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PLAGUE IN RUSSIA.

RECOMMENDATIONS OF THE COUNCIL OF HYGIENE OF THE GOVERNMENT OF EKATERINOSLAV REGARDING ITS CONTROL.

A translation of a review appearing in the Bulletin of the International Office of Public Hygiene for November, 1913, of the recommendations of the Council of Hygiene (Jan. 15, 1913), Government of Ekaterinoslav, Russia.

By W. C. RUCKER, Assistant Surgeon General, United States Public Health Service.

Plague having made its appearance in the Province of the Cossacks of the Don, close to the Government of Ekaterinoslav, the head of the latter Government judged it necessary to take measures against the possible contamination of his territory. The Council of Hygiene of the Government, assisted by the representatives of the cities and of the mining industry, have laid out a plan of campaign against the infection.

After having considered various reports: "History of plague epidemics," by Towline; "The bacteriology of plague," by Stepanov Grigoriev; "The clinical course of plague, its serotherapy and vaccination," by Freifeld; "The epidemiology of plague and the measures to be taken against plague," by Smidovitch; and after considerable discussion the Council of Hygiene has set forth the following views:

1. The battle against plague, as that against all other epidemics, should be conducted by the permanent medico-sanitary organizations, upon the principles which are based upon the combat of epidemics in general. The temporary measures determined by the peculiarities of the infection should be adapted to the type of the permanent sanitary organization.

2. It should direct its efforts above all toward the improvement of housing conditions.

3. Deratization as a general measure is not rational. The warfare against rats should be made by the improvement of housing conditions. Habitations should be kept free of garbage and offal which attract rats and serve for their nourishment.

4. The sanitary officials should direct their attention particularly to spermophiles.

5. With the beginning of spring they should organize in the country contiguous to the Province of the Don a surveillance of spermophiles and rats, together with bacteriological examinations.

6. In case plague should continue to exist in the Province of the Don, it will be necessary to organize temporary medical sections to reinforce the medical personnel attached to the mines and factories in order to facilitate the discovery of the first case of plague. It will also be necessary to station physicians on the large plantations.

7. The physicians should educate the general public as to the measures to be taken in the combat against plague. More sanitary organizations should be created and those which already exist should be stimulated to greater activity.

8. All arriving laborers should be carefully examined.

9. In order that plague may be discovered as soon as it makes its appearance, the bacteriological laboratories should be supplied with the material and personnel necessary for making plague examinations.

10. In case of the appearance of plague the patients should be isolated:

1. Where there are special isolation hospitals for infectious diseases, in these hospitals.

2. Where there is only an ordinary hospital all the other patients should be removed, to make place for the plague patients.

3. If there is no hospital, isolation may be made in a school or other appropriate place. Only in extreme cases may the patient be allowed to remain in his own home, and then only after taking every possible precaution.

11. Persons who have been in contact with the patient should be isolated promptly, at the same time as the patient.

12. In cases where it seems sufficient, infected premises may be disinfected. Recourse need not be had to incineration except in the most extreme cases, and indemnity should be paid to cover loss made by disinfection or eviction.

13. The measures of isolation and disinfection should be administered as obligatory, but with tact.

14. In view of the unity of the measures for the combat against the infection, it is necessary that there be complete harmony between the authorities and the entire population.

SMALLPOX IN GERMANY.

OCCURRENCE DURING THE YEAR 1910 AND DURING THE PERIOD 1896-1910.

Abstracted from *Medizinal-Statistische Mitteilungen aus dem Kaiserlichen Gesundheitsamte*, v. 16, pt. 1.

BY EMILY R. JONES.

The number of cases of smallpox which occurred in the German Empire during the year 1910, as reported to the Imperial Bureau of Health, was 236 (previous year 247). Of this number 34 (14.41 per cent of the cases) terminated fatally. Nearly one-half the cases, viz, 105, occurred among foreigners, 87 being Russians, 9 Austrians, 5 Italians, 1 Swiss, 1 Spaniard, and 1 Portuguese. The proportion

of cases to 1,000,000 inhabitants was 3.66 (previous year 3.88), inclusive of cases in foreigners. Exclusive of foreign cases the proportion was only 2.03 (previous year 2.64).

As regards the Federal States, the 236 cases were distributed as follows: Prussia 170 (59 Russians, 2 Austrians, 1 Swiss), Bavaria 8 (1 Austrian, 1 Russian), Saxony 3 (2 Russians), Hesse 2 (Russians), Mecklenburg-Schwerin 8 (Russians), Oldenburg 1, Brunswick 1 (Russian), Saxon-Coburg-Gotha 1 (Russian), Anhalt 3 (2 Russians), Bremen 26 (7 Russians, 4 Austrians, 1 Swede), Hamburg 7 (3 Russians, 2 Austrians, 1 Spaniard, 1 Portuguese), and Alsace-Lorraine 6 (5 Italians, 1 Russian). In the remaining 14 Federal States no case of smallpox was notified during the year under report.

The cases were distributed in 118 localities, the average occurrence being 2 cases to 1 locality. The average duration of the disease was 31.2 days. According to ages, the cases occurred as follows:

Age.	Cases.	
	1910	1909
Under 1 year	11	11
2 to 3 years	8	8
3 to 10 years	31	26
11 to 20 years	60	45
21 to 30 years	35	53
31 to 40 years	35	39
41 to 50 years	18	41
51 to 60 years	20	16
More than 60 years	18	8
Total	236	247

The cases were distributed according to sex as follows: Male, 140, with 22 deaths; female, 96, with 12 deaths. In 2 cases there had apparently been a previous case of genuine smallpox, but in both, pock marks were absent.

The greatest number of cases occurred, as in the previous year, during the months of March, April, and May, corresponding with the movement of foreign laborers.

The cases were distributed by months as follows: January, 39; February, 20; March, 54; April, 56; May, 29; June, 5; July, 7; August, 1; September, 4; October, 6; November, 7; December, 8.

In 13 cases information was obtained as to complications. These were found to be inflammation of the lungs, abscesses, inflammation of the cellular tissue, thrombosis, inflammation of the larynx and respiratory tract, inflammation of the middle ear, inflammation of the connective tissue, and heart failure.

The course of the disease, and the vaccination status and ages of those attacked are shown in the following table:

Vaccination status.	Course.	Age (in years).									Total.
		1	2	3 to 10	11 to 20	21 to 30	31 to 40	41 to 50	51 to 60	More than 60	
Unvaccinated.....	Died.....	4	1	1	5	2					13
	Severe or medium.....	2	1	2	12	2					19
	Light.....	3		5	2						10
Unknown.....	No data.....		1		1						2
	Died.....					1				1	2
Vaccinated without result.	Severe or medium.....									1	1
	Died.....					1					1
	Light.....			2	3						5
Vaccinated too late.....	Died.....				1	1			1		3
	Severe or medium.....	1	1		3						5
	Light.....	1	1		1						3
Vaccinated once.....	Died.....		1	1	1					2	5
	Severe or medium.....				4	2	2	2	2	1	13
	Light.....		2	13	10	6	4	3	1	2	39
Revaccinated too late.....	Died.....				1	4				2	3
	Severe or medium.....				1	5	1	2		2	7
	Light.....			4	5	1	2			2	14
Revaccinated.....	No data.....			1	1						2
	Died.....				2	2	2	2	2	1	7
	Severe or medium.....				1	2	3	2	4	1	15
Total.....	Light.....				7	12	22	14	8	1	64
	No data.....					1		1			2
Total.....		11	8	31	60	35	35	18	20	18	236

The vaccination status of those attacked and the severity of the disease are shown in the following table:

Vaccination status of persons attacked.	Number.	Deaths.	Fatal-ity.	Course of the disease.				
				Severe or medium.		Light.		Not known.
				Number.	Per cent.	Number.	Per cent.	
Unvaccinated.....	44	13	<i>Per ct.</i> 29.5	19	43.2	10	22.7	2
Vaccinated without result.	7	1	14.3	5	71.4	1	14.3	
Vaccinated too late.....	11	3	27.3	5	45.5	3	27.3	
Vaccinated once.....	57	5	8.8	13	22.8	39	68.4	
Revaccinated too late.....	26	3	11.5	7	26.9	14	53.8	2
Revaccinated.....	88	7	8.0	15	17.0	64	72.7	2
Vaccination status un- known.....	3	2	66.7	1	33.3			
Total.....	236	34	14.4	65	27.5	131	55.5	6

PREVALENCE FROM 1896 TO 1910.

During the period from 1896 to 1910, 3,594 cases of smallpox occurred in the German Empire, as reported to the Imperial Bureau of Health. Of this number, 488 cases, or 13.62 per cent, terminated fatally. The greatest incidence of the disease occurred in the years 1908, with 434 cases, and 1900, with 392 cases. The case fatality varied from 8.09 per cent in 1899, to 18.36 per cent in 1906. Of the cases, 1,036 were in foreigners, the greatest number, 28.91 per cent,

being Russians. The average occurrence to 1,000,000 inhabitants, during the period named, was 4.09, including foreigners; exclusive of foreigners the rate was 2.91.

Of the 3,584 cases, 2,607, or 72.74 per cent, occurred in Prussia, and 380, or 10.60 per cent, in Alsace-Lorraine. The number of localities affected was 1,411, the average occurrence being 2.54 cases to one locality.

The vaccination status and course of the disease were as follows:

	Persons attacked.	Deaths.
Unvaccinated.....	603	187
Vaccination status unknown.....	192	79
Vaccinated unsuccessfully.....	61	12
Vaccinated too late.....	146	37
Vaccinated once.....	1,289	92
Revaccinated too late.....	200	14
Revaccinated.....	1,093	67
Not stated.....	63	(1)
Total.....	3,584	488

¹ None of the cases in the group of "Not stated" ended fatally. The only data not given on the cards relative to these cases was as to whether the disease was severe or light.

The greatest number of unvaccinated persons were between the ages of 3 and 30, namely, 294, or 48.76 per cent of the 603 unvaccinated persons. This condition, which is apparently at variance with the requirements of the vaccination law, is explained by the vaccination status of the foreigners attacked, the Russo-Polish laborers who come for a season's work being for the most part between the ages of 15 and 30. How great this influence is, is shown by the following statement of the vaccination status of those attacked during the three years 1908, 1909, and 1910, divided into native and foreign groups:

	Native.	Foreign.	Total.
Unvaccinated.....	49	94	143
Unknown.....	15	13	28
Vaccinated unsuccessfully.....	9	21	30
Vaccinated too late.....	15	30	45
Vaccinated once.....	149	108	257
Revaccinated too late.....	48	35	83
Revaccinated.....	295	36	331
Total.....	580	337	917

The origin of the infection was traced in most of the cases to foreign sources, namely, to Russia. Comparison of the five-year period, 1906 to 1910, shows that for 1,380 out of 1,518 cases the importation of the infection was proved while in only 138 cases the source of the infection remained unknown.

Pursuant to a resolution of the Imperial Council of June 18, 1885, relative to the preparation of statistics of fatal cases of smallpox in the German Empire, reports of deaths were sent regularly from the

year 1886 to the Imperial Bureau of Health by the Federal States and Alsace-Lorraine. On July 16, 1885, the imperial chancellor addressed a circular letter to the governments of the States urging the collection of as full statistics as could be obtained relative to the occurrence of cases of smallpox, the material so collected to be elaborated by the Imperial Bureau of Health. The circular was accompanied by a model report card adapted to the purpose. The card was designed to be filled in by the attending physician, or if no physician was in attendance, by the local authority. Most of the Federal State governments and the governor of Alsace-Lorraine issued the necessary ordinances in compliance with the circular. When by ministerial ordinance of January 29, 1896, Prussia agreed to participate in the system of reporting by card it became possible to obtain complete and uniform statistics of the occurrence of smallpox throughout the Empire. Finally, by resolution of the Imperial Council January 28, 1904, the card-reporting system was enacted into law and made binding upon all the States of the Empire.

MALARIA.

THE USE OF TRYPsin AND AMYLOPSIN IN ITS TREATMENT.

[Abstract of a report in the *Journal of the Royal Army Medical Corps* (London), December, 1913.]

Maj. F. W. Lambelle comments upon the current belief in the specificity of quinine in all kinds of malarial fevers. He states that his experience in China and India is not in accord with this belief, for in the Orient relapses frequently occurred after quinine treatment, both in the benign and malignant infections, and seemed as frequent in the one infection as in the other. As he states: "Patients return to hospital deaf from cinchonism, ill with fever, and showing parasites in the peripheral blood."

Beard had suggested the use of the pancreatic ferments, trypsin and amylopsin, to destroy the plasmodium of malaria. Lambelle first tried these ferments in January, 1913. He selected cases of severe infection and those showing relapses. Clinically, the results were said to be very noticeable, there being a marked change in the patient in a few hours, with permanent improvement.

The method of treatment was by intramuscular injections of the enzymes, trypsin and amylopsin. The trypsin dose had a digestive value of 1,250 "Roberts units" and the amylopsin one of 500 "Roberts amylolytic units." The preparations used were sterile and stable. The injections were made into the muscles of the buttock. The ferments diffuse slowly from the tissue and some local edema remains for 12 to 24 hours. There is very little local pain.

The general effect as seen in the cerebral type of cases is described as follows: The headache vanishes, the restlessness ceases, the skin becomes moist, the temperature falls, the patient's aspect is totally changed in a few hours, and he feels fresh and looks bright. As a rule, a single injection is sufficient to clear the peripheral blood of parasites. In severe infections three injections, given at intervals of about four days, are believed by the author to be necessary to effect a cure. He repeats the injections until the enzyme itself causes a rise in the patient's temperature. This usually occurs with the third injection. There were said to be no relapses in cases in which the treatment had been carried on in this way.

TUBERCULOSIS.

NOTIFICATION OF CASES IN CALIFORNIA.

[From the Monthly Bulletin of the California State Board of Health for December, 1913.—Report of the Director of the Bureau of Tuberculosis for November.]

A circular letter has been mailed to each health officer in the State with the morbidity report blanks calling attention to the law of 1907 which includes tuberculosis with other reportable diseases. Those health officers who are already reporting tuberculosis were requested to offer suggestions as to methods of making the registration of tuberculosis complete. Some of the replies are very interesting as evidence of an awakening to the need of the measure as a first step in State-wide prophylaxis.

Here are a few of the suggestions:

That the State board recommend to the city councils that they pass ordinances for registration of the tuberculous, with a penalty for failure to report.

These ordinances exist in some cities, but do not enforce themselves. There must be an enlightened public sentiment established first, which is the power behind the throne.

A letter to each physician in the State from the State board of health demanding a complete report to local health officers, or explaining the law and urging them to be prompt and regular.

Circular letters of this kind are expensive and bring rather poor returns, partly because they are not read and partly because they are disregarded.

See that health officers are appointed who will do their duty and report them to their trustees or supervisors if they are neglectful.

The first part of this proposal would be more difficult than the last, but either plan might give some surprising results.

It is also suggested that doctors be urged to make a list of all cases known to exist at present and submit this at once, then as new cases are diagnosed to report them promptly to the local health officer.

It is very true that many physicians have no knowledge of the existence of the law making tuberculosis reportable and that others who know that contagious and infectious diseases should be reported have never had their attention called to the fact that tuberculosis is infectious. For this reason it seems desirable to make use of every available means toward the education of physicians on this subject.

A number of personal letters have been written to health officers where it seemed probable they would be effective, officers being urged to devise their own means for accomplishing results according to local conditions. Other plans proposed in last report have been carried out as far as practicable.

In order to have a complete list of all hospitals which treat tuberculosis, a circular letter has been sent to every known hospital in California, making inquiry as to the number of beds reserved for pulmonary tuberculosis and as to whether other forms of tuberculosis are treated: Two hundred and fifty-two of these questionnaires have been sent out, replies having been received thus far from 137 hospitals. Eighty-six of these receive no pulmonary tuberculosis and 10 more receive them only pending diagnosis or as transients in emergencies. The remaining 41 have from 1 to 100 beds, or assign beds as needed.

The only institution visited during the month was the county hospital at Auburn. Tuberculosis has not been considered here as a problem distinct from general diseases, there being found but one patient who had just entered the general ward. The newly appointed medical superintendents were requested to give this matter especial attention.

MENTAL HYGIENE.

Delivered at the Annual Conference of sanitary officers of the State of New York, November 20, 1913.

By E. H. MULLAN, Passed Assistant Surgeon, United States Public Health Service.

The efficiency of the nation depends upon the efficiency of the individual units of which it is composed. The efficiency of an individual is in direct proportion to the quality and health of his brain and nervous system. The quality and health of these brains depend upon:

1. The kind of brains that are born within the United States.
2. The kind of brains that migrate to this country from other lands, and
3. Upon the interaction of these brains and the environment.

Improvement in mental health depends upon a knowledge of the causes which produce mental disease and mental defect, and the application of means which will bring about in whole or part the eradication of these conditions of ill health.

Civilization and advancement in every field of knowledge have been due entirely to the inherent function and development of that predominant part of man which is known as mind. Hygiene in all of its ramifications has been evolved by the observations of the human mind, and whenever successes in preventive medicine have been accomplished it has been because the laws of prevention and eradication of disease have been implicitly obeyed by that same supreme organ.

In order that there shall be a steady improvement in the general physical health, the mind must be in a condition to take in the facts concerning the causation and prevention of disease and to successfully put into practice what it has absorbed. Only a healthy mind can do this. Therefore we must first consider the causes of unhealthy mental states and how such states can be prevented or cured. We must study the operations of the normal mind to some extent and learn to prevent its deviation from the normal before we can consider other topics of general hygiene.

In order to be hygienic one must be mentally hygienic; that is, one must think well, feel well, and practice well that which he has learned. Briefly, mental hygiene is the basis or the very foundation of all hygiene.

Four questions naturally arise: What are the different types of mental insufficiency and perversion? What causes have brought them about? How prevalent are they? What shall be done in order to lessen the incidence of these diseases and bring about a better mental condition in general?

It has been repeatedly observed that mental disease and mental deficiency depend in a great measure (50 to 70 per cent of cases) upon the mental capital, so to speak, which has been handed down from both parents. Parents afflicted with mental deficiency, various forms of insanity, and mild forms of mental disease will in many instances transmit the same or similar maladies to their children. In the developing fetus the brain, instead of growing in a regular and systematic manner, according to definite rule, ceases to grow with accustomed regularity. The brain development is arrested at various stages and results in various degrees of mental deficiency, which deficiency after birth becomes more obvious as body growth proceeds. In some cases the inherent mental characteristics or lack of characteristics do not show themselves until later on in the life of the offspring. Mental disorders then come to light and show themselves by the gradual or sudden onset of peculiarities in thinking, feeling, and behavior. In this way are produced the various grades of mental defectives and individuals with mental anomalies. The real cause here is defective or abnormal germ material which has been passed from the parent or through the parent to the child.

In many of these cases, according to Tredgold and other observers, there is a definite brain picture consisting in a diminution in the number of brain cells, imperfect development of these cells, and an irregular arrangement of them. Other causes, perhaps less important, which produce mental abnormality must be mentioned in discussing the causation of these conditions. Mental and physical ill health of the parents at the time of conception, mental and physical disease of the mother during the nine months of gestation, injuries to the child in utero or at birth, traumatism and infectious diseases, especially scarlet fever, meningitis, influenza, and convulsions, during early childhood, all play a part in producing a deleterious effect upon the nervous system in which the mind frequently suffers. These conditions of arrested mental development which have existed from uterine life or from early childhood are designated by the names of idiocy, imbecility, and feeble-mindedness.

During the growth of the child environmental conditions play a part sometimes large, sometimes small, in the production of mental disorders. The quantity or quality of work, rest, sickness, exercise, food, privation, recreation, schooling, responsibilities, habits, home life, advice, example, all are either helpers or deterrents to mental breakdowns. At times these agencies may be predisposing causes. They form a soil or prepare the individual for a mental breakdown, which may occur at a later time in the advent of an exciting agent.

In other instances these environmental conditions may become the exciting causes and precipitate an attack of mental disease. This is especially true when the soil is prepared by heredity; that is, when the parents or grandparents have suffered with nervous or mental disease. Again environmental conditions may be so grave that they will not only prepare the way for a mental upset but they will actually precipitate it. This, I think, is the case in many of the newly arrived immigrants, who would never have had a mental breakdown had they remained at home.

There are certain epochs in the life of an individual when mental disease, in those predisposed, is likely to occur. These danger periods are for women at the onset of womanhood, during pregnancy, at childbirth, and at the end of the childbearing period. For men the mid-period of life, between 35 and 50, is a period of special danger. It is during this time in man that stress and strain are so keenly felt.

As life proceeds deteriorations and perversions come into the life of the mental unfortunate. He is unable to adjust himself to his environment; he comes in conflict with society and society pronounces him as one of unsound mind and calls him "insane."

Dementia is a form of insanity. Where the mental faculties become permanently impaired a condition of dementia is said to exist. Dementia beginning early in life, generally between the fifteenth and thirty-fifth years, is said to be a precocious dementia

or dementia precox. In many of these cases a hereditary predisposition exists and a careful history of the case may unveil the existence of insanity, nervous disease, or alcoholism in near relatives.

It is interesting to note that nearly one-fourth of the admissions to the State hospitals are those affected with dementia precox or allied diseases. As these cases are chronics and long lived, they accumulate, so that approximately 40 per cent of the patients in various institutions belong to the precox group.

Dementia occurring late in life in the neighborhood of the sixtieth year is known as senile dementia. Dementia occurring in middle life as a result of a general disease of the brain caused by an earlier attack of syphilis, which is rapidly progressive and terminates in death in from three to five years, is known as dementia-paralytica, paresis, or softening of the brain. About 14 per cent of the inmates of the New York State hospitals are afflicted with this disease. During the year 1911, 590 deaths occurred from paresis in New York State. If this rate prevails, over 10,000 deaths from paresis occur in the United States every year. This disease is more prevalent in the city than in the country. It is most prevalent where civilization is most progressive.

Other dementias are caused by the unfavorable action of alcohol and other poisons upon the brain. In round numbers the alcoholic insanities amount to 20 per cent of all insanities. Dementia is also caused by direct injuries to the brain, by the impairment of the circulation to the brain, and also by the occurrence of growths and tissue formations within the brain substance.

In paranoia and paranoid states the patient is full of false ideas and false beliefs which tend to grow into a system, and he shows little if any mental deterioration. In hysterical conditions there are abnormal mental states which easily produce physical symptoms. Epilepsy is a chronic physico-mental disease characterized by attacks of unconsciousness with or without convulsions.

Other kinds of insanity are not necessarily permanent. Their period of duration varies from a few days to a year or two. Some insanities are caused by a disordered brain, brought about by the poisonous effects of alcohol, drugs, or other toxic substances.

Mental upsets are also caused by poisons elaborated within the patient's own body as a result of infectious disease of various kinds, or of improper or ill-digested food or of poor hygienic surroundings. Finally there is that large class of cases, the manic-depressive group, which are strongly hereditary and which literally riddle families. In this form a person is suddenly seized with an attack of mania or an attack of depression or a mixture of symptoms. The attack varies in duration from a few days to a year or more.

In connection with the border-line types of mental disease and more especially dementia precox, mental habits are important considerations. Incorrect habits of thought and feeling and false modes of

living often make life uncomfortable and tedious and in some cases actually bring about a mental attack.

Every individual has in the course of his life many trials and tribulations. He is the possessor of uncomfortable feelings, secret thoughts, ardent desires, and internal mental conflicts. From time to time the average normal individual brings these affairs into clear consciousness and disposes of them. Worries and anxieties are brought from the dark corners of the mind, are carefully considered, and then placed where they belong, a certain amount of weight or importance being given to each annoyance. Other means of getting the better of one's troubles is to forget them, to banish them to the land of nothingness. Interest in others and in other things lessens the importance of any trial or conflict, no matter how serious these may seem at first. Some use the healthy means of unburdening themselves—they tell a sympathetic listener their troubles and in this way their sorrow drops into comparative insignificance, and they emerge victoriously from the combat. The mental unfortunate, however, is often unable to throw off his troubles. His secret desires or thoughts get the better of him; he is unable to put them aside; in many cases he does not know how to put them aside. His faculty to balance and equalize mental events is not sufficiently powerful, and finally, perhaps, after a long warfare, his ideas and secret longings burst forth in the shape of false beliefs (delusions) or he imagines that he hears voices or that he sees strange things (hallucinations). Thus he becomes insane.

One who has formed the bad mental habit of looking for slights from others, who is constantly looking for offense where there is none, later may, in the absence of balancing factors, become the victim of persecutory delusions—that is, he imagines that he is persecuted by others. Those with increasingly ardent desires which have been unchecked, and which have not been properly analyzed by their possessors, may come to the surface at a later time in the form of false beliefs. Again, a very active individual, who is capable of doing a large amount of work, may not know, from faulty thinking, when his danger line of hard work has been reached. He does not know his real strength; he overdoes himself and brings on a mental breakdown.

It is thus seen that bad habits of thinking pass insensibly into actual mental disease. Suspiciousness, sensitiveness, seclusiveness, brooding, anxiety, fear, fretting, overwork, overexcitement, despondency, etc., if unchecked or uninterfered with, may run riot and bring their possessor to mental wreckage.

In the education of the child, the lack of practical training, the attempting to do things beyond its capabilities, idleness, day-dreaming, etc., are apt to encourage unhygienic mental habits which may pave the way for serious mental trouble in adult life. In

later life mental breakdowns may be hastened by one attempting a task beyond his mental capacity. Hence wrong habits of feeling, thinking, and living are important in the production of unhappy mental states as well as certain insanities.

In New York State, where State care for the insane is probably on the highest plane in this country, the State spends annually \$8,000,000 in the care of 32,000 insane. Besides there are other institutions in the State which care for the feeble-minded and other defectives. In her hospitals for the insane, which are valued at \$35,000,000, New York employs 200 physicians and 6,200 nurses and employees.

The State of Connecticut is caring for 4,300 insane, Massachusetts cares for 15,000, Illinois for 13,000, and so I might enumerate the large number of patients afflicted with mental disease that are being housed and treated by the several States in the Union.

The number of insane in the United States confined in institutions on January 1, 1910, was 187,454, the cost of maintaining them being \$32,804,450 annually. Besides, there are thousands of positively insane cases at large, and a larger number of constitutional inferiors, eccentrics, peculiar personalities, and other border-line cases, who, while enjoying freedom and being apparently harmless, would be better off for many reasons if confined to hospitals. It is a conservative estimate that there are 250,000 insane people in the United States to-day. Furthermore, it has been estimated that 1 out of every 300 of our population is a mental defective. In round numbers, 300,000 inhabitants of this country are mental defectives. A small portion of them (33,000) are segregated in institutions. It has also been estimated that 1 out of every 400 of our population is the victim of epilepsy. This makes a total of 750,000 patients afflicted with mental disease and defect who should be provided for in institutions. To quote from a recent address from Dr. Barker:

The care of the insane of the Nation, together with the economic loss incurred through incapacity and death, were estimated by Dr. C. L. Dana in 1904 to be about \$85,000,000 per year.

It is said to amount now to much more than \$100,000,000 per year. If we add to this the expense borne by society because of the feeble or abnormal minds of criminals, inebriates, paupers, and social parasites generally, we see what enormous sums could annually be saved by applying methods which will prevent mental anomaly and defect, or which will restore working capacity and economic independence to those suffering from mental disorders.

The Remedy.

NOTIFICATION.

Cases of epilepsy, mental deficiency, and insanity should be reported by physicians, school authorities, and others. Field workers, a certain percentage of whom should be physicians, could then be employed to ascertain the histories of the cases and the conditions under which they arose.

RESEARCH.

Each State should establish a department of research which could register and investigate all matters pertaining to the causation of mental disease and deficiency. The logical location for such research centers would be at a centrally located hospital for the insane, and at a similarly located home for defectives. In certain topics pertaining to mental hygiene a long time would be required to complete the investigations. At research centers could be collected and studied the histories and family histories of all cases of nervous and mental diseases within the State. The medical profession as a whole has furnished comparatively little data in regard to the relationship of heredity and mental disease. Some excellent data, small in amount, has been furnished by the staff officers of the various State hospitals. Heretofore, proposals for practical eugenics have been based upon the heredity findings of a comparatively small number of enthusiastic but nonmedical workers. Some points, among many, yet to be worked out, are:

1. Relationship between symptoms and mental abilities exhibited during life and the post-mortem brain findings in mental defectives.

2. Closer study of heredity, especially that of high-grade defectives.

3. Relationship between alcohol and mental defect. To what extent is alcohol a factor in the production of mental disease and mental defect?

4. Relative importance of heredity and environment in the causation of mental insufficiency.

Are several successive generations defective because of a certain environment?

Are certain settlements or even certain races defective en masse?

Comparison of data showing the mental ability of families living in crowded, unhygienic city quarters, with data collected from same families after living in hygienic country homes.

Comparison of the mental measurements of dullards with those of their children and grandchildren.

Comparison of the mental abilities of newly arrived immigrants with their ability some years later.

Comparison of the immigrant's native ability with that of his children and grandchildren.

Comparison of racial abilities.

Investigations of this kind require time, but it seems that definite information must be secured concerning medium and high grade defectives before we can put into operation the radical measures proposed by certain eugenisists.

SEGREGATION.

Even if it were possible to sharply demarcate the mentally abnormal and sterilize them, it would not settle the matter. Society should still be protected from the mentally unfit. It has been shown in England and in this country that the feeble-minded are self-supporting or partially self-supporting under supervision.

The recommendation to segregate all mentally defective women during the child-bearing period and males on or after the age of puberty is worth considering. The State now in many cases is compelled to house the lower grade defectives.

The feeble-minded (obvious cases) could be committed to suitable homes from the schools, courts, etc. Homes in the form of colony farms and industrial schools could be established. They could be made comfortable and inviting to patients and their relatives and an enlightened public could cooperate in insisting that defectives be confined to these places. Such homes could be supported through: (1) Patients' work, (2) fees from parents and guardians, (3) State aid, (4) private contributions. In such homes it would be necessary to have separate departments for the high-grade and low-grade cases. The sexes in all cases should be separated.

In general, little extension to the State-hospital reservations would have to be made in order to accommodate all the positive cases of insanity. For practical purposes we can only deal with the obvious cases.

Insane persons who are apt to beget and bear children should be segregated and carefully guarded by parents and guardians when on parole. Again, an enlightened public could do much to bring about the commitment of these sick people to suitable hospitals.

EDUCATION.

The general practitioner of medicine should have the opportunity to familiarize himself with the main features of psychiatry and mental deficiency. Psychiatric wards at the city hospitals would afford clinical experience and accomplish much for the patient. Special instructions could be given in the normal college in regard to the teaching of mental hygiene in the schools. In the elementary school the textbook on physiology could contain a chapter on various subjects pertaining to mental hygiene, such as recreation, outdoor life, prevention of disease, right habits of thinking, head injuries, plant life, fundamental principles in mating, toxic substances, alcohol, and their evil effects. In this connection let me quote from a report of a Massachusetts commission appointed in 1910 to investigate the increase of criminals, mental defectives, etc.:

* * * Indeed it is the belief of this commission, based upon long personal observation, that the abuse of alcohol directly and indirectly does more to fill our prisons, insane hospitals, institutions for the feeble-minded, and almshouses than all

other causes combined. We are unable to formulate any recommendations as to legislation which we believe would materially modify this deplorable condition. It is probable that long-continued education of the young as to the mental, moral, physical, and economic results of the abuse of alcohol will be the most effective method of dealing with this subject. * * *

Parents and guardians should become informed regarding the principles of mental hygiene, and especially sex hygiene, so that they can impart information to their children on the subjects of venereal disease, reproduction, and marriage. Such knowledge will combat, and in time replace, the perverted and mysterious ideas which many children now entertain in regard to sexual affairs.

The public in general should be given instruction on the various topics of mental hygiene, eugenics, and kindred subjects.

Laws forbidding the marriage of the insane, epileptics, and feeble-minded and which will consider the insane and feeble-minded as sick people and take their care and control from the police department and place them in the department of health, will be of decided benefit. State societies for mental hygiene have been established in New York, Connecticut, Massachusetts, Pennsylvania, Maryland, and Illinois. Ten others are soon to inaugurate the same movement. The purpose of these societies is to give proper advice to persons affected with mild mental disorders, to advise relatives of the insane in regard to commitments and to assist in establishing patients in life after they have recovered from an attack of mental disease.

It is understood that New York State will soon inaugurate an outpatient department in connection with the State hospital service. There will be dispensary points in connection with general hospitals at various places in a State hospital district. A medical officer of the State hospital service will be assigned to this dispensary duty in each district.

The inauguration of the State societies for mental hygiene is largely due to efforts of the national committee for mental hygiene. Dr. Barker in a recent address, wherein he spoke on the objects of the national committee, said:

Among the objects may be emphasized (1) the protection of the mental health of the public at large; (2) the promotion of the study of mental disorders in all their forms and relation, and the dissemination of knowledge concerning their causes, treatment, and prevention; and (3) amelioration of conditions among those already suffering from mental disorder.

The most important function of the National Government from a mental hygiene standpoint is the exclusion of immigrants afflicted with insanity, imbecility, and feeble-mindedness.

Under the direction of the Surgeon General of the Public Health Service the performance of this national function is being carried on with greater and greater attention to details. At Ellis Island, the

principal immigration station, the medical staff has been increased by the addition of officers specially trained in mental disease. New methods have been devised and old methods have been improved upon in the detection and examination of mentally defective and insane immigrants. On the examination line at Ellis Island the slightest suspicion that an alien is mentally defective or insane is sufficient to have him put aside for special examination. Fully one out of every three immigrants is questioned by the medical officers in order to bring out symptoms of mental disease and mental defect.

Not only has increased activity in this national function been manifested at Ellis Island, but every port on the Atlantic coast has been strengthened by the assignment of experienced medical officers.

In this paper I have tried to outline the main causes of disordered mentality and what is being done by the country in general and New York State in particular in the mental hygiene movement. I have ventured some suggestions and have emphasized the suggestions of others which seem to me to be the most practical method of handling the present problems of mental disease and mental deficiency.

References.

- Some Phases of the Mental Hygiene Movement and the Scope of the Work of the National Committee for Mental Hygiene, by Lewellys F. Barker, M. D.
 Preventive Principles in the Field of Mental Medicine, by William A. White, M. D.
 The Manageable Causes of Insanity, by Dr. August Hoch.
 The Prevention of Insanity, Hygiene of the Mind, by Dr. A. J. Rosanoff.
 A Study in the Etiology of Insanity, by William Mahon, M. D.
 Mental Hygiene Movement.
 State Societies for Mental Hygiene, by National Committee of Mental Hygiene.
 Principles of Mental Hygiene Applied to the Management of Children Predisposed to Nervousness, by Dr. Lewellys F. Barker.
 The Illinois Society for Mental Hygiene, annual report, 1911.
 Fourth Annual Report of the Connecticut Society for Mental Hygiene, by the Connecticut Society for Mental Hygiene.
 Why Should Anyone Go Insane? by Homer Folks and Everett S. Elwood.
 The State's Duty in the Prevention of Insanity, by Albert Warren Ferris, A. M., M. D.
 Clinical Psychiatry, by Dieffendorf.
 Outlines of Psychiatry, by William A. White.
 Mental Deficiency, by Tredgold.
 Prevention of Mental Diseases, by Passed Asst. Surg. Thomas W. Salmon, United States Public Health Service, in "Hygiene and Preventive Medicine," by Rosenau.
 Data, National Committee of Mental Hygiene.
 Manual of Psychiatry, by De Fursac and Rosanoff.
 Mental Diseases, by Frederick Peterson, M. D.
 Psychological Medicine, by Maurice Craig.

PREVALENCE OF DISEASE.

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

IN CERTAIN STATES AND CITIES.

SMALLPOX.

State Reports for December, 1913.

Places.	Number of new cases reported during month.	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.
Massachusetts:						
Worcester County—						
Fitchburg.....	1		1			
Webster.....	2				2	
Total	3		1		2	
Michigan:						
Alger County—						
Rock River Township..	2				2	
Baraga County—						
L'Anse Township.....	1					1
L'Anse.....	1			1		
Barry County—						
Assyria Township.....	3				1	2
Bay County—						
Bay City.....	1		1			
Benzie County—						
Gilmore Township.....	2			1		1
Branch County—						
Coldwater.....	1				1	
Calhoun County—						
Convis Township.....	1					1
Pennfield Township...	2					2
Battle Creek.....	10				10	
Cass County—						
Dowagiac.....	1				1	
Chippewa County—						
Sault Ste. Marie.....	3				2	1
Delta County—						
Gladstone.....	3		1		2	
Eaton County—						
Pottersville.....	3				3	
Grand Traverse County—						
Blair Township.....	6					6
White Water Township.	8				1	7
Hillsdale County—						
Reading.....	1					1
Huron County—						
Port Austin Township..	2				2	
Port Austin.....	6				6	
Ingham County—						
Lansing.....	1				1	
Kalamazoo County—						
Cooper Township.....	1			1		

SMALLPOX—Continued.

State Reports for December, 1913—Continued.

Places.	Number of new cases reported during month.	Deaths.	Vaccination history of cases.			
			Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
Michigan—Continued.						
Lapeer County—						
Attica Township.....	1					1
Manistee County:						
Manistee.....	4					4
Marquette County:						
Powell Township.....	8				8	
Ishpeming.....	3				2	1
Marquette.....	2					2
Menominee County:						
Daggett.....	2				2	
Menominee.....	1				1	
Monroe County:						
Erie Township.....	7				5	2
Oakland County:						
Novi Township.....	1					1
Oceana County:						
Ferry Township.....	2				1	1
Saginaw County:						
Saginaw.....	3		1		2	
St. Clair County:						
Emmett Township.....	3				3	
Kimball Township.....	1					1
Riley Township.....	1				1	
Emmett.....	2				2	
Schoolcraft County—						
Doyle Township.....	14				14	
Mueller Township.....	1					1
Manistique.....	18				18	
Wayne County:						
Hamtramck.....	1				1	
Detroit.....	18				18	
Total.....	152		3	3	110	36
Ohio:						
Allen County.....	34					34
Athens County.....	13			2	4	7
Brown County.....	4					4
Champaign County.....	1					1
Coshocton County.....	1				1	
Cuyahoga County—						
Cleveland.....	3				3	
Delaware County.....	1				1	
Fairfield County—						
Lancaster.....	1					1
Franklin County.....	25				18	7
Fulton County.....	1					1
Hamilton County.....	5			2	1	2
Hancock County.....	14				7	7
Hocking County.....	1				7	1
Jackson County.....	38					38
Knox County.....	2					2
Lawrence County.....	47				42	5
Logan County.....	9				4	5
Lucas County.....	142			2	139	1
Marion County.....	11	1				11
Mercer County.....	2					2
Muskingum County.....	10				7	3
Paulding County.....	1					1
Perry County.....	26					26
Putnam County.....	47				3	44
Ross County.....	1					1
Scioto County.....	21					21
Shelby County.....	12					12
Summit County.....	12					12
Union County.....	1					1
Van Wert County.....	36				1	34
Warren County.....	1				2	1
Williams County.....	6					6
Total.....	529	1		6	233	290

SMALLPOX—Continued.

State Reports for December, 1913—Continued.

Places.	Number of new cases reported during month.	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.
Wisconsin:						
Adams County.....	1					1
Ashland County.....	6			3	1	2
Brown County.....	6				4	2
Chippewa County.....	3					3
Columbia County.....	2					2
Crawford County.....	6				6	
Dane County.....	37		6	20	10	1
Dodge County.....	17		7	9	1	
Douglas County.....	8					8
Grant County.....	2					2
Iowa County.....	1				1	
Jefferson County.....	57		44	13		
Keweenaw County.....	28		6	9	9	4
La Crosse County.....	4					4
Manitowoc County.....	1		1			
Marathon County.....	1		1			
Marquette County.....	10		2	7		1
Marquette County.....	9				1	8
Milwaukee County.....	174					174
Monroe County.....	16		1			15
Oconto County.....	7		5	1	1	
Outagamie County.....	16		6	5	5	
Pierce County.....	2			2		
Polk County.....	1		1			
Portage County.....	4					4
Racine County.....	1		1			
Rock.....	5				5	
Rusk County.....	1					1
Sauk County.....	1					1
Trempealeau County.....	1					1
Walworth County.....	2		2			
Waukesha County.....	1					1
Waupaca County.....	2			2		
Wood County.....	13		2			11
Total.....	446		85	71	44	246

Arkansas—Danville and Higden.

The State health officer of Arkansas reported that 7 cases of smallpox had been notified at Danville, Yell County, Ark., and that since December 28, 1913, 22 cases had been notified at Higden, Cleburne County, Ark.

California—Los Angeles.

Senior Surg. Brooks, of the Public Health Service, reported by telegraph that during the week ended January 17, 1914, 5 cases of smallpox had been notified in Los Angeles, Cal.

Indiana—Evansville.

Acting Asst. Surg. Werry, of the Public Health Service, reported by telegraph that during the week ended January 17, 1914, 12 cases of smallpox had been notified in Evansville, Ind.

SMALLPOX—Continued.

New York—Niagara Falls.

Acting Asst. Surg. Bingham, of the Public Health Service, reported by telegraph that during the week ended January 17, 1914, 63 cases of smallpox had been notified at Niagara Falls, N. Y.

Miscellaneous State Reports.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Connecticut (Dec. 1-31):			Virginia—Continued.		
Counties—			Counties—Continued.		
Hartford	6	.....	Amelia	1	.....
New London	15	.....	Amherst	6	.....
Windham	16	1	Appomattox	2	.....
Tolland	9	.....	Brunswick	2	.....
Total	46	1	Buchanan	20	.....
District of Columbia (Dec. 1-31).....			Buckingham	11	.....
5			Campbell	1	.....
South Carolina (Dec. 1-31):			Hallfax	1	.....
Counties—			Isle of Wight	18	.....
Abbeville	2	.....	Mecklenburg	13	.....
Calhoun	4	.....	Montgomery	26	.....
Greenville	5	.....	Nansemond	55	.....
Laurens	1	.....	Norfolk	7	.....
Marlboro	11	.....	Northampton	4	.....
Orangeburg	7	.....	Nottoway	2	.....
Richland	2	.....	Princess Anne	36	.....
Spartanburg	6	.....	Prince George	1	.....
Total	38	.....	Prince William	1	.....
Virginia (Dec. 1-31):			Roanoke	3	.....
Counties—			Russell	27	.....
Alexandria	1	.....	Smyth	2	.....
			Surry	2	.....
			Sussex	4	.....
			Washington	36	.....
			Wise	1	.....
			Total	283	.....

City Reports for Week Ended Jan. 3, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Altoona, Pa.	3	.....	Nashville, Tenn.	10	.....
Aurora, Ill.	6	.....	Niagara Falls, N. Y.	33	.....
Boston, Mass.	1	.....	Portsmouth, Va.	1	.....
Buffalo, N. Y.	2	.....	Providence, R. I.	1	.....
Chicago, Ill.	2	.....	Racine, Wis.	1	.....
Evansville, Ind.	2	.....	Reading, Pa.	2	.....
Kansas City, Kans.	23	.....	Roanoke, Va.	2	.....
Kansas City, Mo.	3	.....	Sacramento, Cal.	1	.....
Knoxville, Tenn.	9	.....	Steelton, Pa.	1	.....
La Crosse, Wis.	3	.....	Superior, Wis.	1	.....
Lexington, Ky.	1	.....	Washington, D. C.	5	.....
Lynchburg, Va.	2	.....	Zanesville, Ohio.	2	.....
Milwaukee, Wis.	28	.....		

TYPHOID FEVER.

State Reports for December, 1913.

Places.	Number of new cases reported during month.	Places.	Number of new cases reported during month.
Hawaii:		Maryland, etc.—Continued.	
Oahu—		Howard County—	
Honolulu.....	11	Woodstock.....	1
Ewa district.....	1	Kent County—	
Hawaii—		Golts.....	2
Puna district.....	2	Betterton.....	1
Hilo.....	2	Rockville.....	1
South Hilo district.....	1	Montgomery County—	
Hamakua district.....	1	Rockville.....	1
Kauai—		Prince Georges County—	
Waimea district.....	1	Croom.....	1
Total.....	19	Queen Annes County—	
Maryland, exclusive of Baltimore City:		Millington R. F. D.....	1
Allegany County—		Star.....	1
Cumberland.....	5	Centerville.....	1
Western Maryland Hospital.....	1	Queenstown.....	1
Westernport.....	5	Somerset County—	
Midland.....	1	Crisfield.....	2
Frostburg.....	1	Princess Anne.....	1
Frostburg R. F. D.....	1	Upper Fairmount.....	1
Luke.....	1	Hopewell.....	1
Allegany Hospital.....	1	Talbot County—	
Anne Arundel County—		Easton.....	3
Churchton.....	2	Washington County—	
Bristol.....	1	Hagerstown.....	4
Nutwell.....	2	Brownsville.....	1
Baltimore County—		Hancock.....	2
Catonsville.....	1	Smithsburg.....	1
Grays.....	2	Wicomico County—	
Highlandtown.....	5	Salisbury.....	4
Towson.....	1	Fruitland.....	1
Roslyn.....	1	Worcester County—	
Sparks.....	1	Berlin.....	2
Rockland R. F. D.....	1	Snow Hill.....	3
Relay.....	1	Whitton.....	1
Mount Winans.....	1	Total.....	122
Calvert County—		Massachusetts:	
Sunderland.....	4	Berkshire County—	
Poplars.....	1	Adams.....	1
Mutual.....	1	North Adams.....	1
Cecil County—		Pittsfield.....	1
Elkton.....	3	Bristol County—	
Rising Sun.....	1	Fall River.....	7
Chesapeake City.....	1	New Bedford.....	4
Charles County—		Essex County—	
Pisgah.....	1	Andover.....	1
Rison.....	1	Haverhill.....	2
Pomfret.....	1	Ipswich.....	1
Bel Alton.....	2	Lynn.....	5
Dentsville.....	1	Franklin County—	
Indian Head.....	1	Greenfield.....	2
Berry.....	1	Hampden County—	
Waldorf.....	1	Holyoke.....	2
Dorchester County—		Ludlow.....	1
Cambridge.....	6	Springfield.....	7
Hurlock.....	2	Hampshire County—	
Vienna.....	2	Hatfield.....	1
Black Water.....	2	Middlesex County—	
Lloyds.....	1	Cambridge.....	2
Hoopersville.....	1	Dracut.....	1
Fishing Creek.....	8	Everett.....	2
Wrights.....	1	Hudson.....	2
Hills Point.....	1	Lexington.....	1
Frederick County—		Lowell.....	7
Creagerstown.....	1	Malden.....	2
Woodsboro.....	1	Marlboro.....	2
Lewistown.....	1	Newton.....	1
Garrett County—		Reading.....	1
Crellin.....	1	Somerville.....	4
Harford County—		Tewksbury.....	1
Aberdeen.....	1	Wakefield.....	2
		Waltham.....	3
		Watertown.....	1

TYPHOID FEVER—Continued.

State Reports for December, 1913—Continued.

Places.	Number of new cases reported during month.	Places.	Number of new cases reported during month.
Massachusetts—Continued.		Michigan—Continued.	
Norfolk County—		Tuscola County—	
Brookline.....	1	Gifford Township.....	1
Quincy.....	2	Van Buren County—	
Plymouth County—		South Haven Township.....	1
Brockton.....	2	Gobleville.....	1
Suffolk County—		Lawrence.....	1
Boston.....	28	Washtenaw County—	
Chelsea.....	1	Ann Arbor.....	1
Worcester County—		Ypsilanti.....	1
Bolton.....	1	Wayne County—	
Fitchburg.....	2	Wyandotte.....	16
Holden.....	1	Total.....	86
Milford.....	1		
Southbridge.....	1	New Jersey:	
Worcester.....	9	Atlantic County.....	3
Total.....	117	Bergen County.....	3
		Burlington County.....	11
Michigan:		Camden County.....	3
Alpena County—		Cape May County.....	2
Alpena.....	9	Cumberland County.....	6
Bay County—		Essex County.....	3
Bay City.....	2	Hudson County.....	3
Benzie County—		Mercer County.....	7
Waldron Township.....	1	Middlesex County.....	5
Frankfort.....	2	Monmouth County.....	8
Berrien County—		Passaic County.....	6
Benton Harbor.....	1	Salem County.....	1
Niles.....	1	Somerset County.....	1
Calhoun County—		Union County.....	6
Marengo Township.....	1	Warren County.....	5
Chippewa County—		Total.....	73
Sault Ste. Marie.....	1		
Eaton County—		Ohio:	
Benton Township.....	2	Ashland County.....	1
Genesee County—		Ashtabula County.....	3
Flint.....	2	Athens County.....	4
Ingham County—		Auglaize County.....	2
Lansing.....	1	Belmont County.....	12
Ionia County—		Butler County.....	2
Easton Township.....	2	Carroll County.....	1
Iron County—		Champaign County.....	4
Crystal Falls.....	5	Clermont County.....	2
Kalamazoo County—		Columbiana County.....	11
Kalamazoo.....	3	Crawford County.....	2
Kent County—		Cuyahoga County—	
Grand Rapids.....	10	Cleveland.....	25
Lenawee County—		Darke County.....	3
Fairfield Township.....	1	Defiance County.....	6
Mackinac County—		Delaware County.....	1
St. Ignace.....	1	Erie County.....	3
Macomb County—		Fairfield County.....	1
Ray Township.....	1	Fayette County.....	3
Manistee County—		Franklin County—	
Manistee.....	1	Columbus.....	14
Marquette County—		Gallia County.....	4
Ishpeming.....	1	Greene County.....	1
Marquette.....	1	Guernsey County.....	1
Menominee County—		Hamilton County—	
Menominee.....	1	Cincinnati.....	9
Montcalm County—		Hancock County.....	2
Cato Township.....	1	Harding County.....	2
Winfield Township.....	1	Harrison County.....	1
Oakland County—		Henry County.....	1
Waterford Township.....	1	Hocking County.....	5
Holly.....	2	Holmes County.....	1
Saginaw County—		Huron County.....	3
St. Charles.....	3	Jackson County.....	3
Saginaw.....	4	Jefferson County.....	10
St. Clair County—		Knox County.....	2
Port Huron.....	1	Lake County.....	1
Schoolcraft County—		Lawrence County.....	20
Manistique.....	1		

TYPHOID FEVER—Continued.

State Reports for December, 1913—Continued.

Places.	Number of new cases reported during month.	Places.	Number of new cases reported during month.
Ohio—Continued.		Virginia—Continued.	
Licking County—		Greene County.....	1
Newark.....	5	Greensville County.....	6
Logan County.....	5	Halifax County.....	2
Lorain County.....	3	Hanover County.....	3
Lucas County.....	9	Henrico County.....	12
Mahoning County.....	9	Henry County.....	1
Marion County.....	1	Highland County.....	2
Medina County.....	3	Isle of Wight County.....	4
Meigs County.....	2	King and Queen County.....	1
Mercer County.....	11	Lancaster County.....	5
Miami County.....	3	Loudoun County.....	9
Monroe County.....	3	Lunenburg County.....	1
Montgomery County.....	4	Madison County.....	1
Muskingum County.....	24	Mathews County.....	1
Noble County.....	2	Mecklenburg County.....	1
Paulding County.....	1	Montgomery County.....	4
Perry County.....	6	Nansemond County.....	3
Pickaway County.....	2	Norfolk County.....	3
Pike County.....	1	Northampton County.....	3
Portage County.....	8	Nottoway County.....	2
Preble County.....	3	Pittsylvania County.....	1
Putnam County.....	2	Powhatan County.....	1
Richland County.....	7	Princess Anne County.....	1
Ross County.....	6	Prince George County.....	1
Sandusky County—		Pulaski County.....	1
Fremont.....	1	Roanoke County.....	10
Scioto County.....	22	Russell County.....	6
Seneca County.....	1	Scott County.....	2
Stark County.....	3	Shenandoah County.....	5
Summit County.....	8	Smyth County.....	2
Trumbull County.....	3	Southampton County.....	3
Tuscarawas County.....	11	Spotsylvania County.....	1
Van Wert County.....	31	Sussex County.....	2
Warren County.....	2	Tazewell County.....	12
Washington County.....	3	Warren County.....	5
Williams County.....	1	Warwick County.....	1
Wood County.....	2	Washington County.....	6
Wyandot County.....	2	Westmoreland County.....	7
Total.....	376	Wise County.....	10
		Wythe County.....	1
		Total.....	212
South Carolina:		Wisconsin:	
Abbeville County.....	3	Ashland County.....	1
Calhoun County.....	1	Bayfield County.....	1
Darlington County.....	1	Burnett County.....	1
Greenville County.....	2	Calumet County.....	5
Marion County.....	6	Chippewa County.....	9
Orangeburg County.....	3	Columbia County.....	1
Richland County.....	1	Douglas County.....	7
Saluda County.....	1	Dunn County.....	1
Sumter County.....	2	Eau Claire County.....	2
Total.....	20	Fond du Lac County.....	2
		Green Lake County.....	7
Virginia:		Jackson County.....	1
Albemarle County.....	1	Kenosha County.....	3
Alleghany County.....	13	Kewatnee County.....	1
Amelia County.....	1	La Crosse County.....	1
Amherst County.....	1	Manitowoc County.....	1
Augusta County.....	1	Marathon County.....	1
Bedford County.....	5	Marinette County.....	3
Botetourt County.....	6	Milwaukee County.....	15
Brunswick County.....	3	Outagamie County.....	1
Buckingham County.....	1	Pepin County.....	2
Campbell County.....	11	Pierce County.....	1
Carroll County.....	1	Richland County.....	1
Chesterfield County.....	9	Sheboygan County.....	2
Dinwiddie County.....	2	Vernon County.....	1
Fauquier County.....	2	Washington County.....	2
Floyd County.....	5	Wood County.....	2
Fluvanna County.....	1	Total.....	75
Frederick County.....	4		
Giles County.....	1		
Grayson County.....	1		

TYPHOID FEVER—Continued.

City Reports for Week Ended Jan. 3, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Alameda, Cal.....	1		Marinette, Wis.....	1	1
Ann Arbor, Mich.....	2		Medford, Mass.....	1	
Atlantic City, N. Y.....	1		Milwaukee, Wis.....	5	
Baltimore, Md.....	6	2	Nashville, Tenn.....	2	
Beaver Falls, Pa.....	1		Newark, N. J.....	2	
Binghamton, N. Y.....	1		New Orleans, La.....	12	
Boston, Mass.....	2		North Adams, Mass.....	1	
Braddock, Pa.....	1		Oakland, Cal.....	2	
Brockton, Mass.....	1		Pasadena, Cal.....	3	1
Bridgeport, Conn.....	1		Pawtucket, R. I.....	1	
Brookline, Mass.....	1		Philadelphia, Pa.....	18	3
Buffalo, N. Y.....	5	2	Pittsburgh, Pa.....	5	3
Cambridge, Mass.....	1		Pittsfield, Mass.....	2	
Camden, N. J.....	1		Providence, R. I.....	4	
Chelsea, Mass.....	1		Rutland, Vt.....	1	
Chicago, Ill.....	15	5	Sacramento, Cal.....	12	
Cleveland, Ohio.....	10	2	St. Louis, Mo.....	9	3
Cumberland, Md.....	2		San Francisco, Cal.....	7	3
East Orange, N. J.....	1		San Diego, Cal.....		1
Fall River, Mass.....	1		Saratoga Springs, N. Y.....	1	
Grand Rapids, Mich.....	9	1	Springfield, Ill.....	1	
Hartford, Conn.....	1		Springfield, Mass.....	1	
Johnstown, Pa.....	3		Washington, D. C.....	9	2
La Fayette, Ind.....		1	Wilksburg, Pa.....	1	
Lancaster, Pa.....	1		Wilmington, N. C.....		1
Little Rock, Ark.....	4		Worcester, Mass.....	2	
Los Angeles, Cal.....	5		York, Pa.....	1	
Lowell, Mass.....	2		Zanesville, Ohio.....	40	4
Lynchburg, Va.....		1			

CEREBROSPINAL MENINGITIS.

State Reports for December, 1913.

Places.	Number of new cases reported during month.	Places.	Number of new cases reported during month.
Maryland, exclusive of Baltimore City:		Ohio:	
Allegany County.....		Defiance County.....	
Cumberland.....	1	Defiance.....	2
Wicomico County.....		Hamilton County.....	
Salisbury.....	1	Cincinnati.....	1
Total.....	2	Hancock County.....	2
Massachusetts:		Highland County.....	1
Bristol County.....		Richland County.....	
New Bedford.....	4	Mansfield.....	1
Essex County.....		Ross County.....	2
Haverhill.....	1	Scioto County.....	2
Salem.....	1	Summit County.....	3
Middlesex County.....		Van Wert County.....	
Ayer.....	2	Van Wert.....	2
Cambridge.....	1	Total.....	16
Lowell.....	1	South Carolina:	
Waltham.....	1	Lee County.....	1
Norfolk County.....		Wisconsin:	
Quincy.....	1	Ashland County.....	1
Suffolk County.....		Calumet County.....	2
Boston.....	4	Douglas County.....	1
Worcester County.....		Grant County.....	2
Southbridge.....	1	La Crosse County.....	1
Worcester.....	1	Milwaukee County.....	4
Total.....	18	Winnebago County.....	2
		Total.....	13

CEREBROSPINAL MENINGITIS—Continued.

City Reports for Week Ended Jan. 3, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Ann Arbor, Mich.....	1	.....	Manchester, N. H.....	1	1
Boston, Mass.....	1	2	Milwaukee, Wis.....	1	1
Bridgeport, Conn.....	1	.....	New Orleans, La.....	1	1
Chicago, Ill.....	1	1	Philadelphia, Pa.....	1	.....
Dayton, Ohio.....	1	1	Pittsburgh, Pa.....	2	1
Kansas City, Mo.....	1	1	Superior, Wis.....	.....	1
Los Angeles, Cal.....	3	2			

POLIOMYELITIS (INFANTILE PARALYSIS).

State Reports for December, 1913.

Places.	Number of new cases reported during month.	Places.	Number of new cases reported during month.
Hawaii:		Ohio:	
Owahu—		Cuyahoga County—	
Honolulu.....	1	Cleveland.....	1
Maryland, exclusive of Baltimore City:		Hamilton County—	
Harford County—		Cincinnati.....	2
Sharon.....	1	Lorain County—	
Massachusetts:		Elyria.....	1
Bristol County—		Portage County.....	1
Berkley.....	1	Total.....	5
Hampden County—		Virginia:	
Ludlow.....	1	Alleghany County.....	2
Westfield.....	1	Carroll County.....	2
Middlesex County—		Fluvanna County.....	1
Concord.....	1	Frederick County.....	1
Melrose.....	1	James City County.....	1
Norfolk County—		Smyth County.....	1
Brookline.....	1	Southampton County.....	1
Quincy.....	1	Spotsylvania County.....	1
Plymouth County—		Total.....	10
Brookton.....	1	Wisconsin:	
Plymouth.....	1	Calumet County.....	1
Suffolk County—		Jackson County.....	1
Boston.....	5	Kenosha County.....	1
Worcester County—		Kewannee County.....	1
Hardwick.....	3	Vernon County.....	1
Webster.....	1	Total.....	5
Worcester.....	1		
Total.....	19		
Michigan:			
Shiawassee County—			
Fairfield Township.....	1		

Correction.

In the city reports of poliomyelitis for the week ended November 29, 1913, appearing in the Public Health Reports, Vol. 28, No. 51, December 19, 1913, 10 cases of poliomyelitis with 8 deaths were erroneously reported for Los Angeles, Cal. The cases and deaths referred to should have appeared in the city reports for pneumonia.

POLIOMYELITIS (INFANTILE PARALYSIS)—Continued.

City Reports for Week Ended Jan. 3, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Boston, Mass.....	1	.....	Fall River, Mass.....	.....	1
Brockton, Mass.....	1	.....	Kansas City, Kans.....	1	.....
Cincinnati, Ohio.....	1	1	Manchester, N. H.....	1	1
Cleveland, Ohio.....	1	1	Newburyport, Mass.....	1	1

ERYSIPELAS.

City Reports for Week Ended Jan. 3, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Baltimore, Md.....	.....	1	Milwaukee, Wis.....	1	.....
Binghamton, N. Y.....	1	.....	Newark, N. J.....	.....	1
Bridgeport, Conn.....	1	.....	New Castle, Pa.....	1	.....
Buffalo, N. Y.....	6	.....	Norristown, Pa.....	.....	1
Chicago, Ill.....	7	.....	Philadelphia, Pa.....	13	4
Cincinnati, Ohio.....	2	.....	Pittsburgh, Pa.....	10	4
Cleveland, Ohio.....	5	.....	Reading, Pa.....	1	.....
Cumberland, Md.....	2	1	Rutland, Vt.....	1	.....
East Orange, N. J.....	1	.....	St. Louis, Mo.....	4	.....
Evansville, Ind.....	.....	2	San Francisco, Cal.....	2	.....
Johnstown, Pa.....	2	2	Superior, Wis.....	1	.....
Harrisburg, Pa.....	1	.....	Trenton, N. J.....	.....	1
Los Angeles, Cal.....	1	1	Wilkesburg, Pa.....	3	.....

PLAGUE.

Rats Collected and Examined.

Places.	Week ended—	Found dead.	Total collected.	Examined.	Found infected.
California:					
Cities—					
Oakland.....	Dec. 27, 1913	13	545	452	.....
Berkeley.....	.....do.....	.....	103	84	.....
San Francisco.....	.....do.....	7	1,659	1,367	.....

Washington—Seattle—Plague-Infected Rats Found.

Surg. Lloyd, of the Public Health Service, reported by telegraph the finding of a plague-infected rat at Seattle January 16 and one January 19, 1914.

LEPROSY.

Michigan—Benton Harbor.

The State Board of Health of Michigan reported that during the month of December, 1913, a case of leprosy had been notified at Benton Harbor, Mich., in a male Hebrew, aged 27 years, nativity Russia. The diagnosis was verified bacteriologically December 16, 1913, and the report stated that the case had a history of at least 10 years' duration.

PNEUMONIA.

City Reports for Week Ended Jan. 3, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Auburn, N. Y.	3	1	Marinette, Wis.	2	2
Beaver Falls, Pa.	2		New Castle, Pa.	2	
Bennington, Vt.	1		Newport, Ky.	1	1
Binghamton, N. Y.	8	4	Pasadena, Cal.	1	
Braddock, Pa.	2		Philadelphia, Pa.	34	73
Chicago, Ill.	98	111	Pittsburgh, Pa.	38	49
Cleveland, Ohio.	36	14	Reading, Pa.	2	
Grand Rapids, Mich.	3	2	Sacramento, Cal.	3	6
Harrisburg, Pa.	2	3	San Francisco, Cal.	7	5
Kansas City, Kans.	4	7	Saratoga Springs, N. Y.	1	1
Los Angeles, Cal.	13	13	South Omaha, Nebr.	1	
Manchester, N. H.	4	4	Wilmington, N. C.	1	4

RABIES.

California—Berkeley and Oakland—Rabies in Animals.

Surg. Long, of the Public Health Service, reported by telegraph that during the week ended January 17, 1914, rabies in dogs had been reported as follows: 1 case in Berkeley and 1 in Oakland, Cal.

TETANUS.

City Reports for Week Ended Jan. 3, 1914.

Places.	Cases.	Deaths.	Places.	Cases.	Deaths.
Alameda, Cal.		1	Philadelphia, Pa.		1
Chicago, Ill.		1	St. Louis, Mo.	1	2
New Orleans, La.		1	Wilmington, N. C.		2

TYPHUS FEVER.

Quarantine Port of New York.

The health officer of the port of New York reported by telegraph that on January 17, 1914, 2 cases of typhus fever had been removed from the steamship *Belvedere*, from Trieste via Patras, Palermo, Algiers, and Halifax. The report stated that the bill of health of the *Belvedere* showed that a passenger who boarded the vessel at Patras had been removed at Palermo December 27, 1913, with typhus fever. One of the patients removed from this vessel had boarded the ship at Patras.

On January 21, 1914, another case of typhus fever developed among the contacts detained at quarantine from the *Belvedere*.

A further report stated that 1 case of typhus fever had been removed January 18, 1914, from the steamship *Kaiser Franz Joseph I*, from Trieste via Patras, Palermo, and Algiers, and that the patient had boarded the vessel at Trieste.

SCARLET FEVER, MEASLES, DIPHTHERIA, AND TUBERCULOSIS.

State Reports for December, 1913.

	Scarlet fever.	Measles.	Diphtheria.
Hawaii.....		7	20
Maryland, exclusive of Baltimore city.....	152	204	155
Massachusetts.....	1,120	436	817
Michigan.....	189	911	394
New Jersey.....		2,141	673
Ohio.....	805	850	1,546
South Carolina.....	14	20	23
Wisconsin.....	255	349	277

City Reports for Week Ended Jan. 3, 1914.

Cities.	Population, United States census 1910.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Over 500,000 inhabitants:										
Baltimore, Md.....	558,485	210	46	6	9	1	22	2	13	16
Boston, Mass.....	670,585	250	54	4	40		90	1	100	29
Chicago, Ill.....	2,185,283	668	158	22	23		102	11	138	71
Cleveland, Ohio.....	560,663	146	56	2	23		13	1	21	9
Philadelphia, Pa.....	1,549,008	587	70	7	66	1	65	5	68	68
Pittsburgh, Pa.....	533,008	226	42	2	44		129	7	24	9
St. Louis, Mo.....	687,029	243	84	10	87	1	34	3	28	13
From 300,000 to 500,000 inhabitants:										
Buffalo, N. Y.....	423,715	195	24	2	4		10	1	12	17
Cincinnati, Ohio.....	364,463	140	25	3	3		12		20	16
Los Angeles, Cal.....	319,198	136	5	1	4		6		43	27
Milwaukee, Wis.....	373,857	105	27	2	23		26	1	12	6
Newark, N. J.....	347,469	112	30	3	186	1	39	1	29	14
New Orleans, La.....	339,075	139	39	3	16		1		62	13
San Francisco, Cal.....	416,912	175	9		6		4		38	17
Washington, D. C.....	331,069	132	16		6		10		15	12
From 200,000 to 300,000 inhabitants:										
Jersey City, N. J.....	267,779	73		1						13
Kansas City, Mo.....	248,381		4	1	3		4		1	7
Providence, R. I.....	224,326	73	16	2	5	2	14	1	10	11
From 100,000 to 200,000 inhabitants:										
Bridgeport, Conn.....	102,054	35	10	2	40	2	10		8	5
Cambridge, Mass.....	104,839	39	1		10		10		6	6
Dayton, Ohio.....	116,577	29	21		17		9	1	2	1
Fall River, Mass.....	119,295	37	15	1			21	2	8	6
Grand Rapids, Mich.....	112,571	29	13	1	134	1	26	2	3	2
Lowell, Mass.....	106,294	36	8	1	8		2			3
Nashville, Tenn.....	110,364	32	3				4		6	3
Oakland, Cal.....	150,174	59	5	1					2	2
Worcester, Mass.....	145,986	50	5		6	1	6	1	8	3
From 50,000 to 100,000 inhabitants:										
Altoona, Pa.....	52,127	12	1				4	1		
Bayonne, N. J.....	55,545	21	7	2	20	1	4	1		
Brockton, Mass.....	56,878	13	6		8		7		4	1
Camden, N. J.....	94,538		7		3		1		5	
Evansville, Ind.....	69,647	18								1
Harrisburg, Pa.....	64,186	28	5		2		1			3
Hartford, Conn.....	98,915	29	17		3	1	4		2	2
Hoboken, N. J.....	70,324		1		1		1		14	
Johnstown, Pa.....	55,482	28	6	1			3			
Kansas City, Kans.....	82,331		1		1		2		6	
Lynn, Mass.....	89,336	21	4	2	2		2		1	1
Manchester, N. H.....	70,063	28	2	1			7	1	1	1
New Bedford, Mass.....	96,652	27	3		1		11		8	2
Passaic, N. J.....	54,773	24	6	1	2		2		1	
Pawtucket, R. I.....	51,622		1				2			2
Reading, Pa.....	96,071	27	2	1	1		5		1	1
Saginaw, Mich.....	50,510	12			1				1	
Springfield, Ill.....	51,678	11	4							1

FOREIGN REPORTS.

AUSTRALIA.

Smallpox—New South Wales.

During the period from October 29 to December 6, 1913, 16 cases of smallpox were notified in New South Wales. These cases occurred in country districts. The total number of cases notified from July 1 to December 6, 1913, was 1,049, of which 1,009 cases occurred within the metropolitan area of Sydney and the remainder in country districts.

AZORES.

Plague—Angra.

A death from plague was notified December 21, 1913, at Angra, Island of Terceira, Azores.

CHINA.

Plague—Plague-Infected Rat—Hongkong.

Plague has been notified in Hongkong as follows: Week ended November 29, 1913, 4 cases, with 4 deaths; week ended December 6, 1913, 3 cases, with 3 deaths.

During the same period 4,712 rats were examined at Hongkong for plague infection. One plague-infected rat was found.

Plague-Infected Rats—Shanghai.

During the period from December 1 to 13, 1913, 652 rats found dead were examined at Shanghai for plague infection. Of this number 10 rats were found plague infected.

During the month of November, 1913, 436 rats found dead in the French concession were examined, of which number 10 were found plague infected.

CUBA.

Transmissible Diseases—Habana.

DEC. 21-31, 1913.

Diseases.	New cases.	Deaths.	Under treatment.
Diphtheria.....	11	1	8
Leprosy.....			257
Malaria.....			6
Measles.....	51	3	63
Paratyphoid fever.....	1		8
Scarlet fever.....	8		5
Typhoid fever.....	9	2	38
Varicella.....	7		13

PERU.

Plague—Trujillo.

Three cases of plague were notified as under treatment in the lazaretto at Trujillo December 31, 1913.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX.

Reports Received During Week Ended Jan. 23, 1914.

CHOLERA.

Places.	Date.	Cases.	Deaths.	Remarks.
Ceylon:				
Colombo.....	Nov. 30-Dec. 6....	11	6	
Dutch East Indies:				
Java—				
Batavia and Tanjong Priok.....	Nov. 23-Dec. 6....	7	5	
Samarang.....	Nov. 30-Dec. 6....	3		
India:				
Bombay.....	Dec. 6-13.....	4	4	
Calcutta.....	Nov. 30-Dec. 6....		44	
Straits Settlements:				
Singapore.....	do.....	3	1	

PLAGUE.

Azores:				
Terceira—				
Angra-Heroismo.....	Dec. 21.....		1	
Brazil:				
Bahia.....	Dec. 14-20.....	3	1	
China:				
Hongkong.....	Nov. 30-Dec. 6....	10	8	
India:				
Bombay.....	Dec. 6-13.....	2	1	
Karachi.....	do.....	11	9	
Peru:				
Trujillo.....	Dec. 31.....			3 cases in the lazaretto.

YELLOW FEVER.

Brazil:				
Bahia.....	Dec. 14-20.....	2	2	

SMALLPOX.

Arabia:				
Maskat.....	Nov. 30-Dec. 6....	10		
Muttra.....	do.....			Present.
Australia:				
New South Wales.....				Total, July 1-Dec. 6: Cases 1,049.
Sydney.....				Oct. 29-Dec. 6, 16 cases.
				July 1-Dec. 6 :Cases 1,009.
Brazil:				
Bahia.....	Dec. 14-20.....	3		
Para.....	Jan. 7-14.....	2		
China:				
Hankow.....	Dec. 6-13.....	2		
Shanghai.....	Dec. 8-14.....	1		
Dutch East Indies:				
Batavia.....	Nov. 23-Dec. 6....	8	2	
Egypt:				
Alexandria.....	Dec. 19-23.....		1	
Cairo.....	Dec. 10-23.....	18	10	
France:				
Paris.....	Dec. 14-20.....	1		
Italy:				
Leghorn.....	Dec. 21-27.....	1		
Turin.....	Dec. 22-28.....	1		
Mexico:				
Chihuahua.....	Dec. 29-Jan. 4....		1	

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

Reports Received During Week Ended Jan. 23, 1914—Continued.

SMALLPOX

Places.	Date.	Cases.	Deaths.	Remarks.
Spain:				
Valencia.....	Dec. 1-27.....	3		
Turkey in Asia:				
Adana.....	Dec. 22-28.....			Epidemic.
Jaffa.....	Dec. 21-27.....	6		
Mersina.....	Dec. 21-28.....		4	
Tarsus.....	Dec. 28.....			Still present.

Reports Received from Dec. 27, 1913, to Jan. 16, 1914.

CHOLERA.

Places.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary:				
Bosnia-Herzegovina—				
Brod.....	Nov. 13-18.....	2		
Kostjnica.....	do.....	1		
Novigrad.....	Oct. 26-Nov. 5.....	1		
Sjekocac.....	Nov. 6.....	1		
Vranduk.....	Nov. 20.....	1		
Zenica.....	Oct. 26-Nov. 19.....	9	2	
Croatia-Slavonia—				
Pozenga.....	Nov. 18-Dec. 1.....	2		
Syrmien—				
Adasevci.....	do.....	6	2	
Semlin.....	do.....	1	1	
Vitrovica—				
Dobrovic.....	do.....	2	2	
Hungary.....				Total Sept. 1-Dec. 6: Cases, 723; deaths, 369. Nov. 30-Dec. 6, 4 cases and 7 deaths.
Bacs-Bodrog, district..	Nov. 9-Dec. 6.....	48	29	
Jasz-Nagy-Kun-Szolnok—				
Szolnok.....	Nov. 9-15.....	2	2	
Maramaros.....	Nov. 30-Dec. 6.....	1	1	
Pest Pilis—				
Soroksar.....	Nov. 9-22.....	2	1	
Szaboles—				
Nyiregyhaza.....	Nov. 9-15.....	1	1	
Temes—				
Varasliget.....	do.....		1	
Torontal.....	Nov. 9-Dec. 6.....	25	18	
Ung—				
Jasza.....	Nov. 9-15.....	1	1	
Ceylon:				
Colombo.....	Nov. 9-22.....	5	7	
China:				
Hongkong.....	do.....	3		
Dutch East Indies:				
Java—				
Batavia and Tanjong Priok.....	do.....	24	19	
India:				
Bombay.....	Nov. 10-Dec. 6.....	9	4	
Calcutta.....	Nov. 9-29.....		175	
Madras.....	Nov. 16-22.....	2	2	
Philippine Islands:				
Manila.....	Nov. 9-Dec. 5.....	33	22	Total, Aug. 23-Dec. 5: Cases, 144; deaths, 100.
Provinces.....	Dec. 23-29.....			Cases, 95; deaths, 45.
Cavite—				
Santa Cruz.....	Nov. 13-19.....			Present.
Cebu—				Do.
Cebu—				
Opon.....	Nov. 19.....	1		On Mactan Island.
Pangasinan.....	Dec. 19-29.....			Present in Dagupan, Lingayen, San Carlos, and Urdaneta.
Rizal—				
Las Pinas.....	do.....	1		
Pasig.....	Nov. 19.....			Present.

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

Reports Received from Dec. 27, 1913, to Jan. 16, 1914—Continued.

CHOLERA—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Russia:				
Bessarabia—				
Ismail.....	Oct. 26–Nov. 8....	6	1	
Ekaterinoslav.....	do.....	1		
Kherson.....	do.....	6	9	
Tsurida—				
Dneiper district.....	do.....	1	2	
Siam:				
Bangkok.....	Nov. 2–29.....		38	
Straits Settlements:				
Singapore.....	do.....	11	8	
Turkey in Asia:				
Beirut.....	Dec. 19.....	2		From among troops on the s. s. Bahr Amer from Rodesto.
Smyrna.....	Dec. 16–22.....	2		
Trebizond.....	Nov. 9–16.....	6	4	Among troops from s. s. Guld-jemal. Jan. 8, present.
Turkey in Europe:				
Constantinople.....	Nov. 25–Dec. 28....	112	41	
Rodosto.....	Dec. 21–26.....	5		

YELLOW FEVER.

Brazil:				
Bahia.....	Nov. 23–Dec. 13....	3	2	
Ceara.....	Nov. 1–30.....		2	
Ecuador:				
Guayaquil.....	do.....	5	3	
Milagro.....	do.....	1	1	
Naranjito.....	do.....	1	1	
Mexico:				
Merida.....	Dec. 10–11.....	1	1	From Campeche.
Southern Niageria:				
Lagos.....	Oct. 20–28.....	3	1	Among Europeans from a vessel. Including previous report.
Togo:				
Lome.....	Sept. 12.....	1		
Trinidad:				
Brighton.....				Total Nov. 7–Dec. 12, 6 cases, with 1 death.

PLAGUE.

Australia:				
Thursday Island Quarantine Station.....	May 21.....	5		Pestis Minor from s. s. Tayuan from Hongkong to Townville.
Brazil:				
Bahia.....	Nov. 23–Dec. 13....	9	3	
Rio de Janeiro.....	Nov. 16–22.....	1	1	
British East Africa:				
Kisumu.....	Sept. 12–Oct. 13....	2	2	
Mombasa.....	Sept. 12–Nov. 15....	31	10	
Nairobi.....	do.....	3	3	
China:				
Hongkong.....	Nov. 2–29.....	9	9	
Shanghai.....	Oct. 1–7.....	1		
Ecuador:				
Babahoyo.....	Nov. 1–30.....	1		
Guayaquil.....	do.....	193	83	
Milagro.....	do.....	1		
Yaguachi.....	do.....	2	2	
India:				
Bombay.....	Nov. 9–Dec. 6....	14	12	Total Jan. 1–Nov. 29, 1913: Cases, 209,710; deaths, 176,966.
Calcutta.....	Nov. 2–29.....		5	
Karachi.....	Nov. 9–Dec. 8....	54	57	
Madras.....	Nov. 16–22.....	3	1	
Rangoon.....	Oct. 26–31.....	7	7	
Indo-China:				
Saigon.....	Nov. 11–24.....	5		
Japan:				
Kobe.....	Dec. 1–7.....	1		
Mauritius:				
.....	Oct. 26–Nov. 6....	33	22	

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

Reports Received from Dec. 27, 1913, to Jan. 16, 1914—Continued.

PLAGUE—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Morocco:				
Larache.....	Sept. 17.....	1		Among the military.
Philippine Islands:				
Manila.....	Nov. 23-29.....	1	1	
Russia:				
Ural, territory.....				Total Oct. 20-Nov. 10: Cases, 212; deaths, 170; and 2 fatal cases from Issum-Tube.
Djakisabevsk district—				
Djumarta.....	Nov. 9-10.....	5	1	
Djantayu.....	Nov. 8-10.....	2	2	
Kizilu.....	Nov. 8.....	1	1	
Fourteenth village.	Nov. 7-9.....	6		
Sarbas.....	Nov. 8-10.....	13	7	
Kaziljar district.....	Nov. 5-10.....	39	24	In Assaukurt, Baitchurek, Bis-kuduk, and Djamankuduk.
Lbistchensky district—				
Issum-Tube.....	Oct. 20-Nov. 10.....	138	127	
Kaimikov.....	Nov. 4-10.....	6	6	
Siam:				
Bangkok.....	Nov. 2-29.....		1	
Turkey in Asia:				
Beirut.....	Dec. 10-14.....	2	1	

SMALLPOX.

Algeria:				
Departments—				
Algiers.....	Sept. 1-30.....	1		
Oran.....	do.....	37		
Arabia:				
Aden.....	Nov. 25-Dec. 15.....	5	4	
Australia:				
New South Wales.....				Oct. 26-Nov. 9. Cases 49.
Austria-Hungary:				
Tyrol.....	Nov. 23-29.....	1		
Brazil:				
Bahia.....	Nov. 23-Dec. 13.....	8		
Para.....	Dec. 1-20.....	18	21	
Pernambuco.....	Nov. 1-30.....		34	
Rio de Janeiro.....	Nov. 9-Dec. 6.....	64	16	
Canada:				
Ontario—				
Ottawa.....	Dec. 7-20.....	6		
Toronto.....	Dec. 7-13.....	1		
Quebec—				
Montreal.....	Dec. 7-27.....	10		
China:				
Hankow.....	Nov. 2-31.....	4		
Tientsin.....	Nov. 9-15.....		1	
Dutch East Indies:				
Java—				
Batavia.....	Nov. 9-22.....	20	1	
Surabaya.....	Oct. 28-Nov. 8.....	3		
Egypt:				
Alexandria.....	Nov. 26-Dec. 16.....	5	2	
Cairo.....	Nov. 19-Dec. 9.....	23	8	
Port Said.....	Dec. 3-9.....		1	
France:				
Marseille.....	Nov. 1-30.....		31	
Nice.....	do.....	1		
Paris.....	Nov. 23-Dec. 13.....		9	
St. Etienne.....	Nov. 16-30.....	8	3	
Germany				
Gibraltar.....	Dec. 1-28.....	3		Dec. 7-13: Case, 1.
India:				
Bombay.....	Nov. 23-Dec. 6.....	6	3	
Calcutta.....	Nov. 2-Dec. 29.....		3	
Karachi.....	Nov. 2-8.....	1		
Madras.....	Nov. 2-Dec. 6.....	9	3	
Indo-China:				
Saigon.....	Nov. 11-24.....	4	1	
Japan.....				Total, Jan. 1-Oct. 31: Cases, 105; deaths, 39.

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.**Reports Received from Dec. 27, 1913, to Jan. 16, 1914—Continued.****SMALLPOX—Continued.**

Places.	Date.	Cases.	Deaths.	Remarks.
Mexico:				
Acapulco.....	Dec. 6.....		1	
Agascalientes.....	Dec. 1-28.....		9	
Mexico.....	Oct. 26-Nov. 8.....	13	9	
Monterey.....	Nov. 17-23.....		3	
San Luis Potosi.....	Nov. 2-8.....	1		
Veracruz.....	Dec. 6-20.....	2	1	
Norway:				
Trondhjem.....	Nov. 1-30.....	5		
Portugal:				
Lisbon.....	Nov. 16-29.....	5		
Russia:				
Odessa.....	do.....	1	1	
St. Petersburg.....	Nov. 23-Dec. 13.....	33	5	
Warsaw.....	Oct. 5-18.....	7	4	
Servia:				
Belgrade.....	Nov. 7-29.....	3	1	
Spain:				
Almeria.....	Nov. 1-30.....		2	
Barcelona.....	Nov. 30-Dec. 20.....		11	
Madrid.....	Nov. 1-30.....		31	
Seville.....	do.....		1	
Valencia.....	Dec. 1-6.....	2		
Straits Settlements:				
Penang.....	Nov. 2-22.....	11		
Singapore.....	do.....	2		
Switzerland:				
Canton—				
Basel.....	Nov. 23-Dec. 13.....	21		
Genoa.....	Nov. 23-29.....	3	1	
Turkey in Asia:				
Beirut.....	Nov. 23-Dec. 20.....	110	43	
Jaffa.....	Dec. 6-20.....	6		
Smyrna.....	Nov. 16-Dec. 13.....		85	
Turkey in Europe:				
Constantinople.....	Nov. 20-Dec. 20.....		8	
Saloniki.....	Dec. 1-21.....		29	

SANITARY LEGISLATION.

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

BOSTON, MASS.

Milk and Cream—Production, Care, and Sale. (Reg. Bd. of H., Jan. 8, 1913.)

ARTICLE I.—SECTION 1. All persons in the city of Boston engaged in the production of milk for sale, or in the conveyance in carriages for the purpose of selling, delivering, or distributing milk in said city, shall, annually, on the 1st day of May, or within 30 days thereafter, make written application to the inspector of milk, on forms prescribed by the board of health, for a license. All persons in the city of Boston before selling milk or offering it for sale in a store, booth, stand, or market place shall make written application to the inspector of milk, on forms prescribed by the board of health, for a license.

SEC. 2. No person in said city shall engage in the business of producing milk for sale, or in the sale or distribution of milk in the city of Boston, without a license so to do, under these regulations and such other conditions as the board of health may impose; said license to be revoked if the licensee fails to comply with the conditions of his license and the regulations of this board.

SEC. 3. The conditions under which every cow is kept whose milk is produced within, or brought into the city of Boston for sale, delivery, or distribution, and the method of handling such milk at the place of production, or during the time of its transit, or while it is being mixed, placed in containers, held, stored, heated, or otherwise processed prior to such sale, delivery, or distribution in said city, shall be made known by the licensee, or dealer, to the board of health, and in such detail as said board may require; and no milk except that, the conditions of producing and the methods of handling which have been made known as aforesaid, and no milk which is not produced or handled in a manner satisfactory to the board of health shall be brought into, kept, delivered, distributed, sold, or offered for sale in said city.

SEC. 4. No milk shall be sold, offered for sale, or distributed in the city of Boston which was drawn from cows within 15 days before or 5 days after parturition, nor unless the cows from which it was derived have, within one year, been examined by a competent authority, and shown to be free from diseases dangerous to the public health.

SEC. 5. Every person having a license to sell, deliver, or distribute milk in the city of Boston, shall keep a copy of the same constantly posted in a conspicuous place on his premises, and shall have his name, the number of his license, and his place of business marked in plain, uncondensed Gothic letters, not less than 1 inch in height, on all vehicles used by him in the conveyance and sale of milk.

ART. II.—SECTION 1. No milk kept for sale or distribution shall be stored in any portion of a building which is used for the stabling of horses, cows, or other animals, or for the storing of manure, or in any room used in whole or in part for domestic or sleeping purposes, unless the storage room for milk is separated from other parts of the building to the satisfaction of the board of health.

SEC. 2. No person engaged in the business of producing milk for sale, or in the business of storing, selling, or delivering milk in said city shall store, cool, strain, or mix said milk in any room which is occupied by horses, cows, or other animals. All rooms in which milk is stored, cooled, strained, or mixed, shall be provided with tight walls and floor and kept constantly clean. The walls and floors of said rooms shall be of such construction as to allow easy and thorough cleansing. The room or rooms aforesaid shall contain proper appliances for washing or sterilizing all utensils actually employed in the storage, mixing, or cooling, sale or distribution of milk, and all such apparatus and utensils shall be washed with boiling water or sterilized by steam regularly after being so used.

SEC. 3. No urinal, water-closet, or privy shall be located in the rooms called for in the preceding section or so situated as to pollute the atmosphere of said rooms.

SEC. 4. All milk produced for the purpose of sale shall be strained and cooled as soon as it is drawn from the cow.

ART. III.—SECTION 1. Milk kept for sale in any store, shop, restaurant, market, bakery, or other establishment shall be stored in a covered cooler, box, or refrigerator. No vessel containing milk for sale shall be allowed to stand outside said cooler, box, or refrigerator, except while a sale of said milk is being made. Every such cooler, box, or refrigerator shall be properly drained and cared for and shall be kept tightly closed, except during such intervals as are necessary for the introduction or removal of milk or ice, and they shall be kept only in such locations and under such conditions as shall be approved by the board of health.

ART. IV.—SECTION 1. All cans, bottles, or other vessels of any sort used in the sale, delivery, or distribution of milk shall be cleansed or sterilized before they are again used for the same purpose, and all wagons used in the conveyance of milk for sale or distribution shall be kept in a cleanly condition and free from offensive odors. No person shall use a milk vessel as a container for any other substance than milk.

ART. V.—SECTION 1. Every person engaged in the production, storage, transportation, sale, delivery, or distribution of milk, immediately on the occurrence of any case or cases of infectious disease, either in himself or in his family, or amongst his employees or their immediate associates, or within the building or premises where milk is stored, sold, or distributed, shall notify the Boston Board of Health and at the same time shall suspend the sale and distribution of milk until authorized to resume the same by the said board of health. No vessels which have been handled by persons suffering from such diseases shall be used to hold or convey milk until they have been thoroughly sterilized.

ART. VI.—SECTION 1. No person, by himself or by his servant or agent, or as the servant or agent of any other person, firm, or corporation, shall in the city of Boston sell, exchange, or deliver, or have in his custody or possession with intent to sell, exchange, or deliver, any milk, skimmed milk, or cream which contains more than 500,000 bacteria per cubic centimeter or which has a temperature higher than 50° F.

ART. VII.—SECTION 1. No person or corporation shall sell or offer, expose, or keep for sale in any shop, store, or other place, milk or cream, unless the same is sold or offered, exposed, or kept for sale in tightly closed or capped bottles or receptacles. Nothing contained herein shall prevent the sale of milk or cream from cans, crocks, coolers, or other receptacles in restaurants, hotels, barrooms, or at soda fountains, when the milk or cream is to be consumed in the restaurant or hotel by guests or patrons ordering the same.

SEC. 2. Every person or corporation engaged in the business of selling or delivering milk or cream shall, immediately upon receiving a written order from the board of health so to do, comply with any requirement of said board respecting the filling of milk and cream in bottles or receptacles, the manner and methods employed in such filling or the conditions and surroundings under which such filling is done and carried on. The filling of bottles or cans with milk or cream, for sale or delivery upon wagons

or on any public or private way or in any place for which permission for such filling has not previously been obtained from the board of health, is prohibited.

SEC. 3. No person or corporation shall sell or offer, expose, or keep for sale at retail milk or cream in the room or store where the same is put into bottles or receptacles.

ART. VIII.—SECTION 1. Whoever tests milk or cream which is to be offered for sale in any form by tasting shall do so by means of a spoon or piece of wood, paper, cardboard, or other article, and such spoon, piece of wood, paper, cardboard, or other article shall not again be brought in contact with milk or cream intended for sale, or be used for testing milk or cream until after being thoroughly washed and sterilized; no person shall permit his hands, fingers, lips, or tongue to come in contact with milk or cream intended for sale in any form. All persons engaged in the tasting, mixing, or handling of milk or cream for sale in any form shall before engaging in such tasting, mixing, or handling thoroughly clean his hands and finger nails and keep them clean and dry during such tasting, mixing, or handling. No person shall permit his hands while wet to remain or pass over any open vessel containing milk or cream intended for sale in any form. No person shall fill a jar, can, or other receptacle with milk or cream while the aforesaid jar, can, or other receptacle is held over an open vessel containing milk or cream intended for sale in any form. No person who has sore throat, diarrhea, or is suffering from any other disturbance of the bowels, or has symptoms of infectious or contagious disease shall engage in the handling of milk or cream which is to be offered for sale or which is for sale.

ART. IX.—SECTION 1. All persons having the possession or custody of bottles, cans, or other receptacles used in the sale, delivery, and transportation of milk, cream, skimmed milk, or buttermilk shall cause any such bottle, can, or receptacle to be cleaned immediately upon emptying the same; and no person shall deliver, receive, or have in his possession or custody any such bottle, can, or receptacle so used which has not been cleansed as aforesaid.

ART. X.—SECTION 1. No person shall expectorate or spit, except in receptacles provided for the purpose, in or upon any part of any room, vehicle, railroad car, railroad platform, or other place used for the sale, storage, handling, or transportation of milk.

Ice Cream—Manufacture, Care, and Sale. (Reg. Bd. of H., Jan. 8, 1913.)

ARTICLE I.—SECTION 1. No ice cream shall be manufactured or stored in any portion of a building which is used for the stabling of horses or other animals, or in any room used in whole or in part for domestic or sleeping purposes, unless the manufacturing and storage room for ice cream is separated from other parts of the building to the satisfaction of the board of health.

SEC. 2. All rooms in which ice cream is manufactured or stored shall be provided with tight walls and floors and kept constantly clean. The walls and floors of said rooms shall be of such construction as to permit rapid and thorough cleansing. The room or rooms aforesaid shall be equipped with appliances for washing or sterilizing all utensils employed in the mixing, freezing, storage, sale, or distribution of ice cream, and all such utensils after use shall be thoroughly washed with boiling water or sterilized by steam. Vessels used in the manufacture and sale of ice cream shall not be employed as containers for other substances than ice cream.

SEC. 3. All establishments in which ice cream is manufactured shall be equipped with facilities for the proper cleansing of the hands of operatives, and all persons immediately before engaging in the mixing of the ingredients entering into the composition of ice cream, or its subsequent freezing and handling, shall thoroughly wash his or her hands and keep them cleanly during such manufacture and handling. All persons shall be dressed in clean outer garments while engaged in the manufacture and handling of ice cream.

SEC. 4. No urinal, water-closet, or privy shall be located in the rooms mentioned in the preceding section, or so situated as to pollute the atmosphere of said rooms.

SEC. 5. All vehicles used in the conveyance of ice cream for sale or distribution shall be kept in a cleanly condition and free from offensive odors.

ART. II.—SECTION 1. Ice cream kept for sale in any shop, restaurant, or other establishment, shall be stored in a covered box or refrigerator. Such box or refrigerator shall be properly drained and cared for, and shall be kept tightly closed, except during such intervals as are necessary for the introduction or removal of ice cream or ice, and they shall be kept only in such locations and under such conditions as shall be approved by the board of health.

ART. III.—SECTION 1. Every person engaged in the manufacture, storage, transportation, sale, or distribution of ice cream, immediately on the occurrence of any case or cases of infectious disease, either in himself or in his family, or amongst his employees, or within the building or premises where ice cream is manufactured, stored, sold, or distributed, shall notify the Boston Board of Health and at the same time shall suspend the sale and distribution of ice cream until authorized to resume the same by the said board of health. No vessels which have been handled by persons suffering from such disease shall be used to hold or convey ice cream until they have been thoroughly sterilized.

ART. IV.—SECTION 1. All cream, milk, or skimmed milk, employed in the manufacture of ice cream, shall before use be kept at a temperature not higher than 50° F.

SEC. 2. No old or melted ice cream, or ice cream returned to a manufacturer from whatever cause, shall again be used in the preparation of ice cream.

Foodstuffs—Care and Sale. (Reg. Bd. of H., Feb. 12, 1913.)

SECTION 1. It is hereby ordered that, except during the process of sale or while in the act of loading or unloading vehicles, no cut meat, fish, shucked shellfish, dried or preserved fruits, dates, figs, cut fruits, cut melons, cracked nuts, nut meats, popped corn, candies, confectionery or bakers' products, which are intended for sale for human food, shall be conveyed from place to place, or kept in an open window or doorway, or kept outside of a building or in any public or private way of the city of Boston, unless so covered with clean material and so placed as to be protected from dust, flies, and animals.

SEC. 2. Every person being the occupant or lessee of any room, stall, building or other place, and every person being the owner or person in charge of any stand, case, rack, bench, pushcart, or other vehicle, where or from which human food is kept, stored, sold, or offered for sale, shall maintain such room, stall, building, or other place, stand, case, rack, bench, pushcart, or other vehicle and its appurtenances in a clean and wholesome condition.

SEC. 3. All persons while engaged in the handling of articles of food in such room, stall, building, or other place shall wear clean outer garments, and shall be free from contagious or infectious disease.

SEC. 4. No room in which articles of food are prepared, kept, stored, sold, or offered for sale, shall be used for domestic purposes or open directly into any room so used, unless the conditions of such room are approved by the board of health. In no such room shall there be a water-closet unless the same is approved by the board of health. All shops or stores used for the sale of articles of food shall be equipped with such lavatory accommodations as the board of health may order and approve.

SEC. 5. The use of unclean paper for the wrapping of articles of food is prohibited.

SEC. 6. Every peddler of foodstuffs from wagons or carts, in addition to the clean covering provided for in this regulation, shall keep in his wagon or cart a water-tight and sufficient receptacle for the wastes of his business, and such wastes shall be so disposed of as not to cause a nuisance.

Manure—Care and Disposal of. (Reg. Bd. of H., Feb. 17, 1913.)

Whereas, in the opinion of the board of health of the city of Boston, manure, excrement of domestic animals, and stable refuse (hereinafter termed "substances") in said city are a nuisance, source of filth, and cause of sickness: It is therefore ordered:

First. That no person having control of any premises in the city of Boston shall keep in, or permit to remain therein, or in or on any premises adjacent thereto, such substances, unless stored in tightly covered metallic cans or in vehicles constructed in a manner approved by the board of health.

Second. All receptacles used for storing such substances shall be kept clean to the satisfaction of the board of health.

Third. All such substances which accumulate on any premises shall be removed within 48 hours from the time of accumulation; and in specific cases as much oftener as the board of health shall order.

Fourth. No can or vehicle containing such substances shall be placed in or allowed to stand in any public way.

Fifth. Such substances shall be removed only in vehicles holding a permit to do so issued by the board of health, and the removal and transportation of such substances shall be done in accordance with the terms of such permit and not otherwise. Such vehicles shall be of a construction approved by said board. Vehicles holding such permit shall be loaded within the building from which the substances are being removed, and not upon the street or sidewalk, and the substances shall be removed from such building in a manner not in any way offensive or so as to cause any nuisance.

Sixth. All such substances, when transported through the streets, must be covered and secured so that no part of the same will fall or drip on the streets, and so as to prevent the escape of offensive odors.

Seventh. Such substances shall not be unloaded or deposited within the city limits, except upon the conditions of a permit from the board of health. This shall be done only in such places as shall be approved by said board, and in accordance with a permit from said board for such unloading or depositing which shall have previously been granted by said board.

Eighth. No manure pit shall hereafter be maintained in the city of Boston.

BROCKTON, MASS.

**Communicable Diseases—Notification of Cases of—Quarantine—Vaccination.
(Reg. Bd. of H., May 1, 1913.)**

CHAPTER I.—SECTION 1. *Contagious diseases.*—The following diseases, having been declared by the State board of health to be dangerous to the public health, must be reported immediately to the local board of health upon blanks provided for that purpose, under the provisions of sections 49 and 50, chapter 75, acts of 1910: Actinomycosis, anterior poliomyelitis, Asiatic cholera, cerebrospinal meningitis, diphtheria, glanders, leprosy, malignant pustule, measles, ophthalmia neonatorum, scarlet fever, smallpox, tetanus, trachoma, trichinosis, tuberculosis (in any form), typhoid fever, typhus fever, varicella, whooping cough, yellow fever; by local regulation, erysipelas, mumps, and German measles.

SEC. 2. *Householder to give notice.*—When a householder knows that a person within his family or house is sick with any disease specified in section 1 he shall immediately give notice thereof to the board of health. (Chap. 75, sec. 49, Rev. Laws.)

SEC. 3. *Physician to give notice.*—If a physician knows that a person whom he is called to visit is infected with any disease specified in section 1 he shall immediately give notice thereof in writing over his own signature to the board of health. (Chap. 75, sec. 50, Rev. Laws.)

SEC. 4. Upon receipt by the board of health of the report of the existence of any of the following diseases, a warning placard shall be conspicuously placed upon the house or compartment where the case is located. Such placards shall only be removed by a representative of the board of health, and any person removing, destroying, or defacing the same shall be liable to a fine of not more than \$100. The following are the diseases to be placarded: Cerebrospinal meningitis, diphtheria, scarlet fever, smallpox, anterior poliomyelitis.

SEC. 5. All cases of contagious disease shall be isolated and separated from the rest of the family to the satisfaction of the board of health, and such isolation shall be maintained until the patient is declared by the board of health to be free from danger of infecting other persons.

SEC. 6. Upon the removal to a hospital or other place, or upon the discharge by recovery or death of the patient suffering from any of the following diseases, the premises where said disease existed, together with all bedding, clothing, furniture, or other articles exposed to infection, shall be disinfected by the board of health: Cerebrospinal meningitis, cholera, diphtheria, glanders, leprosy, scarlet fever, smallpox, tuberculosis, typhoid fever, typhus fever, yellow fever, anterior poliomyelitis.

SEC. 7.—RULE 1. No child shall be allowed to attend school from any household in which there is or has been a case of scarlet fever until a certificate has been presented from the board of health.

RULE 2. No child who has visited a house in which there was at the time a case of scarlet fever shall attend school until the expiration of ten days following exposure.

RULE 3. No child who has diphtheria shall be allowed to attend school for a period of one week from the date of the second successive negative bacteriological culture from both nose and throat (the second culture to be taken by a representative of the board of health). No well child shall be allowed to attend school from any household in which there is or has been a case of diphtheria until the same precautions have been taken, with the exception that but one negative bacteriological culture from both nose and throat is required.

RULE 4. No child from any house where there is a case of scarlet fever or diphtheria shall be allowed to mingle with persons from any other house until after the removal, recovery, or death of the patient and the disinfection of the premises.

RULE 5. The board of health may, if circumstances warrant (for example, removal of the patient to a hospital), give to children not infected in a household in which there is or has been scarlet fever or diphtheria, a special permit to return to school as soon as it is considered safe for them to return.

RULE 6. No child who has chickenpox or German measles shall be allowed to attend school until a period of two weeks has elapsed from the first appearance of the eruption and until a certificate to that effect has been presented by the board of health.

RULE 7. No child found to be ill with consumption, and a menace to the health of others, shall be allowed to continue in school.

RULE 8. No child who has mumps shall be allowed to attend school until a period of three weeks has elapsed from the first symptoms of the disease or until a certificate to that effect has been presented by the board of health.

RULE 9. No child shall attend school from a family in which there is a case of measles unless a certificate is furnished by the board of health.

RULE 10. No child shall be allowed to attend school from any household in which there is or has been a case of cerebrospinal meningitis until a certificate has been presented by the board of health.

RULE 11. No child with whooping cough shall be allowed to attend school until a period of seven weeks has elapsed from the beginning of the cough, and until a certificate to that effect has been presented by the board of health; and that no child in a household in which there is a case of whooping cough shall be allowed to attend school until a certificate is presented from the board of health.

RULE 12. No child who has been exposed to anterior poliomyelitis shall be allowed to attend school for 14 days from the date of exposure. The period of quarantine for a child ill with anterior poliomyelitis shall be at least from three to six weeks from the beginning of the disease. Children in the same family shall be kept from school for four weeks from the beginning of the last case in the family.

RULE 13. The undertakers of the city shall be notified to warn families, in the case of the death of a member from contagious disease, against a public funeral.

RULE 14. No person infected with diphtheria, membranous croup, or scarlet fever shall leave the board of health hospital until the board of health or its agent shall find and certify that all danger of communicating the disease has passed.

RULE 15. No person other than patients, physicians, and nurses shall enter the board of health hospital, except with the special permission of the board.

RULE 16. No furniture, wearing apparel, or other articles exposed to the infection from diseases mentioned as dangerous to the public health (rule 1) shall be removed, sold, or given away without having been thoroughly disinfected.

RULE 17. No child or other person suffering or convalescent from any of the diseases mentioned in rule 1 shall be permitted to attend any public, private, parochial, Sunday, or other school in the city of Brockton without a written permit from the board of health.

RULE 18. Children affected with ringworm, scabies, or impetigo will be excluded from school by the medical inspectors of schools until such time as the disease is cured or shows evidence of such treatment as not to be liable to cause infection of other children. Cases so excluded shall only be readmitted upon the written approval of the medical inspector.

SEC. 8. Vaccination.—**RULE 1.** The board of health of a city or town if, in its opinion, it is necessary for the public health or safety, shall require and enforce the vaccination and revaccination of all the inhabitants thereof and shall provide them with the means of free vaccination. Whoever refuses or neglects to comply with such requirement shall forfeit \$5. (Rev. Laws, 75.)

RULE 2. Any child who presents a certificate, signed by a registered physician designated by the parent or guardian, that the physician has at the time of giving the certificate personally examined the child and that he is of the opinion that the physical condition of the child is such that his health will be endangered by vaccination, shall not, while such condition continues, be subject to the provisions of the preceding section of this chapter; and the parent or guardian of such child shall not be liable to the penalties imposed by the preceding section.

RULE 3. A child who has not been vaccinated shall not be admitted to a public school except upon presentation of a certificate, granted for cause stated therein, signed by a regular practicing physician, that he is not a fit subject for vaccination. (Rev. Laws, 44.)

Burial—Funerals. (Reg. Bd. of H., May 1, 1913.)

CHAP. II.—SECTION 1. Depth of graves.—No person shall inter or cause to be interred the body of any dead person in a grave less than 3 feet deep from the surface of the ground surrounding the grave to the top of the coffin.

SEC. 2. Hours for burial.—No person shall bury or inter, or cause to be buried or interred, the body of any dead person at any other time of the day than between sunrise and sunset, except in accordance with a permit from the board of health. No person shall open a grave or remove the body of a dead person or its remains from a grave or tomb, except in accordance with a permit from the board of health.

SEC. 3. Wall draperies forbidden.—The use of wall draperies in any room or place used for a funeral or for the preparation or retention of any human body before or in connection with such funeral is forbidden.

Stables and Disposal of Manure. (Reg. Bd. of H., May 1, 1913.)

CHAP. III.—SECTION 1. *Petitions for stables.*—Every person desiring to erect or occupy a stable in the city of Brockton must present a petition to the board of health, said petition to be made out in form prescribed by the board. A plan must be submitted with the petition, showing the proposed location of the stable on the lot, the front view of the stable, and the location of the stalls, manure pit, and ventilating shafts.

SEC. 2. *Washing of carriages and horses, care of stables and yards, and accumulation of manure.*—The owners or occupants of livery or other stables within the city of Brockton shall not wash or clean carriages or horses, or cause them to be washed or cleaned, in the streets or public ways; they shall keep their stables and stable yards clean, to the satisfaction of the board of health.

SEC. 3. *Manner of removing manure.*—No manure shall be removed or carried through the streets of this city except in a tight canvas-covered vehicle, with the covering so secured to the sides and ends of the vehicle as to prevent the manure in process of removal from being dropped or left in any street or way of the city. No manure shall be loaded into a vehicle in or upon any street, lane, or passageway, nor upon or across any sidewalk, without a written permit from the board of health, and all the conditions of such permit shall be strictly complied with.

SEC. 4. *Manure—To be removed from stables every week.*—Every person using any stable, building, or structure in which any horse or mule is habitually kept or stabled, is required to remove the manure from such premises at least once every week and to dispose of the same to the satisfaction of the health department.

SEC. 5. *Stables—Disinfection of manure boxes and stalls.*—All persons who have and are operating or using barns, stables, or other buildings for the keeping or housing of horses or mules shall be required to keep all manure in a tight, covered box, and in no case will manure be permitted to accumulate as open piles in any yard or premises in the city. These boxes must be kept clean and disinfectants used therein after each emptying.

SEC. 6. All persons having and operating stables, as above described, within the city limits are required to use disinfectants about those portions of the floor where manure and urine habitually fall and are maintained.

SEC. 7. All persons having and operating stables shall in all other ways possible employ means that will prevent the breeding of flies and creating of nuisances.

Privies, Cesspools, and Drains. (Reg. Bd. of H., May 1, 1913.)

CHAP. IV.—SECTION 1. *Buildings to be connected with sewer.*—Every building situated on a public or private street, court, or passageway in this city, in which there is a public sewer, is hereby required by this board to be connected by a good and sufficient particular drain with such public sewer.

SEC. 2. The board of health may exempt from the provisions of the preceding section any building or buildings which in their judgment ought to be exempted, and said exemption may be either temporary or permanent as said board may determine.

SEC. 3. *Privy vault not to be connected with sewer.*—No privy vault shall be connected with the common sewer by a drain constructed to carry off the liquid contents thereof.

SEC. 4. *Water-closets, vaults, privies, cesspools, and drains to be cleansed.*—Whenever a water-closet, vault, privy, cesspool, or drain become offensive or obstructed, the same shall be cleansed and made free, and the owner, agent, occupant, or other person having charge of the premises on which any water-closet, vault, privy, or drain is situated shall remove, cleanse, alter, amend, or repair the same within such time after notice in writing to that effect, given by the board of health, as shall be expressed in such notice.

SEC. 5. *Not to be emptied except as authorized by the board of health.*—No privy vault or cesspool shall be emptied except by such parties, in such manner, authorized by the board of health. The owner, agent, or occupant of the premises where any privy vault or cesspool may be situated shall always be liable for the expense of emptying the same.

SEC. 6. No person shall maintain any stable within 25 feet of any well, or maintain any privy, privy well, cesspool, sink drain, or swine pen within 50 feet of any well not his own or within 25 feet of his own well. And every vault and cesspool shall not be nearer than 4 feet to any adjoining lot, or to any street, alley, court, square, public place, or private passageway, unless by written permission of the board of health.

SEC. 7. All privies and vaults shall be cleaned once a year and at such other times as may be necessary to prevent their becoming offensive.

SEC. 8. Whenever a privy, vault, or cesspool becomes full or offensive, the owner or inhabitant of the land on which such privy, vault, or cesspool is situated shall forthwith notify the board of health, and, thereupon, the board of health shall cause the same to be emptied and cleansed at the expense of the owner or inhabitant of the premises.

SEC. 9. Whenever the use of any privy vault or cesspool is discontinued, such privy vault or cesspool shall be cleaned and filled up with clean earth or other suitable material to be designated by the health department.

Premises—Care of. (Reg. Bd. of H., May 1, 1913.)

CHAP. V.—SECTION 1. *Rubbish, etc., to be removed.*—Any person owning or occupying or having charge of any building or premises in or upon which is any dirt, sawdust, soot, ashes, cinders, shavings, hair, manure, oyster, clam, or lobster shells, waste or stagnant water, or any offensive animal or vegetable substance, rubbish, or filth of any kind, shall, when ordered by the board of health, remove the same within such time as may be stated in the order.

SEC. 2. *Abutters to remove filth, rubbish, and stagnant water from private ways.*—No owner or occupant of land abutting on a private street or passageway, and having the right to use such street or passageway, shall suffer any filth, rubbish, or waste or stagnant water to remain on that part of the street or passageway adjoining such land, but shall remove the same whenever ordered by the board of health.

SEC. 3. No person shall keep any fowl or animal in any place in the city where the board of health may deem such keeping detrimental to the health or comfort of the residents of the neighborhood, or of those who may pass thereby, and said board shall have the power to remove or cause to be removed therefrom any such fowl or animal so kept.

SEC. 4. All henneries, dog kennels, and pens for any animals shall be kept clean and free from decaying food and from filth of any kind. The buildings and pens shall be whitewashed or disinfected and kept in such condition as may be ordered by the board of health.

SEC. 5. No rags, old paper, junk, or other refuse material gathered or recovered from any source shall be brought into, or allowed to remain within, any building used as a dwelling.

SEC. 6. It shall be the duty of the owner of every structure used for dwelling or business purposes to keep the cellar free from accumulations of water. In case such accumulations occur, he shall immediately have such water pumped out and have the cause repaired or conditions altered so that further accumulations will be prevented.

SEC. 7. It shall be the duty of every property owner to have his yards, drains, cisterns, downspouts, pipes, vaults, catch basins, water-flushed toilets, cesspools, etc., in such condition that there shall be no leakage into adjoining property, to the damage or inconvenience of the owner or tenant of the same.

Garbage, Refuse, and Ashes—Care and Disposal of. (Reg. Bd. of H., May 1, 1913.)

CHAP. VI. House offal.—SECTION 1. All house offal, both animal and vegetable, and the offal from the various hotels, boarding houses, stores, and saloons shall be placed in covered vessels, and no ashes or other refuse matter shall be mingled therewith, and the same shall be kept in some convenient place, to be taken away by the city scavengers.

SEC. 2. No person shall remove or carry in or through any street, avenue, square, court, lane, place, or alley within the city any house offal, any offensive animal or other substance, unless employed or authorized to do so by the board of health, nor in any manner except such as authorized by said board.

CHAP. VII. Rules and regulations for removal of ashes and waste.—Owners and occupants of dwelling houses, stores, or other buildings are required to place their ashes and rubbish in barrels on the outside edge of the sidewalk, opposite their premises, on or before 7 o'clock in the morning of the day that the ash or rubbish carts will pass by said dwelling houses, stores, or other buildings. Dry combustible waste, such as paper, excelsior, straw, hay, and sawdust, must be put in a separate barrel from that of those containing ashes or other rubbish.

Janitors of schoolhouses and other public buildings are required to have their ashes and other refuse outside of their building on or before 7 o'clock a. m. in the day on which the team passes their buildings for collection.

Stones, gravel, loam, waste building materials, furniture, refuse of junk, trimming of trees, and vines will not be removed.

No team having passed through the street will be sent back to collect ashes or rubbish not put out before 7 o'clock a. m.

No person shall overhaul the contents of receptacles for waste material set upon the sidewalk to be removed by the board of health. No barrel or other receptacle, together with its contents of ashes or rubbish, shall exceed 150 pounds in weight. The use of dry-goods boxes or cases as said receptacles is forbidden. The board of health would recommend the use of metal cans as receptacles for ashes and rubbish.

Paper and waste material will be removed from places of business when it is placed out of doors as often as the occasion requires, at a cost to pay for such removal.

The dumping of broken glass, tin cans, and other objectionable refuse in paper receptacles is strictly forbidden.

All owners and occupants of buildings are requested to remove their ash barrels or other receptacles from the sidewalk after being emptied by the department teams.

Paper and combustible waste will be collected from the business section of the city three days in a week, Mondays, Wednesdays, and Saturdays.

* * * * *

CHAP. VIII. Dead animals and offensive substances.—SECTION 1. No person shall allow any dead animal or excrementious matter of any kind whatsoever, the contents of any sink, bowl, tub, or any other solid or liquid matter injurious to the public health, to fall into any stream, watercourse, or pond in this city; and no person shall establish or maintain any stable, swine pen, privy, privy well, cesspool, or sink drain within 6 feet of any stream, watercourse, or pond in this city, without a permit from the board of health.

CHAP. IX. Collecting grease.—SECTION 1. No person shall collect or remove from any dwelling house or other place in the city any grease or refuse matter without first obtaining a permit from the board of health and in all respects complying with the conditions of such permit. All such permits shall expire the 1st day of May annually, and may be revoked at any time by the board of health; and no person shall receive such a permit without first paying to the clerk of said board, for the use of the city, the sum of \$1.

SEC. 2. All applicants for permits for the transportation of the aforesaid material shall provide wagons with bodies sufficiently tight to prevent the contents escaping therefrom, and when unloaded each of said wagons shall be thoroughly disinfected to the satisfaction of the health department. Said wagons shall be loaded and conveyed so that none of the material shall fall to the ground, run out, or spill therefrom.

SEC. 3. No person having a permit to carry house offal through the streets shall convey same on any vehicle unless his name, the words "Offal permit," and the number of the permit are marked on each side of the vehicle, satisfactory to the board of health.

SEC. 4. If any person having a permit to carry house offal through the streets shall cease to be the owner of the vehicle conveying said offal, he shall immediately surrender his permit to the board of health.

Domestic Animals—Keeping of. (Reg. Bd. of H., May 1, 1913.)

CHAP. X. Goats, swine, cows, and hens.—SECTION 1. No person shall keep a goat, swine, cows, or hens within the limits of the city without first obtaining a permit so to do from the board of health and in all respects complying with the conditions of such permit. All such permits may be revoked at any time by the board of health.

SEC. 2. No poultry yard, coop, or house shall be established or maintained within 25 feet of any building used as a dwelling, or where food is manufactured, prepared, offered, or kept for sale.

Spitting—Prohibited in Public Places. (Reg. Bd. of H., May 1, 1913.)

CHAP. XI.—SECTION 1. No person shall spit upon the floor of any public conveyance, shop, store, hall, church, schoolhouse, railroad station, or other public building in said city, or upon the steps or in the corridors of any said conveyances or buildings, or upon the sidewalks or crossings of any public way of said city of Brockton.

SEC. 2. Spitting in street cars.—The board of health of this city hereby adjudges spitting in street cars to be a public nuisance, source of filth, and cause of sickness, and prohibits such spitting upon the floor, platform, or any other part of any street car.

Domestic Animals—Communicable Diseases of. (Reg. Bd. of H., May 1, 1913.)

CHAP. XII.—SECTION 1. Notice from person suspecting or knowing of the existence of disease.—The written notice required by law to be given to this board by persons having knowledge of, or good reason to suspect, the existence of any contagious disease among any species of domestic animals within the limits of this city, or that any domestic animal is affected with any such contagious disease, shall designate, as clearly as may be, the suspected animals, the ownership thereof, the disease with which the animals are suspected of being infected, and the locations where such animals are to be found.

SEC. 2. Owner to isolate animals and notify board of health.—Every person owning or having control of cattle suspected of being infected with tuberculosis, or horses suspected of being affected with farcy or glanders, or any domestic animals suspected of being affected with any contagious disease, shall cause such animals to be isolated upon his own premises, and shall at once notify the board of health in writing, giving a careful description of each animal and of the place of isolation, and no such animal shall thereafter be removed from the place of isolation or allowed to pass through any public or private street, way, or place, until after said animal has been inspected by the city inspector of animals or by a veterinarian appointed by this board.

SEC. 3. Agent of board of health to cause animals to be isolated.—Whenever any agent duly appointed by this board of health finds any animal, within the limits of said city, suspected by him of having, or which in his judgment is infected with, any of

the contagious diseases, as follows, namely, glanders, farcy, contagious pleuropneumonia, tuberculosis, Texas fever, foot and mouth diseases, rinderpest, hog cholera, and rabies, such agent shall cause, in the name of this board, such animal to be kept quarantined or isolated in such place (whether a portion of a building or other place) as he may designate, and may order that such animal shall be so kept isolated by the owner or the person or persons in possession of such animal, and at the cost of such owner or person or persons, and shall not be removed from the place so designated until discharged therefrom by an order of this board or its duly authorized agent, or an order issued by the State board of cattle commissioners or any of its members; and all persons are hereby forbidden to remove, or cause to be removed, said animal from the place or inclosure where it has been so quarantined or isolated; or to cause or allow said animal to pass from place to place within said city, or to be or remain in any place in said city, except the place designated as aforesaid; or to drive or transport, or cause to be driven or transported, any animal contrary to the regulations aforesaid; or to cause or allow any other animal to come in contact with said quarantined animal, or to enter the inclosure where such animal is confined.

SEC. 4. Penalty for violation.—Any person disobeying any provision of this chapter or any order made by an agent of this board of health as aforesaid, or driving or transporting any animal contrary to the said regulations, shall be punished by a fine not exceeding \$500 or imprisonment not exceeding one year.

Barbers and Barber Shops—Sanitary Regulations for. (Reg. Bd. of H., May 1, 1913.)

CHAP. XIII. The place of business shall be kept at all times in a cleanly condition. Mugs, shaving brushes, and razors shall be cleansed by immersion in boiling water after every separate use thereof. A separate clean towel shall be used for each person. Alum and other material used to check bleeding shall be used only in powdered form, and applied on a towel. The use of powder puffs and sponges is prohibited. Every barber shop shall be provided with running hot and cold water. No person shall be allowed to use any barber shop as a dormitory. Every barber shall cleanse his hands thoroughly immediately after serving each customer. Hair brushes and combs shall be thoroughly washed at least once a day.

Surgical Chests—Required in Factories. (Reg. Bd. of H., May 1, 1913.)

CHAP. XIV. Every person, firm, or corporation operating a factory or shop in which machinery is used for any manufacturing purpose, or for any other purpose, except for elevators, or for heating or hoisting apparatus, shall at all times keep and maintain, free of expense to the employees, a full set of the following articles, the same to be kept in a suitable dust-proof case: Adhesive plaster, 1-inch roll and 2-inch roll; bandages, two dozen assorted sizes, 1 to 4 inches; absorbent cotton, 1 pound; gauze, one package of 10 yards; elastic tourniquet, 24 inches; safety pins, two dozen; splint material, four whitewood strips 30 by 4 by $\frac{3}{8}$ inches; scissors, straight, 3-inch blade; basin, enamel; tablets, corrosive sublimate and citric acid, 100; carron oil, 1 quart; aromatic spirits of ammonia, 4 ounces.

Milk and Cream—Production, Care, and Sale. (Reg. Bd. of H., May 1, 1913.)

CHAP. XV. RULE 1. No person, firm, or corporation shall engage in the production, sale, delivery, or distribution of milk in the city of Brockton except in accordance with the provisions of Revised Laws of Massachusetts and of acts of the legislature additional thereto, or in amendment thereof, and in compliance with the following rules and regulations of the board of health of said city:

RULE 2. Every person, firm, or corporation producing, keeping or offering for sale milk in the city of Brockton shall, annually, before the 1st day of June, be licensed so to do by the milk inspector of said city.

RULE 3. No milk shall be produced, kept, sold, or offered for sale in the city of Brockton, from any cow or cows that are not properly cared for, or that have not—within one year—been examined, by a competent authority and certified to be free from all diseases dangerous to the public health; or that are kept in a stable that is not in a clean, healthful, and sanitary condition, and that is not open to inspection by the board of health or the milk inspector at all times.

RULE 4. No milk shall be produced, kept, sold, or offered for sale in the city of Brockton, unless it has been strained, mixed, and cooled immediately after it is drawn from the cow. Said milk shall not be strained, mixed or cooled in any room which is not provided with tight walls and floors of such construction as will allow easy and thorough cleaning, or which is not kept constantly clean, or which is occupied by horses, cows, or other animals; or in any room which is used in whole, or in part, for domestic or sleeping purposes, unless the storage room for milk is separated from the other parts of the building, and provision made for the exclusion of outside dust and flies, to the satisfaction of the board of health.

RULE 5. Milk kept for sale in any shop, restaurant, market, bakery, or other establishment shall be stored in a covered cooler box or refrigerator. No vessel containing milk for sale shall be allowed to stand outside of said cooler box or refrigerator, except while a sale of said milk is being made. Every such cooler box or refrigerator shall be properly drained, cleansed, and cared for, and shall be kept tightly closed, except during such intervals as are necessary for the introduction of milk or ice; and shall be kept only in such locations as shall be approved by the board of health.

RULE 6. The milk inspector shall, under the direction of this board, investigate and take samples, to determine the quality of the milk sold, offered, or exposed for sale, or intended for sale in this city; and he shall make, or cause to be made, examinations and inspections thereof, to ascertain whether or not adulterated or impure milk is sold, kept, offered or exposed for sale, or intended for sale in said city, contrary to the statutes of this Commonwealth, or to the provisions of these rules and regulations. He shall visit dairies supplying milk in and to the inhabitants of the city of Brockton, and all places where milk is stored, kept or offered for sale, as often as deemed necessary by this board; and he shall report the conditions thereof at the time of such inspection, in writing, to this board. He shall act as agent and prosecuting officer for the board of health in all matters pertaining to milk.

RULE 7. All cans, bottles, or other vessels of any sort used in the production, storage, sale, or distribution of milk in this city shall be cleaned and sterilized with boiling water or steam before they are again used for the same purpose; and all cans, measures, or other utensils made of metal, shall be kept free from dents and rust, and there shall be proper appliances for washing all utensils used in the production, mixing, storage, sale, or distribution of milk; and all such utensils shall be washed, cleaned, and sterilized with boiling water or steam, regularly, after being so used. The filling of bottles, except at the dairy or creamery, is prohibited.

RULE 8. The water used in washing apparatus and utensils must be from a public water supply, or if from any other source, its use must be subject to the approval of the board of health.

RULE 9. No milk shall be brought into or carried within the city of Brockton, for the purpose of sale, which has been carried upon any wagon or vehicle which is not clean and free from offensive odors, or upon which swill, refuse, garbage, or decaying, unwholesome, or filthy matter is carried.

RULE 10. No person, by himself, or by his servant or agent, or as the servant or agent of any other person, firm, or corporation, shall, in the city of Brockton, sell, exchange, or deliver, or have in his custody or possession with intent to sell, exchange, or deliver, any milk, skimmed milk, or cream which contains more than 500,000 bacteria per cubic centimeter, or any pathogenic microorganism. Milk to be pasteurized must not contain over 800,000 bacteria per cubic centimeter.

RULE 11. Every person engaged in the production, storage, transportation, sale, delivery, or distribution of milk for sale in this city shall notify the board of health immediately on the occurrence of any case or cases of infectious disease, either in himself or his family, or among his employees, or their immediate associates, or within the building or premises where milk is stored, sold, or distributed, and at the same time shall suspend the sale or distribution of milk until authorized to resume the same by the board of health. No vessel which has been handled by a person suffering from a disease, or which is on the premises of a person in whose family or household infectious disease exists, shall be removed to hold or convey milk until it has been thoroughly disinfected and sterilized under the supervision of an agent of the board of health.

RULE 12. Bottles or other milk containers shall not be left with any family in which there is any contagious disease, but milk may be delivered to such families by pouring into vessels furnished by said families. No bottle or other container, previously left with any family in which a contagious disease occurs, shall be removed therefrom, except with the consent of the board of health in writing.

RULE 13. For the purpose of enabling the board of health to carry out and enforce the provisions of these rules and regulations the milk inspector, acting as the authorized agent of, or any other qualified inspector or agent of the board of health, or any member of said board, shall, at all times, have free access to all barns, stables, dairies, creameries, stores, wagons, and all other buildings or premises in which cattle are kept, from which any part of the milk supply of the city of Brockton is obtained, or in which milk is received, kept, bottled, canned, or offered for sale, for the purpose of making inspection of said premises, cattle, vehicles, cans, vessels, measures, and other utensils used in conducting the handling, sale, and delivery of milk, and for the purpose of taking, for analysis or other tests to determine its quality, samples of milk kept or intended for sale in the city of Brockton.

RULE 14. Every person, firm, or corporation licensed to sell milk in the city of Brockton shall promptly notify the board of health of said city upon commencing or discontinuing the sale of milk from any dairy or producer.

RULE 15. Whoever tests milk or cream, which is to be offered for sale in any form, by tasting, shall do so by means of a spoon, or piece of wood, paper, cardboard, or other article, and such spoon, piece of wood, paper, cardboard, or other article shall not again be brought in contact with the milk intended for sale, or be used for testing milk until after being thoroughly washed and sterilized. No person shall permit his hands, fingers, lips, or tongue to come in contact with milk intended for sale in any form. All persons engaged in the tasting, mixing, or handling of milk for sale in any form shall, before engaging in such tasting, mixing, or handling, thoroughly clean their hands and finger nails, and keep them clean and dry during such tasting, mixing, or handling. No person shall permit his hands, while wet, to remain or pass over any open vessel containing milk intended for sale in any form. No person shall fill a jar, can, or other receptacle with milk while the aforesaid jar, can, or other receptacle is held over an open vessel containing milk intended for sale in any form. No person who has sore throat, diarrhea, or is suffering from any other disturbance of the bowels, or has symptoms of infectious or contagious disease, shall engage in the handling of milk which is to be offered for sale, or which is for sale.

RULE 16. No urinal, water-closet, or privy shall be located in rooms in which milk is handled, or so situated as to pollute the atmosphere of said rooms.

RULE 17. Dealers in milk are prohibited from allowing any person, or persons, not in their employ to loiter about the milk room, or handle any vessel or utensil used in the sale and distribution of milk.

RULE 18. Every person, firm, or corporation in the city of Brockton engaged in the sale, delivery, or distribution of milk from dairies shall, upon request from the board, certify that the above rules are complied with by said dairies.

Spittoons—In Factories, Specifications for. (Reg. Bd. of H., May 1, 1913.)

CHAP. XVI. Complying with chapter 503, section 2, Acts and Resolves of 1907, the board of health has voted, "That a receptacle for expectoration in factories and workshops, not less than 10 inches in diameter, nor less than 5 inches in depth, with a removable cover; to be made of iron, enameled inside and out, one to be provided for every 5 male persons, or fraction thereof, and one for every 20 female persons, or fraction thereof, will be acceptable to the board of health of the city of Brockton.

Foodstuffs—Protection of. (Reg. Bd. of H., May 1, 1913.)

CHAP. XVII. *Covering of meats, vegetables, fruits, and berries.*—SECTION 1. No person shall allow the body of any animal, or part thereof, or any bread, pastry, poultry, or other provisions which may be used as human food, to be carted or carried through the streets or avenues of the city of Brockton, unless it be so covered as to protect it from dust, dirt, and flies.

SEC. 2. No cherries, blackberries, huckleberries, raspberries, strawberries, grapes, dates, figs, salted peanuts, cracked nuts of any kind, corn cakes, corn crisp, candy of any description, maple sugar, or any other article or foodstuff which may be used for human food without cooking or peeling, shall be kept or exposed for sale in any street or public place, or outside of any shop or store, or in the open windows or doorways, thereof, unless they be kept covered, so that they shall be protected from dust, dirt, and flies.

SEC. 3. No vegetables, or other articles which are to be used as human food, shall be kept or placed or exposed for sale outside of any shop, store, or market, or in the open windows or doorways thereof, where it is possible for such vegetables or other articles to be contaminated by dogs.

SEC. 4. Every person, being the occupant or lessee of any room, stall, building, or place where any meat, fish, birds, fowl, milk, vegetables, butter, fruit, or other articles intended or held for human food shall be stored or kept, or shall be offered for sale, shall put and keep such room, stall, building, or place, and its appurtenances, in a clean and wholesome condition; and every person having charge or interested or engaged, whether as principal or agent, in the care, or in respect to the custody or sale of any meat, fish, birds, fowl, milk, butter, fruit, vegetables, or other articles intended for human food, shall keep, protect, and preserve the same in a clean and wholesome condition, and shall not allow the same, or any part thereof, to be poisoned, infected, or rendered unsafe or unwholesome for human food.

Ice Cream—Manufacture, Care, and Sale. (Reg. Bd. of H., May 1, 1913.)

CHAP. XVIII.—ARTICLE I.—SECTION 1. No ice cream shall be manufactured or stored in any portion of a building which is used for the stabling of horses or other animals, or in any room used in whole or in part for domestic or sleeping purposes, unless the manufacturing and storage room for ice cream is separated from other parts of the building, to the satisfaction of the board of health.

SEC. 2. All rooms in which ice cream is manufactured or stored shall be provided with tight walls and floors, window and door screens, and kept constantly clean. The walls and floors of said rooms shall be of such construction as to permit rapid and thorough cleansing. The room or rooms aforesaid shall be equipped with appliances for washing or sterilizing all utensils employed in the mixing, freezing, storage, sale, or distribution of ice cream, and all such utensils after use shall be thoroughly washed with boiling water, or sterilized by steam. Vessels used in the manufacture and sale of ice cream shall not be employed as containers for other substances than ice cream.

SEC. 3. All establishments in which ice cream is manufactured shall be equipped with facilities for the proper cleansing of the hands of operatives, and all persons

immediately before engaging in the mixing of the ingredients entering into the composition of ice cream, or its subsequent freezing and handling, shall thoroughly wash his or her hands, and keep them cleanly during such manufacture and handling. All persons shall be dressed in clean outer garments while engaged in the manufacture and handling of ice cream.

SEC. 4. No urinal, water-closet, or privy shall be located in the rooms mentioned in the preceding section, or so situated as to pollute the atmosphere of said rooms.

SEC. 5. All vehicles used in the conveyance of ice cream for sale or distribution shall be kept in a cleanly condition, and free from offensive odors.

ART. II.—SECTION 1. Ice cream kept for sale in any shop, restaurant, or other establishment shall be stored in a covered box or refrigerator. Such box or refrigerator shall be properly drained and cared for, and shall be kept tightly closed, except during such intervals as are necessary for the introduction or removal of ice cream or ice, and they shall be kept only in such locations and under such conditions as shall be approved by the board of health.

ART. III. Every person engaged in the manufacture, storage, transportation, sale, or distribution of ice cream, immediately on the occurrence of any case or cases of infectious disease, either in himself or in his family, or amongst his employees, or within the building or premises where ice cream is manufactured, stored, sold, or distributed, shall notify the Brockton board of health, and at the same time shall suspend the sale and distribution of ice cream until authorized to resume the same by the said board of health. No vessels which have been handled by persons suffering from such disease shall be used to hold or convey ice cream until they have been thoroughly sterilized.

ART. IV.—SECTION 1. All cream, milk, or skimmed milk employed in the manufacture of ice cream shall, before use, be kept at a temperature not higher than 50° F.

SEC. 2. No person, by himself or by his servant or agent, or as the servant or agent of any other person, firm, or corporation, shall, in the city of Brockton, sell, exchange, or deliver any ice cream which contains more than 500,000 bacteria per cubic centimeter.

SEC. 3. No old or melted ice cream, or ice cream returned to a manufacturer from whatever cause, shall again be used in the preparation of ice cream.

Ice—Sale of Polluted, Forbidden. (Reg. Bd. of H., May 1, 1913.)

CHAP. XIX.—SECTION 1. No person, by himself or by his servant or agent, or as the servant or agent of any other person, firm, or corporation, shall, in the city of Brockton, sell, exchange, or deliver, or have in his custody or possession with intent to sell, exchange, or deliver, any ice from polluted sources, or ice which upon chemical or bacteriological examination shows evidence of sewage contamination, either by presence of sewage bacteria or of excessive ammonia (free or albuminoid), or of nitrites, or which is visibly polluted or soiled by dirt, or ice in or upon which there is any visible foreign matter.

Hotels, Restaurants, and Boarding Houses—Sanitary Regulation of. (Reg. Bd. of H., May 1, 1913.)

CHAP. XX. A hotel within the meaning of these regulations is any inn or lodging house of three or more rooms where transient guests are fed or lodged for pay in this city. The term "restaurant" as used in these regulations also includes lunch counters.

SECTION 1. The inspector of the board of health is hereby authorized to enter any hotel or restaurant at all reasonable hours to make such inspection as may be necessary; and it is hereby made the duty of every person in the management or control of such hotel or restaurant to afford free access to any and all parts of the same and render all aid and assistance necessary to enable the inspector to make a full, thorough,

and complete examination thereof, but no inspector shall violate the privacy of any guest in any room of a hotel without his consent.

SEC. 2. It shall be the duty of every person keeping, managing, or operating a hotel to see that every room and bed which has been occupied by any person known to such keeper, proprietor, or operator to have any infectious, contagious, or communicable disease at the time of such occupancy to see that such room and bed are thoroughly disinfected in the method prescribed by the board of health before permitting such room or bed to be occupied by any other person.

SEC. 3. The proprietor of every hotel or restaurant shall keep the same clean and in a sanitary condition.

SEC. 4. Every hotel or restaurant must be provided with pure and unpolluted water. The use of the common drinking cup is prohibited.

SEC. 5. The proprietor or keeper of every hotel or restaurant must screen the doors, windows, and all openings of the kitchen and dining room with wire cloth or wire gauze with 18 mesh to the square inch. Every hotel must have all bedroom windows screened for protection against flies, mosquitoes, and other insects.

SEC. 6. All hotels shall hereafter provide each bed, bunk, cot, or other sleeping place for the use of guests with pillow slips, under and top sheets. All such pillow slips and sheets after being used by one guest must be washed and ironed before being used by another guest, a clean set being furnished each succeeding guest.

SEC. 7. All bedding used in a hotel shall be thoroughly aired in such reasonable manner as shall be approved by the board of health.

SEC. 8. All hotels shall furnish each guest with a clean towel, and the use of the roller towel is prohibited.

SEC. 9. The refrigerator, ice boxes, and cold-storage rooms of all hotels or restaurants must be free from foul and unpleasant odors, mold, and slime. The kitchen must be well lighted and ventilated, the floor clean, and the side walls and ceiling free from cobwebs and accumulated dirt.

SEC. 10. All dishes, tableware, and kitchen utensils must be thoroughly washed and rinsed in clean water after using; food served to customers and then returned to the kitchen or serving room must not again be served.

SEC. 11. All garbage must be kept covered in barrels or galvanized-iron cans and removed daily.

SEC. 12. Spittoons must not be used in the dining room or other places where food is served.

SEC. 13. Toilets for employees or public use shall not be located in rooms used for preparing or storing food.

SEC. 14. No person suffering from tuberculosis, ophthalmia, or any infectious or contagious disease, externally visible or not, or any skin disease, shall be employed in or about any part of a restaurant or its kitchen, or handle any foodstuffs or products used therein.

SEC. 15. No person or employee shall expectorate or discharge from the human body or any organ thereof or in any method whatever, upon the walls, floors, or equipment of any such restaurant or kitchen thereof, nor upon any product or material that may be upon the premises.

SEC. 16. No employee in any way connected with the handling, cooking, or preparing of any foodstuffs or products in any restaurant or kitchen thereof shall engage at work or his particular duty following a visit to a water-closet, urinal, or toilet room to relieve a call of nature, without first thoroughly cleansing his or her hands.

SEC. 17. All restaurants shall provide, in places where foodstuffs are kept, prepared, cooked, or served to customers, full protection from dust, dirt, flies, and vermin, by glass cases, wire screens, and other modern methods, and shall cause the abatement and destruction of vermin and flies wherever found.

SEC. 18. All restaurants shall be equipped with covered metallic cans for retaining and keeping their garbage and waste in a sanitary manner, which shall be kept in such place and manner as will preclude nuisance and contamination of the kitchen and such rooms from odors and from all possibilities therefrom, and when necessary shall use disinfectants.

SEC. 19. No hotel shall keep a hogpen in close proximity thereto.

Meat—Sanitary Regulation of Meat Markets. (Reg. Bd. of H., May 1, 1913.)

CHAP. XXI.—SECTION 1. All meat condemned by any representative of the board of health or authorized inspector shall be destroyed or rendered unfit for human food. Such destruction shall be effected by slashing the condemned meat and by saturating the same with kerosene or other chemical compound. Any inspector of the board of health is hereby empowered to seize and condemn any tainted or unwholesome meat in any meat market or when offered for sale upon the wagon. Any inspector is hereby authorized to enter any building, structure, or premises to inspect and examine any meat contained therein.

SEC. 2. All meat markets or other places where meat is sold or distributed must be kept clean, well lighted, and ventilated. The back room of the meat market must be kept free from filth-collecting plunder and be at all times in a sanitary condition.

SEC. 3. When an inspector or officer of the board of health finds any meat market in an insanitary condition, he is authorized to require such conditions as will make the sale of meat safe and sanitary.

SEC. 4. The floor of every meat market in the city shall be scrubbed at least three times each week and kept clean.

SEC. 5. In every meat market, each room wherein meat is handled or stored shall be completely screened at doors, windows, and other openings with wire gauze, with 18 mesh to square inch, and such gauze, when rusted or otherwise rendered pervious to insects, shall be removed and replaced with impervious gauze. All meat markets must be screened and free from flies.

SEC. 6. No other business causing insanitary conditions must be conducted in the same room with the market.

SEC. 7. Managers or owners of meat markets must require employees to be cleanly. The aprons, frocks, or clothing worn by employees who handle meat or meat food products must be of a nature that is readily cleansed and made sanitary, and only clean garments shall be worn.

SEC. 8. No person suffering from a contagious or infectious disease shall be employed in any capacity in any meat market in this city, nor shall any convalescent from diphtheria, pneumonia, variola, or typhoid be employed until permission is granted by the health officer.

SEC. 9. Scraps of meat, offal, bones, and other organic matter shall not be left exposed to the atmosphere of the room, but must be kept in a closed receptacle, which must be emptied at least once daily. Also the meat for sale shall not be kept exposed to the air except in such quantities as are needed for immediate use, but it shall be kept in refrigerators or ice chests.

SEC. 10. The refrigerators and all meat hooks must be kept perfectly clean. No tainted meat or cheese shall be placed in the refrigerator. The refrigerator or metal boxes must be kept dry on the inside. The refrigerator and metal hooks must be scoured with hot water and lye not less than once a week, and oftener if necessary, to keep the refrigerator free from odor. After scouring it should be washed with a solution of common soda.

SEC. 11. Every meat market shall have an ample supply of water, with a properly equipped lavatory convenient to the cutting block and counter, furnished with soap and towels for the use of operators.

SEC. 12. All vehicles and wagons used for transporting meat shall be kept in a clean and sanitary condition. The meat must be protected from flies and dust while being transported from the slaughterhouse to the market, by being covered or wrapped in a clean, white cloth. The peddling of meat on the street is prohibited unless wrapped in clean cloths or kept in a clean, closed box so as to avoid contact with flies and dust.

SEC. 13. Water-closets must not be in the compartment in which meat or meat products are stored, handled, prepared, or offered for sale. Where a water-closet is located in a room opening into the meat market, the door connecting the room must be screened, and no meat must be handled in the room where the closet is located and said closet shall be kept fly proof and in a sanitary condition.

SEC. 14. Spitting on the floor, wall, or any place other than in a cuspidor provided for such purpose with disinfectant solution, is prohibited, and it is made the duty of the market master, or such person as has charge of the market, either as owner, lessee, or manager, to report promptly any violation of this regulation to the local health officer.

SEC. 15. The use of sawdust, shavings, and other dust-creating refuse for floor covering is prohibited.

SEC. 16. It shall be unlawful for any person or persons to keep live chickens, ducks, geese, turkeys, calves, or pigs, or other live fowl in any cellar or basement underneath any grocery store, market, or other place where foodstuffs are kept for sale. It shall also be unlawful for any person or persons to keep any live chickens, turkeys, ducks, geese, calves, or pigs, or live fowl of any kind in any building where any kind of foodstuffs, such as are enumerated in section 2 and section 3 hereof, are kept, prepared for sale, or sold.

Penalty.—Whoever violates any of these regulations shall forfeit a sum not exceeding \$100, except when otherwise provided by law or by these regulations.