

# PUBLIC HEALTH REPORTS

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## TUBERCULOSIS—AN IMPORTANT STATE PROBLEM.

Gov. Craig, of North Carolina, in his message, read before the general assembly on January 7, showed his appreciation of how serious a State problem is the control of tuberculosis. In the following extract from his message, the italics are ours:

"The problem of dealing with tuberculosis is most serious. In North Carolina it has been ascertained that 18,000 people are the victims of this disease. Many may have it of whom we do not know. It is an ever-present plague that stalks abroad at noonday, and one-seventh of all the deaths in the State are from this dreaded disease. The State sanatorium was established in response to the demand that something must be done for the afflicted, and to stop the ravages of the plague. In my opinion this institution, with its present scope and efficiency, is utterly incapable of dealing effectively with the situation. As an institution for the purpose of educating people to care for themselves and disseminating knowledge of the disease, it can not be as effective as could a bureau established for the purpose of sending literature to every person in the State known to be afflicted. Such literature could present the situation more intelligently to the people and with more efficacy than could be done by a few patients who are fortunate enough to secure admission to the small establishment at Sanatorium. There are now about 90 patients in this institution. It is most humanely and most ably managed. Yet it is altogether inadequate to deal with this stupendous proposition that so vitally affects the people. It has done good in individual instances, but there are thousands in the State who can not gain admittance, and who will desire admittance when its efficiency is recognized. This institution can never care for those entitled to admission. On the present plan, the whole revenue of the State could not meet the demand. *It is one of the highest obligations of the State to deal with this disease, to do all possible to prevent it, and to cure those who have it.* I hope that this general assembly can work out a practical method that will be effective."

**STATE BOARDS OF HEALTH.****QUALIFICATIONS OF MEMBERS, DUTIES, AND RESPONSIBILITIES.**

The letter which follows was, as its contents show, written by Dr. E. W. Gehring to the Hon. William T. Haines, Governor of Maine. It was prompted by the receipt by Dr. Gehring of an appointment to membership on the Maine State Board of Health.

The letter is published here because it expresses so well the conditions as regards the appointment and duties of the State board of health, not only in Maine, but in many other States also. Dr. Gehring has shown that he understands what the functions of a State board of health should be and the qualifications that should be possessed by the members of such a board.

As expressed in the letter, the duties of a board of health are of such importance that the men to whom they are entrusted should necessarily be well qualified by training and experience. Also it does not seem wise that so great responsibilities should be placed upon men who receive no, or at best inadequate, compensation therefor. On the other hand, it would be disastrous to make the appointment to these positions a matter of political patronage.

NOVEMBER 24, 1914.

HON. WILLIAM T. HAINES,  
*Augusta, Me.*

MY DEAR SIR: From the Secretary of State I received on the 21st instant an appointment to membership on the State board of health for the unexpired term of its chairman. I thank you for your thought of me in this connection, but I respectfully decline to accept the office. Permit me to state my reasons.

First. My presence at one or two board meetings between now and February 2d next would in no wise prove an inspiration to the other members in the transaction of business. After that date, the governor-elect would, in all probability, appoint another for the regular term of seven years.

Second. I am not a sanitarian nor a chemist, but a physician engaged in the practice of curative medicine, although I have the degree of civil engineer from Cornell University. Boards of health are concerned solely with the prevention of disease, for which men nowadays receive special training.

In recognition of the ever increasing demand in enlightened communities for sanitarians, several of our best medical schools—Harvard, The University of Pennsylvania, and the University of Michigan—among others, have recently introduced courses of study leading to the degree of Doctor of Public Health. Other things being equal, these graduates together with civil engineers, chemists, bac-

teriologists, and one skilled in the science of vital statistics, are alone capable of attempting the solution of such momentous problems affecting the common weal, as confront competent health boards.

Third. If I am correctly informed, our board of health's duties are almost wholly advisory, and only during an epidemic of smallpox may it exercise an executive function as well.

In my judgment, to thus strip a health board of practically all power is to render it comparatively worthless and useless.

Legislation conferring upon the State board of health absolute control of everything pertaining to the public health is sadly needed in this State. Funds and power should be provided for an active, aggressive, continuous warfare against infections which yearly are responsible for too great an economic loss.

The State, for example, does nothing—save give occasional advice, which goes unheeded—to prevent the development of tuberculosis. To partially defray the expenses of a few early cases of consumption at Hebron is laudable, but also ineffectual in reducing to a controllable minimum this disease, unless, at the same time, urgent measures are taken against persons with advanced disease who are now allowed to roam about undisturbed. Those who are a menace to others because they can not or will not properly dispose of tuberculous sputum ought to be segregated and isolated. Moreover, a State board of health ought to be given power to do this, and then be held responsible for the exercise of it. It is asinine to attempt to plug up the hole in a boat by baling out the water as fast as it enters.

Again, each year morbidity and mortality from typhoid fever are greater than they ought to be in a State whose sanitary intelligence is high. As soon as this fact becomes more generally known to those who would spend their vacations with us, Maine will suffer an economic loss, owing to her typhoid reputation, from which she will be slow to recover.

Colon bacilli, an evidence of contamination from intestinal contents, continue to be found in Sebago Lake water year after year. A local board of health is powerless in such a predicament, but a properly organized, full-time, well-paid State board ought to have absolute control of and jurisdiction over the watershed of all waters used for drinking purposes so as to render colon bacillus finding an extremely rare if not impossible occurrence. Power to recommend is not sufficient; ability to seek out the source of such pollution and the authority to prosecute offenders are essential.

What with the supervision of such industries as frequently inflict "industrial disease" upon employees; with the apprehension and prosecution of those engaged in the sale of adulterated or diseased foods; with the regulations of places and hours of labor for men, women, and children; with the dissemination among our citizens of

information relating to all occupational diseases, the cause of syphilis and gonorrhoea, in addition to enlightenment concerning other infections; with these as some of the duties which ought to devolve upon health boards, we have here a job requiring a high degree of intelligence and learning which must be paid well. Failure to provide ourselves with such skill spells niggardliness.

Fourth. Were I eminently qualified for the position which you offer me under the statute, I could not, situated as I am, at my time of life, afford to give the time which it should require. No one has ever presented one logical reason why men whose duty it is to conserve the health of our citizens should devote their best efforts to that gigantic and most important task without remuneration.

So long as the State is content to fill these vital positions with unpaid men, just so long will these men be obliged to render a service commensurate with what they receive.

It would be equally deplorable, of course, were these offices used for the payment of political debts.

Having thus stated my reasons for declining what ought to be an honor, may I add, in conclusion, that preventive medicine in Maine is a farce by comparison with the work done in such States as Massachusetts and New York. It is a blot on our escutcheon which can be removed only by an awakening on the part of our citizens to the supreme value of health conservation, and to the need of employing trained, well-paid sanitarians to make Maine one of the most healthful as it is one of the most beautiful spots on earth.

Respectfully, yours,

E. W. GEHRING.

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## ROCKY MOUNTAIN SPOTTED FEVER.

A REPORT OF ITS INVESTIGATION AND OF MEASURES UNDERTAKEN FOR ITS ERADICATION DURING 1914.

By L. D. FRICKS, Surgeon, United States Public Health Service.

Upon the discovery of Rocky Mountain spotted fever as a distinct infectious disease of man, apparently limited to the Rocky Mountain region of the United States, the Public Health Service began the investigation of this disease because of its interest to medical science and more particularly on account of its possible importance as a public-health problem to the Western States, if not indeed to the entire North American Continent.

The investigation of Rocky Mountain spotted fever by the Public Health Service was begun in 1902, Surg. J. O. Cobb being ordered to investigate and report upon the disease as found in the Bitter Root Valley, Mont. (1). Anderson continued the field investigations for

the service during the season of 1903 (2), Stiles during 1904 (3), Francis during 1905, King during 1906 (4), McClintic and Rucker during 1911 (5), McClintic again during 1912 (6), and Fricks during 1913 (7) and 1914.

In addition to these field investigations which were reported from time to time in the service publications, Anderson and Goldberger in 1909 investigated the relation of Rocky Mountain spotted fever to typhus fever (8), and Stiles in 1908 and 1910 named and described the wood tick *Dermacentor andersoni* (9) (10), which is responsible for the transmission of the disease to man.

The lines of investigation undertaken by the Public Health Service, therefore, comprise the clinical and epidemiological study of the disease begun in 1902; laboratory investigations conducted at the Hygienic Laboratory in Washington, and in field laboratories temporarily established in the Bitter Root Valley, begun in 1903; the entomological study of the wood tick *Dermacentor andersoni*, which is concerned in the transmission of the disease to man, begun in 1904; the eradication of Rocky Mountain spotted fever from the Bitter Root Valley begun in 1911 at the request of and in cooperation with the board of health of the State of Montana; and the determination of the areas of infection together with the questions of the extension and restriction of the disease throughout the Northwest begun in 1913 in cooperation with the health officials of the several Rocky Mountain and Pacific coast States.

#### Field Work, 1914.

In continuation of the field investigations and eradication of Rocky Mountain spotted fever, Surg. L. D. Fricks was again ordered to the Bitter Root Valley, arriving at Missoula, Mont., March 29, 1914. The representatives of the State of Montana at this time requested that the Public Health Service and the Bureau of Entomology continue the eradication work in the territory as divided at the beginning of 1913 and that the Government during the current season bear all the expenses of eradication, the greater part of which had been borne by the State of Montana during 1913.

The State board of entomology agreed to promulgate additional regulations concerning the removal of domestic animals from infected territory during the tick season, and to secure if possible additional legislation through which the owners of domestic animals who fail to deliver them at the dipping vats after proper notification shall pay the cost of such delivery. It is expected that this will prove a more workable measure than the present law which provides for the imposition of fines and quarantine for disregard of the dipping regulations and which is applicable only in extreme cases.

The field work of the Public Health Service for the season of 1914 consisted of:

1. Laboratory investigations.
2. Measures employed for the control and eradication of Rocky Mountain spotted fever in the Bitter Root Valley, Mont.
3. Study of the distribution of Rocky Mountain spotted fever.

#### Laboratory Investigations.

The field laboratory at Victor, Mont., was reopened April 8, and investigations were conducted throughout the season, in so far as the more pressing work of eradication permitted. The investigations consisted primarily of a continuation of McClintic's work on ground squirrel immunity and experiments on the transmission of Rocky Mountain spotted fever in guinea pigs by biting insects other than the wood tick, *Dermacentor andersoni*. The latter experiments are being continued at the Hygienic Laboratory and upon completion will be made the subject of a separate report.

#### Control and Eradication of Rocky Mountain Spotted Fever in the Bitter Root Valley.

Undoubtedly the general acceptance of the fact that Rocky Mountain spotted fever can be transmitted by the bite of an infective wood tick has prevented the occurrence of some cases of the disease, but the number so prevented can not be determined. It has also given a certain sense of security to the people living on the west side of the valley, who, in place of the former vague uncertainty, now know that they have something tangible to guard against.

The inhabitants now generally avoid the woods and uncultivated lands of the infected territory during the tick season, or if this can not be done, protect themselves by proper clothing and occasional searching against tick bites; whereas, they used to boil their drinking water or refused to drink from running streams and paid no attention whatever to a dozen tick bites a day.

This general change in attitude has certainly exerted some control over the prevalence of the disease in the Bitter Root Valley and should not be lost sight of in our estimate of the efficiency of the different tick eradication measures employed in the valley.

#### TICK ERADICATION.

All measures employed for the eradication of Rocky Mountain spotted fever from the Bitter Root Valley have been directed entirely toward the destruction of the wood tick, *Dermacentor andersoni*. These comprise:

- (1) The reclamation and cultivation of arable land.
- (2) The burning over of the foothills.
- (3) The killing of wild animals.

(4) Hand picking and the dipping of domestic animals in arsenical dips.

(5) Sheep grazing.

The placing of new land under cultivation on the west side of the valley continues slowly, and, as a rule, by means of small isolated fields surrounded by open, uncultivated land. The full benefit from cultivation as a means of tick destruction is not obtained except in the case of large tracts, and the west-side foothills being too broken for extensive contiguous cultivation, it is not expected that this measure alone can greatly affect the problem of tick eradication in the valley.

The Forest Service continued in 1914 the systematic attempt to burn over the west-side foothills during the early spring months, while the mountain forests were still protected by snow, but without great success. Frequent rains prevented extensive burning until the snow had disappeared and the burning had then to be abandoned because of the danger to standing timber. Extensive burning each spring should reduce the tick infestation, but it seems very difficult of accomplishment under existing conditions in the Bitter Root Valley.

#### DESTRUCTION OF WILD ANIMALS.

The destruction of wild animals was begun by McClintic in the Victor district in 1911, and has been continued since that time by shooting, trapping, and poisoning.

During 1914 the carbon bisulphide pumps were used extensively for the destruction of ground squirrels (*Citellus columbianus*) in both the Victor and Hamilton districts, and arrangements were made with the farmers for the distribution of poisoned grain at the beginning of next season.

The destruction of small wild animals in the Victor district, in conjunction with other eradicated measures, appears to have resulted in a considerable decrease in the tick infestation found there.

#### DIPPING OF DOMESTIC ANIMALS.

At the beginning of the present season the Public Health Service had its full complement of dipping vats ready for operation. These vats are constructed of concrete, are three in number, and are placed from 8 to 10 miles apart in the southern half of the Bitter Root Valley, close up to the west-side foothills and, therefore, near the margin of the infected territory.

The Victor vat was erected in 1911 and has been operated by the service since that time, while the Hamilton and Gold Creek vats were erected in 1913, one by the State of Montana and the other by the Public Health Service.

The Victor vat was filled with arsenical solution on April 4, the Hamilton vat on April 8, and the Gold Creek vat on April 9, but the dipping of domestic animals was delayed by cold weather until April 15 and was continued for horses until June 15.

Frequent inspections were made of cattle previously dipped during the last weeks of May, and in certain localities no ticks were found attached to the dipped cattle after May 15. On regularly dipped horses, however, attached ticks were found until June 15.

The following summary of operations at the different vats is given:

Victor vat: Dipping was begun April 15, as soon as the cold weather permitted, and continued until June 16. All horses and cattle ranging on tick-infested territory in this district were dipped regularly at intervals of 10 days. The total number of domestic animals dipped was: Horses, 97; cattle, 417; goats, 21; sheep, 1,191.

The sheep were those used in the grazing experiments and were dipped after they had been sheared and just before they were returned to their owner.

Hamilton vat: Dipping was begun April 15 and continued until June 1, at intervals of from 10 days to 2 weeks. The total number of domestic animals dipped was: Horses, 7; cattle, 127; sheep, 500.

Gold Creek: Dipping was begun April 22 and continued until June 1, at intervals of two weeks. The total number of domestic animals dipped was: Horses, 8; cattle, 247.

Total for the three districts, including sheep, 2,615. •

Some difficulty was experienced in the Gold Creek district in handling the range cattle, but this probably will not occur again.

The dipping season for domestic animals in the Bitter Root Valley begins as early in the spring as the weather will permit, generally the first or second week in April, and continues approximately six weeks for cattle and two months for horses. Cold weather frequently interferes with the dipping during April, so that it can not be carried on with proper regularity.

Observations conducted in the Victor district during the past four seasons have led to the conclusion that the dipping of domestic animals alone is insufficient for the eradication of Rocky Mountain spotted fever from the valley.

On the 8 square miles west of Victor and just north of Bear Creek, over which McClintic destroyed several thousand small animals in 1911 and 1912, and where they have since been kept in abeyance and the domestic animals regularly dipped, there has been a great reduction in the tick infestation; but immediately south across Bear Creek, where the domestic animals have also been regularly dipped since 1911 but no effort made to destroy the small animals, there is no appreciable diminution in the number of ticks found now as compared with the infestation at the beginning of the experiment.



## SHEEP GRAZING AS A MEANS OF TICK ERADICATION.

The investigation of sheep grazing as a means of tick eradication in the Bitter Root Valley was begun by the Public Health Service in 1913 and reported by Fricks (11) at that time.

The four factors upon which the success of sheep grazing as a tick-eradivative measure depends were given as follows:

First. The removal of undergrowth and the consequent destruction of "good tick country" by close grazing.

Second. The destruction or removal from the sheep range of other large mammals, domestic and wild, which serve as hosts for the adult ticks.

Third. The destruction of the ticks themselves, principally by means of the lanolin in the wool of the grazing sheep.

Fourth. The placing of the problem of tick eradication on an economic basis, so that it may be carried out on an extensive scale without cost to the Government, the State, or the inhabitants of the valley.

It appears that the other measures of tick eradication employed in the valley—cultivation, burning, dipping, and killing of wild animals—have not been sufficiently extensive and either can not be made so, or, if possible, only at a very great expenditure of labor and money.

These objections can not be raised against sheep grazing, because once the industry is established on the west side of the valley it will run itself up to the limit of grazing capacity with at least a small profit to the sheep owners. The only question to be considered in regard to sheep grazing as a means of tick eradication is that of efficiency.

The experiments with sheep grazing during 1914 were conducted with two bands of dry sheep. One band of 1,000 sheep was obtained from Dr. G. T. McCullough, of Missoula; the other, numbering 500 sheep, was procured through Mr. L. E. Wolgemuth, of Hamilton.

Supervisor White, of the Bitter Root Forest Reserve, cooperated in the experiment, and through him permits were given for free grazing on the Bitter Root Forest Reserve.

Permits for free grazing were also secured from the property holders whose lands lay between the western border of the cultivated fields and the Bitter Root Forest Reserve. This strip of land, averaging about a mile in width and extending the length of the valley, constitutes the great danger zone of Rocky Mountain spotted-fever infection. With the wood tick eradicated from it the danger of infection will be accidental instead of constant.

The band of 1,000 dry sheep was grazed west of Victor, between Big Creek and Bear Creek Canyons. The herder's camp was changed

at short intervals and the sheep were made to feed from the region of the cultivated fields west up into the Bitter Root Mountains and on to the Forest Reserve. The other band was similarly grazed west of the Hamilton vat, between Mill Creek and Blodgett Creek Canyons.

The experiment was begun April 15 and terminated July 15, when the sheep were sheared, dipped, and returned to the owners on the east side of the valley. During the experiment, sheep out of both bands were searched frequently for dead and live ticks, and from the findings it was estimated that 25,000 adult wood ticks were destroyed by the 1,500 sheep during the season.

Less than 500 adult ticks were killed by the regular dipping of all other domestic animals which ranged on this territory—about 14 square miles in extent—at the same time with the sheep, and the destruction of 50 times that number of ticks by two small bands of sheep is indeed encouraging, both when considered in comparison with the number destroyed by the other method of tick eradication employed and on the basis of the total tick infestation as previously estimated.

It is believed that this experiment shows conclusively that a high percentage of the total adult tick infestation can be destroyed by sheep grazing in one season, but as pointed out in an earlier report (11) it will be necessary to continue the experiment for three years in order to determine the full benefits to be derived from sheep grazing.

Live ticks, estimated at 10 per cent of the total number, were found attached to the sheep during the early examinations. If without too great interference with the handling of the sheep on the west side of the valley the progeny of these ticks can be prevented from reinfesting the valley, then we will have in sheep grazing a practical, rapid, efficient, and economical method of tick eradication in the Bitter Root Valley. It is believed that this can be done.

It appears that sheep grazing alone entirely eradicated the wood ticks from certain localities on the east side of the Bitter Root Valley. It is also well known that it has not done so after several years of grazing in other sections of the country, differing in topography from the Bitter Root.

Investigations were made during the past season through the sheep sections of Wyoming and Idaho with the purpose of determining, if possible, how this could be.

The following hypothesis, based on the grazing experiments conducted and the observations made during the past two years, is advanced and indicates the direction in which further researches in tick eradication will be carried on by the Public Health Service:

The most common type of so-called "sheep country" through Wyoming and Idaho consists of high plains, frequently broken by

buttes or hills and cut by small canyons. It is poorly timbered, poorly watered, and covered usually with a sparse growth of sage brush. The rodent population—ground squirrels, prairie dogs, chipmunks, etc.—is generally distributed over the entire range, being most numerous where the food supply is most abundant, hence in places where the sheep will naturally tend to loiter.

The sheep are herded over this territory in large bands, consisting of 2,000 sheep, more or less, the herder shifting his camp about once a week, or as soon as the sheep have used up the feed in the vicinity of the old camp.

Under these conditions, even though the sheep should pick up and destroy 90 per cent of the wood ticks in any locality, as was shown they will do, in the Bitter Root Valley, there still would remain enough engorged ticks to continue the tick infestation, provided they were dropped where the larvæ when hatched could find suitable hosts for attachment, such as chipmunks, ground squirrels, etc. Owing to the general distribution of the small rodents in the average sage-brush country, this is easy of accomplishment.

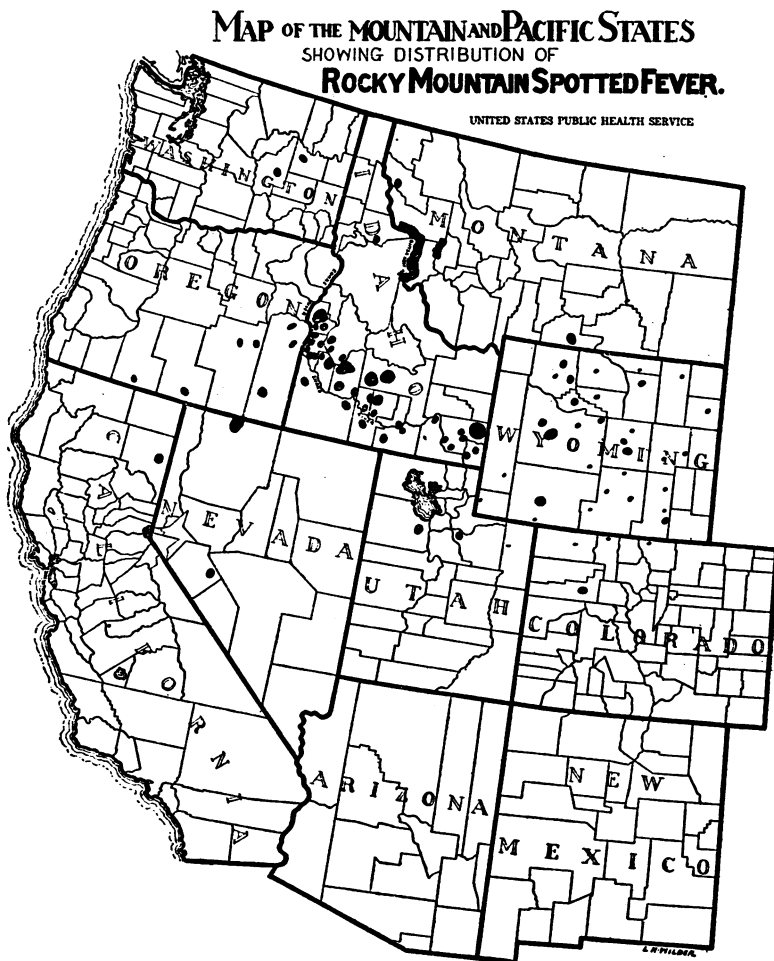
Conditions are entirely different in the Bitter Root Valley. There we have a narrow valley flanked on almost every side by precipitous mountains reaching an elevation of 10,000 feet. The tick infestation, which we are trying to eradicate, and by far the greatest number of small rodents, are found in the foothills and along the lower reaches of the mountains. Higher up there are fewer ticks, except around the goat rocks, and fewer small animals to serve as hosts for the immature ticks.

A large band of sheep started in the foothills between two canyons and grazed closely for a week would pick up practically all of the ticks in that locality and destroy perhaps 90 per cent of them; then by shifting the sheep straight back into the mountains to the next camp site, located above the tick zone, the engorged ticks would be dropped where the larvæ on hatching would find few suitable hosts. The success of this method of tick eradication rests upon the removal back into the mountains of the sheep with the remaining attached ticks before they are fully engorged and ready to drop off for egg laying, a period which averages something over 10 days from time of attachment.

This appears to have been the exact process by which the ticks were unwittingly eradicated from parts of the east side of Bitter Root Valley several years ago.

Thirty to forty thousand sheep, in 20 or more bands, were driven out of the valley during each successive May to their summer range well back in the mountains. They were grazed slowly over the tick-infested foothills on the east side during the tick season, but always in

the same direction—upward, onward, and into the mountains. In this way the camp sites were changed weekly and each new camp was located several miles above the last, and thus the ticks which were not killed were dropped where their progeny could find fewer hosts, and so they died. If this result was accomplished without supervision or even intent in one part of the valley, it certainly seems reasonable to expect that it can be accomplished under similar con-



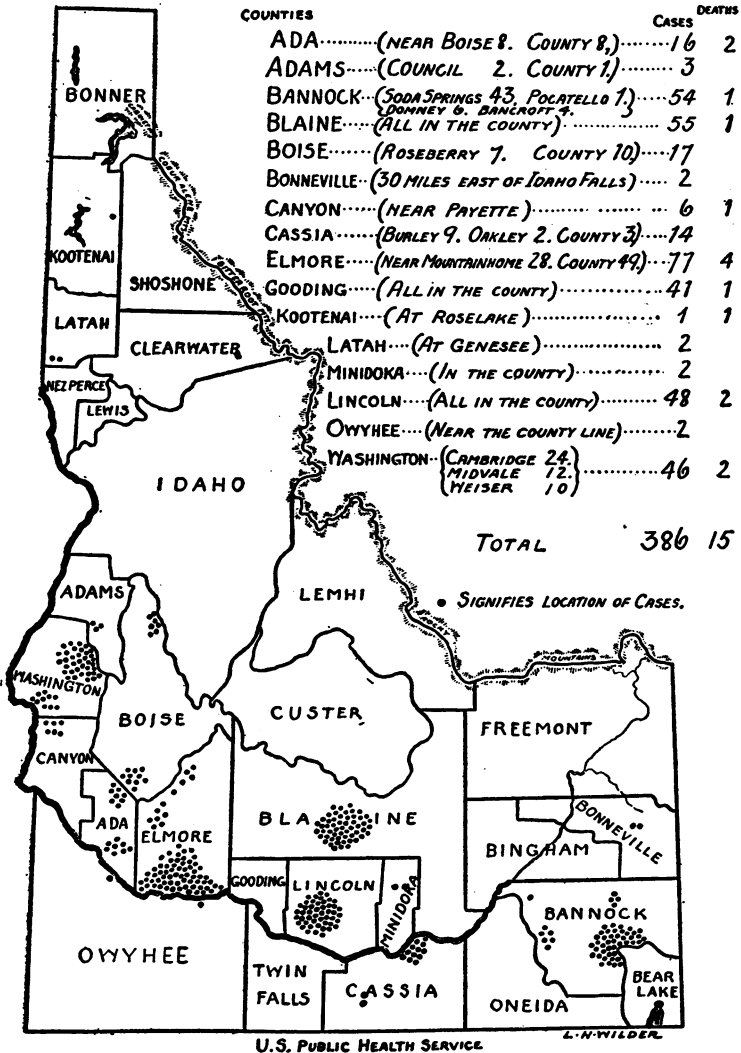
The dots indicate areas of infection reported previous to 1915.

ditions in another part of the valley when the object to be attained is understood and judgment is employed in carrying it out.

So far as is known, no observations have been conducted outside the Bitter Root Valley under conditions similar to those existing in the valley for the purpose of determining the value of sheep grazing as a means of tick eradication. It is a matter of common report,

however, that ticks are generally less abundant on sheep ranges than on cattle and horse ranges, and the fact that grazing sheep do not destroy the ticks from a level or rolling sage-brush country has no bearing whatever on the problem of tick eradication as it confronts us in the Bitter Root Valley, Mont.

MAP OF IDAHO.—ROCKY MOUNTAIN SPOTTED FEVER,— YEAR 1914.  
CASES COLLECTED BY STATE HEALTH OFFICER.



**Investigations of the Geographic Distribution of Rocky Mountain Spotted Fever.**

The importance of locating the present areas of Rocky Mountain spotted-fever infection from a public health standpoint is obvious. Until this has been done it is impossible to determine when the

disease has invaded new territory and whether the danger of its extension constitutes a menace to the entire Northwest.

The work of locating infected areas through the report of cases by attending physicians and health officials was continued during the season of 1914.

Reports were requested and received from the different health officers of the Rocky Mountain and Pacific Coast States in regard to the prevalence of Rocky Mountain spotted fever in their respective States. All cases reported in Montana during the season were investigated, and, in cooperation with the State health officer of Wyoming, an investigation was made of the past and present prevalence of the disease throughout that State. The information as obtained is given below briefly by States.

*California.*—No case of Rocky Mountain spotted fever has been reported to the State health officer since 1912. A very few cases had been reported for several years previous to 1912 from Lassen County, in the northeastern part of the State. This county is sparsely settled, and there is no reason for believing that the infection has spontaneously disappeared.

*Colorado.*—The extent of Rocky Mountain spotted-fever infection in this State is uncertain. No cases have been reported to the State health officer within the past three years, but cases had been reported formerly from Garfield County, and physicians in southern Wyoming report cases which had been infected across the State line in northern Colorado.

Dr. Arneill, of Denver, reports having treated three cases in past years and one in 1914. Further investigation will, without doubt, show that Rocky Mountain spotted fever is present in Colorado and probably that a few cases occur each year.

*Idaho.*—The State health officer of Idaho has collected complete records of the Rocky Mountain spotted-fever cases occurring throughout the State for several years past. His report for 1914 shows 386 cases, with 15 deaths.

This is a marked increase over the number reported for 1913, which was 239 cases, with 4 deaths.

*Montana.*—Twelve cases of Rocky Mountain spotted fever, with seven deaths, were reported during the year. Ten of these cases and all of the deaths occurred in the Bitter Root Valley. Two cases which recovered were reported from near Bridger, in Carbon County.

*Nevada.*—The State health officer of Nevada reports nine cases of Rocky Mountain spotted fever, all from Humboldt County, with no deaths. The majority of these cases came from Paradise Valley.

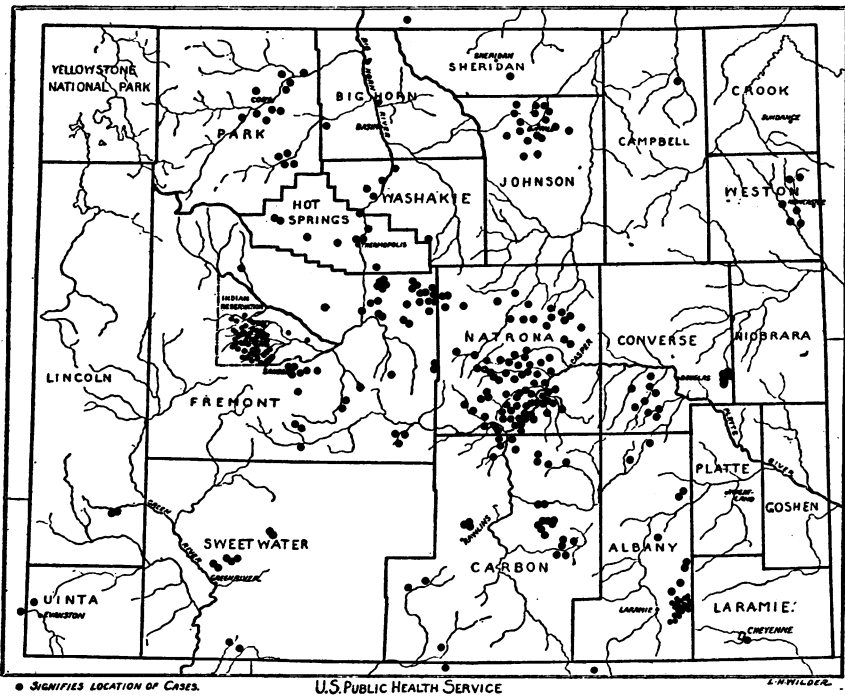
*Oregon.*—The State health officer of Oregon reports six cases of Rocky Mountain spotted fever, with three deaths, from Grant, Baker, and Crook Counties. This is a high mortality rate for the

type of the disease found in Oregon, and it is therefore probable that other cases occurred which were not reported.

*Utah.*—The State health officer of Utah reports "that it is impossible to furnish any accurate data concerning the prevalence of Rocky Mountain spotted fever in Utah," but that several deaths were attributed to this cause during 1914, and there is reason to believe that the disease occurs in Box Elder County.

Rocky Mountain spotted fever certainly occurs in Utah, but to what extent is unknown, and will be until the disease is made reportable.

MAP OF WYOMING.  
ROCKY MOUNTAIN SPOTTED FEVER CASES UP TO 1915.  
AS COLLECTED FROM LOCAL PHYSICIANS.



*Washington.*—One case of Rocky Mountain spotted fever which recovered was reported by Dr. Lee Ganson, Odessa, Wash. This case was infected south of Sylvan Lake, Lincoln County. An investigation was made of this territory during 1913.

*Wyoming.*—During past years mention has several times been made in medical literature of cases of Rocky Mountain spotted fever occurring in Wyoming. Physicians in widely separated parts of the State have also reported cases attended by them from time to time, but no accurate record of the yearly incidence and distribution of the disease has been kept.

For these reasons an investigation was conducted at the request of and in cooperation with the State health officer. Physicians in different parts of the State were visited and information was obtained either from case records or from memory in regard to the number and location of cases of Rocky Mountain spotted fever attended by them.

The information obtained in this way, while probably not complete, is extremely valuable as a basis for future investigation of the distribution of Rocky Mountain spotted fever in Wyoming, since it shows conclusively that the disease has been recognized by the local physicians as coming from certain localities for the past 20 years at least. A brief summary of the information obtained from the different physicians is given below.

Dr. H. T. Harris, president state board of health, during 10 years in Wyoming, at Sheridan and Basin, treated six cases of Rocky Mountain spotted fever up to 1912, none since. Two of the cases were seen in Sheridan; one of these was believed to have come from the Crow Indian Reservation in southeastern Montana; all recovered.

Dr. W. O. Gray, during five years in Worland has treated six cases as follows: 1910—two in July, one from river bottom 17 miles north of Worland, one from outskirts of Worland; 1912—one case, particulars forgotten; 1913—one case in May from Gooseberry Creek, 15 miles southwest of Worland; 1914—two cases in June, one from Dickie Ranch, 30 miles west of Worland, one from Gooseberry Creek, 10 miles south of Worland; all recovered.

Dr. R. W. Hale during 24 years in Thermopolis has treated nine cases as follows: 1895—one case 34 miles up Grey Bull River; 1896—one case on Big Horn River near Manderson, 15 miles north of Thermopolis; 1901—one case on Big Horn River near Lucerne six miles north of Thermopolis; 1902—one case from 40 miles east of Thermopolis; 1907—one case from 50 miles south of Lander; 1908—two cases from camp site at Big Horn Hot Springs near Thermopolis; 1914—two cases; one from Big Horn Valley, a tramp; one from 27 miles west of Thermopolis; all these cases recovered.

Dr. N. D. Nelson during eight years in Wyoming, six at Shoshone and two at Thermopolis, has treated two cases as follows: 1905—one case at Atlantic City; 1907—one case from head of Beaver Creek, 60 miles south of Shoshone; both cases recovered.

Dr. A. S. Hamilton during six years in Thermopolis has treated three cases, all recovered; 1908—two cases from Cotton Wood Creek, 40 miles west of Thermopolis; 1913—one case.

Dr. Richards, now dead, was reported by other physicians in Thermopolis to have had three deaths from Rocky Mountain spotted fever, one in 1906 and two later from the Rattle Snake Mountain, 60 miles southeast of Thermopolis. One of these cases was an alcoholic.

Dr. E. L. Jewell during 10 years in Wyoming at Lost Cabin and Shoshone has treated 17 cases with two deaths, one in an alcoholic, the other aged 74 years; 1904 and 1905—four cases; one from Bad Water Creek, one from Bridger Creek, two from Poison Creek; 1907—two cases from "Quien Sabe" ranch on Hoodoo Creek, 15 miles north-east of Shoshone; 1908—one case from "Quien Sabe" ranch; 1910—one case from Bridger Creek; 1912—two cases; one near Bonneville and one from Bonneville; 1913—four cases; one from head of Hoodoo Creek, one from Wind River, 4 miles west of Shoshone (died), one from Bridger Creek, one from Big Horn Mountains, 100 miles east of Shoshone. 1914—three cases; two from "Quien Sabe" ranch, one from 3 miles east of Riverton. All of these cases occurred in April and May except one in March and two in July.



Dr. A. B. Tonkin during nine years at Riverton and on Shoshone Indian Reservation, has treated seven cases with six recoveries and one death as follows: 1906—one case from Rattle Snake Mountains, 63 miles east of Riverton; 1911—one case from same locality; 1912—one case from Wind River Mountains, 40 miles west of Riverton, (half-breed Shoshone Indian); 1913—two cases from same locality (the first in a full-breed Shoshone Indian woman and the second in a half-breed who died); 1914—two cases; one from Black Mountain, 70 miles northwest of Riverton, one from 19 miles west of Riverton.

Dr. J. G. Cogswell, during six years in Riverton reports having treated nine cases, six in same family, as follows: 1911—one case from 30 miles southeast of Riverton; 1912—one case from Sage Creek, 30 miles southwest of Riverton on Shoshone Indian Reservation in an Indian woman 4 months pregnant, who died. Eruption profuse and purpuric in these cases; the others resembled measles and may have been that disease.

Dr. C. E. Lane during two years in Lander treated one case in 1914 from near Lander in an Italian farmer.

Dr. T. G. MaGhee came to Camp Brown, afterwards Fort Washakie, 16 miles west of Lander, as Army surgeon in 1873. Practiced in Rawlins from 1880 to 1906, and is now in charge of State institution for feeble-minded at Lander. Dr. MaGhee believes that he has treated or seen about 22 cases of Rocky Mountain spotted fever, the majority of these since 1906. First case was seen in 1876 or 1877 at Atlantic City, Wyo. Three cases at Rawlins, all in 1882, and one at Laramie about the same time.

Rev. Mr. Roberts, for 30 years Episcopal missionary to the Shoshone and Arapahoe Indians, states that he has seen probably from 50 to 75 cases of Rocky Mountain spotted fever, with several deaths. The majority of cases occurred from 1890 to 1900 among the Shoshone squaws, who went into the mountains wood chopping during early summer, a few cases among the whites at Fort Washakie, but does not recall any among the Arapahoes who live out of the foothills. According to Rev. Mr. Roberts, the Shoshones, unlike the Arapahoes, are very much afraid of spotted fever and have a superstition connecting the gopher with the disease.

Dr. A. H. Cooper, during 13 years in Wyoming—3 at Rock Springs and 10 at Lander—has treated 15 cases, with 14 recoveries and 1 death, as follows: 1902, 2 cases at Rock Springs; 1904, 2 cases at Lander; 1914, 2 cases at Lander. The other cases were scattered around Lander between 1904 and 1914—1 from near Thermopolis, 1 from 6 miles east of Lander, 1 from 10 miles south of Lander, and 2 from 35 miles southeast of Lander. One of these cases, seen with Dr. O. H. Wise at Fort Washakie, was in an Indian, George Washakie, aged 35, son of Chief Washakie, who was three-fourths Flathead and one-fourth Shoshone. George's mother was a full-blood Crow Indian. Thus George was without question a full-blood Indian who died from Rocky Mountain spotted fever. According to the agency record 2 Indians died from Rocky Mountain spotted fever in 1914.

Dr. T. A. Dean, during 19 years in Wyoming around Casper, has treated at least 12 cases. First case seen in 1896, others scattered along from year to year. None came from east of Casper and the majority of them were from around Lost Cabin, 75 miles northwest of Casper, at the foot of the Big Horn Mountains. All recovered.

Dr. J. F. Leeper, during 9 years in Casper, from 1893 to 1900 and from 1912 to 1914, has treated 20 cases at least in and around Casper, with 1 death in 1897, in a male aged 54 years. Also treated several cases at Chesne, Utah, while on duty there with the United States Army. In 1913, 3 cases; 1914, 1 case—all from Powder River north and northwest of Casper. Dr. Leeper believes that the disease is not so prevalent now as in former years. The worst period was from 1894 to 1897, during

which time he treated at least 12 cases and knew of probably 50 others around Casper. Dr. Leeper recalls 4 deaths from Rocky Mountain spotted fever around Casper during the past 20 years.

Dr. H. R. Lathrop, during 9 years in Casper, has treated from 40 to 50 cases of Rocky Mountain spotted fever, fewer this year than usual. All recovered. The majority of the cases came from the vicinity of Pathfinder, Alcova, and Bates Creek, 25 to 40 miles west and southwest of Casper.

Dr. C. L. Gillam, during 18 years in Wyoming—10 years at Cody and 8 at Casper—has treated about 25 cases of Rocky Mountain spotted fever, equally distributed around Cody and Casper. The first case was seen accidentally at Cody's first Fourth of July celebration, about 1898. Six years later Dr. Gillam and Dr. Cartor were requested by the State health officer to investigate 6 cases at Cody and 3 at Meeteetse suspected of being smallpox. All of these were found to be Rocky Mountain spotted fever.

Dr. M. G. Keith, during 8 years in Casper, has treated from 8 to 10 cases of Rocky Mountain spotted fever, with 1 death, 1908, in patient over 60.

Dr. J. R. Hylton during eight years in Douglas has treated 12 cases with no deaths and knows of only one death from Rocky Mountain spotted fever around Douglas in the past eight years. Treated two cases from Shoshone in 1913, but none around Douglas in recent years.

Dr. A. H. Cantril, during five years in Cache Valley, Utah, 1903 to 1908, treated between 30 and 35 cases, all recovered. During six years at Douglas, 1908 to 1914, he has treated five cases, but none since 1911. The Douglas cases came from around Lost Spring, 32 miles east of Douglas. All recovered.

Dr. Paul W. Newcommer, Gillette, Wyo., reports to the State health officer a clear case of Rocky Mountain spotted fever seen by him April 27, 1913, from Little Powder River, 40 miles north of Gillette. Recovered.

Dr. Fred Horton, Newcastle, Wyo., reported no cases in 1913, but a few in previous years. All recovered.

Dr. J. W. Blake, Buffalo, Wyo., reported one case in 1913, 2 miles from Sheridan.

Dr. F. W. Phifer, Wheatland, Wyo., reported two cases in 1913 from mountains of Albany County, west of Wheatland.

Dr. A. W. Barber, Cheyenne, United States Army surgeon at Fort Fetterman from 1885 to 1890. During that time treated an average of three cases each summer from country around Buffalo, and has treated one case at Cheyenne in 1913 from the Laramie Mountains northwest of Cheyenne. All recovered.

Dr. O. K. Snyder, during 12 years in Cheyenne, has treated two cases, one in 1910 and one in 1911. Both cases came from vicinity of Granite Springs Reservoir, 25 miles northwest of Cheyenne. Both recovered.

Dr. A. B. Hamilton, Laramie, Wyo., during 21 years in Albany County, has treated eight cases as follows: 1911—five cases, four from Lodge Pole Creek, 15 miles east of Laramie, and one from Marshall, on Cottonwood Creek, 85 miles north of Laramie; 1912—two cases, one from Elk Mountain, 56 miles northwest of Laramie, one from Hanna, on Southern Pacific Railroad; 1913—one case from 45 miles north of Laramie. All recovered.

Dr. J. P. Markley, during two years in Laramie, has treated two cases, both in 1913, one from North Park, Colo., 75 miles southwest of Laramie, and one from Plumbago Canyon, 35 miles northwest of Laramie. Both recovered.

Dr. W. H. Fickel, during three years in Medicine Bow, has treated two cases, both in 1914. One from 50 miles northeast of Medicine Bow, one from 14 miles southwest of Medicine Bow. One died and one recovered.

Dr. T. J. Swisher, county health officer, during 11 years in Rawlins has treated five cases, all of which recovered: 1907—one case from 30 miles southwest of Rawlins; 1908—two cases, one from 50 miles northeast of Rawlins; 1911—one case from 40 miles

southwest of Rawlins; 1912—one from 70 miles northwest of Rawlins. Dr. Swisher stated that he has known of three deaths from Rocky Mountain spotted fever in Carbon County, Wyo., in the past 11 years.

Dr. Raymond Barber, during nine years in Rawlins, has treated at least five cases of Rocky Mountain spotted fever, as follows: 1906—one case from 60 miles south of Rawlins, in Colorado; 1908—two cases from Green Mountains, 45 miles north of Rawlins; 1914—two cases from Elk Mountain, one of which died. The other case recovered.

Dr. J. C. Hammond, Omaha, Nebr., reports by letter having treated 14 cases of Rocky Mountain spotted fever, while in practice at Hanna, Wyo., from 1902 to 1906, with one death, as follows: 1902—four cases, all from Hanna, in children from 6 to 12 years old; 1903—four cases, three children, and one woman of 50 who died; 1904—two cases, one from Hanna and one from Medicine Bow River, 30 miles south of Hanna; 1906—four cases, one from Shirley Basin, 45 miles north of Hanna, one from Walkins Ranch on Medicine Bow River, 20 miles north of Hanna, one from Lone Nine Ranch, 25 miles north of Hanna, one from Hanna.

Dr. J. H. Young, during 15 years in Rock Springs has treated five cases, all recovered: 1905—two cases from near Kemmerer; 1909—one case from 40 miles south of Rock Springs; 1910—one case from Hanna; 1911—one case from Hanna.

Dr. Oliver Chambers, during 11 years in Rock Springs has treated one case, this in 1914, from 50 miles south of Rock Springs. Recovered.

Dr. C. M. Freeman, during 16 years in Rock Springs, has treated one case, this in 1906, from Six Mile Springs, 6 miles northwest of Rock Springs. Recovered.

Dr. G. E. McDonald, during seven years in Superior, has treated two cases, both during 1914 and both from Natural Corral, 6 miles northeast of Superior. Both recovered.

Dr. J. W. Hawk, during 18 years in Green River, reports having treated three cases, all in 1909. Two cases from Green River in man and wife (wife taken-sick eight days after husband, who died). One case from Bryan, 15 miles west of Green River.

Dr. H. P. Brandenburg, Green River, during three years in Lander, treated one case in 1913, from Sweetwater River. Recovered.

Dr. George E. Bristol, during 16 years in Evanston, has removed many ticks and treated many tick bites, but has never seen a case of Rocky Mountain spotted fever.

Dr. J. L. Wicks, during 16 years in Evanston, has treated one case of Rocky Mountain spotted fever, about 1906. Patient came from Utah within a month before he was taken sick and lived 10 miles north of Evanston.

Dr. F. H. Harrison practiced from 1867 to 1871 at Atlantic City, Wyo., and since that time in Evanston. Has heard of no case of Rocky Mountain spotted fever in Bear Lake region. In 1910 treated a suspicious case in girl living on railroad work car, who had a chronic purulent discharge from the middle ear and a general eruption. The girl died and the case is doubtful.

Dr. A. P. Thompson, during four years in Evanston, has seen no case of Rocky Mountain spotted fever, but had two deaths due to infection following tick bites, one in 1910 and one in 1913. According to the histories given neither of these cases could have been Rocky Mountain spotted fever, but both were reported as such in the newspapers.

Dr. C. H. Soiler, during 22 years in Evanston, has treated two cases, both in 1907, one case 15 miles east of Evanston. Both recovered.

Dr. Gamble, Kemmerer, has practiced at Diamondville and Kemmerer for past 20 years; treated one case of Rocky Mountain spotted fever in 1904 from Almy. Case first thought to be smallpox. Recovered.

Dr. W. A. Whitlock, during five years in Layton, Davis County, Utah, treated three cases of Rocky Mountain spotted fever. All recovered. In three years' practice at Kemmerer has not seen a case.

The above reports from local physicians throughout Wyoming, collected almost entirely by personal interrogation, show approximately 372 cases of Rocky Mountain spotted fever, with 29 deaths, which have been recognized and treated by them up to and including 1914. Twenty-six cases and four deaths occurred during 1914.

It is impossible to determine what percentage of the total cases which have occurred in the State these figures represent. Under the conditions which existed during the early settlement of Wyoming and even up to very recent years many cases must have gone on to recovery or death without the care of an attending physician. It is also conceded that a very few of the cases here reported as Rocky Mountain spotted fever may have been smallpox, measles, or scarlet fever, but with every physician visited the histories of all cases reported were carefully reviewed.

These reports show that Rocky Mountain spotted fever has been present in Wyoming for many years, and that the majority of the cases have come from Fremont, Natrona, Carbon, and Albany Counties. A few cases were reported from Park County around Cody and Meeteetse. Scattered cases were also reported from Big Horn, Washakie, and Hot Springs Counties along the Big Horn River and its tributaries. The disease is not uncommon in Johnson County around Buffalo, and a few cases were reported from Weston County very close to the South Dakota line.

It is believed that a careful study of the disease continued over several years will show that there exist definite areas of infection within the State, conforming closely to the location of the cases collected in this report. When the physicians of Wyoming regularly report their cases of Rocky Mountain spotted fever other areas of infection will probably be found and only after all of these have been discovered will we be in a position to determine whether the disease is spreading within the State.

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## PLAGUE-ERADICATIVE WORK.

### CALIFORNIA.

The following reports of plague-eradicated work in California were received from Passed Asst. Surg. Hurley, of the United States Public Health Service, in temporary charge of the work:

Week Ended Dec. 19, 1914.

#### San Francisco.

##### RAT PROOFING.

Inspections of new buildings under construction.....	239
Basements concreted, new buildings (63,519 square feet).....	45
Floors concreted, new buildings (329,790 square feet).....	25
Yards, passageways, etc., new buildings (83,738 square feet).....	56
Total area of concrete laid, new premises (square feet).....	477,047
Inspections class A, B, and C (fireproof) buildings.....	245
Roof and basement ventilators, etc., class A, B, and C, buildings screened.....	775
Wire screening used (square feet).....	4,030
Openings around pipes, etc., closed with cement.....	2,229
Sidewalk lens lights replaced.....	6,000
Inspections, old buildings.....	271
Wooden floors removed, old buildings.....	38
Yards and passageways, planking removed.....	14

##### RAT PROOFING—continued.

Cubic feet new foundation walls installed, old buildings.....	6,812
Concrete floors installed, old buildings (21,112 square feet).....	29
Basements concreted, old buildings (6,885 square feet).....	15
Yards and passageways, etc., concreted (26,466 square feet).....	95
Total area concrete laid in old premises (square feet).....	54,463
Floors, old buildings, rat proofed with wire cloth (6,070 square feet).....	10
Buildings razed.....	24
New garbage cans stamped approved.....	575
Nuisances abated.....	280

##### OPERATIONS ON THE WATER FRONT.

Vessels inspected for rat guards.....	18
Reinspections made on vessels.....	20
New rat guards procured.....	12
Defective rat guards repaired.....	16
Vessels on which cargo was inspected.....	1

	Condition.	Rat evidence.
Steamer President, from Seattle:		
25 boxes seeds.....	O. K.....	None.
50 bundles rags.....	O. K.....	None.
20 cases household goods.....	O. K.....	None.
250 sacks flour.....	O. K.....	None.

Rats trapped on wharves and water front.....	28
Rats trapped on vessels.....	20
Traps set on wharves and water front.....	138
Traps set on vessels.....	75
Vessels trapped on.....	12
Poison placed on water front (pieces).....	3,600
Poisons placed within P. P. I. E. grounds (pieces).....	7,200
Bait used on water front and vessels, hacon (pounds).....	6
Amount of bread used in poisoning water front (loaves).....	12
Pounds of poison used on water front.....	6

*Ranches inspected and hunted over.*

Contra Costa County.....	16
San Benito County.....	4
Total.....	20

RATS COLLECTED AND EXAMINED FOR PLAGUE.		RATS IDENTIFIED—continued.	
Collected.....	301	Mus alexandrinus.....	69
Examined.....	210	Mus rattus.....	93
Found infected.....	0	SQUIRRELS COLLECTED AND EXAMINED FOR PLAGUE.	
RATS IDENTIFIED.		Contra Costa County.....	24
Mus norvegicus.....	65	San Benito County.....	10
Mus musculus.....	74	Total.....	34

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

**Week Ended Dec. 26, 1914.**

*San Francisco.*

RAT PROOFING.		RAT PROOFING—continued.	
Inspections of new buildings under construction.....	232	Cubic feet now foundation walls installed, old buildings.....	5,363
Basements concreted, new buildings (27,863 square feet).....	41	Concrete floors installed, old buildings (18,397 square feet).....	22
Floors concreted, new buildings (6,183 square feet).....	10	Basements concreted, old buildings (5,475 square feet).....	8
Yards, passageways, etc., new buildings (8,017 square feet).....	57	Yards and passageways, etc., concreted (18,326 square feet).....	50
Total area of concrete laid, new premises, square feet.....	42,093	Total area concrete laid in old premises, square feet.....	42,198
Inspections, class A, B, and C (fireproof) buildings.....	158	Floors, old buildings, rat proofed with wire cloth (2,920 square feet).....	4
Roof and basement ventilators, etc., class A, B, and C buildings, screened.....	932	Buildings razed.....	28
Wire screening used (square feet).....	4,898	New garbage cans stamped approved.....	525
Openings around pipes, etc., closed with cement.....	2,918	Nuisances abated.....	253
Sidewalk lens lights replaced.....	3,300	OPERATIONS ON THE WATER FRONT.	
Inspections, old buildings.....	287	Vessels inspected for rat guards.....	12
Wooden floors removed, old buildings.....	36	Reinspections made on vessels.....	13
Yards and passageways planking removed.....	8	New rat guards procured.....	6
		Defective rat guards repaired.....	2
		Vessels on which cargo was inspected.....	2

	Condition.	Rat evidence.
Steamers Governor and Admiral Schley, from Seattle:		
41 boxes clams and household goods.....	O. K.....	None.
20 bundles rags.....	O. K.....	None.
318 cases milk and household goods.....	O. K.....	None.
450 sacks flour.....	O. K.....	None.

Rats trapped on wharves and water front.....	25
Rats trapped on vessels.....	12
Traps set on wharves and water front.....	171
Traps set on vessels.....	88
Vessels trapped on.....	12
Poisons placed on water front (pieces).....	1,800
Poisons placed within P. P. I. E. grounds (pieces).....	3,000
Bait used on water front and vessels: Bacon (pounds).....	6
Amount of bread used in poisoning water front (loaves).....	6
Pounds of poison used on water front.....	3

*Ranches inspected and hunted over.*

Contra Costa County.....	15
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*Record of plague infection.*

Places in California	Date of last case of human plague.	Date of last case of rat plague.	Date of last case of squirrel plague.	Total number rodents found infected since May, 1907.
<b>Cities:</b>				
San Francisco.....	Jan. 30, 1908	Oct. 23, 1908	None.....	398 rats.
Oakland.....	Aug. 9, 1911	Dec. 1, 1908	do.....	126 rats.
Berkeley.....	Aug. 28, 1907	None.....	do.....	None.
Los Angeles.....	Aug. 11, 1908	do.....	Aug. 21, 1908	1 squirrel.
<b>Counties:</b>				
Alameda (exclusive of Oakland and Berkeley).....	Sept. 24, 1909	Oct. 17, 1909	Aug. 7, 1914	286 squirrels, 1 wood rat.
Contra Costa.....	May 17, 1914	None.....	Oct. 23, 1914	1,565 squirrels
Fresno.....	None.....	do.....	Oct. 27, 1911	1 squirrel.
Merced.....	do.....	do.....	July 12, 1911	5 squirrels.
Monterey.....	do.....	do.....	Apr. 10, 1914	6 squirrels.
San Benito.....	June 4, 1913	do.....	Sept. 26, 1914	36 squirrels.
San Joaquin.....	Sept. 18, 1911	do.....	Aug. 26, 1911	18 squirrels.
San Luis Obispo.....	None.....	do.....	Jan. 29, 1910	1 squirrel.
Santa Clara.....	Aug. 31, 1910	do.....	July 23, 1913	25 squirrels.
Santa Cruz.....	None.....	do.....	May 17, 1910	3 squirrels.
Stanislaus.....	do.....	do.....	June 2, 1911	13 squirrels

<sup>1</sup> Wood rat.

RATS COLLECTED AND EXAMINED FOR PLAGUE.		RATS IDENTIFIED—continued.	
Collected.....	206	Mus alexandrinus.....	43
Examined.....	155	Mus rattus.....	61
Found infected.....	0		
		SQUIRRELS COLLECTED AND EXAMINED FOR PLAGUE.	
		Contra Costa County.....	80
		Found infected.....	0
RATS IDENTIFIED.			
Mus norvegicus.....	44		
Mus musculus.....	58		

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

**LOUISIANA—NEW ORLEANS.**

The following report of plague-eradication work at New Orleans for the week ended December 26, 1914, has been received from Surg. Compt. of the United States Public Health Service, in temporary charge of the work:

OUTGOING QUARANTINE.		OUTGOING QUARANTINE—continued.	
Vessels fumigated with sulphur.....	16	Coke consumed in carbon monoxide fumigation (pounds).....	26,200
Vessels fumigated with carbon monoxide.....	17	Pounds of potassium cyanide used in hydrocyanic gas fumigation.....	120
Vessels fumigated with hydrocyanic gas....	1		
Pounds of sulphur used.....	4,166		

OUTGOING QUARANTINE—continued.

Pounds of sodium carbonate used in hydrocyanic gas fumigation .....	120
Pounds of sulphuric acid used in hydrocyanic gas fumigation .....	200
Clean bills of health issued .....	24
Foul bills of health issued .....	7

OVERLAND FREIGHT INSPECTION.

Cars inspected, found in good order; permitted to load .....	1,125
Cars ordered repaired before loading .....	1,110
Total cars inspected .....	2,235

DESTINATION AND NUMBER OF RAILROAD CARS INSPECTED WEEK ENDED DEC. 26.

Alabama .....	71
Arkansas .....	12
California .....	23
Carolina, North .....	1
Carolina, South .....	4
Colorado .....	20
Florida .....	63
Georgia .....	42
Illinois .....	301
Indiana .....	9
Iowa .....	6
Kansas .....	1
Kentucky .....	16
Louisiana .....	700
Maryland .....	1
Massachusetts .....	5
Michigan .....	12
Minnesota .....	20
Mississippi .....	240
Missouri .....	59
Nebraska .....	5
New York .....	11

DESTINATION AND NUMBER OF RAILROAD CARS INSPECTED WEEK ENDED DEC. 26—continued.

Ohio .....	51
Oklahoma .....	10
Oregon .....	5
Pennsylvania .....	12
Tennessee .....	55
Texas .....	175
Washington .....	1
Wisconsin .....	1

FIELD OPERATIONS.

Rats trapped .....	7,840
Number of premises inspected .....	11,943
Notices served .....	413

BUILDINGS RAT PROOFED.

By elevation .....	27
By marginal concrete wall .....	77
By concrete floor and walls .....	180
By minor repairs .....	59
Square yards of concrete laid .....	8,610
Total buildings rat proofed .....	343
Buildings rat proofed to date .....	6,583
Number of abatements .....	52
Number of abatements to date .....	16,419

LABORATORY OPERATIONS.

Rodents examined .....	5,487
Mus norvegicus .....	2,213
Mus rattus .....	96
Mus alexandrinus .....	231
Mus musculus .....	3,405
Unclassified and putrid .....	2,131
Total rodents received at laboratory .....	7,881
Number of suspicious rats .....	25
Plague rats confirmed .....	3

Rodent cases.

Case No.	Address.	Captured.	Diagnosis confirmed.	Treatment of premises.
211	Stuyvesant Docks, Wharf 7 .....	Dec. 18	Dec. 24	Summary destruction of rat harborage. Intensive trapping. See case 211. Intensive trapping.
212	Stuyvesant Docks, Wharf 6 .....	Dec. 23	do. ....	
213	Creseent City Slaughterhouse, St. Bernard Parish.	Dec. 18	Dec. 26	

<sup>1</sup> Chronic plague.

Total number of rodents captured to Dec. 26 .....	205,872
Total number of rodents examined to Dec. 26 .....	178,421
Rodent cases to Dec. 26, by species:	
Mus rattus .....	11
Mus musculus .....	1
Mus alexandrinus .....	5
Mus norvegicus .....	196
Total rodent cases to Dec. 26 .....	213



## HAWAII.

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

## Honolulu.

WEEK ENDED DEC. 19, 1914.

Total rats and mongoose taken .....	430	Classification of rats killed by sulphur dioxide: <i>Mus rattus</i> .....	3
Rats trapped .....	418	Average number of traps set daily .....	1,085
Mongoose trapped .....	9	Cost per rat destroyed (cents) .....	19½
Rats killed by sulphur dioxide .....	3	Last case rat plague, Aiea, 9 miles from Honolulu,	
Examined microscopically .....	346	April 12, 1910.	
Showing plague infection .....	0	Last case human plague, Honolulu, July 12, 1910.	
Classification of rats trapped:		Last case rat plague, Kalopa stable, Paauhau,	
<i>Mus alexandrinus</i> .....	203	Hawaii, August 29, 1914.	
<i>Mus musculus</i> .....	153	Last case human plague, Paauhau Landing,	
<i>Mus norvegicus</i> .....	38	Hawaii, August 17, 1914.	
<i>Mus rattus</i> .....	24		

## Hilo.

WEEK ENDED DEC. 12, 1914.

Rats and mongoose taken .....	2,248	Classification of rats trapped and found dead—Continued.	
Rats trapped .....	2,208	<i>Mus rattus</i> .....	556
Rats found dead .....	7	<i>Mus musculus</i> .....	984
Mongoose taken .....	33	Last case of rat plague, Paauhau Sugar Co., August 29, 1914.	
Rats and mongoose examined macroscopically	2,248	Last case of human plague, Paauhau Sugar Co. August 16, 1914.	
Rats and mongoose examined microscopically	1		
Rats and mongoose plague-infected .....	0		
Classification of rats trapped and found dead:			
<i>Mus norvegicus</i> .....	427		
<i>Mus alexandrinus</i> .....	248		

# PREVALENCE OF DISEASE.

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

## IN CERTAIN STATES AND CITIES.

### CEREBROSPINAL MENINGITIS.

City Reports for Week Ended Dec. 26, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Boston, Mass.....	1	.....	Little Rock, Ark.....	1	.....
Chicago, Ill.....	2	.....	New York, N. Y.....	5	3
Cincinnati, Ohio.....	.....	1	Providence, R. I.....	.....	1
Detroit, Mich.....	.....	1	Richmond, Va.....	.....	1
Jersey City, N. J.....	.....	1			

### DIPHTHERIA.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 173.

### ERYSIPELAS.

City Reports for Week Ended Dec. 26, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Baltimore, Md.....	.....	1	Milwaukee, Wis.....	1	1
Beaver Falls, Pa.....	1	.....	New York, N. Y.....	.....	2
Boston, Mass.....	.....	2	Norristown, Pa.....	1	.....
Chicago, Ill.....	11	2	Passaic, N. J.....	1	.....
Dayton, Ohio.....	1	1	Philadelphia, Pa.....	5	2
Elmira, N. Y.....	.....	1	Pittsburgh, Pa.....	12	.....
Hartford, Conn.....	1	.....	Rochester, N. Y.....	1	.....
Jersey City, N. J.....	1	.....	St. Louis, Mo.....	7	1
Kalamazoo, Mich.....	2	.....	Seattle, Wash.....	1	.....
Kansas City, Mo.....	1	.....	Springfield, Ohio.....	1	1
Los Angeles, Cal.....	3	.....	Wheeling, W. Va.....	1	.....

### MEASLES.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 173.

### PELLAGRA.

City Reports for Week Ended Dec. 26, 1914.

During the week ended December 26, 1914, pellagra was notified by cities as follows: Charleston, S. C., 2 deaths; Lexington, Ky., 1 death; New York, N. Y., 1 death; Philadelphia, Pa., 1 case with 1 death.

**PLAGUE.**

**Washington—Seattle—Plague-Infected Rat Found.**

Surg. Lloyd reported by telegraph January 11, 1915, that one plague-infected rat had been found at the intersection of Second and Cherry Streets, Seattle, Wash.

**PNEUMONIA.**

**City Reports for Week Ended Dec. 26, 1914.**

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Binghamton, N. Y.....	2	3	Philadelphia, Pa.....	21	67
Braddock, Pa.....	1	.....	Pittsburgh, Pa.....	14	28
Chicago, Ill.....	93	73	Reading, Pa.....	2	2
Duluth, Minn.....	2	2	Rochester, N. Y.....	1	3
Elgin, Ill.....	1	.....	Sacramento, Cal.....	4	3
Erie, Pa.....	2	.....	San Diego, Cal.....	2	2
Galesburg, Ill.....	1	1	San Francisco, Cal.....	13	13
Kalamazoo, Mich.....	6	3	Schenectady, N. Y.....	7	1
Kansas City, Kans.....	3	6	South Bethlehem, Pa.....	1	.....
Lancaster, Pa.....	2	.....	South Omaha, Nebr.....	2	.....
Los Angeles, Cal.....	13	8	Springfield, Ill.....	1	1
New Castle, Pa.....	2	.....			

**Scarlet Fever.**

See Diphtheria, measles, scarlet fever, and tuberculosis, page 173.

**SMALLPOX.**

**California—Imperial County.**

Acting Asst. Surg. Richter reported that during the week ended January 9, 1915, five cases of smallpox had been notified in Imperial County, Cal.

**City Reports for Week Ended Dec. 26, 1914.**

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Ann Arbor, Mich.....	2	.....	Little Rock, Ark.....	1	.....
Charleston, S. C.....	1	.....	Milwaukee, Wis.....	20	.....
Detroit, Mich.....	2	.....	Muncie, Ind.....	2	.....
Erie, Pa.....	2	.....	Nashville, Tenn.....	1	.....
Evansville, Ind.....	1	.....	Phoenix, Ariz.....	1	.....
Galveston, Tex.....	1	.....	Wacouche, Wis.....	2	.....
Kansas City, Mo.....	4	.....	San Diego, Cal.....	2	.....
La Crosse, Wis.....	2	.....	Springfield, Ill.....	1	.....

**TYPHOID FEVER.**

**City Reports for Week Ended Dec. 26, 1914.**

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Altoona, Pa.....	.....	1	Chicopee, Mass.....	2	.....
Baltimore, Md.....	13	3	Cincinnati, Ohio.....	1	.....
Boston, Mass.....	2	.....	Cleveland, Ohio.....	2	1
Buffalo, N. Y.....	5	2	Dayton, Ohio.....	4	.....
Cambridge, Mass.....	1	.....	Detroit, Mich.....	4	1
Camden, N. J.....	1	.....	Duluth, Minn.....	.....	1
Chelsea, Mass.....	1	.....	Fall River, Mass.....	2	.....
Chicago, Ill.....	11	2	Hartford, Conn.....	2	2

## TYPHOID FEVER—Continued.

## City Reports for Week Ended Dec. 26, 1914—Continued.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Jersey City, N. J.		1	Perth Amboy, N. J.		1
Johnstown, Pa.		1	Philadelphia, Pa.	12	1
Kansas City, Mo.	3	1	Phoenix, Ariz.	1	
Kansas City, Kans.	2		Pittsburgh, Pa.	1	3
Lexington, Ky.		1	Plainfield, N. J.	1	
Little Rock, Ark.	1		Providence, R. I.	1	
Los Angeles, Cal.	2		Reading, Pa.	1	
Lowell, Mass.	1		Richmond, Va.	2	
Lynn, Mass.	1		Roanoke, Va.	2	
Milwaukee, Wis.	1		Sacramento, Cal.	1	
Mobile, Ala.	2		St. Louis, Mo.	5	2
Moline, Ill.	1		San Francisco, Cal.		2
Nashville, Tenn.	4		Seattle, Wash.	4	
Newark, N. J.	1		Springfield, Ill.	2	
New Bedford, Mass.	9		Springfield, Mass.	2	
Newburyport, Mass.	1	1	Trenton, N. J.	1	
New Orleans, La.	10	5	Washington, D. C.		1
Newport News, Va.	2		Wheeling, W. Va.	1	
New York, N. Y.	26	6	Worcester, Mass.	1	
North Adams, Mass.	1		Zanesville, Ohio.	1	
Pawtucket, R. I.	1				

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

## City Reports for Week Ended Dec. 26, 1914.

Cities.	Population as of July 1, 1914 (estimated by United States Census Bureau.)	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
<b>Over 500,000 inhabitants:</b>										
Baltimore, Md.	579,590	194	32	2	1		20		20	27
Boston, Mass.	733,802	207	69	5	74	2	62	1	45	19
Chicago, Ill.	2,393,325	588	147	17	49		63	1	162	60
Cleveland, Ohio.	639,431	150	57	6	2		17	3	23	6
Detroit, Mich.	537,650	135	36	3			17		5	10
New York, N. Y.	5,333,537	1,363	293	28	194	4	178	3	251	167
Philadelphia, Pa.	1,657,810	534	46	11	54	9	21		56	50
Pittsburgh, Pa.	564,878	157	41	3	65	2	34	1	15	4
St. Louis, Mo.	734,667	195	117	12	6		38	7	30	13
<b>From 300,000 to 500,000 inhabitants:</b>										
Buffalo, N. Y.	454,112	223	19	8		4	20		12	18
Cincinnati, Ohio.	402,175	122	21	4	1		13		19	15
Los Angeles, Cal.	438,914	104	15		3		18		32	13
Milwaukee, Wis.	417,054	87	23		3		14	3	7	7
Newark, N. J.	389,106	98	27		8		13	1	22	10
New Orleans, La.	361,221	170	37	4			2		34	23
San Francisco, Cal.	448,522	158	41	2	58	2	2		46	16
Washington, D. C.	353,378	135	8		4		6		13	12
<b>From 200,000 to 300,000 inhabitants:</b>										
Columbus, Ohio.	204,567	80	8				11		9	8
Jersey City, N. J.	293,921	94	25	2	2		9		11	7
Kansas City, Mo.	281,911	76	21	3	1		2		2	8
Providence, R. I.	245,090	71	10	1	8	1	9			8
Rochester, N. Y.	241,518	63	8	1	7		4		6	6
Seattle, Wash.	313,029	37	1		2		4		9	1
<b>From 100,000 to 200,000 inhabitants:</b>										
Cambridge, Mass.	110,357	30	5	2	10		3		2	4
Camden, N. J.	102,465		6		20		2		11	
Dayton, Ohio.	123,794	26	6	1	4				1	2
Fall River, Mass.	125,443		6	1			5	1		
Hartford, Conn.	107,038	39	3		2				5	1
Lowell, Mass.	111,004	28	3	1			1		1	1
Nashville, Tenn.	114,899	45							4	4
New Bedford, Mass.	111,230	34	3				2		4	4





## FOREIGN REPORTS.

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### CHINA.

#### Plague-Infected Rat—Hongkong.

During the four weeks ended November 21, 1914, 7,285 rats were examined at Hongkong for plague infection. Of this number, 1 rat was found plague infected. The rat was taken during the week ended October 31, 1914.

#### Plague-Infected Rats—Shanghai.

During the two weeks ended November 28, 1914, 513 rats were examined at Shanghai for plague infection. Twelve plague-infected rats were found.

### GREECE.

#### Typhoid Fever—Patras.

Referring to the reported presence of typhoid fever in Patras November 26, 1914 (Public Health Reports, Dec. 18, 1914, p. 3419), it has been further stated that on December 2, 1914, the number of cases of typhoid at Patras was estimated at 150 (population of city 40,000). It is believed that the city water has become contaminated. At places the water mains cross the sewers. The source of the city's water supply is a reservoir situated in the mountains behind the city and at a distance from the city of several miles. There are no settled residences in the drainage basin.

The question of the city water contamination is of interest, as passenger vessels calling at Patras and destined for American ports not infrequently take a supply of drinking water from that city.

### MEXICO.

#### Smallpox—Tampico.

On January 7, 1914, smallpox was reported prevalent at Tampico among soldiers arrived from various parts of the Republic of Mexico.

## NORWAY.

## Sanitary Conditions, Year 1912.

From the Sundhetstilstanden og Medicinalforholdene, 1912.

The general sanitary condition of the Kingdom of Norway during the year 1912 was satisfactory. The total number of acute epidemic diseases was 172,053, or 71.9 per 1,000 inhabitants (in 1911, 160,512).

No case of typhus occurred in Norway during the year 1912. Typhoid fever continued to decrease in frequency of occurrence (from 0.32 in 1910, to 0.24 in 1911, and 0.20 per thousand in 1912). Cases of epidemic cerebrospinal meningitis increased considerably, notably in the city of Christiania. Acute anterior poliomyelitis (infantile paralysis) appeared also in all the Provinces of the Kingdom, but the number of reported cases diminished from 1,820 in 1911 to 425 in 1912. Two cases of smallpox occurred in the city of Christiania. The origin of the infection was in Russia. The number of declared cases of scarlatina was the same as in 1911—2.1 per 1,000 inhabitants—while cases of diphtheria diminished slightly (2.6 to 2.4). The mortality from diphtheria was about 7.5 per cent (in 1911, 7.4 per cent). Whooping cough continued to be epidemic, but the number of reported cases continued to decline. The mortality for the year calculated on the estimated population (2,393,339) was 15.5 per thousand inhabitants. The total number of deaths was 32,219.

Vaccination was performed on 46,840 children.

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

Reports Received During Week Ended Jan. 15, 1915.<sup>1</sup>

## CHOLERA.

Places.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary:				
Trieste.....	Nov. 15-21.....	5		
China:				
Nanking.....	.....do.....			Present.
Dutch East Indies:				
Celebes—				
Menado.....	Nov. 1-7.....	83	80	
Java—				
Batavia.....	Nov. 8-14.....	48	48	
Sumatra—				
Mengala.....	Nov. 1-7.....	5	2	
Indio-China.....	.....do.....			Jan. 1-Aug. 31: Cases, 259; deaths, 148. Aug. 1-31: Cases, 18; deaths, 15.
Cambodia—				
Pnum Penh.....	Aug. 1-31.....	1		
Cochin China—				
Baria.....	.....do.....	6	6	
Cholon.....	.....do.....	9	7	
Saigon.....	.....do.....	1	1	And vicinity, Nov. 17-23: Cases, 18; deaths, 10.
Laos—				
Pakse.....	.....do.....	1	1	
Philippine Islands:				
Manila.....	Nov. 15-28.....	9	4	
Russia:				
Moscow.....	Nov. 8-14.....		1	

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



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

## Reports Received During Week Ended Jan. 15, 1915—Continued.

## PLAGUE.

Places.	Date.	Cases.	Deaths.	Remarks.
China: † Canton .....				June 12-July 12: Cases, 323.
India: Karachi .....	Nov. 15-21 .....	2	1	
Indo-China .....				Jan. 1-Aug. 31: Cases, 1,785; deaths, 1,413. Aug. 1-31: Cases, 155; deaths, 121.
Anam— Phanrang .....	Aug. 1-31 .....	8	7	
Phanitet .....	do .....	4	1	
Cambodia— Pnum Penh .....	do .....	41	39	
Cochin China— Cholon .....	do .....	26	11	
Saigon .....	do .....	23	15	And vicinity Nov. 17-23: Case, 1.
Kouang-Tcheou-Wan .....	do .....	45	45	
Peru: Salaverry .....				Nov. 17-23: Cases, 2; deaths, 1. Dec. 14: Cases, 16 in hospital at Trujillo.

## SMALLPOX.

Argentina: Rosario .....	Oct. 1-31 .....		1	
Australia: New South Wales— Sydney .....				Nov. 20-26: Cases 11 in the Metropolitan area.
Queensland— Brisbane .....				Nov. 19, in Colmslie quarantine station, 1 case from s. s. Kano Na from Melbourne, via Sydney.
Austria-Hungary: Hungary— Fiume .....	Dec. 6-12 .....	1		
Brazil: Rio de Janeiro .....	Nov. 22-Dec. 5 .....	152	37	
Canada: Quebec— Montreal .....	Dec. 23-Jan. 2 .....	1		
China: Hongkong .....	Nov. 22-28 .....	1	1	Nov. 22, present.
Newchwang .....				Deaths among natives.
Shanghai .....	Nov. 23-Dec. 6 .....	4	10	
Great Britain: Liverpool .....	Dec. 19 .....	1		
Mexico: Aguascalientes .....	Dec. 14-27 .....		4	
Chihuahua .....	Nov. 30-Dec. 5 .....	6	4	
Mazatlan .....	Dec. 9-22 .....	7	2	
Monterey .....	Dec. 14-20 .....		2	
Salina Cruz .....	Nov. 1-7 .....	1		
Tampico .....	Dec. 30 .....			Prevalent among the military.

† From the Veröffentlichungen des Kaiserlichen Gesundheitsamtes, Dec. 9, 1914.

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

Reports Received from Dec. 26, 1914, to Jan. 8, 1915,

**CHOLERA.**

Places.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary:				
Austria—				Total, Oct. 18-Nov. 21: Cases,
Lower Austria—				2,705; deaths, 754.
Vienna.....	Oct. 18-Nov. 21...	285	31	
Hungary.....				Total, Oct. 18-Nov. 14: Cases,
Dutch East Indies:				1,558.
Celebes—				
Menado.....	Oct. 18-31.....	168	160	
Java—				
Batavia.....	Oct. 25-Nov. 7....	220	220	
Sumatra—				
Mengala.....	Oct. 18-24.....	60	47	
Palembang.....	.....do.....	62	49	
India:				
Bombay.....	Nov. 1-7.....	5	1	
Calcutta.....	Oct. 25-31.....		4	Not previously reported.
Do.....	Nov. 1-14.....		17	
Madras.....	Nov. 8-21.....	114	79	
Rangoon.....	Sept. 1-30.....	1	1	
Indo-China:				
Saigon.....				And vicinity—Nov. 3-16: Cases,
.....				4; deaths, 3.
Japan.....				Total, Jan. 1-Oct. 4: Cases, 5;
Kyoto fu.....	Oct. 1-31.....	1	1	deaths, 4.
Philippine Islands:				
Manila.....	Oct. 25-Nov. 14...	9	3	
Siam:				
Bangkok.....	Sept. 27-Oct. 31...		5	
Straits Settlements:				
Singapore.....	Oct. 4-10.....	1	1	

**YELLOW FEVER.**

Venezuela:				
Caracas.....	Dec. 31.....	2		

**PLAGUE.**

Brazil:				
Bahia.....	Nov. 16-Dec. 5....	8	6	
Rio de Janeiro.....	Jan. 5.....	1		
Ceylon:				
Colombo.....	Oct. 25-Nov. 22...	12	13	
Egypt.....				Total Jan. 1-Nov. 28: Cases, 218;
Alexandria.....	Nov. 5-28.....	1	1	deaths, 110.
Port Said.....	Oct. 22.....	6	2	
India:				
Bassein.....	Jan. 4-Oct. 17....	11	7	Not previously reported.
Bombay.....	Nov. 1-14.....	3	1	
Karachi.....	Nov. 8-14.....	1	1	
Rangoon.....	Sept. 1-30.....	72	66	
Indo-China.....				Saigon and vicinity, Nov. 3-16:
.....				Cases, 2.
Libya (Tripoli).....				Present in Derna and Marsa-
.....				Susa, among native laborers.
Persia:				
Azerbaijan—				
Belessavar.....	Oct. 31.....			Present.
Siam:				
Bangkok.....	Sept. 27-Oct. 31...		1	
Turkey in Asia:				
Bagdad.....	Nov. 1-17.....	2	1	
Zanzibar.....	Oct. 25-31.....	2	3	

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

Reports Received from Dec. 26, 1914, to Jan. 8, 1915—Continued.

## SMALLPOX.

Places.	Date.	Cases.	Deaths.	Remarks.
Arabia:				
Aden.....	Nov. 5-18.....	1	3	
Australia:				
New South Wales—				
Sydney.....				Total Nov. 13-19: Cases, 7 in the metropolitan area and 2 in the country districts.
Brazil:				
Rio de Janeiro.....	Nov. 1-14.....	215	71	
Canada:				
Ontario—				
Earna.....	Dec. 13-19.....	1		
Toronto.....	Dec. 6-19.....	3		
Quebec—				
Quebec.....	Dec. 13-19.....	2		
Ceylon:				
Colombo.....	Oct. 25-Nov. 7....	21	3	
China:				
Shanghai.....	Nov. 9-15.....	1	8	Deaths among natives.
Dutch East Indies:				
Borneo.....				Oct. 18-24: Cases, 112; deaths, 44, mainly in Pontianak.
Java.....				In the western part, including Batavia, Oct. 13-24: Cases, 307; deaths, 119.
Batavia.....	Oct. 18-24.....	30	10	
Egypt:				
Alexandria.....	Nov. 19-Dec. 2....	17	2	
France:				
Paris.....	Nov. 15-21.....	2	2	
Great Britain:				
Cardiff.....	Nov. 30-Dec. 5....	5		
Greece:				
Patras.....	Nov. 23-Dec. 6....		8	Dec. 6: Epidemic.
Saloniki.....	Nov. 15-21.....	12	6	
India:				
Bombay.....	Nov. 1-21.....	9	4	
Calcutta.....	Oct. 25-Nov. 14....		12	
Madras.....	Nov. 1-21.....	4	3	
Japan:				
Nagasaki ken.....	Oct. 1-31.....	25	4	Jan. 1-Oct. 31: Cases, 450; deaths, 102.
Taiwan.....	Oct. 25-Nov. 7....	7		
Mexico:				
Aguascalientes.....	Dec. 7-13.....		2	
Chihuahua.....	Dec. 15-21.....	6	2	
Juarez.....	Dec. 4.....			Prevalent.
Vera Cruz.....	Dec. 1-13.....		2	Jan. 5: Epidemic.
Norway:				
Christiansand.....	Nov. 1-30.....	7	2	Including report, vol. 29.
Stavanger.....	Nov. 30-Dec. 5....	1		
Portugal:				
Lisbon.....	Nov. 22-Dec. 5....	5		
Russia:				
Petrograd.....	Oct. 25-Nov. 21....	93	26	
Spain:				
Barcelona.....	Nov. 22-Dec. 4....		10	
Madrid.....	Nov. 1-30.....		4	
Valencia.....	Nov. 15-28.....	44	4	
Straits Settlements:				
Singapore.....	Oct. 10-17.....	2	1	
Switzerland:				
Basel.....	Nov. 7.....	5		
Turkey in Asia:				
Beirut.....	Nov. 1-21.....	14	6	
Haifa.....	Nov. 2-8.....	2	1	

# SANITARY LEGISLATION.

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## STATE LAWS AND REGULATIONS PERTAINING TO PUBLIC HEALTH.

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### LOUISIANA.

**Pellagra, Whooping Cough, and Trachoma made Notifiable. (Reg. Bd. of H., Dec. 16, 1914.)**

*Resolved*, That the sanitary code be amended by adding the following section:

“For purposes of investigation and statistical record, pellagra, whooping cough, and trachoma are hereby made reportable diseases in the State of Louisiana, and attending physicians must report to the Louisiana State Board of Health and to the respective local health officials all cases of these diseases in the same manner as provided in section 13 of the sanitary code.”

**Appropriation for Work of State Board of Health. (Act 177, July 8, 1914.)**

\* \* \* \* \*

For affording relief by the State board of health to any parish in the event of the appearance of any contagious or infectious disease, for disinfectants, medicines, nurses, clothing, bedding, appliances, disinfecting apparatus, tents, etc., to deal with first cases in time of emergency, and for general sanitary work, prevention and control of contagious diseases, etc., and for the maintenance of the chemical laboratory work now being carried on by the board—

For the year ending June 30, 1915.....	\$50,000
For the year ending June 30, 1916.....	50,000

Same to be drawn by the State board of health or its president, in such sums as the emergency in its or his discretion may require, and available out of the revenues of either year, if the emergency requires.

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

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### MARQUETTE, MICH.

#### Milk and Milk Products—Production, Care, and Sale—Dairy and Milk Inspector. (Ord. May 19, 1914, as Amended June 29, 1914.)

SECTION 1. The office of dairy and milk inspector is hereby created, and the term of such officer shall be during the pleasure of the commission.

SEC. 2. Unless otherwise ordered by the commission, the health officer shall be ex officio dairy and milk inspector.

SEC. 3. The dairy and milk inspector shall enforce in this city all State laws relative to dairy and dairy products, and also all the provisions of this ordinance. It shall be his duty to inspect, as often as deemed necessary, all dairies, stables, and premises in the county of Marquette, where cows or other animals are kept, from which milk or cream is sold or furnished in this city by any licensed milk dealer.

SEC. 4. The dairy and milk inspector shall, on or before noon of the first Monday of each month, file with the city clerk a full and itemized statement of his official doings during the preceding month, and of costs and expenses incurred by or in the discharge of his duties during such month.

SEC. 5. The dairy and milk inspector shall have power to make and summarily enforce orders, regulations, and requirements not in conflict with law or the ordinances of this city, to be observed by each and every person engaged in and in connection with the furnishing of milk or cream to this city; and any refusal or failure by any such person to observe and perform any lawful order, regulation, or requirement of the dairy and milk inspector shall be deemed a violation of this ordinance.

SEC. 6. Upon the recommendation of the dairy and milk inspector the mayor shall have power in his discretion to suspend for any period, or indefinitely, any license granted in pursuance of this ordinance or revoke the same entirely if he should be satisfied that the licensee does not comply with the requirements of the law, the ordinances of the city, or the lawful orders of the dairy and milk inspector applicable to the business for which such license was issued.

SEC. 7. The term "milk," as used in this ordinance, shall include the products of milk commonly called skimmed milk, separated milk, buttermilk, cottage cheese, and the like, and the term "cream," as used in this ordinance, shall include ice cream and food products containing uncooked cream; but this ordinance shall not apply to so-called evaporated milk or cream in sealed packages.

SEC. 8. No person who does not hold a city license as a milk dealer, not suspended or revoked, shall engage or be engaged in the business of furnishing or selling milk or cream in this city, or keep for sale, offer for sale, sell, or deliver in this city any milk or cream, except in the service or employment of a licensed milk dealer.

SEC. 9. Any person desiring to be licensed as a milk dealer shall file with the city clerk his application therefor under oath and in writing, upon a form to be furnished by the health officer, and completely filled out, signed by the applicant, and setting forth.

1. The name, residence, and post-office address of the applicant and the location of his milk depot, dairy, and place where his cows are to be kept.

2. The number of cows, and the particular description of each, owned or controlled by the applicant from which milk or cream is to be obtained for sale or delivery; and if tested for tuberculosis by the tuberculin test, the date last so tested, and by whom, the result thereof, and the number of the city tag borne by each animal, respectively.

3. The source or sources from which the applicant obtains and is to obtain milk or cream for sale or delivery in case the applicant does not himself keep the cows from which such milk and cream are to be obtained; and

4. The agreement of the applicant that any license issued upon such application shall be revoked should the applicant sell, furnish, or deliver in said city any milk or cream obtained from any other animal or source than specified in his application without the further permit of the dairy and milk inspector; or should the applicant not comply with all the requirements of law, the ordinances of the city, and the lawful orders of the dairy and milk inspector and the health officer applicable to the business for which such license is granted; and that the mayor of said city shall be the sole judge of the facts warranting the revocation of such license.

SEC. 10. In case such applicant proposes to deal in milk or cream produced from cows kept in the county of Marquette, such applicant shall also file with the city clerk the certificate of the dairy and milk inspector, or his authorized representative, that he has inspected the premises, dairy, stables, animals, and utensils of each person from whom such applicant proposes to procure milk or cream, and that the same are kept in good sanitary condition and are kept in all respects in compliance with law and with the provisions of this ordinance. In case such applicant does not himself keep the cows from which such milk and cream are to be obtained, he shall also file with the city clerk a statement under oath by each dairyman or other person from whose cows the applicant is to be furnished with the milk or cream proposed to be dealt in by him, that all the cows from which such milk is to be drawn have been tested within one year last past, and when and by whom, for tuberculosis, by the tuberculin test, administered by a regularly registered veterinary, and that they were found free from disease; which application and which statement shall also contain the consent of such applicant and each such person to the inspection, at any and all times, by any officer of the city, or other person interested, of the premises, dairy, stables, animals, and utensils of such person.

SEC. 11. Upon the filing of such application, statement, and certificate, and upon the payment to the city treasurer of the fees herein provided for, the city clerk shall issue to such applicant a license as a milk dealer, for the period of one year from and including the date of issue; which such license shall specify the location of the milk depot, or dairy, or place where cows are authorized by such license to be kept, and the number of cows permitted to be kept, which number shall not be increased without notice to and consent of the dairy and milk inspector. No licensed milk dealer shall sell, furnish, or deliver in this city any milk or cream obtained from any other animals or source than specified in his application for a license, unless upon the written permit of the dairy and milk inspector. The license fees to be paid by each such applicant for each year shall be as follows: For each milk depot, other than a regular dairy, \$1; for each dairy and place where cows are kept, \$1.

SEC. 12. Each licensed milk dealer having a milk depot shall at all times have his license conspicuously posted on the wall of the room of his milk depot wherein the sale of milk is carried on; and each other licensed milk dealer shall at all times have his license conspicuously posted in the office of his dairy, or in the room or place of his dairy from which milk or cream is usually loaded into vehicles for delivery.

SEC. 13. After July 10, 1912, no person shall use any vehicle for the sale or delivery of milk or cream in this city unless there shall be conspicuously painted or kept upon both sides thereof a sign on which shall plainly appear in letters at least 2 inches in height the words: "Licensed milk dealer No. —," with the number of a milk dealer's

license then in force; and a like sign shall be conspicuously painted or kept upon the outside of the milk depot and the principal building of the dairy of each milk dealer licensed under this ordinance. It shall be unlawful for any person to use in this city for the sale or delivery of milk or cream any vehicle with any such sign thereon unless such vehicle is used in the business of a licensed milk dealer.

SEC. 14. After July 1, 1914, no person shall sell or deliver in this city, or shall furnish or serve for human food or drink in any hotel, saloon, restaurant, eating house, or boarding house in this city, any milk or cream drawn from any animal which has not within one year next prior thereto been tested for tuberculosis by the hypodermic-thermal tuberculin test, administered by the health officer or under his authority and direction by any person by him deemed competent, or by any registered veterinarian and found by the health officer, such authorized person, or veterinarian, to be free from tuberculosis and other contagious or infectious disease; or from any animal kept, or permitted to be in the same building, or in the same or adjoining inclosure of land with any other cattle not so tested, or any cattle giving a positive reaction in such test for tuberculosis. Such tuberculin test, as a qualification under this ordinance, shall be administered to animals kept or to be kept in Marquette County only upon notice to the health officer and satisfactory opportunity given him to be present thereat; and the result thereof shall be forthwith attested and certified by the veterinary or person making the test as follows:

1. By permanently affixing in the right ear (or the left ear if there be no right ear) of each animal so tested and found to be free from tuberculosis or other contagious disease and not then bearing a permanent identifying tag, a numbered metal tag to be furnished on request without charge by the health officer; and

2. By forthwith delivering to the health officer and to the keeper of each such animal so tested a certificate, upon forms to be furnished by the health officer, of the inspection of each animal, specifying who for, the date, place, and result thereof; and whether each such animal so tested and found to be free from tuberculosis or other contagious or infectious disease bore a permanent identifying tag or was ear-tagged as herein required, with number or mark of either such tag.

The failure of any such veterinary or other person to so attest or certify any such test made by him shall forfeit his right to be furnished such tags and to make such tests thereafter.

The sale, furnishing, or serving in this city, for human food or drink, by any person not licensed under this ordinance as a milk dealer, of any milk or cream not procured from any such licensed milk dealer shall be prima facie evidence that such milk or cream was drawn from an animal or animals which had not within one year next prior thereto been tested for tuberculosis by the hypodermic-thermal tuberculin test, administered by the health officer, or by any person thereto authorized by the health officer of this city or by a registered veterinarian.

SEC. 15. No person shall sell, furnish, or deliver in this city any milk or cream drawn from any animal affected with tuberculosis or any disease whatever; or from any animal suffering from any injury causing fever or rise of temperature above normal; or from any cow within 15 days before or 7 days after parturition, or from any animal fed or supplied with impure or unwholesome food or water; or from any animal kept in any stable which is crowded, filthy, or unclean, or in an insanitary condition, or not well lighted and well ventilated; or milk which has been drawn or handled by any person affected with any communicable disease, or drawn or placed in any vessel or receptacle or room in which any such person may be.

SEC. 16. No person shall sell, furnish, or deliver in this city any milk or cream that has been diluted with water or any other fluid, or to which has been added or introduced any ice or other foreign substance; or any milk from which any cream has been abstracted, unless sold or delivered and represented to be skimmed or separated milk, or buttermilk; or any milk or cream which is unwholesome, impure, or infected

with disease; or any milk or cream which at any time, 30 minutes or more after being drawn from the animal shall be at a temperature above 55° F.; or any milk of specific gravity of less than 1.029, or more than 1.033, at a temperature of 60° F.; or any milk containing less than 3½ per cent of milk fat, or less than 8½ per cent of solids, not milk fat; or containing more than 300,000 bacteria per cubic centimeter, or any cream which contains less than 18 per cent milk fat, or more than 500,000 bacteria per cubic centimeter: *Provided*, That the requirements of this section relative to temperature, specific gravity, fat content, and number of bacteria shall not apply to skimmed milk, separated milk, or buttermilk.

SEC. 17. Any milk or cream in this city, at any time, which does not conform to the requirements concerning source and the standards of purity or quality of milk and cream permitted by this ordinance to be sold in this city, may be summarily seized, confiscated, and destroyed by or by order of the dairy and milk inspector, the health officer, the mayor, or any police officer, or sanitary inspector.

SEC. 18. No person shall sell or deliver in this city, except at a licensed milk depot or the dairy where drawn, any milk in quantities of less than 1 gallon, unless in sterilized glass, paper, or fiber bottles, filled and sealed at the dairy or place where the milk was drawn; and no such bottles after being delivered to any building or place placarded as a warning of the existence therein of any contagious or infectious disease, shall be collected or taken from such place or premises while so placarded, not thereafter until such bottles have been thoroughly sterilized.

SEC. 19. The health officer, the dairy and milk inspector, and all inspectors authorized by either of them or by the board of health, are hereby authorized to enter all dairies and all buildings and parts thereof, and all buildings and premises where cows are kept from which milk or cream is sold and delivered; and also the milk depots and places where milk or cream is kept for sale, and also all vehicles used for the delivery of milk or cream; for the purpose of inspecting such dairies, buildings, premises, cows, milk depots, and vehicles; and such officers and inspectors are hereby authorized to take for testing and analysis, samples of milk and cream, not exceeding one pint of milk and one-half pint of cream, for each sample, from any and all milk depots, dairies, and places where milk or cream is kept for sale, and from all vehicles used for the delivery of cream or milk. No person shall hinder or prevent any such entry or inspection, or the taking of such samples; provided there shall be paid by such officer or inspector, taking such sample, 5 cents for each such sample of milk and 10 cents for each such sample of cream, for which payments any such officers and inspectors shall be reimbursed by the city.

SEC. 20. No person shall use or permit the use of any so-called milk ticket for more than one sale or delivery of milk or cream by any milk dealer, and all such tickets upon being once used for such purposes shall forthwith be destroyed by the milk dealer or person supplying the milk or cream on account of which such tickets were used.

SEC. 21. Any violation of the provisions of this ordinance shall be punished by a fine of not less than \$5 or more than \$100, or by imprisonment in the city lock-up or jail of the county of Marquette for a period not exceeding 90 days, or by both such fine and imprisonment in the discretion of the court before whom any conviction under this ordinance may be had.

SEC. 22. Each licensed milk dealer shall from time to time file with the recorder (city clerk) a verified description of all distinguishing letters, words, figures, label, mark, or device used by him first in this city upon bottles for the sale or delivery of milk or cream, particularizing therein those presently so used or proposed to be used by him; and each such dealer shall also from time to time deposit with the dairy and milk inspector samples of all bottles having thereon any such distinguishing characteristics, in use by him or proposed to be used by him for the sale or delivery of milk or cream in this city. The dairy and milk inspector shall receipt for and keep on



deposit in his office each such bottle, and shall securely affix thereto a tag or label upon which shall be indorsed his certificate of the date when and by whom such deposit was made.

SEC. 23. No person shall sell or deliver in this city any milk or cream in any bottle having thereon any distinguishing letters, words, figures, label, mark, or device first used or proposed to be used in this city by any other person upon bottles for the sale or delivery of milk or cream.

SEC. 24. No person shall in this city sell or deliver any milk or cream in any bottle having thereon any distinguishing letters, words, figures, label, or device described in any verified statement of any other person filed with the recorder (city clerk) in pursuance of section 22 of this ordinance.

### MERIDIAN, MISS.

#### Meat and Meat Products—Inspection, Manufacture, and Sale—Slaughterhouses—Regulation of. (Ord. Aug. 18, 1914.)

SECTION 1. *Terms defined.*—The word "person," as hereinafter used, shall mean and be held to include an individual, firm, or corporation, or an agent, officer, or employee thereof. The word "meats" as hereinafter used shall mean and be held to include the flesh and other food products of any cattle, swine, goat, sheep, or other animal, excepting those usually classed as game, which is commonly used for food. The term "live stock," as hereinafter used, shall mean and be held to include cattle, swine, goats, sheep, and all other animals, excepting those usually classed as game, the flesh of which is commonly used for food. The term "slaughterhouse," as hereinafter used, shall mean and be held to include all grounds, buildings, sheds, pens, machinery, tools, appliances, and equipment of every kind and character used and employed for the purpose of slaughtering live stock and the dressing, preparation, and storage for meats for sale as food. The term "market" or "market house," as hereinafter used, shall mean and be held to include the grounds, buildings, machinery, tools, appliances, and equipment of every kind and character used or employed or intended to be used or employed in or about any building, room, or other structure where fresh or uncured meats, fresh fish, oysters, and dressed poultry, or game, are kept or offered for sale to consumers as food. The term "packing house," as hereinafter used, shall mean and be held to include grounds, buildings, machinery, tools, appliances, and equipment of every kind or character used or employed or intended to be used or employed in or about any building, room, or other structure where fresh or uncured meats are kept or offered for sale as food to persons other than the consumers thereof. The word "city," as hereinafter used, shall mean the city of Meridian, Miss., and the words "within the city" shall mean within the corporate limits of said city of Meridian, and the word "council" shall mean the council of the said city of Meridian. The word "inspector," as hereinafter used, shall mean the official inspectors of meats appointed by, and acting under the authority of the council of, the said city of Meridian.

SEC. 2. *Meats, where slaughtered and dressed.*—Except as otherwise provided by this ordinance, it shall be unlawful for any person to sell, offer for sale, or have on hand for the purpose of sale within the city, or to bring or send into, or deliver within the city, for the purpose of being sold or offered for sale, or pursuant to any contract of sale previously made, any fresh or uncured meats, unless the same shall have been slaughtered, dressed, and prepared for sale at one of the slaughterhouses established and licensed by the council as hereinafter provided; but this provision shall not apply to meats which have passed, and which bear the stamp of, inspection provided by laws of the United States for interstate shipments of meats.

SEC. 3. *Slaughterhouses, how established.*—Any person desiring to erect or maintain a slaughterhouse, to be operated under the provision of this ordinance, shall make

application in writing to the city council, stating the name of the applicant or applicants, and also their occupation and place of residence. Such application shall also state the location of the proposed slaughterhouse, together with the area of the grounds upon which the same is to be erected, and shall have attached thereto a copy of the plans and specifications for the erection, construction, and equipment thereof. Such application, together with the plans and specification aforesaid, shall be considered by the council; and if, in the judgment of the council, the location of such proposed slaughterhouse is proper and suitable, and the proposed building or buildings and the equipment thereof adequate for the purposes intended, and is or will be constructed in accordance with the requirements of this ordinance, then and in that event permission shall be given by the council, by an order entered on its minutes, for the erection and construction of such slaughterhouses at the place named in the application, according to the plans and specifications thereto attached or such modifications thereof as may be required by the council. Upon the completion of the erection and construction of any such slaughterhouse so authorized to be erected according to such plans and specifications, the council shall, by an order entered on its minutes, approve and establish such slaughterhouse as having been constructed in conformity with the terms and provisions of this ordinance.

SEC. 4. *Slaughterhouses, how licensed.*—Every person who shall desire to operate any established slaughterhouse, pursuant to the provisions of this ordinance, shall make application, in writing, to the council for a license so to do, which application shall state the name and place of residence of each applicant, the amount of capital proposed to be employed in the operation thereof, and the period of time—not less than one, nor more than five years—during which the applicant desires to operate the same; and if such applicant or applicants be not the owner of such slaughterhouse, a copy of the lease or contract with the owner thereof, shall be attached thereto. Upon the filing of such application the same shall be considered, and if in the opinion of the council the applicant be a proper and suitable person, and the amount of capital proposed to be employed be sufficient to properly operate such slaughterhouse, the council shall, by an order entered on its minutes, grant such applicant license to operate such slaughterhouse, under the provisions of this ordinance, for the period named in the application, upon condition that such applicant shall enter into bond, in the penalty of \$5,000, payable to the city of Meridian, with sureties to be approved by the council, conditioned to operate the said slaughterhouse during the whole period for which such license is granted, in strict compliance with all the terms, provisions and requirements of this ordinance, touching the operation of such slaughterhouse, and the slaughtering, dressing, handling, storage, and delivery of meats. Upon the execution of such bond, and the approval thereof by the council, the applicant shall become authorized to operate such slaughterhouse, under the provisions of this ordinance, during the period named in the order of the council granting such license.

SEC. 5. *License may be revoked and penalty of bond recovered.*—In case any person who shall have been granted a license to operate a slaughterhouse under the provisions of this ordinance shall cease to operate the same at any time during the period for which such license may have been granted, except on account of strikes, necessary repairs, or other unavoidable casualty, or in case he shall knowingly or carelessly, either in person or through his agents, servants, or employees, violate any of the provisions of this ordinance touching the operation of such slaughterhouse, and the slaughtering, dressing, handling, storage, and delivery of meats, the council may revoke such license, by an order entered on its minutes, and proceed to collect the penalty of his bond by suit or otherwise; but no such license shall be revoked until after such licensee shall have had at least five days' written notice of the purpose of the council so to do, and an opportunity to be heard by the council. The decision of the council in such case shall be final, and every such license granted shall be on condition that

the same may be revoked at any time by the council pursuant to the provisions of this section.

SEC. 6. *Slaughterhouses, how constructed.*—All buildings and structures, other than pens and sheds for live stock, erected for the purpose of being operated as a slaughterhouse under the provisions of this ordinance shall be constructed of brick or reinforced concrete, with waterproof walls and incombustible roof, and shall have all the floors thereof made of cement, concrete, or asphalt, with sufficient and proper decline leading to the gutters, to carry away all water and waste matters to a prepared place of deposit, provided that wooden blocks may be set in said floors at proper distance in the slaughter room, so that pritch sticks can be used in flaying cattle. A sufficient number of rendering tanks shall be provided to properly and speedily dispose of all offal and other waste products, which tank shall be constructed and operated so as to condense all gases and vapors arising from such tanks in the process of cooking, and all driers, in which the tankage is dried, shall also be furnished and operated with condensers. \* \* \* A method of furnishing steam to each of the compartments of said building where slaughtering is done, or where any waste matters are deposited or accumulate, shall also be provided, in order that the same may be flushed daily with live steam. Proper and suitable cooling rooms and chilling rooms capable of maintaining constant temperatures sufficient for the purpose of properly cooling and chilling meats shall be provided and maintained. Ample and proper constructions and accommodations shall be prepared and maintained for refrigerating meats and other food products, so that the same shall be preserved and protected from the varying temperature of the outside air.

All sheds, stables, pens, and other inclosures where the live stock are kept shall be so constructed as to be capable of drainage and ventilation. All drains shall be constructed so as to carry off and discharge their contents without clogging, and the place of discharge shall be so constructed and kept so as not to become a nuisance. Whenever necessary, or when required by the council, hard-burned brick or concrete floors in the pens and passageways provided for live stock shall be constructed and maintained. An engine and boiler of sufficient capacity to operate all machinery shall be provided and installed. An ample supply of pure, clean water for all purposes shall be provided for, and all necessary pipes and connections installed. All parts of the buildings where slaughtering is done, or meats or other parts of carcasses are handled or kept, shall be constructed and screened so as to keep out flies and other insects. All necessary and proper equipment, tools, and appliances for the proper and successful operation of such slaughterhouse, and for keeping the same in a clean, sanitary condition, shall be provided and maintained; which said equipment, tools, and appliances shall be approved by the council before the same shall be installed.

SEC. 7. *Right reserved to require changes and additions.*—The council may, at any time, by ordinance duly passed and approved, require any change in modification of or addition to slaughterhouses constructed under the provisions of this ordinance, where in its judgment, such change, modification, or addition is reasonably necessary, in order to secure proper sanitary conditions in the operation of such slaughterhouses, or for the protection of the public health. Upon the passage of any such ordinance, the council shall give written notice of the terms and provisions thereof to the persons in charge of such slaughterhouses, and shall prescribe therein a reasonable time within which to make such changes, modifications, or additions, and in the event the owner or person in charge of such slaughterhouses shall fail to comply with the terms of said ordinance within the time named in such notice, the council shall revoke the license of the person or persons operating such slaughterhouse in the manner hereinbefore provided, and shall not again issue license to any person or persons whatsoever to operate the same until the changes, modifications, or additions required by such ordinance have been fully complied with.

SEC. 8. *Slaughterhouses to be kept in sanitary condition.*—Every slaughterhouse operated pursuant to the provisions of this ordinance shall at all times be kept in a clean sanitary condition and properly screened to prevent flies from coming in contact with the meats or other food products dressed and prepared for sale therein. All tools, vessels, and appliances used in or about the business of slaughtering and dressing meats, or cleaning fats or viscera, shall be washed and scalded as often as may be necessary to keep the same in a clean sanitary condition. The floors and walls of the slaughter room and other compartments of said slaughterhouse where blood or any waste or refuse matters accumulate, shall be thoroughly washed and scalded once each day, and a sufficient quantity of live steam turned into such slaughter room, or other compartment, to kill or destroy any germs, flies, or other insects that might by chance be therein. The floors of the live-stock pens shall be cleaned daily and all manure removed from the premises and disposed of as may be directed by the council, and all other precautions shall be observed which may be reasonably necessary or proper to keep said slaughterhouse, and the premises adjoining the same, in a clean sanitary condition. Every such slaughterhouse shall be subject to inspection, at all times, by the city health officer, who shall inspect the same at least once each month and make a report of his findings touching the sanitary condition thereof, together with his recommendations for remedying any insanitary conditions, to the council.

SEC. 9. *Live stock inspected before slaughter—Record kept.*—All live stock, before being slaughtered, shall be inspected at the slaughterhouse by an inspector, who shall keep a correct record of the number and kind of animals inspected for each person at each such slaughterhouse, which record shall also show the number and kind of animals which were approved for slaughter and those which were rejected or condemned, and the name of the owner or owners thereof. Such record shall be made in duplicate, and one copy thereof shall be delivered to the person in charge of such slaughterhouse, who shall file and preserve the same. The other copy shall be preserved by the inspector as a record of his office. No animals shall be slaughtered until after it shall have been inspected and approved in the manner provided by this ordinance.

SEC. 10. *Certain live stock to be rejected or condemned.*—If upon an inspection of any animal intended for slaughter, it shall appear that it is too young and immature to produce wholesome meat, or is in an advanced state of pregnancy, or has recently given birth to young, or is suffering from any disease, other than those hereinafter named, which, in the judgment of the inspector causes such animals to be unfit for immediate slaughter, but is not sufficient to wholly condemn such animal for slaughtering purposes, it shall be rejected and so marked as provided by this ordinance. If any such animal shall, upon such inspection be found to be afflicted with hog cholera, swine plague, anthrax, charbon, black leg, rabies, malignant epizootic, catarrh, pyemia, and septicemia, mange, or scab in advanced stages, actinomycosis, lump jaw in advanced stages, inflammation of the lungs, intestines, or peritoneum, Texas fever, tuberculosis, extensive or generalized, carcinoma, cancer, malignant sarcomas, or any form of tumors where extension has taken place to such a degree that the flesh is unfit for food, or any other disease or injury rendering the flesh thereof unfit for food, it shall be condemned and marked as provided by this ordinance.

SEC. 11. *Live stock to be marked by inspector.*—All live stock intended for slaughter shall be inspected in a suitable inclosure to be provided and maintained at such slaughterhouse, and all such as are rejected or condemned shall be at once confined in pens specially prepared and kept for that purpose. All animals which are rejected, merely on account of being too young or because of their pregnant or parturient condition, or for any other reason, shall be designated and marked by a metal tag bearing the word "Rejected," serially numbered, securely attached to the right ear. All animals which shall be condemned on account of their diseased condition shall be

permanently marked by having the upper half of both ears cut off, and such other marks as may be required from time to time by the council. Whenever any animals shall be rejected or condemned the inspector shall immediately notify the owner thereof, who shall remove the same from such slaughterhouse without delay. Each animal approved for slaughter shall have a cardboard tag, serially numbered, bearing the signature of the inspector, attached to the horn or ear, which shall be removed and preserved by the person in charge of the slaughterhouse when such animal is slaughtered. The stub of all such tags shall be preserved by the inspector as a record of his office.

SEC. 12. *Live stock, how slaughtered.*—All live stock slaughtered at any slaughterhouse operating under the provisions of this ordinance shall be killed and prepared as follows: After the live stock intended for slaughter shall have been inspected and approved for slaughter, they shall be driven directly from the pens to the slaughtering floor and there killed in the presence of the inspector. When killed the entrails shall be removed as quickly as possible and passed through a galvanized-iron chute or carted away with metal trucks (which shall be the only kind of trucks in and about the premises) to the offal receiving rooms or floors, where the parts shall be separated for the various uses in manufacturing. As soon as the live stock are slaughtered and flayed or dressed, the carcass shall be immediately carried to the cooling room and kept there for cooling not longer than six hours, after which it must be removed to the cold storage or refrigerating rooms and kept there until taken out for delivery or for shipment. No meats shall be delivered or taken away from such slaughterhouse during the day in which it is slaughtered, but shall be kept in the cooling and cold storage or refrigerating rooms at least 24 hours before delivery or shipment, reckoning from noon of the day of slaughter. All slaughtering and dressing of animals shall be done between the hours of 7 o'clock in the forenoon and 6 o'clock in the afternoon, and all offal, refuse, and similar matters shall be removed and disposed of each day by or before the hour of 8 o'clock in the afternoon. All receptacles, trucks, tubs, tools, and appliances used in and about the business of slaughtering and dressing meats shall be daily cleansed and disinfected.

SEC. 13. *Carcasses of animals inspected after slaughter—Procedure.*—As soon as any animal shall have been slaughtered at any slaughterhouse operating under the provisions of this ordinance, the inspector shall examine the carcass and internal organs. If upon such examination it shall appear that such animal was healthy and the flesh thereof suitable for food, he shall stamp such carcass as approved, in such manner and with such design as may be directed from time to time by the council. No meats not bearing such stamp of approval shall be allowed to be placed in the cooling rooms or cold storage or refrigerating rooms. If upon such examination it shall appear that such animal was diseased or injured, and that the flesh or any part thereof is unfit for food, then such part or all of said carcass, as the case may be, which is unfit for food shall be condemned and marked in such manner and with such design as the council may designate. All carcasses, parts of carcasses, and other meat products which shall be condemned by the inspector at any such slaughterhouse shall be immediately removed to a place prepared and kept for that purpose and shall be thereafter destroyed so as to render the same impossible of use as food.

SEC. 14. *Persons working at slaughterhouses, their qualifications and dress.*—Every person working in and around a slaughterhouse operated under the provisions of this ordinance shall be of cleanly personal habits and free of any contagious or infectious disease. Every person before being employed or permitted to work in such slaughterhouse shall be examined by the city physician, who shall issue his certificate as to whether or not such person be suffering from any contagious or infectious disease, which certificate shall be delivered to the person in charge of such slaughterhouse before such person shall be allowed to work. All employees working in such slaughter-

house shall wear special sanitary clothing of such kind as may be approved by the council.

SEC. 15. *Chemicals not to be used to preserve meats.*—No chemical or other substance shall be kept or used at such slaughterhouse for the purpose of preserving meats, except salt, sugar, vinegar, and pure spices; but this shall not prevent the curing of meats with wood smoke.

SEC. 16. *Meats to be delivered to market house.*—All meats slaughtered for the purpose of sale at any licensed market or market house in or near the city of Meridian shall be delivered by the employees of such slaughterhouse to such market house on the day following the slaughtering and dressing thereof between the hours of 5 o'clock in the forenoon and 5 o'clock in the afternoon: *Provided*, That all meats slaughtered on Saturday shall not be delivered until the following Monday. All meats so delivered shall be transported in clean, sanitary conveyances, and shall be protected from flies and dust until delivered at such market house. Nothing herein contained, however, shall prevent the storage of meats in the refrigerating room at such slaughterhouse for a longer period than above named if the owner thereof shall so desire.

SEC. 17. *Fees for slaughtering and dressing meats.*—Every slaughterhouse operating under the provisions of this ordinance shall slaughter, dress, and refrigerate meats for the public without discrimination, and shall be entitled to charge for all services rendered in slaughtering, dressing, refrigerating, and delivering such meats the following fees, to wit: For each cow, ox, or bull weighing, dressed, 175 pounds or more, the sum of \$1.25; for each cow, ox, or bull weighing, dressed, less than 175 pounds, and for each calf, goat, sheep, lamb, or kid, the sum of 65 cents; for each hog or pig, the sum of 50 cents; which charges shall be in full satisfaction for all services rendered pursuant to the provisions of this ordinance, except for storage beyond the period required herein.

SEC. 18. *Parts of slaughtered animals to be returned to owner.*—The owner of every animal slaughtered at any licensed slaughterhouse shall be entitled to have returned to him the following parts of such animal after the same shall have been slaughtered and dressed, namely: Of cattle, the carcass, hide, brain, liver, tongue, heart, tripe, and tail; of calves, sheep, lamb, goats, and kids, all parts except the blood and entrails entire; of hogs and pigs, all parts except the hair, blood, and entrails. The term "cattle" as used herein shall mean any cow, ox, or bull the carcass of which when dressed shall weigh more than 175 pounds.

SEC. 19. *Charges for cold storage.*—In case any meats at the request of the owner shall not be delivered on the day following the slaughtering and dressing thereof, as hereinafter provided, then such meats shall remain in the cold storage or refrigerating rooms until delivery thereof shall be requested by the owner, for which storage the owner of such meats shall pay the sum of 10 cents per head for each day or part thereof said meats remain in the storage at the request of the owner.

SEC. 20. *Inspection fees to be collected and paid to city.*—Upon delivering any live stock to any such slaughterhouse for the purpose of being slaughtered the owner thereof shall pay to the person in charge of such slaughterhouse all fees for inspection thereof, who shall receive and receipt for the same for the account of the city of Meridian, and shall remit the amount of all such collections to the city clerk and treasurer at the close of each day's business.

SEC. 21. *Charges to be paid on delivery of meats.*—All charges for slaughtering, dressing, refrigerating, storage, and delivery of meats to the market house shall be paid in cash at the time of the delivery thereof, and no such delivery shall be made until such charges are paid.

SEC. 22. *Books may be inspected.*—The books and records of every slaughterhouse shall, at all reasonable times, be subject to inspection by the council or any person authorized by it, in order to determine whether the provisions of this ordinance have

been complied with and whether or not proper remittances have been made for amounts collected as fees for inspection of live stock.

SEC. 23. *Farmers permitted to slaughter and sell hogs under certain conditions.*—Nothing in this ordinance contained, shall prevent any farmer or other person from slaughtering any hog or pig raised by him, and selling the same within the city, provided such hog or pig shall be slaughtered and dressed and the carcass thereof inspected and sold as provided by this section. Every such hog or pig shall be so slaughtered and dressed as to leave the carcass whole and the head, heart, liver, lungs, and kidneys attached thereto until after the same shall have been inspected, approved, and stamped by the inspector. After such carcass has been inspected and approved the owner thereof may cut and sell the same or any part thereof, not less than one quarter, to any consumer or to the owner or proprietor of any market house; but no such meats shall be again resold by any person, except at a licensed market house. No carcass of any such hog or pig that has been halved, quartered, or otherwise cut, or from which the head, the heart, liver, lungs, or kidneys have been removed, shall be inspected or permitted to be sold. The carcass of any such hog or pig after being so inspected and approved, may be hereafter kept in cold storage at any licensed slaughterhouse if the owner shall so desire.

SEC. 24. *All meats to be inspected before being offered for sale.*—It shall be unlawful for any person to sell, offer for sale, or have on hand for the purpose of sale, within the city, or to bring, send into, or deliver within the city, for the purpose of being sold or offered for sale, or pursuant to any contract of sale previously made, any fresh or uncured meats, unless the same shall have been duly inspected and approved for sale, as food, by the inspector of meats as provided by this ordinance; but meats which have been inspected and approved at any licensed slaughterhouse, as provided by this ordinance, need not again be inspected before being offered for sale.

SEC. 25. *Hogs inspected for farmers—Tests to be applied.*—In making inspection of the carcasses of hogs and pigs under the provision of section 23 of this ordinance, the inspector shall apply, as near as may be, all the tests ordinarily and commonly used to ascertain whether or not such hog or pig was suitable for slaughter or afflicted with any disease named in section 10 of this ordinance, and also to determine whether or not such meats are in any way spoiled, tainted, decomposed or decayed. And if after such inspection such meat shall in the judgment of the inspector be unfit for food, it shall be condemned; otherwise it shall be approved.

SEC. 26. *Packing-house products—How inspected—Tests to be applied.*—In making inspection of meats and meat products which bear the stamp of inspection required by the laws of the United States for interstate shipment of meats, the inspector shall inspect daily, or as often as necessary, the coolers at each packing-house branch, and shall inspect and stamp each piece, parcel, or package of meat before the same shall be sold, at such times as may be directed by the council. In such case it shall only be necessary for the inspector to apply such tests as are commonly used to determine whether or not such meats are spoiled, tainted, decayed, or decomposed. If after such inspection any of such meats shall, in the judgment of the inspector, be unfit for food, it shall be condemned; otherwise it shall be approved. No such meats not so inspected shall be sold or kept or offered for sale within the city.

SEC. 27. *Condemned meats—How disposed of.*—All meats which shall be condemned by the inspector shall be destroyed in the presence of the inspector and under his direction and control in such manner as the council may from time to time direct, so as to render the same impossible of use as food in any form whatever.

SEC. 28. *Fees for inspection at slaughterhouse.*—Every owner of live stock who shall deliver the same to any licensed slaughterhouse for the purpose of being slaughtered, shall pay to the person in charge of such slaughterhouse for the benefit of the city the following fees for inspection, namely: For each cow, ox, or bull the sum of 20 cents; for each calf, sheep, goat, lamb, kid, hog, or pig the sum of 10 cents, which shall be in

full satisfaction for all services rendered by the official inspector of the city in inspecting such live stock before slaughter and the carcass thereof after slaughter.

SEC. 29. *Fees for inspection of packing-house products.*—The owner, agent, or manager of any packing house who shall desire to have any meats inspected, under the provisions of this ordinance shall first pay the inspector for the account of the city, the sum of 2½ cents for each quarter of beef; the sum of 5 cents for each calf, sheep, goat, or hog, and the sum of 5 cents per hundred weight, or fraction thereof on fresh or uncured sausage, beef, hog, and sheep products, or cuts, other than the carcasses of slaughtered animals, as compensation for services in making such inspection.

SEC. 30. *Fees for inspection of hogs for farmers.*—Any person desiring to have any hog or pig inspected, pursuant to the provisions of section 23 of this ordinance, shall produce the carcass thereof for the purpose of inspection at such place in the city as the council may from time to time designate, and shall, before such inspection, pay to the inspector for the account of the city the sum of 10 cents for each hog or pig to be so inspected.

SEC. 31. *Inspector to account for fees collected.*—Each inspector shall execute his official receipt in duplicate, in such form as may be prescribed by the council, for each sum of money collected by him as fees for inspection, one copy of which shall be delivered to the person making such payment and the other to be retained by him as a record of his office. Such inspector shall make a daily report to the city clerk and treasurer of all moneys so collected and pay the same into the city treasury.

SEC. 32. *Inspectors employed—Qualifications.*—One or more inspectors of meats shall be employed by the council, who shall be charged with the duty of inspecting all meats offered for sale in the city of Meridian or which shall be slaughtered at any licensed slaughterhouse under the provisions of this ordinance, and shall receive such compensation as may be fixed by the council. Each such inspector shall be of good moral character, of temperate and cleanly personal habits, and skilled in the business of inspecting meats and animals intended for slaughter. Before any such inspector shall be employed by the council he shall be examined touching his knowledge and skill in such matters, and the council shall employ some person of recognized ability and skill to conduct such examination and make report touching the knowledge and skill of any and all applicants for such employment. Any such inspector may be discharged by the council at any time for any want of skill or for any breach of duty, neglect of duty, failure to account for moneys collected, or any other cause which may be deemed by the council to be sufficient for such discharge.

SEC. 33. *Inspectors not to be interested in slaughtering or sale of meats.*—No inspector employed or appointed under the provisions of this ordinance shall in any wise be interested, directly or indirectly, in the business of slaughtering, dressing, storage, or sale of meats, nor be or become in any wise financially interested in or under financial obligation to any other person engaged directly or indirectly in such business.

SEC. 34. *Inspectors to be sworn and give bond.*—Every such inspector shall, before entering upon the discharge of his duties, take and subscribe an oath before the city clerk and treasurer to honestly and impartially discharge the duties of inspector, as defined by this ordinance, to the best of his skill and ability, and shall also enter into bond in the penalty of \$1,000, payable to the city of Meridian, with sureties to be approved by the council, conditioned to faithfully discharge the duties of his employment and to pay over all funds coming into his hands as such inspector to the said city, as required by this ordinance.

SEC. 35. *Meats to be sold only at established market houses.*—Except as otherwise provided by section 23 of this ordinance, it shall be unlawful for any person to sell, offer for sale, or have on hand for the purpose of sale to consumers thereof any fresh or uncured meats, fresh fish, oysters, dressed poultry or game at any place within the city except at a market or market house duly established by the council by an



order entered upon its minutes pursuant to the provisions of this ordinance; but any licensed packing house may sell the same, when duly inspected and approved, to licensed hotels and restaurants.

SEC. 36. *Market house outside city not to deliver meats inside city, unless, etc.*—It shall be unlawful for any person to send into or deliver within the city any fresh or uncured meats, fresh fish, oysters, dressed poultry or game, sold or kept or offered for sale to consumers thereof at or in any market or market house outside the city, unless such market or market house shall have been duly recognized and the person operating the same shall have been duly licensed by the council so to do by an order entered on its minutes in the manner provided by this ordinance.

SEC. 37. *Certain meats not to be sold or kept on hand.*—If after any meat shall have been inspected and approved it shall become blown, decayed, putrid, tainted, or unsound, or shall be kept in the same refrigerator with any diseased or other spoilt meats, or in such close proximity to other diseased or spoilt meats as to be contaminated or rendered unwholesale thereby, or shall be kept in any house or refrigerator which is unclean and insanitary, or shall be handled or transported in any vehicle not properly screened, or in any vehicle with any diseased or unwholesome meat, or with the carcass of any animal that has died a natural death, or shall have been manipulated with tools used on any such diseased or unwholesome meat or carcass, then such meats shall be condemned, whether previously approved for sale or not, and shall be immediately destroyed by or in the presence of an inspector so as to render the same impossible of use as food. And it shall be unlawful for any person to sell, offer for sale, or have or keep on hand for the purpose of sale, either at a market house or any other place in said city, any meats of the character described in this section.

SEC. 38. *Market house, how established.*—Any person desiring to erect or maintain a market or market house within the city, to be operated under the provisions of this ordinance, shall make application, in writing, to the council, stating the name of the applicant or applicants, and also their occupation and place of residence; such application shall also state the location of the proposed market or market house, together with the area of the ground upon which the same is to be erected. Such application shall also have attached thereto a copy of the plans and specifications for the erection, construction, and equipment of such market or market house. Upon the filing of such application, the same shall be considered by the council, and if in the judgment of the council the location of such proposed market house is suitable and the proposed building or buildings and the equipment thereof adequate for the purposes intended, and is or will be constructed in accordance with the requirements of this ordinance, then and in that event permission shall be given by the council, by an order entered on its minutes, for the erection and construction of such market house, at the place named in the application, according to the plans and specifications thereto attached or such modifications thereof as may be required by the council. Upon the completion of the erection, construction, and equipment of any such market house so authorized to be erected according to such plans and specifications the council shall, by an order entered on its minutes, approve and establish such market house as having been constructed in conformity with the terms and provisions of this ordinance.

SEC. 39. *Market house, how licensed.*—Every person who shall desire to operate any established market house pursuant to the provisions of this ordinance shall make application in writing to the council for a license so to do; which application shall state the name and place of residence of each such applicant, the amount of capital proposed to be employed in the operation thereof, and the period of time, not less than one nor more than five years, during which the applicant desires to operate the same; and if such applicant or applicants be not the owner of such market house, a copy of the lease or contract with the owner thereof shall be attached thereto.

Upon the filing of such application the same shall be considered, and if in the opinion of the council the applicant be a proper and suitable person and the amount of capital proposed to be employed be sufficient to properly operate such market-house, the council shall, by an order entered on its minutes, grant such applicant license to operate such market house under the provisions of this ordinance, for the period named in the application, upon condition that such applicant shall enter into bond in the penalty of \$500, payable to the city of Meridian, with sureties to be approved by the council, conditioned to operate the said market house at all times during the period for which such license is granted, in strict compliance with all the terms, provisions, and requirements of the ordinances of the city touching the operation of such market house and the handling, storage, sale, and delivery of meats. Upon the execution of such bond, and the approval thereof by the council, the applicant shall become authorized to operate such market house under the provisions of this ordinance during the period named in the order of the council granting such license.

SEC. 40. *License may be revoked and penalty of bond recovered.*—In case any person who shall have been granted a license to operate a market house under the provisions of this ordinance shall at any time during the period for which such license may have been granted cease to operate the same for more than 10 days consecutively, except in case of unavoidable casualty, or shall knowingly or carelessly, either in person or through his agents, servants, or employees, violate any of the provisions of the ordinance of the city touching the operation of such market house, and the handling, storage, and sale and delivery of meats, the council may revoke such license by an order entered on its minutes and proceed to collect the penalty of his bond by suit or otherwise; but no such license shall be revoked until such license shall have had at least five days' notice in writing of the purpose of the council so to do and an opportunity to be heard by the council. The decision of the council in such case shall be final and every such license granted shall be on condition that the same may be revoked at any time by the council pursuant to the provisions of this ordinance.

SEC. 41. *Market house, where located and established.*—Every market house established under the provisions of this ordinance shall be located within the sewerage limits of the city, at such place as may be approved by the city.

SEC. 42. *Market house, how constructed.*—Every market house established under the provisions of this ordinance shall be constructed of brick, stone, or reinforced concrete; shall have concrete, stone, or tile floors and marble or concrete counters; shall be completely and efficiently screened at all openings so as to exclude flies and other insects; shall be provided with electric lights and electric fans; shall be properly connected with the city sewerage and water system; and shall be so constructed that the floors, counters, and walls, to the height of 6 feet, may be daily flushed and washed with water. Each such market house shall also be provided with adequate refrigerators for the preservation and protection of all meats, fish, oysters, and other articles sold or offered for sale in said market, together with such other equipment as may from time to time be required by the council. Every such market house shall be kept and maintained in a clean sanitary condition, and shall at all times be subjected to inspection by the persons or officers designated by the laws and ordinances of the city of Meridian.

SEC. 43. *Market houses already located and established not affected.*—Nothing in this ordinance contained shall be construed so as to affect the location or establishment of any market or market house heretofore located or established within the city pursuant to the previous laws and ordinances of the city of Meridian, but the council may from time to time require such additions, repairs, and improvements thereto, or to the equipment thereof, as may be deemed proper so as to require such market house already established to conform to the provisions of this ordinance, and in case of failure to comply with the provisions of this ordinance touching the construction and equipment of any such market house the license to operate the same shall be revoked by the council by an order entered on its minutes.

SEC. 44.—*Market house outside the city limits, how recognized.*—In case any market house outside the city limits shall be constructed, equipped, and maintained in substantial accordance with the provisions of this ordinance, the council may, by an order entered on its minutes, recognize such market house and may license the owner, occupant, or tenant thereof to sell and deliver within the city meats kept for sale or offered at such market on condition that the said market house shall at all times be kept, operated, and maintained in strict conformity to the provisions of the ordinances of the city, and the owner or proprietor thereof shall enter into bond payable to the city of Meridian as required of persons operating market houses within the city.

SEC. 45. *Market houses—Rules for the operation thereof.*—(a) Every market house shall be at all times kept in a clean sanitary condition and free from all offensive or noisome odors. (b) No spoiled or tainted meats or fish, scraps, bones, or hides, or any other thing that would cause or produce offensive odors, shall be brought into or kept in any market house at any time. (c) The production of lard and tallow or the manufacture of sausage in any market house shall be done in such manner as not to give out any offensive odors or smells. (d) All persons employed in any such market house shall, during the hours that the same is open to the public, be clothed in clean white aprons, overshirts, or frocks. (e) All hooks, scales, knives, counters, or other tools or devices used in handling, cutting, and weighing of meats shall at all times be kept clean and sanitary. (f) All meats, fish, and oysters shall at all times be kept in refrigerators or cold storage to protect the same from flies and to keep the same from spoiling. (g) Every market house shall be exclusively used for the purpose of keeping, storing, and selling fresh or uncured meats, fresh fish, oysters, and dressed poultry, dressed game, cured hams, breakfast bacon, and sausage and for no other purpose, and it shall be unlawful to sell, keep, or expose for sale in any such market house any other articles of merchandise whatsoever than those above mentioned. (h) All meats, fish, poultry, and game sold at any such market house shall before being taken therefrom be securely wrapped with paper or otherwise, so as to protect the same against dust and flies while being transported from said market for delivery to the consumer. (i) All utensils, vehicles, or other things used for the delivery of meats from such market house to the consumer shall be kept clean and sanitary. (j) No dressed poultry shall be sold, kept, or offered for sale at any market house unless the entrails thereof shall have been removed therefrom at the time of dressing such poultry.

SEC. 46. *Packing houses—How constructed, kept, and maintained.*—Every packing house within the city where fresh or uncured meats or meat products are kept or sold, or kept or offered for sale, shall be constructed of brick, stone, or concrete, and all rooms or compartments therein where any such fresh or uncured meats, or meat products are kept or offered for sale or handled shall be properly screened against flies and other insects, and shall have the floors constructed of tiles, concrete, asphalt, or such other material that can and will be kept sanitary. Every such packing house shall have all such rooms or compartments connected with the water and sewerage system of the city so that such rooms or compartments may be flushed and washed in order to keep the same in clean and sanitary condition. Every such packing house shall also be provided with ample rooms for refrigerating meats so as to protect the same from decay. Said packing house shall at all times be kept in a clean sanitary condition and free of flies, roaches, or other insects liable to contaminate the meats kept therein.

SEC. 47. *Packing houses, how licensed and operated.*—Every person desiring to operate any such packing house shall first procure a license so to do from the council, and shall enter into bond, payable to the city of Meridian, in the penalty of \$500, conditioned to keep, operate, and maintain the same pursuant to the provisions of this ordinance, which bond shall be approved by the council. After the execution and approval of any such bond, such person may operate such packing house during the period for which such license is granted. No such packing house shall be permitted to cut any

meats or break any packages for sale in any such packing house; it shall be permitted to sell only the original packages so received by it. In case any person operating any such packing house shall desire to sell in broken packages, or to cut any such meats for the purpose of sale thereof, he shall, before so doing, procure the establishment of a market house and a license from the council to operate the same.

SEC. 48. *Manufacture and sale of sausage prohibited, unless.*—It shall be unlawful for any person to grind or mix any fresh or uncured meats into sausage for sale within the city, or to have on hand for the purpose of sale within the city, any fresh or uncured sausage, unless such meats or the meats from which such sausage shall have been manufactured shall have been first inspected and approved for sale as required by this ordinance; but this provision shall not apply to sausage which has passed and which bears the stamp of inspection provided by the laws of the United States for interstate shipments of meat.

SEC. 49. *Sausage, where manufactured.*—All fresh or uncured meats which the owner thereof shall desire to manufacture into sausage for sale within the city shall be first duly inspected and approved and shall then be ground and mixed at a duly licensed sausage mill or factory, established and operated under the provisions of this ordinance.

SEC. 50. *Sausage mills, how established and licensed.*—Every slaughterhouse or market house established under the provisions of this ordinance, may operate a sausage mill in connection therewith, after having procured a permit so to do from the council, to be entered on its minutes. The room or compartment in which such sausage mill is operated shall be constructed, kept, and maintained in the same manner as is required by this ordinance for market houses, and all tools and appliances used in the business of grinding or mixing sausage shall be, at all times, kept in a clean, sanitary condition; and for a failure so to do the council may revoke the license for the operation thereof. Any person may establish and operate a mill or factory for the manufacture of sausage, not connected with a slaughterhouse or market house, on complying with the conditions and restrictions of this ordinance.

SEC. 51. *Sausage mills to grind and mix for the public.*—Every person operating such a sausage mill or factory shall grind and mix sausage for the public at such prices as may from time to time be fixed by the council, and shall issue a certificate to every person for whom such sausage is manufactured, showing the amount so manufactured and the date thereof. If any person operating such a sausage mill shall knowingly grind or mix into sausage any diseased, decayed, or spoiled meats, or any meats which have not been inspected and approved, he shall, on conviction, be punished by a fine of not more than \$50 and his license to operate such mill shall be revoked by the council.

SEC. 52. *Farmers and others may sell sausages.*—Any person may have meats raised by him that have been duly inspected manufactured into sausage, as provided by this ordinance, and may then sell the same to any person in the city, in such quantities as they may desire, whether at a market house or not.

SEC. 53. *Sausage may be sold at grocery stores under certain conditions.*—Any grocery store in the city of Meridian may sell sausage provided the same be kept in porcelain-lined vessels, in a clean, sanitary refrigerator, properly iced to prevent the same from becoming tainted and spoiled.

SEC. 54. *Penalty.*—Every person violating any of the provisions of this ordinance within the city of Meridian shall, upon conviction thereof, be fined in any sum not exceeding \$50, or imprisoned not exceeding 30 days, or both, at the discretion of the court.

### MOLINE, ILL.

#### Milk and Milk Products—Production, Care, and Sale. (Ord. Mar. 16, 1914.)

SECTION 1. No person, firm, or corporation shall sell or offer for sale or deliver milk or cream within the city of Moline without having been first licensed so to do. Every such person or corporation shall on the third Tuesday of April of each year pay an annual license fee of \$5 for each wagon or vehicle used in the delivery of milk or cream.

SEC. 2. No person, firm, or corporation shall sell, offer for sale on or in any wagon or other vehicle, any milk or cream unless such wagon or vehicle shall have securely fastened thereon a metal plate 8 inches long and 4 inches wide, on which shall be stamped a number corresponding with the license number of the milk vender by whom such vehicle is used, and also the words "Moline" and "Milk," together with the year for which the milk vender using such vehicle is licensed, and shall have each wagon or vehicle from which the same is vended conspicuously marked with the name of such vender.

SEC. 3. All cans, bottles, and other receptacles in which milk or cream for sale in the city of Moline is kept or handled shall be washed clean and sterilized with boiling water or live steam each time they are used.

SEC. 4. No person or corporation shall ship or bring into the city for sale any milk or cream unless contained in a can or receptacle sealed with a metal seal by the shipper thereof and unless such can or receptacle shall have such seal intact at the time it is brought into the city.

SEC. 5. The sale in Moline of any mixture of two or more of the following articles of food, whole milk, skimmed milk, cream, condensed milk, and buttermilk by any person, firm, or corporation is hereby prohibited.

SEC. 6. No person, firm, or corporation shall offer for sale any milk which contains more than 88 per cent of watery fluids or less than 12 per cent of total solids or less than 3 per cent of butter fat. Cream shall contain not less than 18 per cent of butter fat. No milk or cream shall be sold if produced from diseased cows or from cows fed refuse or slops, or milk or cream that has been exposed or contaminated or affected by the discharges or exhalations from any human being or animal sick with any contagious or infectious disease, or milk which contains any preservative, coloring matter, or other adulteration, or which is drawn from any cow within 15 days before or 1 week after parturition of such cow.

SEC. 7. No license to sell milk or cream in the city of Moline shall be granted until a permit has been issued by the health commissioner of the city as herein set forth. Application for permit shall be made in writing upon blanks provided by the health commissioner for such purpose. On these shall be stated the name of the applicant; the location of his place of business; the average number of cows, if any, kept by said applicant; the location and name of owner of any dairy or dairies other than his own from which he secures his supply of milk. No permit shall be granted to such applicant by the health commissioner until the board of inspectors, to consist of two persons; one to be selected by the health commissioner and one by the milk producers' association, shall have inspected the buildings and equipment owned or controlled by the applicant and other persons, if any, from whom he obtains or intends to obtain milk or cream, also the water supply and food upon which the cows are fed, and shall have certified to the health commissioner that the cows are fed upon clean and wholesome food, and that the stables, milk houses, and equipment are clean and sanitary. If the two are unable to agree on any inspection made, they shall select a third disinterested person, and a report from a majority of the three shall be final.

If any of the dairies or premises where milk is produced are located outside of the State of Illinois, it shall be the duty of the commissioner of health, before any milk or cream may be sold within the corporate limits of the city of Moline, Ill., to require evidence of the water supply, food upon which the cows are fed, and the sanitary condition surrounding the stables, milk houses, and equipment, and no permit shall be issued until such evidence shall be filed in the office of said commissioner of health, and if, upon such evidence, the commissioner of health shall be satisfied that the dairies or premises where such milk is produced conforms with the requirements of this ordinance, it shall be the duty of said commissioner of health to issue a permit.

SEC. 8. Any person, firm, or corporation that refuses or fails to discontinue the sale of milk in the city of Moline, after receiving notice that it is produced under insani-

tary conditions, when directed so to do by the health commissioner, or violates any of the provisions of this ordinance or who refuses to comply with any of the requirements hereof, shall, upon conviction, be fined not less than \$10 or more than \$100 for each offense. Any person licensed under the provisions of this ordinance who refuses or fails to comply with the requirements thereof may have his license revoked by the mayor upon recommendation of the commissioner of health.

SEC. 9. An ordinance entitled "An ordinance regulating the sale of dairy products," passed November 4, 1907, and an amendment to such ordinance passed May 12, 1913, is hereby repealed.

### MUSKOGEE, OKLA.

#### Milk and Milk Products—Production, Care, and Sale. (Ord. 948, May 26, 1914.)

SECTION 1. The city chemist of the city of Muskogee shall be ex officio milk and dairy inspector.

SEC. 2. It shall be the duty of the milk and dairy inspector to see that all the laws relating to the inspection of milk and dairies are enforced, and shall perform all the duties required of him by the laws of this city and the orders of the city health officer. He shall make monthly written reports of the work done in his department to the city council and the city health officer.

SEC. 3. The sanitary officers of the city of Muskogee shall be the assistant milk and dairy inspectors.

SEC. 4. *Application for and issuance of permit, amount of fee.*—Each person, firm, or corporation desiring to sell or in any manner dispose of milk from three or more cows within the city of Muskogee shall before engaging in such business or within 30 days from the date of the passage of this ordinance make application to the office of the milk and dairy inspector for a permit for that purpose, and shall furnish him a certificate in writing of the number of cows used in the production of such milk and the location of the barns, sheds, and stalls and the premises in which said cows are kept, fed, and milked. And it shall be the duty thereupon of the inspector, or his assistants, to inspect the barns, sheds, stalls, and premises so reported, and if it be ascertained by said inspector that said barns, sheds, stalls, and premises are properly constructed and sanitary, and, as hereinafter provided, that said cows are free from injury or disease, it shall be the duty of said inspector to issue a permit to the applicant to sell milk in the city. Said applicant shall immediately notify the inspector, in writing, when any additional cows are added to his, her, or its herd. The applicant shall at any time upon written notice from the city health officer furnish a statement, under oath, from a competent and authorized veterinarian, showing that his cows are entirely free from injury or disease.

SEC. 5. *Procedure when cows are not owned by dairyman—Also provides for additional permit.*—Each person, firm, or corporation who desires to sell or dispose of any milk in any way in the city of Muskogee, where said milk is not produced from cows owned by him, her, or it, shall before engaging in such business or within 60 days from this date make application to the milk and dairy inspector, or such other person who may be designated by the council for a permit for that purpose and shall furnish him with a certificate in writing from a qualified veterinarian, sworn to and subscribed before any person qualified to administer oaths, showing that said cows are free from all injuries or disease that would affect the milk, especially any disease that is communicable to man or which produces elevation of systematic temperature, such as tuberculosis (determined by tuberculin test), anthrax, Texas fever, pneumonia, tarpuient apoplexy (milk fever), malignant catarrh, and all such diseases: *Provided*, That when any person, firm, or corporation dealing in milk sold or disposed of in any way to him, her, or it, by any person, firm, or corporation who has obtained a permit under the fourth section of this ordinance as to such milk, a copy of such permit may be presented

to the milk and dairy inspector, and shall be by him accepted in lieu of the veterinarian's certificate required above. Any person, firm, or corporation obtaining a permit under this ordinance must obtain additional, new, or fresh certificate or certificates of veterinarian at any time on demand of the milk and dairy inspector, and, upon failure within 10 days after demand in writing from said inspector to furnish new or fresh certificate, the permit provided for in this ordinance shall be ipso facto forfeited.

**SEC. 6. Permit, license, renouncement by council.**—The issuance of the permit by the milk and dairy inspector shall not create a vested right to do business in the city. The city council hereby reserves the right to revoke the same at any time upon the failure or neglect of the party obtaining the same to comply with the terms, provisions, and requirements of the ordinance. Regulations shall be made from time to time by the inspector and board of health as they may deem advisable.

**SEC. 7. Penalty for sale without permit.**—Any person, firm, or corporation who sells or disposes of milk in any way in the city of Muskogee produced from cows not included in the permit as provided for in this ordinance, or from cows, whether so included or not, which are not kept, fed, or milked in barns, sheds, stall, or premises included in a permit as provided for in this ordinance shall be punished as hereinafter provided.

**SEC. 8. Grade of milk.**—No person, firm, or corporation shall sell, barter, or offer for sale or barter within the city any milk which contains more than 87.5 per cent of water, or less than 3.5 per cent of butter fat, and the specific gravity of which at 80° F. shall be between 1.029 and 1.033; all milk of lower grade and quality than specified in this ordinance shall be taken and condemned as adulterated and impure by the milk and dairy inspector or his assistants and the vendor thereof punished: *Provided*, That no person shall dispose of or sell any milk from any cow until at least 10 days after the date when said cow shall have calved.

**SEC. 9. Skimmed milk.**—It shall be unlawful for any person, firm, or corporation to sell or dispose of in any way, or to have in custody with the intention of selling, or expose or offer for sale as whole milk any milk from which the cream or any part thereof has been removed, and all such milk from which the cream or any part thereof has been removed shall be plainly labeled and marked "skimmed milk."

**SEC. 10. Grade of cream.**—No person, firm, or corporation shall sell, barter, or offer for sale within the city any cream which contains less than 18 per cent of butter fat, and all cream of lower grade and quality than that shall be taken and condemned as adulterated and impure by the dairy and milk inspector or his assistants.

**SEC. 11. Grade of butter.**—It shall be unlawful to sell or barter or offer for sale or barter within this city any butter that is not made from pure milk or cream; the same shall be free from all chemicals and adulterations and shall comply in all respects with the requirements of the pure-food laws of the United States of America.

**SEC. 12. Grade of skimmed milk.**—Skimmed milk or separated milk that is sold, bartered, or offered for sale or barter within this city shall contain not less than 9 per cent of milk solids exclusive of butter fat, and shall be plainly labeled "skimmed milk," and all buttermilk shall contain not less than 8.5 per cent of milk solids, exclusive of butter fat, and all such milk of lower grade and quality than specified in this section shall be taken and condemned as adulterated and impure by the milk and dairy inspector or his assistants.

**SEC. 13. Adulteration of milk.**—It shall be unlawful to add to milk intended for sale or barter in this city any chalk, borax, salicylate of soda, or other preservative, ice, water, or other substance of fluid, and it shall be unlawful to sell or barter or offer for sale or barter any milk which has been added to or adulterated as aforesaid or any impure, adulterated, or unwholesome milk, and the milk and dairy inspector shall condemn and destroy such milk.

**SEC. 14. Tuberculin test.**—No person, firm, or corporation shall sell or in any manner dispose of milk or cream in this city produced from cows which have not been

tested by the milk and dairy inspector or a qualified veterinarian with tuberculin for tuberculosis, and certificate furnished by such aforesaid veterinarian, after July 1, 1914, and such test prescribed shall be made at least once each year before July 1: *Provided*, That the official test of the State or the United States Government be recognized; that is, where the State or the United States Government has tested an animal such test shall be recognized in the city of Muskogee for a period of one year from the date of such testing.

SEC. 15. *Inspector's right to enter and make test.*—The inspector, or his assistants, shall have the right at any time to enter, examine, and inspect any dairy, the owner of which sells or in any manner disposes of milk in the city of Muskogee, and to examine, inspect, and test for disease any cow connected with or belonging to the owner or proprietor of such dairy. For any interference with or hindrance of the said inspector or assistants by the owner, proprietor, or agents, the permit provided for by this ordinance shall be upon conviction in police court ipso facto forfeited; any person so hindering or preventing said inspector or assistants from making such inspection shall be punished as hereinafter provided.

SEC. 16. *Diseased cows.*—It shall be unlawful to sell, barter, or offer for sale or barter within this city milk from cows suffering from injury or disease which would affect the milk, especially diseases which are communicable to man or produce elevation of systematic temperature, such as tuberculosis, anthrax, Texas fever, pneumonia, purturiert apoplexy (milk fever), malignant catarrh, and all such diseases.

SEC. 17. *Tagging cows inspected.*—No milk shall be used from a dairy, the owner of which sells or in any manner disposes of milk in this city, unless such cows have been tested by the milk and dairy inspector, or his assistants, with tuberculin for tuberculosis, or by some qualified veterinarian satisfactory to said inspector: *Provided*, The Government or State test shall be recognized as provided for in section 14. All cows so tested shall be marked in the ear with a tag bearing a serial number and the words "Muskogee, Okla.," and such cow may be retested as aforesaid as often as the inspector may deem necessary. And it shall be unlawful to sell or in any manner dispose of milk in this city from any cow which has not been so tested.

SEC. 18. *Inspector's power to make inspection of dairies.*—The milk and dairy inspector or his assistants shall have the right to enter and examine any place within this city where milk is sold, bartered, or offered for sale or barter, and to inspect and examine at any time and any place any of said milk, and said inspector and inspectors are hereby given police power and authority.

SEC. 19. *Prohibition of certain food for cows.*—Dairy cows producing milk for the Muskogee market shall not be fed distillery waste, "swill," or any substance in a state of putrefaction or rottenness, or any other substance that is unwholesome, or that will in any way affect the healthfulness of their cow; and any person, or firm, or corporation who sells milk in the city of Muskogee produced from cows fed on the above-described substance shall be punished as hereinafter provided.

SEC. 20. *Cows to run in open air and premises drained, etc.*—Each cow used in the production of milk for sale or disposal under this ordinance in the city of Muskogee shall be allowed free movement in the open air at least six hours each day, and the barns, sheds, stalls, or premises in which the cows are kept, fed, and milked shall be properly drained, lighted, ventilated, and cleaned, as per instructions of the inspector.

SEC. 21. *Procedure where cows have disease.*—If upon inspection as provided for in this ordinance, it is ascertained that any milk cow kept, owned, or used in any dairy, or on the premises of any dairyman who sells or otherwise disposes of milk in this city, has the disease of tuberculosis, it shall be the duty of said inspector or assistants to notify the owner: *Provided*, That the owner of any cow so found to have the disease of tuberculosis shall have the right to call a competent veterinarian who, together with the said inspector, shall select a third person, and the three shall reexamine said cow or cows, and if a majority of those examining find that said cow or cows is or are



so diseased, the same shall be disposed of as hereinafter provided. And should a majority not so find then the said cow or cows shall not be so disposed of.

SEC. 22. It shall be the duty of the owner upon receiving notice from the said inspector that any cow belonging to him or her and used in the dairy, or kept on his or her premises, is diseased with tuberculosis, to immediately stop using the milk from said cow and either kill or quarantine her, and keep her quarantined until said animal shall either be killed or found to be nontuberculous by the inspector.

SEC. 23. If any owner of a dairy shall fail to kill or quarantine a tuberculosis cow upon receipt of notice from the milk and dairy inspector or his assistants, or if the produce of any cow kept, fed, or milked in any barn, stable, or other place with any tuberculous cow is offered for sale or sold in the city of Muskegee such owner or person shall be punished as hereinafter provided.

SEC. 24. Upon disposing of any diseased cow the owner shall at once notify the inspector in writing what disposition has been made of said cow.

SEC. 25. *Conditions of wagons used—No waste hauled, etc.*—Each wagon used in the delivery of milk shall have the name of the owner or proprietor, and the number of the permit under which the business is conducted, painted thereon in prominent letters. All such wagons shall be provided with covers and shall be neat and clean, the interior of such wagon being scrubbed with soap and hot water at least twice per week. The wagons shall be kept neatly painted. No vegetable or waste products shall at any time be hauled in any wagon used for the transportation of milk.

SEC. 26. All applications for license to establish and conduct a dairy depot shall be approved by the milk and dairy inspector or before such license is issued. Any person, firm, or corporation desiring to conduct a dairy depot, restaurant, or other place through which milk is delivered and sold in this city shall apply to the city clerk, who shall, upon the approval of the milk and dairy inspector, issue a permit. Said permit to be issued on or before July 1 of each year and to expire on June 30 of the following year.

SEC. 27. *Premises and equipment to be sanitary, etc.—Illness of family or employee.*—Any person, firm, or corporation conducting a dairy depot, restaurant, or other place in which milk or its products is sold or otherwise disposed of in this city shall at all times maintain such place in a strictly sanitary condition, to be open for inspection at all times during business hours. All ice boxes and refrigerators in which milk is kept shall be and remain in a sanitary condition, being scrubbed at least once in each week, said boxes and refrigerators to be drained according to the direction of the inspector. There shall be no closets, hog pens, or quarters for animals or fowls closer than 100 feet from said dairy depot or place where milk is sold: *Provided*, This shall not apply to a water-closet properly connected with the city sewerage system and maintained in a clean, sanitary condition.

Any person conducting a dairy depot or restaurant shall report within 24 hours to the superintendent of health any illness of any kind whatsoever occurring in his family or among his employees, or any person connected with the business in any way, giving name and address of attending physician. The health officer shall have the power to suspend temporarily the business of any such place if he deems such action necessary to protect the public health against the infection from such case of illness.

SEC. 28. *Rules.*—In addition to the rules and regulations hereinbefore set out, all persons, firms, or corporations selling or offering to sell milk in this city shall observe and comply with the following requirements:

(1) No milk shall be bottled except at a dairy or properly equipped dairy depot, and all milk receptacles shall be kept when not in use free from dirt and flies.

(2) No milk shall be strained in a barn or other place where the milk will be liable to become contaminated.

(3) All milk offered for sale within the city of Muskogee shall be cooled to a temperature not greater than 70° F. after milking.

(4) Dairy cattle shall be prohibited from running on pastures that contain streams, ponds, or other water that shall be found contaminated with sewage.

(5) Every cow shall have the teats and udder well cleaned before each milking and all milkers shall wear at each milking overalls or clothes that are clean; each milker shall clean his or her hands thoroughly with soap or water immediately before milking.

(6) No milk shall be sold which contains more than 400,000 bacteria per cubic centimeter, and dairymen whose milk shall be found continually contaminated with pathogenic germs shall be suspended from selling milk in the city and not licensed to sell milk without the permission of the inspector. No milk shall be sold which has been pasteurized that contains more than 10,000 bacteria per cubic centimeter, and such pasteurized milk shall not be repasteurized for the purpose of lowering the number of bacteria or for preserving purposes.

(7) Every dairyman shall be required to keep his barn and lot where same is located free from manure, droppings from the cows being gathered once daily, piled in an inclosure not closer than 100 feet from the dairy barn, milk house, or source of water supply, and said lot and barn shall also be kept free from stagnant water and other objectionable material.

(8) Each dairy shall be provided with a properly constructed milk house, provided with wire screens for doors and windows, and shall not be used for any other purpose than handling milk or milk products; said milk house shall be so constructed that bottles, cans, and other utensils used in handling milk may be washed and drained, and that said milk house shall be properly drained in such a manner that a pool of water can not form within 100 feet of milk house, barn, or water supply.

(9) No milk shall be sold or offered for sale by any restaurants, hotels, or other public eating houses which contains less than 3.5 per cent butter fat unless a sign is displayed reading "Skimmed milk served here"; said sign to be displayed so as to be read from any part of the room in which the milk is served.

SEC. 29. *Milk to be bottled.*—It shall be unlawful on and after the passage of this ordinance for any retail dairyman or merchant to sell milk, when delivering the same in wagons over the city, in any way whatsoever except in glass bottles, well and securely stoppered when it leaves the dairy and not removed from them until delivered: *Provided*, That this section does not apply to restaurants, hotels, hospitals, and bakeries, so far as purchasing milk in bulk is concerned: *Provided further*, That this section shall not apply where milk is being delivered to houses where there are infectious diseases, and all persons receiving milk on any such premises shall furnish proper receptacles into which the milk shall be poured.

SEC. 30. *What constitutes a dairy or dairy depot.*—All persons, firms, or corporations owning or using milk from three or more cows who sell or barter, or offer for sale or barter, any milk within this city, shall under the provisions of this ordinance be considered and be a dairy; and all persons, firms, or corporations retailing milk by wagon or other vehicle shall under the provisions of this ordinance be considered and be held a dairy or dairy depot, and fall within the scope and meaning of this ordinance.

SEC. 31. *Fees to be paid.*—Each and every dairy using a wagon for the distribution of its products shall pay a license fee of \$5 per year, and where more than one wagon is used the sum of \$2.50 additional for each wagon; said money to be paid to the commissioner of finance and said license to be issued by him.

SEC. 32. The inspection of dairies as provided in this ordinance shall take place quarterly and as often as deemed necessary by the inspector.

SEC. 33. *Provided, however,* That nothing in this ordinance shall be intended to do away with the inspection and examination for tuberculosis of any cow whose milk is sold or bartered, or offered for sale or barter, in this city, and it shall be the duty of the inspector to see that every cow whose milk is sold or bartered, or offered for sale or barter, in this city is given a test for tuberculosis, as provided in this ordinance.

SEC. 34. *Penalty for violation.*—Every person, firm, or corporation violating any provision of this ordinance shall be deemed guilty of a misdemeanor, and upon conviction in police court shall be fined not less than \$10 nor more than \$100 for each offense, and the license of such convicted person, firm, or corporation may be revoked.

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