REG. 16. No person shall bury in, draw off or allow to run into any highway in this town the contents (or any part thereof) of any cesspool or sink.

REG. 17. No person shall throw into or deposit in any vault, sink, privy, or cesspool, any offal, meat, fish, garbage, or any other substance except that of which such place is the appropriate receptacle.

* * * * *

REG. 21. All alleys, back yards, stables, privy vaults, cesspools, and other like filthy places shall be efficiently cleaned and disinfected at regular intervals as prescribed from time to time by the board of health.

Nuisances. (Reg. Ed. of H., Jan. 27, 1914.)

REGULATION 1. Any complaint made to the board of health may be required by them to be in writing and bear the signature of the complainant.

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REG. 13. No person shall throw, dump, or deposit any filth, garbage or decaying animal or vegetable matter which may be prejudicial to public health upon any vacant lot, highway, or public place, nor in any brook, pond, or spring. This does not preclude the proper use of fertilizers upon the land.

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REG. 15. When the board of health finds that the plumbing or drainage of any dwelling or habitation in this town is defective and dangerous to health or life, the owner or agent having the property in charge shall have placed, within a reasonable time, proper traps under every sink, basin, and other fixture, and shall have each soil pipe carried through the roof to such height as the board of health shall direct, not less than 2 feet, and of undiminished size whenever practicable, and if this can not be accomplished said board of health shall order such efficient ventilation and such

repair of soil pipes as shall in their judgment prevent the pollution of the premises by sewer gas. All drain pipes passing through the wall of any building shall be of iron of such thickness as the board of health shall determine, or of vitrified salt-glazed tile.

* * * * *

REG. 18. *Swine, goats, etc.*—No person shall keep swine, fowls, goats, kine, or horses in any locality in this town in such manner as to become a nuisance.

REG. 19. No person shall throw any butcher's offal or garbage, or any dead animal, or putrid or stinking animal or vegetable matter, directly into, or where it may get into, any street, sewer, receiving basin, or into any river, any standing or running water, or upon any ground or premises in the built-up portions of the town.

* * * * *

REG. 22. All persons engaged in the business of boiling or rendering of fat, lard, or animal matter shall cause the scrap or residuum to be so dried or otherwise prepared as to effectually deprive such material of all offensive odors, and to preserve the same entirely inoffensive, immediately after the removal thereof from the receptacles in which the rendering process may be conducted.

Spitting—Prohibited in Public Places. (Reg. Bd. of H., Jan. 27, 1914.)

REG. 14. No person shall spit upon the floor of any public building or upon the floor or platform of any trolley car running through or within the limits of this town or upon sidewalks of this town.

Garbage and Refuse—Care and Disposal. (Reg. Bd. of H., Jan. 27, 1914.)

REG. 29. No person shall permit the accumulation in or around the immediate vicinity of any dwelling house or place of business under his control of refuse matter, such as swill waste of meat, sour flour, fish or shells, bones, dead carcasses, or any kind of animal or vegetable matter in a state of decomposition.

REG. 30. No garbage shall be brought into this town from any other town or conveyed or carted within the limits of this town or to other portions of the town from any borough or city within the limits of the town, unless a license shall be obtained from the board of health, and under such restrictions as they shall impose. The violation of any such restrictions shall be ground for revoking such license. If any person shall be aggrieved by the action of the board of health in refusing to issue or in revoking a license, he shall have the right to appeal within one week to the State board of health, which shall hear and determine said appeal.

NEWPORT NEWS, VA.

City Department of Health—Board of Health—Officers and Employees—Duties and Salaries. (Ord. Nov. 11, 1914.)

SECTION 1. That the health department of said city shall consist of a board of health, a health officer, a clerk, a dairy and food inspector, two sanitary inspectors, and such other inspectors as may be authorized by statute or ordinance.

Board of health.—There shall be, and is hereby, created and established for the city of Newport News a board of health, consisting of four citizens and the health officer, two of whom at least shall be physicians in good standing. The members of the board of health shall be elected by the council, at the time of the election of other city officers, and their term of office shall be two years.

SEC. 2. The health officer shall be the chief of the department. He shall be subject to the general control of the board of health, and shall have direction and supervision over all the employees of the department. In addition to the powers and duties prescribed by law, he shall carry out the orders of the board in any matters pertaining to

this department. He shall at once report to the board any violation of the orders or breach of discipline on the part of any officer, or any employee under his control, and may suspend any such person pending the board's decision. The health officer is authorized, by resolution of the board, to grant, refuse, or suspend any permit required by any law, ordinance, or regulation in any matter pertaining to the department. He shall perform such duties as are now or may be hereafter prescribed by statute or ordinance. The health officer shall be ex officio president of the board of health and shall preside at all meetings of the board. He shall also exercise general oversight of the work of the health department, reporting regularly not less than once a month to the board of health, the city council, the mayor, and the State health commissioner all matters of interest and importance concerning the activities of the health department. He shall thoroughly inspect the reservoir and watershed of the city water supply twice yearly.

SEC. 3. The clerk shall be employed by the board of health, at a salary not exceeding \$500 per year, payable in equal monthly installments at the end of each and every month, and may or may not be a voter of said city, and may be discharged at the pleasure of the board. The clerk shall attend all meetings of the board of health and keep correct record of all its proceedings. He shall do all such writings and copyings of writings and other services relating to the position as the board of health officer may require of him. He shall receive all moneys belonging to the health office and make monthly deposits with the city treasurer, and he shall keep a cash book and record of certified death and birth certificates and meat and milk permits issued. He shall keep a record of vaccine virus and antitoxin purchased, and the names of physicians or other persons to whom they are issued, and of the heads of families, with addresses, for whom antitoxin is issued. He shall keep vital statistics as required by law and the code. He shall keep on file all correspondence and complaints coming before the board. The clerk shall exercise executive authority in matters concerning the routine work of the health office in the absence of the health officer and at all times be under the supervision of the health officer and render such other services as the board of health may prescribe.

SEC. 4. The dairy and food inspector, who shall be a licensed veterinarian, shall be employed by the board of health, subject to the confirmation of the council in joint session, at a salary to be fixed by the board of health, not to exceed \$1,200 per annum, and may or may not be a voter of said city and may be suspended at the pleasure of the board. He shall be under the supervision of the health officer, and it shall be the duty of the said inspector to report to the health officer daily and to keep a record of the work done, and on the first of each month to make a full report to the board of health and council through the health officer of the work done the preceding month. It shall be the duty of the said dairy and food inspector in addition to the duties and work hereinafter specified to perform those duties imposed upon him that the health officer may deem advisable or as imposed by the board of health or by statute or ordinance.

SEC. 5. In order to more effectually carry out the ordinances with regard to the health and cleanliness of the city of Newport News, the board of health shall employ two special policemen, who shall be known as sanitary inspectors, one to be known as the chief sanitary inspector, who shall receive a salary as fixed by the board of health not to exceed \$1,000 per annum, and the other sanitary inspector shall receive a salary as fixed by the board of health not to exceed \$900 per annum, either or both of whom may be discharged at the pleasure of the board. The chief sanitary inspector shall have charge of the sanitary work subject to the orders of the health officer, and he shall see that all laws, ordinances, and regulations pertaining to his division shall be strictly enforced. He shall report at once to the health officer any disobedience of orders or breach of discipline on the part of any employees in his department. The said chief sanitary inspector shall superintend and direct the removal of garbage,

ashes, filth, and waste, under the direction of the health officer. He is authorized and empowered to employ and discharge at pleasure such drivers and other necessary men for a prompt and efficient service in his line of work. The said sanitary inspector shall be vested with authority of policeman of this city in the discharge of his duties.

The said chief sanitary inspector shall also act as quarantine sergeant, and as such officer shall visit all quarantine premises, as required by the rules and regulations of the board of health, and attend to the disinfection of all premises upon the recovery or death of all patients so quarantined. He shall further perform such duties as may be required by the health officer, or board of health, and he shall be subject to call at any time under the direction of the health officer.

It shall be the duty of the assistant sanitary inspector or inspectors to make a careful inspection of the premises of all public buildings of the city of Newport News, and of all other buildings, residences, places of business, privies, grounds, or other appurtenances thereto which are required by the health laws to be kept in a cleanly condition, and to serve notice upon the occupants thereof to abate or remove any nuisance he may find thereon. He shall be subject to orders and under control of the health officer, and the health officer may impose upon him such duties as he may deem advisable in addition to those specified. Both inspectors shall communicate to the office of the health department at least twice a day and shall be governed by the rules and regulations of the department. Either may be suspended from office pending the meeting of the board of health.

Sec. 6. The board of health of the city of Newport News is hereby allowed a fee of \$2 for each member present at any session of their body, provided there are not more than 12 sessions yearly.

Sec. 7. It shall be the duty of the board of health and each member thereof to exercise general supervision over the persons, matters, and things mentioned in all ordinances of the city of Newport News relating to the public health and the sanitary laws of the State of Virginia as far as they apply, and to see that these ordinances and laws are properly obeyed and executed, and to report any violation thereof by private parties, or nonfessance or misfessance on the part of any officer or employee of the city of Newport News in his duties under said ordinance. It shall be the duty of the board of health, and they shall have full power and authority to determine what is a nuisance or detrimental to the health of any portion of the city or to the public, and subject to an appeal to the courts; to abate or remove nuisances to health, either through its own officers or agents or by contract, as it may deem best; prescribe the manner and time of the removal of all night soil and excrementious matter.

Sec. 8. The board of health is hereby empowered to adopt and enforce such rules and regulations, and print such literature and notices as may enable it better to carry out the law with reference to public health.

Sec. 9. The board of health, its officers, and agents shall be vested with police authority in performance of their duty. Any refusal or neglect on the part of any one to obey the orders of the board of health, or its officers or agent, as provided in these ordinances, shall be adjudged guilty of a misdemeanor and except as otherwise specifically provided shall upon conviction be fined not less than \$1 nor more than \$10.

Sec. 10. If any person after being notified by the board of health, or its officers, or agents, to remove anything belonging to him, or found on the premises occupied by him, which is or may become a nuisance, or anything caused by him, or found on the premises owned by him, which is or may become a nuisance, he shall be fined, upon conviction, not less than \$1 nor more than \$5 for each hour of such failure after the expiration of the said 24 hours, and it shall be the duty of the board of health, its officers, or agents to have the same done at the expense of the city of Newport News, which expense shall be reimbursed by the person through whose default the same was incurred, together with 20 per cent upon the amount as a fine.

SEC. 11. The board of health shall keep on hand at all times a supply of forms for gratuitous distribution to all persons whose duty it shall be to make returns under the law and is hereby empowered to purchase, or have same printed whenever necessary.

SEC. 12. Annually on or before the first day of February the board of health, through the president, shall report to the city council and mayor the amount of all expenditures and for what purpose made during previous fiscal year; also an estimate of the appropriation necessary for the ensuing year, together with such other matters and suggestions relating to the health of the corporation as they or he may deem necessary or appropriate.

The board of health may recommend from time to time the adoption of such ordinances as they may think necessary for the better protection of the public health.

ORANGE, N. J.

Buildings and Premises—Cleanliness Required—Painting. (Reg. Ed. of H., May 5, 1914.)

SECTION 1. That section 14 of an ordinance of the board of health of the city of Orange, entitled "The sanitary and plumbing code of the board of health of the city of Orange," adopted December 1, 1900, be and the same is hereby amended so as to read as follows:

SEC. 14. That every tenement house, office building, public building, two-family house, shop, factory, and any other building used for living or business purposes and every part thereof shall be kept clean and free from any accumulation of dirt, filth, garbage, or other matter in or on the same, or in the yard, court, passage, area, or alley connected with or belonging to the same. The owner, agent, lessee, or occupant of any tenement house, office building, public building, two-family house, shop, factory, and any other building used for living or business purposes, or of any part thereof, shall thoroughly cleanse all the rooms, walls, ceilings, privies, cesspools, and drains of the house or building or buildings or part of the passages, stairs, floors, windows, doors, house, or building or buildings of which he is the owner, agent, lessee, or occupant, to the satisfaction of this board or its officers, as often as shall be required by said board or its officers, and shall well and sufficiently, to the satisfaction of said board or its officers, whitewash, or paint the walls and ceilings thereof as often as shall be required by said board or its officers.

Children's Boarding Houses—Permit Required. (Reg. Ed. of H., May 5, 1914.)

SECTION 1. That no person or persons, firm, or corporation shall hereafter keep or maintain any building, home, institution, or place where infants are taken to board, or keep for pay, either temporarily or permanently, or wherein the business of nursing or caring for babies or infants is carried on or conducted, without a permit therefor issued by the board of health. The permit shall be issued upon such conditions as the board or the health officer shall impose and shall be for a period ending May 1 after the date of its issue.

SEC. 2. Any person or persons, firm, or corporation violating any of the provisions of this ordinance shall be subject to a penalty of \$10 for each offense to be sued for and recovered as other penalties for violations of the Sanitary and Plumbing Code of the Board of Health of the City of Orange are sued for and recovered.

PASADENA, CAL.

Fowls and Rabbits—Keeping of. (Ord. 1489, Sept. 29, 1914.)

SECTION 1. That section 13 of ordinance No. 1055 be and is hereby amended to read as follows:

"SEC. 13. It is hereby declared to be a nuisance and it shall be unlawful for any person, firm, or corporation as principal, agent, officer, clerk, or employee, for himself

or itself, or for another person, firm, or corporation, to suffer or permit any hens, chickens, geese, ducks, turkeys, pigeons, doves, squabs, or similar fowls, or any hares or hares, or rabbit or rabbits, owned or controlled by him or it, to run at large or to go upon the premises of any other person, or to keep the same or any thereof within 25 feet of any dwelling house or structure intended for use as a dwelling house, unless such house or structure shall be owned or occupied by him or it, or unless such house or structure is located nearer to the rear lot line of the lot on which it stands than one-third of the depth of such lot."

SEC. 2. That section 13½ of ordinance No. 1055 be, and is hereby, amended to read as follows:

"SEC. 13½. It is hereby declared to be a nuisance and it shall be unlawful for any person, firm, or corporation as principal, agent, officer, clerk, or employee, for himself or itself, or for another person, firm, or corporation to keep on any premises more than 50 in all of chickens, turkeys, pigeons, and doves, or hares or rabbits, or more than 12 in all of geese, ducks, guinea fowls, and peafowls, within 50 feet of any dwelling house or structure intended for use as a dwelling house, unless such house or structure shall be owned or occupied by him or it, or unless such house or structure is located nearer to the rear lot line of the lot on which it stands than one-third of the depth of such lot."

PASSAIC, N. J.

Domestic Animals—Keeping of. (Reg. Bd. of H., June 10, 1914.)

SEC. 126. No animal shall be kept or housed in any structure built or located within 25 feet of any building occupied by human beings in the city of Passaic, except upon special permission from the board of health. The location, construction, erection, and sanitary condition of all such structures shall be made satisfactory to the officers of this board. Plans approved by the board of health shall be filed with said board before any such building shall hereafter be constructed, altered, extended, or moved.

Any person violating any of the provisions of this ordinance shall forfeit and pay a penalty of \$50.

Fowls—Keeping of—Permit Required. (Reg. Bd. of H., June 10, 1914.)

SEC. 125. No live poultry or fowl of any kind shall be kept or maintained within the city limits without a permit from the board of health, subject to the provisions thereof. Said permit shall be granted upon the payment of a fee of 50 cents, and shall be revocable at the pleasure of this board. Said permit shall be renewed annually and all such permits shall expire upon the 1st day of July of each year.

Any person violating any of the provisions of this ordinance shall forfeit and pay a penalty of \$10.

Fowls—Keeping of. (Reg. Bd. of H., July 1, 1914.)

That the keeping or maintaining of any live poultry or fowl within the city limits shall be in compliance with the following conditions:

1. Such fowl or poultry shall not be kept in any building occupied by human beings, except a public market, nor kept on any tenement-house lot and shall not run at large, but shall be confined in suitable houses or coops with inclosed runways, no part of which shall be within 20 feet of any building occupied by human beings.

2. Such houses or coops hereafter erected shall have the plans thereof filed with and approved by the officers of this board. Said plans shall show the construction and location of said houses or coops and runways. The officers of this board, if they deem it necessary, may order relocation, alteration, or elimination of any existing house, coops, or runways in which fowl or poultry are kept.

3. Such houses or coops shall provide not less than 2½ square feet of floor area for each fowl or poultry housed therein. Runways shall be kept clean and sanitary at all times, using air-slacked lime as often as needed in turning over of the ground therein at least twice each month. The houses and coops shall be maintained in a sanitary condition at all times, coal-tar disinfectants used frequently, and whitewashed at least twice each year.

4. The board of health shall have power to abate any and all noises or other nuisances caused by the keeping of fowl or poultry.

5. Any person violating any of the above rules or regulations shall forfeit and pay a penalty of \$10.

Meat and Meat Products—Sale of. (Reg. Bd. of H., Sept. 9, 1914.)

That section 124 of the sanitary code of the city of Passaic be, and it hereby is, amended to read as follows:

SEC. 124. That no person, firm, or corporation shall expose or offer for sale or sell or otherwise dispose of or have in his possession within the city of Passaic any meat of any cattle, calf, sheep, lamb, goat, or swine, nor any part of any animal from which any meat is obtained which does not have upon it the meat-inspection brand or other mark of identification of the board of health of the city of Passaic, or the meat-inspection brand or other official mark of identification of boards of health of the State of New Jersey whose meat-inspection standard is equal to and recognized by the board of health of the city of Passaic, or the meat-inspection brand or other mark of identification of the United States Department of Agriculture.

Nor shall any person, firm, or corporation expose or offer for sale or sell or otherwise dispose of or have in his possession within the city of Passaic any meat of any cattle, calf, sheep, lamb, goat, or swine, nor any part of any animal from which any meat is obtained, unless the said animal has been examined, both before and after slaughter, by the veterinary inspector or other qualified officer of the board of health of the city of Passaic, or by a meat inspector duly appointed by the Federal authorities, or by the veterinary inspector or other qualified officer of the board of health of a municipality having a system of inspection equal to that adopted by the United States Bureau of Animal Industry.

All meats or meat food products offered for sale in the city of Passaic shall be subject to reinspection and condemnation at any and all times by the board of health of the city of Passaic.

No person, firm, or corporation engaged in the manufacture of bologna, sausage, or other meat food products having its factory or establishment outside the limits of the city of Passaic shall expose or offer for sale or sell or otherwise dispose of or have in his or its possession within the city of Passaic any such product unless the said factory or establishment where the said meat food products are manufactured or put up is under the control and supervision of the meat-inspection service of the United States Bureau of Animal Industry. All such products shall bear the official stamp or identification mark or marks of the United States Bureau of Animal Industry.

No person, firm, or corporation within the city of Passaic, unless the said person, firm, or corporation is under the control of the United States Bureau of Animal Industry, shall engage in the manufacture of sausage, bologna, or other meat food products within said city of Passaic without first obtaining a permit from the board of health. No such permit, however, shall be granted any person, firm, or corporation unless the meats from which the said meat food products are manufactured shall have upon it or them the meat-inspection brand or other mark of identification of the board of health of the city of Passaic, or the meat-inspection brand or other official mark of identification of boards of health of the State of New Jersey, whose standard is equal to any recognized by the board of health of the city of Passaic, or the meat-inspection brand

or mark of identification of the United States Department of Agriculture, and such meat food products shall be stamped with the number of the applicant's permit.

Any person, firm, or corporation, or other agents violating any of the provisions of this ordinance or failing to comply with any order or direction of the board of health given pursuant to the provisions of this ordinance by the veterinary inspector or health officer or any other agent of the said board of health shall be liable to a penalty of \$50 for the first offense, \$100 for the second offense, and \$200 for the third and each subsequent offense.

PATERSON, N. J.

Garbage, Refuse, and Ashes—Separation Required—Containers. (Ord. Bd. of Public Works, May 23, 1914.)

That ashes, garbage, paper, and other refuse be placed for collection as herein directed.

(1) Ashes must be entirely separate from all other refuse and contained in a metallic receptacle, so constructed as to prevent spilling or leaking of its contents; such receptacle shall be not less than 14 inches nor more than 20 inches in diameter and not less than 16 inches nor more than 26 inches in height.

(2) Garbage must be kept entirely separate from all other refuse and must be placed in a metallic water-tight receptacle not less than 8 inches nor more than 18 inches in height; such receptacle shall have a separate cover, close fitting when in place.

(3) Paper and other refuse must be secured in packages or in a separate receptacle or receptacles, to permit of easy handling and to prevent the contents of the same to be scattered on the streets or sidewalk.

(4) Tin cans and glass bottles shall be placed in a receptacle separate from all other refuse.

(5) None of the receptacles above mentioned shall be filled within 1 inch of the top thereof.

(6) Any person violating any of the provisions of this ordinance shall, upon conviction thereof, be punished by a fine of \$2.

Fowls—Keeping of—Permit Required. (Reg. Ed. of H., July 14, 1914.)

That section 1 of an ordinance entitled "An ordinance respecting the keeping of fowl in the city of Paterson," passed December 18, 1912, be amended so as to read as follows:

1. That no live fowl shall be kept within the city of Paterson without a permit granted by the board of health, which permit may be revoked at the will of said board. Such permit shall expire on the 31st day of December in each year and a fee of 50 cents shall be charged for each permit issued or the renewal thereof.

2. That section 5 of the ordinance to which this is an amendment be, and the same is hereby, repealed.

Medicines—Distribution of Samples of. (Reg. Bd. of H., July 14, 1914.)

SECTION 1. That no medicine, medicinal preparation or preparation represented to cure ailments or diseases of the body or mind or any sample or samples thereof or any advertisement or circular relating thereto shall be distributed, deposited, or left on the public streets, highways, public places, or on private property or in any private place within the city of Paterson: *Provided, however,* That nothing in this ordinance shall be deemed to prohibit a delivery of any such article by handing the same to any person above the age of 12 years willing to receive the same.

SEC. 2. Any person or persons, corporation, or corporations violating any of the provisions of this ordinance shall be subject to and punishment by a fine of \$50.

Barbers and Barber Shops—Regulation of. (Reg. Bd. of H., Nov. 10, 1914.)

SECTION 1. Every barber or other person in charge of any barber shop shall keep said barber shop at all times in a cleanly and sanitary condition. The walls and ceilings shall be properly painted, whitened, or papered and the floor shall be kept in a clean condition. Every barber shop shall be properly lighted and ventilated.

SEC. 2. No person shall use any barber shop as a sleeping room or dormitory.

SEC. 3. Every barber or other person in charge of any barber shop, shall use only fresh clean water, and shall use hot water tanks for no other purpose than that of heating water.

SEC. 4. Every barber or other person in charge of any barber shop shall sterilize all mugs, shaving brushes, razors, needles, clippers, shears, forceps, and other metal instruments in a manner satisfactory to the health officer, after every separate use thereof.

SEC. 5. Every barber shop shall provide impervious cuspidors, which shall be thoroughly cleaned daily, and every barber shall see that no person shall expectorate on the floors and walls of his shop.

SEC. 6. Every barber or other person in charge of any barber shop shall use a separate and clean towel for every customer, and shall, while serving said customer, wear a washable apron or coat, which shall be kept clean.

SEC. 7. Every barber or other person in charge of any barber shop shall provide fresh clean paper to be placed in the back of each chair in such a way that the same may constitute a headrest for the customer. No portion of the said paper shall be used for more than one customer, nor for any other purpose, but each customer shall be provided with a clean section of the said paper: *Provided, however,* That as a substitute for the said paper, any such person may use a clean towel for each and every customer.

SEC. 8. Every barber or other person in charge of any barber shop shall use alum or other material to stop the flow of blood in powdered or liquid form only.

SEC. 9. No barber or other person in charge of any barber shop shall use sponges or powder puffs.

SEC. 10. Every barber or other person in charge of any barber shop shall cleanse his hands immediately before serving each customer.

SEC. 11. Every barber or other person in charge of any barber shop shall post a copy of these regulations in a conspicuous place in said barber shop.

SEC. 12. No barber or other person in charge of any barber shop shall shave a customer when the surface to be shaven is inflamed or broken out or contains puss, unless such person be provided with a cup, razor, and a lather brush for his individual use.

SEC. 13. No barber or other person in charge of any barber shop shall undertake to treat any disease of the skin.

SEC. 14. No person suffering from venereal diseases or other contagious, infectious, or communicable disease shall act as a barber.

SEC. 15. No barber shop shall be used as or connected with a fruit store.

SEC. 16. Every barber or other person in charge of any barber shop shall, upon request, file with this board a proper medical certificate, satisfactory to the health officer.

SEC. 17. Any person, persons, firm, or corporation that shall violate any of the provisions of this ordinance, shall, upon conviction, be subject to a fine of not less than \$5 nor more than \$10.

Poultry—Slaughtering of, for Sale—Sanitary Regulation. (Reg. Bd. of H., Nov. 10, 1914.)

SECTION 1. It shall be unlawful for any person, firm, or corporation engaged in the business of preparing poultry for sale to slaughter poultry in the city of Paterson without having first obtained from the board of health of said city a permit for that

purpose. Such permit may be issued by said board of health upon the payment of a fee of \$25, and said permit shall expire at the end of one year from the date thereof. The building in which such business is conducted shall be used for the keeping, slaughtering, and sale of poultry only.

SEC. 2. All buildings in which poultry slaughtering shall be carried on as a business in the city of Paterson shall conform with the following requirements:

1. Such business shall be conducted on the ground floor only.
2. The floors thereof shall be paved with material impervious to moisture and shall be properly sloped to a well-trapped inlet having direct connection with a sewer. The walls of the room in which slaughtering is actually carried on shall be covered to a height of 6 feet with smooth, moisture-proof material, and the remainder of the walls and ceiling shall be finished with a smooth, hard surface.

3. Plucking shall not be carried on in a room used for slaughtering. Water-tight receptacles shall be provided for all refuse and shall be properly covered and removed daily.

4. All rooms or space used for the purpose of slaughtering poultry shall be ventilated directly to the open air. No such ventilation shall in no way enter a ventilating shaft which is used in connection with the living apartments of any building.

5. All coops shall be made of heavy wire and of uniform size. All stands or counters shall be built substantially and covered with marble, slate, zinc, or tin. Stands, counters, and coops shall be raised from the floor in such a way as to permit flushing underneath the same. A plentiful supply of water shall be provided. Stands and counters for the sale of poultry shall be arranged to allow a clear passageway to the public.

6. All parts of such poultry slaughterhouses shall be at all times kept in a sanitary condition.

SEC. 3. Any person, persons, firm, or corporation that shall violate any of the provisions of this ordinance shall, upon conviction, forfeit and pay the sum of not less than \$5 nor more than \$100.

SEC. 4. All ordinances and parts of ordinances inconsistent with this ordinance are hereby repealed.

SEC. 5. This ordinance shall take effect in 30 days after the date of its first publication.

Foodstuffs—Stores—Inspection and Scoring. (Reg. Bd. of H., Nov. 10, 1914.)

1. That in all bakeries, confectionery and ice cream stores, lunch rooms, restaurants, cafés, fruit stores, fruit stands, meat stores, fish stores, or stores of a like nature, in which foodstuffs are kept for sale, there shall be placed in a prominent position in or on such places an approval card, showing the sanitary condition of the store in which they are placed or the stand or the wagon in which they are placed and of the commodities which are kept for sale in or on such places.

2. The board of health shall provide an approval card or certificate, annually, with space arranged on same for an inspection and score every three months.

3. The score shall be rated as follows: (1) condition of premises, 25; (2) condition of equipment, 25; (3) condition of foodstuffs, 50; total, 100.

- a. The condition of the premises shall mean the general sanitary condition, toilets, ventilation, drainage, gutter, sidewalk, etc.

- b. The condition of equipment shall mean the general sanitary condition of all store fixtures, refrigerator or cold-storage plant, and the physical condition and appearance of the help employed.

- c. The condition of foodstuffs shall mean whether they conform in every way to the public health laws of the State of New Jersey.

4. Any person or persons, corporation or corporations, conducting in this city any business as outlined in section 1 of the ordinance whose store or business place,

place stand, or wagon does not score at least 15 points on condition No. 1, 15 points on condition No. 2, 30 points on condition No. 3, shall have the approval card removed and be subject to the penalty as hereinafter provided.

5. The fee for the inspection and certificate as provided for in the ordinance shall be \$1 per year, and each and every certificate shall expire on the 31st day of December.

6. Any person or persons, corporation or corporations, violating the provisions of this ordinance shall be liable to a penalty of not less than \$5 nor more than \$10.

Common Towels—Prohibited in Public Places. (Reg. Bd. of H., Nov. 10, 1914.)

SECTION 1. No person, firm, or corporation having the management and control of any public lavatory, wash room, public comfort station, or place of a like nature to which the public has the right of access shall maintain in or about any such place any roller towel or other towel or towels intended for use by more than one person; provided, however, any such towel may be used again after having been sterilized with boiling water or cleansed in some other proper sanitary manner.

SEC. 2. Any person, firm, or corporation violating any of the provisions of this ordinance shall be subject to a fine of not less than \$5 nor more than \$10 for each offense.

Papering of Walls and Ceilings—Old Paper to be Removed and Walls Cleaned. (Reg. Bd. of H., Nov. 10, 1914.)

SECTION 1. That no wall paper shall be placed upon any wall or ceiling of any building in the city of Paterson, N. J., unless all old wall paper shall be first removed therefrom and said walls and ceilings thoroughly cleaned with a solution of carbolic acid or some other disinfecting material approved by the health officer.

SEC. 2. Any owner, agent, contractor, or subcontractor or foreman or person or persons who shall knowingly violate the provisions of this ordinance shall be guilty of a misdemeanor, punishable by a fine of not less than \$10 nor more than \$100.

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