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PLAGUE IN NEW ORLEANS.

The onset of illness in the first recognized case of plague in New Orleans was June 24. Since then there have been reported four additional cases, the last one having taken ill July 9. The cases occurred as follows:

Case 1.—C. L., white, male, aged 49 years, residence 713 St. Joseph Street, employed at Notre Dame Street, warehouse of Volunteers of America, onset of illness June 24, 1914.

Case 2.—R. W., male, aged 50 years, residence 713 St. Joseph Street, onset of illness June 25.

Case 3.—J. J., Negro, male, aged 8 years, residence 2831 First Street, onset of illness June 28.

Case 4.—L. De J., Negro, male, aged 28 years, residence 2227 St. Ann Street, employed at 429 Poydras Street, produce merchant, onset of illness July 5.

Case 5.—E. D., Negro, female, aged 35 years, residence 1902 Agricultural Avenue, corner Allen Street, employed at 307 Lafayette Street, restaurant, onset of illness July 9.

In compliance with the terms of articles 1, 2, and 3 of the international sanitary conventions signed at Washington, October 14, 1905, and at Paris, January 17, 1914, the Governments signatory thereof were promptly notified—July 1 of the rumored occurrence of plague in New Orleans, and July 6 of the confirmation of the diagnosis by the Federal Health Service.

Measures for the eradication of plague at New Orleans have been mapped out and a force organized and put to work by Surg. Gen. Blue, acting under the direction of the Secretary of the Treasury. Dr. Blue has left Asst. Surg. Gen. W. C. Rucker in immediate charge of the work in New Orleans and has made a tour of inspection of Gulf and river ports.

Three plague-infected rats have been found—one at 1904 Magazine Street July 11, one at Burgundy Street July 13, and one at 1529 Religious Street July 13. The bacteriological diagnosis in all three was confirmed July 16.

The measures being taken to eradicate plague and to prevent its spread from the city are as follows:

All vessels leaving New Orleans are fended off from the dock 8 feet and rat guards 36 inches in diameter are applied to all lines

and cables connecting the vessels with the dock. All gangways are guarded by watchmen while down. Prior to loading all vessels are fumigated to destroy rats, sulphur being burned to make a 4 per cent sulphur dioxide gas in the spaces fumigated. All general freight shipped overland and oversea is inspected to ascertain whether there is a possibility of its harboring rats or mice.

Foci of plague, both human and rodent, are being treated by evacuation, that is, removal of the inhabitants; by fumigation of all buildings; and by deratization by the summary destruction of rat-harboring places, intensive trapping and poisoning, and enforced rat proofing.

Passed Assistant Surgeon Creel has been made executive officer in charge of the working force. Surgeon Corput is in charge of measures applied to outgoing vessels. Passed Assistant Surgeon Simpson is in charge of the field work in the city. Assistant Surgeon Williams is in charge of the laboratory. That portion of the city bounded by Canal Street, Claiborne Street, Louisiana Avenue, and the river has been divided into three districts, to be placed in charge of Assistant Surgeons Kearny, Carmelia, and Akin. July 10 the inspection of the bodies of all persons dying in the city was begun. This inspection is made daily between the hours of 6 and 9 p. m.

The force making the rodent survey consists of 188 men engaged in trapping. They have in use 12,779 traps, which they are systematically setting throughout the suspected district and adjoining territory. Gangs of men have been started distributing rat poison. A laboratory has been fitted up and the laboratory examination of the rats trapped is in full force. On July 16, 1,039 rats were caught. The number of rats being caught is increasing at the rate of about 100 daily. The residents of the city are being informed of the nature of the situation and the necessity for their frank cooperation. This is being done through a publicity campaign and daily addresses at meetings. Effective rat-proofing laws have been drafted and submitted to the city authorities for enactment.

BUBONIC PLAGUE.

ITS ERADICATION AND PREVENTION IN URBAN COMMUNITIES.

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

Discussion will be confined to a consideration of the bubonic type of plague only, with but a passing reference to the pneumonic form of the disease, and city infection will be considered as apart from rural.

From the viewpoint of eradication there is no similarity between the pneumonic and the bubonic forms of plague. The term "pneumonic plague" is misleading; it should more properly be designated

"plague pneumonia." Epidemiologically it is a highly contagious pneumonia and eradication is based on the assumption of aerial transmission. The secondary pneumonia sometimes observed in bubonic plague is not a true plague pneumonia. It is not productive of secondary cases of plague.

Plague in country districts (which in the United States is equivalent to squirrel plague) and the pneumonic form of the disease in man are both subjects that merit special and separate consideration.

The eradication of bubonic plague in theory is an easy task, but a thoughtful review of the stupendous efforts exerted by the United States Public Health Service in connection with local health organizations in exterminating the disease from various parts of United States territory during recent years will attest the fact that the theory and practice of plague eradication are widely divergent. The maintenance of infection foci in so many parts of the world year after year despite sanitary measures lends ample confirmation that plague infection is one of the most resistant to elimination, one of the most tenacious of all epidemic diseases. The particular striking aspect of plague infection is the tenacity with which the infection among rodents will cling to a locality.

This condition obtains seemingly irrespective of social or climatic environment or geographic location.

Partial suppression.—In civilized communities suppression of human case incidence is not so difficult. Let any enlightened people know that plague has gained entrance among them and the efforts of the citizens will greatly advance the work of the sanitary officials in cutting down the rat population, and human cases seem to cease when the rodent population is reduced 50 per cent or thereabouts. This was noted in San Francisco and more recently in Porto Rico. This cooperation, though, will continue only so long as there are human cases. On the cessation of human cases, even though the infection among rodents may be unaffected or even increasing, the cry will go up, "Plague is over; let us quit," and quit they do. It is the same in all countries where plague infection causes commercial prejudice or works a hardship in business affairs. So it follows that plague suppression and plague eradication are two different procedures. It is therefore imperative that antiplague work accomplished in the first days of a threatened epidemic, when popular opinion is strongly indorsing all sanitary measures, should be of as permanent a nature as possible. Rat proofing can not be instituted too soon or enforced too vigorously. Legal requirements should be enacted at once and should be clearly defined and devoid of ambiguity or loopholes.

Quiescent rodent infection.—It is this factor of indifference of the community to plague infection among rodents as long as there is no

human case that is largely responsible for the persistence of the infection. As a matter of fact plague infection in man when of the bubonic type is only of humanitarian interest. Plague being primarily a disease of rodents, the entire procedure of eradication embraces the rat and its parasites, and human case incidence can be ignored in pursuing a plan of campaign. Too often does the status of human cases serve as an index of the presence of infection in the absence of a proper survey of the rodent population. A number of places can be cited where suppressive measures were enforced only so long as human cases occurred. On the subsidence of human infection the work dragged and finally ceased; the infection continued in rodents, and a recrudescence followed sooner or later. This has happened notably in Trinidad and in different South American countries, Ecuador and Venezuela and Peru, in the Canary Islands and in the Orient.

Organization.

Special corps.—Plague work is more efficiently done when performed by a special corps of men who are not distracted by other sanitary duties. The work is too important and too exacting to be made a part of the routine duties of a general sanitary corps. The men in immediate charge of the campaign should be entirely free to devote all their time and attention to plague work.

Of primary importance in organizing the force is the installment of a special plague laboratory.

Laboratory.

Laboratory site.—The site of the building is important. It should be well isolated but not too remote for convenience of access. When large numbers of rodents are being examined some of them will arrive at the laboratory in a putrid condition, and the odor alone would preclude the maintenance of the laboratory in the near vicinity of dwellings or other occupied buildings. Exclusion of flies is very necessary for the comfort, if not the safety, of the workers. It should be well screened and both rat proof and flea proof, the floors of concrete, well drained and kept wet with kerosene or kerosene emulsion.

It should be especially well lighted with ample window space and, if necessary, a skylight.

Laboratory equipment.—A maximum amount of daylight is a prerequisite in studying the gross lesion of rodents, especially in observing the finer granulations in the liver. A plentiful supply of water should be available and gas connections secured. An elaborate equipment is unnecessary as the cultural study of plague is of minor importance, a scrutiny of the gross lesions of the dissected

animal and animal inoculation comprising the most important part of rodent plague diagnosis.

The table for manipulation of rat cadavers is very important. It should be of ample dimensions raised in the center and sloping to the edges, covered by zinc and well guttered at the circumference. The surface of the table at all times is to be thoroughly drenched with a pulicidal solution.

An animal room with a large supply of guinea pigs and white rats should be adjacent to the rodent morgue, preferably in a separate building. Animal inoculation and inoculated animals are to be confined to the morgue and all inoculated animals are to be kept in a flea-proof receptacle. As a further precaution no animal should be inoculated for diagnostic purposes except it be first thoroughly cleansed of fleas. Especially does this apply to captive wild rats.

Diagnosis of rodent plague.—The article in Public Health Bulletin No. 30 by Surg. G. W. McCoy on the laboratory diagnosis of plague is so thorough in every way that further remarks on the subject are superfluous, but too much stress can not be laid on the injunction to beware of making a diagnosis of plague in rats through the examination of the smear alone. The provisional diagnosis of rat plague from a scrutiny of the gross lesions is justifiable when one is well versed in the subject, but it must be remembered that the tissues of a dead rat very soon become contaminated with putrefactive bacilli of the colon group, and stained smears not infrequently show bipolar bacilli and cause grave errors when any dependence is laid upon this diagnostic procedure. Koch's postulates should always be adhered to in making a diagnosis of plague in rodents. The diagnosis of human plague should likewise be confirmed by animal inoculation, but the appearance of a typical bipolar bacillus in a stained preparation that has been obtained from a bubo of a living patient can be accepted as strongly presumptive of plague infection.

Importance of laboratory.—The laboratory is the very foundation of a plague campaign. Upon the efficiency of its corps in detecting rodent plague depends the movements of the field force. A knowledge of the progress of the epizootic, its decline, and cessation, all depends on the bacteriologist. The laboratory report is the guide relied upon to redouble efforts in new foci, the barometer that indicates the effectiveness of eradication measures, and, finally, the evidence upon which is based the decision as to the successful issue of the campaign.

Each day a report should be forwarded from the laboratory to the headquarters containing various data, chiefly the location where plague rodents have been found and the number of rats examined, with an enumeration of the species. It is a great aid to the field work to know the location of different species, the predominance of

any one species in certain parts, the fluctuation of flea infestation of rodents as indicated by a flea survey, variation of breeding season, etc.

Having established a laboratory, the next logical step is the formation of a corps of trappers, who, while cutting down the rat population, will provide material for the laboratory.

Demarcation of Infection.

Ascertainment of foci.—The earlier the confines of the rodent infection are charted out, the sooner will the sanitarian appreciate the magnitude of the work before him. A "spot" map will be of great aid in determining the progress of the infection or its resistance to eradication measures in any given area.

An approximate idea of the extent of rodent plague in a city or town may be obtained from the laboratory examination of captured rats, but this is not always satisfactory. Even by intensive trapping the percentage of rodent infection as determined from laboratory reports is at times quite low, varying from 0.2 per cent to 2 or 3 per cent, while at the time a fairly high human case incidence seems to controvert the estimate of rodent infection as indicated by laboratory findings.

Use of "control" animals.—Heretofore the delimitation of the epizootic zone has been effected by examination of rats, and in practice this will always be the chief reliance, but if guinea pigs or captive rats (white or wild) are available a very effective supplemental measure can be utilized. This consists in placing "sentinel" pigs or rats at varying intervals throughout the district. Such animals should be confined in a spacious cage and a sanitary inspector be delegated to make daily observation of their condition. If large numbers of animals be used, the provisional distribution would be on the basis of four animals per block in separate cages and posted in four principal rat centers of the block.

This procedure, so far as the writer knows, has never been attempted. As a means of determining rodent plague foci simultaneously and quickly over a large area, the method has very obvious advantages over the plague rat census. The efficiency of captive guinea pigs in determining infection in individual houses where human plague has occurred has been demonstrated so often that there is no question as to the practicability of the scheme. Five hundred animals would be sufficient to survey 125 blocks. If, after a week's exposure, the animal were well, it could be transferred to other territory and the test repeated.

The detection of rodent plague foci is at best haphazard. Undoubtedly many plague-infected rats die in burrows or under cover,

where they are never found. Often when found dead they are thrown in garbage or burned by the householder, especially so when active eradication measures are being enforced and the discovery of an infected rat means inconvenience to the neighborhood. This plan of survey of plague foci with guinea pigs seems to the writer very practicable and possessed of perfectly obvious advantages.

Epidemiology of human cases.—An epidemiologic study of human cases is likewise necessary and is an aid in fixing infected foci. The location of human infection is not always clear. Quite frequently the site of infection is the residence, but in Cuba the first 15 cases all apparently acquired their infection at places of employment.

One case in point in the Cuban epidemic of 1914 is interestingly illustrative of the difficulty sometimes attendant upon determining the source of human infection.

The man worked in a wholesale grocery house, slept in a house some distance from employment, and ate in a restaurant well removed from his place of employment and his living quarters.

A case of a few days previous had likewise taken his meals at the same restaurant, and it was thought that the restaurant was a focus of infection. Upon suggesting it to the director of sanitation he had placed in the grocery store eight guinea pigs. These "control" animals were exposed for overnight and then removed in order that the place could be fumigated. Within four days three of the animals died of plague. The experiment would have been more complete had "control" pigs been also placed in the living quarters of the patient and in the restaurant, but as there was no evidence of rat infestation at either place and the epidemiologic considerations all pointed to the grocery house this was not done.

Cases may occur where neither the residence nor place of occupation is the source of infection. Cases have been observed by the writer where the disease could only be ascribed to infection in the street or district casually visited by the patient.

Doubtful focus.—When a case of human plague occurs far removed from any other known case, it is very clear that it is important either to prove or disprove the new focus, for in an epidemic there is always work to be done both urgent and important, without performing needless measures.

Epidemiologic study may be strongly presumptive either for or against a new focus, but the use of "control" pigs should clear up doubt.

Eradicative Measures.

Regional measures.—While intensive measures are generally confined to infected blocks, eradication measures should be applied to the entire community, whether it be a small town or a large city.

To consider only a part of a town as infected because human case incidence is confined to any one quarter will often lead to the grave mistake of regional eradication. It should be borne in mind that as a rule the epizootic precedes human plague 10 days or two weeks, and at the time human infection occurs plague rats may be widely dispersed. When it has been determined that any instance of human infection is of indigenous origin and not an imported case, the wisest course will be to consider the whole community as infected territory and institute measures accordingly.

Trapping.

Scope of trapping.—Foremost in point of importance in antiplague work is the destruction of rodents, and of the direct methods, trapping is the chief. Trapping serves double purpose. It reduces rodent population and it provides material for the laboratory.

Much has been written about trapping—the pattern of trap, the kind of bait, and the methods of trapping; but after all has been said and done it still remains probable that success in trapping is proportional to the attention and industry the trapper devotes to his traps; this and the protection of other food supplies from rats.

Cage versus snap trap.—Two kinds of traps are generally used, the wire cage trap and the snap trap or deadfall. Surgeon V. G. Heiser has made comparative tables of the number of rodents caught in cage traps and in snap traps, which demonstrate that snap traps in Manila are more productive of results.

The writer's observations are in accord with Heiser's tabulation, but his deductions are not. Almost without exception rat trappers are ashamed of their occupation. This seems to be especially so in people of latin origin. They do their duty in a manner as little productive of publicity as possible. To carry a cage trap through the streets is to widely proclaim their vocation, but the transfer of small snap traps from one place to another can be accomplished without attracting attention by putting the traps in a pocket or wrapping them in newspaper. To obtain the best results traps must be well attended and frequently moved from one place to another. For the above stated reason and because moving the cage trap requires more effort than the small snap trap, the trappers generally neglect the care of the former and chiefly concern themselves with the latter. The writer has had opportunity of seeing among several hundred trappers a few anomalies who were conscientious in the discharge of their duties, and from such observation is of the opinion that the cage trap is very much more effective than the snap trap when the two patterns are given equal attention by the trapper.

Not infrequently the cage trap when properly attended, will, in one night, capture from 3 or 4 to 20 rodents.

The writer has seen as many as 30 rats in one large cage trap. The animals were literally packed in the trap so tightly as to be hardly able to move.

Pattern of traps.—Large cage traps 20 inches in length are very much more effective than the smaller ones. Both the snap trap and the cage trap should be substantially made and the latter should have the wire well reinforced. The placing of traps is important. They should be placed where rats have been accustomed to frequent for feeding purposes. Traps should be more or less concealed, the snap traps by scattering about them dust, flour, or corn meal, and the cage trap by pieces of sacking, straw, or rubbish, leaving only the opening free.

The prerequisite of successful trapping is that no food other than the bait should be available.

Bait.—Other things being equal, highly savory articles, as cheese and toasted bacon, will more quickly attract rodents than food without odor, but the idea that a rat can be enticed into a trap by the employment of bait more appetizing to him than the surrounding food supply is fallacious. It has been asserted that the rat is an epicure. While this is hardly true, rats in different localities do show marked preference for certain articles of diet. A rodent that frequents a grain warehouse is most successfully trapped by the use of grain as a bait; those that frequent meat markets are similarly most successfully trapped in those places by using different kinds of meat for bait; and, again, those rodents that are found in green groceries or where vegetables are kept are more easily captured by baiting the traps with vegetables.

The trapper should be careful to move his traps when the place has been "trapped out." One resourceful trapper was accustomed to determine this point by dusting a thin layer of flour over the floor of the building in which he had been trapping and to make careful observations for signs of rat tracks. When, following several successful nights of trapping in a place, he could catch no rats for several nights he employed this method for two or three nights, and if no rat signs were evident he moved his traps to "fresh fields." If rats were still present and barren trapping results continued, he changed the pattern of trap or commenced a rotation of bait or searched about to ascertain if the rats had access to other food supply. If the latter, the condition was corrected by rat proofing or other means of preventing rodent access.

The number of traps and trappers to be apportioned to a given territory is important. The writer believes that one trapper can efficiently attend to 30 cage and 40 snap traps. The distribution of territory per man will vary in amount according to the nature of the district.

Distribution of traps.—In the business district where there may be many rat centers and food depots, as groceries, bakeries, warehouses and meat markets, a large number of traps can be placed in a small area, whereas in the residence district the rat population is more scattered and a trapper can be assigned a greater area. There should be no duplication of labor. Each trapper should confine his work to a fixed district. A convenient and effective organization consists in assigning four trappers to one foreman, with a supervising inspector in charge of the entire trapping force. The foreman should be held responsible for the property intrusted to trappers, and it is his duty to see that trappers are properly discharging their duty. By keeping a daily record of the rat catch, both the supervising inspector and the sanitarian in charge of the work can at all times be informed as to the inefficiency of any trapper.

The total number of traps to be employed will vary with the locality. It is better to have a community "overtrapped" than "undertrapped."

For the city of San Juan, P. R., which has 50,000 inhabitants, 3,000 traps and 40 trappers were employed; 1,500 snap traps and 1,500 cage traps, 4 trappers under the direction of 1 foreman, with a supervising inspector over all the force.

The question of compensation is important. An efficient laborer will not work for bounty alone. If the entire compensation of the trapper is paid by a fixed wage there is no incentive for improvement. A combination of salary and bounty generally is productive of most efficient service by trappers, a moderate salary supplemented by a bounty of 10 cents per rodent.

In Porto Rico the laborer was paid a salary of 75 cents per day and given 10 cents for each rat trapped over a fixed number per week. A premium of \$1 to \$5 for each plague-infected rodent turned in by a trapper would also act as an excellent stimulus for increased efficiency.

Poisoning.

Of poisons the chemical ones give best results. The biological products, which chiefly consist of culture of the bacillus typhimurium group, have not been successful. The attempt to produce among rodents an epizootic harmless to man has so far proven barren of results.

Poisons.—Preparations of arsenious acid or phosphorus (10 per cent in suitable bases, as cheese, meal, or glucose) are the most popular poisons in use. Strychnine placed inside pieces of food, or by impregnating grain with its solution, is used to some extent, as is plaster of Paris, in proportion of 1 part to 2 parts of flour. This forms enteroliths and ultimately kills the rodent.

All such poisons undoubtedly have a certain efficiency in ridding a place of rats, but whether by causing a migration or through actual destruction is sometimes difficult of determination.

At best poisoning is haphazard and uncertain. The effectiveness is always a matter of conjecture and there is doubt as to whether results compensate for labor expended.

In trapping, not only is the rat destroyed but also a large number of fleas, whereas in poisoning the parasites of the poisoned rat escape. Considering the uncertainty of results, poisoning would seem to be justified only when there is sufficient labor to perform such work without prejudice to the work of trapping.

Labels.—It is of the utmost importance that every rodent sent to the laboratory whether trapped or found dead should be properly labeled with the address of place from which the animal was taken. The inscription should be legible, the tag of a durable material and well fastened to a leg. The foreman of each squad should verify this each morning before the bag is turned in.

Natural Enemies.

The employment of the natural enemies of the rat, such as dogs, cats, mongoose or weasels, is of doubtful value. At best it is only a feebly auxiliary measure. The writer has frequently seen places overrun with rats, notwithstanding the presence of the above-mentioned natural enemies. Undoubtedly some breeds of cats and dogs are better than others for rat-catching purposes, but the average domestic dog or cat is not a success in preventing rodent infestation. Mongoose have been used with only moderately successful results. They are predatory in other ways, being very destructive to birds, poultry, eggs, and small game. Instances have been observed of warehouses overrun with rats despite three or four mongoose. This animal apparently attacks the rat only for the purpose of food and if well fed will live in amity with the mus family.

Flea carriers.—Another fact that renders the use of natural enemies undesirable for rat catching is that of flea transference. Cats and dogs are generally flea infested and when thrown in proximity to infected rats may be carriers of infected fleas. The transmission of infection to people in this way has been observed by the writer. Thus the employment of cats and dogs for rat catching is accompanied by an element of positive danger.

Shooting.—In some localities rodents can only be destroyed by shooting. This method was employed in Porto Rico for the destruction of rats in the swamp shrubbery, and has been used in Honolulu to destroy the tree rat.

Clubbing.—During the destruction of rat harborage rats can be killed by the laborers.

Rat Proofing.

Rat proofing has a two-fold object, it excludes rats from harborage and food supply and it insulates man from rodent contact.

Without this procedure it is almost impossible to materially reduce the rodent population.

The Japanese authorities have depreciated the value of trapping and poisoning as an antiplague measure, contending that with the temporary reduction in rat population by these measures, the relatively increased food supply and harborage stimulated breeding and longevity of rat life to a compensatory degree. In this argument several eminent Indian authorities on plague agree, notably among whom was Maj. Morehead, who said "rat destruction is of doubtful value." Obviously it is true that partial rat destruction alone will provide more favorable conditions for propagation to the remaining population, but, if the harborage is destroyed and foodstuffs protected, the favorable conditions for breeding are eliminated. Without the general enforcement of rat proofing, antiplague measures are bound to be more or less temporary and decidedly unsatisfactory.

It is probable though that no sanitary procedure ever met with so much opposition to its enforcement as rat proofing, especially when only rodent plague exists without the presence of human infection.

The antagonism arises either from the financial inability of the unfortunate community or the sordid unwillingness of the property owner to make any expenditure that does not promise personal gain.

Some methods of rat proofing enhance the value of property, as when concrete floors and foundations are built, but elevation of a house, changing material of roofing, removing double ceiling or inner walls do not make for material improvement, and orders for such changes generally meet with bitter protestation.

Rat-proofing law.—No time should be lost, therefore, in the early days of an epidemic, when every suggestion of the sanitary authorities is eagerly supported by the community, of securing the enactment of a rat-proofing law. Legal advice should be obtained in drawing up the measure so as to prevent legal loopholes. The law should clearly specify the measures necessary in rat proofing buildings already constructed and those of future construction; the manner of rat proofing; the degree of elevation or nature of structural change; and when the latter it should specify the quality and quantity of material.

In rat proofing any building the following parts have to be considered: Ground area, walls, ceiling, garret, roof, dead spaces in general, certain underpinning in elevated construction of bamboo or hollow logs, ventilators, abandoned sewers, doors, windows, outside piping, water and sewage pipes, down spouts, wiring, and air

or light shafts. By the omission of some small detail an otherwise rat-proof structure may become badly rat infested.

Ground area.—The rat proofing of the floors of buildings is secured either by elevation of the structure with the underpinning open and free or by marginal walls of concrete, stone, or brick laid in cement mortar sunk 2 feet into the ground, fitting flush with the floor above. The wall must fit tightly to the flooring and not merely extend to the joists or supporting timbers, as this would result in open spaces for the entrance of rodents.

Food depots.—Food depots are of the greater importance in rat proofing because they furnish both sustenance and shelter for rats. In this class of buildings are stables, meat markets, retail and wholesale groceries, bakeries, warehouses, docks, and wharves. These places are best rat proofed as to the ground areas by the construction of concrete floors and foundation walls. Untenanted as they are at nighttime, rats might well enter doorways or windows carelessly left open or be introduced concealed in merchandise, and gnawing through plank flooring obtain well-protected hiding and breeding places.

To render a large livery stable entirely rat proof is hardly practicable owing to the doors being open almost continuously, but rat proofing even in such buildings will destroy rat harborage and limit rat invasion to an occasional migratory rodent. With concrete flooring, foundation walls, and protected feed bins it is a comparatively easy task to maintain the building comparatively rat free.

Manure bins should be rat proof, a concrete pit, unless there is frequent disposal.

Stables.—In the Tropics horse feed is largely green forage with but little grain. The stable, though quite open, oftentimes consisting of only roof and flooring, does not harbor or subsist many rats. Rat proofing of the floor areas, protected feed bins and feed cribs will generally suffice to prevent rat harborage. A practical rat proofing of the crib consists in building the crib with a flare from below upward zinc covered and fastened at bottom without connecting timbers at top.

Structures that are difficult to keep rat free even though structurally rat proof are storage wharves and large wholesale warehouses where immense quantities of provisions remain stored during long periods.

Elevation.—Rat proofing by elevation is chiefly applicable to small and medium size buildings. The intent is to have sufficient elevation, about 2 feet, so that the ground area beneath shall be as exposed and free from covert as unbuilt-upon land.

For more pretentious dwellings, where sufficient care can be exercised to prevent rodents from gnawing through plank flooring, a marginal rat-proof foundation wall will suffice.

Double walls.—Double walls with a dead space between should be avoided, or if used should be rat-proofed at top and bottom with heavy wooden timbers, 4 by 4 joists, or by a concrete fill. Attics should be well opened and kept free of dunnage or other refuge for rats.

Roofing.—Double ceiling should be avoided, especially so in basements. A roof that affords ample rat harborage is that of country tiles, often seen in the Tropics. Unless all interstices are filled with mortar, this material should be prohibited, galvanized iron, slate, or flat tiling being substituted. Boxed-in structures, such as uprights in roughly finished dwellings, plumbing, kitchen sinks, and sundry similar arrangements, often furnish rat harborage. Such boxing should be removed. In the Tropics the underpinning is often of bamboo, or of timbers with hollow interior, which offer favorable nesting sites for rats, especially the *mus rattus* and *mus Alexandrinus*. Porches and steps should be given the same consideration as the body of the house.

Miscellaneous openings, as light shafts, ventilators, and open windows, should be screened, preferably by 12-gauge wire screen with mesh not exceeding one-half inch. Abandoned sewers or drainpipes at times give access to rodents and should be protected. Water pipes, sewage pipes, downspouts, and telephone or electric light wires should be rat-proofed when so placed as to furnish possible ingress to rats. This is best accomplished by running such structures through a broad ledge or by the use of rat-proof shields such as used to guard ship lines.

Garbage cans.—The garbage depository must be given most careful attention. It should be of metal, preferably a galvanized-iron can, water-tight to prevent seepage which would attract rats, and should have a closely fitting lid. A can 2 feet in height without cover will not be proof against the incursion of rats.

The grounds around a building are to be devoid of rat harborage. Premises are to be kept clean and free of rubbish. Plank walks and plank covering for yards are to be avoided. Cinders or concrete are preferable for this purpose. If the latter material is used it should have marginal protection to prevent rodents from burrowing beneath.

Chickens, goats, hares, pigs, and such animals that are generally fed on table scraps ought not to be allowed within the city limits.

Chicken yards.—Chicken yards when so permitted may be rat proofed by a concrete wall at the periphery, sunk into the ground 2 feet or more, with one-half inch mesh wire netting covering the top and sides.

The top netting is necessary, as otherwise rats can easily climb the sides and enter the pen. The writer has personally observed the Norway rat (which is not a climber like the black rat) scale a piece of wire

netting 3 feet high. The feat was so rapidly performed that a laborer purposely stationed at the spot was not quick enough in action to strike the escaping rodent.

Loose materials about the yard should be piled on platforms 2 feet high.

Trees.—In tropical countries coconut palms, mango and almond trees furnish provender for rats. Such trees can best be protected by a band of tin or galvanized iron encircling the trunk, 1 foot wide, placed at a height of 7 feet from the ground and tacked firmly to the tree trunk.

Vacant lots and unbuilt-upon land should be maintained free of rat harborage, the owner of the property being held responsible.

City walks.—City sidewalks must be rat proof just as those on private grounds. One of the worst cases of rat infestation ever noted by the writer was that of an old broken concrete city sidewalk that was unprotected by marginal walls. The rats had burrowed beneath the cement in all directions.

City sewers.—Some types of city sewers harbor many rats, especially the old brick construction. The sewers are the last structures to demand treatment. Sewer rats are very little flea infested, and there is no place in the city where a plague rat can die with so little danger to man as in the sewer. Nevertheless, city sewers must be rat proofed as an aid in the general antirat crusade. Simpson has very ably discussed this problem in the Public Health Reports of October 31, 1913, page 2283.

Concrete.—A rat-proofing law should provide a minimum standard for concrete, both as to quality and quantity of its component parts and the dimensions of the construction. The thickness of floors should not be less than 3 inches of concrete with a half-inch capping of cement, and of walls not less than 6 inches. Standard brands of cement, clean, sharp sand, and hard stone in proportion of 1:2:3, or as approved by a competent engineer, ought to be required in all concrete construction.

In issuing orders to householders for rat proofing all instructions should be written in detail as to structural reforms. Placing on the reverse side of rat-proofing notices a printed copy of the rat-proofing law, with penalty for noncompliance, is advisable as being gently suggestive.

Restrictive Measures.

To prevent extension of the infection to other localities will require supervision of cargo carriers—ships, railroad cars, and overland cartage—and inspection and treatment of rat-carrying cargo, and baggage.

Fumigation of ships.—Ships touching at a plague port should always be fumigated prior to taking on cargo. Sulphur dioxide, 4

per cent, and funnel gases (chiefly carbon dioxide) are the two fumigants mostly utilized.

In the service work sulphur dioxide is chiefly generated by the "pot and pan method." Ships exceeding 15,000 tons ought to be provided with a sulphur dioxide generator, such as the Clayton apparatus. Sulphur fumigation of vessels that have holds filled with cargo is practically useless. To be effective, the vessel must be empty, bilges opened, dunnage properly disposed of, and dead spaces such as boxed-in piping or double sheathing freely exposed. Under such conditions a 4 per cent sulphur dioxide fumigation for 12 hours is very effective. The utilization of funnel gas, when a special device is available, is likewise very effective and is applicable to fumigation of cargo. The article by Grubbs and Holsendorf, in Public Health Report of June 20, 1913, is a very excellent and comprehensive exposition of the various details of sulphur fumigation. Subsequent to fumigation all possible safeguards must be adopted to prevent reentry of rats into vessels, by loading at a rat-proof wharf or in the open bay or having all mooring lines provided with rat guards and gangways raised when not in use.

Railway cars and freight yards.—Railroad cars should be rat proof, to the extent of having all breaks in floor or sides repaired, and double sheathing either removed or securely closed in. Freight yards should be thoroughly inspected and cars that are left standing on track overnight, either partially or wholly loaded, should be closed and sealed.

Cargo treatment.—All export merchandise that might harbor rodents, whether intended for shipment by ships, car, or overland cartage, ought to be either repacked or fumigated to kill rats. For fumigation of cargo without injury hydrocyanic-acid gas is the preferable fumigant.

Dunnage.—Ordinarily baggage of the traveling public is of no importance, but where there is a large emigration from a plague community of people taking with them old clothes, bedclothes, etc., a thorough fumigation of this class of baggage is desirable to kill fleas.

Special Measures.

The occurrence of rodent plague or human infection necessitates the promptest possible treatment of the infected premises, which consists of evacuation, fumigation, and intensive rodent and flea destruction, followed by rat proofing.

Infected buildings.—The premises having been determined to be infected the occupants are removed, taking with them only the clothes they wear. All other raiment and bedclothes are to be left in the house for fumigation. If the place is a store, all merchandise is left undisturbed. The building, being hermetically sealed, is fumi-

gated by sulphur, or by hydrocyanic-acid gas. The latter is especially indicated when the treatment is applied to stores having merchandise that might be injured by sulphur fumes, as tobacco, sugar, flour, etc. Despite the popular fear of hydrocyanic-acid gas there is no danger if ordinary precautions are taken to properly seal the building. The gas is generated by mixing 1 part cyanide of potash (C. P.), 1 part of sulphuric acid (C. P.), and 3 parts of water. The receptacles should be durable earthenware jars or lead-lined pails. The water and acid are first mixed and the cyanide in a paper bag is added at the last moment. By placing the cyanide in a thin paper sack before dropping it into the acid solution, the chemical action is sufficiently delayed to give the operator opportunity to leave the room and seal the door of egress.

One ounce of the cyanide is sufficient for each 100 cubic feet of air space, but the efficiency of fumigation can be controlled by placing captive fleas in a test tube within the room and rats in cages well protected by loose covering to simulate natural harborage. A small amount of dust in bottom of the test tube will simulate natural conditions for fleas.

A 12-hour exposure to sulphur fumes or 4 hours of hydrocyanic acid gas will be effective in destroying rats and fleas within the inclosure.

Following this treatment and after the fumes have been dissipated, rat harborage should be removed, double walls, double ceiling, plank floor, etc., and all surfaces drenched with a pulicidal solution. The use of germicides, such as coal tar derivates, corrosive sublimate, carbolic acid or formalin solutions, is a waste of time. Crude kerosene or a kerosene emulsion are both efficient in destroying fleas. The emulsion is prepared by the combination of 85 parts kerosene and 15 parts of a hot solution of soap. This emulsion is used in the strength of 2 per cent in water.

Where there has been a plank flooring the ground beneath should be drenched with coal oil or the emulsion. Care must be exercised to prevent escape of rats. Frequently when raising a floor no rats are seen, but if all the ground is dug up to a depth of 2 feet quite often rats will be excavated from burrows. It is the rule that rats will not be found exposed beneath the covert, but will have made burrows to a depth of 1 or 2 feet. A cordon of laborers with clubs should be stationed about to kill escaping rodents. When rat runs extend into rocky formation or other material difficult to destroy, the use of carbon disulphide (CS_2) vapor or acetylene can be attempted, the former by pouring into the burrow with or without ignition, and the latter by placing a piece of calcium carbide, water being added, and the entrance to burrow being thoroughly occluded afterwards.

Rat-proofing plague-infected buildings is a further aid to flea and rat destruction when the procedure immediately follows removal of harborage. A concrete floor and walls effectually seals within existing burrows all fleas, flea eggs, or rats that have not been unearthed and destroyed.

When plague infection is discovered in any premises, all domestic pets should either be killed or very thoroughly treated with pulicidal baths.

Procedures of Minor Value or Doubtful Efficiency.

The argument that certain measures are justifiable on the ground that "even if they do no good they do no harm" is fallacious. Every effort exerted toward an inefficient measure detracts just that much from a more vigorous prosecution of the essential and necessary work. So it is of no little importance to discriminate between the effective and the irrational measures.

Disinfection.—Of all the useless procedures the most common is that of widespread disinfection, the employment of vile smelling germicidal solutions, liberally sprinkled on the streets, sidewalks, and in public places, everywhere but the places that rodents frequent. The extensive use of pulicidal solutions is advisable, even though they may not always be applied in the most advantageous places.

The indiscriminate use of germicidal solutions is merely a survival of the old habit of the pioneer sanitarian in using disinfectants on all occasions as a "votive offering to unknown gods." The writer once had opportunity of observing the efficiency of a 10 per cent creolin solution. The space treated was the ground area of a store subsequent to the removal of flooring. The entire area was thoroughly drenched by means of a hose and force pump. Forty-eight hours after the treatment the fleas were apparently as thick as ever.

Isolation of cases.—The isolation of a plague case is necessary because of the necessity of fumigating the infected building, clothing, etc., but enforced hospitalization is not justifiable nor essential when a neighbor's or relative's house is available for the reception of the case.

Contacts.—The isolation of contacts is of very questionable value and can only be considered on the assumption that such contacts might be carriers of infected fleas. Personally the writer has never seen infection so transmitted. It entails no small strain on one's credulity to conceive as possible the transmission of infected fleas in the clothes of a contact who himself remains free of the disease to a third person who contracts the disease. The Indian Plague Commission considers such a condition possible.

Destructive measures.—General destructive measures, especially by the method of "burning up" an entire district, are not necessary, though such procedure is spectacular and greatly impresses the people

In a small village of shacks the touch of a torch may be the most practical solution for removal of rat harborage, but where property value to an appreciable amount is involved rat proofing with allied measures will accomplish just as much in an eradicated way as will fire. Indiscriminate burning only scatters the rats, for the incineration of the above-ground structure will not destroy rats or fleas that remain in burrows 1 and 2 feet below the ground surface. When fire is employed as the "cleansing" agent, the area should be encircled with an impervious stockade (galvanized iron sunk into the ground) or a water-filled moat with a cordon of men to prevent rodent escape.

Subsequent to the conflagration the entire area must be dug up to the depth of 2 feet and saturated with pulicidal solution.

Vaccination.—Vaccination is in no sense an eradicated measure, nor is it a preventive one as pertaining to rodent plague; as a therapeutic agency in producing immunity to plague infection there does not seem to be any widespread faith in its efficiency. Regardless of the effectiveness of plague vaccines, the most enthusiastic supporter of the practice can not claim for the procedure more than the advantage of personal prophylaxis, and plague eradication has a wider scope than the consideration of the individual.

Rat holes.—Another practice that would seem to require the expenditure of time, labor, and money out of all proportion to the benefits secured is that of stopping up rat holes in material pervious to the passage of rats.

If a burrow is so treated the rodent burrows around the occluding plug during the night; if the rat hole is in planking and occluded by tacking over it a piece of tin, the rat harborage beneath the planking is in nowise disturbed, and at its leisure the rat will gnaw another hole in the wood.

In conclusion, it can be said that the foregoing is merely a general expression of the different lines of endeavor a sanitarian may adopt in combating plague. Conditions will vary according to the climate and the social condition and mental attitude of the affected community toward the enforcement of eradicated measures.

To assure compliance with any law, there must be a certain amount of supporting opinion in the community. The success of eradication will depend largely on the extent of cooperation of the citizens.

Measures that may be the only logical procedure in one community may prove impracticable in others. In general, the sanitarian will have to work out his own salvation in the matter of details, and it is in the careful execution of details that success depends.

Attached hereto is a synopsis of which the preceding article is an elaboration.

Conclusion.

In conclusion, it can not be too strongly stated or too often reiterated that the ultimate object of plague eradication is the destruction of the *last* plague rodent with its infected parasites. The elimination of human plague incidence is, from an eradication viewpoint, merely incidental. True, it is of relative value as indicating the decline of rodent infection, but in nowise can the subsidence of human cases be considered as the criterion of a successful campaign.

When can a community be considered free of plague infection? The answer is difficult and depends upon various factors.

The duration which rodent plague can remain quiescent or at least confined to rats is probably proportional to the size of the community, the infection remaining dormant for a longer period of time in large cities than in small towns. In Habana, Cuba, some 20 months elapsed between the last human case of the initial epidemic (July 14, 1912) and the first case of the recrudescence (Mar. 1, 1914). In Seattle, Wash., many months have elapsed between the discovery of plague rats. Another factor entering into the question is the effectiveness of laboratory examination in detecting plague rats. When, from the inception of the epizootic, plague-infected rodents have been reported in sufficient numbers as to give faith in the rodent survey, considerable dependence can be placed upon the negative laboratory reports. If there have been very few or no plague rats detected in the routine examination of rodents, it is obvious that continued negative reports from the laboratory are of little value.

The reduction of rodent population, the extent of rat proofing, and the improvement in general sanitary conditions all enter into the question of determining the eradication of plague infection.

If the rat proofing has been thorough, the rodent population diminished 50 to 75 per cent, and rat examination has been dependable, it would seem that a community can be reasonably considered free of the infection one year after the last plague rat has been reported. After such a period the eradication measures can be limited to a reduced force of trappers. Once plague has gained entrance to a community it is advisable to maintain a force of trappers and rodent examination as a permanent part of the health organization. With the world-wide prevalence of plague a force of trappers, in conjunction with a laboratory examination of all captured rodents, ought to be a part of the permanent sanitary force of every seaport having trade relations with infected countries.

Outline of plague eradication.

General measures.....	Survey.....	{	Plague laboratory diagnosis.	Human plague.
			Demarcation of infection.	Rodent plague.
	Eradication.....	{	Rodent destruction.....	Rodent examination.
			Rat proofing.....	Epidemiology of human cases.
	Restrictive.....	{	Fumigation by SO ₂ or HCN.	"Sentinel" guinea pigs or rats.
			Rat proofing and supervision.	Trapping.
	Evacuation.	{	Summary destruction of harborage.	Poisoning.
			Fumigation.....	Miscellaneous.
	Intensive rodent destruction.	{	Kerosene.	Food supplies.
			Flea destruction.....	Elimination of harborage.
Special measures (applied to plague foci).	Flea destruction.....	{	Fumigants.....	Ships.
			General cleanliness.	Freight.
	General destructive measures.	{	Hospitalization of human cases.	Baggage.
			Quarantine of personnel.	Railroad cars.
	Vaccination.	{	Disinfection.	Stations.
			Stoppage of rat holes.	
	Procedures of minor value or doubtful effectiveness.	{	General cleanliness.	
			Attention to household pets, cats, and dogs.	

STANDARDS FOR MARKET MILK.**THEIR ESTABLISHMENT AND RECOGNITION NECESSARY FOR THE CONTROL OF THE PRODUCTION AND SALE OF MILK IN THE INTERESTS OF THE COMMUNITY.**

In the Public Health Reports of May 10, 1912, there was published the report of the Commission on Milk Standards appointed by the New York Milk Committee. The commission was a voluntary organization composed of men from various parts of the country. They were appointed to draft standards by which market milk could be suitably classified, such a classification being desirable in the interests of the producer, the purveyor, and the consumer.

The handling of any article for sale is on a satisfactory basis only when it can be judged by standards understood by both the one who sells and the one who buys. This is especially so when the article is a foodstuff of such general use and so intimately related to the spread of disease as milk.

A revised report of the Commission on Milk Standards was published in the Public Health Reports of August 22, 1913. The standards recommended by the commission in this report have been indorsed by the conference of State and provincial boards of health (June 19, 1914) and by the American Medical Association (Atlantic City meeting, June 22-26, 1914).

In the Public Health Reports of May 15, 1914, there was published a tabulation of the bacteriological standards for milk adopted by

cities of the United States having a population of 10,000 or over according to the census of 1910. While there is some question as to the sanitary significance of varying bacterial counts, the number of bacteria contained in a milk gives considerable information regarding the care with which that milk has been produced and handled. Consequently bacteriological standards (bacterial counts) play a necessary part in the protection of this foodstuff.

Standards for milk established at the present time are, in the nature of things, not final, but they represent the best judgment of those most familiar with the subject, and without them present knowledge can not be rationally used for the common good.

PREVALENCE OF DISEASE.

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

IN CERTAIN STATES AND CITIES.

SMALLPOX.

Miscellaneous State Reports.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Connecticut (June 1-30): County— Middlesex.....	3		Florida (May 1-31)—Contd. Counties—Continued. Volusia.....	1	
Florida (Apr. 1-30): Counties— Alachua.....	6		Total.....	41	
Bradford.....	2		Iowa (June 1-30): Counties— Boone.....	2	
Calhoun.....	1		Carroll.....	3	
Citrus.....	1		Cerro Gordo.....	2	
Clay.....	1		Clay.....	2	
Columbia.....	2		Clayton.....	1	
Duval.....	14		Crawford.....	2	
Escambia.....	11		Dallas.....	1	
Hillsboro.....	18		Delaware.....	4	
Jackson.....	14		Fayette.....	3	
Lake.....	6		Floyd.....	1	
Osceola.....	8		Guthrie.....	8	
Santa Rosa.....	6		Hamilton.....	1	
Seminole.....	2		Iowa.....	1	
Taylor.....	1		Jasper.....	4	
Volusia.....	68		Johnson.....	1	
Total.....	161		Linn.....	10	
Florida (May 1-31): Counties— Alachua.....	2		Lyon.....	27	
Citrus.....	2		Mitchell.....	1	
Clay.....	1		Monona.....	1	
Columbia.....	6		Monroe.....	1	
De Boto.....	1		Palo Alto.....	1	
Duval.....	6		Polk.....	54	
Escambia.....	3		Pottawattamie.....	9	
Hillsboro.....	14		Scott.....	25	
Lake.....	2		Shelby.....	1	
Marion.....	2		Tama.....	5	
Polk.....	1		Washington.....	7	
			Webster.....	2	
			Total.....	180	

City Reports for Week Ended June 27, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Altoona, Pa.....	1		Massillon, Ohio.....	1	
Bellingham, Wash.....	4		Milwaukee, Wis.....	20	
Boston, Mass.....	1		Moline, Ill.....	2	
Butte, Mont.....	2		Muncie, Ind.....	2	
Chicago, Ill.....	2		Nashville, Tenn.....	2	
Cincinnati, Ohio.....	2		New York, N. Y.....	2	
Cleveland, Ohio.....	1		Norfolk, Va.....	3	
Columbus, Ohio.....	1		Oakland, Cal.....	1	
Danville, Ill.....	2		Oklahoma, Okla.....	5	
Detroit, Mich.....	6		Pittsburgh, Pa.....	1	
Duluth, Minn.....	6		Portsmouth, Va.....	2	
Evansville, Ind.....	1		Racine, Wis.....	5	
Grand Rapids, Mich.....	1		San Francisco, Cal.....	2	
Kansas City, Kans.....	4		South Bend, Ind.....		2
Kansas City, Mo.....	2		Superior, Wis.....	4	
Lexington, Ky.....	1		Toledo, Ohio.....	4	
Little Rock, Ark.....	1		Washington, D. C.....	6	
Louisville, Ky.....	1		Zanesville, Ohio.....	2	

TYPHOID FEVER.

City Reports for Week Ended June 27, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Altoona, Pa.	1		Milwaukee, Wis.	2	1
Baltimore, Md.	7	6	Muncie, Ind.	1	
Boston, Mass.	8	1	Nashville, Tenn.	8	
Bridgeport, Conn.	2		Newark, N. J.	6	2
Buffalo, N. Y.	8		New Bedford, Mass.	1	
Butte, Mont.	2		New Castle, Pa.	1	
Cambridge, Mass.	1		New London, Conn.	1	1
Charleston, S. C.	9	2	New Orleans, La.	6	2
Chicago, Ill.	20		New York, N. Y.	33	1
Chicopee, Mass.	2		Norfolk, Va.	3	
Cincinnati, Ohio.	2	1	North Adams, Mass.	1	
Cleveland, Ohio.	1	1	Oakland, Cal.	1	1
Columbus, Ohio.	3		Oklahoma, Okla.	14	1
Detroit, Mich.	5	2	Orange, N. J.	1	
Dayton, Ohio.	1	1	Philadelphia, Pa.	16	2
Dunkirk, N. Y.	1		Pittsburgh, Pa.	3	2
East Orange, N. J.	2		Plainfield, N. J.	1	
Elmira, N. Y.	1		Port Arthur, Tex.	2	
Erie, Pa.	1		Port Townsend, Wash.	2	
Everett, Mass.	1		Providence, R. I.	2	
Fall River, Mass.	4		Reading, Pa.	2	
Galveston, Tex.		1	Richmond, Va.	2	
Grand Rapids, Mich.	2		Roanoke, Va.		1
Harrisburg, Pa.	1		Sacramento, Cal.	1	
Haverhill, Mass.	3		St. Louis, Mo.	11	2
Jersey City, N. J.	1		San Francisco, Cal.	1	
Kansas City, Kans.	4		Springfield, Ohio.	1	
Kansas City, Mo.		1	Superior, Wis.		2
Lancaster, Pa.	1		Toledo, Ohio.	2	2
Lexington, Ky.		1	Trenton, N. J.	1	
Little Rock, Ark.	6		Washington, D. C.	1	
Los Angeles, Cal.	5		Weymouth, Mass.	1	
Louisville, Ky.	1		Wilkinsburg, Pa.		1
Lowell, Mass.	1	1	Wilmington, N. C.	3	1
Lynn, Mass.	5		York, Pa.	3	
Memphis, Tenn.	19	1			

CEREBROSPINAL MENINGITIS.

City Reports for Week Ended June 27, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Boston, Mass.	2	1	Medford, Mass.		1
Bridgeport, Conn.	1	1	Milwaukee, Wis.	1	
Butte, Mont.		2	Newark, N. J.	1	1
Cambridge, Mass.	1		Newport, Ky.	1	1
Chicago, Ill.		1	New York, N. Y.	9	4
Cleveland, Ohio.	3	1	Pittsburgh, Pa.		1
Dayton, Ohio.	1	1	St. Louis, Mo.		1
Lynn, Mass.	1		Yonkers, N. Y.	1	1

POLIOMYELITIS (INFANTILE PARALYSIS).

City Reports for Week Ended June 27, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Boston, Mass.	2	1	La Crosse, Wis.		1
Buffalo, N. Y.	1		Los Angeles, Cal.	1	
Chicago, Ill.		1	Reading, Pa.	1	
Chicopee, Mass.	1		San Francisco, Cal.	4	

ERYSIPELAS.**City Reports for Week Ended June 27, 1914.**

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Bridgeport, Conn.....	1	.....	La Crosse, Wis.....	1	.....
Brockton, Mass.....	1	.....	New York, N. Y.....	.....	4
Buffalo, N. Y.....	3	.....	Passaic, N. J.....	1	.....
Chicago, Ill.....	14	3	Pittsburgh, Pa.....	11	.....
Cleveland, Ohio.....	1	.....	Rochester, N. Y.....	3	1
Dayton, Ohio.....	1	1	St. Louis, Mo.....	1	1
Duluth, Minn.....	1	.....	Wilkes-Barre, Pa.....	1	.....

LEPROSY.**Ohio—Cleveland.**

Surg. Wille, of the Public Health Service, reported July 8, 1914, that a case of leprosy had been notified in Cleveland, Ohio, July 1, 1914, in the person of a native of Sicily who had been admitted to the United States as an immigrant within the past three years. The patient is under detention in the city hospital.

PELLAGRA.**City Reports for Week Ended June 27, 1914.**

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Charleston, S. C.....	.....	3	New Orleans, La.....	.....	2
Memphis, Tenn.....	.....	4	Oklahoma, Okla.....	.....	1
Nashville, Tenn.....	1	.....	Washington, D. C.....	1	.....

PLAGUE.**California—Plague-Infected Squirrels Found.**

Plague-infected ground squirrels have been found in California as follows: Contra Costa County, June 8, 1914, 1 squirrel; June 9, 4 squirrels; June 10, 1 squirrel; June 11, 3 squirrels. San Benito County, June 5, 1914, 1 squirrel; June 7, 1 squirrel.

California—Washington—Rats Collected and Examined.

During the week ended June 20, 1914, rats were collected and examined on the Pacific coast as follows: San Francisco, Cal., collected 682, examined 492; Seattle, Wash., collected 189, examined 148. No plague-infected rodent was found.

PNEUMONIA.

City Reports for Week Ended June 27, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Binghamton, N. Y.....	2	4	Philadelphia, Pa.....	7	32
Chicago, Ill.....	59	29	Pittsburgh, Pa.....	7	14
Cleveland, Ohio.....	7	3	Port Arthur, Tex.....	10	2
Fitchburg, Mass.....	1	.....	Reading, Pa.....	1	1
Kalamazoo, Mich.....	2	2	San Francisco, Cal.....	2	5
Los Angeles, Cal.....	13	5	Schenectady, N. Y.....	1	2
Manchester, N. H.....	3	3			

TETANUS.

City Reports for Week Ended June 27, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Baltimore, Md.....	.....	1	Philadelphia, Pa.....	1	.....
Cleveland, Ohio.....	1	1	St. Louis, Mo.....	2	1
Erie, Pa.....	1	.....	San Francisco, Cal.....	1	.....
New York, N. Y.....	.....	1	Wilmington, N. C.....	.....	1

TYPHUS FEVER.

Virginia—Ashland.

A case diagnosed clinically as typhus fever was reported at Laurel, Va., in the person of a male, white, aged 60; taken sick June 29, 1914, and removed to Richmond, Va., July 5.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

City Reports for Week Ended June 27, 1914.

Cities.	Population as of July 1, 1914 (esti- mated by United States Census Bureau).	Total deaths from all causes.	Diph- theria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Over 500,000 inhabitants:										
Baltimore, Md.....	579,590	169	16	1	5	.....	21	.....	33	17
Boston, Mass.....	733,802	225	43	3	125	3	38	1	51	23
Chicago, Ill.....	2,393,325	520	136	10	135	2	64	4	174	80
Cleveland, Ohio.....	639,431	144	14	1	20	1	10	2	32	18
Detroit, Mich.....	537,650	152	27	3	.....	.....	12	.....	18	11
New York, N. Y.....	5,335,539	1,258	415	31	720	20	237	11	469	170
Philadelphia, Pa.....	1,657,510	394	37	6	68	.....	24	.....	107	58
Pittsburgh, Pa.....	564,573	142	16	1	35	.....	65	4	37	12
St. Louis, Mo.....	734,667	234	15	2	41	.....	25	3	48	17
From 300,000 to 500,000 inhab- itants:										
Buffalo, N. Y.....	454,112	160	11	1	17	.....	13	.....	25	12
Cincinnati, Ohio.....	402,175	120	11	.....	7	.....	.....	.....	.....	17
Los Angeles, Cal.....	435,914	108	15	.....	6	.....	9	.....	39	16
Milwaukee, Wis.....	417,054	92	13	2	7	.....	11	.....	18	11
Newark, N. J.....	389,106	99	22	.....	34	.....	32	.....	44	9
New Orleans, La.....	361,221	128	8	1	8	.....	.....	.....	24	19
San Francisco, Cal.....	448,502	103	11	1	70	.....	7	.....	30	18
Washington, D. C.....	353,378	118	4	.....	4	.....	1	.....	14	14

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

City Reports for Week Ended June 27, 1914—Continued.

Cities.	Population as of July 1, 1914 (esti- mated by United States Census Bureau).	Total deaths from all causes.	Diph- theria.		Measles.		Scarlet fever.		Tuber- culosis		
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
From 200,000 to 300,000 inhabit- ants:											
Columbus, Ohio.....	204,567	65	2	.....	19	1	2	.....	.....	6
Jersey City, N. J.....	293,921	96	44	1	17	.....	9	.....	19	4
Kansas City, Mo.....	281,911	63	1	2	2	.....	1	.....	1	6
Louisville, Ky.....	235,114	73	.....	.....	.....	.....	1	.....	19	5
Portland, Oreg.....	260,601	34	9	.....	4	.....	7	1	15	6
Providence, R. I.....	245,090	76	6	1	4	.....	4	.....	1	11
Rochester, N. Y.....	241,618	59	1	.....	17	.....	3	.....	7	4
Seattle, Wash.....	313,029	40	.....	.....	22	.....	2	.....	17	2
From 100,000 to 200,000 inhabit- ants:											
Albany, N. Y.....	102,961	43	.....	.....	2	.....	2	.....	18	9
Bridgeport, Conn.....	115,289	31	5	1	.....	.....	3	.....	7	.....
Cambridge, Mass.....	110,357	29	9	1	4	.....	6	.....	7	6
Camden, N. J.....	102,465	.....	3	.....	.....	.....	.....	.....	4	.....
Dayton, Ohio.....	123,794	31	2	.....	1	.....	2	.....	.....	1
Fall River, Mass.....	125,443	28	1	.....	2	.....	4	.....	5	4
Grand Rapids, Mich.....	123,227	34	5	1	3	.....	3	.....	2	2
Lowell, Mass.....	111,004	.....	.....	.....	11	.....	.....	.....	3	1
Memphis, Tenn.....	143,231	106	.....	.....	3	.....	.....	.....	5	12
Nashville, Tenn.....	114,899	46	.....	.....	1	.....	1	.....	6	5
New Bedford, Mass.....	111,230	31	3	.....	.....	.....	.....	.....	8	3
Oakland, Cal.....	183,002	44	4	.....	16	.....	1	.....	5	1
Reading, Pa.....	103,361	24	1	.....	.....	4	.....	.....	9	1
Richmond, Va.....	134,917	66	.....	.....	1	.....	2	.....	18	6
Tacoma, Wash.....	103,418	.....	.....	.....	1	.....	1	.....	.....	.....
Toledo, Ohio.....	184,126	49	1	1	30	.....	3	.....	.....	14
Trenton, N. J.....	106,831	37	5	.....	1	.....	5	.....	10	2
Worcester, Mass.....	157,732	41	2	.....	7	.....	4	.....	5	5
From 50,000 to 100,000 inhabit- ants:											
Altoona, Pa.....	56,553	8	.....	.....	.....	.....	1	.....	.....	3
Atlantic City, N. J.....	53,952	12	.....	.....	10	.....	.....	.....	1	.....
Bayonne, N. J.....	65,271	9	4	1	.....	.....	1	1	.....	4
Binghamton, N. Y.....	52,191	18	2	.....	20	.....	4	.....	2	.....
Brockton, Mass.....	64,043	9	.....	.....	5	.....	8	.....	3	.....
Charleston, S. C.....	60,121	43	.....	.....	.....	.....	2	.....	.....	6
Duluth, Minn.....	89,331	.....	4	.....	1	.....	13	.....	2	3
Erie, Pa.....	72,401	20	5	.....	9	.....	.....	.....	2	.....
Evansville, Ind.....	71,284	25	.....	.....	31	1	1	.....	.....	3
Galveston, Tex.....	40,289	22	.....	.....	.....	.....	2	.....	.....	2
Harrisburg, Pa.....	69,493	23	.....	.....	3	.....	.....	.....	.....	1
Hoboken, N. J.....	74,904	18	3	.....	.....	.....	3	.....	10	.....
Johnstown, Pa.....	64,642	11	2	.....	2	.....	2	.....	1	.....
Kansas City, Kans.....	94,271	.....	5	.....	7	.....	.....	.....	.....	.....
Little Rock, Ark.....	531,811	22	.....	.....	.....	.....	.....	.....	1	.....
Lynn, Mass.....	98,207	18	5	1	.....	.....	6	.....	2	.....
Manchester, N. H.....	75,635	23	2	.....	9	.....	4	.....	.....	.....
Norfolk, Va.....	86,540	.....	1	.....	2	.....	.....	.....	3	3
Oklahoma City, Okla.....	83,559	59	.....	.....	6	.....	.....	.....	4	5
Passaic, N. J.....	66,276	10	2	.....	10	.....	1	.....	2	2
Pawtucket, R. I.....	56,901	16	2	.....	.....	.....	1	.....	.....	.....
Portland, Me.....	62,161	16	1	.....	2	.....	.....	.....	.....	2
Saginaw, Mich.....	53,988	10	1	.....	.....	.....	2	.....	.....	1
Schenectady, N. Y.....	90,503	15	1	.....	2	.....	3	.....	.....	2
Suth Bend, Ind.....	65,114	14	.....	.....	8	.....	8	.....	.....	.....
Springfield, Ohio.....	50,068	16	.....	.....	1	.....	.....	.....	3	1
Wilkes-Barre, Pa.....	73,660	21	3	.....	21	.....	4	.....	7	1
Yonkers, N. Y.....	93,383	25	2	1	2	.....	7	.....	5	2
From 25,000 to 50,000 inhabit- ants:											
Alameda, Cal.....	26,330	8	.....	.....	10	.....	1	.....	.....	.....
Auburn, N. Y.....	36,509	8	.....	.....	9	1	.....	.....	.....	.....
Aurora, Ill.....	33,022	13	.....	.....	.....	.....	3	.....	.....	.....
Bellingham, Wash.....	29,937	.....	1	.....	.....	.....	.....	.....	.....	.....
Brookline, Mass.....	31,138	8	.....	.....	6	.....	.....	.....	3	.....
Butte, Mont.....	41,781	.....	1	.....	1	.....	1	.....	.....	6
Chelsea, Mass.....	32,452	9	2	.....	5	1	.....	.....	3	2
Chicopee, Mass.....	28,067	8	.....	.....	.....	.....	1	.....	2	.....
Danville, Ill.....	30,847	9	2	1	3	.....	.....	.....	.....	2
East Orange, N. J.....	39,852	.....	5	.....	4	.....	2	.....	1	.....
Elmira, N. Y.....	37,816	6	.....	.....	1	.....	.....	.....	1	.....

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

City Reports for Week Ended June 27, 1914—Continued.

Cities.	Population as of July 1, 1914 (esti- mated by United States Census Bureau.)	Total deaths from all causes.	Diph- theria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 25,000 to 50,000 inhabit- ants—Continued.										
Everett, Mass.	37,381	3	1	1	4				4	
Fitchburg, Mass.	40,507	11			3	1				2
Haverhill, Mass.	47,071	8			3		1		1	1
Kalamazoo, Mich.	45,842	19	1		1				3	
La Crosse, Wis.	31,367	11	1						1	1
Lancaster, Pa.	49,685		4							
Lexington, Ky.	38,819	14			4				2	3
Lynchburg, Va.	31,830	13			1		1		2	2
Malden, Mass.	48,979	12	6		7		4		4	1
Medford, Mass.	25,240	7			1		5		1	2
Newport, Ky.	31,517	6					2		2	2
Newport, R. I.	29,154	3			8					
Newton, Mass.	42,455	4			12		1		1	
Niagara Falls, N. Y.	35,127	10	1				1			
Norristown, Pa.	30,265	6			1		1			
Orange, N. J.	31,968	4			1				1	
Pasadena, Cal.	40,880				1		1			
Portsmouth, Va.	37,569	11			2					1
Racine, Wis.	44,528	6								
Roanoke, Va.	40,574				8		1			
Sacramento, Cal.	62,717	14	3	1	22					4
San Diego, Cal.	48,900	4	6		1		2		4	4
South Omaha, Nebr.	28,368	4								
Superior, Wis.	44,344	11	1				6	1		1
Taunton, Mass.	35,631	18			5		1			2
Waltham, Mass.	29,688	4	2		1				1	
West Hoboken, N. J.	40,647		3		5		3		1	
Wheeling, W. Va.	42,817	19			16	2	1			1
Wilmington, N. C.	27,781	20			1					
York, Pa.	49,430								2	
Zanesville, Ohio.	29,949								2	2
Less than 25,000 inhabitants:										
Ann Arbor, Mich.	14,948	7	3						4	
Beaver Falls, Pa.	13,100					1				
Braddock, Pa.	20,935		2						1	
Cairo, Ill.	15,392	6								1
Clinton, Mass.	13,075	2	2						1	
Columbus, Ind.	9,103	4								
Concord, N. H.	22,291	7	1				1			2
Cumberland, Md.	23,846	7			1		7			
Dunkirk, N. Y.	19,607	5				1				
Galesburg, Ill.	23,570	1					3			
Kearny, N. J.	21,967	6	2	1	1		1			
Ketchikan, Alaska		1							1	
Key West, Fla.	21,150									1
Manitowoc, Wis.	13,553								4	1
Massillon, Ohio.	14,912	2	2		13					
Melrose, Mass.	16,887	3	2			4				
Moline, Ill.	26,403	3	1							
Montclair, N. J.	24,782	8					1		2	
Morristown, N. J.	13,033	3			3				1	
Muncie, Ind.	24,969	5	1						1	
Muscatine, Iowa.	17,074	5								
Nanticoke, Pa.	21,756	2								
Newburyport, Mass.	16,147	4								
New London, Conn.	20,557				6				1	1
North Adams, Mass.	22,019	6			4				3	1
Northampton, Mass.	19,766	8			8		1		2	
Palmer, Mass.	8,955	3								
Palo Alto, Cal.					41					
Pascagoula, Miss.					18					
Plainfield, N. J.	22,755	4	26		1		3			
Port Arthur, Tex.		2			50					
Portsmouth, N. H.	11,538						1		1	1
Pottstown, Pa.	16,408	9								
Rutland, Vt.	14,417	7	1							
Saratoga Springs, N. Y.	12,813	8					4			
Steelton, Pa.	15,126	3								1
Vineyard Haven, Mass.		1	2							
Weymouth, Mass.	13,564	4			2					
Wilkinsburg, Pa.	21,701	7								1
Woburn, Mass.	15,755	4								

IN INSULAR POSSESSIONS.

HAWAII.

Examination of Rats and Mongoose.

Rats and mongoose have been examined in Hawaii as follows: Honolulu, week ended June 20, 1914, 339; Hilo, two weeks ended June 20, 1914, 3,952. No plague-infected animal was found.

PHILIPPINE ISLANDS.

Plague—Manila.

Surg. Heiser, chief quarantine officer and director of health for the Philippine Islands, reports as follows: During the week ended May 30, 1914, 2 cases of plague with 2 deaths were notified in Manila.

Inspection of Vessels from Amoy.

On account of the increase of plague in Amoy and vicinity and the occurrence of plague on vessels from China the American consul at Amoy was requested by cable to send all vessels for the Philippines via the Mariveles quarantine station. The following circular letter was issued, advising the shipping interests of the order:

[Circular.]

To the masters, owners, and agents of vessels and others concerned:

Sirs: In order to prevent the introduction of plague from Amoy all vessels from that port that desire to enter the Philippines will be required to observe the following regulations:

1. Vessels that enter the port of Manila will be required to call at the Mariveles quarantine station for inspection. After being released at Mariveles they will be required to undergo another inspection at Manila before pratique is granted.

2. Vessels that desire to enter any other port in the Philippines will first call at Mariveles and undergo detention for a period sufficient to make seven days from the time they left Amoy.

Respectfully,

VICTOR G. HEISER,
Surgeon, Chief Quarantine Officer for the Philippine Islands.

PORTO RICO.

Examination of Rodents and Mongoose.

During the week ended June 26, 1914, 503 rats, 198 mice, and 2 mongoose were examined in Porto Rico. No plague-infected animal was found.

FOREIGN REPORTS.

CHINA.

Plague—Chinchew.

Plague was reported present, June 1, 1914, at Chinchew, 30 miles north from Amoy.

Plague—Hongkong.

During the week ended July 14, 1914, 26 cases of plague were notified in Hongkong, China.

Plague-Infected Rats—Shanghai.

During the two weeks ended June 6, 1914, 462 rats were examined at Shanghai. Of this number, 2 were found plague-infected.

CUBA.

Plague—Santiago.

A case of plague was confirmed at Santiago July 7, 1914. The total number of cases notified in Cuba from March 5 was 29, with 6 deaths. Of this number, 25 cases occurred at Habana, 1 at Artemisa, 1 at San Jose de las Lajas, and 2 at Santiago.

Communicable Diseases—Habana.

Communicable diseases have been notified in Habana as follows:

JUNE 10-20, 1914.

Diseases.	New cases.	Deaths.	Remain- ing.
Diphtheria.....	10	2	8
Leprosy.....			260
Malaria.....			4
Measles.....	17	1	37
Paratyphoid fever.....	4		6
Plague.....	2	1	5
Scarlet fever.....	12		22
Typhoid fever.....	11	2	38

ITALY.

Quarantine Measures.

Quarantine measures to prevent the importation of plague have been put in force at Italian ports as follows: May 29, 1914, against arrivals from northern Colombia, from the Gulf of Uraba to the Gulf

of Maracaybo; June 8, 1914, against arrivals from Jaffa, Asia Minor, Turkey.

PERU.

Status of Plague.

Plague has been notified in Peru as follows:

MAR. 23—MAY 3, 1914.

Places.	New cases.	Remain- ing.	Places.	New cases.	Remain- ing.
Callao.....	.....	1	Piura.....	4	2
Catacaos.....	3	4	Quirhuay (Huaylas).....	(1) 1	.....
Chiclayo.....	3	3	Salaverry.....	(1) 1	.....
Chimbote.....	(1) 3	.....	Samanco.....	(1) 2	23
Contumaza.....	1	1	San Pedro.....	3	1
Guadalupe.....	1	9	Surco (Matucana).....	12	5
Lima (city).....	1	1	Trujillo.....	15	10
Lima (country).....	10	1	Unigambal (Santiago de Chuco).....	.....	.....
Mollendo.....	(1) 1	.....		
Otuzco.....	.....	.....	

¹ Present.

² From Pacasmayo. In lazaretto at San Pedro.

STRAITS SETTLEMENTS.

Cholera—Singapore.

During the week ended May 16, 1914, 18 cases of cholera with 13 deaths were notified in Singapore.

ZANZIBAR.

Plague-Infected Rats Found—Zanzibar.

During the week ended May 21, 1914, 1,015 rats were examined at Zanzibar for plague infection. Of this number, 2 were found plague-infected.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX.

Reports Received During Week Ended July 17, 1914.

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

CHOLERA.

Places.	Date.	Cases.	Deaths.	Remarks.
China:				
Hongkong.....	May 17-23.....	1	1	
India:				
Bassein.....	May 10-16.....	10	9	
Bombay.....	May 31-June 13...	23	15	
Calcutta.....	May 17-23.....	.....	64	
Madras.....	May 31-June 13...	17	9	
Straits Settlements:				
Singapore.....	May 17-30.....	5	7	

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.**Reports Received During Week Ended July 17, 1914—Continued.****PLAGUE.**

Places.	Date.	Cases.	Deaths.	Remarks.
Ceylon:				
Colombo.....	May 24-June 6....	10	10	
China.....				June 6, still present in vicinity of Swatow.
Chinchew.....	May 30-June 6....			Present 30 miles north from Amoy.
German East Africa: ¹				
Dar es Salaam.....	May 2.....	1	1	
India:				
Bassein.....	May 10-16.....	2	2	
Bombay.....	May 31-June 13....	129	103	
Calcutta.....	May 19-June 23....		25	
Karachi.....	May 24-June 13....	27	26	
Moulmine.....	May 10-16.....	7	7	
Japan:				
Taiwan—				
Kagi.....	May 10-30.....	131	114	
Peru:				
Ancachs.....				No report of deaths received.
Chimbote.....	Mar 23-May 2.....			Present.
Quarhuay (Huaylas).....	do.....			Do.
Samanca.....	do.....			Do.
Arequipa—				
Mollendo.....	Mar. 23-May 30....	11		
Cahamarca—				
Contumaza.....	Mar. 23-May 2....	3		
Lambayeque—				
Chiclayo.....	do.....	3		
Guadalupe.....	do.....	1		
Libertad—				
Huacamarca (Otzuco).....	Mar. 23-May 30....			Do.
Pichipampa (Otzuco).....	Mar. 24-30.....	4		
Salaverry.....	Mar. 23-May 2....	1		
San Pedro.....	do.....	8		From Pacasmayo.
Unigambal (Santiago de Chuco).....	do.....	16		
Trujillo.....	do.....	15		
Lima—				
Lima.....	Mar. 23-May 30....	13		
Surco (Matucana).....	do.....	4		
Piura—				
Catacos.....	Mar. 23-May 2....	3		
Piura.....	Mar. 23-May 30....	7		
Philippine Islands:				
Manila.....	May 24-30.....	2	2	

SMALLPOX.

Arabia:				
Aden.....	June 10-16.....		1	
Brazil:				
Rio de Janeiro.....	May 30-June 6....	81	14	
Canada:				
Winnipeg.....	June 18-24.....	1		
China:				
Amoy.....	May 17-June 13....			Present.
Chungking.....	May 23.....			Endemic.
Hongkong.....	May 10-16.....	4	3	
Do.....	May 17-30.....	6	4	
Nanking.....	May 23.....			Always prevalent.
Shanghai.....	May 24-June 7....	1	5	
Tsingtau.....	June 6-13.....	3	1	
Dutch East Indies:				
Borneo.....	May 17-23.....	18	3	In the western part.
Java.....				In the western part, May 17-23: Cases, 91; deaths, 19, including Batavia.
Batavia.....	May 17-23.....	5	3	
Egypt:				
Alexandria.....	June 11-17.....	1		
Cairo.....	June 4-10.....	21	17	
Port Said.....	do.....	1		

¹ From the Veröffentlichungen des Kaiserlichen Gesundheitsamtes, June 24, 1914.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.**Reports Received During Week Ended July 17, 1914—Continued.****SMALLPOX—Continued.**

Places.	Date.	Cases.	Deaths.	Remarks.
France:				
Marseille.....	May 1-31.....	.....	2	
Paris.....	June 6-20.....	9	.....
Germany:				
Hamburg.....	June 14-20.....	2	.....
Kehl.....	May 1-31.....	.....	1	
India:				
Bombay.....	May 31-June 13...	16	7	
Calcutta.....	May 19-23.....	.....	31	
Karachi.....	May 24-June 13...	7	1	
Madras.....	May 31-June 13...	4	3	
Japan:				
Nagasaki.....	May 18-June 14...	36	9	
Kobe.....	June 19-23.....	1	.....
Taiwan.....	May 10-30.....	7	2	
Mexico:				
Mazatlan.....	June 17-23.....	2	.....
Vera Cruz.....	June 21-27.....	2	.....
Peru:				
Callao.....	June 22.....	.....	.....	Decreased.
Lima.....	do.....	.....	.....	Do.
Portugal:				
Lisbon.....	June 14-20.....	1	.....
Turkey in Europe:				
Constantinople.....	do.....	.....	1	
Saloniki.....	June 7-20.....	8	12	Present in a mild form among 20,000 refugees from Asiatic Turkey, Chio, and Mitylene.
Union of South Africa:				
Pretoria.....	May 9-23.....	1	.....

Reports Received from June 27 to July 10, 1914.**CHOLERA.**

Places.	Date.	Cases.	Deaths.	Remarks.
China:				
Canton.....	Jan. 1-Apr. 30....	4	.....
India:				
Bassein.....	Apr. 26-May 9....	57	40	
Bombay.....	May 17-30.....	6	6	
Calcutta.....	May 10-16.....	.....	76	
Rangoon.....	Apr. 1-30.....	4	4	
Indo-China.....				Total Jan. 1-Apr. 10: Cases, 48; deaths, 38. Apr. 11-May 20: Cases, 40.
Siam:				
Bangkok.....	Apr. 19-May 16....	.....	130	
Straits Settlements:				
Singapore.....	May 10-16.....	18	13	
Turkey in Europe:				
Adrianople.....	May 14-19.....	.....	2	

YELLOW FEVER.

Places.	Date.	Cases.	Deaths.	Remarks.
Brazil:				
Bahia.....	May 10-June 6....	4	6	
Pernambuco.....	May 1-15.....	.....	1	
Ecuador:				
Guayaquil.....	May 1-31.....	3	1	
Venezuela:				
Maracalbo.....	June 15.....	.....	.....	Present in light form. No cases since.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.**Reports Received from June 27 to July 10, 1914—Continued.****PLAGUE.**

Places.	Date.	Cases.	Deaths.	Remarks.
Brazil:				
Bahia.....	May 17-23.....		1	
Pernambuco.....	May 1-15.....		2	
Ceylon:				
Colombo.....	May 19-23.....	4	5	
China.....				Jan. 1-Apr. 30, present in Hokschan, Shuntak, Tangsching, and Tungkun. Apr. 3-17, present in Kan-lai and San-hu, 20 miles distant from Pakhoi.
Amoy—				
Kulansu.....	May 20.....	1		
Canton.....	Jan. 1-Apr. 30.....	378		
Fatshan.....				May 13, present.
Hongkong.....	May 10-16.....	241	185	Total, Jan. 4-May 16: Cases, 1,463; deaths, 1,118. July 1-7: Cases, 20.
Cuba ¹				Total, Mar. 5-July 7: Cases, 29, deaths, 6.
Santiago.....	June 30-July 7.....	2		
Ecuador:				
Guayaquil.....	May 1-31.....	3	1	
Egypt:				
Alexandria.....	June 2-17.....	7	4	
Port Said.....	June 9-17.....	2	1	
Provinces—				
Assiout.....	May 25-June 6.....	4	1	
Fayoum.....	May 27-June 9.....	2	1	
Gizeh.....	do.....	2	1	
Minieh.....	May 23-June 11.....	7	2	
India:				
Bassein.....	Apr. 26-May 9.....	19	17	
Bombay.....	May 17-30.....	236	202	
Calcutta.....	May 10-16.....		23	
Moulmine.....	Apr. 26-May 9.....	19	19	
Rangoon.....	Apr. 1-30.....	248	238	
Indo-China.....				Total, Jan. 1-Apr. 10: Cases, 1,114; deaths, 917. Apr. 11-May 20: Cases, 103.
Saigon.....	May 19-25.....	7	1	
Japan.....				Total, Apr. 1-30: Cases, 18; deaths, 16.
Hodogaya.....	June 9-15.....	2		
O-No district.....	do.....	1		
Tainan.....				
Kagi.....	May 3-9.....	3	2	
Mauritius.....	Apr. 17-23.....	2		
Philippine Islands:				
Manila.....	May 17-23.....	1	1	May 17, 1 case from s. s. Taisang from Amoy. May 23, 1 case from s. s. Linan from Amoy.
Cebu.....				May 20, 1 case on s. s. Rubi from Hongkong.
Senegal:				
Dakar.....				May 17-23, 5 deaths daily among natives.
Siam:				
Bangkok.....	Apr. 19-May 16.....		2	
Straits Settlements:				
Singapore.....	May 10-16.....	2	2	

SMALLPOX.

Australia:				
New South Wales—				
Sydney.....				Total May 8-28: Cases, 52 in the metropolitan area and 10 cases in the country districts.
Western Australia—				
Bunbury.....	May 25-28.....	7		
Austria-Hungary:				
Galicia.....	May 17-23.....	10		
Upper Austria.....	do.....	3		

¹ Erroneously entered under yellow fever on p. 1854.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.**Reports Received from June 27 to July 10, 1914—Continued.****SMALLPOX—Continued.**

Places.	Date.	Cases.	Deaths.	Remarks.
Belgium:				
Liege.....	June 1-6.....		3	
Brazil:				
Bahia.....	.....do.....	1		
Para.....	May 24-30.....		1	
Pernambuco.....	May 1-15.....		12	
Rio de Janeiro.....	May 10-30.....	140	40	
Canada:				
Winnipeg.....	June 14-20.....	3		
Ceylon:				
Colombo.....	May 19-23.....	1		
China.....				May 16-23, present in Kaying and increasing in Chao Chow.
Canton.....	Jan. 1-Apr. 30.....	21		
Hongkong.....				Total Jan. 4-May 16: Cases, 87; deaths, 61.
Pakhoi.....	Apr. 17.....			Present, and in San-hu, 20 miles distant.
Shanghai.....	May 18-24.....	6		
Tsingtau.....	May 19-June 6....	12	1	
Dutch East Indies:				
Java.....				In the western part. May 3-16: Cases, 231; deaths, 29; including Batavia.
Batavia.....	May 3-16.....	5	4	
Egypt:				
Alexandria.....	June 4-10.....		1	
Cairo.....	May 21-June 3....	69	21	
Port Said.....	.....do.....	3		
France:				
Bordeaux.....	June 7-13.....		1	
Paris.....	May 24-June 6....	7		
Germany.....				May 31-June 20: Cases, 8.
Hamburg.....	June 7-13.....	1		
Gibraltar.....	June 8-14.....	1		
Great Britain:				
Leeds.....	June 6-13.....	1		
India:				
Bombay.....	May 19-30.....	22	13	
Calcutta.....	May 10-16.....		23	
Madras.....	May 17-23.....	2	3	
Rangoon.....	Apr. 1-10.....	7	1	
Indo-China:				
Saigon.....	May 12-18.....	2		
Japan:				
Taiwan.....	May 3-9.....	3	2	
Mexico:				
Vera Cruz.....	June 1-20.....	11	1	
Russia:				
Moscow.....	May 10-30.....	18	3	
Odessa.....	May 10-16.....	4		
Riga.....	May 31-June 6....	11		
St. Petersburg.....	May 24-June 6....	25	8	
Servia:				
Belgrade.....	May 25-June 13...	4	2	
Siam:				
Bangkok.....	Apr. 19-May 16...		2	
Spain:				
Barcelona.....	June 14-20.....		5	
Valencia.....	June 7-13.....	4		
Turkey in Asia:				
Beirut.....	June 1-20.....	15	5	
Damascus.....	Mar. 15-May 16...	348	185	
Jerusalem.....	May 3-June 13...	11		
Trebizond.....	May 19-June 6....			Present.
Turkey in Europe:				
Saloniki.....	May 31-June 6....		4	

SANITARY LEGISLATION.

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

ORANGE, N. J.

Milk-Bottling Establishments—Sanitary Regulation of. (Ord. Mar. 4, 1913.)

The term "milk bottling establishment" or "establishment," as hereinafter used, shall be held to include any and every building, or part of a building, wherever located, in which milk is bottled for sale or distribution in the city of Orange. The term "bottling room" shall be held to apply to any room, or part of a building, in which milk is exposed or bottled, and the term "washing room" to any room, or part of a building, in which any containers, apparatus or utensils, used in the handling of milk, are cleansed or otherwise treated. The following rules shall apply to all such milk-bottling establishments; and no milk which has been bottled, handled, or stored in noncompliance with or violation of any of said rules shall be sold, held, or offered for sale, or delivered in the city of Orange, under a penalty of \$25 for each and every offense.

1. No such establishment shall be located within 100 feet of any hog pen, manure pile, privy vault, or other source of contamination.

2. Water used for washing bottles and utensils shall be obtained from a source subject to approval by this board.

3. Every privy vault located on any premises where milk is bottled shall be so constructed that the contents shall be inaccessible to flies, and every such privy vault shall be kept at all times in a sanitary condition.

4. Bottling and washing rooms shall conform to the following requirements:

(a) Floors to be water-tight, constructed of cement, concrete, or other nonabsorbent material, and properly drained to a point or points at which drainage is disposed of.

(b) Walls and ceilings to be smooth and kept well painted or lime washed.

(c) Adequate natural or artificial light to be provided.

(d) Adequate ventilation to be provided.

(e) Rooms to be thoroughly screened against flies from April 1st to November 1st of each year.

5. Drainage shall not be permitted to flow into or upon the ground underneath the establishment or within 100 feet of the same. If drainage is collected in a seepool or other receptacle, the same shall be water-tight and shall be kept in a sanitary condition.

6. Nonemployees shall be excluded at all times from bottling and washing rooms.

7. Milk on reaching the establishment shall be immediately cooled to a temperature not exceeding 50° F. (if such cooling has not already taken place), and shall be thereafter maintained at such a temperature. Cooling tanks shall be constructed of smooth, water-tight, nonabsorbent material, and the water in such tanks shall be

changed at least once a day during the months of May, June, July, August, and September, and at least twice a week during the remainder of the year.

8. All bottles and other containers, apparatus, and utensils, used in handling milk, shall, after use and before being refilled or reused, be thoroughly cleansed and sterilized.

9. Adequate lavatory facilities for employees shall be provided, separate and distinct from apparatus used for handling of milk or treatment of milk utensils. All employees engaged in bottling and washing rooms shall, before beginning work and after visiting the toilet, wash their hands thoroughly with clean water and soap.

10. No bottling or washing room shall be used as a living or sleeping room or be directly connected with such room or be used for any other purpose other than the storage or handling of milk and milk utensils.

11. No person affected with typhoid fever, dysentery, scarlet fever, diphtheria, tuberculosis, or any other communicable disease which may be declared by the board to be included in this regulation, shall be employed in any milk-bottling establishment; nor shall any member of the family or household of any such person be so employed unless by permission of this board.

12. All milk utensils and apparatus shall be of such construction as to be readily cleansed and shall be kept in good repair and free from rust.

13. Bottle caps shall be kept in a clean, dust-proof container.

14. Bottling and washing rooms and all parts thereof shall be kept clean and free from offensive odor. Dirt, dust, rubbish, clothing, all articles not used in the handling of milk, and domestic animals shall not be permitted in such rooms.

15. All employees in bottling and washing rooms shall keep themselves and clothing in a clean condition. Clean aprons or suits used for no other purpose shall be worn by such employees while in the performance of their duties.

16. No spitting or smoking shall be permitted in bottling and washing rooms.

17. A copy of the above rules, furnished by the board of health, shall be posted in a conspicuous place in each milk-bottling establishment.

18. No milk shall be bottled except in an establishment in which all of the foregoing regulations are complied with, and at no time and in no place shall milk be exposed to contamination by dust, dirt, flies, communicable disease, or any other act or thing injurious to health.

Milk—Bacteriological Standard—Permit Must be Renewed if Milk not up to Standard. (Ord. June 3, 1913.)

1. No person or corporation engaged in the business of selling milk whose milk shall be found to contain over 100,000 bacteria per cubic centimeter on two or more different days shall continue to sell milk in this city after notice of said finding has been given, until a permit shall thereafter be granted to do so, which permit shall be issued by the health officer upon evidence satisfactory to him showing that the milk sold by said person or corporation may be reasonably expected to contain less than said number of bacteria.

2. Any person or corporation violating any of the provisions of this ordinance shall be subject to a penalty of \$10 for each offense.

Privies, Temporary—Permits—Construction, Care, and Disposal of Contents. (Ord. June 3, 1913.)

1. That no temporary privy vaults may be maintained in this city without a permit for that purpose from this board or the health officer thereof, and when such permit shall be issued, the person or corporation to whom such permit shall be issued shall cause the contents of said privy vault to be covered twice a day with unslacked lime, chloride of lime, or other substance approved by the health officer, and shall cause

the contents to be removed and disposed of in accordance with the ordinances of the board upon notice from the health officer, and the vault filled in with clean earth or ashes as soon as there is no longer any necessity for use.

2. All privies constructed or to be hereafter constructed under permits granted or to be granted under section 37 of the ordinance to which this is a supplement shall be made fly tight, so that the contents shall be inaccessible to flies, so far as may be possible, and no permit shall be issued under said section unless the health officer is satisfied with the plans for the construction of said privy; as to privies now built under permits already issued, such changes and additions shall be made therein within 10 days after notice given to make such changes and additions as may be satisfactory to the health officers so that this ordinance may be complied with.

3. Any person or corporation violating any of the provisions of this ordinance or refusing to make the changes or additions ordered by the health officer within 10 days after notice of the order shall be subject to a penalty of \$10.

OSHKOSH, WIS.

Milk—Production, Care, and Sale. (Ord. May 24, 1913.)

SECTION 1. No person or persons shall sell, barter, or traffic in milk within the city of Oshkosh without having first been licensed so to do by the health officer of said city.

SEC. 2. Any person or persons desiring to sell, barter, or traffic in milk within the city of Oshkosh on his or their application to the health officer of said city shall be by him licensed to the same as hereinafter provided, and shall be granted a permit therefor upon the payment in case said milk be the product of two cows the sum of 50 cents as license, and if the produce of more than two cows, the sum of \$1 as a license fee, which said sums shall be paid into the city treasury; and the said license shall continue and be operative until the 1st day of May next ensuing the issuance of the same unless sooner revoked as hereinafter provided. Every hotel keeper, boarding-house keeper, restaurant keeper, saloon keeper, grocery store, and bakery who furnish milk or cream to their guests or customers shall be in all respects subject to the provisions of this ordinance, saving and excepting the obtaining of a license.

SEC. 3. The said health officer shall not issue any such license unless he is satisfied with the sanitary condition of the stables where the cow or cows kept by said applicant are stabled, and the said health officer at any time after the issuance of any license himself or by his assistants shall investigate into the condition of the stables wherein the cows are kept to determine whether the condition of said stables renders the business there carried on detrimental to the public health, and if after such investigation the said health officer shall be satisfied that the condition of such stables renders the business there carried on detrimental to the public health, he shall forthwith revoke the license of the owner or keeper of any such stable or stables, and no new license shall be issued until said stable shall have been placed in a sanitary condition. And any vendor of milk doing business in the city of Oshkosh, residing or having his stables without the city of Oshkosh, shall at all times permit the inspector of milk of said city or his assistants to inspect the sanitary condition of any stables or place where cows producing milk are kept, and as to the condition of said cows; no license shall be granted to any person refusing to permit such inspection, and any license granted shall be revoked by said inspector upon a refusal to allow any such inspection.

SEC. 4. No person or persons shall bring to or deliver milk in the city of Oshkosh, for the purpose of retailing the same to consumers in the city of Oshkosh, in any open or uncovered wagon, cart or conveyance of any kind; and all milk hereafter to be brought to the city of Oshkosh to be retailed to consumers, or for that purpose to be delivered in the city of Oshkosh, shall be brought to said city and delivered in care,

wagons, or carts so constructed that the covering hereinbefore provided for shall not come in contact with the cans or vessels containing the milk, and shall protect such milk and the cans or vessels containing the same from the sun and rain, and as far as practicable from the dust and all the impurities of the air.

SEC. 5. No person himself, or by his servant or agent or as the servant or agent of any person, shall sell, exchange or deliver, or have in his custody or possession with intent to sell or exchange, nor shall he expose or offer for sale as pure milk any milk from which the cream or any part thereof has been removed, or which has been watered, adulterated, or changed in any respect by the addition of water or any other substance.

SEC. 6. No dealer in milk and no servant or agent of such a dealer shall sell, exchange or deliver, or have in his custody or possession with intent to sell, exchange, or deliver milk from which the cream or any part thereof has been removed, unless there shall be securely affixed in a conspicuous place upon the outside of the vessel, can, or package from or in which such milk is sold, a brass or other metal tag not less than 3 inches long and 2 inches wide, which shall have plainly and distinctly stamped and indorsed thereon in plain, clear type the words "skimmed milk."

SEC. 7. No person shall sell, exchange or deliver or have in his custody, or possession, with intent to sell, exchange, or deliver skimmed milk containing less than 9 per cent of the milk solids exclusive of butter fat.

SEC. 8. No person shall sell or offer for sale, or carry for the purpose of sale, or have in his possession with intent to sell, or offer for sale any impure, adulterated, or unwholesome milk, and no person shall adulterate milk or keep cows for the production of milk in a crowded or unhealthful condition, or feed the same on food that produces impure, diseased, or unwholesome milk, or shall feed cows on distillery waste, usually called "swill" or vinegar slops, or upon any substance in a state of putrefaction or rottenness.

SEC. 9. The addition of water or any other substance is hereby declared an adulteration, and milk thus obtained from animals that are fed on distillery waste, usually called "swill," or upon any substance of an unwholesome nature, or upon any substance in a state of putrefaction or rottenness, or milk that has been exposed to or contaminated by the discharges or exhalations from persons sick with any contagious diseases, or milk from tubercular cows is hereby declared to be impure and unwholesome.

SEC. 10. The health officer of said city is hereby appointed ex officio inspector of milk of said city, with full power and authority to do all acts and things necessary for the enforcement of this ordinance.

SEC. 11. In any prosecution under this ordinance after the milk shall be shown upon analysis by the health officer, or by any chemist or chemists appointed by the health officer, to contain more than 250,000 bacteria to the cubic centimeter or to contain less than 12 per cent of milk solids, or to contain less than 9 per cent of milk solids exclusive of butter fat, such milk shall be deemed for the purpose of this ordinance to be adulterated.

SEC. 12. No cream shall be sold, offered for sale, exchanged, delivered, or transported or carried for the purpose of sale, offering for sale, exchange, or delivery, that contains less than 18 per centum of butter fat or more than 30 pus cells in one-twelfth inch oil immersion field, or shows other manifestations of inflammatory action in the udder. Offenders under this section shall be deemed guilty of a misdemeanor, and on conviction thereof shall be fined not exceeding the sum of \$50 for each and every offense.

SEC. 13. All milk bottles or other containers shall be washed and thoroughly cleansed before being returned to any vendor of milk, and no bottles or other containers shall be filled with milk by any dealer or vendor of milk until they have been thoroughly cleansed and sterilized. No person selling or distributing milk or cream shall remove

any empty milk bottles or container from any dwelling where any contagious disease exists, except under such conditions as authorized by the city board of health.

SEC. 14. Whenever the said inspector of milk or his assistants shall have reason to believe that the provisions of this ordinance are being violated, he or they shall have power to open any can, vessel, or package containing milk, whether sealed, locked, or otherwise, or whether in transit or otherwise. And if upon inspection such can, vessel, or package shall be found by said inspector to contain any milk which has been adulterated or from which the cream or any part thereof has been removed, or which is sold, offered or exposed for sale, or held in possession with intent to sell or offer for sale in violation of any section of this ordinance, said inspector or his assistants are empowered and directed to take a sample of the same for analysis, and put said sample into a can, vessel, or package to be sealed in the presence of one or more witnesses and sent to the chemist or chemists appointed or designated by him; and said inspector may also condemn the milk so deemed to be by him adulterated, and pour the contents of such can, vessel, or package upon the ground, or return the same to the consignor; and if upon analysis such milk shall prove to be adulterated shall bring a prosecution against the offending party under the provisions of this ordinance, provided, however, that if upon analysis it is proved that the condemned milk is unadulterated the city shall be liable for the value of the article destroyed, and provided also that in each and every case where the inspector shall deem it necessary to condemn milk belonging to any dealer, servant, or agent, he shall at the time of taking or sealing his samples in the same manner and form seal a sample of an equal quantity of milk condemned and deliver it to the dealer, servant, or agent with written notice, certifying that he has condemned so many gallons of milk, and taken samples of the same for examination and proof, one of which samples he has returned sealed to the dealer, servant, or agent with such notice of condemnation.

SEC. 15. It shall be the duty of said inspector to keep a complete record of his proceedings as inspector, giving full account of all inspections of milk made by himself, or his assistants, including the names of such person, firm, or corporation owning, or claiming to own, the milk so inspected, together with their places of business or residences, or the railroad station used for shipment, or delivery thereof, and the result of the analysis in such case.

SEC. 16. It shall be unlawful for any person to sell milk in said city unless he has plainly printed in the English language and exposed in a public manner at the place of business of said person, and upon every conveyance used by him in delivering milk, notice to be furnished by said inspector without charge, and which shall state that said person has been duly licensed to sell and deliver milk in the city of Oshkosh, the number of said license, and the place of residence of said person. It shall be unlawful for any firm, person, or corporation to sell or give away any milk ticket, coupon, or other device used in selling milk that has once been used and taken up and it shall be the duty of every firm, person, or corporation who shall issue any such ticket, coupon, or other device, upon redeeming such ticket, coupon, or device to destroy same.

SEC. 17. In case of the absence of or in case there be no health officer of said city of Oshkosh, then in that case the board of health of said city shall have, and is hereby given, all the powers and authority and charged with all the duties of the said health officer.

SEC. 18. Any person violating any of the provisions of this ordinance shall, upon conviction thereof, be fined a sum not exceeding \$50 for each and every offense and in default of payment shall be imprisoned in the county jail not exceeding 30 days.

PASADENA, CAL.

Tuberculosis—Notification of Cases and Control of. (Ord. 1393, Sept. 29, 1913.)

SECTION 1. Tuberculosis is hereby declared to be a communicable disease, dangerous to the public health. It shall be the duty of every physician practicing in the city of Pasadena, and of every person in charge of any hospital, dispensary, or other private

or public institution in said city, to report in writing to the board of health of said city the name, age, sex, color, occupation, address, and place where last employed, if known, of every person having tuberculosis who comes under his care or observation.

SEC. 2. It shall be the duty of the health officer, when so requested by any physician, or by the authorities of any hospital or dispensary, to make or cause to be made a microscopical examination of the sputum sent him as that of a person having symptoms of tuberculosis, accompanied by a blank giving the name, age, sex, color, occupation, place where last employed, if known, and address of the person from whom such sputum is taken. It shall be the duty of the health officer to promptly make a report of the results of such examination, free of charge, to the physician or person upon whose application the same is made.

SEC. 3. It shall be the duty of the health officer to cause all reports and all results of examinations showing the presence of the bacilli of tuberculosis made in accordance with the provisions of sections 1 and 2 of this ordinance to be recorded in a register of which he shall be the custodian; the names in such register of those persons referred to in section 2 of this ordinance shall not be subject to the inspection of any person other than the health authorities of the State and of the said city, and said health authorities shall not permit the names of such persons to be divulged, except as may be necessary to carry into effect the provisions of this ordinance.

SEC. 4. Any person in said city having tuberculosis who shall so dispose of his sputum, saliva, or other body secretions or excretions as to cause danger of communicating said disease to any person or persons occupying the same room, apartment, house, or part of house, shall, on complaint of any person subject to such danger, be deemed guilty of creating a nuisance, and any person subject to such nuisance may make complaint in writing to the health officer, whereupon it shall be the duty of the health officer receiving such complaint to investigate the same; and if it appears to the health officer that the nuisance complained of is such as to cause danger of communicating said disease to any person occupying the same room, apartment, house, or part of house, he shall serve notice on the person so complained of, reciting the alleged cause of danger and requiring him to dispose of his sputum, saliva, or other body secretion or excretion in such manner as to remove all reasonable cause of such danger.

SEC. 5. It shall be the duty of the physician attending any patient in said city for tuberculosis to take all proper precautions and to give such patient and those attending such patient proper instructions to provide for the safety of all individuals occupying the same house or apartment.

SEC. 6. In cases where tuberculosis is proven by sputum analysis made or by diagnosis vouched for by the attending physician or health officer, and the provisions of section 4 of this ordinance are not observed, and other persons, especially children, are thereby exposed to infection, the patient may be removed by the health officer, without the consent of such patient or that of the person or persons having authority over such patient, to such place as may be designated by the board of health.

SEC. 7. It shall be unlawful for any physician, or person practicing as a physician, in the city of Pasadena, to report knowingly as affected with tuberculosis any person who is not so affected, or to willfully make any false statement concerning the name, sex, color, occupation, place where last employed, if known, or address of any person as affected with tuberculosis, or to certify falsely as to any of the precautions taken by any such physician or person to prevent the spread of infection.

SEC. 8. Upon the recovery of any person having had tuberculosis, it shall be the duty of the attending physician to make a report of such recovery to the health officer, who shall record the same in the records of his office and shall relieve said person of further compliance with the requirements of this ordinance.

SEC. 9. Any person violating any of the provisions of this ordinance shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished

by a fine in a sum not exceeding \$500, or by imprisonment in the city jail for a term not exceeding 60 days, or by both such fine and imprisonment, in the discretion of the court.

Manure Pits—Construction of. (Ord. 1398, Sept. 29, 1913.)

SEC. 5. That subdivision (d) of section 28 of ordinance No. 1312 be, and is hereby amended to read as follows:

"(d) Every person, firm, or corporation now or hereafter maintaining any stable or other place in fire district No. 1 in which manure or stable refuse accumulates shall provide a bin or pit constructed of masonry not less than 4 inches thick at a point designated therefor by the health department of the city. Said bin or pit may have a door in the end or side thereof, providing the bottom of said door shall be 18 inches from the floor of said bin, and shall be equipped with a tight door and cover; otherwise, said bin or pit shall be entirely closed. Such bin or pit shall be vented by means of a duct or flue not less than 12 inches in diameter, and if inside of a building such vent shall extend through the roof. The outer termination of said vent shall be effectually screened against flies, and shall be carried above the roofs of all buildings within 25 feet thereof, and shall in no instance be closer than 10 feet to any window or light well."

PASSAIC, N. J.

Fat, Meats, Refuse, etc.—Collection—Permit Required. (Reg. Bd. of H., Apr. 28, 1913.)

SEC. 121. Every person engaged, or who shall hereafter engage, in the business of collecting fat, meats, or refuse, etc., shall take out a permit from the board of health and pay a yearly fee of \$20, and any person violating any of the provisions of this section shall forfeit and pay a penalty of \$25.

Rags and Junk—Collection—License Required. (Reg. Bd. of H., Apr. 28, 1913.)

SEC. 122. Every person engaged, or who shall hereafter engage, in the business of rag gatherer or junkman in the city, shall appear in person at the office of the board of health and make application for a license, which, if granted, shall cost the applicant a sum not to exceed \$5 per annum. The number of such license must be displayed conspicuously upon both sides of wagon used, or if a wagon is not used, upon such bag, basket, or other receptacle which he may carry, and such permit shall not be transferable under any circumstances, and any person violating the provisions of this section shall forfeit and pay a penalty of \$25 for each and every violation thereof.

Barber Shops—Sanitary Regulation. (Reg. Bd. of H., Nov. 3, 1913.)

SEC. 123. Every barber shop in the city of Passaic shall be conducted in accordance with the rules and regulations adopted from time to time by the board of health. A copy of such rules and regulations must be posted in a conspicuous place in every such barber shop.

Any person who shall violate any of the provisions of this ordinance shall be liable to a penalty of \$10 for each and every offense.

PHOENIXVILLE, PA.

Foodstuffs—Milk and Meat—Inspection, Production, Care, and Sale. (Ord. Feb. 4, 1913.)

SECTION 1. No person or persons, firm, or corporation shall, within the limits of this borough, either in person or through agents and employees, sell, offer for sale, expose for sale or exchange, or transport or deliver for sale or exchange any milk or milk food

products, meat, or meat food products which are impure, adulterated, unwholesome, or otherwise unfit for human consumption. And no milk or milk food product or meat or meat food products shall be sold or offered for sale within this borough by any dealer or vender until such person shall have first obtained from the board of health a license so to do and shall have complied with the other requirements of this ordinance and such rules and regulations as may hereafter be adopted by the board of health.

SEC. 2. The terms "milk," "milk food products," "meat," and "meat food products" shall apply to the milk and flesh of cattle, calves, sheep, swine, goats, poultry, and fish and the food products thereof.

SEC. 3. The board of health is hereby authorized to appoint, subject to the approval of town council, a competent person to act as milk and meat inspector, whose duty it shall be to see that the provisions of this ordinance and any and all rules and regulations pertaining to this subject that are or hereafter may be adopted by the board of health under this ordinance are strictly complied with and enforced. The said milk and meat inspector shall possess an intimate knowledge of the diseases of animals, in especial those of an infectious nature which are communicable to human beings either directly or indirectly through the agency of milk. He shall have a knowledge of general and comparative pathology, physiology, and bacteriology. He shall have a knowledge of the principles of general hygiene and sanitation, as well as an intimate knowledge of the special principles of milk and meat hygiene.

The qualifications of the said milk and meat inspector shall immediately after his appointment be certified by the proper officers of the board of health to the State live-stock sanitary board, and the said board shall be requested to confer on the said inspector the authority as defined in the act of the General Assembly of Pennsylvania approved May 25, 1907. The inspector first appointed after the approval of this ordinance shall serve from the 1st day of May, 1913, until the 1st day of December, 1914, and the term of the office of the said inspector shall be five years.

SEC. 4. The inspector shall at least once every month, or as often as required by the board of health, make a report to the said board of his work. He may be removed by the board of health upon a majority vote of its members for inability, misconduct, or neglect of duty. He shall be furnished with all the material necessary for the performance of his duty by the said board of health. He shall receive the annual compensation of \$1,200, payable in monthly installments upon warrants drawn according to law upon the borough treasurer.

SEC. 5. It shall be the duty of the said inspector to visit at least once a month, or as often as to the board of health may seem necessary, in the borough of Phoenixville and within 15 miles of the borough limits, the butchering shops, wagons, and business places of all persons holding licenses to sell meat or milk in the borough of Phoenixville; slaughterhouses where animals are killed, and all places where meat or meat food products are prepared or stored; the cow stables, milk houses, spring houses, etc., of all duly registered dairy owners, the product of whose dairies is sold within the limits of the borough of Phoenixville. It shall be the duty of the said inspector to ascertain whether such places are in a sanitary condition, to inspect the milk, meat, milk, or meat food products there offered for sale, produced, or stored, to make an examination of cows as to health, to take such samples for examination as seems to him advisable, and for these purposes he shall have free access to all places mentioned in the foregoing portion of this section, and shall upon request be forthwith furnished free of charge with all such necessary samples for inspection, examination, and analysis, and no person shall conceal any milk, milk food product, meat or meat food product, so kept for sale, from examination by the said inspector. Nor shall any person refuse to permit any milk, meat, milk or meat food product, or animals or premises whereon the animals are kept to be viewed and inspected as herein provided, or in any manner hinder or resist said inspector or any person under him in the performance of his duty,

and such refusal or resistance by any legally licensed milk or meat dealer or the registered dairy owner or the owner or manager of any slaughterhouse shall be sufficient grounds for the revocation of the license or registration certificate of any such offender. The inspector shall immediately report such action on the part of any person, his agents, employees [sic] to the board of health.

SEC. 6. No milk but that of duly registered dairies whose owners have complied with all the requirements of this ordinance and such rules and regulations as may relate to them, nor any meat or meat food products unless it has upon it the meat-inspection brand or other mark of identification of the board of health of the borough of Phoenixville, or the brand or mark of identification of boards of health whose meat-inspection standard is equal to and recognized by the board of health of the borough of Phoenixville, or the meat-inspection brand or stamp of the State live stock sanitary board, or of the United States Department of Agriculture, shall be sold within the limits of the borough of Phoenixville.

SEC. 7. All dealers and vendors, and all persons, firms, and corporations that sell or offer for sale milk, meat, or milk or meat products within the borough of Phoenixville, upon order of the milk and meat inspector, or the secretary of the board of health, shall file a written application for a license with and pay to the secretary the sum of \$5. And the said secretary is authorized and directed, after a proper inspection as to sanitary conditions and an examination as to the health of the cows, in case of milk dealers or dairy owners, by the milk and meat inspector, and the certification by the said inspector that all the provisions and requirements of this ordinance and the rules and regulations of the board of health have been complied with, to issue a license to such person, firm, or corporation. Upon the refusal of the board of health to grant any such applicant a dealers' license the secretary shall return to the applicant the fee paid.

Certificates of registration shall be issued by the Secretary after written application filed by each dairy owner upon blanks provided for this purpose and after the receipt of the certification of the milk and meat inspector that all the requirements of this ordinance and the rules and regulations of the board of health, now or hereafter to be adopted, have been complied with.

All applications for licenses and dairy registration certificates shall be made and filed annually with the secretary on or before the 1st day of May and all licenses and certificates shall date from the 1st day of June and shall be in force for one year. The applications of new dealers or dairy owners may be made at any time.

SEC. 8. All applications for dealers' licenses shall set forth the name and residence of the applicant, if an individual, and the names and residence of the principal officers, if the applicant is a corporation, together with the location of the place for which such license or permit is desired. Such applicant shall also state whether the milk, meat, or meat food products are to be sold in a store or depot or from a wagon. This application must also state the number of wagons that are employed in the business, and each wagon shall have painted, or otherwise displayed, in conspicuous positions on both sides, the name of the individual or firm to whom such license has been issued, together with the license number, in letters not less than 4 inches in height, and the name of the wagon must at all times be the same as that under which the license or permit has been issued. Applications of milk dealers shall further state whether the milk, cream, or buttermilk is to be sold in bottle exclusively or in bulk and bottles; it shall also state whether cows are to be kept by such applicant, and if so shall state their number and the location of such dairy. Such application shall also set forth the names of the owners and the locations of all dairies supplying such applicant with milk and whether or not they are registered with the board of health, and such dealers and licensees shall immediately notify the inspector of any new dairies the product of which they are distributing, and shall give all such other information as the board of health may deem necessary to obtain.

SEC. 9. The application of every dairy owner for a registration certificate shall contain all the information that the board of health may desire with respect to the location of the dairy, condition of the stables and water supply, the number of cows and the number of quarts sold, as well as the name of the purchaser of their product, and any other data that may be required.

Such applicant shall agree to permit a full and frequent inspection of his dairy at such times as the milk and meat inspector may deem necessary, and shall further agree to have his herd tested by the tuberculin test, free of cost to him, at least once a year, by a veterinarian who is satisfactory to the board of health and the State live-stock sanitary board.

SEC. 10. If at any time after the granting of a license or registration certificate, as above provided, the holder thereof fails to comply with the sanitary requirements of the board of health, or of any of the rules thereof, or sells or offers for sale any milk, meat, milk or meat food product below standard or otherwise adulterated or unfit for food, or in violation of this ordinance, or any of the provisions thereof, the milk and meat inspector shall revoke his or their license or registration certificate, with or without notice, and no liability shall attach to the borough of Phoenixville, or to any officer of the board of health by reason of such revocation, nor shall the borough be required to refund any money for the unexpired term of such permit. The president of the board of health may grant the defendant a hearing before the board if he deems this expedient.

SEC. 11. No milk or cream shall be sold, offered for sale, or distributed in the borough of Phoenixville unless each and every animal in the herds from which said milk or cream is obtained shall have been examined within one year to the satisfaction of the said board of health, by a veterinarian acceptable to the said board and the State live-stock sanitary board, such examination to include the tuberculin test, when such test may be deemed advisable or necessary by the board of health or its milk and meat inspector.

No milk or cream, meat, milk or meat food products shall be sold or exposed for sale or handled by any person or persons in whose family or residence there is a case of contagious or infectious disease, nor from any dairy or premises on which such disease exists, except by permission of and in the manner prescribed by the board of health.

No milk shall be sold, offered for sale or distributed within the borough of Phoenixville from any cow or cows that are not properly cared for, or from any cow or cows within 15 days before or 5 days after parturition.

SEC. 12. Whenever the milk and meat inspector shall find that any cow or cows in any dairy supplying milk sold to the inhabitants of the borough of Phoenixville, or any bovine animal of any kind associated with or connected with such dairy in any manner, is or are affected with tuberculosis, or any infectious or contagious disease, it shall be the duty of the milk and meat inspector to immediately notify the owner, proprietor, or manager of such dairy, whether in person or in writing, of the presence of such diseased animal or animals, and direct that the same be isolated and quarantined; and to immediately notify the State live-stock sanitary board.

SEC. 13. No dealer in milk, or agent of such dealer, shall sell, exchange, or deliver milk, or have in his custody or possession milk from which the cream or any part thereof has been removed, unless in a conspicuous place above the center on the outside of each vessel, can, or package from and in which such milk is sold, conveyed, or delivered, the words "skimmed milk" are permanently soldered in metallic letters, not less than 1 inch in height: *Provided*, That in case of the delivery of skimmed milk in bottles or any other vessel or container, the words "skimmed milk" must be either blown or pressed in such other bottle, vessel, or container in letters not less than one-half inch in height.

SEC. 14. No person shall sell, exchange, or deliver or have in his possession or custody, with intent to sell or deliver within the borough of Phoenixville, skimmed milk containing less than 9 per cent of the milk solids, and no milk unless from a duly registered dairy or other inspected and approved source shall be sold or offered for sale within the limits of the said borough, and any dealer or other person so doing shall be subject to the penalty hereinafter provided for.

SEC. 15. That the addition of water, ice, or any substance or drug is hereby declared an adulteration, and no milk shall be sold or offered for sale from cows kept in insanitary premises, or which are fed upon any substance in a state of putrefaction, or distillery waste, or upon any substance of an unwholesome character, or from sick and diseased cows, and any person so doing shall be punished by the penalties provided in this ordinance.

SEC. 16. No person shall sell, exchange, or deliver, or have in his, her, or their possession, for the purpose of sale, any milk which contained more than 88 per cent of water, and less fat than 3.25 per cent and less solids, not fat, than 8.5 per cent, and the specific gravity of which at 60° F. is not between 1.029 and 1.034; and all milk of lower grade or quality than is established by this section shall be deemed adulterated and taken, and is hereby declared to be, impure within the meaning of this ordinance.

SEC. 17. An ante-mortem examination shall be made, under the direction of the board of health of the borough of Phoenixville, or its milk and meat inspector, of all cattle, calves, sheep, swine, or goats about to be slaughtered, before they shall be allowed to enter the slaughtering pens. All animals showing symptoms of, or suspected of being affected with, any disease or condition, which, under the regulations of the board of health, or in the estimation of the milk and meat inspector, would probably cause their condemnation in whole or in part when slaughtered, shall be marked by affixing to the animal a tag bearing the words, "Board of health, Phoenixville, Pa., suspect." All such animals shall be slaughtered separately.

SEC. 18. A careful post-mortem inspection under the direction of the board of health or its milk and meat inspector must be made of all animals herein named at the time when slaughtered in the borough of Phoenixville. The head, tongue, thymic glands, and all viscera of each animal shall be retained in such manner as to preserve their identity until after the post-mortem examination has been completed in order that the parts so retained may be identified in cases of condemned carcasses. Suitable racks or metal receptacles shall be provided in and by each slaughtering establishment for retaining said parts.

SEC. 19. All carcasses, meats, or meat-food products which are unsound, unhealthy, unwholesome, or otherwise unfit for food shall be stamped or otherwise marked by the milk and meat inspector, "Board of health, Phoenixville, Pa., inspected and condemned," and shall be destroyed under the supervision of the milk and meat inspector.

SEC. 20. All meats and meat-food products offered for sale in the borough of Phoenixville shall be subject to reinspection and condemnation at any and all times by the board of health or its agents.

SEC. 21. The board of health of the borough of Phoenixville is hereby authorized and directed to adopt rules and regulations relating generally to the production, inspection, and sale of milk and cream, and to the slaughtering, inspection, and sale of meat and meat-food products and the ultimate disposal of condemned meats, in addition to the provisions of this ordinance, as it may deem from time to time advisable. The standard of meat inspection shall be that adopted in the rules and regulations of the meat hygiene service of the State live-stock sanitary board.

SEC. 22. It shall be unlawful and in violation of this ordinance for any person or persons, firm, or corporation, or officer, agent, or employees thereof, to forge, counterfeit, simulate, or falsely represent, or without proper authority to use or detach, or

knowingly or wrongfully alter, deface, or destroy any of the stamps or marks, or brands or tags recognized or used by the board of health, on any cattle, calf, sheep, lamb, goat, or swine, or any carcass or carcasses of any such animal.

SEC. 23. Any person or persons, firm or corporation, officer, agent, or employee thereof, violating any of the provisions of this ordinance, or failing to comply with any direction or order of the said board of health, given pursuant to the provisions of this ordinance by the said board, or by its milk and meat inspector, or by any agent of the said board, shall be liable to arrest by any constable or police officer of the said borough, or by any person or persons having authority to make arrests, either upon view or by warrant issued by the burgess or any justice of the peace of the said borough, and shall upon conviction forfeit and pay to the borough treasurer, for the use of the said borough, a fine or penalty of \$10, for each and every such offense, and in default thereof shall be sentenced by the said burgess or justice of the peace and committed to the borough lockup for a period not exceeding five days, or to the county jail for a period not exceeding 30 days.

SEC. 24. Each day that the violation of this ordinance or the failure to comply with the directions of the said board of health or its milk and meat inspector, given in accordance with this ordinance, shall continue, shall constitute a new and separate offense and be punished accordingly, as herein provided.

PITTSBURGH, PA.

Rubbish, Garbage, etc.—Burning Prohibited. (Ord. Feb. 4, 1913.)

SECTION 1. It shall be unlawful for any person or persons to set on fire or burn, or cause to be set on fire or burned on any premises, lot, street, alley, or public place in the city of Pittsburgh any garbage, rubbish, or other material or substance causing noxious or offensive odors, and every person so offending shall upon conviction thereof before any alderman or police magistrate in the said city be sentenced to pay a fine not exceeding \$10 for each offense and in default of payment of said fine and costs shall be committed to the Allegheny County Jail for a period not exceeding 30 days.

Premises—Nuisances on Vacant Lots. (Ord. Feb. 25, 1913.)

SECTION 1. No person shall be permitted to place or keep the contents of or substance from any sink, privy, or cesspool, nor any manure, garbage, offal, rubbish, nor refuse or waste, or anything which by its decomposition would or could become offensive to human beings, or detrimental to health, or create or tend to create a nuisance, upon any vacant lot of land, or vacant place upon the surface of any lot of land, within the city, whether such lot be inclosed or otherwise.

SEC. 2. In all cases where such conditions shall be found as are prohibited in section 1 of this ordinance, the owner, lessee, or agent of such owner or lessee, of such vacant lot or ground shall, within 24 hours after notice in writing by the department of public health, abate such nuisance or such condition, and remove all offensive or insanitary materials.

SEC. 3. Any person violating any of the provisions of this ordinance shall be subject to a penalty of not less than \$1 nor more than \$10 for each and every offense, and in default thereof, imprisonment in the Allegheny County Workhouse for a period not exceeding 30 days.

QUINCY, ILL.

Garbage and Refuse—Care and Disposal. (Ord. 28, Aug. 13, 1913.)

SECTION 1. That section 173 of the Revised Ordinances of Quincy adopted December 16, 1912, published and in force April 30, 1913, be and the same is hereby amended so as to read as follows:

SEC. 173. Duty of all persons.—It is hereby made the duty of all persons in this city to keep slops and garbage as may accumulate on their premises, and all house offal, whether consisting of animal or vegetable substance, in tight-covered barrels or cans holding at least 20 gallons, to be approved by the board of health, at as convenient a place as possible for delivery to the scavenger. Any person who shall neglect or refuse to comply with the provisions of this section after being notified by the board of health of the time when the scavenger will call, upon conviction shall be fined in a sum not less than \$5, nor more than \$50.

QUINCY, MASS.

Privies and Cesspools—Construction—Disposal of Contents. (Reg. Bd. of H., Apr. 28, 1913.)

REGULATION 1. No person shall collect, remove, or carry in or through any of the streets, lanes, avenues, places or alleys within the city of Quincy, or deposit on any land thereon, the contents of any cesspool, vault, privy, or privy well, the drainage of any stable, dwelling house, slaughterhouse or other building in the city.

REG. 2. No cesspool for the retention of waste water shall be within 10 feet of any house or any abutting premises, unless otherwise permitted by the board of health. No privy vault shall be constructed on any premises which can be connected with the city water. No privy vault or cesspool that is not water-tight shall be maintained within 2 rods of any well, spring, or other source of water supply used for drinking purposes.

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REG. 12. When vaults, privies or cesspools are hereafter abandoned they shall within 10 days [unless otherwise permitted] be thoroughly cleaned, disinfected, and filled with earth or other suitable material and left in a proper condition satisfactory to the board of health.

Garbage and Refuse—Care and Disposal. (Reg. Bd. of H., Apr. 28, 1913.)

REG. 3. No person shall keep swill or other house offal except in a closely covered receptacle.

REG. 4. No person, unless expressly licensed therefor by the board of health, shall collect, transport or convey swill fat, grease, bones, or any decaying, putrefying or offensive animal matter, or vegetable substance through any of the public streets or ways of the city. All vehicles and vessels for the transportation of the above-named substances shall be made and kept in such condition as will prevent the escape of any of their contents, or the odor thereof, and each wagon shall, in addition, be covered with a clean and sound, heavy canvas, fastened securely to the wagon so as to entirely conceal the same from view. Every vehicle so used shall have the initials of the owner and the number of the wagon, in letters and figures 3 inches in size, painted on the outside of each side thereof. Persons licensed by the board shall keep all carts, equipments, and implements used therefor disinfected and free from all obnoxious or offensive odors when not in immediate use, and shall not allow the same to become obnoxious or offensive to the public or to the owners or occupants of premises adjoining those where the same are kept or stored.

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REG. 8. No person shall burn, boil, try or decompose any refuse substances, either animal or vegetable, in such a manner that the same shall evolve odors or gases obnoxious or offensive to the public or to the owners or occupants of adjoining premises.

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REG. 15. No person shall remove from a public dump matter of any sort without permission from the board of health.

Nuisances. (Reg. Bd. of H., Apr. 28, 1913.)

REG. 5. No person shall place, or cause to be placed, or empty, or cause to be emptied, upon any street, way, lane, or sidewalk, any house dirt, offal, or rubbish, any sewage, or the draining of any sink or stable, or the contents of any cesspool, vault, privy, or privy well. No person shall cast any decayed vegetable or dead animal substance, house dirt, offal, or rubbish, ashes or cans, into any cesspool, privy vault, or into any well, cistern, reservoir, pond, or water, within the city, nor drown, nor cause to be drowned, any animal in any of said waters. And the carcasses of animals dead of disease or killed for any cause shall be buried at such distance from dwelling, or wells, or other source of water supply, that no danger or nuisance can result; and no person shall establish or maintain any stable, swine pen, privy or privy vault, cesspool, or sink drain within 10 feet of any stream, watercourse, or pond, or to allow any overflow from such stables, swine pen, privy well, cesspool, or sink drain to enter any stream, watercourse, or pond in this city.

Watercourses—Changing Course of—Pollution. (Reg. Bd. of H., Apr. 28, 1913.)

REG. 6. No person, firm, or corporation shall obstruct, cover or change the grade, course, or width of any stream, brook, or other watercourse on public or private land in the city of Quincy without written permission of the board of health after petition, with diagram showing the proposed change, has been filed with the said board. No person, firm, or corporation shall allow to flow from his or their premises, into any stream, brook, or other watercourse in the city of Quincy, any refuse or other objectionable material.

Domestic Animals—Communicable Diseases of—Keeping of. (Reg. Bd. of H., Apr. 28, 1913.)

REG. 7. The keeping of swine, goats, cows, or poultry in any part of the city where such keeping shall be held by the board of health detrimental to the public health or offensive to the neighborhood, is hereby prohibited, and after due notice by said board to the owner or person in charge he shall forthwith remove the same or cause the same to be removed, from any place at which the keeping thereof shall be prohibited by the board.

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REG. 38. Whoever has knowledge of, or has good reason to suspect, the existence of a contagious disease among any species of domestic animals, whether such knowledge is obtained by personal examination or otherwise, shall forthwith give notice thereof to the board of health.

REG. 39. No person, except as ordered or directed by the board of health, shall drive or cause to pass through said city from place to place, or from place to place therein, animals diseased or infected with pleuropneumonia, farcy, glanders, or rabies or any other contagious or infectious disease.

REG. 40. Persons having the care and custody of animals diseased or infected with pleuropneumonia, farcy, glanders, or rabies, or any other contagious or infectious disease, whether their own property or otherwise, and having received an order for their isolation, shall neither sell, swap, trade, give, nor in any way dispose of such animals; nor drive, nor work, nor move, nor allow them to be moved away from the place of isolation, nor allow other animals, not already exposed, to come in contact with them until otherwise ordered by the board of health of the city of Quincy or the State cattle commissioners. Whoever violates any of the provisions of the foregoing regulations 38, 39, and 40 shall be punished by a fine not exceeding \$500, or by imprisonment not exceeding one year.

Spitting—Prohibited in Public Places. (Reg. Bd. of H., Apr. 28, 1913.)

REG. 9. The board of health hereby adjudges that the deposit of sputum in public places is a nuisance, source of filth, and cause of sickness, and it is hereby ordered that spitting upon the floor, platform, or steps of any railroad or railway station, car, public building, hall, church, theater, market, or any sidewalk be, and hereby is, prohibited.

Buildings and Premises—Care of—Nuisances. (Reg. Bd. of H., Apr. 28, 1913.)

REG. 10. Every occupant or owner of any dwelling house, tenement, or other building in this city shall keep such house or building and the yard belonging to the same free from all filth and from all substances having offensive odors.

REG. 11. Whenever a vault, cesspool, barn, or cellar, or any building on premises of any description becomes offensive, the same shall be satisfactorily cleaned, ventilated, and disinfected by the occupant or owner within such reasonable time as the board of health may in a notice thereof prescribe.

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REG. 13. Whenever the board of health is satisfied on due examination that a cellar, tenement, or building within the city occupied as a dwelling house has become, by reason of the number of occupants, want of cleanliness, or other cause, unfit for such purpose, the occupants shall correct the specified insanitary condition or remove therefrom within 48 hours after written notice has been given them. The board of health may conspicuously post in any room a card stating the number of adults or children who may sleep within it at one time. This card shall not be removed without the permission of said board. No room shall be used for sleeping purposes unless it contains 400 cubic feet of air space for each adult sleeping therein or 300 cubic feet of air space for each child under 12 years of age.

REG. 14. No rags, old paper, or other refuse material collected from dumping grounds, streets, or recovered from any source shall be brought into or allowed to remain within any building used as a dwelling.

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REG. 16. No person shall store or keep or allow to be stored or kept in any living room in the house of which he is the owner or occupant any fruit or merchandise.

REG. 17. The waste pipe of every sink now in use shall be furnished with a 4-inch round trap, unless there is already some trap connected thereto, approved by the board of health.

REG. 18. All dwelling houses shall have a separate water-closet or privy for each family.

REG. 19. Every inclosure containing one or more water-closets shall be provided with adequate ventilation to the outer air, either by window or by suitable light shaft.

REG. 20. No water-closet shall be located in any sleeping room. It shall be separated therefrom by plastered walls, unless otherwise permitted by the board of health.

Communicable Diseases—Morbidity Reports—Quarantine—Placarding—School Attendance—Disinfection—Funerals—Vaccination. (Reg. Bd. of H., Apr. 28, 1913.)

REG. 21. The board of health considers the following diseases as dangerous to the public health within the meaning of the statute: Actinomycosis, Asiatic cholera, cerebrospinal meningitis, diphtheria, glanders, leprosy, malignant pustule, measles, scarlet fever, smallpox, tetanus, trichinosis, tuberculosis, typhoid fever, typhus fever, chicken-pox, whooping cough, yellow fever, ophthalmia neonatorum, trachoma, mumps, and anterior poliomyelitis.

REG. 22. If a physician knows that a person whom he is called to visit is infected with smallpox, diphtheria, scarlet fever, or any other disease dangerous to the public health, or if one or both eyes of any infant whom or whose mother he is called to visit

become inflamed, swollen, and red, and show an unnatural discharge within two weeks after the birth of such infant, he shall immediately give notice thereof in writing over his own signature to the board of health; and if he refuses or neglects to give such notice he shall forfeit not less than \$50 or more than \$200 for each offense.

REG. 23. Any person sick with actinomycosis, Asiatic cholera, cerebrospinal meningitis, diphtheria, glanders, leprosy, malignant pustule, measles, scarlet fever, smallpox, tetanus, typhoid fever, typhus fever, chicken-pox, yellow fever, and anterior poliomyelitis, and all articles infected by the same, shall be immediately separated from all persons liable to contract or communicate such disease, and none but nurses and physicians shall have access to persons sick with said disease. No person sick with any of the said diseases shall be removed at any time except by permission and under the direction of the board of health. Every child or person living or boarding in a family in which any of the above diseases exist, and who has been removed from such family, shall be considered in quarantine until two weeks after such removal.

REG. 24. Any home in which any of the diseases referred to in regulation 23 shall occur may be declared in quarantine by the board of health or its authorized agent or agents.

REG. 25. All persons residing in a house that has been declared in quarantine shall confine themselves to said house or its immediate grounds and shall not hold communication with well persons. Communication with said house shall be limited to physicians, nurses, and undertakers and such persons as may be needed to supply its inmates with the necessities of life and in such manner as the board of health may direct.

REG. 26. When, in the opinion of the board of health or its agent, the necessity for quarantine has passed, it shall declare the quarantine raised and disinfect the house.

REG. 27. Every dwelling where diphtheria, scarlet fever, cerebrospinal meningitis, and smallpox is known to exist shall, and in case of any other disease dangerous to the public health may, be conspicuously labeled at its entrance with a card properly specifying the disease; such card there to remain until removed by the board or its agent or by permission of said board. Whoever obstructs the board of health or its agents in using such means, or willfully removes, obliterates, defaces, or handles such red flags or other signals, shall forfeit not less than \$10 nor more than \$100 for each offense.

REG. 28. No child shall be allowed to attend the public schools while any member of the family to which said child belongs is sick with any disease referred to in regulation 21 or during a period of two weeks after the death, recovery, or removal of such sick person; and any pupil coming from such family shall be required to present to the teacher of the school the pupil desires to attend a certificate from the attending physician and indorsed by a member of the board of health, or, if no physician has been in attendance, from the school inspector of the school, of the facts necessary to entitle such child to admission in accordance with the above regulation.

REG. 29. No person from any dwelling wherein a disease dangerous to the public health exists shall take any book or magazine to or from the public library without a permit from the board of health. The board will inform the librarian of all cases of said diseases, and until a written permit is given the librarian shall allow neither books nor magazines to be taken to or returned from the dwellings where such cases exist.

REG. 30. All bedding and personal clothing or property exposed to contagion or infection by any of the diseases dangerous to the public health shall be at once properly cleansed, fumigated, or destroyed, as the board of health may direct.

REG. 31. No patient affected with any disease referred to in regulation 23 will be considered well and free from quarantine until the attending physician, the school

inspector, or a physician employed by the board of health certifies that he has personally inspected the patient and found that he is no longer a source of danger. No such certificate will be received by the board of health in case of scarlet fever until at least four weeks have elapsed from the reporting of the illness, and desquamation is complete, or in a case of diphtheria until a culture from the throat of such a case shall have been pronounced negative by the State board of health. No certificate of recovery, unless indorsed by a member of the board of health, will admit said patient to attend any school in the city.

REG. 32. When a person who has been sick with any of the diseases specified in regulation 23 has recovered or died the board of health, upon notification in writing by the physicians in attendance that the house is ready for disinfection, may proceed to disinfect said house in such a manner as it may deem proper, provided that in case of scarlet fever at least four weeks have elapsed since the reporting of the sickness.

REG. 33. Every person engaged in the production, storage, transportation, sale, delivery, or distribution of milk shall immediately on the occurrence of any case or cases of disease dangerous to the public health, either in himself, or in his family, or amongst his employees, or within the building or premises where milk is sold, stored, or distributed, notify the board of health and may be made to suspend the sale and distribution of milk until authorized to resume the same by the board of health. No vessels which have been handled by persons suffering from such diseases shall be used to hold or convey milk until they have been thoroughly sterilized.

REG. 34. Any undertaker or other person having in his care or possession the body of a person who has died of cholera, yellow fever, smallpox, diphtheria, membranous croup, scarlet fever, typhus fever, or epidemic cerebrospinal meningitis shall give immediate notice to the board of health and shall cause such body, including the face to be wrapped in a sheet saturated with a solution of corrosive sublimate not less than 1 to 500 in strength, or a 40 to 100 solution of formaldehyde, and shall immediately place it in a sealed coffin, which shall not thereafter be opened. He shall notify the said board or its agents of time when body is to be removed, and shall sign a certificate containing a true statement of the fact that he has complied with the foregoing provision of this section, and he and every person having charge or custody or right of disposal of the body shall cause the burial to take place in all cases within 24 hours after the time of death unless further time shall be allowed by the board of health. A private funeral shall be held, at which none but the immediate adult relatives and clergymen shall be present. The body shall in no case be removed in any carriage used in conveying passengers.

REG. 35. The use of "wall draperies" in any room or place used for the preparation or retention of any human body before a funeral is hereby forbidden.

REG. 36. No person shall buy, sell, exchange, take in exchange, or give away a mattress or pillow that has been used by any person without first notifying the board of health and having the said mattress or pillow disinfected or fumigated by or under the directions of the inspector of said board or by some process approved by it. Whenever said article has been so disinfected or fumigated a certificate to that effect shall be attached thereto by said inspector and whenever after being so disinfected or fumigated said article has been used by a person it shall not be again bought, sold, exchanged, or taken in exchange or given away until again disinfected or fumigated as aforesaid.

REG. 37. A parent or guardian who neglects to cause his child or ward to be vaccinated before the child or ward attains the age of 5 years, except as provided in section 139, Revised Laws, shall forfeit \$5 for every year during which such neglect continues. Section 137, as amended by acts of 1902, chapter 190, section 1. The board of health of a city or town if, in its opinion it is necessary for the public health or safety, shall require and enforce the vaccination and revaccination of all inhabitants

thereof and shall provide them with the means of free vaccination. Whoever refuses or neglects to comply with such requirements shall forfeit \$5. Section 139, as amended by Acts of 1902, chapter 190, section 2, further amended by acts of 1902, chapter 544, section 10. Any person over 21 years of age who presents a certificate signed by the register of a probate court that he is under guardianship shall not be subject to the provisions of section 137; and any child who presents a certificate signed by a registered physician, designated by the parent or guardian, that the physician has at the time of giving the certificate personally examined the child and that he is of the opinion that the physical condition of the child is such that his health will be endangered by vaccination shall not while such condition continues be subject to the provision of the three preceding sections of this chapter, and the parent or guardian of such child shall not be liable to penalties imposed by section 136 of this chapter. Section 6 of chapter 44 of the Revised Laws, as amended by chapter 371 of the acts of the year 1906, as further amended by chapter 215 of the acts of the year 1907. A child who has not been vaccinated shall not be admitted to a public school except upon presentation of a certificate granted for cause stated therein, signed by a regular practicing physician that he is not a fit subject for vaccination.

Milk—Production, Care, and Sale. (Reg. Bd. of H., Apr. 28, 1913.)

REG. 41. No milk shall be sold, offered for sale, or distributed in the city of Quincy which was drawn from cows within 15 days before or 5 days after parturition, nor from cows suffering from retained placenta, nor unless the cows from which it was derived have within one year been examined by a competent authority and shown to be free from diseases dangerous to the public health. No license to sell milk shall be granted until the stable in which such milk is drawn complies with stable rules.

REG. 42. Every person having a license to sell, deliver, or distribute milk in the city of Quincy shall keep a copy of the same constantly posted in a conspicuous place on his premises, and shall have his name, the number of his license, and his place of business marked in plain, uncondensed gothic letters, not less than 1½ inches in height, on all vehicles used by him in the conveyance and sale of milk.

REG. 43. No milk kept for sale or distribution shall be stored in any portion of a building which is used for the stabling of horses, cows, or other animals or for the storing of manure, or in any room used in whole or in part for domestic or sleeping purposes, unless the storage room for milk is separated from other parts of the building to the satisfaction of the inspector of milk.

REG. 44. No person engaged in the business of producing milk for sale, or in the business of storing, selling, or delivering milk in said city, shall store, cool, strain, or mix said milk in any room which is occupied by horses, cows, or other animals. All rooms in which milk is stored, cooled, strained, or mixed, shall be provided with tight walls and floor and kept constantly clean. The walls and floors of said rooms shall be of such construction as to allow easy and thorough cleansing. The room or rooms aforesaid shall contain proper appliances for washing or sterilizing all utensils actually employed in the storage, mixing or cooling, sale or distribution of milk, and all such apparatus and utensils shall be washed with boiling water or sterilized with steam regularly after being so used.

REG. 45. No urinal, water-closet, or privy shall be located in the rooms called for in the preceding section, or so situated as to pollute the atmosphere of said rooms.

REG. 46. All milk produced for the purpose of sale shall be strained, cooled, or stored as soon as it is drawn from the cow.

REG. 47. Milk kept for sale in any store, shop, restaurant, market, bakery, or other establishment shall be stored in a covered cooler, box, or refrigerator. No vessel containing milk for sale shall be allowed to stand outside said cooler, box or refrigerator, except while a sale of said milk is being made. Every such cooler, box, or

refrigerator shall be properly drained and cared for, and shall be tightly closed, except during such intervals as are necessary for the introduction or removal of milk or ice, and they shall be kept only in such locations and under such conditions as shall be approved by the inspector of milk.

REG. 48. All cans, bottles, or other vessels of any sort used in the sale, delivery, or distribution of milk shall be cleansed and sterilized before they are again used for the same purpose, and all wagons used in the conveyance of milk for sale or distribution shall be kept in a cleanly condition and free from offensive odors. No person shall use a milk vessel as a container for any other substance than milk.

REG. 49. No person, by himself or by his servant or agent, or as the servant or agent of any other person, firm, or corporation shall, in the city of Quincy, sell, exchange, or deliver or have in his custody or possession with intent to sell, exchange, or deliver, any milk, skimmed milk, or cream which contains more than 500,000 bacteria per cubic centimeter, or which has a temperature higher than 50° F.

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REG. 65. No person or corporation shall sell or offer, expose or keep for sale in any shop, store, or other place, milk or cream, unless the same is sold or offered, exposed, or kept for sale in tightly closed or capped bottles or receptacles. Nothing contained herein shall prevent the sale of milk or cream from cans, crocks, coolers, or other receptacles in restaurants, hotels, barrooms, or at soda fountains when milk or cream is to be consumed on the premises by guests or patrons ordering the same. Whoever violates any provision of any kind of this regulation shall be punished by a fine of not less than \$25 or more than \$100 for each offense.

Stables, Construction and Care—Manure, Care and Disposal. (Reg. Bd. of H., Apr. 28, 1913.)

REG. 50. No person shall hereafter erect, occupy or use for a stable any building in the city of Quincy unless licensed by the board of health, and in such case only to the extent so licensed.

REG. 51. The stable shall be erected and completed in all its appointments according to plans and specifications submitted to and accepted by the board of health subject to the stable rules.

REG. 52. The erection of all the stables for which a permit is granted shall begin within 90 days from date said permit is granted, otherwise the permit becomes null and void.

REG. 53. All manure shall be kept in a suitable pit or receptacle made for the purpose, properly covered and ventilated by a shaft 12 inches square, inside dimensions, the said shaft to extend at least 2 feet above the roof; the manure pit or receptacle not to contain more than two cords of manure at one time. The accumulation and storage of manure outside of such pit or receptacle is prohibited.

REG. 54. The under floor of the stable shall be constructed of seven-eighths inch thick board, this is to be covered with two thicknesses of tarred paper carried up six inches on sides and front of stalls, the same to be mopped over with hot pitch tar and over this to be a floor of 2-inch thick plank.

REG. 55. *Drainage.*—There shall be an iron or concrete gutter behind the stalls or cattle platform for the urine, the said gutter to be connected by properly trapped drain to public sewer unless otherwise permitted by the board of health.

REG. 56. *Ventilation and lighting.*—Slat work ventilator on roof, at least 3 feet square. One thousand cubic feet of air space for each animal.

REG. 57. No stable for which a permit is granted shall be occupied until all the conditions are complied with and reported upon by an officer of the board of health.

REG. 58. Whosoever occupies a building as a stable without first obtaining a permit from the board of health shall be liable to a fine of \$5 for each day that such occupancy continues.

REG. 59. No building now or hereafter used as a stable shall be enlarged or moved nor shall alterations be made without a special permit from the board of health.

REG. 60. A permit granted by the board of health may be revoked whenever in the opinion of the board the public health demands its revocation; the permit is only for the person named therein, is not transferable, and does not follow the real estate, and terminates whenever the person to whom it is granted ceases to occupy the building as a stable.

Factories—Sanitary Regulation—Medical and Surgical Chests. (Reg. Bd. of H., Apr. 28, 1913.)

REG. 61. In compliance with chapter 164 of the acts of 1907 the following list of medical and surgical appliances for the use of all factories where machinery is used for any manufacturing purpose is hereby required; the same to be contained in a suitable case kept for that purpose:

- 2 triangular bandages.
- 12 gauze bandages 2 inches wide.
- 6 gauze bandages 3 inches wide.
- 6 cotton bandages 2 inches wide.
- 6 packages sterile gauze each to contain 1 yard.
- 1 package iodoform gauze.
- 6 packages absorbent cotton each to contain 4 ounces.
- 1 spool "Z. O." adhesive plaster 1 inch wide.
- 1 jar carbolyzed petrolatum.
- 1 ounce bottle creoline or other antiseptic solution.
- 1 bottle antiseptic tablets.
- 1 bottle hydrogen peroxide.
- 1 bottle liquid soap.
- 1 bottle aromatic spirits ammonia.
- 1 pair of scissors.
- 1 pair forceps.
- 1 tourniquet.
- 12 safety pins.

REG. 62. In accordance with section 2, of chapter 503, of the acts of 1907, that "All factories and workshops shall be well lighted, well ventilated, and kept clean. Suitable receptacles for expectoration shall be provided in all factories and workshops by the proprietors thereof, the same to be of such form and construction and of such number as shall be satisfactory to the board of health of the city or town in which the factory or workshop is situated." A cuspidor of enameled iron or steel, 10 inches across the top with perpendicular sides and removable top, will be satisfactory to the board of health. There should be at least one such cuspidor for every 5 or less males and one for every 20 or less females, under ordinary condition. This number should be increased whenever it is found necessary for the convenience of the operatives. The cuspidor should contain an inch of water while in use, be cleaned every day with hot water, and the contents flushed into a sewer if possible, otherwise upon ground fully exposed to sunshine.

Flies—Prevention of Breeding—Foodstuffs. (Reg. Bd. of H., Apr. 28, 1913.)

REG. 63. The presence of flies near or upon foodstuffs which may be eaten without thorough cooking, shall be considered dangerous to the public health and is hereby deemed a nuisance. Ordered that such foodstuffs be forfeited and destroyed by the inspector of food and provisions or the inspector of milk. All manure piles or other places where flies are found to be breeding shall be immediately covered with kerosene or other substance which will prevent their breeding therein.

Foodstuffs—Protection. (Reg. Bd. of H., Apr. 28, 1913.)

REG. 64. That meat, poultry, game, fish, sea food, dried or preserved fruits, dates, figs, cherries, grapes, berries, cut fruits, cut melons, cracked nuts or nut meats, candies, maple sugar, confectionery, or bakers' products shall not be kept, sold, or offered for sale in or near an open window or doorway, outside of a building or in any street, private way, or public place of the city of Quincy, unless so covered or screened as to be protected from dust and flies, or from contact with animals. No article intended to be used as food shall be exposed or displayed in any street or way, or in front of any place of business, unless the bottom of the box or other receptacle containing such articles is raised at least 24 inches above the sidewalk, platform, or landing upon which such receptacle rests. Meats or other products as named above shall not be carried through any street, private way, or public place unless properly protected or screened from dust and flies. Every person being the occupant or lessee of any room, stall, building, or place where any meat, poultry, game, fish, sea food, milk, vegetables, butter, fruit, confectionery, bakers' products, or other articles intended for human food shall be kept, stored, sold, or offered for sale, shall maintain such room, stall, building, or place, and its appurtenances in a clean and wholesome condition. Every peddler of foodstuffs from wagons or carts, in addition to the covering or screen provided for in this order, shall keep in his wagon or cart a suitable receptacle for the wastes of his business; such wastes to be disposed of in a manner that shall not create a nuisance. No person or corporation, individually or by its agents, servants, or employees, shall transport meat or poultry of any description through the public streets or ways of the city of Quincy, except in wagons or vehicles which have been thoroughly washed at least once in every 24 hours.

Ice Cream—Manufacture, Care, and Sale. (Reg. Bd. of H., Apr. 28, 1913.)

REG. 66. No ice cream shall be manufactured or stored in any portion of a building which is used for the stabling of horses, or other animals, or in any room used in whole or in part for domestic or sleeping purposes, unless the manufacturing and storage room for ice cream is separated from other parts of the building to the satisfaction of the board of health. All rooms in which ice cream is manufactured or stored shall be provided with tight walls and floors and kept constantly clean. The walls and floors of said rooms shall be of such construction as to permit rapid and thorough cleansing. The room or rooms aforesaid shall be equipped with appliances for washing or sterilizing all utensils employed in the mixing, freezing, storage, sale or distribution of ice cream, and all such utensils after use shall be thoroughly washed with boiling water, or sterilized by steam. Vessels used in the manufacture and sale of ice cream shall not be employed as containers for other substances than ice cream. All establishments in which ice cream is manufactured shall be equipped with facilities for the proper cleansing of the hands of operatives, and all persons immediately before engaging in the mixing of the ingredients entering into the composition of ice cream, or its subsequent freezing and handling, shall thoroughly wash his or her hands and keep them cleanly during such manufacture and handling. All persons shall be dressed in clean outer garments while engaged in the manufacture and handling of ice cream.

No urinal, water-closet or privy shall be located in the rooms mentioned in the preceding section, or so situated as to pollute the atmosphere of said rooms. All vehicles used in the conveyance of ice cream for sale or distribution shall be kept in a cleanly condition and free from offensive odors. Ice cream kept for sale in any shop, restaurant or other establishment, shall be stored in a covered box or refrigerator. Such box or refrigerator shall be properly drained and cared for, and shall be kept tightly closed, except during such intervals as are necessary for the introduction or removal of ice cream or ice, and they shall be kept only in such locations and under

such conditions as shall be approved by the board of health. Every person engaged in the manufacture, storage, transportation, sale or distribution of ice cream, immediately on the occurrence of any case or cases of infectious disease, either in himself or in his family, or amongst his employees, or within the building or premises where ice cream is manufactured, stored, sold, or distributed, shall notify the board of health and at the same time shall suspend the sale and distribution of ice cream until authorized to resume the same by the said board of health. No vessels which have been handled by persons suffering from such disease shall be used to hold or convey ice cream until they have been thoroughly sterilized. All cream, milk, or skimmed milk, employed in the manufacture of ice cream, shall before use be kept at a temperature not higher than 50° Fahrenheit. No old or melted ice cream, or ice cream returned to a manufacturer from whatever cause, shall again be used in the preparation of ice cream.

REVERE, MASS.

Foodstuffs—Protection when Cooking or Offering for Sale. (Reg. Bd. of H., Jan. 2, 1913.)

No person shall cook or otherwise prepare for human consumption, with intent to sell the same, or expose for sale, any frankfurt, sausages, beef, or other meats or fish in the open air, or near any open window, or in such a manner as to expose the same to dust at the time of said cooking or preparing and at the time of exposing the same for sale.

Foodstuffs—Wrapping—Dressing of Poultry. (Reg. Bd. of H., Oct. 29, 1913.)

No person shall bring into or expose for sale in the town of Revere the carcass of any hen, chicken, turkey, goose, or other fowl unless the feathers have been removed from said carcass before the same is brought within the town limits.

The wrapping of meats, fish, breadstuffs, dairy products, vegetables, etc., destined for sale or delivery for food purposes in newspapers or other unclean material is hereby prohibited.

Domestic Animals—Keeping of—Killing of Poultry—Permit. (Reg. Bd. of H., Oct. 29, 1913.)

No person shall allow to be kept in any building or on the premises of which he may be the owner, lessee, tenant, or occupant, any cow or cows, horses, hens, or swine without a license being granted for same by the board of health.

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

Offensive Trades—Regulation. (Reg. Bd. of H., Oct. 29, 1913.)

No person or persons shall exercise any of the following trades or employments, viz, that of manufacturing fertilizers, of mixing or storing refuse animal or vegetable substance, of sorting or picking feathers, of refining oils, of making egg dressing, varnish, or glue, within the town, except at places where such trades or employments are now lawfully established, or where such trades may hereafter be assigned by the board of health; no person or persons shall exercise any of the following trades or employments, viz, that of slaughtering animals or fowl, of rendering animal matter, of smoking fish or meat, except at places where such trades or employments are now lawfully established and licensed or where such trades or employments may hereafter be assigned and licensed by the board of health, all such licenses expiring June 1 annually.

RICHMOND, IND.**Garbage and Refuse—Care and Disposal. (Ord. Sept. 8, 1913.)**

SECTION 1. It shall be unlawful for any person, firm, company, or corporation to throw, leave, place or deposit, or to cause, suffer or permit to be thrown, left, placed, or deposited in or upon the surface of any avenue, street, alley, gutter, or sidewalk, within the city of Richmond, Ind., any garbage, manure, sewage, pieces of lumber, sticks of wood, wooden ware, rags, straw, grass, paper, circular, hand bill, vegetables, boots, shoes, and hats, or any other combustible litter, rubbish, trash or material whatsoever; or to cause, suffer, or permit any dishwater, washwater, or any water from any sink or cesspool, or any seepage or water from any garbage receptacle, or any seepage or water from any manure bin, box or other receptacle therefor, to run or flow into, in or upon the surface of any such avenue, street, alley, gutter or sidewalk within said city.

SEC. 2. It shall be the duty of each and every occupant of any premises within said city of Richmond, to provide, keep, and maintain a water-tight receptacle of sufficient size to hold all garbage that may be accumulated in or upon such premises, and every such garbage receptacle shall be provided with a secure and tight fitting lid or top of such kind and character so that the contents thereof will be inaccessible to dogs, cats, and other domestic animals or fowls, and so as to exclude water and flies therefrom, and such lid or top, shall at all times when such receptacle is out of doors be securely kept and maintained thereon, except when necessarily using the same for depositing garbage therein or taking garbage therefrom; and every such occupant shall deposit and keep all garbage which accumulates upon such premises in such receptacle and not elsewhere; and such garbage receptacle shall be placed upon such premises as near an alley or street as is practicable and where the same is easily accessible to the garbage gatherers of the city, and in no event shall any such garbage receptacle be placed, kept, or maintained in any public street, avenue, alley or other public thoroughfare within said city.

All liquids shall be drained off of garbage before the same is placed in such receptacle, and only dry garbage shall be placed in any such garbage receptacle, and garbage gatherers of the city shall not receive, accept or haul any wet garbage, or any garbage from any grocery, market, store, slaughterhouse, fruit or vegetable establishment, railroad car, factory, or similar business establishment.

All wet garbage and all garbage from groceries, markets, stores, slaughterhouses, fruit and vegetable establishments, railroad cars, factories, and other similar business establishments, shall be removed at the cost of the person, persons, firm, company, or corporation that causes, allows, suffers, or permits the same to accumulate.

SEC. 3. The word "garbage" as used in this ordinance shall be construed to include every refuse or animal, fruit, and vegetable matter that is incident to, attends, or arises from the preparation, use, cooking, dealing in, transporting, selling, buying, or string of meat, eggs, fish, fowl, or vegetables, and dead animals under 5 pounds each in weight not killed for food.

The words "dry garbage" as used in this ordinance shall be defined and construed to mean that garbage from which all liquids have been removed; and the words "wet garbage" shall mean all garbage not included in the above definition of "dry garbage."

SEC. 4. It shall also be the duty of each and every occupant of any premises within the city of Richmond, Ind., to provide a proper receptacle of sufficient size to hold all the combustible trash, rubbish, litter, and material that accumulates thereon, and all such combustible trash, rubbish, litter, and material of every kind, character, or description whatsoever, except that consumed thereon, shall be placed in such receptacle, and such receptacle shall be placed in or as near an alley or street as is practicable or at such other suitable place on said premises as to make the same easily accessible

to the rubbish gatherers of said city. And if such receptacle is placed in any street or alley, it shall be so placed, kept, and maintained as not to interfere with public travel thereon. No noncombustible material of any kind or character whatsoever shall be placed in such receptacle with any combustible trash, rubbish, litter, or material.

SEC. 5. Ashes, dirt, cinders, bottles, broken glass, crockery, tin, tin cans, castings, and other noncombustible rubbish, litter, and material may be placed and deposited in piles or heaps in alleys, near the outer edge thereof, or in suitable and proper receptacles on the premises of the occupant; but every such receptacle on any premises shall be placed or constructed immediately adjacent to or as near an alley or street as is possible so as to make the same easily accessible to the rubbish gatherers of said city. And all noncombustible rubbish, litter, or material which is not placed and deposited as herein provided shall be removed at the expense of the owner or occupant of the premises upon which the same is accumulated.

SEC. 6. It shall be unlawful for any person or persons, except the legally appointed and selected employees of the city of Richmond, to gather within or to take from any alley or other public thoroughfare within said city any paper, rags, or other combustible rubbish, litter, or material whatsoever which has been deposited therein pursuant to the provisions of section 4 of this ordinance; or to take from or to enter upon the premises of any person, firm, company, or corporation within said city for the purpose of gathering thereon or taking therefrom any garbage, unless such person or persons shall first obtain the consent and permission of the occupant of any such premises to remove the garbage therefrom.

Manure—Care and Disposal. (Ord. Sept. 8, 1913.)

SEC. 7. It is hereby declared unlawful for any person, firm, company, or corporation to place, keep, use, build, construct, or maintain upon any lot or premises, or in any alley, street, or avenue within said city, any box, bin, or other receptacle, for the deposit or reception of any animal manure, unless such box, bin, or other receptacle so used shall be made, constructed, and used in such manner as to be water-tight, and each manure box, bin, or other such receptacle shall have a suitable and proper lid or covering thereto and such lid or covering shall be so used and operated as to exclude all water and flies therefrom at all times. And all manure deposited in any such box, bin, or other receptacle shall be removed therefrom at least once every two weeks.

SEC. 8. It is hereby declared unlawful for any box, bin, or other receptacle that is used for the deposit or reception of animal manure to occupy more than 3 feet in width of any alley or other public thoroughfare that is 16 feet or more in width; or for any such box, bin, or other receptacle to occupy more than 2½ feet in width of any alley or other public thoroughfare that is less than 16 feet in width. And any person or persons, firm, or corporation that shall place, erect, construct, maintain, or use in any alley or other public thoroughfare within said city, any box, bin, or other receptacle for the deposit or reception of animal manure in violation of any provision of this section shall be fined not less than \$1 and not more than \$10, and each day that any such box, bin, or other receptacle is used, or permitted to remain in any alley in violation of any of the provisions of this section shall be and constitute a separate and distinct offense.

Swine—Keeping of, Prohibited. (Ord. Sept. 8, 1913.)

SEC. 9. It shall be unlawful for any person, firm, company, or corporation to keep any live swine within said city of Richmond, except such as are kept for immediate shipment or immediate slaughter.

RICHMOND, VA.**Morbidity Reports—Malaria made Notifiable. (Reg. Bd. of H., Apr. 14, 1913.)**

On April 14, 1913, the board of health of the city of Richmond, Va., by vote made malarial fever (malaria and intermittent fever) notifiable.

Milk and Cream—Tuberculin Test Required. (Res. Bd. of H., Apr. 14, 1913.)

Resolved, That on and after May 1, 1913, any producer of milk or cream who desires to take out a permit for the sale of these products in the city of Richmond shall be required to furnish evidence that his herd is free from tuberculosis, as shown by the tuberculin test conducted by the United States Bureau of Animal Industry, by the State dairy and food commissioner, or by the State veterinarian; and on and after said date no cow or cows shall be added to any herd from which milk or cream is now shipped into Richmond until satisfactory evidence of the freedom of said cow or cows from tuberculosis, as shown by the tuberculin test, has been presented to the chief health officer of the city of Richmond.

For the proper carrying out of the preceding resolution the chief health officer shall require such records of all tests as he may deem necessary for the identification of the cows and for the interpretation of the tests, and he shall require the retesting of any cow or cows where, in his opinion, this is desirable.

RUTLAND, VT.**Foodstuffs—Protection. (Ord. May 6, 1913.)**

SECTION 1. The conveying through the streets of Rutland, or the exposing in front of stores or other places, of meat, fowl, or fish intended for human consumption, unless so covered that the same can not be contaminated by flies, dust, mud, or filth, is hereby prohibited.

SEC. 2. The exposing of fruits, vegetables, or other foodstuffs intended for human consumption outside of stores, markets, or places of sale is hereby prohibited unless the stand or bottom of the container is at least 2 feet above the sidewalk and protected from flies and dust.

SEC. 3. No person shall expose or sell, or offer for sale for human consumption, any breadstuffs, cake, pastry, candy, confectionery, dried fruits, or shelled nuts outside or inside of any building or in any open window or doorway, or any alley, street, sidewalk, or thoroughfare unless such food is properly protected from insects, dust, dirt, and other foreign or unwholesome material by suitable coverings.

SEC. 4. Every person violating any of the foregoing provisions shall, on conviction, be fined not more than \$50 for each violation or offense, and each separate day's violation shall constitute a separate and distinct offense hereunder.