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VIRULENT SMALLPOX.

During the week ended June 26 two deaths from smallpox were reported in El Paso, Tex., and two cases of the disease with one death in the city of New Orleans, La.

During the week ended July 10 no new cases of smallpox were reported at New Bedford, Mass. The epidemic at this place seems to be under complete control.

POST-VACCINATION TETANUS.

STUDIES ON ITS RELATION TO VACCINE VIRUS.

By JOHN F. ANDERSON, Director, Hygienic Laboratory, United States Public Health Service.

Since 1902 the United States Public Health Service has, under authority of an act of Congress, exercised supervision over the manufacture and interstate sale of biological products such as vaccine virus, diphtheria antitoxin, etc. In this supervision the service has considered as coming under its jurisdiction the investigation of certain accidents which, on rare occasions, may follow the use of biologic products, such as the various manifestations of the serum disease or anaphylaxis, severe reactions after the use of bacterial vaccines, and the rare cases of tetanus occurring subsequent to vaccination with vaccinia.

Since 1904 the writer has paid particular attention to cases of tetanus following vaccination and has endeavored to collect accurate data concerning such accidents. These data have consisted, in part, of information in regard to the date of vaccination; result and character; date of onset of symptoms of tetanus; result; whether a shield was used; name of manufacturer of the virus used; samples of the same lot of virus; record of tests made by the manufacturer; number of doses of vaccine of the same lot of virus; and the number of persons vaccinated at the same time. Where it has been possible to secure samples of the same lot of virus used to vaccinate the person later developing tetanus, the virus has been exhaustively examined

in the Hygienic Laboratory for the presence of the tetanus organism and its toxin.

A number of the cases have either been investigated by the writer or by some other representative of the Public Health Service; for data in regard to the remaining cases the information was obtained, as a rule, through the local health officials.

In addition to the data on cases of tetanus following vaccination, there have been collected facts bearing on the number of vaccinations performed in the United States Army and Navy and the prevalence of tetanus among soldiers and sailors during the same period. As will be seen later, the latter data are of especial significance with regard to the theory put forth, by persons opposed to vaccination, who allege that tetanus germs sometimes are present in vaccine virus.

In order that the statistical and clinical data, as well as the laboratory findings, should have an experimental basis, a considerable number of experiments have been made upon animals in the laboratory with reference to the probability of infection with tetanus when animals susceptible to both vaccinia and tetanus were vaccinated with virus known to contain tetanus organisms, i. e., when the germs had been purposely placed therein for experimental reasons. The experimental results will be presented first.

It is known that the rhesus monkey is quite susceptible to vaccinia and also to tetanus. Therefore, to test the possibility of infecting this animal with tetanus through vaccination with virus heavily contaminated with tetanus spores, eight monkeys were vaccinated by multiple vaccinations with such virus.¹ All developed good "takes," which ran the usual course of a successful vaccination. None showed any evidence of infection with tetanus, although the presence of tetanus organisms was shown by examinations made of the crust or scab.

The guinea pig is acutely susceptible to tetanus and is also susceptible to vaccinia. With this fact in mind, a number of these animals were vaccinated with virus artificially heavily contaminated with the tetanus organism. Many of them developed good "takes," but none showed evidence of infection with tetanus.

It would appear from these animal experiments that, though the virus used for vaccination contained a large number of tetanus organisms, the bacilli failed to produce tetanus; nor was there absorption of sufficient tetanus toxin from the vaccination wound to produce symptoms of tetanus.

During the last 13 years there has been examined in the hygienic laboratory, specifically for the presence of the organism of tetanus, virus sufficient for the vaccination of over 2,000,000 persons, and in no

¹ Francis, Edward: Laboratory studies on tetanus. Hyg. Lab. Bull. 95, Washington, Govt. print. off., 1914.

instance were we able to show the presence of the tetanus germ or its products. The virus examined included samples of the same laboratory number (i. e., the same lot), and in several instances virus from the same package, as that used for the vaccination of persons who subsequently developed tetanus. It is certainly not unreasonable to assume that, had the virus contained tetanus bacilli, the organism would not have escaped detection in the laboratory, especially in view of the thorough mixing of the virus before it is dispensed by the maker.

This is of special significance when we consider that the methods for the detection of tetanus organisms have been so refined in the Hygienic Laboratory that we are able in practically all cases by a combination of tests to show their presence when known to be therein.¹

It appears, therefore, proper to conclude that the virus so examined did not contain the tetanus organism. And it appears allowable to make the deduction that other portions of the same laboratory number of virus used for the vaccination of persons subsequently developing tetanus also did not contain the germ of tetanus.

An effort was made to ascertain the number of individual doses of vaccine sold by each licensed manufacturer during the 10-year period from 1904-1913, inclusive, and it was found that during that time there were sold for use in the United States approximately 40,000,000 individual doses of vaccine virus, and of this number 31,942,000 were not returned to the manufacturers, but were presumably used for vaccination. If the vaccine virus were the source of infection in persons developing tetanus subsequent to vaccination we should expect to find a considerable number of such cases, but I have been able to obtain information of only 41 authenticated cases. When we consider the small number of cases of tetanus and the large number (over 31,000,000) who were vaccinated, we are forced to the conclusion that the infection was not in the virus as sold and used in the United States, but was received in some other way than through the vaccine virus.

In addition, data of a similar kind, but with more direct bearing upon cases of tetanus following vaccination, were obtained.

Five cases of tetanus following vaccination were reported within a certain period and an effort was made to find out how many vaccinations were performed in the same State during the period in which these cases occurred. This was done by inquiring as to how many doses of virus were sent into that region, but figures were obtainable from but one distributor, although cases of tetanus had occurred among persons vaccinated with other virus. It was found that 71,796 vaccines had been sold in that State by one maker alone and

¹ Francis, Edward: Laboratory studies on tetanus. Hyg. Lab. Bull. 95, Washington, Govt. print. off., 1914.

probably as much or more by others. Moreover, this particular manufacturer had sold during the same period, for use in that State and elsewhere, over 209,000 vaccines; yet no other case of tetanus was reported among the users of that virus.

These five cases were closely studied, and we were fortunate, in several instances, to get the remaining virus from the package used for the patient or to get the laboratory number, and in this way to examine the laboratory records of the maker in which were set forth the results of the tests of the virus made before shipment. The records showed no evidence of tetanus in the virus examined. The tests of the virus from the same package likewise failed to reveal the presence of tetanus organisms therein. A study of these five cases showed the average incubation period to be 24 days, if counted from the date of vaccination.

These various data make it unreasonable to believe that the tetanus in this group of cases was due to the presence of tetanus spores in the virus used, and they support the supposition that the infection with tetanus was received otherwise than through the vaccine virus.

Another line of inquiry was in regard to the number of persons vaccinated in the United States Army and Navy ¹ and the number of those so vaccinated who developed tetanus. It was believed that such information would be of particular value on account of the large number vaccinated and the completeness of the records. It was found that from 1904 to 1913, inclusive, 359,809 vaccinations were made in the Army and 225,028 in the Navy. In those 11 years, six cases of tetanus occurred in the Army, in none of which was there any reason to believe that vaccination had anything to do with the infection. For the same period there were but two cases in the Navy, neither of which bore any relation to vaccination, one case being subsequent to a railroad injury and the other being the result of an infected wound.

It certainly would seem that among this large number of vaccinations, a total of about 585,000, there would have occurred cases of tetanus had the virus prepared and sold in the United States been at fault. This is the more significant, as the virus used in the Army and the Navy is from the same sources as that generally used throughout the country.

The absence of tetanus following vaccination of 585,000 persons in the Army and the Navy is strong evidence in support of the opinion that the reported cases of tetanus following vaccination in the country at large during the period in question were due to infection received in a manner other than through the vaccine virus.

¹ I am indebted to the office of the Surgeon General United States Army and the Bureau of Medicine and Surgery, United States Navy, for this information.

We now come to the reported cases of tetanus which I have investigated since 1904. As few of the cases of tetanus following vaccination were reported in the medical press, use was made of press clippings to trace such cases. Whenever it was claimed that a case of tetanus was in any way connected with vaccination an effort was made to investigate it thoroughly. A total of 41 cases were studied and fairly satisfactory data were obtained covering most of them. A number of additional cases reported as tetanus were found upon investigation not to be tetanus, or were cases of tetanus clearly attributable to infection through injuries or wounds other than vaccination.

In many of the cases studied it was found that other persons had been vaccinated with the same lot of virus at the same time and, with a single exception, no other person suffered any ill effect. It was also found that many thousands of vaccines of the same lot of virus were used in other places and no case of tetanus followed their use. In a number of instances samples of the same laboratory number, or even from the same package, as that used for the vaccination of the person developing tetanus were obtained and examined in the Hygienic Laboratory for tetanus; but in no instance were we able to demonstrate the presence of tetanus organisms or toxin in the vaccine virus.

The records of tests of the virus, made by the manufacturers before placing the product on the market, indicated in every instance where it was possible to trace the lot an entire absence of any suggestion of tetanus in the virus, as shown by careful culturing and subcutaneous inoculations in animals. In several instances it was found that shields, usually of celluloid, had been used or that the vaccination wound had been neglected or had been exposed to infection in various ways. The average incubation period, if counted from the time of vaccination to the onset of tetanus, of the 41 cases would be 22 days.

Twenty-nine of the cases were fatal and 12 recovered, thus giving a case mortality of 70.7 per cent for the series. It is interesting to compare these figures with Willson's 52 cases of tetanus following vaccination, in which he found a case mortality of 78.8 per cent.¹ The average incubation period of his 42 cases in which the time was stated, counting from date of vaccination to onset of tetanus, was 19.4 days. The combined figures for the two series are given in the following table:

Series.	Number of cases.	Number died.	Number recovered.	Percentage of mortality.
Willson.....	52	41	11	78.8
Anderson.....	41	29	12	70.7
Total.....	93	70	23	75.2

¹ Willson, Robert N.: An analysis of 52 cases of tetanus following vaccinia. With reference to the source of infection. 1839-1902. J. Am. M. Ass., 1902, vol. 38, pp. 1147, 1222.

The average of the suppositious incubation periods, counting from the time of vaccination to the onset of tetanus, in the combined series of 83 cases was 20.7 days.¹

In this connection it is significant to compare the mortality of tetanus due to other causes with regard to the period of incubation and the mortality of the cases following vaccination. It is a well-known observation that the mortality of cases of tetanus with an incubation period of less than 10 days is much higher than that of cases with a longer incubation period. In the series of 858 cases of tetanus reported by Anders and Morgan,² 588 were found to have an incubation period of 10 days or less, and of this number 363 were fatal, or a mortality of 61.7 per cent. There were 270 with an incubation of more than 10 days, 112 of which were fatal, showing a mortality of 41.5 per cent.

It will be recalled that the average mortality for the combined series of Willson's and the writer's cases of tetanus following vaccination, 93 in number, was 75.2 per cent. According to the statistics of mortality from tetanus, this corresponds with or is higher than the mortality from cases having an incubation period of 10 days or less. The incubation period of our combined series was 20.7 days, if counted from the date of vaccination.

Now, what is the significance of these figures? We find that in tetanus following vaccination the average period from vaccination to onset of symptoms is 20.7 days, while the average mortality is 75.2 per cent, this high mortality rate being similar to that in cases of tetanus with an incubation period of 10 days or less.

It appears evident from this that the infection was received 10 days or more after vaccination, and therefore was probably not received through the virus used for vaccination. Many of the cases following vaccination give a history of having the vaccination scab or crust removed in some way, thus permitting infection of the wound, with a re-formation of the crust and the establishment of anaërobic conditions. It is to be noted that the scab begins to form about the tenth day or later.

From a consideration of the foregoing the following summary seems permitted:

1. That it is difficult, if not impossible, to produce tetanus in susceptible animals by vaccination with virus containing large numbers of tetanus organisms which have been purposely placed therein.
2. That, in view of the failure to demonstrate tetanus organisms in the large amount of vaccine virus specifically examined for that purpose, it seems exceedingly improbable that vaccine virus as sold in the United States contains tetanus organisms.

¹ The incubation period in Willson's series was given in only 42 of the 52 cases.

² Anders, James M., and Morgan, Arthur C.: Tetanus: A preliminary report of a statistical study. *J. Am. M. Ass.*, 1905, vol. 45, p. 314.

3. That from 1904 to 1913; inclusive, over 31,000,000 doses of vaccine virus were used in the United States, yet information was obtained of only 41 authenticated cases of tetanus occurring subsequent to vaccination. From this it is concluded that had the vaccine virus used during that time in the United States been at fault many more cases of tetanus should have followed vaccination.

4. That in view of the large number of vaccinations (about 585,000) done in the United States Army and Navy and the absence from them of a single case of tetanus following vaccination, the cases of tetanus following vaccination in the country at large were not due to infection contained in the virus.

5. That the average period from vaccination to onset of symptoms of tetanus in 83 cases of tetanus following vaccination was 20.7 days, while the average mortality of 93 cases was 75.2 per cent, this being slightly higher than the mortality of cases of tetanus due to other causes with an incubation period of 10 days or less.

Conclusions.

Cases of tetanus occurring 15 or 20 days subsequent to vaccination do not receive their infection through the vaccine virus, but in all probability the infection is received about the tenth day or later after vaccination.

The infection with tetanus is received by a contamination of the vaccination wound, such as may occur in the infection of any other surgical wound not properly cared for.

ANOPHELES AS A WINTER CARRIER OF PLASMODIUM.

THE MOSQUITO AS A PROPHYLACTIC INDICATOR.

By M. BRUN MITZMAIN, Technical Assistant, United States Public Health Service.

This study was conducted during the period between February 3 and June 1, 1915. For the purpose a locality was selected proven to have had a malarial index of 40.9 per cent during September, 1914. At this time a total of 1,666 persons were examined.

A field laboratory was established at Scott, Miss., on the property of the Mississippi Delta Planting Co., a syndicate of planters controlling 15 contiguous plantations in Bolivar and Washington Counties. Acknowledgment is made of the intelligent cooperation of Drs. Miller and Lane, of Scott, and Mr. Salsbury and Prof. Fox, of the Mississippi Delta Planting Co., who lent every facility in their power for the pursuit of this investigation.

Material for the study was obtained in and about habitations and in the woods and swamps. House and stable inspections upon the various plantations were instituted in an effort to collect resting mosquitoes, but this soon proved not to be a fruitful source. Not

until search was made under dwellings with the aid of an electric torch, were the desired mosquitoes located. The first Anopheline mosquitoes were found during the month of February, resting under the flooring of dwellings. They were collected daily and kept in glass bottles until evening, when the dissections were made. Tobacco smoke was found to anesthetize most satisfactorily. It was planned to collect only from known foci of infection, but so few mosquitoes were taken that it was found necessary to include all of the possible hiding places.

In the month of March relatively few mosquitoes were found under houses, and a more profitable collecting place was afforded in the woods, where natural shelters gave an opportunity for hibernation. At first an effort was made to collect the insects while at rest in the hibernating habitat, but it was soon found impracticable to obtain them in sufficient numbers. A horse was used to attract the mosquitoes, which method was employed during March and April, and discontinued when house infestation became general.

In considering the question of hibernation, it must be noted that in the region investigated true hibernation does not occur, for sporadic flights and occasional feeding prevail. This was demonstrated early in the study, between February 11 and 14, when an initial rise of 11 degrees of temperature was experienced, and a general house invasion of *Anopheles* resulted. Eight observers reported independently the attacks of the mosquitoes. Mr. Le Prince, who was then cooperating with me, reported that at 11 p. m. at Scott Hotel, he was bitten on three occasions by *Anopheles quadrimaculatus*. I saw four persons, including myself, bitten by the same species while hunting for mosquitoes in the woods. During this period (Feb. 11 to 14) 200 mosquitoes, fully one-half of the monthly catch, were captured upon horses in the woods of Mound Plantation, about 3 miles south of Scott.

The extent of the operations involved in collecting and dissecting is shown in the following table:

Anopheles dissected.

	Quadri- macu- latus.	Crucians.	Puncti- pennis.	Total.
February.....	317		79	396
March.....	78	3	3	84
April.....	236	27	5	268
May.....	1,355		19	1,374
Total.....	1,986	30	106	2,122

After April 23, house and stable infestation were found to be common, although a general flight throughout the various plantation houses was not the rule even up to June 1.

The solution of the question of hibernation can not be assumed as the result of the present studies. It is desired merely to indicate that during three months, from February 9 to May 9, 1,000 *Anopheles* mosquitoes were dissected and examined and no forms suggestive of malarial plasmodium were encountered.

In considering the qualitative enumeration of the 1,000 mosquitoes it is important to determine first their origin. It is obvious, as regards infection, that unless we take into consideration the possibility of hereditary transmission, all of the mosquitoes must be of the brood wintering over from 1914, the question of fresh infection, of course, being held in abeyance. The opportunity for infection of mosquitoes is presented in the following:

1. Organisms carried over from the fall of 1914 in the body of the wintering mosquito.
2. The inactive mosquito of the winter months being stimulated during a warm spell and biting a human gamete carrier.
3. The newly emerged mosquito deriving its infection under the usual conditions favorable for parasitism.

No positive proof, however, is given that the mosquitoes dissected were of the fall brood. All the usual checks were tried to determine this point relative to the time of emergence, including constant surveillance of all the known breeding places to obtain young forms; inducing mosquitoes in the laboratory to lay their eggs and then following the course of development to observe the date of emergence, and rearing of larvæ and pupæ when first found in nature, in order to observe development and ultimate emergence. Also for this purpose note was taken of the condition of mosquitoes dissected as to probable age, quantity of fat cells, presence of spermatozoa in the spermatheca, and egg development. Account was also taken of the distribution of sex, especially in the appearance or absence of males. These tests, however fallible, were used in the absence of better criteria in considering whether the mosquitoes examined were new or wintering forms. As a result, it is assumed that wintering forms were the predominant ones encountered in this study until the latter part of April.

Setting aside the question of æstivation in the mosquito, if the *Plasmodium* does not hibernate in the mosquito carrier it is thought desirable to consider when in this locality the mosquito first appears infected in the spring. The significance thereof and its practical bearing are here considered. It seems quite feasible to establish for any endemic focus what may be termed the malarial indicator. This is the determination of the period of the year when mosquitoes first acquire malarial infection. Thus a fairly stable indicator may be obtained of the time when there is a danger of communicability of malaria from man to man. It might be entirely feasible to utilize the mosquito indicator to determine when active means of pro-

phylaxis should be inaugurated in any locality, and if necessary likewise to determine at the end of the season when prophylaxis might be dispensed with safely.

To determine this indicator with any degree of accuracy, it is realized that a large number of possible insect carriers must be dissected within a very restricted area. With this purpose in view, mosquitoes were collected from a great number of negro cabins on plantations where the highest malarial index had been noted. Especial attention was given to cabins where active cases were known to occur, for it was thought that in the event of these being new infections the responsible carriers might still be harbored within the dwelling. Finally a more intensive plan was pursued: A group of eight cabins was selected in which gamete bearers had been discovered the previous fall. A second blood examination taken just prior to the mosquito dissections showed that at least six of these persons still harbored gametes; the remaining two only asexual forms. The latter were of the pernicious type, one of the gamete bearers proving to be a case of simple tertian and the remaining were subtertian cases demonstrating crescents.

The cabins of the six gamete bearers yielded daily large numbers of *Anopheles*, beginning May 9. Intimate host relations were obtained in many of the collections made from these sources. Though the bulk of the mosquitoes were found resting on the walls of living rooms, a moderate number were taken on or near the beds of *Plasmodium* carriers. In one instance 24 *Anopheles quadrimaculatus* were removed from under the bed net. They were all engorged and too helpless to find openings for escape. In one sleeping room of a certain cabin where six visits were made during the mosquito hunt, 450 *Anopheles* were found and many more remained which were resting near the middle of the ceiling. This room contained three beds accommodating four persons, one of whom was a crescent carrier. The investigation was continued with mosquitoes collected in the afternoon and dissected at night and on the following morning. Sometimes it was necessary to retain the insects for three to five days on account of the state of blood engorgement. The blood was digested in the interim, while the mosquitoes were kept in a large box cage provided with ample water and split prunes.

More than 1,100 *Anopheles*, from the six cabins referred to, were collected and examined during a period of 20 days. No malaria plasmodium like organisms were seen until May 15, when two mosquitoes, *A. quadrimaculatus*, were found infected. One with a fairly large nearly ripe oocyst but no sporozoites yet formed and another with the usual picture of the infected stomach with approximately 36 oocysts in various stages of development. Here were seen young oocysts with the typical peppered malarial pigment and half-grown forms with round and prickly appearing sporoblasts. No sporozoites

were found here or in the dissected and stained salivary glands. The third infected *Anopheles* was found May 26. This contained six young to half-grown oocysts which stained in the characteristic manner. No sporozoites were encountered.

The practical bearing of these findings may be here indicated: From the therapeutic standpoint, at any time previous to May 15, in the locality investigated, protection from malaria may be secured by treating with quinine all the human carriers so that the insect carriers may not be permitted to carry out their rôle in completing the cycle. Failing this, prophylactic measures among healthy and other susceptible persons may be instituted any time from May 15 to June 1, when it is considered the completion of the mosquito cycle in this locality makes preventive measures urgent.

PLAGUE-PREVENTION WORK.

CALIFORNIA.

The following report of plague-prevention work in California for the week ended June 26, 1915, was received from Passed Asst. Surg. Hurley, of the United States Public Health Service, in temporary charge of the work:

San Francisco, Cal.

RAT PROOFING.		RAT PROOFING—continued.	
New buildings:		New garbage cans stamped "Approved"...	750
Inspections of work under construction..	154	Nuisances abated.....	353
Basements concreted (19,224 square feet)	36	OPERATIONS ON THE WATERFRONT.	
Floors concreted (14,583 square feet)....	31	Vessels inspected for rat guards.....	28
Yards, passageways, etc. (11,827 square feet).....	61	Reinspections made on vessels.....	35
Total area of concrete laid (square feet)..	45,634	New rat guards procured.....	6
Class A, B, and C (fireproof) buildings:		Defective rat guards repaired.....	13
Inspections made.....	212	Rats trapped on wharves and waterfront...	27
Roof and basement ventilators, etc., screened.....	6,165	Rats trapped on vessels.....	17
Wire screening used (square feet).....	30,290	Traps set on wharves and waterfront.....	159
Openings around pipes, etc., closed with cement.....	10,279	Traps set on vessels.....	60
Sidewalk lens lights replaced.....	800	Vessels trapped on.....	10
Old buildings:		Poisons placed on waterfront (pieces).....	3,600
Inspections made.....	701	Poisons placed within Panama-Pacific International Exposition grounds (pieces)...	7,200
Wooden floors removed.....	34	Bait used on waterfront and vessels. Bacon (pounds).....	6
Yards and passageways, planking removed.....	16	Amount of bread used in poisoning waterfront (loaves).....	12
Cubic feet new foundation walls installed.....	11,670	Pounds of poison used on waterfront.....	6
Concrete floors installed (39,960 square feet).....	56	RATS COLLECTED AND EXAMINED FOR PLAGUE.	
Basements concreted (8,911 square feet).	21	Collected.....	291
Yards and passageways, etc., concreted (46,511 square feet).....	96	Examined.....	228
Total area concrete laid (square feet)....	95,382	Found infected.....	0
Floors rat proofed with wire cloth (2,400 square feet).....	2	RATS IDENTIFIED.	
Buildings razed.....	27	Mus norvegicus.....	133
		Mus rattus.....	52
		Mus alexandrinus.....	55
		Mus musculus.....	46

Squirrels collected and examined for plague.

Contra Costa County.....	932
Alameda County.....	398
San Benito County.....	389
Monterey County.....	155
Merced County.....	126
San Joaquin County.....	122
Stanislaus County.....	67
Total.....	2,189
Found infected.....	1

Other animals collected and examined for plague.

San Benito County.....	1 rabbit.
	1 gopher.
Total.....	2
Found infected.....	0

Ranches inspected and hunted over.

Contra Costa County.....	61
Alameda County.....	63
San Benito County.....	29
Merced County.....	18
Monterey County.....	16
San Joaquin County.....	18
Stanislaus County.....	8
Total.....	213

Plague-infected squirrel.

San Benito County (shot on June 10, 1915, C. Watson ranch, 3 miles north of Emmet).....1 squirrel.

Record of plague infection.

Places in California.	Date of last case of human plague.	Date of last case of rat plague.	Date of last case of squirrel plague.	Total number rodents found infected since May, 1907.
Cities:				
San Francisco.....	Jan. 30, 1908	Oct. 23, 1908	(¹)	398 rats.
Oakland.....	Aug. 9, 1911	Dec. 1, 1908	(¹)	126 rats.
Berkeley.....	Aug. 28, 1907	(¹)	(¹)	None.
Los Angeles.....	Aug. 11, 1908	(¹)	Aug. 21, 1908	1 squirrel.
Counties:				
Alameda (exclusive of Oakland and Berkeley).	Sept. 24, 1909	Oct. 17, 1909 ²	Aug. 7, 1914	286 squirrels; 1 wood rat.
Contra Costa.....	May 17, 1914	(¹)	Mar. 4, 1915	1,567 squirrels.
Fresno.....	(¹)	(¹)	Oct. 27, 1911	1 squirrel.
Merced.....	(¹)	(¹)	July 12, 1911	5 squirrels.
Monterey.....	(¹)	(¹)	Apr. 10, 1914	6 squirrels.
San Benito.....	June 4, 1913	(¹)	June 10, 1915	38 squirrels.
San Joaquin.....	Sept. 18, 1911	(¹)	Aug. 26, 1911	18 squirrels.
San Luis Obispo.....	(¹)	(¹)	Jan. 29, 1910	1 squirrel.
Santa Clara.....	Aug. 31, 1910	(¹)	July 23, 1913	25 squirrels.
Santa Cruz.....	(¹)	(¹)	May 17, 1910	3 squirrels.
Stanislaus.....	(¹)	(¹)	June 2, 1911	13 squirrels.

¹ None.

² Wood rat.

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

WASHINGTON—SEATTLE—PLAGUE ERADICATION.

The following report of plague-eradication work at Seattle for the week ended June 19, 1915, was received from Surg. Lloyd, of the United States Public Health Service, in charge of the work:

RAT-PROOFING.		WATER FRONT.	
New buildings inspected.....	17	Vessels inspected and histories recorded....	7
Basements concreted, new buildings (6,750 square feet).....	6	Vessels fumigated.....	1
Floors concreted, new buildings (12,480 square feet).....	8	Sulphur used, pounds.....	1,200
Yards, etc., concreted, new structures (1,500 square feet).....	2	New rat guards installed.....	8
Sidewalks concreted (square feet).....	23,490	Defective rat guards repaired.....	4
Total concrete laid, new structures (square feet).....	44,220	Fumigation certificate issued.....	1
New buildings elevated.....	2	Port sanitary statements issued.....	39
New premises rat proofed, concrete.....	14	The usual day and night patrol was maintained to enforce rat guarding and fending.	
Old buildings inspected.....	4	MISCELLANEOUS WORK.	
Premises rat proofed, concrete, old buildings.....	0	Rat-proofing notices sent to contractors.....	22
Premises otherwise rat proofed, old buildings.....	2	Letters sent property owners and tenants to install traps.....	245
Openings screened, old buildings.....	8	Letters sent in re rat complaints.....	24
Rat holes cemented, old buildings.....	25	Restaurant permits viséed.....	5
Wire screening used (square feet).....	950	RODENTS EXAMINED IN EVERETT.	
Buildings razed.....	2	Mus norvegicus trapped.....	39
LABORATORY AND RODENT OPERATIONS.		Mus musculus.....	9
Dead rodents received.....	8	Mus norvegicus found dead.....	2
Rodents trapped and killed.....	340	Mus alexandrinus found dead.....	1
Rodents recovered after fumigation.....	84	Total.....	51
Total.....	432	Rodents examined for plague infection.....	46
Rodents examined for plague infection.....	300	Rodents proven plague infected.....	0
Rodents proven plague infected.....	0	RAT-PROOFING OPERATIONS IN EVERETT.	
Poison distributed, pounds.....	19	New buildings inspected.....	4
Bodies examined for plague infection.....	1	New buildings, concrete foundations.....	2
Bodies proven plague infected.....	0	New buildings elevated 18 inches.....	2
CLASSIFICATION OF RODENTS.		New buildings, basements concreted, 650 square feet.....	1
Mus rattus.....	26	New buildings yards concreted, 260 square feet.....	1
Mus alexandrinus.....	102	Total concrete laid, new buildings (square feet).....	910
Mus norvegicus.....	192		
Mus musculus.....	112		

HAWAII—PLAGUE PREVENTION

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

Honolulu.

WEEK ENDED JUNE 19, 1915.

Total rats and mongoose taken.....	400	Average number of traps set daily.....	1,035
Rats trapped.....	389	Cost per rat destroyed, 21½ cents.	
Mongoose trapped.....	11	Last case rat plague, Aiea, 9 miles from Honolulu, Apr. 12, 1910.	
Examined microscopically.....	345	Last case human plague, Honolulu, July 12, 1910.	
Showing plague infection.....	0	Last case rat plague, Kalopa stable, Paauhau, Hawaii, Aug. 29, 1914.	
Classification of rats trapped:		Last case human plague, Paauhau Landing, Hawaii, Aug. 16, 1914.	
Mus alexandrinus.....	168		
Mus musculus.....	135		
Mus norvegicus.....	49		
Mus rattus.....	37		

Hilo.

WEEK ENDED JUNE 12, 1915.

Rats and mongoose taken.....	3,042	Classification of rats trapped and found	
Rats trapped.....	3,006	dead—Continued.	
Rats found dead.....	2	<i>Mus alexandrinus</i>	430
Mongoose taken.....	34	<i>Mus rattus</i>	869
Rats and mongoose examined macroscopically.....	3,042	<i>Mus musculus</i>	1,077
Rats and mongoose plague infected.....	0	Last case of rat plague, Paauhau Sugar Co., Aug. 29, 1914.	
Classification of rats trapped and found dead:		Last case of human plague, Paauhau Sugar Co., Aug. 16, 1914.	
<i>Mus norvegicus</i>	632		

PORTO RICO—PLAGUE PREVENTION.

During the two weeks ended July 2, 1915, 516 rodents (rats and mice) were examined in Porto Rico. No plague infection was found. The rodents were collected in San Juan, Puerta de Tierra, and Santurce.

PREVALENCE OF DISEASE.

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

IN CERTAIN STATES AND CITIES.

CEREBROSPINAL MENINGITIS.

City Reports for Week Ended June 26, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Baltimore, Md.	1	.....	Dayton, Ohio.....	1	.....
Buffalo, N. Y. ....	.....	1	Hartford, Conn.....	1	.....
Cambridge, Mass.....	.....	1	Los Angeles, Cal.....	1	1
Canton, Ohio.....	1	.....	New York, N. Y.....	4	2
Chicago, Ill.....	4	2	Providence, R. I.....	.....	2
Cleveland, Ohio.....	1	.....	Worcester, Mass.....	1	1

DIPHTHERIA.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2129.

ERYSIPELAS.

City Reports for Week Ended June 26, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Baltimore, Md. ....	.....	1	New Bedford, Mass.....	.....	1
Boston, Mass.....	.....	2	New York, N. Y.....	.....	11
Brockton, Mass.....	1	.....	Passaic, N. J.....	.....	1
Buffalo, N. Y.....	4	1	Philadelphia, Pa.....	12	2
Chicago, Ill.....	20	2	Pittsburgh, Pa.....	2	.....
Cincinnati, Ohio.....	1	.....	Pittsfield, Mass.....	1	.....
Cleveland, Ohio.....	6	.....	Portland, Oreg.....	1	.....
Duluth, Minn.....	2	2	Reading, Pa.....	2	.....
Harrisburg, Pa.....	1	1	Rochester, N. Y.....	2	1
Hartford, Conn.....	1	.....	Sacramento, Cal.....	1	.....
Jersey City, N. J.....	.....	1	St. Louis, Mo.....	5	1
Lancaster, Pa.....	1	.....	San Francisco, Cal.....	1	.....
Los Angeles, Cal.....	1	.....	Trenton, N. J.....	.....	1

MALARIA.

City Reports for Week Ended June 26, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Boston, Mass.....	2	.....	New Orleans, La.....	.....	1
Brockton, Mass.....	1	.....	Philadelphia, Pa.....	1	.....
Brookline, Mass.....	1	.....	Toledo, Ohio.....	1	.....
Newark, N. J.....	1	.....		

MEASLES.

California—Los Angeles.

Senior Surg. Brooks reported that during the month of June, 1915, 590 cases of measles, without a death, were notified in Los Angeles, Cal., making a total of 5,576 cases, with 7 deaths, reported since the beginning of the outbreak, February 1, 1915.

During the year from July 1, 1914, to June 30, 1915, 5,948 cases with 11 deaths were reported in Los Angeles.

See also Diphtheria, measles, scarlet fever, and tuberculosis, page 2123.

PELLAGRA.

City Reports for Week Ended June 26, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Charleston, S. C.....		6	Mobile, Ala.....		1
Cleveland, Ohio.....		1	New Orleans, La.....	3	3
El Paso, Tex.....		1	Wilmington, N. C.....	2	2
Lynchburg, Va.....	1	1	Worcester, Mass.....	1	

PLAGUE.

California—San Benito County—Plague-Infected Squirrel Found.

Passed Asst. Surg. Hurley reported July 7, 1915, that a plague-infected ground squirrel had been found on the M. Sally ranch, Bird Creek district, near Hollister, San Benito County, Cal. This squirrel was shot June 23, 1915, in the same locality as the one shot June 21, 1915.

Louisiana—New Orleans—Plague-Infected Rat Found.

Passed Asst. Surg. Simpson reported by telegraph July 14, 1915, that a plague-infected rat had been found at the corner of St. Mary and St. Thomas Streets, New Orleans, La.

PNEUMONIA.

City Reports for Week Ended June 26, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Chicago, Ill.....	81	49	Pittsburgh, Pa.....	18	9
Cleveland, Ohio.....	11	6	Reading, Pa.....	1	1
Fall River, Mass.....	4		Rochester, N. Y.....	2	3
Grand Rapids, Mich.....	1		San Francisco, Cal.....	5	3
Kalamazoo, Mich.....	3	1	Schenectady, N. Y.....	1	
Los Angeles, Cal.....	4	1	South Omaha, Nebr.....	1	
Manchester, N. H.....	2	2	Wilkes-Barre, Pa.....	1	
Philadelphia, Pa.....	12	9			

POLIOMYELITIS (INFANTILE PARALYSIS).**City Reports for Week Ended June 26, 1915.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio.....	1	.....	New York, N. Y.....	2	1
Baltimore, Md.....	1	1	Oakland, Cal.....	1	.....
Cleveland, Ohio.....	2	.....	Pittsfield, Mass.....	.....	1

ROCKY MOUNTAIN SPOTTED FEVER.**Washington—Douglas County.**

The commissioner of health of Washington reported July 6, 1915, that a case of Rocky Mountain spotted fever had been notified at Spencer, Douglas County, Wash. The patient was bitten by a tick May 29, 1915, became ill June 3, and called a physician June 15.

SCARLET FEVER.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2129.

SMALLPOX.**Massachusetts—New Bedford—Virulent Smallpox.**

Acting Asst. Surg. Cody reported by telegraph July 12, 1915, in relation to the recent outbreak of virulent smallpox at New Bedford, Mass., that during the week ended July 10, 1915, no new cases were notified and no deaths reported.

Minnesota.

Collaborating Epidemiologist Bracken reported by telegraph that during the week ended July 10, 1915, several new foci of smallpox infection were reported in Minnesota, cases of the disease having been notified as follows: Bigstone County, Malta Township, 1; Crow Wing County, Brainard, 1; Martin County, Dunnell, 1; Manyasks Township, 1; Sherburn, 5.

City Reports for Week Ended June 26, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio.....	7	.....	New Orleans, La.....	2	1
Ann Arbor, Mich.....	1	.....	Newport, Ky.....	1	.....
Boston, Mass.....	1	.....	Ogden, Utah.....	2	.....
Charleston, S. C.....	7	.....	Portland, Oreg.....	7	.....
Cincinnati, Ohio.....	1	.....	Richmond, Va.....	2	.....
Danville, Ill.....	2	.....	Rock Island, Ill.....	1	.....
Davenport, Iowa.....	2	.....	Salt Lake City, Utah.....	1	.....
Detroit, Mich.....	1	.....	San Francisco, Cal.....	1	.....
El Paso, Tex.....	.....	2	Springfield, Ill.....	1	.....
Kansas City, Kans.....	6	.....	Superior, Wis.....	7	.....
Knoxville, Tenn.....	3	.....	Toledo, Ohio.....	2	.....
Lincoln, Nebr.....	3	.....	Zanesville, Ohio.....	1	.....

TETANUS.

City Reports for Week Ended June 26, 1915.

During the week ended June 26, 1915, tetanus was notified by cities as follows: Brockton, Mass., 1 case; Chicago, Ill., 1 case; Muscatine, Iowa, 1 case; Niagara Falls, N. Y., 1 death; Pittsburgh, Pa., 1 case.

TUBERCULOSIS.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2129.

TYPHOID FEVER.

City Reports for Week Ended June 26, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio.....	2	.....	Mobile, Ala.....	.....	1
Altoona, Pa.....	9	3	Montclair, N. J.....	1	.....
Baltimore, Md.....	11	3	Nashville, Tenn.....	4	1
Berkeley, Cal.....	1	.....	Newark, N. J.....	4	.....
Boston, Mass.....	9	2	New Bedford, Mass.....	2	3
Bridgeport, Conn.....	1	.....	Newburyport, Mass.....	1	.....
Brockton, Mass.....	1	.....	New Haven, Conn.....	1	.....
Buffalo, N. Y.....	2	1	New London, Conn.....	1	.....
Butte, Mont.....	.....	1	New Orleans, La.....	3	1
Cambridge, Mass.....	1	.....	New York, N. Y.....	21	1
Camden, N. J.....	1	.....	Oakland, Cal.....	3	.....
Charleston, S. C.....	20	1	Passaic, N. J.....	1	.....
Chelsea, Mass.....	1	.....	Philadelphia, Pa.....	11	3
Chicago, Ill.....	11	1	Phoenix, Ariz.....	2	.....
Cincinnati, Ohio.....	4	.....	Pittsburgh, Pa.....	6	1
Cleveland, Ohio.....	6	.....	Portsmouth, Va.....	1	.....
Columbus, Ohio.....	2	.....	Reading, Pa.....	2	.....
Detroit, Mich.....	4	1	Rutland, Vt.....	1	.....
Duluth, Minn.....	1	.....	Sacramento, Cal.....	1	.....
El Paso, Tex.....	1	1	Saginaw, Mich.....	1	.....
Erie, Pa.....	1	.....	St. Louis, Mo.....	1	.....
Everett, Mass.....	1	.....	Salt Lake City, Utah.....	5	.....
Fall River, Mass.....	5	.....	San Francisco, Cal.....	4	1
Galveston, Tex.....	2	.....	Schenectady, N. Y.....	1	.....
Grand Rapids, Mich.....	1	.....	Springfield, Mass.....	1	.....
Harrisburg, Pa.....	1	2	Steelton, Pa.....	1	.....
Hartford, Conn.....	1	.....	Toledo, Ohio.....	5	1
Jersey City, N. J.....	.....	1	Washington, D. C.....	4	1
Johnstown, Pa.....	2	.....	Wheeling, W. Va.....	1	2
Kansas City, Kans.....	1	.....	Williamsport, Pa.....	1	.....
Key West, Fla.....	4	.....	Wilmington, N. C.....	2	.....
Los Angeles, Cal.....	6	4	Worcester, Mass.....	1	.....
Lowell, Mass.....	1	1	Zanesville, Ohio.....	1	.....
Lynchburg, Va.....	1	.....		

TYPHUS FEVER.

City Reports for Week Ended June 26, 1915.

During the week ended June 26, 1915, 1 case of typhus fever was notified at Alameda, Cal., and 3 cases were notified at Rochester, N. Y.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

City Reports for Week Ended June 26, 1915.

City.	Population as of July 1, 1915. (Estimated by United States Census Bureau.)	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Over 500,000 inhabitants:										
Baltimore, Md.	584,605	139	6		77		9		26	20
Boston, Mass.	745,139	192	63	3	157	2	63		57	28
Chicago, Ill.	2,447,045	527	109	11	549	5	55	1	287	72
Cleveland, Ohio	656,975	127	29	3	205	1	14	1	40	15
Detroit, Mich.	554,717	141	34	2	14		5		39	13
New York, N. Y.	5,468,190	1,277	322	25	1,442	30	154	7	440	160
Philadelphia, Pa.	1,683,664	387	30	3	617	5	13		145	45
Pittsburgh, Pa.	571,984	148	12	1	217	2	28	2	34	17
St. Louis, Mo.	745,988	186	39	4	147	1	5	1	45	21
From 300,000 to 500,000 inhabitants:										
Buffalo, N. Y.	461,335	190	13		199	3	8		29	25
Cincinnati, Ohio	406,706	119	10		96		3		26	19
Jersey City, N. J.	300,133	68	15		126	1	16	1	23	4
Los Angeles, Cal.	465,367	105	13		72		3		47	23
Milwaukee, Wis.	428,062	72	4	1	3		5		27	8
Newark, N. J.	399,000		12		22		7		33	13
New Orleans, La.	366,484	155	8		4		2		45	19
San Francisco, Cal.	1,416,912	119	23	2	7		1		38	16
Washington, D. C.	358,679	95	2		84		19		26	15
From 200,000 to 300,000 inhabitants:										
Columbus, Ohio	209,722	70	2		17		3		14	9
Portland, Ore.	272,833	43			14		1		6	9
Providence, R. I.	250,025		3		5		13		20	8
Rochester, N. Y.	250,747	55			22		2		16	3
From 100,000 to 200,000 inhabitants:										
Bridgeport, Conn.	118,434	25	1				1		1	2
Cambridge, Mass.	111,669	28	6		27		8		9	5
Camden, N. J.	104,349		2		3				7	
Dayton, Ohio	125,599	27					6		2	4
Fall River, Mass.	126,904		1		5		3		8	2
Grand Rapids, Mich.	125,759	33	1		6		1		8	
Hartford, Conn.	108,969	29	9				1		7	1
Lowell, Mass.	112,124	22			9		1		2	2
Lynn, Mass.	100,316	19	2		5		2		3	2
Nashville, Tenn.	115,978	42					5		5	6
New Bedford, Mass.	114,694	36	1		42	1			7	3
New Haven, Conn.	147,095		5	1	8		4		13	3
Oakland, Cal.	190,803		8	1	3				5	1
Reading, Pa.	105,094	29	4	1	18		6	1	2	1
Richmond, Va.	154,674	44	3		5		4		2	7
Salt Lake City, Utah	113,567		12	2			1			1
Springfield, Mass.	103,216	19			28				2	3
Toledo, Ohio	187,840	40	3	1	19		4		16	7
Trenton, N. J.	109,212	38	1		9	1	1		6	4
Worcester, Mass.	160,523	45	7		4		5		10	2
From 50,000 to 100,000 inhabitants:										
Akron, Ohio	82,958		1		7		9	1	1	6
Altoona, Pa.	57,606	10							4	
Atlantic City, N. J.	55,806	7	1		14				3	
Bayonne, N. J.	67,582		2		3		4		4	
Berkeley, Cal.	54,879	13			1		1		1	4
Binghamton, N. Y.	53,082	13	1		1					
Brockton, Mass.	65,746	10	2		26				5	
Canton, Ohio	59,139	8	3	1	5		2		1	
Charleston, S. C.	60,427	51	1		1					4
Duluth, Minn.	91,013	22					11		4	3
El Paso, Tex.	51,936		1		1		1			4
Erie, Pa.	73,798	33	3				3		11	
Evansville, Ind.	72,125	18								
Harrisburg, Pa.	70,754	14	10	1	2				1	5
Johnstown, Pa.	66,585	22	4		3				1	1
Kansas City, Kans.	96,854		4	1	7		1		2	3
Lancaster, Pa.	50,269		1		2		1		1	
Lawrence, Mass.	98,197	29	3		13		2		6	7
Little Rock, Ark.	55,158	14								
Malden, Mass.	50,067	8	2		20				2	1

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

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

City Reports for Week Ended June 26, 1915—Continued.

City.	Population as of July 1, 1914. (Estimated by United States Census Bureau.)	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 50,000 to 100,000 inhabitants—Continued.										
Manchester, N. H.	76,950	17					3		3	3
Mobile, Ala.	56,536	20								4
New Britain, Conn.	52,203								4	
Passaic, N. J.	69,010	11	3		8		10		4	1
Pawtucket, R. I.	58,156	15			4					2
Sacramento, Cal.	64,806	15								3
Saginaw, Mich.	54,815	9								
San Diego, Cal.	51,115	18	2				1			
Schenectady, N. Y.	95,265	15	2	1	11		5		2	
Somerville, Mass.	85,469	19			9		7		3	
South Bend, Ind.	67,030	8			18					1
Springfield, Ill.	59,463	13	1		2					
Wilkes-Barre, Pa.	73,218	21			14				5	
From 25,000 to 50,000 inhabitants:										
Alameda, Cal.	27,651	11	1							
Auburn, N. Y.	36,947	4			4		2			
Brookline, Mass.	31,931				3					
Butler, Pa.	26,587	2								1
Butte, Mont.	42,918	9			1				1	1
Chelsea, Mass.	32,452	7	1		2		2		5	1
Chicopee, Mass.	28,688	4			3				3	
Cumberland, Md.	25,561	7			4		1		4	
Danville, Ill.	31,551	6			1					1
Dubuque, Iowa	39,650		2							4
East Orange, N. J.	41,155				5		3			
Elgin, Ill.	27,844	1			3				1	
Elmira, N. Y.	37,988				36					
Everett, Mass.	38,307	6			1		5		2	1
Fitchburgh, Mass.	41,144	12	3		2		2		1	
Galveston, Tex.	41,076	15	1		1					1
Haverhill, Mass.	47,774	8	1		16				2	1
Kalamazoo, Mich.	47,364	15	2						3	4
Kenosha, Wis.	30,319	2			1					
Lexington, Ky.	39,703	19			7		1		7	3
Lincoln, Nebr.	46,028	9			1					1
Lorain, Ohio	35,662		2		5		1		1	
Lynchburg, Va.	32,385	12			1				2	1
Madison, Wis.	30,084				4					
McKeesport, Pa.	46,743	7	1		2				1	
Medford, Mass.	25,737	7			4		4		1	
Montclair, N. J.	25,550	1							1	1
New Castle, Pa.	40,351		1				2			
Newport, Ky.	31,722	7	1	1					1	1
Newport, R. I.	29,631	2								
Newton, Mass.	43,085	9								
Niagara Falls, N. Y.	36,240	14					5			
Norristown, Pa.	30,833	7	1		1		1			1
Ogden, Utah	30,466	2								
Orange, N. J.	32,524	17							3	1
Pasadena, Cal.	43,859	7								1
Perth Amboy, N. J.	39,725		8		9				2	
Pittsfield, Mass.	37,580	8								1
Portsmouth, Ohio.	28,126		1				2		2	1
Portsmouth, Va.	38,610	9	1		1					2
Racine, Wis.	45,507	8	2		6		2			
Rock Island, Ill.	27,961	6	2							2
South Omaha, Nebr.	26,394	5					1			
Steubenville, Ohio	26,631	11								
Superior, Wis.	45,285	5	2				4			1
Taunton, Mass.	35,957	12			6				1	5
Waltham, Mass.	30,129	6			60				2	1
West Hoboken, N. J.	41,683	2	3	1	6				2	
Wheeling, W. Va.	43,097	12					1			2
Williamsport, Pa.	33,495	6					4			
Wilmington, N. C.	28,264	18	2							4
Woonsocket, R. I.	43,355		1				1			
Zanesville, Ohio	30,406				1					

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

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

City Reports for Week Ended June 15, 1915—Continued.

City.	Population as of July 1, 1914. (Estimated by United States Census Bureau.)	Total deaths from all causes	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 10,000 to 25,000 inhabitants:										
Ann Arbor, Mich.....	14,979	13	1	.....	.....	.....	.....	.....	.....	.....
Braddock, Pa.....	21,310	.....	2	.....	.....	.....	.....	.....	.....	.....
Cairo, Ill.....	15,593	3	.....	.....	.....	.....	.....	.....	.....	.....
Clinton, Mass.....	13,075	3	.....	.....	.....	.....	.....	.....	.....	.....
Concord, N. H.....	22,480	8	.....	.....	.....	.....	2	.....	.....	.....
Galesburg, Ill.....	23,923	8	.....	.....	.....	.....	.....	.....	.....	1
Harrison, N. J.....	16,555	.....	.....	.....	1	.....	.....	.....	.....	.....
Kearny, N. J.....	22,753	3	.....	.....	5	.....	.....	.....	.....	.....
Key West, Fla.....	21,437	4	.....	.....	.....	.....	1	.....	.....	.....
Kokomo, Ind.....	20,312	2	.....	.....	12	.....	.....	.....	.....	.....
Marinette, Wis.....	14,610	2	.....	.....	.....	.....	1	.....	.....	.....
Melrose, Mass.....	17,166	2	.....	.....	.....	.....	1	.....	.....	1
Morristown, N. J.....	13,153	3	.....	.....	.....	.....	.....	.....	.....	.....
Muscatine, Iowa.....	17,287	2	.....	.....	.....	.....	.....	.....	.....	.....
Nanticoke, Pa.....	22,441	3	.....	.....	2	.....	.....	.....	.....	.....
Newburyport, Mass.....	15,195	6	.....	.....	5	.....	.....	.....	.....	.....
New London, Conn.....	20,771	3	.....	.....	1	.....	1	.....	.....	.....
North Adams, Mass.....	22,019	3	1	.....	.....	.....	.....	.....	.....	.....
Northampton, Mass.....	19,846	6	.....	.....	1	.....	1	.....	.....	.....
Phoenix, Ariz.....	17,798	12	.....	.....	.....	.....	1	.....	.....	.....
Plainfield, N. J.....	23,280	6	1	.....	3	.....	.....	.....	.....	.....
Rutland, Vt.....	14,624	6	2	.....	.....	.....	.....	.....	.....	.....
Saratoga Springs, N. Y.....	12,842	.....	.....	.....	1	.....	.....	.....	.....	.....
Steelton, Pa.....	15,337	6	.....	.....	.....	.....	.....	.....	.....	.....
Wilkesburg, Pa.....	22,361	6	1	.....	.....	.....	.....	.....	.....	.....
Woburn, Mass.....	15,862	2	.....	.....	.....	.....	.....	.....	.....	.....

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

FOREIGN REPORTS.

AUSTRIA-HUNGARY.

Cholera.

Cholera has been notified in Austria-Hungary as follows:

Bosnia-Herzegovina.—May 2–15, 1915, 54 cases, with 20 deaths.

Croatia-Slavonia.—May 17–24, 1915, 2 cases.

Hungary.—May 3–23, 1915, 73 cases with 27 deaths, occurring mainly among military.

Cholera Carriers.

During the period from May 2 to 15, 1915, 91 cholera carriers were found in Bosnia-Herzegovina. Of these, 76 were found in one locality (Derventa).

CHINA.

Examination of Rats—Shanghai.

During the week ended May 29, 1915, 222 rats were examined at Shanghai. No plague infection was found.

CUBA.

Communicable Diseases—Habana.

Communicable diseases were notified in Habana during the 10-day period ended June 20, 1915, as follows:

Disease.	New cases.	Deaths.	Remain- ing June 20, 1915.	Disease.	New cases.	Deaths.	Remain- ing June 20, 1915.
Diphtheria.....	5	.....	2	Plague.....	1	1	2
Leprosy.....	.....	1	249	Scarlet fever.....	2	.....	1
Measles.....	1	.....	8	Typhoid fever.....	17	3	46
Paratyphoid fever....	2	.....	4	Varicella.....	4	.....	7

ECUADOR.

Plague—Guayaquil.

During the month of May, 1915, a case of plague was notified at Guayaquil.

Dysentery—Malaria—Typhoid Fever—Guayaquil.

Amebic and bacillary dysentery were prevalent at Guayaquil during the month of May, 1915. During the same period malarial fever and typhoid fever were widely prevalent.

GERMANY.

Typhus Fever.

During the week ended June 12, 1915, 10 cases of typhus fever, occurring in three government districts and the city of Dresden, were notified in Germany. During the same period the disease was reported present among prisoners of war in 16 government districts and Baden.

TYPHUS FEVER.

Reports Received During Week Ended July 16, 1915.¹

Place.	Date.	Cases.	Deaths.	Remarks.
Azores:				
Terceira.....	May 23-29.....	1		
Egypt:				
Alexandria.....	May 21-June 3.....	65	19	
Germany.....	June 6-12.....	10		Present among prisoners in 16 districts and Baden.
Aix la Chapelle.....	May 30-June 5.....		1	
Breslau.....	do.....	5		
Konigsberg.....	June 6-12.....	3		
Leipzig.....	do.....		1	
Great Britain:				
Dublin.....	do.....	2		
Mexico:				
Aguaascalientes.....	June 21-27.....		1	
Russia:				
Petrograd.....	May 9-15.....	5		
Turkey in Asia:				
Harput.....	Apr. 1-30.....			Present.

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

Reports Received from June 26 to July 9, 1915.¹

Place.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary:				
Austria.....	Apr. 25-May 8.....	645		Mainly among soldiers, prisoners of war, and persons from Galicia; 6 among the civil population, of which 1 in Vienna.
Hungary—				
Budapest.....	May 2-15.....	11	4	8 (2) among military.
Canary Islands:				
Santa Cruz de Tenerife.....	May 16-22.....		1	
China:				
Hungtaohotze Station.....	Apr. 19-25.....	1		On Eastern Chinese Ry.
Dutch East Indies:				
Java.....	Apr. 25-May 1.....	13	3	Mid-Java.
Do.....	Apr. 27-May 10.....	22	4	West Java.
Egypt:				
Cairo.....	Apr. 30-May 6.....	7	18	
Port Said.....	do.....	5	2	
Germany.....	May 16-22.....	12		In German soldiers and 1 prison-camp employee; among prisoners of war in 14 districts and in Saxony and Hesse.
Frankfort-on-Main.....	May 30-June 5.....		1	
Konigsberg.....	do.....	1	1	
Great Britain and Ireland:				
Dublin.....	May 23-June 5.....	5		
Glasgow.....	May 29.....	1		
Italy:				
Turin.....	May 17-23.....	1		
Japan:				
Tokyo.....	May 18-30.....	22		

¹ For reports received from Jan. 1 to June 25, 1915, see PUBLIC HEALTH REPORTS for June 25, 1915. In accordance with custom, the tables of epidemic diseases are terminated semiannually and new tables begun.

TYPHUS FEVER—Continued.

Reports Received from June 26 to July 9, 1915—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Mexico:				
Aguascalientes	June 14-20.....		1	
Russia:				
Moscow	May 2-15.....	75	26	
Petrograd	May 2-8.....	2	2	
Warsaw				Sept. 27-Oct. 31, 1914: Cases, 31.
Serbia.....	Apr. 27.....			Prevalent.
Switzerland:				
St. Gall	May 23-29.....	1		
Zurich	May 30-June 12.....	2		
Turkey in Asia:				
Adana	May 9-15.....			Present.
Jaffa	Apr. 25-May 1.....	4	3	
Mersina	May 9-22.....	1	2	
Tarsus.....	do.....			Do.

CHOLERA, PLAGUE, AND SMALLPOX.

Reports Received During Week Ended July 16, 1915.¹

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary:				
Bosnia-Herzegovina.....	May 2-15.....	54	20	91 cholera carriers.
Croatia-Slavonia.....	May 17-24.....	2		In civilians.
Hungary.....	May 3-23.....	73	27	Mainly among military.
Ceylon:				
Colombo.....	May 16-22.....	1	1	
Dutch East Indies:				
Java.....				
Batavia.....	May 9-22.....	18	15	
India:				
Bassein.....	May 2-8.....		5	Epidemic.
Calcutta.....	May 8-22.....		65	
Madras.....	May 23-29.....	2	2	
Mandalay.....	May 2-8.....	1		
Indo China.....				Jan. 1-31, 1915: Cases, 234; deaths, 178.
Provinces—				
Anam.....	Jan. 1-31.....	3	2	
Cochin China.....	do.....	243	153	
Tonkin.....	do.....	38	18	
Straits Settlements:				
Singapore.....	May 9-15.....	1		

PLAGUE.

Ceylon:				
Colombo.....	May 9-16.....	2	2	
China:				
Amoy.....	May 9-15.....			Present in vicinity.
Hongkong.....	May 23-29.....	9	7	
Dutch East Indies:				
Java.....				Jan. 1-Feb. 25, 1915: Cases, 2,094;
Surabaya.....	May 2-15.....	3	3	deaths, 1,864.
Ecuador:				
Guayaquil.....	May 1-31.....	1		
Egypt:				
Assiout, province.....	May 23-June 3.....	1	1	
Fayoun, province.....	May 23-June 10.....	24	13	
Port Said.....	do.....	3	1	
India:				
Bassein.....	May 2-15.....		6	
Calcutta.....	May 8-22.....		17	
Benzada.....	May 2-8.....		1	
Karachi.....	May 16-22.....	99	82	
Rangoon.....	May 9-22.....	28	27	Apr. 1-30, 1915: Cases, 49; deaths, 39.

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

CHOLERA, PLAGUE, AND SMALLPOX—Continued.

Reports Received During Week Ended July 16, 1915—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Indo China.....				Jan. 1-31, 1915: Cases, 73; deaths, 53.
Anam.....	Jan. 1-31.....	36	33	
Cambodia.....	do.....	18	18	
Cochin China.....	do.....	19	7	
Japan:				
Taiwan—				
Kagi.....	May 30-June 5.....	2	2	
Peru:				
Salaverry.....	Apr. 26-May 2.....	2		
Straits Settlements:				
Singapore.....	May 9-15.....	2	2	

SMALLPOX.

Canada:				
Ontario—				
Hamilton.....	June 1-30.....	2	4	
Quebec—				
Montreal.....	June 27-July 3.....	2		
Sherbrooke.....	June 1-30.....		1	
Ceylon:				
Colombo.....	May 9-22.....	10	4	
China:				
Hongkong.....	May 23-29.....	1		
Nanking.....	May 30-June 5.....			Present.
Shanghai.....	May 8-22.....	3	2	
Dutch East Indies:				
Java.....	May 9-15.....	40	14	West Java.
Do.....	May 2-8.....	35	7	Mid-Java.
Batavia.....	May 16-22.....	3		
Egypt:				
Alexandria.....	May 21-June 3.....	11	4	
Germany.....				May 30-June 12, 1915: Cases, 6.
Hamburg.....	June 6-12.....	1		
Oppeln, government district.....	do.....	2		
Posen, government district.....	May 30-June 5.....	3		
India:				
Bassein.....	May 2-8.....		1	
Bombay.....	May 16-23.....	57	22	
Calcutta.....	May 8-22.....		71	
Karachi.....	May 16-22.....	13	1	
Madras.....	May 16-29.....	6	3	
Rangoon.....	May 9-22.....	12	5	Apr. 1-30, 1915: Cases, 58; deaths, 16.
Indo-China:				
Anam.....	Jan. 1-31.....			Present.
Cambodia.....	do.....	23	5	
Cochin China.....	do.....	12		
Tonkin.....	do.....	56	12	
Mexico:				
Aguascalientes.....	June 21-27.....		2	
Frontera.....	June 6-12.....	22	10	
Monterey.....	June 7-27.....	2		
Progreso.....	June 20-26.....	1		
Vera Cruz.....	June 14-20.....	9	3	
Portugal:				
Lisbon.....	June 6-12.....	7		
Russia:				
Petrograd.....	May 8-15.....	25	13	
Spain:				
Valencia.....	June 6-19.....	21	2	
Switzerland:				
Basel.....	June 6-12.....	4		
Straits Settlements:				
Penang.....	Apr. 25-May 8.....	3	2	
Turkey in Asia:				
Bagdad.....	Apr. 30-May 1.....			Present.
Haila.....	Apr. 26-May 2.....	1		
Tripoli.....	Apr. 25-May 1.....	2		

CHOLERA, PLAGUE, AND SMALLPOX—Continued.**Reports Received from June 26 to July 9, 1915.¹****CHOLERA.**

Place.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary:				
Austria.....	May 2-8.....	2	.....
Vienna.....	May 9-15.....	3	3	Among soldiers and prisoners. 5 cholera carriers in 3 localities. 14 among soldiers.
Bosnia-Herzegovina.....	Apr. 25-May 1.....	62	21	
Croatia-Slavonia.....	May 3-10.....	19	3	
Hungary.....	Apr. 19-May 2.....	46	20	
Ceylon:				
Colombo.....	Apr. 25-May 1.....	7	.....
China:				
Hongkong.....	May 2-8.....	1	1	
Dutch East Indies:				
Java—				
Batavia.....	Apr. 25-May 8.....	26	24	
India:				
Bassein.....	Apr. 13-24.....	.....	14	
Calcutta.....	Apr. 25-May 8.....	87	72	
Madras.....	May 2-15.....	1	2	
Rangoon.....	Apr. 24-May 1.....	1	2	
Indo China:				
Saigon.....	May 2-15.....	156	52	

PLAGUE.

China:				
Amoy.....	May 2-8.....	.....	.....	Present. Present in Sio-Khe Valley, 60 miles inland.
Hongkong.....	May 9-22.....	18	16	
Dutch East Indies:				
Java—				
Surabaya.....	Apr. 13-24.....	2	2	City and district. Jan. 1-May 20, 1915: Cases, 93; deaths, 48.
Egypt:				
Alexandria.....	May 21-27.....	.....	1	
Assiout, province.....	May 14-27.....	6	1	
Fayoum, province.....	.....do.....	6	1	
Galioubéh, province.....	.....do.....	1	.....
Minieh, province.....	.....do.....	4	2	
Port Said.....	.....do.....	1	1	
Hawaii:				
Paauhau.....	June 29.....	1	.....
India:				
Bassein.....	Apr. 18-May 1.....	.....	22	
Bombay.....	May 2-15.....	85	77	
Calcutta.....	Apr. 25-May 8.....	31	31	
Karachi.....	May 2-8.....	190	150	
Mandalay.....	Apr. 25-May 1.....	.....	1	
Myingyam.....	Apr. 5-17.....	.....	1	
Pegu.....	Apr. 18-May 1.....	.....	5	
Rangoon.....	Apr. 18-May 8.....	12	11	
Toungoo.....	Apr. 25-May 1.....	.....	2	
Indo China:				
Saigon.....	May 9-15.....	3	2	
Peru:				
Callao.....	May 3-9.....	1	.....
Lima (city).....	.....do.....	1	.....
Mollendo.....	.....do.....	1	.....
Trujillo.....	.....do.....	2	.....
Straits Settlements:				
Singapore.....	Apr. 25-May 1.....	1	1	
Turkey in Asia:				
Bagdad.....	May 2-15.....	418	293	

SMALLPOX.

Australia:				
New South Wales—				
New Castle District—				
Kurri.....	May 26.....	2	.....
Victoria—				
Melbourne.....	Apr. 20.....	1	.....	At Point Nepean quarantine station from S. S. Lord Derby from Rangoon.

¹For reports received from Dec. 26, 1914, to June 25, 1915, see PUBLIC HEALTH REPORTS for June 25, 1915. In accordance with custom, the tables of epidemic diseases are terminated semiannually and new tables begun.

CHOLERA, PLAGUE, AND SMALLPOX—Continued.

Reports Received from June 26 to July 9, 1915—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Australia—Continued. Western Australia— Fremantle.....	Apr. 27.....	1		At Woodman's Point quarantine station, from S. S. City of Baroda from Calcutta via Colombo.
Austria-Hungary:				
Austria.....	May 2-8.....	151		
Dalmatia, province.....	do.....	1		
Vienna.....	May 23-29.....	15	4	Total in Vienna, Aug. 1914-May 8, 1915: Cases, 1,487; deaths, 316.
Hungary— Budapest.....	May 2-15.....	60	1	
Brazil:				
Rio de Janeiro.....	Apr. 18-May 22....	74	17	
Canada:				
Ontario— Sarnia.....	June 13-19.....	1		
Toronto.....	June 6-26.....	5		
Quebec— Montreal.....	June 13-26.....	4		
Ceylon:				
Colombo.....	May 2-8.....	9	2	
China:				
Foochow.....	May 9-22.....			Present.
Hongkong.....	do.....	3	1	
Shanghai.....	May 9-30.....	2	2	Natives.
Tientsin.....	May 16-22.....		1	
Dutch East Indies:				
Java.....	Apr. 18-May 1....	24	13	Mid Java.
Do.....	Apr. 27-May 10....	187	51	West Java.
Batavia.....	Apr. 25-May 8....		12	Natives.
Egypt:				
Cairo.....	Apr. 30-May 6....		2	
Germany:				
Government districts— Gumbinnen.....	May 23-29.....	2		Total, May 16-22, 1915: 1 case.
Marienwerder.....	do.....	2		
Oppeln.....	May 16-22.....	1		Prisoner of war.
Great Britain:				
London.....	May 30-June 12....	3		
Greece:				
Saloniki.....	May 23-29.....		1	
India:				
Bombay.....	May 2-15.....	53	39	
Calcutta.....	Apr. 25-May 8....	132	112	
Karachi.....	May 2-8.....	8		
Madras.....	do.....	2		
Pegu.....	Apr. 18-24.....		1	
Rangoon.....	Apr. 18-May 8....	32	13	
Italy:				
Milan.....	Apr. 1-30.....	1		
Japan:				
Taiwan Island.....	May 23-29.....	1		
Mexico:				
Aguaascalientes.....	June 7-20.....		4	
Frontera.....	May 23-June 5....	37	18	
Monterey.....	June 14-20.....	3		
Progreso.....	June 6-12.....		1	
Vera Cruz.....	June 7-13.....	10	14	
Portugal:				
Lisbon.....	May 23-June 5....	8		
Russia:				
Moscow.....	May 2-15.....	19	5	
Riga.....	May 9-22.....	18		
Warsaw.....				Sept. 27-Oct. 31, 1914: Cases, 51; deaths, 16.
Serbia.....	Apr. 21-May 3....	356		
Spain:				
Seville.....	May 1-31.....		4	
Valencia.....	May 30-June 5....	8	5	
Switzerland:				
Basel.....	May 16-29.....	9		
Turkey in Asia:				
Bagdad.....	May 2-8.....			Present.
Jaffa.....	May 9-15.....	1		
Haifa.....	May 3-9.....	4		
Tripoli.....	May 2-8.....			Do.

SANITARY LEGISLATION.

STATE LAWS AND REGULATIONS PERTAINING TO PUBLIC HEALTH.

NEW JERSEY.

State Department of Health—Organization, Powers, and Duties. Director of Health—Appointment and Duties. Codification of Health Laws. (Chap. 288, Act Apr. 14, 1915.)

1. The department of health is hereby established, and the same shall be governed by a board of eight members, to be known as the "department of health of the State of New Jersey." Not more than four of the members of the board shall be members of the same political party, and all of said members shall be residents of this State. At least three of the members shall be physicians, at least one a veterinarian, and at least two sanitary engineers.

2. The members of the department of health shall be appointed by the governor, by and with the advice and consent of the senate, for the following terms, to commence on the 1st day of July, 1915: Two for one year, two for two years, two for three years, two for four years. Annually thereafter, two members shall be appointed for a term of four years. Vacancies shall be filled for the unexpired terms. The board shall meet in the statehouse in Trenton at such times as its rules may prescribe in each and every month, and at such other times and places within the State as, in its judgment, may be necessary. The board shall elect one of its members president, who shall hold office for one year and until his successor shall be elected.

The members of the department of health shall receive no compensation for their services, but the State treasurer shall, upon the warrant of the State comptroller, pay their necessary expenses.

3. The board shall select a person who shall be known as the "director of health," and who shall be a resident of this State, and shall be a man skilled in sanitary science, and shall have had actual experience in an administrative or executive capacity in some well-organized department of public health. In case the board can not agree, because of a tie vote therein, upon the selection of a director, the governor shall be requested to sit with said board for the purpose of casting the deciding vote. Said director of health shall receive a salary of not more than \$5,000 per annum, to be paid out of the treasury of this State as the salaries of other employees are now or may hereafter be paid. He shall devote his entire time to the duties of his office and shall serve for a term of 4 years and until his successor has been appointed and qualified.

4. The powers and duties of the department of health of the State of New Jersey shall be as follows:

(a) It shall exercise all the powers and perform all the duties now exercised and performed by or conferred and charged upon the board of health of the State of New Jersey.

(b) It shall enact rules to regulate the transaction of its business.

(c) It shall enact a State sanitary code, which shall contain such rules and regulations the observance of which, in its opinion, will promote health and prevent disease.

It shall prescribe the time when each rule or regulation shall take effect, and it shall cause a copy of the code and of each amendment or addition thereto to be sent to each local board of health or to the governing body of each municipality. Such code shall supersede as to those matters to which it relates all local ordinances, rules, and regulations and shall be observed throughout the State and enforced by all local health authorities. Nothing herein contained, however, shall be deemed to limit the right of local health authorities to make such further ordinances, rules, and regulations as, in their opinion, may be necessary for the particular locality under their jurisdiction: *Provided*, That such ordinances, rules, and regulations do not conflict with the laws of the State or the State sanitary code.

(d) It shall call to the attention of local health authorities any failure on their part to enforce the laws of the State or the State Sanitary Code, and afford them an opportunity to explain their failure. Its determination as to what is a reasonable notice shall be conclusive. If, after a hearing, it finds that no good reason exists for the failure of the local health authorities to enforce the law or the Sanitary Code, it shall issue an order directing them to do so. If the local health authorities fail to comply with such order within the time specified, or if none is specified within a reasonable time, the department of health shall itself take such action as may be necessary to perform the acts specified in the order. Any contracts which it may make for such purpose shall be binding upon the local municipality and shall be deemed to have the same force and effect as if duly authorized and made by the local health and municipal authorities. Any moneys expended by the State, and the amount of all obligations incurred by the department of health of the State of New Jersey to comply with such order, may be recovered in an action of debt, in its name, in any court of competent jurisdiction, such sum, when recovered, to be paid into the treasury of this State, from the municipality the health officers of which fail to comply with the order. In all legal proceedings the order of the department of health of the State of New Jersey shall be prima facie evidence of compliance with the provisions of this law and conclusive evidence of the violation recited in it.

(e) It may prescribe, unless otherwise provided by law, the qualifications of health officers and of all nurses.

(f) It shall fix the salaries of all employees.

(g) It may issue subpoenas signed by its president and secretary requiring the attendance of witnesses and the production of books and papers in any part of the State, before it or any of its committees or before the director of health, and any person who, being served with a subpoena issued pursuant to the provisions of this act, shall fail to attend or who shall fail to give testimony, unless such testimony incriminate him or subject him to a fine or punishment, shall be liable to a penalty of \$500 for each and every offense, to be recovered in the name of the State of New Jersey; said penalty, when recovered, to be paid into the treasury of the State of New Jersey; and it shall be the duty of the attorney general to prosecute any and all actions for the recovery of penalties, when requested so to do, and when in his judgment the facts and the law warrant such prosecution.

(h) The department of health of the State of New Jersey shall report annually to the legislature.

(i) The board shall also have power to create subdepartments or divisions, to take specific charge of the different lines of work contemplated in this act, and shall upon the recommendation of the director appoint heads or chiefs of such subdepartments or divisions, at salaries to be fixed by said board.

5. The powers and duties of the director of health of the State of New Jersey shall be as follows:

(a) He shall attend all meetings of the board and shall be ex officio its secretary.

(b) He shall perform all the duties now imposed by law on the secretary of the board of health of the State of New Jersey at the time this act takes effect.

(c) He shall exercise general supervision over all matters relating to sanitation and hygiene throughout the State.

(d) He shall be and he hereby is charged with the enforcement of all laws relating to the health of the people of the State, and of the provisions of the State Sanitary Code.

(e) He shall be and he hereby is charged with the collection, preservation, and tabulation of all information required by law in reference to births, marriages, deaths, and all vital facts.

(f) He shall, when the board is not in session, exercise the powers conferred upon it in subdivision D of section 4 of this act, and any order issued by him shall have the same force and effect as if issued by the said board.

(g) Whenever the approval of the department of health of the State of New Jersey is required to any act, plan, paper, or proposed undertaking, he shall examine the same, and, when in his opinion it is necessary, he shall conduct hearings and examine witnesses, and he shall report to the board what he has done with his recommendations.

(h) He shall prepare a monthly health bulletin and cause the same to be distributed among the local health authorities.

(i) He shall confer, from time to time, with the commissioner of education and cooperate with such commissioner of education so that, from time to time, health bulletins shall be distributed among all the public schools of the State and the children educated in sanitation and hygiene.

(j) At least once in every year he shall call together local health officials for a general conference on the subject of the health of the people of the State, and a discussion of ways and means to promote the same and to prevent disease.

(k) He shall be a member ex officio of each county mosquito extermination commission, and shall cooperate with them for the effective carrying out of their plans and work.

(l) He shall obtain, collect, and preserve such information relating to the health of the people of the State and to the prevention of disease as may be useful in the discharge of his duties, or as may contribute to the welfare of the people of the State.

(m) He shall, whenever in his opinion it is necessary or advisable, or when directed by the board so to do, make a sanitary survey of the whole or any part of the State, and it shall be the duty of all local health officials for such purpose to furnish such information as he may demand, and to perform such acts as he may direct, with regard to, and within, the territory under their jurisdiction.

(n) He shall, from time to time, recommend to the board such changes and additions as he thinks should be made to the State Sanitary Code.

(o) He shall report to the board upon such matters, and at such times, as may be prescribed in its rules.

(p) He may, and any person authorized by him so to do may, without fee or hindrance, enter upon, examine, and survey all sources and means of water supply, all sewage disposal plants, all sewage systems, all prisons, public and private places of detention, asylums, hospitals, schools, public buildings, private institutions, factories, workshops, tenements, and also any premises in which he has reason to believe there exists a violation of any health law of the State or of any provisions of the State Sanitary Code.

6. The provisions of the sanitary code shall have the force and effect of law, and any violation of any portion thereof shall be punishable by a penalty of not less than \$25 nor more than \$100, to be sued for and recovered by the director of health or by the local health officer, local board of health, or other board or officer exercising the powers of a local board of health, of any local jurisdiction within which such violations may occur, in the same manner as penalties incurred for violation of an act entitled "An act to secure the purity of foods, beverages, confectionery, condiments, drugs and medicines, and to prevent deception in the distribution and sales thereof" (Revision of 1907), and approved May 20, 1907.

7. Whenever it is necessary for the department of health of the State of New Jersey to hold any hearings or to make any investigation under this or any law or rule, such hearings or investigation may be held or made by the direction of the board in accordance with such rules as it may prescribe before it or by the director of health, who shall submit to the board the evidence taken by him, together with his opinion thereon and his recommendations in regard thereto.

8. The board, by its presiding officer, each of its committees by their chairman, and the director of health, shall have authority to administer oaths and to examine under oath in any part of the State witnesses in any matter relating to the powers and duties of the board, or of the director, or of the health of the people of the State, or the prevention of disease. Any person who, having been sworn by the presiding officer of the board, or the chairman of any of its committees, or by the director of health, willfully gives false testimony, shall be guilty of perjury.

9. Immediately upon the establishment of the department of health of the State of New Jersey it shall become the duty of said department to codify the various laws relating in any way to the health of the people of this State, which have been passed from time to time, and relating to or concerning the department in any manner whatsoever, which codification shall set forth in a clear and comprehensive manner the origin of the department, meaning thereby its consolidation with the board of health of the State of New Jersey, the creative act of said board, after which shall follow, in their proper order, all existing acts amendatory thereof and supplementary thereto, and all acts relating to its consolidation (if any there has been) with any other board or boards, commission or commissions, department or departments. Said work of codification shall continue from year to year after the principle herein set forth, with the idea of preserving in concrete form the history and development, or evolution, so to speak, of the present department of health of the State of New Jersey, established by this act, and contributing materially to a better and more comprehensive understanding of all laws relating thereto, and of the powers and duties devolved upon said department of health hereby created by said acts.

10. The director of health may be removed by the governor after a hearing: *Provided*, That charges against him have been submitted, in writing, signed by a majority of the members of the board: *And provided further*, That the governor finds such charges to be true in fact and their nature such that, in his opinion, the best interests of the State demand the removal of the director.

11. All of the employees of the department of health shall be appointed and shall hold their positions subject to the provisions of an act entitled "An act regulating the employment, tenure, and discharge of certain officers and employees of this State and of the various counties and municipalities thereof, and providing for a civil-service commission, and defining its powers and duties," approved April 10, 1908.

12. The employees now in the employ of the board of health of the State of New Jersey shall be retained in their present offices or positions and shall continue as employees of the department of health, unless removed in accordance with the provisions of an act entitled "An act regulating the employment, tenure, and discharge of certain officers and employees of this State and of the various counties and municipalities thereof, and defining its powers and duties," approved April 10, 1908. The director of health, however, may, with the approval of the board, abolish any office or position which in his judgment may be unnecessary to retain.

13. All acts and parts of acts inconsistent with the provisions of this act be, and the same are hereby, repealed, and this act shall take effect on the 1st day of July, 1915: *Provided, however*, That if any section or parts thereof of this act shall be questioned in any court and shall be held to be unconstitutional and void, the sections or parts thereof so declared to be invalid shall be excised and the balance of the act shall stand as though said sections or parts thereof had never been included within the provisions of this act.

Health Officers of Cities—Retirement on Pension. (Chap. 236, Act Apr. 8, 1915.)

1. Whenever any health officer or other chief officer of the local board or department of public health in any city of the first class in this State has or shall have been for 25 years continuously in public office or position in such city, and has or shall have attained the age of 60 years, it shall be lawful, with his assent, for the body, board, or officer having power to appoint his successor in case of vacancy, to order his retirement from such service, or he shall be retired upon his own request.

2. In case of such retirement the person so retired shall be entitled, for and during his natural life, to receive, by way of pension, such sum as said body or board may by resolution determine, not exceeding, however, one-half of the salary then being received by him for such service, the same to be paid in the same way and in the same installments in which such salary has heretofore been payable.

3. Provision for all pensions arising under this act shall be made in the appropriation or tax levy for the department of the public service from which such person shall be retired, and no pension shall cease or become invalid by reason of the abolition of the department or office in which he served, or any change in its title.

Commission on Tuberculosis Among Animals—Appointment and Duties—Valuation of Animals. (Chap. 36, Act Mar. 3, 1915.)

1. Section 1 of the act hereby amended [“An act concerning contagious and infectious diseases among cattle; regulating the importation of cattle into this State and providing measures to check the spread of diseases among cattle in this State; creating the commission of tuberculosis among animals, prescribing its powers and duties, and fixing penalties for violation of this act,” approved April 24, 1911] be and the same is amended to read as follows:

SECTION 1. GENERAL PROVISIONS.

1. The president of the State board of agriculture, for the time being, shall appoint five persons, citizens and taxpayers of this State, one of whom shall be a physician and surgeon, who, together with himself and the secretary of the State board of agriculture, for the time being, shall constitute the commission on tuberculosis among animals, hereinafter referred to as “the commission,” who shall exercise the powers and perform the duties hereinafter referred to. Said appointees shall be appointed for a term of three years and until their successors are appointed. Any vacancy occurring in said commission shall be filled for the unexpired term and in the manner herein mentioned.

2. The commission may elect one of its members as president and one as secretary; may appoint a treasurer, who need not be a member of the commission; a chief inspector, who shall also act as assistant to the secretary; as many inspectors, not exceeding six, as in its judgment are necessary for the proper enforcement of this act; and such clerical assistance as may be necessary. Within the limits of appropriations the commission shall fix the compensation to be paid to these officers and employees. The members of the commission shall receive traveling expenses while engaged in the work of the commission.

3. It shall be the duty of said commission to keep a full and complete record of all its proceedings under this act, and report the same annually to the State board of agriculture, and such report shall be printed in and form a part of the annual report of the State board of agriculture.

4. All bills for money expended under this act shall, after being approved by the president of the commission and attested by its secretary, be submitted to the comptroller and paid by the State treasurer to the treasurer of the commission, excepting stated salaries, printing, and stationery.

2. Section 2 of the act hereby amended be and the same is amended to read as follows:

SECTION 2. CATTLE WITHIN THE STATE.

5. Whenever the commission shall be notified by the secretary of the State board of health, or any owner or owners of dairy animals, requesting them to inspect such animals, supposed to be diseased with tuberculosis or any contagious or infectious disease, a veterinarian and an inspector may be designated by the commission to make such inspection, and the inspector may agree with the owner or owners upon a valuation of such animals as are to be inspected; in cases where no agreement can be reached the inspector designated by the commission shall choose one disinterested freeholder, the owner or owners shall choose one, and the two shall designate a third, who shall ascertain and decide upon the market value of each animal to be examined by the commission, according to the use for which such animal is adapted, and shall sign certificates thereof in the presence of a witness, who shall attest the same; such valuation shall, in each case, be made on the basis of the value of the animals the day the valuation is made, not diminished by the disease for which they are to be examined; and if upon examination by the veterinary any animals in said herd are found to be infected with tuberculosis or any contagious or infectious disease, they shall be, in the discretion of the commission, condemned and slaughtered; in such case three-fourths of such valuation so ascertained shall be paid by the State to the owner or owners on presentation of such certificate with the approval of the said commission indorsed thereon: *Provided*, That such appraisalment shall not exceed \$300 for each pure-bred animal so condemned, the pedigree of which is registered and recorded with the recognized association for the particular breed to which such animal belongs, the evidence of which shall be the usual certificate, and \$50 for each other animal condemned: *And provided further*, That no compensation shall be made for animals considered by the commission to be of no value. If the meat of the slaughtered cattle shall be passed for use as food by the Federal authorities or a State board of health or municipal inspector, the commission is hereby authorized to sell the same, and the proceeds from the sale of the meat, hide, and other marketable parts of the said animal shall be paid into the State treasury.

6. Whenever the commission shall have made or caused to be made any examination of any cattle within this State, and shall have ascertained such cattle to be sound and in good health, they shall, upon request from the owner thereof, give to him a certificate in writing, signed by the president and secretary of said commission, certifying to the fact of such examination and of the good health and condition of such animal or herd of animals.

7. The said commission shall have the power to cooperate with the Bureau of Animal Industry of the United States in any general national system which may be adopted by such bureau for the prevention of the spread of bovine tuberculosis and any contagious or infectious disease, and its eradication in the United States and its Territories.

Communicable Diseases of Animals—Quarantine by State Board of Health. (Chap. 26, Act Mar. 2, 1915.)

1. Section 5 of the act to which this is an amendment ["An act concerning contagious and infectious diseases among animals, and to repeal certain acts relating thereto," approved May 4, 1886] is hereby amended to read as follows:

5. That when any county, city, township, or district shall be threatened with any contagious or infectious disease among animals to such an extent as to seem to require more general precautions, the State board of health may, for such time as said board shall deem necessary and proper, quarantine such county, city, township, or district and prohibit the bringing of any animal subject to such contagious or infectious dis-

ease into such county, city, township, or district, or the removal of any such animal from out of or from one place to another within such county, city, township, or district without inspection and a written permit signed by such board or its duly constituted agent or representative; and said board shall cause public notice of such quarantine and prohibition to be posted in five or more conspicuous places within such county, city, township, or district and published in one or more newspapers circulating therein. Said board shall have authority to cooperate with the Bureau of Animal Industry of the United States in any measures deemed necessary to eradicate or prevent the spread of any such contagious or infectious disease.

2. Section 6 of the act to which this is an amendment is hereby amended to read as follows:

6. That when any county, city, township, district, animal, or herd of animals is quarantined pursuant to the provisions of this act and public notice thereof is given as herein provided, it shall not be lawful for any owner, keeper, or other person to drive or transport, or to permit to be driven or transported, into, out of, or from one place to another within such county, city, township, district, or place of quarantine any animal of the kind named in such quarantine, or to visit any animal or herd of animals so quarantined without a written permit signed by such board of health or its duly constituted agent or representative. Any person or persons violating the provisions of this section shall be deemed and adjudged guilty of a misdemeanor and upon conviction shall be punished by a fine of not more than \$200 or by imprisonment not exceeding one year, or both, at the discretion of the court.

Domestic Animals—Scientific Investigations Authorized Under Authority of State Board of Health. (Chap. 160, Act Apr. 6, 1915.)

1. Section 17 of the act entitled "An act for the prevention of cruelty to animals," approved March 11, 1880, being Chapter CLVII of the laws of 1880, be and the same hereby is amended so as to read as follows:

17. Nothing in this act contained shall be construed to prohibit or interfere with any properly conducted scientific experiments or investigations, which experiments or investigations shall be performed only under the authority of the board of health of the State of New Jersey, the said board of health being hereby granted power to authorize the conduct of such experiments or investigations by agricultural stations and schools maintained by the State or Federal Government, medical societies, universities, colleges and philanthropic institutions having among their corporate purposes investigation into the causes, nature, and mode of prevention and cure of diseases in men or animals, incorporated or authorized to do business in this State; and to revoke for cause the authority so granted; nor shall the same be construed to prohibit or interfere with the killing or disposing of any animal or creature by virtue of the order of any of the constituted authorities of this State.

2. All acts or parts of acts inconsistent with this act be and they hereby are repealed.

Children's Boarding Houses—Licensing and Regulation by Local Authorities. (Chap. 209, Act Apr. 8, 1915.)

1. In all incorporated municipalities of the State having a board of health or other body possessing similar powers or functions, it shall be lawful for such board of health or other body to pass and enforce such ordinance or ordinances as to said board or other body may seem meet, for the purpose of licensing and regulating the manner of keeping boarding houses for infants and children within such municipalities, and fixing a license fee for the same, and preventing unlicensed persons or corporations from keeping such boarding houses for infants and children: *Provided, however,* That this act shall not apply to the State board of children's guardians or to any childrens' home or orphan asylum or children's aid society incorporated under the laws of this

State, or to any aid societies of properly organized and accredited churches and fraternal societies organized for aid and relief to their members, or to any charitable society incorporated under the laws of New Jersey having as one of their objects the prevention of cruelty to children or the care and protection of children.

2. All such boards of health or similar bodies are hereby empowered, for the purpose of enforcing such ordinances, to provide a penalty for the violation of the provision thereof, not exceeding \$50, to be enforced in any court in any such municipality having the jurisdiction and power to enforce municipal ordinances and penalties incurred by any person for violation thereof.

Pasteurization of Milk and Cream—State Board of Health to Regulate and License Establishments. (Chap. 285, Act Apr. 13, 1915.)

1. No person, firm or corporation, producing, buying, or receiving milk or cream for the purpose of selling the same shall sell or offer for sale as pasteurized milk or cream any milk or cream unless it has been pasteurized in accordance with the rules and regulations adopted by the board of health of the State of New Jersey under authority contained in section 2 of this act. No person, firm, or corporation shall operate or conduct an establishment for the pasteurization of milk or cream until a license shall first have been granted by the board of health of the State of New Jersey to such person, firm, or corporation, authorizing such person, firm, or corporation to engage in the business of pasteurizing milk or cream at a place designated in said license. Said license shall be granted by said board under such rules and regulations as the said board may from time to time adopt.

2. The board of health of the State of New Jersey shall have the power to adopt, promulgate, and enforce rules and regulations regarding the pasteurization of milk and cream, and said board may fix the temperature at which such milk and cream shall be pasteurized, and the time at which such milk or cream shall be held at such temperature.

3. After milk, cream, or other milk products have been pasteurized they shall be immediately cooled and kept at a temperature of 50° F. or below until distributed or sold. Any person, firm, or corporation who shall violate any of the provisions of this act or who shall disobey any rule or regulation adopted by the board of health of the State of New Jersey, under authority contained in this act, shall be liable to a penalty of \$50 for each offense, to be recovered in an action of debt by the board of health of the State of New Jersey, said penalty when recovered to be paid into the treasury of this State.

Meat and Meat Products—Use of Preservatives from Which Sulphur Dioxide Can Be Liberated Prohibited. (Chap. 74, Act Mar. 24, 1915.)

1. No person shall distribute or sell, or have in his possession with intent to distribute or sell, any meat or meat product to which any sodium sulphite, sodium bisulphite, or any drug, chemical, chemical compound, or preservative, from which sulphur dioxide can be liberated, has been added thereto or mixed therewith.

2. Every person who shall violate any of the provisions of this act shall be liable to a penalty of \$50 for the first offense and to a penalty of \$100 for the second and each subsequent offense. Payment of a penalty for any alleged violation of this act either before or after the institution of proceedings for the collection thereof, shall, for the purposes of this act, be deemed equivalent to a conviction of the violation for which such penalty was claimed.

3. This act shall be enforced by the same boards and in the same manner as the act to which this act is a supplement, and all penalties incurred under this act shall be sued for and recovered by the same boards and in the same manner as penalties incurred under provisions of the act to which this act is a supplement.

Pure Food and Drugs Act—To be Enforced by Municipal Boards of Health. (Chap. 243, Act Apr. 8, 1915.)

1. Section 30 of the act of which this act is amendatory [“An act to secure the purity of foods, beverages, confectionery, condiments, drugs, and medicines, and to prevent deception in the distribution and sales thereof” (revision of 1907), approved May 20, 1907] be, and the same is hereby, amended to read as follows:

30. The board of health of any municipality in this State shall enforce the provisions of this act within said municipality, and shall have the power to designate from among its sanitary inspectors one or more inspectors who shall be known as inspector or inspectors of foods and drugs of such municipality, and whose duties shall be, besides the usual duties of a sanitary inspector in such municipality, to aid in the enforcement of this act in such municipality, and who shall have within the limits of such municipality all the powers and authority given to any inspector appointed under the provisions of this act. Such board may also appoint one or more analysts.

Habit-Forming Drugs—Sale Prohibited Except on Prescription. (Chap. 24, Act Mar. 2, 1915.)

1. Section 1 of the above-entitled act [“A supplement to an act entitled ‘An act for the punishment of crimes (revision of 1898),’ approved June 14, 1893,” which said supplement was approved April 13, 1908] be, and the same is hereby, amended so as to read as follows:

1. Any person who shall sell, give away, furnish, or dispose of the alkaloid cocaine, or its salts, alpha, or beta eucaïne, or their salts, opium, morphine, heroin, codeine, chloral, or any of the derivatives of chloral, or who shall sell, give away, furnish, or dispose of any of the admixtures of cocaine or eucaïne or any patent or proprietary remedy containing cocaine or eucaïne, except on the written prescription of a duly licensed and practicing physician, shall be guilty of a misdemeanor.

2. All acts or parts of acts contrary to the provisions of this act be, and the same are hereby, repealed.

Foods and Drugs—Adulteration and Misbranding. (Chap. 73, Act Mar. 24, 1915.)

1. Section 4 of the act to which this is an amendment [“An act to amend an act entitled ‘An act to secure the purity of foods, beverages, confectionery, condiments, drugs and medicines, and to prevent deception in the distribution and sales thereof (revision of 1907),’ approved May 20, 1907,” approved April 16, 1908] be, and the same is hereby, amended so as to read as follows:

4. The term “misbranded” as used herein shall apply to all drugs or articles of food, or articles which enter into the composition of food, the package or label of which shall bear any statement, design, or device regarding such article, or the ingredients or substances contained therein, which shall be false or misleading in any particular, and to any food or drug product which is falsely branded as to the State, Territory, or country in which it is manufactured or produced.

For the purpose of this act an article shall also be deemed to be misbranded—

In the case of drugs:

First. If it be an imitation of or offered for sale under the name of another article.

Second. If the contents of the package as originally put up shall have been removed, in whole or in part, and other contents shall have been placed in such package, or if the package fail to bear a statement on the label of the quantity or proportion of any alcohol, morphine, opium, cocaine, heroin, alpha or beta eucaïne, chloroform, cannabis indica, chloral hydrate, acetanilide, acetphenetidine, phenacetin, or anti-pyrin, or any derivative or preparation of any such substance contained therein: *Provided*, That nothing in this subdivision contained shall be construed to apply to

such preparations as are specified and recognized by the United States Pharmacopoeia or National Formulary, which are in accordance therewith, or to the compounding of family or domestic recipes, or the filling of prescriptions furnished by practicing physicians, dentists, or veterinarians, the originals of which recipes and prescriptions are retained and filed by the druggists compounding or filling the same: *And provided, further, however,* That nothing in this act contained shall be construed to apply to such drugs or medicines as are personally dispensed by legally licensed physicians, dentists, or veterinarians in the course of their practice as such physicians, dentists, or veterinarians.

Third. If its package or label shall bear or contain any statement, design, or device regarding the curative or therapeutic effect of such article or any of the ingredients or substances contained therein which is false or fraudulent.

In the case of food:

First. If it be in imitation of or offered for sale under the distinctive name of another article.

Second. If it be labeled or branded so as to deceive or mislead the purchaser, or purport to be a foreign product when not so, or if the contents of the package as originally put up shall have been removed, in whole or in part, and other contents shall have been placed in such package, or if it fail to bear a statement on the label of the quantity or proportion of any morphine, opium, cocaine, heroin, alpha or beta eucaine, chloroform, cannabis indica, chloral hydrate, acetanilide, acetphenetidine or phenacetin or antipyrin, or any derivative or preparation of any such substances contained therein.

Third. If in package form, the quantity of the contents be not plainly and conspicuously marked on the outside of the package in terms of weight, measure, or numerical count: *Provided, however,* That reasonable variations shall be permitted, and that the State board of health shall, by resolution, fix such tolerances and exemptions as to small packages as shall have been or may hereafter be fixed by the Secretary of the Treasury, the Secretary of Agriculture, and the Secretary of Commerce and Labor of the United States of America, and such tolerances and exemptions shall be published at the end of the session laws of the legislature next thereafter published after the adoption of said resolution, and such tolerances and exemptions as fixed in said resolution shall take effect when so published: *Provided, however,* That if any such tolerance or exemption so adopted shall be changed by the three Secretaries above mentioned, it shall not continue in effect in this State after such change has become effective.

Fourth. If the package containing it, or its label shall bear any statement, design, or device regarding the ingredients or the substances contained therein, which statement, design, or device shall be false or misleading in any particular.

2. All acts or parts of acts inconsistent with the provisions of this act be, and the same are hereby, repealed, and this act shall take effect on the 1st day of September, 1915.

Rabies—Notification of Cases in Animals—Confinement of Dogs—Pasteur Treatment Free. (Chap. 291, Act Apr. 14, 1915.)

1. It shall be the duty of all persons owning or having interest in, or having in their possession or under their control, or having knowledge of any dog or cat, or other animal, affected by rabies, or suspected of being affected by rabies, or that has been bitten by any animal known or suspected to be affected by rabies, to forthwith notify the local board of health of the sanitary district in which such animal is located. Such notification shall be in writing, signed by the person making the same, and shall state where such animal may be found.

2. It shall be the duty of the local board of health of every township, city, borough, town, village or other local municipal government in this State, to serve a notice, in writing, upon the owner or other person having control over any dog, cat, or other ani-

mal known or suspected to have been bitten by an animal known or suspected to be affected by rabies, requiring such owner or person having control of such animal either to kill such animal or securely confine such animal for a period of not less than six months, and any such animal so confined shall not be released until a written certificate of release has been issued by the local board of health.

3. Whenever the local board of health of any sanitary district in this State or any officer or inspector thereof has reason to believe or has been notified by the State board of health that there is danger that rabies is liable to spread in the district in which said board has jurisdiction, such board, officer, or inspector shall cause a notice, in writing, to be served on all persons within said district (so far as the same may be known to said board, officer, or inspector) owning, having interest in, or having in their possession or under their control any dog, or dogs, requiring such persons to securely confine said dog, or dogs, until a permit has been issued, in writing, by such board for the release of such dog, or dogs. Other animals may be included in the order whenever, in the opinion of the said board of health, this is necessary.

4. The local board of health of any city, borough, town, village, or township in this State is hereby authorized to furnish the Pasteur treatment for any indigent person residing therein who has been bitten by an animal known or suspected to be affected by rabies, and any expense thus incurred shall be provided for by the body having control over the finances of said city, borough, town, village, or township in the same manner that the regular funds of the board are provided for.

5. Whenever the board of health of the State of New Jersey shall have knowledge that the disease known as rabies or hydrophobia exists among dogs or other domestic animals in any sanitary district in the State of New Jersey, and, in the judgment of the State board of health, the disease is liable to be introduced and spread among animals in an adjoining sanitary district, the said board of health may issue an order requiring the local board of health, or any officer or inspector thereof, of any sanitary district in this State to serve the notice provided for in section 3 of this act, and to cause its provisions to be enforced. Any local board of health, or any officer or inspector thereof, shall furnish information to the State board of health concerning the prevalence of rabies in the sanitary district in which said board, officer, or inspector has jurisdiction whenever or as often as requested to do so by the said State board of health.

6. The State board of health shall, within 30 days after the approval of this act, prepare a circular containing a description of the symptoms, methods of transmission, treatment and the preventive measures to be taken against the spread of rabies or hydrophobia, and, upon application, shall provide with sufficient copies thereof for distribution, as hereinafter provided, to the person in each sanitary district in this State who is empowered under the law to register or license dogs, and if there be no provision for such person in any sanitary district of this State, the local board of health is empowered to act, and such person or board shall apply to the State board of health for a sufficient number of such circulars, and shall, at the time of such registration, furnish a copy of said circular to each person who may register or obtain a license for a dog.

7. Any person or persons who shall violate any of the provisions of this act or the provisions of any notice served thereunder shall be liable to a penalty of \$50 for the first offense and \$100 for each subsequent offense, such penalties to be collected in an action of debt brought by and in the name of the local board of health or the board of health of the State of New Jersey.

8. Nothing in this act shall be construed to change or affect the provisions of any act or parts of acts conferring upon the mayor or governing body of any municipality the power to enforce measures for the restriction and control of rabies.

Tuberculosis of Dairy Animals—Valuation of Animals. (Chap. 298, Act Apr. 14, 1915.)

1. Section 5 of the act referred to in the title of this act [“An act concerning contagious and infectious diseases among cattle; regulating the importation of cattle into this State, and providing measures to check the spread of diseases among cattle in this State; creating the commission on tuberculosis among animals, prescribing its powers and duties, and fixing penalties for violation of this act,” approved April 24, 1911] is hereby amended to read as follows:

5. Whenever the commission shall be notified by the secretary of the State board of health, or any owner or owners of dairy animals, requesting them to inspect such animals supposed to be diseased with tuberculosis, or any contagious or infectious disease, a veterinarian and an inspector may be designated by the commission to make such inspection, and the inspector may agree with the owner or owners upon a valuation of such animals as are to be inspected; in cases where no agreement can be reached the inspector designated by the commission shall choose one disinterested freeholder, the owner or owners shall choose one, and the two shall designate a third, who shall ascertain and decide upon the market value of each animal to be examined by the commission, according to the use for which such animal is adapted, and shall sign certificates thereof in the presence of a witness, who shall attest the same; such valuation shall, in each case, be made on the basis of the value of the animals the day the valuation is made, not diminished by the disease for which they are to be examined; and if upon examination by the veterinary any animals in said herd are found to be infected with tuberculosis or any contagious or infectious disease, they shall be, in the discretion of the commission, condemned and slaughtered; in such case three-fourths of such valuation so ascertained shall be paid by the State to the owner or owners on presentation of such certificate with the approval of the said commission indorsed thereon: *Provided*, That such appraisement shall not exceed \$300 for each pure-bred animal so condemned, the pedigree of which is registered and recorded with the recognized association for the particular breed to which such animal belongs, the evidence of which shall be the usual certificate, and \$50 for each other animal condemned: *And provided, further*, That no compensation shall be made for animals considered by the commission to be of no value: *Provided, however*, That the compensation for any tubercular animal shall in no case exceed \$50. If the meat of the slaughtered cattle shall be passed for use as food by the Federal authorities or a State board of health or municipal inspector, the commission is hereby authorized to sell the same, and the proceeds from the sale of the meat, hide, and other marketable parts of the said animal shall be paid into the State treasury.

2. All act and parts of acts inconsistent herewith are hereby repealed.

Milk and Other Dairy Products—Exposed to Infection—State Board of Health May Prohibit Sale. (Chap. 339, Act Apr. 15, 1915.)

1. When the State board of health, or any officer or employee thereof duly authorized in writing by such board to act for or in its behalf, shall have reason to believe that any milk, cream, skimmed milk, or other dairy product of any kind or character, has been contaminated by the emanations, exhalations, or discharges of any person affected with any communicable disease, or that any milk, cream, skimmed milk, or other dairy product of any kind or character, has been or is produced, stored or kept on any premises upon which any infection which may cause a communicable disease exists, it shall be lawful for the said State board of health, or officer or employee authorized to act in the premises, as aforesaid, to issue an order in writing, prohibiting the transportation or sale of any such milk, cream, skimmed milk, or other dairy product. Every person upon whom any such order may be served shall be bound by such

prohibition, and the said prohibition shall continue until the said board of health, or the officer or employee authorized to act in the premises, as aforesaid, shall have had an opportunity to examine into said matter, and shall have removed the prohibition by the service of another order in writing signed by any officer of the said board of health, or by the officer or employee authorized to act in the premises, as aforesaid. Any person who shall, after having been served with such order of prohibition as aforesaid, prior to the removal of said prohibition transport or sell any milk, cream, skimmed milk, or other dairy product of any kind or character, the sale and transportation of which has been prohibited, as aforesaid, shall be subject to a penalty of \$100; any other person who shall knowingly transport or sell any milk, cream, skimmed milk, or other dairy product, the sale and transportation of which has been prohibited, as aforesaid, shall be subject to a penalty of \$100.

Any penalty incurred under the provisions of this act shall be sued for, recovered, and collected by the board of health of this State in the manner provided for the recovery of penalties in an act entitled "An act to prevent deception in the sale of oleomargarine, butterine, or any imitation of dairy products, and to preserve the public health," approved March 22, 1886, and the acts amendatory thereof and supplementary thereto.

2. An act entitled "A further supplement to the act entitled 'An act to establish in this State boards of health and a bureau of vital statistics, and to define their respective powers and duties,' approved March 31, 1887," which said supplement was approved April 21, 1898, and the acts amendatory thereof, be and the same hereby are repealed.

Habit-Forming Drugs—Sale and Dispensing of. (Chap. 343, Act Apr. 19, 1915.)

1. Section 1 of the above-entitled act ["A supplement to an act entitled 'An act for the punishment of crimes (revision of 1898),' approved June 14, 1898," approved April 13, 1908] be and the same is hereby amended to read as follows:

1. It shall be unlawful for any person, firm, or corporation to sell, furnish, give away, or deliver any cocaine, betaeucaine, alphaeucaine, tropocaine, novacaine, stovaine, alypin, or any salt, derivative or chemical compound of any of these substances, or any preparation, admixture, or compound containing any of these substances or their salts, derivatives, or chemical compounds, except upon the original written order or prescription of a duly licensed practitioner of medicine, dentistry, or veterinary medicine, which order or prescription, if ordered by a practitioner of veterinary medicine, shall state the kind of animal for which ordered. Such written order or prescription must be signed by the prescriber.

It shall be unlawful for any person, firm, or corporation to sell, furnish, give away, or deliver any chloral hydrate, opium, morphine, heroin, codeine, ethylmorphine (dionin), diacetyl morphine (heroin), or any salt, derivative, or chemical compound of any of the foregoing substances, or any preparation, admixture, or compound containing any of the foregoing substances or their salts, derivatives, or chemical compounds, except upon the original written order or prescription of a duly licensed practitioner of medicine, dentistry, or veterinary medicine, which order or prescription, if ordered by a practitioner of veterinary medicine, shall state the kind of animal for which ordered. Such written order or prescription must be dated and signed by the prescriber, and he must write thereon the name and address of the patient, and it may be again compounded or dispensed only if each fluid ounce, if a liquid, or each avoirdupois ounce, if a solid, contains not more than 2 grains of opium, or not more than one-quarter grain of morphine, or not more than 1 grain of codeine, or not more than one-eighth grain of diacetyl morphine (heroin), or not more than 40 grains of chloral hydrate, or not more than 1 of any salt or derivative of any drug herein named: *Provided*, That the above provision shall not apply to preparations sold or dispensed without a physician's prescription

that contain not more than 2 grains of opium, or not more than one-quarter grain of morphine, or 1 grain of codeine, or one-eighth grain of diacetyl morphine in 1 fluid ounce, if liquid, or if a solid preparation, in 1 avoirdupois ounce, and not more than 1 of any salt or derivative of any drug herein named: *Provided, also*, That the above provisions shall not apply to liniments, ointments, or plasters containing opium and plainly marked "for external use."

Any person violating any provision of this section shall be guilty of a misdemeanor.

2. Section 4 of the above-entitled act be, and the same is hereby, amended to read as follows:

4. It shall not be unlawful for any duly licensed practitioner of medicine, dentistry, or veterinary medicine to use, sell, or give away any of the substances, salts, derivatives, or admixtures or compounds mentioned in section 1 of this act for a legitimate or necessary purpose in the practice of his profession. Any licensed practitioner of medicine, dentistry, or veterinary medicine who shall give to any person a prescription or order for or sell or give away any of the substances, salts, derivatives, admixtures, or compounds mentioned in section 1 of this act, except for a legitimate and necessary purpose in the practice of his profession shall be guilty of a misdemeanor.

3. Section 5 of the above-entitled act be, and the same is hereby, amended to read as follows:

5. It shall not be unlawful for any manufacturing chemist, wholesale druggist regularly engaged in the business of selling drugs, or any registered pharmacist to sell, supply, or deliver any of the substances, salts, derivatives, admixtures, or compounds mentioned in section 1 of this act upon the written order of another manufacturing chemist, wholesaler regularly engaged in selling drugs, or of a registered pharmacist, licensed practitioner of medicine, dentistry, or veterinary medicine, or to sell to hospitals, colleges, scientific or public institutions, or to the sale of opium and the preparations thereof, or its alkaloids, their salts and derivatives, upon the written order of a known manufacturer of proprietary medicine for the purpose of such manufacture: *Provided*, That such manufacturing chemist, wholesaler, or registered pharmacist shall affix or cause to be affixed to each bottle, box, or vessel or package containing any such article sold, and upon the outer wrapper of the package as originally put up, a red label distinctly displaying the name and quantity of the article sold and the word "Poison," with the name and place of business of the seller, and before making delivery of any such article make or cause to be made, in a book kept for that purpose, an entry of the sale thereof, stating the date of sale, quantity, name, and form in which sold, the name and address of the person purchasing the same, and by whom the same is made, and the said book shall be always open for inspection by the proper authorities, and shall be preserved for at least five years after the date of the last entry made therein.

It shall be unlawful for any person who is not a licensed practitioner of medicine, or dentistry, or veterinary medicine, or a manufacturing chemist, or a wholesale dealer regularly engaged in selling drugs, or a registered pharmacist, or a common carrier when engaged in the legitimate discharge of such public service, to bring into this State or have in possession any of the substances, salts, derivatives, admixtures, or compounds mentioned in section 1 of this act, except by reason of a prescription of a registered practitioner of medicine, dentistry, or veterinary medicine, or upon the written order of a registered pharmacist, manufacturing chemist, wholesale dealer in drugs: *Provided*, That the possession of opium and preparations thereof or the alkaloids or derivatives of opium by a known manufacturer of proprietary or patent medicines for the purpose of such manufacture shall not be unlawful. Any person violating any of the provisions of this section shall be guilty of a misdemeanor.

Nonalcoholic Drinks—Adulteration and Misbranding. (Chap. 357, Act Apr. 20, 1915.)

1. No person shall distribute or sell, or manufacture for distribution or sale, or have in his possession with intent to distribute and sell, any beverage which is a nonalcoholic drink within the meaning of this act, which contains any boric acid or borate, salicylic acid or salicylate, formaldehyde, hydrofluoric acid, or fluoride, fluoborate, fluosilicate, or other fluorine compound, dulcin, glucin, saccharin, betanaphthol, hydro-naphthol, abrastol, asaprol, compound of copper, pyroligneous acid, coal-tar dye (except the certified colors now permitted by the United States Department of Agriculture, to wit: Amaranth, ponceau 3 R., erythrosin, orange I, naphthol yellow S., light-green S. F. yellowish, indigo disulfo acid), saponin, except derived from soap bark or other substance deleterious to health.

2. No person shall distribute or sell, or have in possession with intent to distribute or sell, any nonalcoholic drink within the meaning of this act which is an imitation of any other nonalcoholic drink, unless the bottle or other container in which the same is contained is plainly marked with the word imitation or artificial on the label or cap thereof, in letters of the same size and type as those of the name of such nonalcoholic drink under which the same is distributed or sold, or had in possession with intent to distribute or sell.

3. The term "nonalcoholic drink" as used in this act shall include carbonated beverages of all flavors, sarsaparilla, ginger ale, soda water of all flavors, lemonade, orangeade, root beer, grape juice, and all other beverages of any kind or character, whether similar or not to the beverages specifically above mentioned, either containing no alcohol at all or containing not more than 1 per cent of alcohol.

4. No person shall distribute or sell, or have in possession with intent to distribute or sell, any nonalcoholic drink at any place where false or fraudulent statements or designs are displayed concerning such nonalcoholic drink.

5. Any person who shall violate any of the provisions of this act, or any of the rules and regulations made under authority contained in this act, shall be liable to a penalty of \$50 for the first offense, and to a penalty of \$100 for the second offense, and to a penalty of \$200 for the third and each subsequent offense; such penalties may be sued for and recovered by the same boards and officials, and in the same manner, as provided for the recovery of penalties in the act to which this act is a supplement, and such penalties, when recovered, shall be paid to the board or official recovering the same in the same manner as penalties recovered under the provisions of the act to which this act is a supplement.

6. This act shall take effect on the 1st day of June, 1915.

Marriages—Registration—Duplicate Certificate When License Was Issued in Another Place—Date of Receipt to be Stamped on Certificate. (Chap. 366, Act Apr. 21, 1915.)

1. The assessor of any township or the clerk or person acting as registrar of vital statistics in any city, borough, town, or other local municipal government in this State, who receives the certificate of the marriage of two persons within the district under his jurisdiction shall, when the marriage license was issued in another township or other municipality in this State, make a duplicate of any such certificate of marriage received by him, and transmit the same, by mail, within 24 hours after receipt of the original to the officer legally designated to receive such certificates in the township or other municipality in which the license was issued.

2. The assessor of any township or clerk or person acting as registrar of vital statistics in any city, borough, town, or other local municipal government in this State; shall stamp every certificate of marriage that he receives with the date on which it is received and with the name of the township or other municipality in which it is filed.

3. Every duplicate required to be made in section 1 shall have written or stamped thereon, in red ink, the words "duplicate, original filed in (stating municipality) on (stating date)," and shall be filed in the office of the person to whom it is sent in the same manner as though the marriage had taken place in the municipality over which the said person has jurisdiction: *Provided*, That all certificates of marriage shall be tabulated only with the returns of the municipality in which the marriage took place.

4. Every assessor of any township or the clerk or person acting as registrar of vital statistics in any city, borough, town, or other local municipal government in this State who shall fail to forward any duplicate certificate as provided for in section 1, and stamp such certificate as outlined above, shall be liable to a penalty of \$50, to be recovered in an action of debt in the name of the State board of health or in the name of the local board of health that is affected by such violation.

Births and Deaths—Registration—Enforcement of Act. (Chap. 389, Act Apr. 23, 1915.)

1. Section 14 of the act ["An act to secure in this State the certification of births and deaths, and of the vital facts relating thereto, and to provide for the record thereof (revision of 1909)"] to which this act is amendatory be and the same is hereby amended to read as follows:

14. Any penalty incurred under any of the provisions of this act shall be recovered, with costs, in an action of debt in the name of the local board of health of the municipality where the birth or death occurred. In case the local board of health fail to bring prosecution where violations of this act are brought to their attention, the State board of health shall have the power to compel the local board of health in the municipality where the birth or death occurred to prosecute such cases, and if after formal notice to the local board of health and to each of its members, from the State board of health, that such legal action shall be taken by the local board, the said local board fails to act, each and every member of the said local board of health shall be liable to a penalty of \$25, to be recovered in an action of debt in the name of the board of health of the State of New Jersey, and all such penalties when so recovered shall be paid into the State treasury of this State: *Provided, however*, That the penalty shall not run against any member of the local board of health who shall vote to bring prosecution against the violator of this act, although the local board of health may vote against such prosecution.

Water, Potable—State Board of Health to Inspect Plant for Furnishing and Supervise Operation. (Chap. 378, Act Apr. 21, 1915.)

1. Amend section 4 of the act ["A supplement to an act entitled 'An act to secure the purity of the public supplies of potable waters in this State,' approved March 17, 1899," approved April 21, 1909] to which this act is amendatory, so that it shall read as follows:

4. The board of health of the State of New Jersey shall have the supervision of the operation of all water plants throughout the State with respect to the purity of the supply of potable water furnished by any such water plant, and every person or corporation furnishing water for potable use shall comply with any and all orders of the board of health of the State of New Jersey relating to the purity of such waters. The board of health of the State of New Jersey shall cause to be collected (by its inspectors, or other authorized agents) as often as they shall deem necessary (but not less than four times a year) a sample or samples of the water supplied by each person or corporation furnishing water for potable use. Any person or corporation failing to allow the sample or samples for analysis to be collected as provided for in this section, or interfering with any member of the board of health of the State of New Jersey, or duly authorized agent or employee of said board, in the supervision of any water plant, shall be liable to a penalty of \$100, to be recovered in an action of debt by the board of health of the State of New Jersey.

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

HARRISBURG, PA.

Milk and Cream—Sale of. (Reg. Bd. of H., Apr. 21, 1915.)

1. No milk or cream visibly contaminated shall be exposed for sale.
2. No cream shall be exposed for sale unless the specific gravity at 60° F. is below 1.020, and all cream of higher quality shall be deemed taken and is hereby declared to be adulterated within the meaning of these regulations.
3. Special or baby milk must conform to the standard of certified milk.
4. Milk sold as pasteurized milk must be marked or labeled "Pasteurized milk" and must conform with the standards of pasteurized milk.
5. Double cream must be labeled as such and must contain at least 36 per cent butter fat.
6. Milk bottles shall be used as milk containers only, and all dealers shall be required to use their own bottles.

Any person violating any of the regulations of the bureau of health and sanitation shall upon conviction before the mayor or any alderman of the city (unless otherwise provided for by city ordinance or act of assembly) be subject to a fine not exceeding \$100, and in default of payment of such fine shall be imprisoned in the Dauphin County jail for a period not exceeding 30 days.

HARTFORD, CONN.

Milk and Cream—Sale of. (Reg. Bd. of H., Mar. 6, 1915.)

No person, firm, or corporation shall sell or offer for sale, deliver at any milk room or to any customer, any milk or cream having a temperature higher than 55° F.; unless such milk or cream is delivered within two hours from the time it is drawn from the cow.

No person, firm, or corporation shall keep milk or cream for sale in any store, restaurant, or other establishment unless such milk or cream shall be stored in a covered cooler satisfactory to the board of health, and shall at no time register a temperature higher than 55° F.

No person, firm, or corporation owning or having charge of any store or market shall sell, offer for sale, or possess with intent to sell, any milk or cream except in an original package as delivered by a licensed dealer and bearing the name of said licensed dealer upon the cap or cover of each package.

INDIANAPOLIS, IND.

Poultry and Game—Sale of, After Cold Storage. (Ord. 12, Apr. 20, 1915.)

SECTION 1. It shall be unlawful for any person, firm, or corporation in the city of Indianapolis to sell, offer to sell, or have in his possession with intent to sell, any chicken, chickens, fowls, poultry, and game birds and wild fowl of all kinds, which have been in cold storage, unless such person, firm, or corporation so offering same for sale shall conspicuously display at all times at the place for sale one or more signs, each not less in size than 12 inches wide and 18 inches long, with the words

thereon, "Cold-storage poultry," in letters not less than 4 inches in height extending across the entire width of such sign.

SEC. 2. The words "Cold storage" shall be defined as meaning storage in a warehouse employing refrigerating machinery or ice for the purpose of refrigeration, whether for public or private use, and shall not apply to ice boxes used for temporary protection only.

SEC. 3. Any person violating any of the provisions of this ordinance shall, upon conviction thereof, be fined in any sum not exceeding \$25 nor less than \$10, to which may be added imprisonment for a period not exceeding 30 days.

NEW HANOVER COUNTY, N. C.

Buildings for Residential or Business Purposes—Adequate Toilet Facilities to be Provided. (Reg. Bd. of H., May 18, 1915.)

That chapter 5 of the regulations¹ governing health and sanitation for New Hanover County, adopted and published in 1914, be amended by adding thereto the following section:

SEC. 41a. It shall be unlawful for the owner or agent of any premises or real estate within the county of New Hanover upon which a building is situated to either let, lease, or permit the same to be occupied for residence purposes, or for business or other purposes which necessitates the occupation of such building or premises by human beings, unless every such building or premises shall be provided with adequate privy or water-closet equipment, constructed, equipped, and maintained in accordance with ordinances and regulations now in force, or which may be hereafter adopted, governing such equipment or locations.

Every dwelling or other structure within the county of New Hanover which is not provided with a lawful privy or closet is hereby declared to be insanitary and dangerous to the public health when occupied, and it shall be the duty of the county health officer to post or cause to be posted in a conspicuous place upon such dwelling or structure, whether it be occupied or unoccupied, a notice giving warning to the public that such dwelling or structure is insanitary. Each such notice so posted shall remain until the provisions of this section and the other provisions of the regulations governing health and sanitation shall have been fully complied with.

Any owner or agent violating any of the provisions of this section as to equipment, construction, and maintenance of privies or closets shall be subject to a penalty of \$50 for each and every such offense, and each week's continuance of such violation shall constitute a separate and distinct offense.

Any person who shall remove, deface, or obstruct any notice or placard which is displayed or posted under the provisions of this section other than by express authority of the county health officer shall be subject to a penalty of \$25.

ORANGE, N. J.

Garbage, Refuse, and Ashes—Separation Required—Receptacles. (Ord. Apr. 27, 1915.)

SECTION 1. Each and every owner, tenant, housekeeper, and other person or persons occupying any dwelling house or other building or portion thereof in the city of Orange wherein "ashes," "garbage," "paper," and other refuse material accumulates is hereby required to collect and separate the said refuse material accumulating in any such dwelling house or building or portion thereof occupied by such persons, respectively, into three classes, as follows:

First. "Ashes and noncombustible rubbish material" shall constitute one separate class.

¹ Public Health Reports, Jan. 22, 1915, p. 285.

Second. The refuse of animal or vegetable matter which has been used as food for man or beast, and all refuse animal or vegetable matter which was intended to be used, including condemned food, shall constitute another distinct class of refuse matter to be called "garbage."

Third. The waste or other paper and dry combustible rubbish material accumulating in any such dwelling house, building, or portion thereof, or premises or portions thereof which the occupant thereof desires removed from the premises, shall constitute a third distinct class of refuse matter.

SEC. 2. Each and every owner, tenant, housekeeper, and other person or persons occupying any dwelling house or other building or portion thereof in the city of Orange, in which "ashes and noncombustible rubbish material," "garbage," "paper," and "dry combustible rubbish material" accumulate and are to be removed therefrom by the city contractor or employees, shall properly provide for such removal by using two receptacles for the separation of such refuse; one for "ashes and noncombustible rubbish material" and one for the "garbage," and each such receptacle shall be used only for the accumulations of the class of refuse for which it was primarily intended.

The filled receptacles shall be of such weight as can be easily handled by one man. The receptacle in which the "garbage" accumulations are deposited shall be a metallic water-tight vessel, and shall have a separate cover, close fitting when in place, or said garbage may be drained and wrapped in paper (so that contents shall not leak or slip through) and tied securely. The receptacle in which the "ashes and noncombustible rubbish" accumulations are deposited shall be a metallic or wooden vessel, so constructed as to prevent spilling or leakage of its contents.

SEC. 3. Paper and dry rubbish material must be secured in packages to permit of easy handling and to prevent the contents of the same from being scattered. The two classes of receptacles—namely, one for garbage and one for ashes and noncombustible rubbish material and waste paper and dry combustible rubbish material—secured in packages as aforesaid, shall be placed by the owners, tenant or tenants, housekeeper, and other persons occupying any dwelling house or other building or portion thereof in the city of Orange at a point easily accessible between the sidewalk and the curb.

SEC. 4. Each and every owner, tenant, housekeeper, or other person shall hereafter deposit, or cause to be deposited, the said receptacles or vessels for garbage and for ashes and noncombustible rubbish material, and the packages properly secured, containing waste paper and dry combustible rubbish material, to be deposited and placed as provided in section 2 of this ordinance, ready for collection by the contractor for the removal of garbage and refuse, or his collectors, at least one-half hour before the time specified by such contractor in the notice served by him upon the householder as the time for the collection of the garbage, ashes, and noncombustible rubbish material, and shall cause said receptacles to be removed from the sidewalk within two hours after the collection is made by the contractor or his collectors.

SEC. 5. The receptacles shall be kept in a clean condition at all times.

SEC. 6. No person, firm, or corporation by themselves or their agents or employees shall dump ashes or rubbish within the limits of this city unless authorized to do so by a permit signed by the director of public affairs, to be granted by him in his discretion.

SEC. 7. Every owner, tenant, or other person violating or failing to comply with any of the provisions of this ordinance shall forfeit and pay for the first offense the sum of \$5, and for every subsequent like violation of any provision of this ordinance shall forfeit and pay the sum of \$10.

SEC. 8. The chief of police shall strictly enforce this ordinance, and any scavenger collector or person or corporation contracting with this city for the removal of ashes or garbage may make complaint of the violation of any provision of this ordinance to the proper authorities.

SCHENECTADY, N. Y.

Milk and Cream—Production, Care, and Sale. (Reg. Bd. of H., Apr. 1, 1915.)

Section 16 of the Sanitary Code of the city of Schenectady is hereby amended to read as follows:

RULE 1. No person or persons shall engage in the sale or distribution of milk in the city of Schenectady except in accordance with the agricultural law and the State Sanitary Code of the State of New York and in compliance with this section.

RULE 2. All persons desiring to engage in the sale, delivery, or distribution of milk in the city of Schenectady shall first make application for a permit to do so upon blanks provided for that purpose, and no such permit will be issued until all regulations governing the production and care of milk are complied with by the dairies supplying the milk to the applicant, and unless such applicant complies with reference to his milk house and the care of his milk house and milk, with the following requirements for milk houses and for the care of milk houses and milk.

Requirements for milk houses.—Milk houses must have:

1. Cement floor.
2. Sewer or drain connection. If the latter, the end of drain must be at least 15 feet from the milk house.
3. Proper refrigerator or tank. If tank is used, same must be connected with sewer or drain, or empty onto floor.
4. Two windows, not on the same side, having not less than 4 square feet of glass each.
5. Provision for ventilation through roof.
6. Bottle racks for draining bottles.
7. Racks for draining and airing inverted milk cans.
8. Tight walls, ceilings, and roofs, and its parts kept in good repair.

Requirements for care of milk houses and milk.—1. Milk house must be painted inside at least once each year.

2. Milk house must be thoroughly cleaned once each day.
3. Bottles must be thoroughly washed in hot water with washing compound, thoroughly rinsed, once in clean warm water and once in clean cold water.
4. Cans must be washed and rinsed in same way and returned to producer empty and dry.

RULE 3. All persons engaged in the sale, delivery, or distribution of milk in the city of Schenectady shall furnish the health officer, upon proper blanks provided, a list of the names and locations of the dairy farms from which the milk so distributed is obtained and shall, before making any changes in their supply, notify the health officer of the intended changes. No person shall dispense in the city of Schenectady milk or cream from any dairy the milk or cream from which has been excluded from the city of Schenectady by the health officer.

RULE 4. All wagons or other vehicles and utensils used in the conveyance of milk for sale, delivery, or distribution in the city of Schenectady shall be kept in a clean condition and free from offensive odors. Receptacles containing milk shall at all times during transportation be properly covered. Each wagon or vehicle used for sale delivery, or distribution of milk shall have the name of dealer using such wagon or vehicle painted on each side of the wagon or vehicle in letters not less than 1½ inches high nor less than three-eighths of an inch wide, and a metal enameled plate conspicuously displayed on each side of such wagon or vehicle, each of which plates shall contain on a white background the words "Bureau of health, milk permit No." and the number of the permit of the dealer using such wagon or vehicle and the number of the year of the last 31st day of March preceding the issuance of such permit, which words shall be in blue letters and which numbers shall be in blue figures at least 1½ inches high and three-eighths of an inch wide.

RULE 5. No person or persons shall sell or offer, expose, or keep for sale in any shop or other place milk or cream unless the same is sold or offered, exposed, or kept for sale in capped bottles or receptacles as filled and capped by person or persons having a milk dealer's permit.

RULE 6. Milk or cream shall not be sold, offered for sale, or delivered except in capped bottles or receptacles. Said bottles or receptacles shall be filled and capped only at dairy or dealer's milk house having a dealer's permit approved by the health officer. Said caps shall have printed upon same grade of milk, name, and address of dealer in colored type as prescribed by the State Sanitary Code.

An exception to the above part of this rule is made when milk is sold to establishments such as hotels, restaurants, lunch rooms, bakeries, soda fountains, and barrooms to be consumed on the premises, in which cases said milk can be delivered in sealed cans, provided that the amount so delivered is not less than 20 quarts at one delivery and that said cans have been filled and sealed only at a dairy or dealer's milk house having a dealer's permit. The above rule 6 shall take effect June 1, 1915.

RULE 7. Grade C milk and grade C cream can not be sold, offered for sale, or delivered in the city of Schenectady.

RULE 8. No bottles or receptacles shall be removed from the house in which there exists or has been a case of communicable disease until permission in writing has been granted by the health officer or his representative.

RULE 9. No person shall sell, keep, offer, or expose for sale in the city of Schenectady any milk received by him in a can unless such can has been sealed by the producer of such milk or by a duly licensed operator of a milk-gathering station with a seal bearing the initials of the name of such producer or such operator in such a way that the milk could not be removed from the can without breaking such seal and unless such person received such can with such seal intact and unless said seal was not broken except by such person and at a milk house or milk depot approved by the health officer.

RULE 10. All milk cans and bottles must be thoroughly washed, rinsed, drained, and dried by the person emptying same before returning cans and bottles to the producer. Perforated can covers will not be permitted to be used and will be confiscated whenever found.

RULE 11. No milk shall be sold, offered, exposed, or kept for sale in the city of Schenectady at a temperature above 50° F.

RULE 12. Every person engaged in the production, storage, transportation, delivery, or distribution of milk to be sold in the city of Schenectady shall notify the health officer immediately on the occurrence of any case or cases of diphtheria, scarlet fever, or typhoid fever either in himself or in his family or among his employees or their immediate associates or within the building or premises where milk is stored, handled, or distributed and at the same time shall suspend the sale and distribution of milk until authorized to resume the same by the health officer.

RULE 13. The word "milk" as used in this section shall mean and include milk and cream; the words "health officer" shall mean the health officer of the city of Schenectady, N. Y.

The foregoing amendment shall take effect June 1, 1915.