

# PUBLIC HEALTH REPORTS

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VOL. 31

JUNE 9, 1916

No. 23

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## **SUPREME COURT CONSTRUES ANTINARCOTIC LAW.**

**DECIDES THAT THE HARRISON ANTINARCOTIC LAW DOES NOT PROHIBIT PERSONS WHO ARE NOT REQUIRED TO REGISTER FROM HAVING POSSESSION OF HABIT-FORMING DRUGS.**

The United States Supreme Court, on June 5, 1916, affirmed the decision of the United States District Court in *United States v. Jin Fuey Moy* (PUBLIC HEALTH REPORTS Jan. 21, 1916, p. 143).

The court decided that the words "any person not registered" as used in section 8 of the law "can not be taken to mean any person in the United States, but must be taken to refer to the class with which the statute undertakes to deal—the persons who are required to register by section 1."

Under this decision, a person who does not import, produce, manufacture, deal in, dispense, sell, or distribute the drugs can not be convicted of violating the Harrison law merely because he has possession of some of the drugs.

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## **SUPPLEMENTING STATE LAW BY CITY ORDINANCE.**

**KANSAS COURT DECIDES THAT A CITY MAY PROVIDE OTHER AND ADDITIONAL RULES AND IMPOSE MORE SEVERE PENALTIES THAN ARE PROVIDED BY STATE LAWS ON THE SAME SUBJECT.**

Has a city the power to make more strict regulations and to impose more severe penalties than are provided by the State laws or regulations on the same subject?

This is a question which has been differently decided by the courts of different States, but the Supreme Court of Kansas has decided that in Kansas the question must be answered in the affirmative. (See p. 1499 of this issue of the PUBLIC HEALTH REPORTS.) The court said that "a city may not by ordinance authorize that which a statute prohibits nor punish the doing of an act which the statute expressly authorizes"; but "an ordinance enacted in the exercise of the police power is not necessarily inconsistent with a State law on the same subject because the city provides for greater restrictions or makes higher standards than are provided or made by the statute." The court recognized the fact that "it may be necessary to make additional requirements and stricter regulations and to impose more severe penalties in a congested district like a city than are made and enforced in a rural district."

## CYANIDE GAS FOR THE DESTRUCTION OF INSECTS.

### WITH SPECIAL REFERENCE TO MOSQUITOES, FLEAS, BODY LICE, AND BEDBUGS.

By R. H. CREEL, Assistant Surgeon General, and F. M. FAGET, Assistant Surgeon, United States Public Health Service.

Effectiveness is the most important element to be considered in the selection of a fumigant.

This factor being assured, the relative cheapness of the materials used, the duration of exposure necessary for destruction, the toxicity of the fumigant to human life, and the effect of the gas upon fabrics, furnishings, or merchandise, are all factors that should be given weighty consideration.

The United States Quarantine Regulations include sulphur dioxide, pyrethrum, and cyanide gas as agents for the destruction of mosquitoes and other vermin, the sulphur dioxide to be used in the proportion of 2 pounds of sulphur to each thousand cubic feet of space, the exposure to be for two hours; the cyanide gas to be used in the proportion of 10 ounces of potassium cyanide to each thousand cubic feet of space, the time of exposure not specified; and pyrethrum in the proportion of 4 pounds to each thousand cubic feet of space for two hours' exposure.

In 1910 Mitzmain<sup>1</sup> performed a series of experiments to demonstrate the effect of cyanide gas, sulphur dioxide, and several other agents on fleas, both in the adult and larval stage. His results from cyanide gas were somewhat inconstant, and the writers are inclined to agree with him that he may have been working with a deteriorated chemical.

In 1910 Stevenson,<sup>2</sup> of Bombay, also reported experimental results on "the killing of rats and rat fleas by hydrocyanic acid gas." This series of experiments was carried out under artificial conditions that simulated the natural.

In 1911 McClintock and Hamilton<sup>3</sup> reported a very thorough and comprehensive study of the effect of various insecticides (including cyanide gas and sulphur dioxide) upon mosquitoes, bedbugs, flies, and cockroaches. Their experimental environment was purely artificial, and no attempt was made to simulate the natural conditions under which the destruction of such insects would ordinarily be practiced.

Stevenson found that fleas were killed by cyanide gas in the strength of 3 ounces potassium cyanide (KCN) per 1,000 cubic feet

<sup>1</sup> Maurice B. Mitzmain: Notes on agents used for flea destruction—Public Health Reports, July 29, 1910.

<sup>2</sup> Capt. W. D. H. Stevenson, I. M. S.: Preliminary report on the killing of rat fleas by hydrocyanic acid gas. Scientific memoirs by officers of the medical and sanitary departments of Government of India, No. 38 N. S., 1910.

<sup>3</sup> Chas. McClintock, H. C. Hamilton, and F. B. Lowe: A further contribution to our knowledge of insecticides—fumigants. Journal of the American Public Health Association, April, 1911.

of space, exposure for 40 minutes when ordinary protection was afforded.

McClintock and Hamilton found that mosquitoes without protection in a bell jar were destroyed by cyanide gas in the strength of 2 grams potassium (KCN) per 800,000 cubic centimeters (approximately  $2\frac{1}{2}$  ounces per 1,000 cubic feet), and bedbugs under the same condition by the gas in the strength of 6.3 grams per 800,000 cubic centimeters (approximately 8 ounces per 1,000 cubic feet).

The fumes of pyrethrum merely stupify mosquitoes, and it has been more or less discarded as a fumigant.

The writers have conducted a series of practical experiments during the past year in order to determine the comparative insecticidal values of cyanide gas and sulphur dioxide.

Potassium cyanide c. p. (or the equivalent of sodium cyanide), sulphuric acid 66B, and water were combined in the proportion by weight of 1 part cyanide, 2 parts acid, and  $2\frac{1}{2}$  parts water.

The technique in the preparation of cyanide gas was the same as that described in reprint 313, from the Public Health Reports, December 3, 1915.

For the various purposes of the experiments the tests were performed in a room of 1,269 cubic feet capacity, with all openings sealed while the fumigation was in progress. Bedbugs, body lice, roaches, and several species of mosquitoes and fleas were used in the experiments.

The insect containers were placed on the floor of the room, except in series "L." and "M.," when a comparison was made of the strength of gas in the upper and lower air levels.

A small glass of 6-ounce capacity, a larger jar of 1-gallon capacity, and an iron can of  $16\frac{1}{2}$ -gallon capacity were the containers used.

The insects within the containers were afforded varying degrees of protection by layers of muslin firmly bound over the top of receptacle, ranging from one to six layers.

The cloth which is referred to in the text as "muslin" or "cheesecloth" is a product commercially designated as bunting of class "A" grade. It is probably somewhat heavier and more closely woven than the best grade of gauze used in surgical practice.

In some of the experiments the smaller container holding the insects was placed within the large can (covered) thus affording a double protection that would seldom be found in actuality.

In some of the containers the insects were also given the additional protection of loosely packed cheesecloth.

During the series the outdoor temperature varied from  $33^{\circ}$  to  $70^{\circ}$  F. but with no noticeable difference in results.

It may be, as suggested by Roberts, that very low temperatures affect the potency of the fumigation. We are not able to pass any

opinion on this possibility, as at no time was the weather below freezing.

The first inspection of results was made immediately after opening the fumigating room, the final observation being made 24 hours thereafter, except in such cases as are otherwise notated in the tabulations.

The results are presented in tabular form according to the agent used, the insect exposed and the environmental condition.

For statistical convenience the results are tabulated as separate experiments, but, in general, in the same series several containers having different degrees of protection were exposed at one time.

#### General Consideration.

It is comparatively easy to determine a standard amount of any fumigant necessary to kill unprotected insects. The difficulty lies in estimating the degree of protection ordinarily secured by these insects under natural conditions.

The standards arrived at by us are therefore provisional, applying to generally existing conditions and not to extraordinary or unusual situations. While we believe that cyanide gas in the proportion of 2½ ounces of potassium cyanide per 1,000 cubic feet of space, exposure for one hour, will destroy fleas in the majority of instances, we realize that such a strength of the gas would hardly kill these insects were they lodged in tightly packed baggage.

It is assumed, however, that the supervisor of the fumigation would remove unusual harboring facilities, more especially in treating infected places; that clothes closets would be opened, baggage unpacked, bedclothes and mattresses rearranged, and wearing apparel spread out; all to the end of promoting penetration of the fumigating gas.

With the above reservation, therefore, we believe that our standards for strength of gas lethal to insects are dependable and give a fair margin of safety in considering the ordinary protection obtained by the various insects in their natural habitat.

From our series of tests and from observation of results in routine fumigation we advocate the following proportion, respectively, of cyanide or sulphur for insect destruction:

*For mosquitoes.*—Potassium cyanide, 0.4 ounce per 1,000 cubic feet of space, exposure for 15 minutes.

Sulphur, 2 pounds per 1,000 cubic feet of space, exposure for 1 hour.

*For bedbugs.*—Potassium cyanide, 5 ounces per 1,000 cubic feet of space, exposure for 1 hour.

*For body lice.*—Potassium cyanide, 10 ounces per 1,000 cubic feet of space, exposure for 2 hours.

Sulphur, 4 pounds per 1,000 cubic feet of space, exposure for 6 hours.

*For roaches.*—Potassium cyanide, 10 ounces per 1,000 cubic feet of space, exposure for 1 hour.

Sulphur, 4 pounds per 1,000 cubic feet of space, exposure for 6 hours.

*For fleas.*—Potassium cyanide,  $2\frac{1}{2}$  ounces per 1,000 cubic feet of space, exposure for 15 minutes.

As it is of questionable propriety to contemplate flea destruction without the coordinate killing of rats (when employed as a sanitary measure), we made no comparative studies of sulphur as an insecticide for fleas, but refer to the article on cyanide gas in Public Health Reports of December 3, 1915, wherein we recommended a standard of 5 ounces of cyanide or 4 pounds of sulphur per 1,000 cubic feet for the destruction of rats and fleas.

The unit price of cyanide fumigation in the proportion of 5 ounces cyanide per 1,000 cubic feet of space is 9 cents at the present price of chemicals (25 cents per pound for potassium cyanide and  $3\frac{1}{2}$  cents per pound for sulphuric acid).

The price of sulphur fumigation per 1,000 cubic feet is 10 cents in the strength of 4 pounds of sulphur per 1,000 cubic feet.

The comparative cost of sulphur and cyanide fumigation per 1,000 cubic feet based on the provisional standard advocated above would be:

Fumigation for—	Cost of cyanide gas per 1,000 cubic feet.	Cost of sulphur dioxide per 1,000 cubic feet.
	Cents.	Cents.
Destruction of mosquitoes.....	0.7	5
Destruction of body lice.....	18	10
Destruction of bedbugs.....	9	5
Destruction of roaches.....	18	10
Destruction of rats and fleas.....	9	10

From this it can be seen that cyanide gas is much cheaper than sulphur dioxide for mosquito destruction, costing only one-seventh as much as the latter gas, aside from requiring a much less duration of exposure.

In the proportion of 0.4 ounce cyanide per 1,000 cubic feet of space the dilution of the gas after diffusion is approximately 1 part cyanogen to 6,000 parts of air, so dilute, in fact, as to practically eliminate all possible danger to human life. On repeated occasions we entered the fumigating room immediately upon opening the door after mosquito fumigation without noticing any ill effect.

For destroying bedbugs, roaches, and body lice sulphur is a cheaper fumigant than cyanide, but the latter possesses obvious advantages in lessened duration of exposure and noninjurious effect on fabrics, furnishings, merchandise, etc.

However, the comparative benefits between sulphur dioxide and cyanide gas as fumigants were set forth in Public Health Report of December 3, 1915, and need not here be rehearsed.

TABLE I.—Series "A"—Effects of cyanide gas (HCN) on mosquitoes.

No. of experiment.	Number of mosquitoes.	Container.	Cheesecloth protection to container.	Strength of gas.	Time of exposure.	Primary inspection.	Final inspection 24 hours later.
1	4	Glass jar, capacity of 6 ounces.	1 layer.....	5 ounces potassium cyanide (KCN) per 1,000 cubic feet of air space.	One-half hour.....	All insects stupefied.	All insects dead.
2	4	do.	2 layers.....	do.	do.	do.	Do.
3	4	do.	3 layers.....	do.	do.	do.	Do.
4	4	do.	4 layers.....	do.	do.	do.	Do.
5	4	do.	5 layers.....	do.	do.	do.	Do.
6	4	do.	6 layers.....	do.	do.	do.	Do.
7	4	do.	1 layer.....	0.8 ounce potassium cyanide per 1,000 cubic feet of air space.	10 minutes.....	do.	Do.
a8	6	Glass jar, capacity of 6 ounces, within iron can of 16.5-gallon capacity.	6 layers over glass, 2 layers over can.	do.	15 minutes.....	do.	3 insects revived; 3 insects dead.
a9	4	do.	1 layer over glass, 3 layers over can.	0.4 ounce potassium cyanide per 1,000 cubic feet of air space.	do.	do.	3 insects revived; 1 insect dead.
10	4	Glass jar, capacity of 6 ounces.	1 layer.....	do.	10 minutes.....	do.	All insects dead.
11	4	do.	6 layers.....	do.	do.	do.	Do.
12	4	do.	1 layer.....	do.	12 minutes.....	do.	Do.
13	4	do.	3 layers.....	do.	do.	do.	Do.
14	4	do.	6 layers.....	do.	do.	do.	Do.
15	4	do.	10 layers.....	do.	do.	do.	Do.
16	4	do.	5 layers.....	do.	do.	do.	Do.
17	4	do.	1 layer.....	do.	15 minutes.....	do.	Do.
18	4	do.	6 layers.....	do.	do.	do.	Do.
19	5	do.	1 layer.....	do.	do.	do.	Do.
20	6	do.	3 layers.....	do.	do.	do.	Do.
21	10	Iron can, capacity of 16.5 gallons.	do.	do.	do.	do.	Do.
a22	4	Glass jar, capacity of 6 ounces, within iron can of 16.5-gallon capacity.	1 layer over glass, 2 layers over can.	0.9 ounce potassium cyanide per 1,000 cubic feet of air space.	do.	do.	Do.

REMARKS.—The species of mosquitoes used were: *Anopheles crucians*, *A. quadrimaculatus*, *Aedes calopus*, *Culex tenthorhynchus*, and *C. quinquefasciatus*. Both male and female were exposed. Some of them were engorged, others had never fed. As between the various species, males and females, engorged and unengorged individuals, there might have been varying degrees of susceptibility to the effects of the gas, but such a possible variation can be of only academic interest. Cyanide gas in the strength of 0.4 ounce potassium cyanide per 1,000 cubic feet of space never failed to kill all the exposed mosquitoes, where the artificial conditions simulated the natural.

In experiments a8, a9, and a22, the mosquitoes were given a double protection that would hardly ever obtain under ordinary natural circumstances. From experiment a22 it seems probable that 0.9 ounce potassium cyanide per 1,000 cubic feet of space will kill mosquitoes under most extraordinary conditions, but as such conditions presumably rarely occur, it is believed that 0.4 ounce potassium cyanide per 1,000 cubic feet of space is a dependable strength of cyanide gas for the routine destruction of mosquitoes on vessels or in buildings.

TABLE II.—Series "B"—Effects of cyanide gas (HCN) on fleas.

No. of experiment.	Number of fleas.	Container.	Cheesecloth protection to container.	Strength of gas.	Duration of exposure.	Primary inspection.	Final inspection.
1.....	9.....	Glass jar, capacity of 1 gallon.	2 layers.....	0.4 ounce potassium cyanide (KCN) per 1,000 cubic feet of air space.	15 minutes.....	All insects stupefied.....	All insects revived in 12 hours.
2.....	9.....	do.....	6 layers.....	do.....	do.....	do.....	Do.
3.....	9.....	do.....	2 layers.....	1.5 ounces potassium cyanide (KCN) per 1,000 cubic feet of air space.	do.....	do.....	All insects dead 24 hours later.
4.....	9.....	do.....	6 layers.....	do.....	do.....	do.....	Do.
5.....	7.....	do.....	1 layer.....	do.....	do.....	do.....	6 insects dead; 1 insect revived (end of 12 hours).
6.....	10.....	do.....	do.....	2.5 ounces potassium cyanide (KCN) per 1,000 cubic feet of air space.	do.....	do.....	All insects dead (end of 18 hours).

REMARKS.—The species of fleas used were *L. chelopis*, *C. fasciatus*, and *C. muscili*, and for the most part the fleas were engorged and showed marked vitality before exposure to the gas. Fleas are more resistant to the effect of cyanide than are mosquitoes, but 2.5 ounces potassium cyanide per 1,000 cubic feet of space seems quite sufficient to kill fleas under the ordinary natural conditions. Were it not for the one surviving individual in experiment No. 7, 1.5 ounces of cyanide per 1,000 cubic feet of space would have been determined as a sufficient amount of cyanide for flea destruction.

TABLE III.—Series "C"—Effects of sulphur dioxide ( $SO_2$ ) on mosquitoes.

No. of experiment.	Number of mosquitoes.	Container.	Cheese cloth protection to container.	Strength of gas.	Duration of exposure.	Primary inspection.	Final inspection 24 hours later.
1	6	Glass jar, capacity, 6 ounces.	6 layers.	Per cent.	1 hour.	1 insect alive, 5 dead.	1 insect alive, 5 dead.
2	6	Glass jar, capacity, 6 ounces, within iron can of 16½ gallons capacity.	1 layer over glass jar, 2 layers over can.	1	do.	4 insects alive, 2 dead.	4 insects alive, 2 dead.
3a	4	Glass jar, capacity, 6 ounces.	1 layer.	1	2 hours.	All insects dead.	All insects dead.
13b	4	do.	3 layers.	1	do.	do.	Do.
14a	4	do.	do.	1	do.	3 insects dead, 1 alive.	3 insects dead, 1 alive.
14b	4	do.	do.	1	do.	All insects dead.	All insects dead.
5a	5	do.	6 layers.	1	do.	2 insects dead, 3 alive.	2 insects dead, 3 alive.
5b	5	do.	do.	1	do.	All insects dead apparently.	All insects alive.
5c	4	do.	10 layers.	1	do.	do.	Do.
6b	4	do.	do.	1	do.	do.	Do.
7a	5	Glass jar, 6-ounce capacity, within iron can.	1 layer over jar, 3 layers over can.	1	do.	2 insects dead, 3 alive.	2 insects dead, 3 alive.
7b	5	do.	do.	1	do.	All insects stupefied.	All insects dead.
8a	3	Glass jar, 6-ounce capacity.	1 layer.	1	do.	do.	Do.
8b	3	do.	do.	1	do.	do.	Do.
9a	3	do.	6 layers.	1	do.	do.	Do.
9b	3	do.	do.	1	do.	do.	Do.
10	6	do.	do.	1	do.	do.	Do.
11	6	Glass jar, 6 ounces, within can of 16½ gallons capacity.	1 layer.	1	1 hour.	do.	Do.
12	5	Glass jar, 6-ounce capacity.	1 layer over jar, 2 layers over can.	1	do.	do.	Do.
13	5	do.	1 layer.	2	2 hours.	do.	Do.
14	5	do.	do.	2	do.	do.	Do.
15	5	do.	do.	2	do.	do.	Do.
16	5	do.	do.	2	do.	do.	Do.
17	5	do.	do.	2	do.	do.	Do.

<sup>1</sup> REMARKS.—The results of sulphur fumigation of mosquitoes were irregular. This is attributed to the fact that in experiments 1, 2, and 3a to 7a, the sulphur had not entirely burned. The experiments in which the sulphur was consumed in the proportion of 1 pound per 1,000 cubic feet never failed to kill mosquitoes, whether the exposure was for 1 hour or 2 hours. As it is not an uncommon occurrence in the pot and pan method of fumigation that part of the sulphur is unconsumed, the writers believe this contingency should always be considered and an excess of sulphur (2 per cent, or 2 pounds per 1,000 cubic feet of space) be used for mosquito fumigation. One hour's exposure seems sufficient.

TABLE IV.—Series "D"—Effects of cyanide gas (HCN) on bedbugs (*artificial conditions*).

No. of experiment.	Number of insects.	Container.	Cheesecloth protection to container.	Strength of gas.	Duration of exposure.	Primary inspection.	Final inspection 24 hours later.
1	7	Glass jar, capacity of 6 ounces.	One layer.....	0.4 ounce potassium cyanide per 1,000 cubic feet air space.	20 minutes.....	All insects apparently dead.	All insects revived.
2	7	do.	do.	do.	1 hour.....	do.	Do.
3	7	do.	do.	0.9 ounce potassium cyanide per 1,000 cubic feet air space.	15 minutes.....	do.	Do.
4	7	do.	do.	1.6 ounces potassium cyanide per 1,000 cubic feet air space.	do.	do.	5 insects revived; 2 insects dead.
5	12	do.	Container loosely packed with cheesecloth and covered by one layer.	2.5 ounces potassium cyanide per 1,000 cubic feet of air space.	One-half hour.....	do.	All insects revived.
6	12	do.	do.	5 ounces potassium cyanide per 1,000 cubic feet of air space.	do.	do.	10 insects dead; 2 insects alive.
7	12	do.	do.	do.	1 hour.....	do.	9 insects dead; 3 insects alive.
8	5	do.	One layer.....	do.	do.	do.	All insects dead.
9	6	do.	Six layers.....	10 ounces potassium cyanide per 1,000 cubic feet of air space.	do.	do.	5 insects dead; 1 alive.
10	6	do.	Six layers over jar; container loosely packed with gauze.	do.	do.	do.	4 insects dead; 2 alive.
11	6	do.	Six layers.....	5 ounces potassium cyanide per 1,000 cubic feet of air space.	do.	do.	All insects dead.
12	6	do.	Six layers over jar; container loosely packed with gauze.	do.	do.	do.	Do.
13	6	do.	Six layers.....	do.	do.	do.	Do.
14	6	do.	Six layers over jar; container loosely packed with gauze.	do.	do.	do.	Do.
15	5	do.	One layer.....	31 ounces sodium cyanide per 1,000 cubic feet of air space.	do.	All insects stupefied.	Do.
16	5	do.	Six layers.....	do.	do.	do.	Do.
17	5	do.	Container packed with cheesecloth and covered by one layer.	do.	do.	do.	Do.

REMARKS.—Upon the failure of 10 ounces potassium cyanide to kill all insects (experiments 9 and 10), an investigation revealed the fact that the cyanide used in experiments 6, 7, 8, 9, and 10 had been taken from the powdered residue of a can of cyanide which had been exposed to the air for several days. A repetition of these experiments, i. e., 11 to 14, using cyanide that we were assured had not deteriorated, invariably resulted in the death of all insects. It seems evident that cyanide, if pulverized, will gradually deteriorate with exposure to air, so that in cyanide fumigation the lump form should be used, pulverizing the material immediately before its use; also that cyanide should be hermetically sealed at the time of its manufacture.

TABLE V.—Series "F"—Effects of cyanide gas (HCN) on bedbugs (natural conditions).

No. of experiment.	Apartment fumigated.	Strength of gas.	Duration of exposure.	Results.	Remarks.
1	Forecastle of ship.	0.4 ounce potassium cyanide (KCN) per 1,000 cubic feet of air space.	1 hour.	Many dead insects were found; no live insects observed.	On account of ship sailing, no secondary inspection was available.
2	do.	1.7 ounces potassium cyanide (KCN) per 1,000 cubic feet of air space.	do.	Many dead insects were found; some were observed alive and unaffected.	This fumigation was apparently ineffective.
3	do.	2.5 ounces potassium cyanide (KCN) per 1,000 cubic feet of air space.	30 minutes.	Many dead bugs were found; no live bugs observed.	Sailors later reported finding live insects. These presumably were ones that had revived.
4	do.	5 ounces potassium cyanide (KCN) per 1,000 cubic feet of air space.	1 hour.	do.	Ten days subsequently ship's officers and sailors stated that no bedbugs had been noticed, though the insects "had been troublesome before the fumigation."
5	do.	3.75 ounces potassium cyanide (KCN) per 1,000 cubic feet of air space.	do.	Many bugs apparently killed.	Twelve days later the mate of the vessel reported that no bedbugs had been noticed for several days after the fumigation. A week later a few live insects were noted.
6	First mate's cabin in a ship.	5 ounces potassium cyanide (KCN) per 1,000 cubic feet of air space.	do.	Many dead bugs were found; no live insects observed.	The mate reported 12 days after fumigation that he had seen one live insect on the eleventh day, but had not been troubled with bedbugs since fumigation; formerly they had been plentiful.
7	Second mate's cabin in a ship.	3.75 ounces potassium cyanide (KCN) per 1,000 cubic feet of air space.	do.	All bugs noted were dead.	The mate stated 12 days after that whereas "he had been unable to sleep on account of bedbugs before fumigation" he had noticed none since excepting one live insect immediately after fumigation.

In the above procedures bed clothes, mattresses, and other effects were not disturbed before fumigation. From all our observations of the effect of cyanide gas on bedbugs during ship fumigation and from the results of experiments in Series "D," Table IV, we believe that the gas in strength of 5 ounces per 1,000 cubic feet of space (exposure one hour) is sufficient for bedbug destruction under ordinary natural conditions.

TABLE VI.—Series "F"—Effects of sulphur dioxide (SO<sub>2</sub>) on bedbugs.

No. of experiment.	Number of bedbugs.	Container.	Cheesecloth protection to container.	Strength of gas.	Duration of exposure.	Primary inspection.	Final inspection 12 hours later.
11	7	Glass jar, capacity of 6 ounces.	1 layer.	Per cent.	1 2 hours.	All insects alive.	All insects alive.
2	5	do.	do.	2	do.	All insects dead.	All insects dead.
3	5	do.	2 layers.	2	do.	do.	Do.

4	5	3 layers	Do.	2	do.	Do.
5	5	4 layers	Do.	2	do.	Do.
6	5	5 layers	Do.	2	do.	Do.
7	5	6 layers	Do.	2	do.	Do.
8	12	Container packed with gauze and covered by one layer.	Do.	2	do.	Do.
9	7	1 layer.	Do.	1	do.	Do.
10	6	6 layers	Do.	1	1 hour	Do.
11	6	Container packed with gauze and covered by one layer.	Do.	1	do.	Do.

<sup>1</sup>REMARKS.—The negative results in experiment No. 1 were probably due to noncombustion of all the sulphur. From experiments Nos. 9, 10, and 11 it seems evident that 1 per cent sulphur dioxide (SO<sub>2</sub>) will kill bedbugs at an exposure for 1 hour. On account of possible partial noncombustion of the sulphur the writers believe that a 2 per cent gas should be used, i. e., 2 pounds of sulphur per 1,000 cubic feet of space. An exposure for 1 hour seems effective.

TABLE VII.—Series "G"—Effects of cyanide gas (HCN) on roaches.

No. of experiment.	Number of insects.	Container.	Cheesecloth protection to container.	Strength of gas.	Duration of exposure.	Primary inspection.	Final inspection.
1	3	Glass jar, capacity of 6 ounces.	1 layer	14 ounces potassium cyanide per 1,000 cubic feet of air space.	One-half hour.	Two insects apparently dead; 1 alive.	All insects alive.
2	20	do.	do.	5 ounces potassium cyanide per 1,000 cubic feet of air space.	1 hour	All insects apparently dead.	All insects recovered and alive.
3	4	do.	do.	do.	do.	do.	Three insects dead; 1 alive.
4	9	do.	10 layers	do.	do.	do.	Eight insects dead; 1 alive.
5	(?)	Hold of a ship.	None	do.	do.	Many apparently dead roaches observed.	Three roaches retained for observation required movement after 12 hours.
6	20	Glass jar, capacity of 6 ounces.	1 layer	10 ounces potassium cyanide per 1,000 cubic feet of air space.	do.	All insects apparently dead.	All insects dead.

REMARKS.—As roaches possess no known ability to carry quarantinable infection their destruction is desirable only from the esthetic viewpoint. It therefore does not seem justifiable in order to insure cockroach destruction that double the amount of cyanide gas be used as is ordinarily required to kill rats, fleas, or other infection-carrying vermin. For effective cockroach destruction it seems apparent that cyanide in the strength of 10 ounces per 1,000 cubic feet is necessary.

TABLE VIII.—Series "H"—Effects of sulphur dioxide ( $SO_2$ ) on roaches.

No. of experiment.	Number of roaches.	Container.	Cheesecloth protection to container.	Strength of gas.	Duration of exposure.	Primary inspection.	Final inspection.
1	10	Glass jar, capacity of 6 ounces.	1 layer.	Per cent. 2	2 hours.	All insects apparently killed.	Nine insects dead; 1 alive.
2	10	do.	do.	4	6 hours.	All insects dead.	All insects dead.

REMARKS.—Sulphur dioxide ( $SO_2$ ) is lethal to roaches in 4 per cent. strength, but from practical experience in fumigating vessels, these insects generally reappear shortly after sulphur fumigation. These presumably are those individuals that have secured safe retreat in cracks or recesses during the fumigation or are hatched from the eggs. Co-kroch ova are not affected by sulphur fumes. As these insects are not recognized as factors in the transmission of disease their total destruction is not imperative from a standpoint of sanitation.

TABLE IX.—Series "L"—Effects of cyanide gas (HCN) on body lice.

No. of experiment.	Number of lice.	Container.	Cheesecloth protection to container.	Strength of gas.	Duration of exposure.	Primary inspection.	Final inspection.
1	5	Iron can, capacity of 16½ gallons.	Container packed with old clothes.	2½ ounces potassium cyanide (KCN) per 1,000 cubic feet of air space.	15 minutes.	All insects apparently dead.	All insects recovered.
2	5	Glass jar, capacity of 6 ounces.	1 layer.	do.	30 minutes.	do.	4 insects dead, 1 insect alive
3	6	do.	do.	do.	1 hour.	do.	All insects revived.
4	6	do.	6 layers.	3.75 ounces NaCN (3KCN) per 1,000 cubic feet.	do.	do.	Do.
5	6	do.	1 layer; container packed with gauze.	do.	do.	do.	Do.
6	6	do.	do.	do.	do.	All insects stupefied.	Do.
7	6	do.	6 layers.	do.	do.	do.	Do.
8	6	do.	1 layer.	do.	do.	do.	Do.
9	6	do.	1 layer; container packed with gauze.	5 ounces potassium cyanide (KCN) per 1,000 cubic feet.	do.	do.	Do.
10	6	do.	1 layer.	do.	do.	do.	Do.
11	6	do.	6 layers.	do.	do.	do.	Do.
12	6	do.	1 layer.	do.	1 hour and 15 minutes.	do.	All insects dead.
13	6	do.	do.	7.5 ounces sodium cyanide (NaCN) (10 ounces KCN) per 1,000 cubic feet.	1 hour.	do.	Do.
14	6	do.	6 layers.	do.	do.	do.	4 insects dead, 2 alive.
15	6	do.	1 layer; container packed with gauze.	do.	do.	do.	1 insect alive, 5 dead.
16	6	do.	1 layer.	do.	do.	do.	4 insects dead, 2 alive.
17	6	do.	6 layers.	do.	do.	do.	Do.
18	6	do.	1 layer; container packed with gauze.	do.	do.	do.	2 insects dead, 4 alive.

19 } 120 }	6	do.	1 layer.	{ 10 ounces potassium cyanide (KCN) per 1,000 cubic feet of air space.	do.	do.	{ 5 insects dead, 1 alive. (4 insects dead, 2 alive.
21 } 122 }	6	do.	6 layers.	do.	do.	do.	Do.
123 } 124 }	6	do.	{ Container packed with gauze, covered with 1 layer.	do.	do.	do.	{ 3 insects dead, 3 alive. (4 insects dead, 2 alive. Many insects recovered.
25 }	(*)	Galvanized iron can.	Lice-infected shirt rolled up and placed in container.	do.	do.	do.	All insects dead.
26 } 127 }	6	{ Glass jar, capacity of 6 ounces.	1 layer.	do.	2 hours.	do.	Do.
28 } 129 }	6	do.	6 layers.	do.	do.	do.	Do.
30 } 131 }	6	do.	{ Container packed with cheesecloth covered by one layer.	do.	do.	do.	Do.

<sup>1</sup> Container was placed near ceiling of room.

REMARKS.—Body lice are more resistant to cyanide gas than the other insects experimented with. It seems evident, however, that the gas in strength of 10 ounces potassium cyanide per 1,000 cubic feet with an exposure for 2 hours is sufficient for the destruction of body lice under ordinary natural conditions. From the results of experiments 26 to 31 apparently there was no difference in the effects of the gas in the upper and lower level of the fumigating room on the insects exposed.

TABLE X.—Series "M"—Effects of sulphur dioxide ( $SO_2$ ) on body lice (artificial conditions).

No. of experi- ment.	Number of lice.	Container.	Cheesecloth protection to container.	Strength of gas.	Duration of exposure.	Primary inspection.	Final inspection.
1	6	Glass jar, capacity of 6 ounces.	1 layer.	Per cent. 2	2 hours.	All insects stupefied.	All insects recovered.
2	6	do.	6 layers.	2	do.	do.	Do.
3	6	do.	{ Container packed with cheesecloth and covered by 1 layer.	2	do.	do.	Do.
4	6	do.	do.	4	6 hours.	do.	All insects dead.
5	6	do.	1 layer.	4	do.	do.	Do.
6	6	do.	6 layers.	4	do.	do.	Do.
17							
28							
39							

<sup>1</sup> Repetition of No. 4, excepting container was placed near ceiling of room.

<sup>2</sup> Repetition of No. 5, excepting container was placed near ceiling of room.

<sup>3</sup> Repetition of No. 6, excepting container was placed near ceiling of room.

REMARKS.—Body lice are apparently more resistant to the fumes of sulphur than are other insects. Sulphur dioxide, 4 per cent strength, with exposure for six hours, is effective for body-lice destruction.

**PLAGUE-PREVENTION WORK.****HAWAII—PLAGUE PREVENTION.**

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

**Honolulu.**

WEEK ENDED MAY 13, 1916.

Total rats and mongoose taken.....	357	Classification of rats killed by sulphur dioxide:	
Rats trapped.....	351	Mus rattus.....	1
Mongoose trapped.....	5	Average number of traps set daily.....	981
Rats killed by sulphur dioxide.....	1	Cost per rat destroyed.....cents..	21½
Examined microscopically.....	5	Last case rat plague, Aiea, 9 miles from Honolulu, Apr. 12, 1910.	
Examined macroscopically.....	352	Last case human plague, Honolulu, July 12, 1910.	
Showing plague infection.....	None.	Last case rat plague, Paauhau, Hawaii, Jan. 18, 1916.	
Classification of rats trapped:		Last case human plague, Paauhau plantation, Hawaii, Dec. 16, 1915.	
Mus alexandrinus.....	112		
Mus musculus.....	110		
Mus norvegicus.....	109		
Mus rattus.....	20		

**Hilo.**

WEEK ENDED MAY 6, 1916.

Rats and mongoose taken.....	1,307	Classification of rats trapped and found dead:	
Rats trapped.....	1,282	Mus norvegicus.....	377
Rats found dead.....	1	Mus alexandrinus.....	143
Mongoose taken.....	24	Mus rattus.....	317
Rats and mongoose examined macroscopically.....	1,307	Mus musculus.....	446
Rats and mongoose plague infected.....	None.	Last case of rat plague, Paauhau Sugar Co., Jan. 18, 1916.	
		Last case of human plague, Paauhau Sugar Co., Dec. 16, 1915.	

**PORTO RICO—PLAGUE PREVENTION.**

The following table shows the number of rats and mice examined in Porto Rico for plague infection during the two weeks ended May 19, 1916. No plague infection was found:

Place.	Rats.	Mice.
San Juan.....	169	12
Puerta de Tierra.....	128	1
Santurce.....	278	.....

# 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.*

## UNITED STATES.

### CEREBROSPINAL MENINGITIS.

State Reports for April, 1916.

Place.	New cases reported.	Place.	New cases reported.
Hawaii:		Kansas—Continued.	
Honolulu.....	1	Sumner County.....	1
Kansas:		Wyandotte County—	
Graham County.....	1	Kansas City.....	1
Leavenworth County—		Total.....	5
Leavenworth.....	1		
Sedgwick County—			
Wichita.....	1		

City Reports for Week Ended May 20, 1916.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Bridgeport, Conn.....	1	.....	New York, N. Y.....	6	6
Chicago, Ill.....	3	2	Omaha, Nebr.....	1	.....
Detroit, Mich.....	1	.....	Philadelphia, Pa.....	3	2
Hartford, Conn.....	2	.....	Sacramento, Cal.....	1	1
Jersey City, N. J.....	.....	1	St. Louis, Mo.....	5	2
Los Angeles, Cal.....	.....	1	St. Paul, Minn.....	2	.....
Lynn, Mass.....	.....	1	Somerville, Mass.....	.....	1
Milwaukee, Wis.....	3	3	Wilmington, Del.....	2	.....
New Orleans, La.....	1	1			

### DIPHTHERIA.

Alabama—Tuscaloosa—A Correction.

In the Public Health Reports of May 12, page 1184, appeared a report that up to May 7 there had been notified among the students of the University of Alabama 204 cases of diphtheria, and in the issue of May 26, page 1312, that up to May 20 there had been notified in Tuscaloosa among the students at the university a total of 277 cases of diphtheria since the outbreak began and 15 cases among persons not attending the university.

**DIPHTHERIA—Continued.**

It should have been specified that 30 of the above were clinical cases of diphtheria, the other 262 being diphtheria carriers. From the health officer's and epidemiologist's point of view the carrier foci are of greater importance than the clinical foci. Clinical cases are usually more readily recognized and more easily controlled than the carriers, which as truly constitute foci from which the disease may spread. The attention given to the control of carrier cases as well as clinical cases has undoubtedly been an important factor in controlling the outbreak at Tuscaloosa.

See also Diphtheria, measles, scarlet fever, and tuberculosis, page 1484.

**ERYSIPELAS.****City Reports for Week Ended May 20, 1916.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Ann Arbor, Mich.	1		New Orleans, La.		1
Baltimore, Md.		1	Newport, R. I.		1
Binghamton, N. Y.	2		New York, N. Y.		5
Boston, Mass.		1	Niagara Falls, N. Y.	3	
Bridgeport, Conn.	2		Oakland, Cal.		1
Buffalo, N. Y.	2	1	Omaha, Nebr.	2	1
Chicago, Ill.	32	4	Philadelphia, Pa.	18	4
Cincinnati, Ohio.	5		Pittsburgh, Pa.	13	1
Detroit, Mich.	11	2	Portland, Oreg.	3	
Everett, Mass.	1		Reading, Pa.	1	
Harrisburg, Pa.	2		Sacramento, Cal.	1	
Hartford, Conn.	3		St. Louis, Mo.	5	1
Jersey City, N. J.		2	St. Paul, Minn.	2	
Kalamazoo, Mich.	1		San Francisco, Cal.	3	
Los Angeles, Cal.	4		Wilkinsburg, Pa.	1	
Newark, N. J.	5		Zanesville, Ohio.	1	

**MALARIA.****State Reports for April, 1916.**

During the month of April, 1916, 169 cases of malaria were reported in the State of Arkansas, and 4 cases of the disease were reported in Kansas.

**City Reports for Week Ended May 20, 1916.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Boston, Mass.	1		Omaha, Nebr.	9	
Montclair, N. J.	1		Perth Amboy, N. J.	1	
Newark, N. J.	1		Richmond, Va.	2	
New Orleans, La.	1		San Francisco, Cal.	2	

**MEASLES.****Washington—Seattle.**

Surg. Lloyd reported that during the two weeks' period from May 13 to 27, 1916, 929 cases of measles, with 1 death, were notified in Seattle, Wash., making a total of 3,512 cases, with 7 deaths, reported since the beginning of the epidemic, February 15, 1916.

See also Diphtheria, measles, scarlet fever, and tuberculosis, page 1484.

**PELLAGRA.****State Reports for April, 1916.**

During the month of April, 1916, 59 cases of pellagra were reported in Arkansas, and 1 case in Kansas.

**City Reports for Week Ended May 20, 1916.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Atlanta, Ga. ....		3	Mobile, Ala. ....	2	
Birmingham, Ala. ....		2	New Orleans, La. ....	6	3
Charleston, S. C. ....		6	New York, N. Y. ....		1
Concord, N. H. ....		1	Northampton, Mass. ....		1
El Paso, Tex. ....		1	Worcester, Mass. ....	1	

**PLAGUE.****Louisiana—New Orleans—Plague-Infected Rats Found.**

Passed Asst. Surg. Simpson reported the finding of two plague-infected rats in New Orleans, La., as follows: A rat captured May 5, 1916, near the intersection of South Broad and Toledano Streets, was proven positive for plague infection May 30, 1916; and another captured May 13, 1916, at 312 Carondelet Street was proven positive for plague infection May 30, 1916.

**PNEUMONIA.****City Reports for Week Ended May 20, 1916.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio. ....	1	3	Lexington, Ky. ....	1	1
Binghamton, N. Y. ....	4	3	Los Angeles, Cal. ....	2	2
Braddock, Pa. ....	2		Manchester, N. H. ....	5	5
Buffalo, N. Y. ....	1	4	Morristown, N. J. ....	2	
Butler, Pa. ....	1		Newark, N. J. ....	32	10
Butte, Mont. ....	6	6	Omaha, Nebr. ....	1	3
Chicago, Ill. ....	155	66	Philadelphia, Pa. ....	54	25
Cleveland, Ohio. ....	25	21	Pittsburgh, Pa. ....	19	20
Detroit, Mich. ....	11	20	Reading, Pa. ....	2	2
Fall River, Mass. ....	7	8	Sandusky, Ohio. ....	1	1
Grand Rapids, Mich. ....	3	1	San Francisco, Cal. ....	7	5
Harrisburg, Pa. ....	1	1	San Jose, Cal. ....	2	
Harrison, N. J. ....	1		Stockton, Cal. ....	1	1
Kalamazoo, Mich. ....	3	1	Wilkinsburg, Pa. ....	1	5
Lancaster, Pa. ....	1		York, Pa. ....	4	

**POLIOMYELITIS (INFANTILE PARALYSIS).****Arkansas Report for April, 1916.**

During the month of April, 1916, 3 cases of poliomyelitis were notified in the State of Arkansas, 1 in Jackson County and 2 in Lafayette County.

**City Reports for Week Ended May 20, 1916.**

During the week ended May 20, 1916, 2 deaths from poliomyelitis were reported, 1 at Lynn, Mass., and 1 at New York, N. Y.

**RABIES.****Idaho—Buhl—Rabies in Animals.**

Dr. Ralph Falk, secretary State Board of Health of Idaho, reported by telegraph May 31, 1916, that a case of rabies in a dog had been reported in Buhl, Twin Falls County, Idaho.

**ROCKY MOUNTAIN SPOTTED FEVER.****Montana Report for April, 1916.**

Place.	New cases reported.	Place.	New cases reported.
Montana:		Montana—Continued.	
Dawson County.....	1	Ravalli County.....	2
Musselshell County.....	1	Yellowstone County.....	1
Phillips County.....	1	Total.....	6

**SCARLET FEVER.**

See Diphtheria, measles, scarlet fever, and tuberculosis, page 1484.

**SMALLPOX.****Minnesota.**

Collaborating Epidemiologist Bracken reported by telegraph that during the week ended June 3, 1916, one new focus of smallpox infection was reported in Minnesota, five cases of the disease having been notified in Mankato Township, Blue Earth County.

**Missouri—Scott County.**

Senior Surg. Gassaway reported that 22 cases of smallpox occurred among laborers working on the St. Louis Southwestern Railroad near Illmo, Scott County, Mo. The patients were living in box cars. The fact that they had smallpox was discovered about May 24, 1916.

**Porto Rico.**

Surg. King reported by telegraph May 31, 1916, that during the week ended May 26, 1916, additional cases of smallpox were reported in Porto Rico as follows: Arroyo 5, Cidra 2, Juncos 1, Rio Piedras 4, San Juan 30, Trujillo Alto 9.

## SMALLPOX—Continued.

## Kansas Report for April, 1916.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
<b>Kansas:</b>						
Brown County.....	6			2	3	1
Butler County.....	13				1	12
Cherokee County.....	23				9	14
Clay County.....	28				3	25
Crawford County.....	18			1	13	4
Pittsburg.....	2				2	
Decatur County.....	1				1	
Dickinson County.....	15			1	4	10
Elk County.....	4			1		3
Ford County.....	24			2	14	8
Franklin County.....	2					2
Harper County.....	1				1	
Harvey County.....	1				1	
Jewell County.....	15				15	
Labette County.....	4				1	3
Parsons.....	2					2
Lane County.....	2				2	
Linn County.....	1				1	
Lyon County.....	1					1
Marshall County.....	1				1	
Montgomery County.....	11				5	6
Colleyville.....	2			1	1	
Neosho County.....	9					9
Osborne County.....	55				52	3
Phillips County.....	1					1
Reno County.....						
Hutchinson.....	1					1
Republic County.....	1					1
Rice County.....	1				1	
Rooks County.....	3				2	1
Saline County.....	1				1	
Sedgewick County.....	1				1	
Wichita.....	8				8	
Shawnee County—						
Topeka.....	2					2
Smith County.....	8					8
Wyandotte County—						
Kansas City.....	8					8
<b>Total.....</b>	<b>276</b>			<b>8</b>	<b>143</b>	<b>125</b>

## Miscellaneous State Reports.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
<b>Arkansas (Apr. 1-30):</b>			<b>Colorado (Jan. 1-Apr. 30):</b>		
Counties—			Denver County—		
Boone.....	39		Denver.....	3	
Carroll.....	5		El Paso County.....		
Cross.....	3		Colorado Springs.....	16	
Faulkner.....	4		Larimer County.....	2	
Hempstead.....	3		Lincoln County.....	4	
Jackson.....	10		Morgan County.....	1	
Lafayette.....	11		Prowers County.....	1	
Monroe.....	11		Washington County.....	21	
Ouachita.....	3		<b>Total.....</b>	<b>48</b>	
Perry.....	3				
Phillips.....	36		<b>Illinois (Apr. 1-30):</b>		
Pope.....	2		Counties—		
Pulaski.....	9		Adams.....	1	
St. Francis.....	3		Bond.....	1	
Stone.....	1		Brown.....	1	
<b>Total.....</b>	<b>136</b>		Bureau.....	4	
			Carroll.....	2	

## SMALLPOX—Continued.

## Miscellaneous State Reports—Continued.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Illinois (Apr. 1-30)—Contd. Counties—Continued.			Illinois—Continued. Counties—Continued.		
Cass.....	1	.....	Sangamon.....	63	.....
Coles.....	1	.....	Saline.....	2	.....
Dewitt.....	1	.....	Scott.....	6	.....
Dupage.....	1	.....	Shelby.....	4	.....
Edwards.....	8	.....	Stephenson.....	1	.....
Effingham.....	6	.....	Tazewell.....	3	.....
Fayette.....	14	.....	Vermilion.....	10	.....
Franklin.....	2	.....	Wabash.....	3	.....
Greene.....	1	.....	Wayne.....	30	.....
Hancock.....	8	.....	Whiteside.....	2	.....
Iroquois.....	1	.....	Will.....	1	.....
Jackson.....	1	.....	Woodford.....	7	.....
Kane.....	4	.....	Total.....	413	.....
Kendall.....	2	.....			
Knox.....	12	.....	Montana (Apr. 1-30):		
La Salle.....	26	.....	Beaverhead County.....	1	.....
Lawrence.....	4	.....	Cascade County.....	1	.....
Lee.....	7	.....	Chouteau County.....	21	.....
Livingston.....	7	.....	Dawson County.....	2	.....
Macon.....	17	.....	Fergus County.....	12	.....
Macoupin.....	4	.....	Hill County.....	16	.....
Madison.....	4	.....	Musselshell County.....	4	.....
Marion.....	1	.....	Park County.....	2	.....
McHenry.....	1	.....	Ravalli County.....	1	.....
McLean.....	2	.....	Silverbow County.....	1	.....
Menard.....	8	.....	Butte.....	2	.....
Montgomery.....	9	.....	Teton County.....	7	.....
Morgan.....	2	.....	Toole County.....	4	.....
Moultrie.....	9	.....	Valley County.....	1	.....
Peoria.....	51	.....	Yellowstone County—		
Pike.....	1	.....	Billings.....	6	.....
Putnam.....	1	.....	Total.....	81	.....
Richland.....	4	.....			
Rock Island.....	51	.....			

## City Reports for Week Ended May 20, 1916.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Butte, Mont.....	1	.....	Little Rock, Ark.....	1	.....
Charleston, S. C.....	3	.....	Los Angeles, Cal.....	1	.....
Coffeyville, Kans.....	2	.....	New Orleans, La.....	13	.....
Danville, Ill.....	1	.....	Norfolk, Va.....	2	.....
Davenport, Iowa.....	15	.....	Oklahoma, Okla.....	13	.....
Detroit, Mich.....	25	.....	Omaha, Nebr.....	2	.....
El Paso, Tex.....	5	2	Roanoke, Va.....	1	.....
Evansville, Ind.....	2	.....	St. Louis, Mo.....	4	.....
Grand Rapids, Mich.....	1	.....	St. Paul, Minn.....	13	.....
Kansas City, Kans.....	7	.....	Springfield, Ill.....	20	.....
Knoxville, Tenn.....	1	.....	Tacoma, Wash.....	1	.....
Kokomo, Ind.....	1	.....	Toledo, Ohio.....	16	.....
Lincoln, Nebr.....	3	.....	Wilmington, Del.....	3	.....

## TETANUS.

## City Reports for Week Ended May 20, 1916.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Allentown, Pa.....	1	1	Philadelphia, Pa.....	1	2
Baltimore, Md.....	1	1	St. Louis, Mo.....	2	1
Boston, Mass.....	1	1	York, Pa.....	1	.....
Chicago, Ill.....	1	1			

**TUBERCULOSIS.**

See Diphtheria, measles, scarlet fever, and tuberculosis, page 1484.

**TYPHOID FEVER.****Florida—Key West.**

Surg. Guiteras reported that during the period from May 6 to 27, 1916, 15 cases of typhoid fever were notified in Key West, Fla.

**State Reports for April, 1916.**

Place.	New cases reported.	Place.	New cases reported.
<b>Arkansas:</b>		<b>Kansas—Continued.</b>	
Bradley County.....	1	Harper County.....	1
Columbia County.....	1	Kearny County.....	1
Drew County.....	1	Lincoln County.....	3
Faulkner County.....	1	Meade County.....	1
Greene County.....	2	Miami County.....	41
Hot Spring County.....	1	Montgomery County.....	1
Jackson County.....	1	Coffeyville.....	1
Pulaski County.....	1	Osage County.....	2
Sevier County.....	2	Pawnee County.....	1
Sharp County.....	2	Reno County.....	1
St. Francis County.....	1	Hutchinson.....	1
Union County.....	1	Riley County.....	1
Washington County.....	1	Sumner County.....	1
<b>Total.....</b>	<b>16</b>	Wyandotte County—	
		Kansas City.....	2
<b>Hawaii:</b>		<b>Total.....</b>	<b>70</b>
Hawaii—		<b>Montana:</b>	
South Kohala district.....	1	Beaverhead County.....	1
South Kona district.....	1	Blaine County.....	3
<b>Mauí—</b>		Carbon County.....	1
Fuunene district.....	1	Cascade County—	
<b>Oahu—</b>		Great Falls.....	1
Ewa district.....	1	Dawson County.....	3
Honolulu.....	2	Deerlodge County—	
Koolauloa district.....	6	Anaconda.....	2
Koolaupoko district.....	1	Fergus County.....	2
<b>Total.....</b>	<b>13</b>	Flathead County—	
<b>Kansas:</b>		Kallispell.....	1
Allen County.....	1	Hill County.....	3
Barton County.....	2	Lewis and Clark County—	
Chase County.....	1	Helena.....	2
Cherokee County.....	1	Park County.....	1
Coffey County.....	1	Sheridan County.....	1
Cowley County.....	1	Yellowstone County.....	2
Douglas County.....	1	<b>Total.....</b>	<b>23</b>
Franklin County.....	5		

**City Reports for Week Ended May 20, 1916.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Allentown, Pa.....	1	.....	Danville, Ill.....	2	.....
Baltimore, Md.....	7	1	Detroit, Mich.....	11	2
Birmingham, Ala.....	1	.....	El Paso, Tex.....	1	.....
Boston, Mass.....	3	.....	Erie, Pa.....	1	.....
Braddock, Pa.....	1	.....	Fall River, Mass.....	3	.....
Brockton, Mass.....	.....	1	Fitchburg, Mass.....	1	.....
Buffalo, N. Y.....	1	1	Fort Wayne, Ind.....	1	.....
Canton, Ohio.....	1	.....	Galveston, Tex.....	3	.....
Charleston, S. C.....	1	.....	Grand Rapids, Mich.....	4	.....
Chicago, Ill.....	16	3	Harrisburg, Pa.....	1	.....
Chicopee, Mass.....	1	.....	Lancaster, Pa.....	1	.....
Cincinnati, Ohio.....	1	.....	Lawrence, Mass.....	1	.....
Cleveland, Ohio.....	1	1	Los Angeles, Cal.....	2	1
Columbus, Ohio.....	1	2	Lynchburg, Va.....	2	.....

## TYPHOID FEVER—Continued.

## City Reports for Week Ended May 20, 1916—Continued.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Milwaukee, Wis.	8	1	St. Louis, Mo.	2	1
Nashville, Tenn.	1	1	St. Paul, Minn.	1	1
Newark, N. J.	2	1	Salt Lake City, Utah.	2	2
New Castle, Pa.	1	1	San Francisco, Cal.	5	1
New Orleans, La.	5	4	Schenectady, N. Y.	1	1
New York, N. Y.	37	1	South Bend, Ind.	1	1
Norfolk, Va.	1	1	Springfield, Ill.	1	1
North Adams, Mass.	1	1	Springfield, Mass.	1	1
Oakland, Cal.	2	1	Springfield, Ohio.	1	1
Omaha, Nebr.	1	1	Tacoma, Wash.	1	1
Orange, N. J.	1	1	Toledo, Ohio.	1	1
Philadelphia, Pa.	21	4	Trenton, N. J.	1	1
Pittsburgh, Pa.	4	1	Washington, D. C.	5	1
Portland, Oreg.	2	1	Wilmington, Del.	5	1
Providence, R. I.	1	1	York, Pa.	3	1
Reading, Pa.	1	1	Zanesville, Ohio.	5	1

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

## State Reports for April, 1916.

State.	Cases reported.			State.	Cases reported.		
	Diphtheria.	Measles.	Scarlet fever.		Diphtheria.	Measles.	Scarlet fever.
Arkansas.....	10	160	5	Kansas.....	69	3,579	268
Hawaii.....	24	330	1	Montana.....	13	757	53

## City Reports for Week Ended May 20, 1916.

City.	Population as of July 1, 1915. (Es- timated by United States Census Bureau.)	Total deaths from all causes.	Diph- theria.		Measles.		Scarlet fever.		Tubercu- losis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Over 500,000 inhabitants:										
Baltimore, Md.	584,605	196	6	1	183	28	1	36	33	23
Boston, Mass.	745,139	227	32	4	227	5	34	3	57	23
Chicago, Ill.	2,447,045	641	120	15	315	3	238	1	244	79
Cleveland, Ohio.	656,975	172	15	1	152	2	21	1	46	22
Detroit, Mich.	554,717	180	59	6	43	2	75	1	38	10
New York, N. Y.	5,468,190	1,462	391	33	952	22	152	2	397	194
Philadelphia, Pa.	1,683,664	476	50	8	314	3	48	1	98	67
Pittsburgh, Pa.	571,984	177	20	1	155	2	18	1	29	13
St. Louis, Mo.	745,988	199	35	4	399	5	29	2	48	21
From 300,000 to 500,000 inhab- itants:										
Buffalo, N. Y.	461,335	102	8	1	12	28	1	26	15	10
Cincinnati, Ohio.	406,706	97	19	1	126	2	4	1	29	10
Jersey City, N. J.	300,133	78	13	1	42	25	1	14	7	1
Los Angeles, Cal.	465,367	120	13	1	19	6	1	46	1	1
Milwaukee, Wis.	428,062	133	8	1	111	33	3	15	5	1
Newark, N. J.	399,000	133	18	1	198	35	4	43	17	1
New Orleans, La.	366,484	133	9	1	24	1	1	33	18	1
San Francisco, Cal.	1,416,912	144	44	8	8	39	1	32	17	1
Washington, D. C.	358,679	17	17	2	127	6	1	31	20	1
From 200,000 to 300,000 inhab- itants:										
Columbus, Ohio.	209,722	72	4	1	69	3	4	9	6	3
Portland, Oreg.	272,833	36	10	1	14	14	1	3	3	3
Providence, R. I.	250,025	43	10	1	18	17	1	3	3	3
St. Paul, Minn.	241,999	67	8	1	91	13	1	13	7	3

<sup>1</sup> Population Apr. 15, 1910; no estimate made.

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

City Reports for Week Ended May 20, 1916—Continued.

City.	Population as of July 1, 1915. (Es- timated by United States Census Bureau.)	Total deaths from all causes.	Diph- theria.		Measles.		Scarlet fever.		Tubercu- losis.		
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
From 100,000 to 200,000 inhabi- tants:											
Atlanta, Ga.	184,873	50	2				1			9	
Birmingham, Ala.	174,108	59	1		1		1		7	12	
Bridgeport, Conn.	118,434	34	6	1	9		2		5	2	
Cambridge, Mass.	111,069	30	2		10		5		5	8	
Camden, N. J.	104,549		2		5		3		3		
Fall River, Mass.	126,904	37			12	1			12	4	
Grand Rapids, Mich.	125,759	35	2	1	15		14		5	4	
Hartford, Conn.	108,969	52	8		26	1			3		
Lowell, Mass.	112,124	31	3		40				3	4	
Lynn, Mass.	100,316		5				8		2		
Nashville, Tenn.	115,978	34			1		1		5	3	
New Bedford, Mass.	114,694	33	1		2		1		4	2	
New Haven, Conn.	147,065		2		8		5		13	5	
Oakland, Cal.	190,803		1				8		6	3	
Omaha, Nebr.	163,200	78	6		6		9	1		7	
Reading, Pa.	105,094	36	2		6		3		1	3	
Richmond, Va.	154,674	52			485	2	5		3	4	
Salt Lake City, Utah.	113,567	27	16		53		11				
Springfield, Mass.	103,216	28	3		90	1	2		4	1	
Syracuse, N. Y.	152,534	33	8		15		6		21	2	
Tacoma, Wash.	108,064				6						
Toledo, Ohio.	187,840	71	3		103	2	14		11	5	
Trenton, N. J.	109,212	45	13	3	4				11	2	
Worcester, Mass.	160,523	55	6	2	71	1	2		13	6	
From 50,000 to 100,000 inhabi- tants:											
Akron, Ohio.	82,958	42	4		20	1	4		4		
Allentown, Pa.	61,901	24	3		5						
Atlantic City, N. J.	55,806	6			7				4		
Bayonne, N. J.	67,582		3		11		6		1		
Berkeley, Cal.	54,879	8					7				
Binghamton, N. Y.	53,082	22	5	1	55		1		7	2	
Brockton, Mass.	65,746	17	10	1	88	1	1		4	2	
Canton, Ohio.	59,139		2		6	1	3				
Charleston, S. C.	60,427	34	1		1					1	
Chattanooga, Tenn.	58,576	20					13		2		
Covington, Ky.	56,520	12			3		1		3	3	
Elizabeth, N. J.	81,550	15	15		5		1		6		
El Paso, Tex.	51,936	32	1		5	1	1			5	
Erie, Pa.	73,798	28	1		200		1		5		
Evansville, Ind.	72,125		2	1	3				1		
Fort Wayne, Ind.	74,352	15			60				2		
Harrisburg, Pa.	70,754	20	3		31				2	6	
Hoboken, N. J.	76,104	20	7	1	20		7	2	6	3	
Johnstown, Pa.	66,585	13	2		34						
Kansas City, Kans.	96,854		1		77		8		1		
Lancaster, Pa.	50,269		3		239		1				
Lawrence, Mass.	98,197	16	8	1	7	1	1	1	6	2	
Little Rock, Ark.	55,158	16			1						
Malden, Mass.	50,067	10	1		3		4		2	1	
Manchester, N. H.	76,959	28			29				1	1	
Mobile, Ala.	56,536	21							2	2	
New Britain, Conn.	52,203	3			10		4		1		
Norfolk, Va.	88,076				21				4	4	
Oklahoma, Okla.	88,158		1		12		1				
Passaic, N. J.	69,010	22	2		6		1		3		
Pawtucket, R. I.	58,156	19	2		1		1			3	
Rockford, Ill.	53,761	19	2	1	16		4		1	1	
Sacramento, Cal.	64,806	22					1		5	1	
Saginaw, Mich.	54,515	14	1		17		2				
San Diego, Cal.	51,115	21			50				8	3	
Schenectady, N. Y.	95,265	19	6		1		4		6	2	
Somerville, Mass.	85,430	23	2		5		1		2	2	
South Bend, Ind.	67,030	19	1		29		4		2	1	
Springfield, Ill.	52,128		9		17		1		1	1	
Springfield, Ohio.	50,864	19			28				3	3	
Wichita, Kans.	67,847				10		2		1		
Wilkes-Barre, Pa.	75,218	15	1		12		1		6	8	
Wilmington, Del.	93,161		1	1	27	1					
York, Pa.	50,543				23				9		

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

City Reports for Week Ended May 20, 1916—Continued.

City.	Population as of July 1, 1915. (Es- timated by United States Census Bureau.)	Total deaths from all causes.	Diph- theria.		Measles.		Scarlet fever.		Tubercu- losis.		
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
From 25,000 to 50,000 inhabitants:											
Alameda, Cal.	27,031	6	1		1						
Brookline, Mass.	31,934	6			8		1		2		
Butler, Pa.	26,587	5	1		69		1				
Butte, Mont.	42,918	35	4		32				18		
Chelsea, Mass.	132,452	12									
Chicopee, Mass.	28,688	11			13	1	3		3		
Danville, Ill.	31,554	8			9				1		
Davenport, Iowa.	47,127		1				11				
Dubuque, Iowa.	39,650				2		3				
East Orange, N. J.	41,155	8	1		17		2				
Elgin, Ill.	27,844	6							2		
Everett, Mass.	38,307	5	3		1				1		
Fitchburg, Mass.	41,144	4	2		8		2		2		
Galveston, Tex.	41,076	11					1		3		
Haverhill, Mass.	47,774		1		5		1		1		
Kalamazoo, Mich.	47,364	16			7				2		
Kenosha, Wis.	30,319	10			73				1		
Kingston, N. Y.	26,632	10			1						
Knoxville, Tenn.	38,300				4		2		5		
La Crosse, Wis.	31,522	6	1								
Lexington, Ky.	39,703	13			26						
Lincoln, Nebr.	46,028	12	1		5						
Lorain, Ohio.	35,662		2		3						
Lynchburg, Va.	32,385	12			83				3		
Madison, Wis.	30,084	3	1		2		1	1			
Medford, Mass.	25,737	9	2		2		2				
Montclair, N. J.	25,550	3	2		8		2		1		
New Castle, Pa.	40,351		1		43		1				
Newport, Ky.	31,722	4					1	1	1		
Newport, R. I.	29,631	9	1		3						
Newton, Mass.	43,085				51		1		7		
Niagara Falls, N. Y.	36,240	28	1		91	1			1		
Norristown, Pa.	30,833	6	1		17				1		
Ogden, Utah.	30,466	8	4				3				
Orange, N. J.	32,524	11	4		19				2		
Pasadena, Cal.	43,859	15			24				3		
Perth Amboy, N. J.	39,725		1		2				3		
Pittsfield, Mass.	37,580	9	2		1				3		
Portsmouth, Va.	38,610	11			14		2				
Roanoke, Va.	41,929	16	1		45				2		
San Jose, Cal.	37,994	12	3		1		2		1		
Steubenville, Ohio.	26,631	10			9						
Stockton, Cal.	34,508	7	1				1		4		
Superior, Wis.	45,285	8			8						
Taunton, Mass.	35,957	15							1		
Waltham, Mass.	30,129	6					1		1		
West Hoboken, N. J.	41,893	2	2	1					6		
Wheeling, W. Va.	43,097	16	1		19						
Williamsport, Pa.	33,495		2		6						
Wilmington, N. C.	28,264	7			7						
Zanesville, Ohio.	30,406	8	1								
From 10,000 to 25,000 inhabitants:											
Ann Arbor, Mich.	14,979	13									
Beaver Falls, Pa.	13,316				2						
Braddock, Pa.	14,544				2		1				
Cairo, Ill.	15,593	3									
Clinton, Mass.	13,075	4			4				2		
Coffeyville, Kans.	16,765				11						
Concord, N. H.	22,480	10			33		1				
Galesburg, Ill.	23,923	8			38						
Harrison, N. J.	16,555		1		5				3		
Kearny, N. J.	22,733	6	1		12				3		
Kokomo, Ind.	20,312	7			1				1		
Long Branch, N. J.	15,057	3			2				1		
Marinette, Wis.	14,610				8						
Melrose, Mass.	17,166	3			1				2		
Morristown, N. J.	13,158	5			3		1				
Nanticoke, Pa.	22,441	2									
Newburyport, Mass.	15,195	2							2		

¹ Population Apr. 15, 1910; no estimate made.

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

City Reports for Week Ended May 20, 1916—Continued.

City.	Population as of July 1, 1915. (Es- timated by United States Census Bureau.)	Total deaths from all causes.	Diph- theria.		Measles.		Scarlet fever.		Tubercu- losis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 10,000 to 25,000 inhabit- ants—Continued.										
New London, Conn.....	20,771	6	.....	.....	38	.....	.....	.....	.....	1
North Adams, Mass.....	22,019	6	.....	.....	.....	.....	1	.....	1	1
Northampton, Mass.....	19,846	13	.....	.....	4	.....	1	.....	.....	1
Plainfield, N. J.....	23,280	7	.....	.....	1	.....	.....	.....	.....	1
Portsmouth, N. H.....	11,602	.....	3	.....	2	.....	.....	.....	.....	.....
Rutland, Vt.....	14,624	3	.....	.....	1	.....	2	.....	.....	.....
Sandusky, Ohio.....	20,160	.....	.....	.....	2	.....	.....	.....	1	.....
Saratoga Springs, N. Y.....	12,842	5	.....	.....	.....	.....	.....	.....	4	.....
Steelton, Pa.....	15,337	1	.....	1	6	.....	.....	.....	4	.....
Wilkinsburg, Pa.....	22,361	13	.....	.....	12	.....	1	.....	.....	.....
Woburn, Mass.....	15,862	4	.....	4	.....	.....	.....	.....	.....	.....

<sup>1</sup> Population Apr. 15, 1916; no estimate made.

# FOREIGN.

## CHINA.

### Examination of Rats—Shanghai.

During the week ended April 22, 1916, 268 rats were examined at Shanghai. No plague infection was found.

## GREAT BRITAIN.

### Examination of Rats—Liverpool.

During the two weeks ended May 6, 1916, 398 rats were examined at Liverpool. No plague infection was found.

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

### Reports Received During Week Ended June 9, 1916.<sup>1</sup>

#### CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
India:				
Calcutta.....	Apr. 2-8.....		65	
Indo-China:				
Saigon.....	Apr. 3-16.....	5	1	
Siam:				
Bangkok.....	Mar. 19-Apr. 8....	4	4	

#### PLAGUE.

Egypt.....				Jan. 1-May 4, 1916: Cases, 1,094; deaths, 535.
Port Said.....	May 2-4.....	4		
Provinces—				
Assiout.....	Apr. 23-May 4....	6	6	
Beni-Souef.....	do.....	21	9	
Fayoum.....	do.....	69	25	
Girgeh.....	May 3.....	2		
Gizeh.....	Apr. 29-May 4....	3	1	
Minieh.....	do.....	17	5	
India.....				Apr. 2-8, 1916: Cases, 5,862; deaths 4,964.
Bombay.....	Apr. 16-22.....	200	172	
Calcutta.....	Apr. 2-8.....		9	
Mandalay.....	Apr. 2-8.....		13	
Madras Presidency.....	Apr. 16-22.....	26	12	
Myingyan.....	Mar. 13-Apr. 1....		9	
Pegu.....	Apr. 2-8.....		3	
Indo-China:				
Saigon.....	Apr. 9-16.....	42	14	
Siam:				
Bangkok.....	Mar. 19-Apr. 8....	82	71	

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

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

**Reports Received During Week Ended June 9, 1916—Continued.**

## **SMALLPOX**

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Chungking.....	Apr. 9-15.....	.....	.....	Present. Do.
Nanking.....	Apr. 9-22.....	.....	.....	
Tientsin.....	do.....	10	2	
Great Britain:				
Cardiff.....	May 6-13.....	8	1	
India:				
Bombay.....	Apr. 16-22.....	85	56	
Calcutta.....	Apr. 2-8.....	.....	6	
Madras.....	Apr. 16-22.....	59	21	
Indo-China:				
Saigon.....	Apr. 3-16.....	5	.....	
Japan:				
Kobe.....	Apr. 24-May 7.....	25	2	
Mexico:				
Aguascalientes.....	May 15-21.....	.....	17	
Guadalajara.....	May 7-20.....	50	11	
Mazatlan.....	May 9-16.....	.....	5	
Monterey.....	May 8-21.....	.....	10	
Saltillo.....	May 1-15.....	.....	5	
Tampico.....	May 1-10.....	.....	6	
Porto Rico:				
Arroyo.....	May 20-26.....	5	.....	
Cidra.....	do.....	2	.....	
Juncos.....	do.....	1	.....	
Rio Piedras.....	do.....	4	.....	
San Juan.....	do.....	30	.....	
Trujillo Alto.....	do.....	9	.....	
Straits Settlements:				
Penang.....	Mar. 19-25.....	20	5	

## **TYPHUS FEVER.**

China:				
Antung.....	Apr. 25-May 1.....	1	.....	
Chefoo.....	Apr. 16-22.....	2	.....	
Great Britain:				
Southampton.....	May 7-13.....	.....	1	
Greece:				
Saloniki.....	Apr. 3-16.....	.....	2	
Japan:				
Tokyo.....	Apr. 24-May 7.....	28	.....	Jan. 1-May 7, 1916: Cases, 327.
Mexico:				
Aguascalientes.....	May 15-21.....	.....	19	
Guadalajara.....	May 9-20.....	24	6	
Monterey.....	May 8-21.....	.....	2	
Nogales.....	May 30.....	1	.....	From Guayamas. Soldier.
Nuevo Laredo.....	May 7.....	1	.....	
Saltillo.....	May 1-15.....	.....	20	
Tampico.....	May 1-10.....	.....	6	

**Reports Received from Jan. 1 to June 2, 1916.**

## **CHOLERA.**

Place.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary.....				
Austria.....	Nov. 7-Dec. 18.....	209	66	Total, Oct. 25, 1915-Jan. 2, 1916: Cases, 412; deaths, 165. Jan. 3-Feb. 5, 1916: Cases, 138; deaths, 47.
Do.....	Jan. 1-Mar. 25.....	153	55	
Cattaro.....	Apr. 2.....	.....	.....	Present.
Bosnia-Herzegovina.....	Dec. 23-Jan. 3.....	8	6	
Do.....	Jan. 9-Feb. 22.....	45	17	
Croatia-Slavonia.....	Oct. 13-Dec. 20.....	247	105	
Do.....	Jan. 3-Feb. 14.....	279	265	
Hungary.....	Oct. 18-Jan. 2.....	339	197	Nov. 18-Dec. 10, 1915: Cases, 675; deaths, 276. In a prison camp.
Do.....	Jan. 10-Feb. 27.....	31	27	

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

## **Reports Received from Jan. 1 to June 2, 1916—Continued.**

### **CHOLERA—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Borneo:				
Putatan.....	Oct. 17-23.....	2	.....	
Greece:				
Corfu.....	Mar. 9-28.....	.....	30	
India:				
Bassein.....	Nov. 28-Jan. 1.....	.....	29	
Do.....	Jan. 2-Apr. 1.....	.....	32	
Bombay.....	Jan. 16-Apr. 1.....	4	3	
Calcutta.....	Oct. 31-Jan. 1.....	.....	139	
Do.....	Jan. 2-Apr. 1.....	.....	322	
Henzada.....	Oct. 7-Nov. 27.....	.....	3	
Do.....	Feb. 26-Apr. 1.....	.....	4	
Madras.....	Nov. 7-Dec. 4.....	5	.....	
Do.....	Jan. 2-Feb. 26.....	29	23	
Madras Presidency.....	Nov. 26.....	.....	46	
Mandalay.....	Oct. 24-Dec. 18.....	.....	12	
Mergui.....	Oct. 23-Jan. 1.....	.....	23	
Do.....	Jan. 2-Mar. 11.....	.....	1	
Moulmein.....	Mar. 12-18.....	.....	15	
Myingyan.....	Oct. 19-Dec. 25.....	.....	45	
Pakkoku.....	Oct. 10-Nov. 6.....	.....	5	
Pegu.....	Jan. 16-Mar. 18.....	.....	106	
Prome.....	Nov. 14-Jan. 1.....	.....	88	
Rangoon.....	Oct. 31-Jan. 1.....	.....	64	
Do.....	Jan. 2-Mar. 25.....	.....	18	
Tavoy.....	Dec. 5-Jan. 1.....	.....	11	
Do.....	Jan. 2-Feb. 5.....	.....	47	
Toungoo.....	Oct. 7-Dec. 11.....	.....	1	
Yenangyaung.....	Nov. 2.....	1	.....	American.
Indo-China:				Sept. 1-30, 1915; Cases, 813;
Anam Province.....	Sept. 1-30.....	127	92	deaths, 549.
Cambodia Province.....	do.....	1	1	
Cochin China Province.....	do.....	15	8	
Saigon.....	Oct. 25-Nov. 28.....	4	3	
Do.....	Jan. 3-Apr. 2.....	7	3	
Tonkin Province.....	Sept. 1-30.....	670	448	
Java.....				Oct. 15-Dec. 6, 1915: Cases, 86;
Batavia.....	Oct. 26-Dec. 27.....	55	36	deaths, 58.
Do.....	Jan. 11-Mar. 15.....	6	5	Apr. 14, 1916: Epidemic.
Brebes.....	Oct. 15-Dec. 9.....	10	10	
Cheribon.....	Dec. 28-Jan. 3.....	1	.....	Vicinity of Batavia.
Modjokerto.....	Feb. 26-Mar. 3.....	1	1	
Persia:				
Enzeli.....	Nov. 6-12.....	.....	10	Nov. 22, 1915: Still present.
Do.....	Feb. 6-Mar. 2.....	.....	11	Present.
Essaleme.....	Nov. 28.....	.....	7	
Gazian.....	Nov. 6-12.....	.....	4	
Karkhan-Roud.....	Nov. 28.....	.....	38	And in vicinity.
Kazvin.....	Nov. 27.....	.....	10	
Resht.....	Nov. 24.....	.....	.....	And vicinity: Present.
Do.....	Feb. 6.....	.....	.....	Present.
Philippine Islands:				
Manila.....	Dec. 26-Jan. 1.....	1	1	
Do.....	Jan. 2-Mar. 4.....	25	12	
Russia:				
Moscow.....	Nov. 14-27.....	4	1	
Siam:				
Bangkok.....	Jan. 9-Mar. 18.....	5	6	
Turkey in Asia:				
Trebizond.....	Dec. 2-4.....	15	10	Dec. 1-31, 1915: Present.
Do.....	Jan. 8.....	.....	.....	Present.

### **PLAGUE.**

Argentina:				
Cordoba Province.....	Dec. 19-Jan. 22.....	49	11	In 10 localities.
Brazil:				
Bahia.....	Nov. 21-Feb. 19.....	18	11	
Ceylon:				
Colombo.....	Oct. 24-Dec. 25.....	37	31	
Do.....	Jan. 2-Apr. 8.....	59	58	
China:				
Hongkong.....	Nov. 7-Jan. 1.....	4	4	
Do.....	Jan. 2-Mar. 11.....	5	5	

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

**Reports Received from Jan. 1 to June 2, 1916—Continued.**

## **PLAGUE—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Ecuador:</b>				
Guayaquil.....	Nov. 1-30.....	1	1	
<b>Egypt:</b>				
Alexandria.....	Dec. 23-31.....	2		Jan. 1-Dec. 31, 1915: Cases, 285; deaths, 120. Jan. 1-Apr. 20, 1916: Cases, 836; deaths, 411.
Do.....	Apr. 1.....	1		
Assiout Province.....	Dec. 17-31.....	4	2	
Do.....	Jan. 2-Apr. 20.....	233	100	
Assouan Province.....	Mar. 17-30.....	2	1	
Beni-Souef Province.....	Mar. 23-Apr. 20.....	47	19	
Payoum Province.....	Jan. 23-Apr. 20.....	279	118	
Garbieh Province.....	Dec. 6-28.....	6	48	
Do.....	Jan. 10-Feb. 13.....	2	1	
Girgeh Province.....	Feb. 18-Apr. 12.....	40	30	
Gizeh Province.....	Dec. 27.....	1		
Do.....	Mar. 5-Apr. 13.....	22	6	
Kenah Province.....	Feb. 15-22.....	4	3	
Minieh Province.....	Nov. 27-Dec. 31.....	13	9	
Do.....	Jan. 1-Apr. 20.....	133	64	
Port Said.....	Aug. 13-Nov. 1.....	3	2	
Do.....	Apr. 6-19.....	3	1	
Suez.....	Jan. 10.....	1		On s. s. Syria, from Bombay.
<b>Greece:</b>				
Athens.....	Dec. 8-20.....		1	
Piræus.....	Jan. 29.....	7	5	
Syra Island.....	Jan. 16.....	16	10	
<b>India:</b>				
Akyab.....	Jan. 16-29.....			Oct. 31, 1915-Jan. 1, 1916: Cases, 40,533; deaths, 34,225. Jan. 2-Apr. 1: Cases, 103,243; deaths, 83,566.
Bassein.....	Dec. 26-Jan. 1.....		3	
Do.....	Jan. 2-Apr. 1.....		88	
Bombay.....	Nov. 9-Jan. 1.....	53	51	
Do.....	Jan. 2-Apr. 15.....	1,242	915	
Calcutta.....	Nov. 21-27.....		1	
Do.....	Jan. 2-Apr. 1.....		17	
Henzada.....	Dec. 26-Jan. 1.....		1	
Do.....	Jan. 2-Apr. 1.....		314	
Karachi.....	Nov. 7-20.....	2	2	
Do.....	Mar. 25-Apr. 15.....	2	2	
Madras.....	Jan. 2-8.....	1		
Madras Presidency.....	Oct. 16-Nov. 5.....		118	Madras Presidency, Aug. 1, 1898, to June 30, 1915: Cases, 141,356; deaths, 100,085.
Do.....	Nov. 12-Jan. 1.....	1,839	1,288	
Do.....	Jan. 9-Apr. 15.....	4,901	3,415	
Mandalay.....	Oct. 24-Jan. 1.....		266	
Do.....	Jan. 2-Apr. 1.....		1,139	
Moulmein.....	Feb. 13-Apr. 1.....		94	
Myingyan.....	Jan. 30-Mar. 18.....		45	
Pakkokku.....	Mar. 12-18.....		1	
Pegu.....	Jan. 9-Apr. 1.....		84	
Prome.....	do.....		123	
Rangoon.....	Oct. 1-Dec. 18.....	63	66	
Do.....	Jan. 2-Apr. 1.....	825	778	
Toungoo.....	Jan. 10-Apr. 1.....		8	
<b>Indo-China:</b>				
Anam Province.....	Sept. 1-30.....	9	5	Sept. 1-30, 1915: Cases, 72; deaths, 65.
Cambodia Province.....	do.....	20	19	
Cochin China Province.....	do.....	2		
Saigon.....	Oct. 25-Dec. 5.....	3	5	
Do.....	Jan. 3-Mar. 19.....	59	24	
Tonkin Province.....	Sept. 1-30.....	41	41	
<b>Java:</b>				
Kediri residency.....	Oct. 22-Dec. 30.....	527	507	Nov. 19-Dec. 30, 1915: Cases, 1,689; deaths, 1,633. Year 1915: Cases, 4,884; deaths, 4,482, among Chinese and natives.
Do.....	Jan. 1-Feb. 25.....	163	159	
Madison residency.....	Oct. 22-Nov. 11.....	1	1	Jan. 1-Feb. 25, 1916: Cases, 775; deaths, 727.
Do.....	Jan. 15-Feb. 25.....	37	17	
Paseroean residency.....	Oct. 22-Dec. 30.....	49	50	
Do.....	Oct. 22-Dec. 30.....	43	42	
Surabaya residency.....	Oct. 22-Dec. 30.....	24	24	
Do.....	Jan. 1-Feb. 25.....	68	68	
Surabaya.....	Nov. 5-Dec. 30.....	12	12	
Do.....	Jan. 1-Feb. 18.....	57	57	
Surakarta residency.....	Oct. 22-Dec. 16.....	1,055	1,056	
Do.....	Jan. 1-Feb. 25.....	434	441	
Mauritius.....	Oct. 1-Dec. 30.....	8		
Do.....	Jan. 10-Mar. 2.....	3		

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

## **Reports Received from Jan. 1 to June 2, 1916—Continued.**

### **PLAGUE—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Peru.....				Jan. 1-Dec. 31, 1915: Cases, 455; deaths, 240. In addition, 18 cases, cause of disease unknown.
Ancachs Department.....	Jan. 1-Dec. 31, 1915	8	6	
Arequipa Department.....	do	23	15	
Callao Department.....	do	39	13	
Lambaveque Department.....	do	102	38	
Libertad Department.....	do	123	63	
Lima Department.....	do	104	63	
Piura Department.....	do	52	33	
Tumbez, Province, Piura.....	do	4	9	
Russia:—				
Siberia—				
Transbaikal Province..	October, 1914.....	16	13	
Straits Settlements:				
Penang.....	Nov. 28-Dec. 4.....	1	1	
Singapore.....	Oct. 31-Dec. 18.....	5	2	
Do.....	Feb. 20-26.....	1	1	
Siam:				
Bangkok.....	Nov. 14-20.....		1	
Do.....	Jan. 2-Mar. 18.....	191	179	
Union of South Africa:				
Orange Free State.....	Jan. 23-Mar. 19.....	36	22	
At sea.....	Dec. 29, 1915-Jan. 10, 1916.	4		On s. s. Syria, from Bombay. Three cases left at Aden; 1 arrived Jan. 10 at Suez.

### **SMALLPOX.**

Algeria:				
Algiers.....	Dec. 1-31.....	1		
Australia:				
New South Wales.....				Nov. 19-Dec. 30, 1915: Cases, 62. Jan. 7-Mar. 23, 1916: Cases, 28. Suburb of Sydney.
Auburn.....	Jan. 21-Feb. 4.....	2		
Bega district.....	Dec. 10-16.....	1		
Bulahdelah district.....	Jan. 3-6.....	1		
Chatswood district.....	Feb. 4-10.....	1		Do.
Cundletown.....	Dec. 24-30.....	3		
Do.....	Jan. 7-13.....	2		
Forster district.....	Jan. 21-27.....	1		
Gloucester district.....	Dec. 10-16.....	1		
Kempsey.....	Jan. 7-13.....	1		On s. s. Yulgilbar from Sydney. Case returned to Sydney.
Newcastle district.....				Nov. 19-Dec. 30, 1915: Cases, 53. Jan. 7-Mar. 23, 1916: Cases, 17.
Newcastle.....	Mar. 31-Apr. 13.....	7		
Wallsend.....	Jan. 3-6.....	1		
Rooty Hill district.....	Dec. 10-16.....	1		
Singleton district.....	Feb. 4-24.....	2		
Sydney.....	Dec. 3-10.....	10		
Do.....	Jan. 3-6.....	1		
Taree district.....	Jan. 7-13.....	2		Apr. 6, 1916, 1 case from s. s. Clan Maccorquodale from Marseille. Case in member of crew taken on at Colombo. Removed to North Head quarantine station.
Wyong district.....	Jan. 3-6.....	1		
Austria-Hungary:				
Austria.....				Nov. 7-Dec. 4, 1915: Cases, 3,600. Jan. 16-Feb. 12, 1916: Cases, 7,824.
Prague.....	Jan. 9-15.....	1		
Trieste.....	Feb. 20-26.....	2		
Vienna.....	Dec. 10-Jan. 1.....	24	3	
Do.....	Jan. 2-Apr. 29.....	149	38	
Hungary—				
Budapest.....	Nov. 21-Dec. 31.....	373		In addition, Jan. 1-8, 3 among troops.
Do.....	Jan. 1-Apr. 22.....	201	6	
Brazil:				
Rio de Janeiro.....	Nov. 14-Jan. 1.....	147	31	
Do.....	Jan. 2-Mar. 18.....	108	25	
British East Africa:				
Mombasa.....	Dec. 1-31.....	2	2	
Do.....	Jan. 1-31.....		1	
Canada:				
Alberta—				
Calgary.....	Mar. 5-25.....	2		
Manitoba—				
Winnipeg.....	Feb. 10-Apr. 29.....	13		

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

## **Reports Received from Jan. 1 to June 2, 1916—Continued.**

### **SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Canada—Continued.</b>				
<b>Ontario—</b>				
Port William and Port Arthur.	Dec. 19-25.....	2		
Do.....	Jan. 16-Apr. 29.....	2		
Niagara Falls.....	Mar. 19-Apr. 22.....	2		
<b>Quebec—</b>				
Montreal.....	Dec. 19-25.....	1		
Do.....	Jan. 16-May 20.....	6		
<b>Canary Islands:</b>				
Grand Canary.....	Nov. 23.....			
Arucas.....	Dec. 5-18.....			Epidemic.
Las Palmas.....	Jan. 3-9.....		1	Present.
<b>Ceylon:</b>				
Colombo.....	Oct. 24-Nov. 13.....	6	2	
Do.....	Jan. 30-Mar. 25.....	3		
<b>China:</b>				
Antung.....	Jan. 3-Apr. 23.....	3		
Chungking.....	Feb. 27-Apr. 8.....			Do.
Foochow.....	Nov. 21-27.....			Do.
Do.....	Jan. 2-Apr. 16.....			Do.
Harbin.....	Nov. 15-Dec. 26.....	12		
Do.....	Jan. 3-Feb. 13.....	5		
Hongkong.....	Jan. 23-Apr. 15.....	101	8½	
Nanking.....	Nov. 7-Dec. 18.....			Do.
Do.....	Jan. 16-29.....			Do.
Shanghai.....	Feb. 13-Apr. 8.....	3		
Tientsin.....	Nov. 21-27.....		2	
Do.....	Feb. 27-Apr. 8.....	39	19	
<b>Colombia:</b>				
Sincé.....	Jan. 23.....	9		50 miles from Cartagena.
<b>Cuba:</b>				
Guantanamo.....	Jan. 16.....	1		U. S. naval station. Case, mild varioloid from U. S. Louisiana.
Do.....	Jan. 28-Feb. 8.....	1		U. S. naval station. Case, confluent form.
<b>Egypt:</b>				
Alexandria.....	Dec. 21-27.....	3		
Do.....	Mar. 5-11.....	1		
Cairo.....	Sept. 3-Dec. 31.....	9	1	
Port Said.....	Dec. 10-16.....	1		
<b>France:</b>				
Marseille.....	Feb. 1-Mar. 31.....		2	
Paris.....	Dec. 5-11.....	1		
Do.....	Apr. 19-25.....	3		
<b>Germany:</b>				
Bavaria—				Jan. 2-8, 1916: Cases, 2.
Munich.....	Dec. 19-25.....	1		
Berlin.....	Feb. 20-26.....	1		
Breslau.....	Dec. 12-18.....	1	1	
Do.....	Mar. 12-Apr. 8.....	3		
Bromberg, Govt. district.....	Jan. 2.....	1		
Dusseldorf.....	Dec. 5-11.....	1		
Gumbinnen, Govt. district.....	Jan. 2-8.....	1		
Hamburg.....	Dec. 26-Jan. 1.....	1		
Lüneburg, Govt. district.....	Feb. 13-19.....	1		
Oppeln, Govt. district.....	Nov. 21-Dec. 25.....	14		Of these, 8 in one institution.
Do.....	Jan. 2-8.....	1		
Saxony.....	Nov. 21-Dec. 25.....	1		
<b>Great Britain:</b>				
Bristol.....	Jan. 30-Feb. 5.....	1		On s. s. from Bombay.
Cardiff.....	Jan. 30-May 6.....	36	1	
Liverpool.....	Mar. 19-Apr. 8.....	7		From vessels.
Manchester.....	Feb. 20-26.....	1		
South Shields.....	Mar. 5-Apr. 22.....	5	1	
<b>Greece:</b>				
Athens.....	May 9.....			Prevalent.
Piræus.....	Jan. 31.....			Present in virulent form.
<b>Guatemala:</b>				
Guatemala City.....	Jan. 9-Mar. 19.....			Present.
<b>India:</b>				
Bassein.....	Jan. 30-Feb. 5.....		1	
Bombay.....	Nov. 7-Jan. 1.....	163	67	
Do.....	Jan. 2-Apr. 15.....	1,486	761	
Calcutta.....	Nov. 7-Jan. 1.....		3	
Do.....	Jan. 9-Apr. 1.....		37	

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

**Reports Received from Jan. 1 to June 2, 1916—Continued.**

## **SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
India—Continued.				
Karachi.....	Jan. 30–Mar. 25....	5	1	
Madras.....	Nov. 7–Jan. 1.....	46	20	
Do.....	Jan. 2–Apr. 15.....	865	281	
Rangoon.....	Oct. 31–Dec. 11....	14	7	
Do.....	Jan. 2–Apr. 1.....	449	125	
Toungoo.....	Dec. 5–11.....		1	
Indo-China:				
Saigon.....	Feb. 28–Apr. 2....	9	1	
Italy:				
Turin.....	Nov. 22–Dec. 5....	6		
Japan:				
Kobe.....	Apr. 17–23.....	12	1	
Yokohama.....	Jan. 17–Mar. 19....	12	2	
Java:				Oct. 15–Dec. 30, 1915: Cases, 558; deaths, 118. Jan. 1–Mar. 15, 1916: Cases, 313; deaths, 74.
Batavia.....	Nov. 9–Jan. 3.....	36	13	
Do.....	Jan. 4–Mar. 15....	35	21	
Samarang.....	Nov. 12–22.....	2		
Do.....	Feb. 12–25.....	4	2	
Surabaya.....	Feb. 19–25.....	2	2	
Malta.....	Dec. 1–31.....	1		
Manchuria:				See China.
Harbin.....	Nov. 15–28.....	5		
Mexico:				
Aguascalientes.....	Dec. 13–Jan. 2....	11	7	
Do.....	Jan. 10–May 14....		354	
Campeche.....	May 3.....	4		
Chihuahua.....	Jan. 3–9.....	1	1	
Frontera.....	Nov. 21–Dec. 25....	86	24	Dec. 26–31, 1915: Present.
Do.....	Jan. 1–May 6.....		24	Present Jan. 1–Feb. 10; estimated number cases, 70.
Guadalajara.....	Dec. 5–25.....	21	7	
Do.....	Jan. 2–May 6.....	170	55	
Hermosillo.....	Dec. 12–Mar. 4....	141	29	Feb. 13, from 50 to 100 (estimated) cases present within radius of 50 miles of city.
Juarez.....	Feb. 11–Mar. 19....	13		Including 53 cases brought Feb. 9–15, from Sonora.
Laguna.....	May 3.....	10		Feb. 29, 2 cases on train from Mexico City to El Paso.
Mazatlan.....	Jan. 25–May 9.....	65	54	
Mexico City.				
Monterey.....	Dec. 13–19.....	5	3	
Do.....	Jan. 3–May 7.....	46	3	
Naco.....	Feb. 15.....	2		
Nogales.....	Feb. 7–Mar. 4.....	27	3	
Piedras Negras.....	Jan. 10–May 6.....	23	24	
Progreso.....	Dec. 5–18.....	2		
Salina Cruz.....	Jan. 1–15.....	1	1	
Tampico.....	Dec. 7–31.....		21	Jan. 14: Epidemic: estimated cases, 100.
Do.....	Jan. 1–Apr. 20....		111	
Vera Cruz.....	Dec. 13–Jan. 1....	34	29	
Do.....	Jan. 3–May 7.....	124	96	
Netherlands:				
Amsterdam.....	Jan. 15–Apr. 22....	41	4	
Persia:				
Teheran.....	Nov. 25–Dec. 10....		140	
Porto Rico:				
Arecibo.....	Apr. 29–May 19....	4		
Arroyo.....	do.....	1		
Barros.....	May 13–19.....	3		
Bayamon.....	do.....	1		
Caguas.....	do.....	1		
Carolina.....	Apr. 29–May 19....	2		
Cataño.....	do.....	2		
Fajardo.....	May 13–19.....	3		
Gurabo.....	Apr. 29–May 19....	8		
Humacao.....	do.....	1		
Juncos.....	May 13–19.....	5		
Loiza.....	Apr. 29–May 19....	39		
Mayaguez.....	May 13–19.....	2		
Rio Piedras.....	Apr. 29–May 19....	6		
San Juan.....	do.....	70		
San Lorenzo.....	do.....	7		
Trujillo Alto.....	do.....	62	2	
Utado.....	May 13–19.....	3		
Vieques.....	do.....	1		
Portugal:				
Lisbon.....	Dec. 5–26.....	4		
Do.....	Feb. 13–Apr. 22....	14		

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

**Reports Received from Jan. 1 to June 2, 1916—Continued.**

## **SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Russia:</b>				
Moscow.....	Mar. 5-25.....	138	34	
Petrograd.....	Oct. 24-Dec. 25.....	125	37	
Do.....	Jan. 2-Mar. 18.....	316	112	
Riga.....	Nov. 14-Jan. 1.....	6	.....	Aug. 1-31, 1915: Cases, 10; deaths, 1.
Do.....	Mar. 19-25.....	1	.....	
Siberia—				
Vladivostok.....	Dec. 29-Jan. 4.....	10	3	
<b>Siam:</b>				
Bangkok.....	Nov. 28-Dec. 4.....	.....	1	
<b>Spain:</b>				
Cadiz.....	Dec. 1-31.....	.....	1	
Madrid.....	Nov. 1-Dec. 31.....	.....	41	
Do.....	Jan. 1-Mar. 31.....	.....	106	
Seville.....	Dec. 1-31.....	.....	7	
Do.....	Jan. 1-Mar. 31.....	.....	21	
Tarragona.....	Feb. 13-19.....	.....	1	
Valencia.....	Nov. 21-Jan. 1.....	141	10	
Do.....	Jan. 2-Apr. 22.....	129	9	
<b>Straits Settlements:</b>				
Penang.....	Dec. 26-Jan. 1.....	2	1	
Do.....	Jan. 2-Mar. 18.....	45	10	
Singapore.....	Nov. 28-Jan. 1.....	9	1	
Do.....	Jan. 16-Apr. 1.....	29	6	
<b>Switzerland:</b>				
Basel.....	Nov. 29-Dec. 25.....	43	.....	Jan. 16-22, 1916: Cases, 13; received out of date.
Do.....	Jan. 30-Mar. 11.....	53	.....	
<b>Turkey in Asia:</b>				
Beirut.....	Oct. 10-Dec. 25.....	75	31	
Do.....	Jan. 9-Feb. 12.....	21	9	
<b>Union of South Africa:</b>				
Johannesburg.....	Oct. 17-23.....	2	.....	
Do.....	Mar. 5-11.....	1	.....	
<b>Uruguay:</b>				
Montevideo.....	Oct. 1-31.....	1	.....	
<b>Venezuela:</b>				
Tachira, State.....	Mar. 12.....	.....	.....	Present.

## **TYPHUS FEVER.**

<b>Algeria:</b>				
Algiers.....	Feb. 1-29.....	1	1	
<b>Argentina:</b>				
Rosario.....	Oct. 1-31.....	.....	1	
Do.....	Jan. 1-31.....	.....	1	
<b>Austria-Hungary:</b>				
Austria.....				Nov. 14-Dec. 1, 1915: Cases, 490. Jan. 9-Feb. 12, 1916: Cases, 1,580.
Trieste.....	Feb. 6-12.....	6	.....	
Vienna.....	Jan. 23-29.....	12	2	
<b>Hungary:</b>				Jan. 24-Feb. 6, 1916: Cases, 50; deaths, 4.
Budapest.....	Dec. 12-31.....	3	1	
Do.....	Jan. 1-Apr. 22.....	20	.....	
<b>Canary Islands:</b>				
Santa Cruz de Tenerife.....	Mar. 19-Apr. 8.....	.....	2	
<b>China:</b>				
Antung.....	Nov. 22-Dec. 5.....	2	.....	
Do.....	Mar. 13-19.....	1	.....	
Chefoo.....	Apr. 9-15.....	1	1	
Tientsin.....	Mar. 19-25.....	.....	1	
<b>Cuba:</b>				
Habana.....	Feb. 1-10.....	2	1	Imported from Mexico.
<b>Egypt:</b>				
Alexandria.....	Nov. 12-Dec. 31.....	5	2	
Do.....	Jan. 1-Apr. 15.....	226	59	
Cairo.....	Aug. 13-Dec. 31.....	73	40	
Port Said.....	Nov. 19-Dec. 31.....	1	2	
<b>Germany:</b>				
Aix la Chapelle.....	Jan. 9-Mar. 18.....	.....	3	Feb. 6-10, 1916: Cases, 69; deaths, 16; prisoners. Feb 20-Mar. 4, 1916: Cases, 43; deaths, 1.
Barmen.....	Jan. 2-8.....	2	.....	
Berlin.....	Nov. 21-Jan. 1.....	.....	7	
Do.....	Jan. 30-Apr. 1.....	.....	12	
Bremen.....	Nov. 28-Dec. 4.....	1	1	
Do.....	Jan. 23-Apr. 8.....	2	6	

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

**Reports Received from Jan. 1 to June 2, 1916—Continued.**

## **TYPHUS FEVER—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Germany—Continued.</b>				
Bromberg, Govt. district.	Feb. 20-26.....	1	1	
Chemnitz.....	Jan. 23-Mar. 26.....	1	1	
Dortmund.....	Dec. 12-18.....	1	1	
Erfurt.....	Dec. 19-25.....	1	1	
Do.....	Jan. 2-Mar. 4.....	1	4	
Frankfort on Main.....	Feb. 5-11.....	1	1	
Hanover.....	Nov. 21-Dec. 25.....	2	2	
Do.....	Jan. 9-Mar. 27.....	2	3	
Königsberg.....	Nov. 28-Jan. 1.....	10	10	
Do.....	Jan. 1-Apr. 22.....	27	4	
Lübeck.....	Nov. 7-Dec. 31.....	3	2	
Do.....	Jan. 1-8.....	1	1	
Marburg.....	Feb. 20-26.....	1	1	
Merseburg, Govt. district.....	Dec. 26-Jan. 1.....	1	1	
Oppeln, Govt. district.....	Jan. 23-29.....	1	1	
Saxe-Coburg-Gotha.....	Dec. 5-18.....	3	3	
Do.....	Jan. 9-15.....	1	1	
Saxony.....	Feb. 20-26.....	37	1	
Stettin, Govt. district.....	Dec. 5-25.....	1	6	
Do.....	Jan. 9-26.....	1	2	
<b>Great Britain:</b>				
Cardiff.....	Apr. 23-29.....	1	1	
Dundee.....	Dec. 12-18.....	3	3	
Glasgow.....	Feb. 11-Mar. 1.....	9	9	
Liverpool.....	Dec. 5-18.....	3	2	
Do.....	Mar. 5-11.....	1	1	
Manchester.....	Jan. 23-29.....	5	1	
<b>Greece:</b>				
Saloniki.....	Oct. 24-Jan. 2.....	1	186	Dec. 10: Present among troops.
Do.....	Jan. 3-Apr. 2.....	1	29	
Do.....	Mar. 27-Apr. 2.....	1	2	
Yehije-Vardar.....	Dec. 10.....	1	1	Present among troops.
<b>Italy:</b>				
Palermo.....	Dec. 13-19.....	3	3	
Do.....	Jan. 3-9.....	3	3	
<b>Japan:</b>				
Tokyo.....	Feb. 27-Apr. 23.....	219	219	Jan. 1-Apr. 23, 1916: Cases, 299.
<b>Java:</b>				
Batavia.....	Oct. 26-Jan. 3.....	25	13	Oct. 15-Dec. 30, 1915: Cases, 42;
Do.....	Jan. 3-Mar. 1.....	63	13	deaths, 28. Jan. 3-Mar. 3, 1916:
Kediri.....	Feb. 19-25.....	1	1	Cases, 80, deaths, 24.
Samarang.....	Oct. 22-Dec. 7.....	7	1	
Do.....	Jan. 1-Feb. 25.....	18	7	
<b>Mexico:</b>				
Aguascalientes.....	Dec. 13-Jan. 2.....	1	12	
Do.....	Jan. 10-May 14.....	1	110	
Guadalajara.....	Dec. 25-31.....	6	2	
Do.....	Feb. 6-May 6.....	178	40	
Hermosillo.....	Feb. 4-22.....	3	3	
Juarez.....	To Mar. 19.....	5	5	
Mexico City.....	Dec. 23.....	1	1	Prevalent.
Do.....	Jan. 12.....	1	1	Jan. 1-31, 1916: Cases, 2,001
Monterey.....	Jan. 3-9.....	1	1	deaths, 488.
Oaxaca.....	Dec. 9.....	1	1	American.
Piedras Negras.....	Mar. 5-18.....	2	2	
Queretaro.....	Dec. 16.....	1	1	Prevalent. Estimated number
Salina Cruz.....	Dec. 16-21.....	1	1	cases, 500.
Do.....	Feb. 1-15.....	1	1	In person from Mexico City.
Tampico.....	Dec. 1-31.....	1	1	
Do.....	Jan. 11-Apr. 10.....	6	6	Apr. 24, 1916: Present.
Vera Cruz.....	Feb. 7-Apr. 16.....	6	6	
<b>Russia:</b>				
Moscow.....	Dec. 7-27.....	28	5	Nov. 28-Dec. 11, 1915: Cases, 22.
Do.....	Jan. 2-Mar. 25.....	1,239	123	
Petrograd.....	Oct. 24-Dec. 25.....	34	6	
Do.....	Jan. 2-Mar. 18.....	67	17	
Riga.....	Nov. 14-20.....	12	12	
Do.....	Mar. 12-18.....	2	2	
Vladivostok.....	Oct. 8-Nov. 13.....	21	6	
<b>Spain:</b>				
Madrid.....	Nov. 1-30.....	1	1	
Do.....	Feb. 1-29.....	1	1	

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

**Reports Received from Jan. 1 to June 2, 1916—Continued.**

**TYPHUS FEVER—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Sweden:				
Stockholm .....	Dec. 26-Jan. 1.....	1 .....		
Do .....	Feb. 6-26.....	5 .....		
Switzerland:				
Zürich .....	Jan. 16-22.....	1 .....		
Turkey in Asia:				
Adana .....	Mar. 26-Apr. 1.....			Present.
Aleppo .....	Oct. 26-Nov. 1.....			Estimated deaths, 203 daily.
Bagdad district .....	Feb. 23.....			Prevalent.
Beirut .....	Nov. 21-27.....	7 .....	3 .....	
Do .....	Jan. 23-Feb. 12.....	20 .....	10 .....	
Damascus .....	Feb. 1-29.....	1,100 .....	150 .....	Estimated; among troops.
Mersina .....	Nov. 21-27.....	3 .....		
Tarsus .....	Mar. 26-Apr. 1.....			Present.

**YELLOW FEVER.**

Ecuador:				
Guayaquil .....	Nov. 1-30.....	1 .....	1 .....	
Mexico:				
Frontera .....	Apr. 20.....		1 .....	

# SANITARY LEGISLATION.

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## COURT DECISIONS.

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### KANSAS SUPREME COURT.

#### **A City Ordinance Providing Stricter Regulations and Imposing More Severe Penalties than State Regulations on the Same Subject Held to be Valid.**

KANSAS CITY *v.* HENRE. (Dec. 11, 1915.)

A city ordinance which provided a higher standard for milk sold in the city than that required by the State regulations and which imposed more severe penalties for its violation than those imposed for violating the State regulations was held by the court to be reasonable and valid.

The State Board of Health of Kansas, by authority of a State law, established certain standards for milk sold in the State. The city of Kansas City, Kans., adopted an ordinance establishing a higher standard for milk sold in the city.

A dealer was convicted of selling milk which was below the standard required by the city ordinance. He asserted that the city ordinance was void because it was in conflict with the State regulations, but the Supreme Court of Kansas decided that the city ordinance was valid.

The court (Johnston, Chief Justice) said (153 Pac. Rep., 548) :

"The difference in the standards fixed is not great, but it is substantial, and the question arises whether the city can prescribe higher standards and greater restrictions in the sale of milk than the State prescribes and may impose a more severe penalty for the violation of the ordinance than is annexed by the State for a violation of the statute. The power of the city in this respect is derived from the State, and is only such as is clearly conferred by statute. Kansas City has adopted the commission form of government, and the legislature has authorized such cities to enact ordinances for all named purposes not repugnant to the constitution and laws of the State. One of the purposes specifically named is to make regulations to secure the general health of the city. (Gen. Stat. 1909, secs. 1243, 1273.) The ordinance regulating the sale of milk comes clearly within the power so conferred, and, unless it conflicts with the statutes or constitution or is clearly unreasonable, it must be upheld. It is well settled in this State that, where power is conferred upon cities to enact ordinances for the preservation of peace and good order within the city or for the preservation of the health of its inhabitants, it may be exercised, although the legislature has provided State regulations on the same subjects. (Franklin *v.* Westfall, 27 Kans. 614; Monroe *v.* City of Lawrence, 44 Kans. 607, 24 Pac. 1113, 10 L. R. A. 520; In re Thomas, Petitioner, 53 Kans. 659, 37 Pac. 171; In re Jahn, Petitioner, 55 Kans. 694, 41 Pac. 956; Assaria *v.* Wells, 68 Kans. 787, 75 Pac. 1026.) An ordinance may not be enacted which conflicts with or will operate to nullify the State law. (Assaria *v.* Wells, *supra*; In re

Van Tuyl, 71 Kans. 659, 81 Pac. 181.) A city may not by ordinance authorize that which a statute prohibits, nor punish the doing of an act which the statute expressly authorizes, but, as we have seen, it is competent for a city, under the authority of the legislature, to provide that an act shall be an offense against the authority of the city, although the same act is made an offense against the State. An ordinance enacted in the exercise of the police power is not necessarily inconsistent with a State law on the same subject because the city provides for greater restrictions or makes higher standards than is provided or made by the statute. (*Walker v. Railway Co.*, 95 Kans. 702, 149 Pac. 677.) Nor is an ordinance repugnant to a statute merely because the penalty prescribed is greater than is fixed by the statute for the commission of a like offense. (*Minneola v. Naylor*, 84 Kans. 147, 113 Pac. 309; *Stark v. Geiser*, 90 Kans. 504, 135 Pac. 666.)

"It is argued that regulations of the kind in question should be uniform, and that there is no good reason for prescribing different standards of milk in a city than is generally provided for the people of the State. As was noted in *Walker v. Railway Co.*, supra, it may be necessary to make additional requirements and stricter regulations and to impose more severe penalties in a congested district like a city than are made and enforced in a rural district. In *Town of Neola v. Reichart*, 131 Iowa, 492, at pages 497, 109 N. W. 5, at page 7, this question was under consideration, and it was held that municipalities are warranted in making other and greater restrictions than are provided for the State at large.

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"There is a conflict in the authorities on the question involved here; but, under the view which has been taken in this State, the additional regulations and the superadded penalties are not repugnant to the State statute, nor can they be deemed to be unreasonable. \* \* \*"

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

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### **OLEAN, N. Y.**

#### **Sewers—Connections With—Use of Privies and Cesspools to be Discontinued Where Sewer Connections are Possible. (Reg. Bd. of H., June 28, 1915.)**

SECTION 1. No privy vaults, cesspools, or similar receptacles used to receive fecal matter, urine, or sewage shall be hereafter used upon any premises in the city of Olean which adjoin any street in which there is a public sewer any part of which said premises is used as a dwelling, factory, shop, or mercantile establishment, and all such privy vaults, cesspools, and similar receptacles shall be cleaned in a sanitary manner, filled up, and abandoned.

SEC. 2. Whenever a public sewer is hereafter constructed in any street no such privy vault, cesspool, or similar receptacles hereinbefore described shall be used upon any premises adjoining such street, any part of which is used for the purposes specified in section 1 of this regulation after 30 days from the completion of such public sewer, and all such privy vaults, cesspools, and similar receptacles shall be cleaned, filled, and abandoned within 30 days after the completion of such sewer.

SEC. 3. Any person who shall use any such privy vault, cesspool, or similar receptacle or permit the same to be used upon premises owned or occupied by him in violation of this regulation shall be liable to a penalty of \$10 for each offense. Any person being the owner or occupant of any premises who shall fail or neglect to fill up and abandon any such privy vault, cesspool, or similar receptacle, as provided by this regulation for a period of 10 days after notice so to do to be given by the inspector of the board of health, shall be liable to a penalty of \$5 for each and every day thereafter during which the same remains not filled up and abandoned.

[This regulation was effective Sept. 1, 1915.]

### **OMAHA, NEBR.**

#### **Communicable Diseases—Notification of Cases—Placarding—Quarantine— School Attendance—Disinfection—Burial. (Ord. 8903, July 22, 1915.)**

SECTION 1. That rule 9 of chapter 70 of Thomas's Revised Ordinances of the year 1905 be, and the same is hereby, amended to read as follows:

RULE 9. Whenever any physician or other person in the city of Omaha shall know or have any reason to suspect the existence of any cases of cholera, yellow fever, cerebrospinal meningitis, varioloid, chicken-pox, measles, scarlet fever, diphtheria, membranous croup, poliomyelitis, tuberculosis, whooping cough, mumps, typhoid fever, or other contagious or infectious disease, within the corporation limits of said city or within 3 miles thereof, he shall immediately notify the commissioner of health by telephone, to be followed

by a written report within 24 hours on blanks supplied by the health department, together with its location and the name of the person or persons, if known, afflicted with such disease; and immediately upon such notice being given of a case of scarlet fever, diphtheria, membranous croup, smallpox cerebrospinal meningitis, and poliomyelitis the commissioner of health shall cause a placard with the name of the disease to be placed in a conspicuous place on the outside of said house, if within the city of Omaha, which placard shall not be removed except by order of the commissioner of health, and no child or person residing or being at any house where any person is sick or afflicted by any of the diseases last above mentioned shall attend any private, public, or sectarian school, church, theater, or other public or private gathering in said city until authorized to do so by the commissioner of health and until said house has been properly fumigated and disinfected to the satisfaction of the commissioner of health, who shall certify to the same; and it shall be the duty of any physician attending cases under quarantine to report to the commissioner of health the date of the recovery or death of such patient; and in case of death or recovery from any contagious disease the house used by the sick person shall be thoroughly disinfected, cleaned, and fumigated and such other precaution taken as the commissioner of health may direct.

The remains of any person dying of any contagious disease shall be disinfected by being wrapped thoroughly in cloths saturated with bichloride of mercury solution or other disinfectant approved by the health commissioner before being placed in the casket.

Any person or persons violating the provisions of this rule shall on conviction thereof be fined in any sum not less than \$10 nor more than \$100 for each offense.

SEC. 2. That rule 9 of chapter 70 of Thomas's Revised Ordinances of the year 1905, as the same heretofore existed, be, and the same is hereby, repealed.

### **ORANGE, N. J.**

#### **Meat and Meat Products—Sale and Protection. Care and Removal of Offal in Stores and Markets. (Ord. Aug. 31, 1915.)**

1. No beef, pork, veal, mutton, or lamb, nor any part of any animal from which any of said meats is obtained, shall be sold for food purposes or exposed for sale or held in possession in a store in which food is sold, unless the said animal has been examined both before and after slaughter by a meat inspector duly appointed by the United States Government, or by some other competent public official, and has been passed as fit for food and has been stamped with a proper identification mark or marks according to the system adopted by the United States Bureau of Animal Industry. The provisions of this ordinance shall be construed to apply to all meat sausages, chopped meats, and edible viscera.

2. All meats delivered in the city of Orange, either by wholesalers or retailers, shall be protected from contamination by flies, dust, and dirt while in process of delivery; and no meat (fish and poultry included) shall be exposed for sale outside any market or store.

3. All scrap meat, decayed vegetables, waste, or offal which shall accumulate in any market or store in the city of Orange shall be kept in water-tight, fly-proof metal containers when placed outside said market or store and shall be removed only, in such wagons or other conveyances as shall be approved for that purpose by this board.

Any person, firm, or corporation violating any of the regulations above set forth shall, upon conviction thereof, forfeit and pay a penalty of \$25 for each offense.

**PALESTINE, TEX.****Foodstuffs—Protection of—Licensing of Establishments Where Produced or Sold. (Ord. Aug. 10, 1915.)**

**SECTION 1.** By food products, as used in this ordinance, is meant any substance, whether solid or liquid, and whether of animal or vegetable origin, intended to be used or commonly used as food or drink for human beings. By food-products establishments, as used in this ordinance, is meant any place or establishment occupied, used, or maintained for the purpose of selling, offering for sale, exposing for sale, or keeping with the intention of selling, any food products such as ice factories, slaughterhouses, meat markets, butcher shops, fish markets, dairies, bakeries, confectioneries, ice-cream factories and parlors, cold-storage establishments, barns, or other places for handling and preparing for sale of dairy products, or cooked or prepared foodstuffs; hotels, restaurants, grocery stores, fruit markets, vegetable markets, vegetable and fruit venders peddling by wagon or otherwise, soda fountains, bottling works, saloons, bar-rooms, breweries, slaughter pens, and all businesses handling or having to do with foodstuffs. And also every room used for the purpose of any such business in the keeping, storing, manufacturing, preparing, handling, distributing, selling, serving, or offering for sale any meat, fish, or slaughtered poultry, meat products, bread, cakes, pastry, confectionery, milk, butter, or other dairy products; fruit, vegetables, groceries, or other foodstuffs, whether raw or cooked or otherwise prepared, or any liquid intended as food or drink for human beings, whether of an alcoholic or nonalcoholic nature; and also all places and premises connecting with any such rooms.

**SEC. 2.** No person, firm, or corporation shall establish, maintain, or operate any food-products establishment within the corporate limits of the city of Palestine, or sell or offer for sale its products within said city without first having obtained a license or permit as hereinafter required.

**SEC. 3.** Any person, firm, or corporation desiring a license to establish, maintain, or operate a food products establishment or to sell or offer for sale its products shall make written application to the city food inspector, stating the name and the residence of the applicant, if an individual, or all the members of the firm, if a partnership, or the name and residences of the applicants, principal officers, if the applicant is a corporation; also the location and description of the premises where such food products establishment is to be conducted. The city food inspector shall then make, or cause to be made, an investigation of the premises named and described in said application for the purpose of determining the fitness and suitability of such premises for a food products establishment from a sanitary standpoint. The city food inspector shall then transmit to the superintendent of police and public safety, the said application, together with his recommendation for or against the issuance of a license. If the superintendent of police and public safety shall be satisfied that the premises where the food products establishment is to be located are proper and suitable from a sanitary standpoint, he shall cause to be issued a license or permit in accordance with such application. All such licenses or permits shall be numbered consecutively and shall be in form prescribed by the city food inspector.

**SEC. 4.** Every such applicant upon compliance with the aforesaid requirements and the payment in advance to the city secretary the sum of \$1 semi-annually and a proportionate amount if for less than six months shall receive a license or permit under the corporate seal signed by the mayor and attested by the city secretary which shall authorize the applicant to establish, maintain, or operate a food products establishment at the place therein desig-

nated. Such licenses or permits shall expire on the first days of January and July of each year. Proof must be furnished by the applicant to the superintendent of police and public safety that said applicant is not liable for a license fee and had not established, maintained, or operated a food products establishment without a license prior to the date fixed in his application.

SEC. 5. Every person, firm, or corporation licensed in accordance with the provisions of this ordinance shall immediately post said license or permit or cause it to be posted in a conspicuous place within the premises where such food products establishment is thereby authorized to be established, maintained, or operated. Every vehicle used to sell or deliver any such food products shall have attached to it in a conspicuous place or painted thereon the number of the owner's license or permit.

SEC. 6. That it shall be unlawful for the owner, manager, or agent of any food products establishment to sell or permit to be sold, or offer for sale any food products of any kind which are exposed to the air without having the same screened and protected from flies, and any person violating the terms thereof subjects himself to the revocation of his license or permit and shall be punished as hereinafter provided.

SEC. 7. The superintendent of police and public safety shall recommend to the city council the revocation of any permit or license issued under the terms of this ordinance whenever it shall appear to his satisfaction from the recommendation of the city food inspector, or otherwise, that the licensee is not conducting his establishment in a sanitary manner or has violated the provisions of the laws of the State of Texas or the ordinances of the city of Palestine, Tex., or the rules and regulations prescribed by said city food inspector relating to the carrying on of the business named in the license, and the city council may thereupon revoke such permit or license.

SEC. 8. Any person, firm, or corporation who shall establish, maintain, or operate a food products establishment or sell or offer for sale in the city the products of such establishment without first obtaining the license herein provided for, or shall fail to keep such license posted as herein provided or shall continue to conduct or operate such establishment after the revocation of his license or permit or otherwise violate this ordinance shall be punished by fine not less than \$25 nor more than \$200, and every day any such establishment is maintained or operated without such license shall be a separate offense. In case a corporation shall establish, maintain, or operate a food products establishment without first obtaining such license, or shall fail to keep such license posted as herein provided for, or shall continue to conduct such establishment after its license or permit is revoked, any officer, agent, or employee of such corporation conducting said establishment or selling or offering for sale its products shall be liable to such punishment.

### **PEEKSKILL, N. Y.**

#### **Glanders in Horses—Notification of Cases. Stables—Cleaning and Disinfection. (Ord. Oct. 22, 1915.)**

SECTION 1. It shall be the duty of every veterinary, owner, or driver of any horse in the village of Peekskill, suffering from the disease known as glanders, to immediately report such condition to the local health officer.

SEC. 2. The owner or occupant of any blacksmith shop, barn, shed, and stable, or other place used for the keep or stabling of horses in the village of Peekskill, shall, as often as required by the local health officer, thoroughly cleanse and disinfect such places with an approved disinfectant and in such manner as

said health officer may direct, for the prevention of the disease known as glanders.

SEC. 3. Any person violating any of the provisions of this ordinance shall be subject to a penalty of \$5.

### **PITTSBURGH, PA.**

#### **Venereal Diseases—Notification of Cases by Physicians. (Ord. 119, Apr. 39, 1915.)**

SECTION 1. That it shall be the duty of every physician, practicing in the city of Pittsburgh to report to the department of public health by number from his case book or by initial letter all cases of venereal diseases coming under his care, acute or chronic, or of remote diseases traceable thereto as a direct cause, avoiding in every case any history that would in any way disclose the identity of the patient; in every case giving the sex, age, nationality, race, marital or nonmarital state, diagnosis, primary or secondary, duration of the case, and source of infection when possible. That the above rule shall also apply to physicians attending cases of venereal diseases in all public or private institutions, hospitals, dispensaries, clinics, homes, asylums, charitable or correctional institutions.

SEC. 2. All reports made in accordance with the provisions of the previous section and all records of clinical or laboratory examinations indicating persons affected with venereal diseases shall be regarded as confidential, and shall not be open to inspection by the public or any person other than the official custodian of such reports or records in the department of public health and such other persons as may be authorized by law to inspect such reports or records; nor shall the custodian of any such report or record or any other such person divulge any part of any such report or record so as to disclose the identity of the person to whom it relates.

SEC. 3. Any person who shall fail, neglect, or refuse to comply with, or who shall violate any of the provisions of this ordinance, shall, upon conviction thereof in a summary proceeding before any police magistrate of the city of Pittsburgh, be sentenced to pay a fine of not more than \$50, or be imprisoned in the county jail for a period of not more than 30 days in default of payment of said fine.

SEC. 4. The department of public health of the city of Pittsburgh is hereby authorized and empowered to enforce the provisions of this ordinance.

### **PITTSBURGH, PA.**

#### **Spitting—Prohibited in Public Places—Spittoons. (Ord. May 25, 1915.)**

SECTION 1. That, from and after the passage of this ordinance, it shall be unlawful for any person to spit on any public walk, public wharf or landing, or on the floor, platform, stairway, or elevator, or covering used thereon of any railroad or railway station, or other building to which the public has access; or on the floor or platform or steps, or any covering used thereon, of any railroad or railway car, or other vehicle, conveyance, or common carrier used for the transportation of the public.

SEC. 2. It shall be the duty of owners of all buildings, cars, or other vehicles, conveyances, or common carriers, used for transportation of the public in this city or the officers in control thereof, to post and keep posted, in prominent places, conspicuously lettered signs warning the public against violating the

provisions of this ordinance, and calling attention to the penalty for such violation. Where spitting receptacles are provided for the convenience of the public, in buildings, and cars and other vehicles, that are open and in use daily by the public, such receptacles shall be cleansed and disinfected daily; and in buildings, cars, and other vehicles, that are not open or used daily, the said receptacles shall be cleansed and disinfected immediately after each day that such buildings, cars, and other vehicles are used by the public.

SEC. 3. Any person violating the provisions of section 1 of this ordinance, shall, upon conviction thereof in a summary proceeding before the mayor, alderman, or magistrate of the city, be sentenced to pay a fine of \$1 and costs; such fine to be paid into the treasury of the city. In default of payment of such fine and costs, the offender shall be sentenced to be confined in the county jail for a period of not less than one day, nor more than five days.

SEC. 4. Any person or persons, firm or corporations, violating the provisions of section 2 of this ordinance, shall, upon conviction thereof in a summary proceeding before the mayor, alderman, or magistrate of the city, be subject to a fine of not less than \$5, nor more than \$50.

SEC. 5. Any policeman, or other persons authorized by law to make arrests, is hereby empowered to arrest persons violating the provisions of section 1 of this ordinance on trains or cars in motion or in transit, and to take such offenders before the mayor, or the nearest alderman or magistrate.

#### **Manure—Care and Transportation—Receptacles Required to be Fly Proof. (Ord. May 25, 1915.)**

SECTION 1. It shall be the duty of every person owning, controlling, operating, or having in charge any stable, barn, or other place where horses, mules, cows, or other live stock is kept, within the city of Pittston, to have and maintain at all times upon the premises in or adjacent to said stable, barn, or place, a fly-tight receptacle of sufficient dimensions and for the purpose of containing the droppings of manure from said stock, and the same shall have a top or lid so arranged as to be fly tight and to exclude therefrom all flies, and therein to promptly deposit all droppings from said stock, and to keep the lid thereon (except when necessarily open for the purpose of depositing therein or removing therefrom) closed in such manner as to prevent the ingress of flies thereto. And every person having or keeping such manure in the city shall cause the same to be removed from the premises when ordered by the board of health.

SEC. 2. No person shall remove or transport any such manure over any public highway in the city except in a tight vehicle, which, if not inclosed, must be effectually covered with canvas or other suitable material, so as to prevent the manure from falling therefrom.

SEC. 3. Any person violating or failing to comply with the provisions of this ordinance shall be guilty of a misdemeanor and shall be fined not less than \$5 nor more than \$50 for each offense or by imprisonment in the county jail for not to exceed 30 days; and each separate day upon which the offense is committed shall be deemed a separate offense within the purview of this ordinance.

SEC. 4. It shall be the duty of the health officer of the city of Pittston and of all police officers and others vested with police powers to see to the enforcement of this ordinance and to cause the arrest of offenders against the same.

**PORTLAND, ME.****Diphtheria—Release from Quarantine after Negative Cultures. (Reg. Bd. of H., Sept. 3, 1915.)**

**SECTION 1.** All persons quarantined for diphtheria and all contacts or exposed individuals of school age, shall be removed from quarantine only after the obtaining of two successive negative throat cultures. The first culture shall be taken not earlier than the fourteenth day from the beginning of the quarantine and the second culture not earlier than 24 hours after.

**SEC. 2.** In the case of a child of school age removed from an infected household at the beginning of quarantine, two throat cultures at least 24 hours apart shall be obtained as soon as possible, and if the cultures are negative such child may return to school at the end of one week's time after removal from infected household.

**SEC. 3.** These rules have no bearing on the question of immunization which should be performed as usual.

**PORTLAND, OREG.****Certified Milk and Cream—Production, Care, and Sale. (Ord. 30491, May 26, 1915.)**

**SECTION. 1.** The term "certified milk," as used in this ordinance, shall be construed to mean and include milk drawn from animals free from disease and all conditions of whatever kind that might deteriorate the quality of the milk. Certified milk shall be produced from animals free from tuberculosis as shown by the tuberculin test or other accepted tests for the detection of tuberculosis. Certified milk shall not contain more than 10,000 germs or bacteria of all kinds to the cubic centimeter, with an acidity not higher than 0.2 per cent. Certified milk shall not contain less than 4 per cent butter fat, and shall have a specific gravity not less than 1.029 or over 1.034; nor shall the percentage of total solids be less than 12.5 per cent. Certified milk must be produced and handled under sanitary conditions, not subjected to heat, bottled and sealed on the farm within one hour after being drawn from the animal, and maintained at a temperature not higher than 50° F. immediately after milking until delivered to the consumer, which delivery must be made within 24 hours from the time the milk is drawn, and shall contain no adulterants of any kind, and nothing added thereto or subtracted therefrom, without the written consent of the certified milk commission of the city of Portland.

**SEC. 2.** The commissioner in charge of the bureau of health is hereby authorized and empowered and shall appoint annually a competent commission of five persons to be known as the certified milk commission of the city of Portland. Said commission shall consist of the city health officer and chief dairy and milk inspector and three resident physicians. The chief dairy and milk inspector shall act as secretary of the commission. No member of said commission shall be financially interested in the production or sale of certified milk or cream. The members of said commission shall not be entitled to receive any salary or compensation for services rendered, with the following exceptions: Actual expenses incurred in the performance of their duties and medical examinations of all employees.

All employees handling milk or milk utensils shall submit to a medical examination by members of the certified milk commission which shall consist of a physical examination for symptoms of tuberculosis, typhoid fever, diphtheria,

smallpox, scarlet fever, septic sore throat, venereal diseases, or any other contagious or infectious disease. Also laboratory tests of blood, feces, and urine shall be made in all cases where the patient under examination has had or is suspected of having had typhoid fever. Likewise cultures shall be made from the nose and throat of all suspected diphtheria carriers.

No person suffering from inflamed throat or with any communicable disease or who is known to be a typhoid or diphtheria carrier, or who has been exposed to any communicable disease within the previous 30 days, shall be admitted to the stable or dairy building or allowed to handle the milk or milk utensils or any object that directly or indirectly comes in contact with the milk. All examinations of employees of certified dairies requiring laboratory tests of blood, urine, feces, etc., same to be done [sic] in the laboratory of the city bureau of health without charge, all other expenses to be paid by the certified dairies.

SEC. 3. Upon filing an application with the secretary of the certified milk commission by any person for permission to sell, offer for sale, or to dispose of milk or cream within the limits of the city of Portland under the name of and as certified milk or cream, if such application is accompanied by a certificate from a veterinarian designated by the commission or by a certificate satisfactory to the commission, showing all animals in said person's herd to be free from tuberculosis or other diseases of any kind that would deteriorate the quality of the milk, and if a composite sample of milk shall be submitted to the certified milk commission once a day for a term of two weeks for analysis; and if the same shall comply with section 1 as to bacteria, butter fat, solids, and acidity, and his dairy shall score 90 or above according to the Federal Government dairy score card, the certified milk commission shall issue to said person a certificate good for one year, providing conditions of the entire dairy plant and milk is handled satisfactorily to the certified milk commission.

Certified milk and cream shall be produced and handled according to the provisions of this ordinance and the rules and regulations set forth in section 10 of this ordinance, and the dairy farm, dairy herd, utensils, and general equipment for the production of said certified milk or cream shall comply with said rules and regulations.

The first two or three streams from each teat shall be drawn in a separate vessel and be discarded. Cows producing milk other than for certification shall be milked after the certified herd or by other milkers.

*Preparation of cows for milking.*—All sweepings of dry floors, walls, or ceilings must be completed before grooming of cows is begun. At least half an hour before milking the cows shall be thoroughly groomed and cleaned and compelled to remain standing until milked.

All foodstuffs shall be kept in an apartment separate from the cows and used only after milking, and shall not be brought into the stable except just before being fed. Only those foods shall be used which consist of nutritious materials, such as will not affect the taste or character of the milk. The first feeding of grass, alfalfa, ensilage, green corn, or other green feeds must be given in small rations and increased gradually to full rations.

*Preparation of the milkers, their cleaning and their dress.*—Conveniently located facilities shall be provided for the milkers to wash in before and during milking. While engaged about the dairy or in handling the milk employees shall not use tobacco or intoxicating liquors. They shall keep their hands away from their nose and mouth. Before milking the milker's hands shall be thoroughly cleaned by the use of soap and clean warm water and thoroughly dried on a clean towel. He shall be careful not to touch anything but the clean top of the milking stool, the milking pail, and the cow's teats. The hands shall be

kept dry while milking. The milker's hands must be rinsed in clean water and dried after milking each cow. Milkers shall wear clean white suits and caps and shall use not less than two clean suits and caps each week. These suits are to be used only when milking. When not in use they shall be kept in a place especially provided for this purpose.

SEC. 4. No person selling or offering for sale milk not certified shall use the word "certified" in such a way, either upon advertisements or upon wagons, pails, bottles, labels, caps, or in any other manner so that thereby the public may be misled into the belief that such milk is that which is generally known and sold as certified milk. It shall be unlawful for any person to sell or dispose of certified milk or certified cream within the limits of the city of Portland without first procuring from the secretary of the certified milk commission a certificate setting forth the fact that said person has complied with the State law, ordinances, rules and regulations governing the production, handling, and delivery of certified milk and certified cream. But nothing in this ordinance shall be construed to prevent a milk dealer from purchasing certified milk or certified cream from an authorized certified milk or certified cream producer handling and disposing of the same under the provisions of the State law, ordinances, and rules and regulations in effect. The producer, the wholesaler, and the retailer of certified milk and certified cream shall at least once a month notify the certified milk commission of the names and addresses of all persons to whom they are selling or delivering certified milk or certified cream: *Providing, however*, That the retailers shall only so notify when such milk or cream is delivered to the homes of the consumers. It shall be unlawful to open any bottle containing certified milk or certified cream before it reaches the consumer or to remove a milk bottle from a house where a communicable disease exists.

SEC. 5. The certified milk commission of the city of Portland is hereby authorized and empowered to, from time to time, as often as they shall deem it necessary, either by themselves or assistants, to visit and inspect all dairies having a certificate for producing certified milk, and may also take samples of said certified milk or certified cream either at said dairy or from any delivery wagon delivering the same in the city of Portland or from any depot and make tests thereof; and in case the certified milk commission shall find that any such dairy is not being conducted in accordance with the provisions of this ordinance or with the rules and regulations of the certified milk commission for the production of certified milk or certified cream, or that such certified milk or certified cream so sampled and tested is not of the standard hereinabove provided for certified milk or certified cream, the permit issued for the production of certified milk or certified cream to said person shall be automatically revoked, and the certified milk commission shall notify said person in writing of such revocation.

SEC. 6. The term "certified cream" as used in this ordinance shall be construed to mean and include cream produced from certified milk, and shall be subject to the provisions of this ordinance and the rules and regulations prescribed by the commission governing the production, sale, handling, and distributing of certified milk and certified cream. Certified cream shall not contain over 50,000 germs or bacteria of all kinds to the cubic centimeter, and shall not contain less than 30 per cent butter fat.

SEC. 7. Every producer or distributor of certified milk or certified cream shall, at the first appearance of any communicable disease in his household or among his employees, notify the commission immediately in person or by telephone, to be followed at once by a report in writing. Any dairyman sick with a communicable disease or who may have within his household anyone sick with a

communicable disease shall at once cease all shipments of certified milk or certified cream until the commission of the city of Portland shall consent to the renewal of such shipments. It shall be the duty of the commission, after the reporting to them of any communicable disease, to immediately examine into conditions.

Sec. 8. The word "person" as used in this ordinance shall be construed to include and mean the word person, firm, association, copartnership, corporation, or individual. The singular shall be construed to mean and include the plural, and the masculine, the feminine.

Sec. 9. Any person violating any provision of this ordinance shall, upon conviction thereof, be fined in any sum not exceeding \$100, or imprisoned for a term not exceeding 30 days, or to be both so fined and imprisoned.

Sec. 10. That the following rules and regulations be and are hereby adopted:

(a) *Standards*.—1. Certified milk shall not contain over 10,000 bacteria or germs of any kind per cubic centimeter.

2. Certified milk shall not contain less than 4 per cent butter fat.

3. Certified milk shall not contain less than 12.5 per cent total solids.

4. Certified milk shall not contain an acidity of over 0.2 per cent.

5. Certified milk shall have a specific gravity of between 1.029 and 1.034.

6. Certified cream shall not contain over 50,000 bacteria or germs of any kind per cubic centimeter.

7. Certified cream shall not contain less than 30 per cent butter fat.

8. Certified milk and certified cream shall not have a temperature over 50° F. immediately after being drawn.

*Preparation of milkers*.—See section 3 of this ordinance.

(b) *Health and care of animals*.—1. All animals in a certified herd shall be free from any disease of whatever kind likely to deteriorate the quality of the milk.

2. All animals in a certified herd shall show negative reaction to the tuberculin test or other tests for the detection of tuberculosis.

3. If animals in a certified herd should show a positive reaction to the tuberculin test or other tests for the detection of tuberculosis, the animals shall be marked, tagged, or branded in a manner satisfactory to the commission.

4. All animals in a certified herd shall have administered by a veterinarian, recognized by the commission, the tuberculin test or other tests for the detection of tuberculosis at least once a year.

5. No animals shall be added to a certified herd without first having administered the tuberculin test or other tests for the detection of tuberculosis by a veterinarian recognized by the commission.

6. All animals of a certified herd shall be groomed daily; long hairs on the udder and flanks shall be clipped off; and previous to each milking the udders shall be washed with clean warm water and then dried with a clean cloth.

(c) *Stables*.—1. Stables shall be located on well-drained ground and be isolated from all sources of contamination.

2. Stable floors shall be of cement.

3. Stable floors shall be so constructed as to be easily drained and flushed.

4. Drainage from buildings shall be carried underground to a point at least 100 feet from any building used for producing or handling milk, and so far away that any odor from drained openings can not find entrance to the building; and if drain is collected in a tank or pit, the same shall be protected from flies.

5. Stables shall be tightly ceiled and shall have smooth surfaces; both walls and ceilings shall be so constructed as to be easily washed and cleaned.

6. Mangers shall be of cement or other substance impervious to liquids of any kind.

7. Stanchions shall be made of iron or other suitable metal.

8. Stables shall have at least 4 square feet of window space for each cow space.

9. Stables shall have 600 cubic feet of air space for each cow space.

10. Stables shall be equipped with proper ventilation or some system approved by the commission.

11. Stables shall be scrupulously clean at all times and be disinfected once a day.

12. Manure shall be removed twice daily, at least two hours before each milking, 100 feet from stable.

(d) *Barnyard*.—1. The barnyard shall be well drained at all times.

2. The barnyard shall be so located as to be such a distance from the dairy room that will be satisfactory to the certified milk commission.

3. The barnyard shall be clean at all times.

(e) *Pastures*.—1. The pastures shall be free from marsh or stagnant pools.

2. The pastures shall not be crossed by any stream which might easily become dangerously contaminated.

3. Pastures shall be a sufficient distance from offensive conditions to suffer no bad effects from them.

(f) *Dairy room*.—1. The dairy room shall be located so as to be free from contaminating surroundings and be convenient to the stable and milking room. During bottling this room shall not be entered only by persons employed therein.

2. The dairy room shall have no direct connection with the stables, milking room, or dwelling house.

3. The dairy room shall be used for no other purpose than for the handling of milk.

4. The floors, walls, and ceiling of the dairy room shall be so constructed as to be impervious to any liquids of any kind.

5. The dairy room shall be well ventilated.

6. The dairy room shall be so constructed that flies or other insects will be excluded.

7. The dairy room shall be scrupulously clean at all times.

(g) *Wash room*.—1. A wash room shall be provided which shall not be a part of the dairy room, but which shall be in close proximity to the same room.

2. The wash room shall be equipped with all necessary apparatus for the washing and cleansing of milk utensils.

3. The floor, walls, and ceiling of the wash room shall be so constructed as to be impervious to liquids of any kind.

4. The wash room shall be well ventilated.

5. The wash room shall be scrupulously clean at all times.

6. A boiler room shall be provided which shall not be a part of the dairy room or wash room.

(h) *Water supply*.—1. The dairy shall be supplied with pure water, the purity of which shall be determined by analyses made by the bureau of health.

(i) *Utensils*.—1. The dairy room shall be equipped with a sterilizer, where all utensils coming in contact with milk shall, after a thorough washing, be placed in and brought to a temperature of 212° F. and maintained at that temperature for 30 minutes.

2. All utensils shall be constructed of an absolutely nonabsorbent material and so constructed as to be free from ledges, crevices, or holes into which the milk may gather or become putrid.

3. Rusty or corroded utensils shall not be used.
  4. Milk utensils shall be used for no other purpose.
  5. All milk pails shall be of the covered type and shall not have an opening of over 30 square inches.
  6. All utensils coming in contact with the milk shall be thoroughly cleaned and sterilized after each milking, and shall be left in the sterilizer until ready for use.
  7. All milking stools shall be constructed of metal and kept scrupulously clean.
- (j) *Milk and care of milk.*—1. If any part of the milk is bloody, stringy, or unnatural in appearance, or if from an udder with one or more quarters in an abnormal condition, this milk shall be rejected.
2. The milk from animals in a certified herd shall not be used 30 days before and 5 days after parturition, or until such animal shall be again normal.
  3. All milk shall be removed from the stable or milking room immediately after being drawn to the dairy room.
  4. The milk shall be cooled to at least 50° F. immediately after being drawn, and maintained at that temperature until delivered to the consumer.
  5. Milk shall be bottled and sealed within one hour after being drawn.
  6. Milk shall be delivered to the consumer within 30 hours after the same is drawn.
  7. So far as possible the animals shall be grouped or milked in groups so that the milk collected in any short period shall show about the same composition as the average for the herd.

#### Buttermilk—Sale of. (Ord. 30554, June 10, 1915.)

SECTION 1. It shall be unlawful to sell, expose, offer, or hold for sale buttermilk in the city of Portland unless the same conforms to the standards of and is produced and handled in accordance with the provisions of this ordinance.

SEC. 2. For the purpose of this ordinance buttermilk shall be the liquid contents of the churn after churning and the butter has been taken therefrom. Buttermilk shall contain 8.5 per cent of solids and any acidity not to exceed 0.9 of 1 per cent to phenolphthalein indicator.

SEC. 3. Any product made by fermenting or souring milk or skimmed milk with a culture of lactic acid or bulgarian bacteria shall be sold as "lactic milk," "lactic ade," "lactic acid milk," "bulgarian milk" or some such name and not as buttermilk. All such fermented or soured milk shall be pasteurized before being inoculated with the culture. The culture used to ferment or sour such milk shall be approved by the city bacteriologist.

SEC. 4. In all stores, soda fountains, lunch counters, and other places where buttermilk is kept for sale such buttermilk shall be stored or dispensed from glass, porcelain, enamel, or other equally sanitary container. Storing buttermilk in tin or other metallic container is prohibited.

SEC. 5. It shall be unlawful to sell, expose, offer, or hold for sale, or to serve within the city of Portland any unwholesome or adulterated buttermilk, or any buttermilk to which has been added preservatives or any other substance whatever.

SEC. 6. For the purpose of this ordinance unwholesome or adulterated buttermilk shall mean:

- (a) Buttermilk more than 72 hours old (except for cooking purposes).
- (b) Buttermilk that does not have a clean lactic acid flavor and odor.
- (c) Buttermilk containing added water or any added substance.

(d) Buttermilk containing flies, dirt, filth, or contaminated by any other substance that would render it unwholesome.

SEC. 7. All containers used for the storing or dispensing of buttermilk on buttermilk wagons shall be thoroughly washed and steamed at least once each day. It shall be unlawful to use rusty or corroded containers for keeping or dispensing buttermilk.

SEC. 8. Any person violating any of the provisions of this ordinance shall upon conviction thereof in the municipal court be punished by a fine not exceeding \$100, or by imprisonment in the city jail for a period not exceeding 30 days, or by both such fine and imprisonment.

## **PORTSMOUTH, VA.**

### **Foodstuffs—Protection of. (Ord. July 24, 1915.)**

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

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

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

SEC. 4. All tainted, diseased, or unwholesome articles of food found in this city shall be destroyed by the person having it in his possession or otherwise disposed of as the board of health or its agent may direct.

SEC. 5. No person shall carry or otherwise convey through the streets of the city the body of any animal or any part thereof which is to be used as human food, unless it be so covered as to protect it from flies, dust, and dirt.

A violation of these ordinances [sic] will subject the offenders to a fine of not less than \$2 nor more than \$20 for each offense.

## **REDLANDS, CAL.**

### **Domestic Animals—Communicable Diseases—Notification of Cases. (Ord. May 19, 1915.)**

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

**REVERE, MASS.****Fish—Care, Protection, and Sale—Sanitary Regulation of Markets, Stores, and Vehicles. (Reg. Bd. of H., Aug. 31, 1915.)**

SECTION 1. Every person keeping, maintaining, or being in charge of any public or private market, stall, shop, store, storehouse, cart, wagon, or other vehicle, in or about which any fish is held, kept, stored, or offered for sale or other disposition, shall keep such private or public market, stall, shop, store, storehouse, cart, wagon, or other vehicle in a clean, pure, and wholesome condition, and if any such person shall allow or permit the same to be, become, or remain unclean, impure, or unwholesome, he shall be guilty of a violation of this ordinance.

SEC. 2. It shall be the duty of such person conducting a public or private market, stall, shop, or store where fish is offered for sale or other disposition to maintain running water with a sink either of wood, iron, or any sheet metal having a proper overflow and filled with water when containing entrails, fish trimmings, or other waste material. Wood sinks shall be lined with zinc or sheet metal, and all sinks shall be at least 2 feet in depth and  $2\frac{1}{2}$  feet in length and  $1\frac{1}{2}$  feet in width.

SEC. 3. Said fish shall be iced at all times and kept in separate ice boxes, ice chests, cooling rooms, or refrigerators, which shall be connected with the sewer when practical or in a manner suitable to the board of health.

SEC. 4. No person aforesaid shall expose fish in the open and must protect it in such a manner that the fish be not contaminated with dirt, insects, or other objectionable matter and well secured from the rays of the sun.

SEC. 5. No fish not being then fresh, sound, wholesome, and safe for human food shall be brought into the city of Revere or offered or held for sale at any public or private market, stall, store, storehouse, or in any other place in said city by any person.

SEC. 6. It shall be the duty of the agent of the board of health to inspect all places where fish is handled or offered for sale, and any person selling fish shall keep the premises in which the fish is kept, and any utensils, vehicles, or other receptacles by means of which it is handled, in a clean and sanitary condition and protected in such a manner that they shall not be contaminated with dirt, insects, or other objectionable matter.

SEC. 7. It shall be the duty of the agent of the board of health to visit at frequent intervals each public and private market, stall, store, storehouse, restaurant, or hotel in said city, and each and all carts, wagons, and vehicles of street hawkers, in, at, or about which any fish is kept, held, or carried for sale or other disposition as human food, and examine and carefully inspect all such fish, and if any unwholesome fish so intended for sale or other disposition as human food be found in or about any such public or private market, stall, store, restaurant, hotel, storehouse, or in any cart, wagon, or other vehicle of vendors or street hawkers, to at once give the person in charge of the same for the time being notice to at once remove the same out of the city, or to such place as the agent shall direct, or to destroy the same, whereupon the person in whose custody and possession the same shall be found to be shall at once remove the same out of the city, or to such place as said agent shall direct, or destroy the same, as may be directed by said agent, and any person to whom such notice has been so given by said agent who shall fail to at once remove the same out of said city, or to such place as said agent shall direct, or to destroy the same if so directed, shall be subject to a fine of not exceeding \$20.

SEC. 8. Any person violating any of the provisions of this ordinance [sic] or neglecting or refusing to comply therewith shall on conviction be punished by a fine of not exceeding \$100.

## SACRAMENTO, CAL.

### Milk—Production, Care, and Sale. (Ord. 208 as Amended Aug. 19, 1915.)

SECTION 1. It shall be unlawful for any person, firm, or corporation, except in bulk to the wholesale trade, to sell or exchange for human consumption any milk from cows that have not passed the tuberculin test until it has been pasteurized by the holding process at a temperature not less than 140° F. for 25 minutes: *Provided*, That the milk for drinking purposes shall not be heated above 145° F. It shall further be unlawful for any person, firm, or corporation to sell or exchange, or offer or expose for sale or exchange, any milk products, except cheese, into the composition of which any milk enters other than that permitted in this section of this ordinance to be sold at retail. For the purpose of this ordinance milk shall be construed to include cream.

SEC. 2. All milk except certified milk, guaranteed milk, grade A milk, and grade B milk is hereby declared to be impure and unwholesome, and must not be sold for human consumption.

SEC. 3. For the purpose of this act milk shall be graded as follows: Certified milk, guaranteed milk, grade A milk, grade B milk, and milk not suitable for human consumption: *Provided*, That milk not suitable for human consumption shall be plainly marked.

SEC. 4. No person, firm, or corporation shall sell or exchange, or offer or expose for sale or exchange, as or for guaranteed milk any milk, raw or pasteurized, the quality of which is guaranteed by the dealer, without approval in writing of the health department, which milk must be of a higher standard than that required for grade A raw milk.

SEC. 5. No person, firm, or corporation shall sell or exchange, or offer or expose for sale or exchange, as and for grade A milk any milk that does not conform to the rules and regulations and the methods and standards for production and distribution of grade A milk adopted by the health department.

Grade A milk shall conform to the following requirement as a minimum: If raw, it shall consist of the clean raw milk from healthy cows as determined by physical examination and by the tuberculin test by a qualified veterinarian under the supervision of the food and market inspector, and from dairies that score not less than 70 per cent on the score card adopted by the United States Bureau of Animal Industry, Department of Agriculture. The tuberculin test must be repeated annually if no reacting animals are found in the herd. If reacting animals are found they must be removed from the herd, and the tuberculin test repeated in six months. All cows are to be fed, watered, housed, and milked under conditions approved by the health department. All persons who come in contact with the milk must exercise scrupulous cleanliness, and must not harbor the germs of typhoid fever, tuberculosis, diphtheria, or other infectious diseases liable to be conveyed by milk. Absence of such infections shall be determined, by cultures and physical examinations, to the satisfaction of the health department.

This milk is to be delivered in sterile containers, and is to be kept at a temperature of 50° F. until it reaches the ultimate consumer, when it must contain less than 100,000 bacteria per cubic centimeter. If pasteurized, it shall come from cows free from disease as determined by physical examination at least once in six months by a qualified veterinarian of the health depart-

ment. It shall contain less than 200,000 bacteria per cubic centimeter before pasteurization and less than 2,000 bacteria per cubic centimeter at the time of delivery to the ultimate consumer. Dairies from which this milk is derived must score at least 60 on the score card adopted by the United States Bureau of Animal Industry, Department of Agriculture.

SEC. 6. No person, firm, or corporation shall sell or exchange, or offer or expose for sale or exchange, as and for grade B milk any milk that does not conform to the following requirements as a minimum: It must be obtained from cows in no way unfit for the production of milk for use by man, as determined by physical examination at least once in six months by food and market inspector. Before pasteurization such milk shall contain less than 1,000,000 bacteria per cubic centimeter. After pasteurization it shall contain less than 50,000 bacteria per cubic centimeter.

Milk for pasteurization must be kept at a temperature of 60° F. up to the time of delivery to the pasteurization plant and rapidly cooled after pasteurization to a temperature of 50° F. or below and so maintained to the time of delivery of the same. Pasteurization shall be by the holding method at a temperature not less than 140° F.: *Provided*, That milk for drinking purposes shall not be heated above 145° F.

Such pasteurization plant shall be equipped with a self-registering device for record of the time and temperature of pasteurization. Such record shall be kept for two months and be available for inspection by the health department. Pasteurized milk shall be marked with the day of the week of pasteurization and must be delivered to the consumer within 48 hours thereafter. If milk is repasteurized, it must not be sold except as not suitable for human consumption.

SEC. 7. Milk not suitable for human consumption may be sold for industrial purposes provided it be heated to a higher temperature than necessary for pasteurization, and delivered in a distinctive container, plainly marked with the words, "Not suitable for human consumption," in letters not less than one-fourth inch in length and one-twelfth inch stroke.

SEC. 8. No firm, corporation, or person shall, after this ordinance becomes operative, either himself, or through his agents, servants, or employees, offer or expose for sale, or sell, or deliver for sale, use, or consumption, within the city of Sacramento, any milk, [without] license so to do as hereinafter provided.

SEC. 9. To procure such a license, the applicant shall present to said health department a written application, and shall state therein the name and business and residence address of the applicant or applicants obtain or will obtain [sic] supplies of milk, the number of cows in the possession of such applicant, the average quantity of milk procured, and the average quantity disposed of by said applicant, and the manner and character of such disposition; such application to be made to the said food and market inspector upon printed blanks to be provided by the health department for such purpose. Such application shall further state the specific brand or business name, if any, under which said milk is to be sold, exchanged, or distributed.

SEC. 10. If the food and market inspector, upon such application, shall determine that the statements therein made are true and that the applicant does not purpose selling or offering or exposing for sale or delivering or distributing any unwholesome milk as food for any human consumption, it shall be the duty of the food and market inspector to issue to said applicant a license upon payment of fees as provided for in section 13 of this ordinance to bring into, sell, expose, or offer for sale, exchange, deliver, or distribute milk within the city of Sacramento, and all such written statements required as aforesaid

shall be registered in a register to be provided by the said health department and kept for that purpose.

SEC. 11. One such license shall be required for each place of general sale or storage of milk. Such licenses shall be issued only in name of the owners of the supply of milk thus on storage or for sale and shall, for the purpose of this ordinance, be conclusive evidence of such ownership. No such licenses shall be sold or assigned or transferred. Such licenses shall be subject at all times to revocation by said health department, in its discretion, upon sufficient cause therefor shown: *Provided, however*, That no such license shall be revoked until after a hearing given by said health department in the matter of the revocation of such license after five days' notice in writing has been served on the owner of such license in the manner prescribed for the service of notice by section 1011 of the Code of Civil Procedure of the State of California, which notice shall state the ground of complaint against such owner, and the time and place where such hearing shall take place: *And provided further*, That no license shall be revoked by said health department for the first offense without the unanimous consent of the members of said board present at such hearing. At least once in each year every person or persons, firm or corporation holding such a license shall register with the said health department his or their name or license number, and shall make a written statement to said health department containing all the information required to be given by applicants for licenses, in their written application for licenses as hereinbefore provided, and all applicants for licenses, and all such written statements required as aforesaid, shall be registered in a register to be provided by the said health department and kept for that purpose.

SEC. 12. No persons or person, firm or corporation, shall sell or expose for sale or exchange or deliver or distribute within the limits of the city of Sacramento milk from any wagon or vehicle unless such wagon or vehicle shall have exposed on both sides thereof the license number of the person or persons, firm or corporation selling or offering or exposing for sale or distributing or delivering or exchanging such milk. Such license number shall be painted on said wagon or vehicle in numbers not less than 3 inches in height, in what is known as Arabic numerals, and shall be placed on said wagon or vehicle under the direction and according to the requirements of the said health department, or if such milk is sold or exposed or offered for sale, delivery, distribution, or exchange within a store or creamery, then such license number shall also be constantly exposed in some conspicuous manner at the place wherever such milk is sold or kept, so as to be plainly apparent.

SEC. 13. The fee for license, as authorized by this ordinance shall be paid to the personal secretary of the health officer as follows:

First. In the case of creameries the fee for said license shall be \$5 per quarter.

Second. In the case of grocery stores handling milk in bottles only, the fee for such license shall be \$1.50 per quarter.

Third. In the case of grocery stores and delicatessen [stores] handling milk and cream in bulk, operating under a special permit the fee for such license shall be \$2.50 per quarter.

Fourth. In the case of dairies where the sale of milk or cream is between 1 and 19 gallons inclusive, the fee for such license shall be \$1.50 per quarter.

Fifth. In the case of dairies where the sale of milk or cream is between 20 and 50 gallons, the fee for such license shall be \$2.50 per quarter.

Sixth. In the case of dairies where the sale of milk or cream is between 50 and 100 gallons, the fee shall be \$4 per quarter.

Seventh. In the case of dairies where the sale of milk or cream is 100 gallons or more, the license fee shall be \$6 per quarter.

SEC. 14. Any person who shall violate any provision of this ordinance shall be guilty of a misdemeanor and upon conviction shall be punished by a fine of not less than \$25 nor more than \$200 or by imprisonment in the county jail for not less than 10 days nor more than 60 days or by both such fine and imprisonment.

ST. LOUIS, MO.

**Rabies—Prevention of—Muzzling of Dogs—Keeping of Vicious Dogs. (Ord. Nov. 29, 1915.)**

SECTION 1. Section 2688 of the Revised Code of St. Louis, 1912, is hereby repealed.

SEC. 2. *Unmuzzled dogs running at large; when prohibited.*—Whenever the health commissioner shall deem it necessary on account of the prevalence of hydrophobia or for preservation of the public health it shall be his duty to make an order prohibiting any dog from running at large on any street or other public place in this city unless such dog is securely muzzled or led by a line so as effectually to prevent it from biting any person or animal, which order shall be published in the papers doing the city printing, and any dog found running at large, unmuzzled, contrary to the provisions of such order, shall be taken up and impounded as in section 2686 provided; and any dog taken up and impounded for being at large in violation of such order may, if the owner satisfy the city marshal by his own oath or other testimony that no blame attaches to him for such dog being at large in violation of the provisions of such order of the health commissioner, be redeemed as unregistered dogs are redeemed from the dog pound upon the payment of the fee of the poundkeeper and to the license collector of \$3 for the use of the city.

SEC. 3. *Penalty.*—Whenever the health commissioner shall have made an order that, on account of the prevalence of hydrophobia or for the preservation of the public health, unmuzzled dogs are prohibited from running at large any person who leads an unmuzzled dog by a line in such a manner as not effectually to prevent the possibility of its biting any person or animal or who allows any dog to run at large not muzzled in a manner so as effectually to prevent its biting any person or animal, shall be guilty of a misdemeanor and upon conviction shall be fined not less than \$5 nor more than \$100.

SEC. 4. *Notice to be posted on premises where vicious dog is kept.*—When any vicious dog or one that has previously bitten any person is kept upon any premises it shall be the duty of the keeper and of the owner of the dog to post a notice conspicuously visible to the public at each entrance to the said premises reading in large type "Bad dog here." In case a minor is the keeper or owner of such dog the duty of posting this notice shall devolve upon the adult person in whose family such minor lives. Violation hereof shall, upon conviction, subject the offender to a fine of not less than \$5 nor more than \$25.

SEC. 5. *City marshal immediately to impound dog that bites any person; held for observation.*—In case any dog bites any person the said dog shall be immediately impounded by the city marshal in a place convenient for and subject to inspection by the health commissioner, and the said dog shall be kept in isolation in such place for a period of 11 days and shall be observed by the health division for indications of hydrophobia, and in case of its developing hydrophobia it shall be killed by the city marshal. If at the end of 11 days' attention the said dog shall not have shown signs of hydrophobia and the health commissioner be satisfied that the said dog is healthy, he may order its return by the city marshal to its owner, provided there has been compliance with all provisions of law regarding dogs.

**Common Towels—Prohibited in Public Places. (Ord. Dec. 31, 1915.)**

**SECTION 1. Common towels forbidden and defined.**—No person, firm, or corporation owning, in charge of or in control of any public toilet, public lavatory, public washroom, or public comfort station shall maintain in or about such public toilet, public lavatory, public washroom, or public comfort station any towel or towels for use in common. The terms "public lavatory," "public toilet," "public washroom," or "public comfort station" as used herein shall be construed to mean any such place to which the general public are invited or not forbidden access or use. The term "for common use" as used herein shall be construed to mean for use or intended to be used by more than one person.

**SEC. 2. Penalty.**—Any violation of the provisions of this ordinance shall be punishable by a fine of not less than \$5 nor more than \$100, and each day that said violation continues after the first offense shall constitute a separate offense.

**SEC. 3. Enforcement.**—The health commissioner of the city of St. Louis or his duly authorized agents or deputies are directed in collaboration with the law department to prosecute any violation thereof.

**SAN DIEGO, CAL.**

**Mosquitoes — Prevention of Breeding — Abatement of Mosquito-Breeding Places. (Ord. 4014 as Amended by Ord. 6096, Mar. 26, 1915.)**

**SECTION 1.** All pools of water, or other places in which mosquitoes may breed, or are being bred, are hereby declared to be a public nuisance. The board of health and its officers are hereby given authority to condemn as nuisances any such pools of water, or other places in which mosquitoes may breed or are being bred, and to order the summary abatement thereof.

**SEC. 2.** Upon being notified by such board of health or its officers of the existence of such pools of water, or other places in which mosquitoes may breed, or are being bred, and that the same has been declared a public nuisance, it shall be the duty of the person or persons responsible for the maintenance thereof to forthwith abate such nuisance, and all persons refusing or neglecting to forthwith abate such nuisance as directed by said board of health, or its officers, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined not less than \$10 nor more than \$100, or be imprisoned in the city jail for not more than 100 days, or he may be both fined and imprisoned.

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**SEC. 4.** Upon the neglect or refusal of any owner, occupant, or agent, or other person having control of the premises, within said city, upon which said nuisance above mentioned exists, to comply with such notice, the health officer may abate such nuisance, and the owner, agent, occupant, or other person having control of such premises, in addition to the penalty provided by this ordinance, shall be liable to said city for the cost of such abatement, to be recovered in a civil action in any court of competent jurisdiction within said city.

**SAN FRANCISCO, CAL.**

**Dogs—Muzzling and Impounding—Destruction of Diseased Animals. (Ord. 3276, June 5, 1915.)**

**SEC. 13.** If any dog within the city and county of San Francisco shall bite any person or animal, and the person or animal so bitten was not at the time trespassing upon the person or property of the owner or person having control

of such dog the owner or person having control of such dog shall be deemed guilty of a misdemeanor and, upon conviction thereof, shall be punishable as hereinafter provided; and if upon the trial of any such person the court shall determine that such dog is vicious and dangerous to persons or other animals, the court may order that such dog be muzzled or that such dog be delivered to the poundkeeper and by him destroyed. Upon written notice by the board of health the owner or person having control of any dog which has within the preceding 72 hours bitten any person or animal shall upon demand surrender such dog to the poundkeeper who shall impound and keep such dog at the public pound, in a separate kennel, for a period not exceeding 10 days, during which period it shall be the duty of the health officer, upon being notified by the poundkeeper that such dog has been impounded, to determine whether or not such dog is suffering from any disease. If the health officer shall determine that such dog is diseased and, by reason of such disease, is dangerous to persons or to other animals, he shall so notify the poundkeeper, who shall thereupon immediately destroy such dog. If the health officer shall determine that such dog is not so diseased and if the license required for such dog shall have been duly paid for the then current fiscal year, the poundkeeper shall notify by mail the person to whom the license for such dog was issued and at the address from which the dog was surrendered to the poundkeeper, and shall, upon demand, release such dog to the owner or person lawfully entitled thereto upon payment of 15 cents per day for keeping such dog: *Provided, however,* That if no person lawfully entitled to such dog shall within five days after the date of giving said last-mentioned notice appear at the public pound and request the release of such dog and pay said charges, such dog may be sold or destroyed by the poundkeeper in the manner hereinabove provided.

**Births and Deaths—Issuance of Certified Copies of Records. (Ord. 3472, Oct. 14, 1915.)**

**SECTION 1.** The department of public health shall furnish certified copies of birth records and certified copies of death records and shall charge a fee of 75 cents for each. Certified copies of death records shall be furnished free where same are necessary for the procuring of a pension for relatives of a decedent who has served in the Army or Navy of the United States during time of war, to consuls of foreign nations where same are to be used for consular purposes, and also to the department of police of the city and county of San Francisco.

**Laundries and Washhouses—Establishment and Maintenance. (Ord. 3300, June 7, 1915.)**

**SECTION 1.** It shall be unlawful for any person, firm, corporation, or association of persons to establish, maintain, operate, or carry on the business of a public laundry or a public washhouse, where clothes or other articles are cleansed for hire, in any building or premises within the limits of the city and county of San Francisco without having first obtained a permit therefor from the board of supervisors, which said permit shall specify the name of the permittee and the location of the premises used or to be used as such laundry or washhouse.

**SEC. 2.** No permit shall be granted except upon report from the health officer of said city and county, or other satisfactory evidence, that the premises are properly and sufficiently drained, and that all proper arrangements for carrying on the business without injury to the sanitary condition of the neighbor-

hood have been complied with, and particularly that the provisions of all orders and ordinances pertaining thereto have been complied with, and a report from the fire marshal of the city and county of San Francisco, or other satisfactory evidence, that the stoves, chimneys, machinery, equipment, washing and drying apparatus, and the appliances for heating smoothing irons are in good condition and that their use is not dangerous to the surrounding property from fire, and that all proper precautions have been taken to comply with the provisions of the ordinances defining the fire limits of the city and county of San Francisco and regulating the erection and use of buildings in said city and county, and of the general orders and ordinances.

SEC. 3. It shall be the duty of the health officer and of the fire marshal, respectively, upon request of the board of supervisors or of any committee thereof or of any applicant for a permit hereunder to inspect the premises on which it is proposed to establish, maintain, operate, or carry on said business, or in which said business is being maintained, operated, or carried on, with a view to ascertaining the existence or nonexistence of the conditions and matters set forth in section 2 of this ordinance, and to make report thereon to the board of supervisors or to such committee of the board of supervisors as may have pending before it an application for such permit for such premises.

No charge whatever shall be made or compensation or fee collected or received for the performance of any of the services required by the provisions of this ordinance in the inspection of premises or the making of such report, but all such services shall be performed free of charge.

SEC. 4. The board of supervisors shall not grant, refuse, or revoke any permit hereunder except after a full hearing, publicly had, at which the applicant or permittee may appear in person and by counsel and introduce evidence; and in the granting, refusal, or revocation of permits said board of supervisors shall exercise a sound and reasonable discretion.

SEC. 5. Permits for the establishment, maintenance, operation, or carrying on of a public laundry or washhouse issued hereunder are not transferable.

SEC. 6. Any permit granted hereunder shall be revocable by the board of supervisors for any violation of the provisions of any ordinance or general order of the city and county of San Francisco in the conduct of such laundry or washhouse.

SEC. 7. No person, firm, corporation, or association of persons maintaining, operating, or carrying on the business of a public laundry or washhouse within the limits of the city and county of San Francisco shall permit any person suffering from any infectious or contagious disease to lodge, sleep, or remain within or upon the premises used by him, her, it, or them for the purpose of such laundry or washhouse.

SEC. 8. It shall be unlawful for any person, firm, corporation, or association of persons to establish, maintain, operate, or carry on a public laundry or washhouse within the city and county of San Francisco in any building or any portion thereof, or in any annex or outhouse thereto, or other premises that shall be occupied or used either directly or indirectly as a public hall or store or that is frequented by persons likely to spread infectious, contagious, or loathsome diseases, or that is occupied or used or frequented directly or indirectly for any immoral or unlawful purpose.

SEC. 9. No person or persons owning or employed in the public laundries or public washhouses, provided for in section 1 of this ordinance, shall wash, mangle, starch, iron, or do any other work on clothes between the hours of 6 o'clock p. m. and 7 o'clock a. m., nor upon any portion of that day known as Sunday.

SEC. 10. The windows in any public laundry or public washhouse that open on any public thoroughfare shall be constructed and arranged to permit of an unobstructed view of the interior of said building during the hours in which work is prohibited by section 9 of this ordinance. The use of shutters, blinds, shades, or other coverings that fill the entire window space is strictly prohibited.

SEC. 11. The board of supervisors hereby declares that it would have passed this ordinance and each section, subsection, subdivision, sentence, clause, and phrase thereof, irrespective of the fact that any one or more sections, subsections, subdivisions, sentences, clauses, or phrases is declared unconstitutional or invalid for any reason.

SEC. 12. It shall be unlawful for any owner, lessee, occupant, or person in charge or control of any building or premises within the limits of the city and county of San Francisco, or for the president, manager, superintendent, or other managing officer of any firm, corporation, or association to cause or to permit the business of public laundry or public washhouse to be established, maintained, operated, or carried on in any building or premises within the city and county of San Francisco in violation or in disregard of the provisions of this ordinance.

SEC. 13. Any person, firm, corporation, or association of persons violating any provision of this ordinance shall be guilty of a misdemeanor, and shall be punishable by a fine of not more than \$500 or by imprisonment in the county jail for not more than six months, or by both such fine and imprisonment.

SEC. 14. Ordinances Nos. 144, 314 (new series), 2298 (new series), 2668 (new series), and section 196 of ordinance No. 1008 (new series), and all ordinances and parts of ordinances in so far as they conflict with this ordinance are hereby repealed: *Provided, however,* That this repeal shall in nowise affect pending actions or proceedings instituted or commenced under any of the ordinances or parts of ordinances hereby repealed, but every such action or proceeding may be prosecuted to final judgment, such repeal notwithstanding.

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