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DISPENSING OF HABIT-FORMING DRUGS.

A CONVICTION OF A PHYSICIAN UNDER THE LAW OF TENNESSEE UPHELD BY THE SUPREME COURT OF THAT STATE.

On page 2903 of this issue of the Public Health Reports appears an opinion of the Supreme Court of Tennessee which may be of value as a precedent.

The Tennessee law requires that physicians shall be in personal attendance on patients to whom habit-forming drugs are distributed or dispensed by them. The court stated that the law "is modeled after and closely conforms to the act of Congress later passed and approved December 17, 1914" (the Harrison antinarcotic act).

A detective secured from the defendant, who was a physician, a prescription for morphine, stating that he desired the drug for a friend. The detective then took the prescription to a pharmacy and had it filled.

The court held that the Tennessee act was constitutional, and that the fact that the drug was secured by a detective for the purpose of obtaining evidence for a criminal prosecution was not a valid defense.

VIRULENT SMALLPOX.

AN ACCOUNT OF THE OUTBREAK LAST WINTER AT LAREDO, TEX.

During the period from December, 1914, to April, 1915, an outbreak of virulent smallpox occurred at Laredo, Tex. The first case occurred December 9, 1914, in an inmate of an orphan asylum for girls. The source of infection of this case was not determined, but no additional cases developed in the institution. On January 16, 1915, two cases were notified, one of which was in a family long resident in Laredo, the other being in a family which had recently come from Mexico. One case occurred January 23 in a man who had been in the Mexican Army and who came across the border January 17. On January 29 two new cases developed in the same families in which the cases were reported January 16. During the week ended February 5 five new cases and three deaths were reported. No new cases or

deaths were reported during the next week, but on February 15, 1915, 16 new cases were found, and during February a total of 101 cases, with 11 deaths, was reported. In March there were 63 cases and 14 deaths, in April 38 cases and 7 deaths. No cases or deaths were reported during May and June. A total of 208 cases, with 32 deaths, occurred during the outbreak, giving a fatality rate of 15.38 per 100 cases.

PUBLIC HEALTH ADMINISTRATION IN CHICAGO, ILL.

A STUDY OF THE ORGANIZATION AND ADMINISTRATION OF THE CITY HEALTH DEPARTMENT.

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[This is the fourth installment of this report. Previous installments will be found in the Public Health Reports Aug. 20, 1915, p. 2442; Aug. 27, 1915, p. 2536; Sept. 10, 1915, p. 2695.]

BUREAU OF VITAL STATISTICS.

The essential duties of the bureau imposed by statutes and ordinances are (1) registration of births, (2) registration of deaths and control of the disposal of the dead, and (3) statistical tabulation of birth and death records.

The work of the bureau has been handicapped by limited appropriations and it has been impossible, on account of lack of funds, to employ a sufficient personnel to index the old records and compile the data contained therein. During the period from 1909 to 1911 the appropriation for the bureau was reduced one-half. This resulted in curtailment of its work, and the effect has not yet been entirely overcome.

Summary of ordinance provisions.—Before taking up the consideration of the different functions of the bureau, a brief summary of the ordinance provisions is advisable in order to show the authority for its various activities.

Existing ordinances provide as follows:

It is the duty of the commissioner of health to provide necessary books for keeping a record of all transactions of the department, for the registration of births and deaths occurring in the city, and such other records as are necessary for the efficient working of the department. He must keep on hand the necessary blanks and furnish them to physicians and midwives on application.

It is the duty of every physician or midwife who attends the birth of a child to report the same, with name and date of birth, to the department within 30 days.

It is the duty of every physician or midwife to make a written report to the health department within 24 hours of the death of any of his or her patients; in event the death is a coroner's case, the report is made by that official.

Any person desiring to act as an undertaker, prepare dead bodies for burial or cremation, or manage funerals, etc., must be licensed, and it is unlawful for any person to engage in such business prior to obtaining a license.

Any person desiring a license to act as an undertaker must apply in writing to the commissioner of health, giving his name and address, showing that he is a licensed embalmer, and giving the location of the place where he intends to conduct the business of undertaking. The applicant must furnish evidence that he is familiar with the laws and ordinances of the city and the rules and regulations of the health department governing the removal, preparation, and burial or cremation of the dead; also that he has practical knowledge of approved and sanitary methods of caring for the dead, including embalming of dead bodies, and furnish evidence of his responsibility, moral character, and fitness to carry on the business of an undertaker.

Undertaking rooms must be capable of being completely shut off from other parts of a store or other establishment in which located, must have free outside ventilation and light, a floor of nonabsorbent material, and be connected to the sewer by an approved sanitary drain.

Burial permits must be secured from the commissioner of health or his authorized representative, and it is unlawful for any person to move any dead body from a hospital or from place to place in the city, or to cremate or deposit any human body in a vault within the city, or to inter or disinter, or in any manner dispose of any dead human body or parts thereof without first obtaining a permit so to do.

No permit for the burial of any dead human body will be issued to anyone except a licensed undertaker.

No superintendents of cemeteries or other places for the disposition of dead bodies may assent to interment, disinterment, cremation, or other disposition of a body until a permit is issued. It is the duty of a superintendent of a cemetery, etc., who receives a permit to fill out the coupon attached thereto, sign, date, and return the same to the department of health within 48 hours after receipt.

The bodies of persons who have died of smallpox or plague are buried by the health department in accordance with rules prescribed by the commissioner of health.

Bodies of persons who have died of typhus fever, epidemic cerebrospinal meningitis, scarlet fever, diphtheria, measles, anthrax, infantile paralysis, or leprosy are prepared for burial by having all orifices closed with plugs of cotton saturated with an efficient disinfecting solution and the entire body then wrapped in a sheet saturated with a disinfecting fluid. These precautions must be carried out before placing the body in the coffin.

Every casket or coffin used in the burial of a person who has died of a contagious disease must have a bottom that is water-tight and a well-fitting cover, and must meet with the approval of the health officials.

No person whose attendance is not necessary for the conduct of the funeral of any person who has died of any of the diseases hereinbefore mentioned may enter the premises where the death occurred; however, this is not to be construed as preventing the attendance at such funeral of any adult relative of the deceased person or adult member of the family who has been in attendance upon such deceased during his last sickness, and who has been exposed prior to such funeral to the disease from which such person died. Furthermore, any other persons may accompany or follow the remains of the deceased to the grave, provided they do not enter the premises or occupy the same vehicle as the persons who have entered the premises.

No person may take any article into or remove any article from any room in which a person has died of a contagious disease until such articles have been properly disinfected by the health department.

No person may move or convey any dead human body in any public vehicle; except that of a body of a child under 8 years of age who died of a noncontagious disease and is properly encased.

Neither the State law nor the city ordinances are satisfactory and a bill is now pending before the legislature. This bill is in the main

the same as the model bill recommended by the Bureau of the Census, with some modifications to meet special local conditions. Under the provisions of this bill all certificates of births and deaths occurring in Chicago would be sent to the health department, where two copies would be made, one for the county clerk and the other for the files of the department, the original being forwarded to the secretary of the State board of health. Several efforts have been made to secure the passage of such a bill, but sufficient opposition has been encountered to defeat it. The necessity for this law can not be too forcibly emphasized.

In studying the work of the bureau it is advisable to consider it under the different functional divisions.

Registration of Births.

The bureau had a satisfactory organization for registering births from 1898 to 1909. In the latter year this work was discontinued on account of insufficient funds and, furthermore, as a protest against the trend of legislation which it was alleged weakened the law. The protest has not been effective, as the proposed legislation has not yet been accomplished. If the model bill becomes a law, the registration of births will be resumed by the department.

In the interim from 1909 to 1911 there was no registration of births, but in the latter year the county clerk assumed this work and there has been a progressive increase in the number of births registered, so that now approximately 65 per cent are recorded. In 1914 the total registration was 54,000, about 5 per cent of which were from the county outside of Chicago. A law making registration of births compulsory is desirable.

Registration of Deaths and the Control of the Disposal of the Dead.

DEATH CERTIFICATES.

The report of deaths is compulsory and the presentation of proper death certificates is necessary to secure a burial permit. All certificates must be furnished in duplicate; one copy is retained in the bureau and the other is sent to the secretary of the State board of health, who has certain data abstracted and forwards it to the county clerk. The data called for on the certificate are filled in by the following persons over the signature of the informant: Deaths in hospitals, the superintendent or other hospital authority; coroners' cases, the coroner; all others, the undertaker. The certificate is also signed by the respective persons mentioned above, and then the data of primary and contributory cause of death must be included by the physician who attended the case and the certificate signed by him. If no doctor was in attendance, the coroner fills out the required data as to the cause of death and signs the certificate.

Different colored blanks are used in reporting the deaths under the three specific headings. A different form of certificate is used for reporting stillbirths.

Each certificate is dated with the day and hour when received, and after issue of the burial permit is handled according to the following procedure:

Certificates are numbered serially for the year, commencing with number one on January 1; they are then reviewed by a medical clerk, who marks the statistical classification number of the disease on the certificate, and adds that of the sanitary district and the ward number, if that has been omitted by the undertaker. When the cause of death given is not specific and there is doubt which disease was the principal cause, the physician giving the certificate is called by telephone and requested to supply more accurate data.

All certificates reporting a contagious disease as cause of death are assembled and a transcript giving name, age, address of decedent, and disease is prepared of each in triplicate. The original and duplicate forms are sent to the bureau of medical inspection and are required for the purpose of checking against their reports of contagious diseases in order to determine whether the case had been reported.

The next step in the office procedure is the arranging of the certificates for each day in packs of originals and duplicates. The former are placed aside and at the end of the month are packed and sent to the secretary of the State board of health. A synopsis is now made in triplicate of each day's certificates, the number of certificate, name, age, address, and date of death of the decedent being given. These sheets are arranged in packs, and at the end of the month one is sent to the election commission for their information, a second is kept for the use of the public and the press, and the third is filed. A clerk takes off all the pertinent data on a punch card and then a card index, giving the number of the certificate, name, and date of death, is prepared and filed alphabetically by name.

BURIAL PERMITS.

Burial permits are issued upon presentation of death certificates properly prepared. The form consists of permit proper with coupon attached, the stub remaining in the book as the office record. They are numbered serially for each year, commencing January 1. Both the permit and coupon are given the undertaker, who turns both over to the person in charge of the cemetery. The cemetery clerk files the permit for his records and returns the coupon to the bureau, where check is made against the certificate in order to determine that the burial was made in the specified cemetery. These coupons are not destroyed, but filed in packs of 100 each.

In coroner cases, where an inquest is still pending and the cause of death has not been actually determined, a provisional certificate is given by the coroner granting permission for burial of the body. Upon completion of the inquest the coroner furnishes the regularly prescribed death certificate and then a coupon is prepared giving number and pertinent data. This is attached to that corresponding to the burial permit issued. A book record is kept of all such cases, and when the proper death certificate has been received the corresponding case is checked off. If the certificate is not received in due time, the coroner is addressed for the purpose of securing it.

An investigation was made by the efficiency division to determine to what degree reports were being made of deaths where the bodies were buried in public cemeteries. Seven outlying cemeteries were visited and 226 names of persons whose bodies had been recently buried were compared with the health department records. These tallied in each instance; therefore, it is fair to assume that the bureau is securing a good record of cemetery burials, as any case of fraud or negligence in reporting would probably occur in outlying cemeteries.

Burials out of the city.—A different form of burial permit is issued when a body is removed for burial in some place out of the city. The permit proper gives name, age of decedent, and the disease causing death. This is taken by the person accompanying the remains to the receiving authority. A certificate is filled out by the undertaker and affixed to the box containing the coffin. Duplicates are sent to the secretary of the State board of health. A stub containing all pertinent data is prepared for the purpose of keeping the numbers in order.

Burials in the city of persons dying in other localities.—Burial permits and certificates accompanying the body are taken up and placed in special file and regular burial permit issued. All data are copied on a death-certificate blank with a different color of paper for the purpose of a record. A card index is also made in such cases.

Disinterments and reinterments.—When a body has been in a vault less than 30 days the procedure for interment is the same as already given except that the undertaker must file an application requesting authority for removal and burial of body.

When the period of time has been longer than 30 days and in all cases in which the body has been buried, the procedure is different. Application is made by the undertaker, and if reinterment is to be made in a different cemetery in the city, burial permits are issued in duplicate—one is retained by the authorities of the cemetery from which the body is disinterred and the other by the clerk of the cemetery in which reinterment is made. All applications are retained in the bureau and the records are corrected to show the actual cemetery in which the body is buried.

When the body is to be removed from the city for burial in another locality it is necessary to secure the permission of the department, the secretary of the State board of health, and the receiving authority before the body can be disinterred and transported. A special blank is prepared and sent to the different officials for their consent and signature. When this is returned, burial permit is issued in the same form and manner as prescribed for burial out of city.

LICENSING OF UNDERTAKERS.

The bureau has control of the examination and licensing of undertakers. A person to be eligible for such an examination must hold a State embalmer's certificate. An application is filed, and if the examination is satisfactorily passed, recommendation is made for license, which is issued by the mayor. The same requirements must be met by undertakers' assistants, except that in this class a certificate is issued by the commissioner of health. Examinations are given by the bureau chief.

INSPECTION OF UNDERTAKING ESTABLISHMENTS.

After the passage of the city ordinance requiring that undertaking rooms should meet certain sanitary conditions, licenses have not been issued to undertakers until the rooms in the proposed establishments have been inspected and approved by the health department. This inspection work constitutes one of the field activities of the bureau and a careful examination is made of undertaking rooms and a card containing all pertinent data is made for each establishment. If the condition of rooms is found unsatisfactory the proper corrections must be made so as to comply with ordinance requirements.

CONTAGIOUS-DISEASE FUNERALS.

Another field activity of the bureau is the control of contagious-disease funerals. An inspector is present at the house in such instances to see that the rules of the department governing are observed.

Disinfection.—Disinfection of rooms in which deaths have occurred from contagious diseases is performed by the quarantine officers of the bureau. The object is to have this work promptly executed as soon as the body is removed from the house and while the family are at the cemetery. The technique of such disinfections is the same as prescribed under the bureau of medical inspection.

MISCELLANEOUS INSPECTION.

Conditions in connection with mortuary control occasionally arise which require special inspection and action by the department.

The number of employees for field work, which embraces disinfection, control of contagious-disease funerals, inspection of undertaking

establishments, and miscellaneous inspection, is four, although at present only three are so employed.

The field employees report at the bureau each morning for assignments, and "call up" the office by telephone during the day for any additional assignments.

Daily reports are made by the inspectors employed in field work, and these are received and checked in the office.

CERTIFIED COPIES.

Certified copies of certificates of death are prepared by the bureau upon request, and for this service a charge of 50 cents is made for each certificate. The money collected for certified copies is delivered to the city treasurer each day with proper deposit slip, and a cash abstract of the transactions is sent to the auditor.

MORTALITY STATISTICS.

Prior to 1912 all the mortality data were tabulated by hand, but at that time the advantages of having tabulations done by the Hollerith method were taken into consideration and a contract was made for having this work done by a private company. The work done under contract is said to have been found not altogether satisfactory, and since January, 1915, the bureau has tabulated its mortality data by utilizing a central statistical bureau formed for the use of all city departments.

All pertinent data from the death certificates are punched on the card, and then taken off on the tabulating machines in the central bureau. Cards are first assorted according to cause of death, and data relative to each cause are tabulated, including age, sex, nationality, and social status of the decedent; the nativity of parents (native, foreign, or mixed of both parents and the nativity of mother); wards and sanitary districts; and also whether the decedent was a resident of the city.

Practically all general data are tabulated by the Hollerith method, but tabulations for the monthly report or of contagious diseases by wards are made by hand, a method said to be more satisfactory and economical.

Chief statistician.—A senior statistician prepares special statements and an analysis of mortality data for graphic presentation by charts, etc.

Files.—An index card is made of each death certificate, giving name and address of the decedent and an office serial number which indicates the year. As already stated, the certificates of some years have not been indexed. This is said to be on account of an insufficient number of clerks.

Death certificates are bound in volumes of 500 certificates each and are filed in the vault. This work is up to date. Certificates of stillbirths are kept in a separate file.

The books containing tabulated data, both the straight runs and cross-tabulations, are indexed according to period covered and carefully preserved in the vault.

GARBAGE AND WASTE.

Although the collection of refuse is not vested in the health department, but is performed by the bureau of streets, the reduction and disposal of garbage have been placed under the direction of the commissioner of health by council order passed July 30, 1913. But since the collection of refuse, especially of garbage, is associated with general sanitary work, it is deemed pertinent to consider both collection and disposition in this article.

Prior to 1905 there was no systematic method of refuse disposal, and garbage and ashes were dumped on vacant ground in the outlying sections of the city. A contract was made that year with the Chicago Reduction Co. for the disposal of the garbage at their plant, which was located in the stockyard section. The company was a private corporation and was paid \$47,500 a year by the city for such service, the city collecting and delivering the garbage to the plant. A second contract was made with this company, which expired in September, 1913, when, after some months of negotiations, their plant was bought by the city, and the work of garbage reduction and disposal was taken over and placed under the health department.

Collection of Garbage.

The amount of garbage collected per capita by the city is smaller than in most large cities; whereas the average in other cities is 150 to 160 pounds per capita per annum, the average in Chicago is only 104 pounds per capita per annum. Taking this as a basis there are approximately 124,800 tons of garbage handled by the bureau of streets during the year. The following factors have a bearing on the smaller amount of garbage collected per capita in comparison with other cities: (a) Larger foreign population; (b) collection of garbage from hotels, restaurants, cafés, boarding houses, and apartment houses by private scavengers at the expense of the owners of the different establishments; (c) large vacant areas which invite disposal of garbage by householders on the premises; and (d) diversion and incomplete collection of garbage in the outlying districts.

A regular collection, with prompt removal and rapid final disposition of household waste, is one of the most important functions devolving upon a municipal cleaning department. The following are

essential for satisfactory service: Ample funds, proper organization and equipment, sanitary and economical methods of work, and cooperation of the public.

Method.—As already stated, the owner or agent of a building is required by ordinance to provide a requisite number of metal garbage cans with tightly fitting covers, and the householders or tenants are required to separate garbage from ashes and rubbish. Experience shows that some educational work and better cooperation of the householder in this particular are desirable.

For facilitating garbage collection the city is divided into 35 wards, grouped in four sections, in relation to the two loading stations, the reduction plant, and a dump in the southern part of the city. The average haul is 3.2 miles.

The two loading stations are located on the Chicago River in the densely populated sections of the city and about two-thirds of the amount of garbage are handled at these stations. The filled garbage boxes are removed from the wagons to a barge by means of a crane, and a clean empty box is placed on the wagon; this loading is done during the day and in the late afternoon the barge is towed to the reduction plant, the boxes are unloaded, and their contents are emptied into the storage bin at the plant. The boxes are washed and replaced on the barge, which is returned to the loading station during the night, to be in place to receive the garbage the following day. The garbage is treated during the night, and on the morning of the next day when the amount is large in the summer season.

The garbage in the section of the city near the reduction plant is hauled direct to the plant, and the wagons begin to arrive at that point about 1 o'clock p. m. and continue coming during the afternoon. This garbage is treated in the afternoon.

In the extreme southern part of the city, embracing wards 8, 9, and the lower portion of 32, the amount of garbage is so small and the haul so long that the cost incident to removal to the reduction plant is not justified. In this section the garbage and waste are collected together and dumped on the low area around Lake Calumet; an incinerator of 100 tons capacity in 24 hours is now being erected, however, and in a few months it will be in operation to dispose of this garbage by incineration.

Two-horse-team wagons are used for collecting; the wagon consists only of a framework on which an iron box of 4 cubic yards capacity is placed. These boxes, or tanks as they are often called, are constructed of heavy sheet iron, braced through the center, have stout trunnions from the middle of each end and have an iron cover, made of four sections, hinged to a longitudinal bar extending from end to end of the box. At the loading stations they are easily removed by cranes, a bar the length of the box with chain attachment

at each end being hooked to trunnions on the box for facility in handling.

At the reduction plant unloading of boxes from wagons or scows is effected in the same manner, and as they are lowered into the storage bin a chain that has been fixed beneath the box and fastened in a ring on one side causes the box to be turned bottom upward and the contents dumped.

A satisfactory equipment for collection is one so constructed as to enable transportation without leakage or scattering of material on the street, to permit of cleaning, and to prevent the escape of odors. Taking the above as a standard to be met the tanks are well adapted for the service.

The drivers report at a central point in the ward and are assigned a specific route, the object being for them to become familiar with their district and thereby be capable of rendering more efficient service. The collection is carried out under the direction of the ward superintendent. The loading is done by the driver, but in some wards where the amount of garbage is large, a laborer is provided to assist in this work.

The city owns the wagons and boxes and hires the teams and drivers. The average number of wagons in use for garbage collection is 175 during the winter and 225 in the summer. There is much seasonal variation in the amount of garbage, and July, August, September, and October are the heavy months. The amount during these months is about double that in the winter.

The total cost of garbage collection, disposal not included, is \$452,000 a year.

Garbage Disposal.

The proper disposal of the garbage of a large city is a question that is now receiving much study, and when the contract of the private reduction company that had been treating the garbage of Chicago expired and the municipality contemplated taking over the work, the city engaged Messrs. Osborn and Featherstone to make a critical study of the collection and disposal of garbage in Chicago in order that a satisfactory system might be evolved.

GENERAL OBSERVATIONS.

The disposal of garbage in cities of considerable size is either by incineration or reduction, as the method of dumping or filling is unsatisfactory except in a few instances and as a temporary expedient. Reduction is the process used in the larger cities of the United States, and has the advantage over incineration, when large quantities of garbage require disposal, in being more economical, because it saves the by-products of grease and tankage, which have considerable value.

One of two methods is used in reduction plants—cooking or drying of the garbage. In the former the garbage is digested by boiling and the liquids and grease are removed by pressure; in the latter the garbage is dried by direct applications of heat and the grease extracted from the dried product by the use of naphtha. The small amount of garbage collected by private scavengers from hotels and restaurants in Chicago is reduced by cooking; that of the city generally is treated by the drying process.

If the following essential features' concerning design and installation of reduction plants, viz, sanitation, freedom from nuisance, and selection of proper apparatus for operation, are borne in mind, most of the complaints against reduction plants will be obviated. The details of the plant should be such as to enable the place to be kept clean at all times and permit hosing and washing of all parts of the building and premises. Garbage dust and dirt should not be allowed to accumulate to decompose and breed flies. Mechanical means for handling garbage should be utilized as much as possible.

Objections to reduction plants are usually on account of odors, which may arise from the raw garbage and gases given off by the dryers and those arising in the plant due to nature of material and method of handling. Criticism of such plants generally results from the manner of construction and method of operation. The reduction plants in a majority of the cities are owned and operated by a private corporation, and as the contractors have an agreement to dispose of the garbage only for a limited time, such plants are cheaply constructed, have inferior equipment, and little or no attention is paid to general sanitary requirements.

The statement made above was especially applicable to the plant of the Chicago Reduction Company that was treating the garbage of Chicago under contract. The plant was run in a most insanitary manner, and the nuisance resulting was a cause for frequent complaint by the citizens living in adjacent districts. Garbage was not properly housed, but piled and scattered on the premises. The offensive odors resulting from this and those arising from the operation of the plant were so intense that they could be detected for a considerable distance.

EMERGENCY DISPOSAL OF GARBAGE.

Owing to delay in the negotiations of the city for the purchase of the reduction plant of the private corporation it became necessary on October 1, 1913, to provide some temporary means for disposal of the city garbage. This emergency was met by selecting an abandoned brick yard, where a large clay hole excavation existed, and the garbage was disposed of by filling. The necessary plant, consisting of cranes, tanks for thawing the garbage, tanks for treating the garbage with acid solution, track, etc., was erected and the handling of refuse begun.

Briefly, the method of disposal was as follows: After thawing, if garbage was frozen, by immersion of the garbage boxes in tanks of hot water, the contents of the boxes were dumped into vats, which were filled within 2 feet of the top. The garbage was then covered with a 1 per cent acid solution, equal parts of crude hydrochloric and sulphuric acid being used, and was allowed to remain under this treatment for 12 hours. The liquid was then drained off through openings in the bottom of the vats and when the garbage had become fairly dry it was picked up by an orange-peel bucket, operated by a crane, and loaded on cars for removal to the hole for dumping. The garbage was distributed over the bottom of the excavation in a layer 1 foot thick, then a layer of ashes $1\frac{1}{2}$ or 2 feet thick was spread over the garbage. This process was continued, layer by layer, in the same manner and proportion of garbage and ashes.

It was necessary to handle about 60,000 tons of garbage in this manner and the method proved entirely satisfactory as an emergency measure. The action of the acid is simply to retard decomposition of the garbage until the ashes can become thoroughly mixed with it. In a few months the garbage has become thoroughly disintegrated, and the fill is dry and inoffensive.

The reduction plant, which in the meantime had been bought by the city for \$275,000, was sufficiently repaired so that it was available for use about the middle of June, 1914, and the disposal of garbage by reduction was then commenced.

CHICAGO REDUCTION PLANT.

As already stated, the disposal of garbage is under the health department and the operation of the reduction plant is under the direction of the commissioner of health. The reduction of garbage is by drying.

A study was made of the plant and its operation, and a brief description of the process of handling garbage is considered in place in this report.

The garbage is unloaded into a concrete storage bin having a capacity of 1,000 tons; this is arranged with two rows of gate valves in the bottom regulating the discharge of garbage upon two conveyors. On the front of this bin there is a hot-water tank for immersion of the boxes to thaw the garbage when frozen in winter. The conveyors carry the garbage to crushers. Generally two are operated, although there is a third for emergency use. From the crushers the garbage is carried by a set of button conveyors to a platform above the fire-box end of the primary dryers. There is a chute leading from the platform to each of the six dryers, and the garbage is shoveled into these chutes and passes into the dryer. Heat is applied by an oil burner with forced draft by means of compressed air, and a temperature of 500° F. is generated. The dryers

revolve slowly, and being set with a slight declivity and equipped with flanges on the inner surface, the garbage gradually passes to the other end of the dryer and falls into a trough, through which a conveyor takes it to an elevator that empties it into secondary dryers, two in number. After passing through the second dryer the dried garbage is taken by conveyor to an elevator which discharges it into cars or a storage bin. The garbage from start to finish is handled mechanically.

A plenum chamber is connected with each of the dryers; from it the gases and vapors produced by the drying process are exhausted by a fan and passed into the condenser. The condenser, in reality a scrubber, is equipped with numerous sprays of water through which the gases pass. The soluble gases are knocked down and the bulk of the odors eliminated, and the insoluble ones and vapor are discharged from the condenser through a tall chimney into the open air. The time necessary for the complete process of drying the garbage is about one hour.

Green garbage contains 75 to 80 per cent water; after passing through the primary dryers the amount of water has been reduced to 30 per cent; and when the process is complete it contains 10 per cent of moisture. The dried product contains 85 per cent dried garbage, 10 per cent water, and 5 per cent waste.

Owing to the fact that there were no funds available in 1914 for the reconstruction of the extraction plant, the dried garbage is now sold to a private company for \$5.77 per ton. When it is taken into consideration that garbage yields 3.25 per cent of grease and 14 per cent of tannage, and that the former has a commercial value of 4 cents a pound and the latter of three or four dollars a ton, the advisability of the city's handling these by-products by means of its own plant is apparent. The value of the products would cover the cost of reduction and probably yield a slight income. In some municipal plants sufficient profit is derived from the by-products to cover cost of operation, fixed charges, and interest on the capital account.

The plant is operated in three shifts of eight hours each. All the machinery is run by electric motors. The plant throughout and the premises generally are kept scrupulously clean, and there is a remarkable freedom from disagreeable odors. The plant is conducted in a sanitary manner, and there is no cause for complaint by the persons living adjacent. In fact, upon inspection all parts of the buildings and premises were found clean. The sides of the storage bin and machinery, conveyors, crushers, etc., were also in the same good sanitary condition, and during the operation of the plant no garbage was scattered on the floor. If any fell on the platform around the bin, it was immediately swept up, and the same procedure was followed in event any fell from the conveyors to the floor of the building.

Efficiency of operation.—In studying efficiency of operation, especially in its economic phase, the fact that the plant is undergoing repair and construction must be taken into consideration.

The purchase of the plant was made in February, 1914, for \$275,000, about one-half of that amount being for the land on which the plant was located. Extensive repairs to the building and apparatus, including the construction of the storage bin, concrete wharf, and installation of cranes for handling the boxes in unloading were necessary before the operation of the plant could be started. As it was deemed advisable to retain for this work a certain proportion of the skilled employees who had previously worked at the plant, there was considerable labor charge for nearly five months before actual operations commenced on June 15.

A new reinforced-concrete building has been constructed for housing two new dryers that have been installed. These dryers are more modern and dry the garbage by a single process. Their efficiency has proved satisfactory, and it is the intention to gradually replace the old dryers with this new type. A new condenser or washing room for treatment of gases in connection with the new dryers has also been constructed. The new installation was not completed until near the end of 1914.

The following statement of account for 1914 has been taken from the bulletin of the health department:

Expenses for 11 months.

Labor.....	\$75,678.49
Office.....	4,715.38
Coal.....	2,730.58
Fuel oil.....	30,052.96
Power.....	7,218.05
Machinery repairs.....	1,978.56
Factory supplies.....	2,056.26
Building repairs.....	295.52
Office supplies.....	1,319.98
Service and benefits.....	3,624.61
Advertising.....	37.70
Total.....	129,708.09

Revenue during 11 months of operation.

Miscellaneous earnings.....	\$114.56
Dried garbage sales.....	111,855.99
Inventory account.....	1,731.00
Total.....	113,701.55
Leaving a net loss of.....	16,006.54
Against this loss there is to be credited.....	43,541.66
Which is eleven-twelfths of the \$47,500 previously paid by the city each year to the Chicago Reduction Co.	
This gives a net saving of.....	27,535.12

Against this should be charged depreciation and interest on the investment. As the plant was being rebuilt and operated at the same time, and four-fifths of the money which went into the plant went for reinforced-concrete and steel construction, concrete wharf and similar items upon which the depreciation is practically nil, it is impossible to arrive at any basis upon which to calculate depreciation; but in any event, the amount would be very small, referring, as it would, entirely to the upkeep of moving parts, such as gears, elevator buckets, and the like.

The plant, as it stood on December 31, 1914, represented a total investment of \$683,000.

The greater portion of this expenditure, at least 60 per cent of it, was not made until after the 1st of July, much of it not until November and December, when the payments were made to the contractors. As these payments were made from time to time it would be very difficult to make an accurate calculation of the interest, but it is well within the fact to charge interest on half of the investment for 11 months, and on the other half for 6 months. This gives a total interest charge of \$21,770.63.

Deducting this charge for interest from the net saving of \$27,535.12, noted above, gives a final net profit of \$5,764.49.

Future construction.—To increase efficiency of collecting garbage a wagon box of 6 cubic yards capacity has been designed. The trunnions on this box are placed below the center of gravity so that the box will be turned and dumped by its own weight. This will effect a saving of at least two garbage handlers.

In further extension of the plant two additional monorail cranes of an improved design will be installed. One of these cranes is to be equipped with a clamshell which, when in operation, will pick up and distribute the garbage over the gate valves in the bottom of the bin, thereby obviating the necessity for shovelers in the bin.

A further addition to the plant by the installation of two new dryers is contemplated; also the reconstruction of the grease-extraction plant and the rebuilding of the mill house. A machine shop, storeroom, and office building are badly needed.

ASHES AND RUBBISH.

Ashes and rubbish are collected together by the bureau of streets and are disposed of by dumping in clay holes and on low ground in the outlying sections of the city. Much of the paper rubbish is burned in portable burners.

The amount of ashes and rubbish collected in Chicago is 790 pounds per capita per annum, making an annual total of about 948,000 tons. This class of refuse is collected in wagons of 5 cubic yards capacity, and with the exception of one loading station is hauled direct to the dump. Four hundred teams a day in summer and 600 in winter are used in this service.

This waste is hauled from the loading station, located in the area of congested population, in cars operated over an electric street railway line. The amount so handled, however, is small, as only 50 teams haul to the loading station.

The service is supplemented by that of alley cleaning, which consists of sweeping improved alleys and burning the paper in portable incinerators, and in raking rubbish together in unimproved alleys to facilitate picking up by teams.

Portable burners for disposal of paper waste were introduced in 1911, and there are now 143 such incinerators in use. The burner consists of an iron bucket, carried on wheels, which can be pushed down the street or alley and operated by one man. In summer when the amount of paper waste is large, these burners provide an economical method of disposal. The only objection to them is that the smoke occasionally causes complaints from the residents.

In large buildings of six or more flats, the owner or agent is required to remove the ashes and rubbish at his own expense.

The cost of collection and disposal of ashes and rubbish is \$1,085,000 per annum.

An incinerator under the operation of the health department has just been completed. This has a capacity of 40 tons a day and is intended for the purpose of burning the refuse from the vegetable markets and the freight yards, where practically all the vegetables are handled.

DEAD ANIMALS.

For the proper collection and disposal of dead animals the health department has made a contract with a private corporation that pays the city \$25 per annum for the privilege of collecting and rendering such animals, as the by-products of hides and grease extracted from the carcasses more than pay the transportation cost of collection and removal and yield a revenue to the contractor.

The terms of the contract require the company to collect all dead animals reported to it by the health department, police department, and private citizens. A bond must be executed in favor of the city and a sum of \$1,000 deposited with the comptroller by the contractor. In event the contractor fails to remove any dead animal of which he has received notice in 12 hours, and it becomes necessary for the city authorities to order the removal of the animal by other parties, the cost of collection and disposal is a charge against the sum deposited.

Notices of dead animals are received at all stations of the police department, and the contracting company is notified by telephone of the variety of animal and its location. Reports in duplicate are sent to police headquarters, one copy of the report being forwarded to the health department. Reports are also made direct to the health department by telephone or otherwise, the company is notified, and proper entries are made for record.

The contractor is required to submit a daily report of the animals collected and removed, showing the variety of animal, the time when the notice was received, and the time of removal. This report is checked against the reports in the health department, and the efficiency of the work and the promptness with which removal is effected are determined. This service is satisfactory, the present company has been the contractor for several years, and no charges have yet been made against the deposit.

The following table gives the number and variety of dead animals removed during 1914:

Horses.....	7, 451
Dogs.....	23, 301
Cats.....	4, 048
Others (cows, goats, etc.).....	196

The small number of cows, goats, etc., does not represent the total deaths of such animals, as nearly all animals of this class that die are at the stockyards and are handled by another contractor who pays for them.

WATER SUPPLY.

No attempt will be made to discuss the water supply of Chicago, but as the health department conducts a continuous examination, both chemical and bacteriological, of water supplied by the different cribs and pumping stations, a brief mention of a few salient points will not be out of place.

The supply is derived through six intakes or cribs located in the Lake at varying distances from shore, viz.: Lakeview, 2 miles; Harrison, 2½ miles; Chicago Avenue, 1¾ miles; Fourteenth Street, 4 miles; Hyde Park (Sixty-eighth Street), 2 miles; and E. F. Dunne, 2 miles.

The Lakeview crib supplies the northern section of the city, the Hyde Park and Dunne cribs the southern part, and the other three the large central portion.

The water from only three cribs (Lakeview, Hyde Park, and Dunne) is treated with hypochlorite. This treatment was commenced at the Dunne crib on March 15, 1912; at the Hyde Park, July 16, 1912; and the Lakeview, August 15, 1913. The service is intermittent, being discontinued during the cold weather, generally from December 12 to March 15, because the solution freezes.

The following tabulated statement of examinations made by the department of health laboratory for 10 months of 1914 gives pertinent data concerning the water supplied by the different cribs:

LAKE VIEW STATION.

[Supplied by Lake View Crib.]

	Total samples.	Colon positive in 1,000.	24-hour agar count above 100.	1914	Total samples.	Colon positive in 1,000.	24-hour agar count above 100.
January.....	12	4	0	July.....	27	7	1
February.....	14	4	1	August.....	26	9	0
March.....	25	2	0	September.....	24	5	0
April.....	25	7	0	October.....	26	0	0
May.....	24	6	0				
June.....	26	5	0		229	49	2

Per cent colon positive in 1,000, 21 per cent; per cent 24-hour agar count above 100, 0.9 per cent.

CENTRAL PARK AVENUE STATION.

[Supplied by C. H. Harrison Crib.]

January.....	4	2	0	July.....	13	4	0
February.....	7	0	0	August.....	13	6	0
March.....	13	0	0	September.....	11	2	0
April.....	13	0	0	October.....	12	2	0
May.....	13	0	0				
June.....	13	3	0		112	19	0

Per cent colon positive in 1,000, 17 per cent.

CHICAGO AVENUE STATION.

[Supplied by Two-Mile Crib.]

January.....	25	8	0	July.....	26	19	0
February.....	16	1	0	August.....	26	20	0
March.....	12	0	0	September.....	24	13	0
April.....	16	0	0	October.....	26	20	0
May.....	25	6	0				
June.....	26	15	0		222	102	0

Per cent colon positive in 1,000, 46 per cent.

FOURTEENTH STREET STATION.

[Supplied by Four Mile Crib.]

January.....	26	2	0	July.....	11	2	0
February.....	16	1	0	August.....	13	3	0
March.....	12	0	0	September.....	13	2	0
April.....	12	1	0	October.....	14	0	0
May.....	12	2	0				
June.....	13	4	0		142	17	0

Per cent colon positive in 1,000, 12 per cent.

SIXTY-EIGHTH STREET STATION.

[Supplied by Sixty-eighth Street Crib.]

January.....	17	5	1	July.....	11	2	0
February.....	9	1	0	August.....	14	4	0
March.....	8	0	0	September.....	9	3	0
April.....	11	1	0	October.....	11	6	0
May.....	13	2	0				
June.....	13	2	0		116	26	1

Per cent colon positive in 1,000, 22 per cent; per cent 24-hour agar count above 100, 0.8 per cent.

ROSELAND STATION.

[Supplied by Edward F. Dunne Crib.]

1914	Total samples.	Colon positive in 1,000.	24-hour agar count above 100.	1914	Total samples.	Colon positive in 1,000.	24-hour agar count above 100.
January.....	13	4	0	July.....	11	2	1
February.....	11	0	0	August.....	13	0	3
March.....	13	0	0	September.....	12	1	2
April.....	13	0	0	October.....	14	1	0
May.....	13	1	0				
June.....	13	2	0		122	11	6

Per cent colon positive in 1,000, 9 per cent; per cent 24-hour agar count above 100, 4 per cent.

A study of the statistical data shows that the water supplied by the Chicago Avenue crib must be regarded as suspicious and it should certainly be treated with hypochlorite if possible. There seems to be some question of the feasibility of installing the necessary tanks for treatment. This crib is too near the shore, is located off the mouth of the Chicago River, and is in the direct line of travel, boats passing very near the crib. All these factors are probably operative in producing the high degree of colon contamination.

The hypochlorite treatment of the water supplied by the Hyde Park and Dunne cribs has been followed by a marked improvement in the typhoid-fever rate in the sections of the city supplied therefrom.

A factor bearing on the Lakeview supply is the discharge of the sewage of Evanston in the Lake several miles above the crib and the possibility of some contamination of the water occurring through currents.

It may be stated that all the water supplied should be treated with hypochlorite with the exception of that of the 4-mile crib.

PARKS AND PLAYGROUNDS.

Chicago has an excellent system of parks, and in addition to 4 large parks there are about 60 small ones scattered throughout the city. Playgrounds have been opened in many, especially in the districts where the working class live, and in many instances they are equipped with gymnasiums, swimming pools, shower baths, and reading rooms.

As indicative of the facilities offered by the playgrounds in Chicago for recreation the following is presented:

Lake Shore Playgrounds, foot of Chicago Avenue. 6.83 acres. Ownership, Lincoln Park Commission. Open 8 a. m. to 10 p. m. Nationality, native. Annual cost of maintenance, \$12,000.

Facilities.—Ball field, one-sixth mile running track, six tennis courts, two gymnastic frames, and other scattered apparatus. A small building with baths, toilets, and playroom, small wading pool.

Employees.—One manager (male), 12 months; 1 instructor (male), 2½ months; 1 instructor (female), 2½ months; 1 instructor (female), Saturdays, 12 months; 1 head

attendant (male), 12 months; 1 laborer (male), 12 months; 1 attendant (male), 4 months; 1 attendant (female), 12 months; 1 watchman, 12 months, 1 policeman, 12 months.

Seward Playgrounds.—Elm and Sedgwick Streets. 1.78 acres. Ownership, Lincoln Park Commission. Open 8 a. m. to 10 p. m. Hall open for dances, etc., until 11.30 p. m. Nationality, Italian, Irish, and Swedish. Approximate cost of equipment, \$275,000. Annual cost of maintenance, \$20,000.

Facilities.—Field house with assembly hall and club rooms, gymnasiums, baths, and toilets for both sexes. Library, outdoor apparatus for both sexes. Small wading pool and sand shelter. Play field surrounded by one-fourth-mile running track.

Employees.—One manager (male), 12 months; 1 instructor (male), 12 months; 1 instructor (female), 12 months; 1 play leader (female), 12 months; 4 attendants (male), 12 months; 2 attendants (female), 12 months; 2 laborers (male), 12 months; 1 fireman (male), 12 months; 1 policeman, 12 months.

Stanton Playgrounds.—Vine and Vedder Streets. 4.78 acres. Ownership, Lincoln Park Commission. Open 8 a. m. to 10 p. m. Nationality, Italian; approximate cost of equipment, \$275,000. Annual cost of maintenance, \$18,000.

Facilities.—Building with baths and toilets for both sexes, library, and playroom. Outdoor swimming pool, ball field. Separate inclosures and apparatus for boys, girls, and small children.

Employees.—One manager (male), 12 months; 1 play leader (female), 12 months; 1 instructor (female), 12 months; 2 attendants (male), 12 months; 1 attendant (male), 12 months; 2 laborers (male), 12 months; 1 fireman (male), 12 months; 2 life guards (male), 3 months; 4 pool attendants (male), 3 months; 3 pool attendants (female), 3 months (Mondays and Thursdays).

Hamlin Playgrounds.—Barry and Hoyne Avenues. 8.64 acres. Ownership, Lincoln Park Commission. Open 8 a. m. to 10 p. m. Nationality, German. Approximate cost of equipment, \$245,000. Annual cost of maintenance, \$25,000.

Facilities.—Field house with assembly hall and stage, clubrooms, library, gymnasiums, and baths for both sexes; swimming pool for summer use, ball field, two tennis courts, boys' outdoor gymnasium; one-seventh mile running track and girls' outdoor gymnasium and children's playground, all completely equipped with apparatus, wading pool, sand bins, etc.

Employees.—One manager (male), 12 months; 1 instructor (male), 12 months; 1 instructor (female), 12 months; 1 play leader (female), 12 months; 1 head attendant (male), 12 months; 4 attendants (male), 12 months; 2 laborers (male), 12 months; 1 fireman (male), 12 months; 1 watchman (male), 12 months; 2 attendants (female), 12 months; 2 life guards (male), 3 months; 4 pool attendants (male), 3 months; 3 pool attendants (female), 3 months (Wednesdays and Fridays); 1 policeman, 12 months.

Wells Park.—Montrose and Western Avenues. 8.17 acres. Ownership, Lincoln Park Commission. Open 8 a. m. to 10 p. m. Nationality, native. Approximate cost of equipment, \$12,500. Annual cost of maintenance, \$15,000.

Facilities.—Field house with assembly hall and stage, toilets for both sexes, winter skating shelter. Shed for storage purposes. Two ball fields, 5-acre lawn for temporary tennis courts, 3 clay courts, inclosure for girls and small children equipped with gymnastic frame, swings, and slides. Boys' field to be equipped later.

Employees.—One manager (male), 12 months; 1 instructor (male), 3 months; 1 instructor (female), 12 months; 1 play leader (female), 3 months; 1 attendant (male), 12 months; 1 attendant (female), 12 months; 1 watchman (male), 12 months; 2 laborers (male), 12 months; 4 laborers (male), 3 months; 1 policeman, 12 months.

Nineteen other playgrounds in connection with the small-parks system provide the following facilities: 7 separate athletic fields, 12

open playfields, 18 skating ponds, 3 field houses with gymnasium, 12 sheltered platforms, 13 sand courts, 1 wading pool, 11 single and 8 double fields, 5 running tracks, 13 basket-ball fields, 4 baseball and 4 ball fields, and lawn-tennis courts.

There are also 13 permanent and 2 temporary buildings.

ACKNOWLEDGMENT.

Acknowledgment is made of the facilities extended by the commissioner of health, assistant commissioner, and the chiefs of the different bureaus, all of whom gave me free access to all records and extended every opportunity desired for the field study of the different activities of the department. Acknowledgment is also made to the efficiency division for preparation of charts of organization and other assistance.

CONCLUSIONS AND RECOMMENDATIONS.

Commissioner's Office.

(1) The health department is well organized for effective work by the creation of bureaus for the different activities.

(2) The administration of the department is free from political interference; all the employees are civil service, except the commissioner, who is appointed by the mayor and confirmed by the city council.

(3) The administration of the department is efficient, and during the past three years an improvement in organization has been effected and the scope of activities extended, with increase not only in amount of work accomplished but also in raising the standard of efficiency.

(4) The membership of the commissioner on other committees and boards constitutes a decided advantage in relation to public-health administration.

(5) Particular stress is laid on educational work in fostering improvements in living conditions and the advancement of the community in matters pertaining to sanitation generally.

(6) The school of sanitary instruction conducted by the department is an important provision, as it furnishes the means of instructing all employees of the department, especially the temporary or probationary ones, in the proper method of performing their work. Through the school, instructions on sanitary subjects are available for others interested in such work.

(7) The organization in the commissioner's office is satisfactory in office routine and distribution of work.

(8) The efficiency of the work in the office of secretary's division would be increased by the appointment of a property clerk, who could exercise more supervision over property returns and make inventories of property, that can not now be carried out with the present office force.

(9) The department, by change of office procedure and by closely following the suits filed, has effected a considerable reduction in the time for final disposition of suits, viz, from 212 days in 1912 to 91 days at the end of 1914.

(10) The appointment of new employees for a probationary period of six months is a wise provision, as their efficiency can be noted during this time and their services terminated at the end of that period if they are found not qualified for the work to be performed.

Bureau of Medical Inspection.

(11) The bureau of medical inspection is well organized for the different kinds of work to be performed and more actual supervision is carried out in this bureau than in any other in the department.

(12) The assistant bureau chiefs have been wisely entrusted with the general management of their divisions and the direction of the work performed, with authority to decide all routine matters.

(13) The employment of full-time supervisors in checking the work performed by health officers and quarantine officers is one of the most important steps taken in increasing the efficiency of the contagious-disease division.

(14) The work of the division of child hygiene is to a large extent in a formative stage, but the organization is adequate for the amount of work it is now possible to do and steady progress is shown by a study of past and present results.

(15) The necessity for full-time supervisors in the division of child hygiene will arise when an increase in the work occurs through more active cooperation of the schools as a result of educational propaganda.

(16) Class A quarantine is effective in preventing spread of infection and meets all objections raised against hospitalization by the more financially able.

(17) Class B quarantine is more effective than would naturally be supposed and shows the results of education and instruction by the health and quarantine officers and meets the objection to hospitalization of the large middle class.

(18) Though the data on Class C quarantine shows that no doubt the number of contact cases has been reduced because of instruction given relative to keeping the patient in one room and the other susceptibles from immediate contact as much as possible, and the proper precautions to be carried out as regards the discharges and excretions from the patients, the results are not satisfactory.

(19) In the case of class C quarantine hospitalization is urged and required, but at present the hospital facilities are inadequate.

(20) When the new contagious disease hospital is ready for receiving patients all cases of scarlet fever and diphtheria that can not be isolated under class A and class B quarantine should be hospitalized.

(21) With the development of its A and B quarantine and the hospitalization of patients not falling in these classes, the department need not fear a comparison of its management of communicable diseases with that of any city.

(22) In the vast majority of cases of typhoid fever the disease was terminated and the patient discharged without proper bacteriological examination to determine whether or not the patient harbored the bacilli in the stools.

(23) Further study should be made to determine the feasibility of not releasing cases of typhoid fever that have been hospitalized until proper examination has been made to eliminate the possibility of carriers.

(24) Chicago is in the forefront in its provisions for the treatment and control of tuberculosis. The activities of the municipal tuberculosis sanitarium are fourfold: Dispensary department, home extension department, educational and sanitarium treatment of the disease. By the end of 1915 there will be 2,300 beds available for tuberculous patients.

(25) In new school buildings satisfactory waiting and consultation rooms are being provided for the use of the health officer in his work, but in the majority of old buildings there is no proper room available and the health officer has to use any space he can secure.

(26) The plan of exclusion of pupils from classrooms who have been exposed to whooping cough, mumps, chicken-pox, or German measles at school is a safe one, but the question arises as to whether or not it is necessary, especially in view of the following:

(a) That the exposure in most cases is slight.

(b) That both health officer and nurse could make daily examination of all susceptible contacts before they were allowed to go to their classrooms.

(c) That the occurrence of contact cases in Class C quarantine (6.17 per cent), if taken for comparative purposes, would seem to indicate that the occurrence of secondary cases would be rather the exception than the rule and that such could easily be detected by the health officer and any spread of infection prevented.

(d) That this exclusion causes dissatisfaction to the parents and in some instances to the teachers.

(27) The present plan of excluding from school pupils exposed to whooping cough, mumps, chicken-pox, and German measles should be altered to allow the children to continue at school providing that daily inspection of contacts be made by the health officer during the period when they would have been excluded from school.

(28) The important work of making physical examination of pupils is handicapped by the necessity of securing parents' consent and varies in the different schools in accordance with the active cooperation

of the principals, the intelligence of the parents, and the ability of the field nurse in convincing the children and their parents that there is no exposure of the person and that it is of vital importance to determine if there is any defect that impairs the child's health and progress in his studies.

(29) At present physical examinations are made on only about one-half of the school children. Steady progress is being made in this respect and each year shows an improvement, this being especially true in parochial schools, where in many the spirit of tolerance has been replaced by one of cooperation.

(30) Little difficulty is experienced in securing parents' consent for dental treatments in school children; this service has to be safeguarded against abuse.

(31) The number of dental dispensaries is insufficient, as even in caring for indigent cases there is sufficient work to keep more than double the present number fully occupied.

(32) The city of Chicago is distinctly backward in providing adequate funds for infant-welfare service, and most of the work accomplished is performed through the agency of the infant-welfare society and by funds contributed by public-spirited citizens.

(33) Placing all of the school health nurses in the field to do infant-welfare work during the hot months, when this work is most urgent, results in a large extension of this activity and is productive of much good.

(34) The need of supplying the health department with ample funds to enable it to carry on infant-welfare work satisfactorily, thereby taking the lead in this activity, and having the organization supported by private charity supplementary instead of the main reliance, should be recognized.

(35) The organization of this division is well planned and the work accomplished has reached a high standard of efficiency deserving of much commendation.

(36) The efficiency marking system in use in connection with the field divisions of this bureau as developed and administered is the best in the department and as good as any in the city.

(37) The files in this office are in excellent condition, well arranged and kept strictly up to date.

Bureau of Food Inspection.

(38) On account of the absence of specific ordinances until 1912 and lack of sufficient appropriation in 1913, actual systematic inspection of the dairy field was not begun until January, 1914, and this short period of activity should be taken into consideration when discussing present conditions.

(39) With an average of one dairy inspector for 933 farms it is apparent that this particular inspection service is inadequate and that not more than an average of two inspections of a farm in 12 months can be done.

(40) In order to make dairy inspection effective it must be sufficiently frequent to insure proper supervision, especially in those farms where improvement in sanitary conditions is required.

(41) An essential feature of the inspection of a dairy should be the instruction of the dairyman in advantageous changes in his stables, milk house, proper cleanliness in milking, cooling of milk, and improved methods in handling dairy products.

(42) The number of inspectors for dairy field work should be increased by 10 in order to insure inspections at sufficiently frequent intervals for proper supervision and to raise the farms to the required standard.

(43) The inspection of all dairies located in the State of Illinois should be turned over to the State service, as such should result in protecting all places in the State, whereas that by city inspectors protects only Chicago.

(44) Further instructions in field work should be given the dairy inspectors, so that there will be more uniformity of standard in scoring farms. Milk inspectors in the city should receive further practical instructions from the supervisor in the proper scoring of milk depots and milk stores in accordance with actual conditions present.

(45) The transportation of milk to the city during the summer months is faulty, as there is not proper refrigeration of the cars; in fact, in most instances none is attempted. The department is endeavoring to enforce the ordinance requiring refrigeration, and there are now 10 suits pending against the railroads for this particular violation.

(46) The inspection of milk at the receiving platforms is inadequate on account of the small number of inspectors that can be assigned to this work. The number should be increased.

(47) The large number of small milk depots selling milk in bulk constitutes the most unsatisfactory feature connected with Chicago's milk supply. The department realizes that a large per cent of these should be closed, but such procedure is difficult to enforce.

(48) All pasteurizers are required to be equipped with holding device, and a temperature of 140° F. for 20 minutes is required. Many of the 246 plants operating in the city are small and not satisfactorily operated from the standpoint of pure milk, and when those that can not comply with the highest requirements are closed the milk supply of the city will be materially improved.

(49) Owing to uncertainty of dairy conditions and the inability to inspect farms sufficiently often to maintain proper standards of cleanliness, all milk should be pasteurized.

(50) Considerable improvement in the milk supply has been effected in the last two years.

(51) A satisfactory inspection of cattle before slaughter and of carcasses is maintained; meat inspection in slaughterhouses and markets is carefully performed by trained inspectors.

(52) Inspection of other food products is ample to safeguard the public health, and that of establishments manufacturing and handling such products is sufficiently frequent to keep them up to the required sanitary standard.

Laboratory Bureau.

(53) Rearrangement should be made to utilize the space more satisfactorily. Alterations in some of the cabinets are necessary.

(54) The salaries paid to technical employees are too small for best efficiency and for retaining such employees in the service.

(55) The procedure of passing samples and specimens through the laboratory is satisfactory, and the system of reports and filing seems to be adequate.

(56) A suitable animal and storeroom should be provided and a crematory installed for reduction of garbage and waste from the laboratory.

(57) Ventilation in some portions of the laboratory should be improved.

(58) The establishment of a research division does not seem advisable.

Bureau of Hospitals, Baths, and Lodging Houses.

(59) The hospitals operated by the bureau were found satisfactorily administered.

(60) The contagious-disease hospital is under the direction of a very capable medical superintendent, is kept scrupulously clean, and the details of administration are correct in principle and application.

(61) The isolation hospital is so arranged that facilities exist for care and treatment of patients of different ages and sexes in separate wards and rooms. It is light, airy, and sufficiently equipped so that patients need have no dread of going to the institution.

(62) The Iroquois Memorial Hospital meets the demands of a first-aid station, the purpose sought by its administration. However, additional funds are needed for the operation and maintenance of this institution.

(63) As the department already conducts an ambulance service for handling contagious diseases, the other city ambulance service, now under the control of the police department, should be transferred to the health department in order to facilitate efficiency and economy of administration.

(64) The public baths maintained by the city and under the administrative direction of the bureau furnish hygienic facilities to a large number of people living in the poorer and tenement sections where baths have not been installed in the houses.

(65) The value of such establishments has been realized and appropriations have been requested for additional bathhouses and for thorough repair of the existing ones.

(66) The operation of the baths is carried out with a limited personnel, but the bathhouses are clean and well conducted. Additional funds should be provided for equipment, general maintenance, and an increase in the number of attendants.

(67) The waiting rooms in the present baths are too small and in new bathhouses such adequate provisions should be provided.

(68) Funds should be appropriated for the construction of a large and moderately equipped lodging house and the necessity of providing such facilities can not be too forcibly emphasized.

(69) The lodging houses are clean and satisfactorily administered and the value of the service to the unfortunates is great. Even though a large number of lodgers are required to sleep on the floor, such accommodations are far better from the lodgers' standpoint than the street.

(70) It seems advisable that the inspection service of lodging houses in Chicago now conducted by State officials should be turned over to the health department and the functions of the bureau enlarged by providing the necessary number of inspectors to execute this work.

(71) The number of employees allowed for the inspection service of hospitals, dispensaries, and nurseries is too small for as careful supervision of these activities as seems desirable. This work should be enlarged as soon as larger appropriations make it possible.

Bureau of Sanitary Inspection.

(72) On account of its varied activities the bureau of sanitary inspection is the most difficult one in the department to administer satisfactorily.

(73) One of the most important functions is the control exercised over the construction of new buildings, especially tenement houses, alteration and repairs, and plumbing installations.

(74) The ordinance governing construction of tenement houses is excellent and the enforcement of its provisions is gradually improving housing conditions in Chicago. However, there is need for specific authority for tenement inspections and an additional number of employees to perform this work.

(75) The plumbing ordinance needs revision and amendment so as to require the owner or agent to secure a permit for changing the plumbing in houses already constructed.

(76) In the interest of economy and procedure the supervision of the laying of house drains should be transferred to the health department and placed under the jurisdiction of its plumbing division.

(77) Chicago has made commendable progress in requiring ventilation of theaters, other public buildings, and street cars, and the division of ventilation deserves credit for the results accomplished with a limited personnel during the two years of its activity.

(78) The bureau has accomplished good results in its campaign for the elimination of cellar bakeries, having reduced the number from 581 in 1907 to 187 in 1914, and a general improvement in both location and sanitary condition has been effected. However, on account of the validity of the bakery ordinance being questioned and the inability to enforce the necessary requirements, there still remains a considerable number in which the sanitary conditions should be improved.

(79) The workshops in Chicago are in the main in good sanitary condition and there are not many instances of badly overcrowding. Sweat shops in the common acceptance of the term do not exist. As a whole the shops are better than those in most large cities.

(80) In considering the condition of stables, the fact that only a year has elapsed since specific authority over them was granted the health department must be taken into account.

(81) On the whole the stables are in poor condition from a sanitary standpoint, drainage is absent or inadequate, floors are not of impervious material, manure boxes are in bad condition and not fly proof.

(82) The activities under the miscellaneous division were in the main satisfactory, although some of the establishments inspected were in bad condition.

(83) There has been a great increase in the number of complaints handled, and the time required for abatement of the nuisance shows a marked improvement over that secured in previous years. The method of handling complaints is satisfactory.

(84) The administration of this bureau is faulty, as the bureau chief, who is of unquestioned ability, devotes too much of his time to details that should be left to his assistants; supervisors spend practically all their time in the office and exercise insufficient supervision over the actual field work of their inspectors; inspectors also spend too much time in the office.

Bureau of "Vital Statistics."

(85) There is urgent need of a more satisfactory law governing the registration of births and deaths.

(86) The bill governing the registration of births and deaths now pending before the State legislature should be enacted into law in order to provide adequate authority and necessary procedure.

(87) The bureau should resume the registration of births as soon as practicable.

(88) The recent reorganization of the office force has resulted in marked increase of efficiency in routing work through the office.

Garbage Disposal.

(89) In studying the efficiency of operation of the reduction plant the fact that the plant is undergoing repairs and reconstruction must be taken into consideration.

(90) Funds for the reconstruction of the grease-extraction plant should be made available as soon as possible, so that the city can take advantage of the extraction and sale of by-products, thereby greatly increasing the revenue derived from garbage reduction.

(91) Since the plant has been operating under the control of the health department radical changes in general conditions around the plant have been effected. The most marked is the excellent sanitary condition maintained.

(92) The plant is being efficiently operated for the purpose of reducing garbage in an inoffensive manner through scrupulous cleanliness and proper care of garbage, so that offensive odors do not occur to any extent and there is no complaint from persons living in adjacent districts.

PLAGUE-PREVENTION WORK.

LOUISIANA—NEW ORLEANS—PLAGUE ERADICATION.

The following reports of plague-eradication work at New Orleans were received from Surgeon Creel, of the United States Public Health Service, in temporary charge of the work:

Week Ended September 4, 1915.

OUTGOING QUARANTINE.		BUILDINGS RAT PROOFED.	
Number of vessels fumigated with sulphur..	13	By elevation.....	94
Number of vessels fumigated with carbon monoxide.....	20	By marginal concrete wall.....	114
Number of vessels fumigated with hydrocyanic gas.....	3	By concrete floor and wall.....	142
Pounds of sulphur used.....	1,831	By minor repairs.....	197
Coke consumed in carbon monoxide fumigation, pounds.....	26,200	Total buildings rat proofed.....	547
Pounds of potassium cyanide used in hydrocyanic gas fumigation.....	262	Square yards of concrete laid.....	14,156
Pounds of sodium carbonate used in hydrocyanic gas fumigation.....	360	Number of lots and sheds, planking removed.....	30
Pounds of sulphuric acid used in hydrocyanic gas fumigation.....	264	Number of buildings demolished.....	45
Clean bills of health issued.....	30	Total buildings rat proofed to date (abated).....	90,597
Foul bills of health issued.....	5		
		LABORATORY OPERATIONS.	
		Rodents received by species:	
		Mus rattus.....	138
		Mus norvegicus.....	1,269
		Mus alexandrinus.....	132
		Mus musculus.....	4,791
		Wood rats.....	55
		Muskrats.....	38
		Putrid (included in enumeration of species).....	106
		Total rodents received at laboratory.....	6,423
		Rodents examined.....	1,733
		Number of suspicious rats.....	4
		Plague rats confirmed.....	1
FIELD OPERATIONS.			
Number of rats trapped.....	6,441		
Number of premises inspected.....	10,714		
Notices served.....	2,259		
Number of garbage cans installed.....	152		

Plague rats.

Case No.	Address.	Captured.	Diagnosis confirmed.	Treatment of premises.
249	Harmony Street wharf.....	Aug. 19, 1915	Sept. 2, 1915	Intensive trapping.

Number of human plague cases.....	None.
Last case of human plague, Oct. 4, 1914.	
Last case of rodent plague, Sept. 2, 1915.	
Total number of rodents captured to Sept. 4.	431,319
Total number of rodents examined to Sept. 4.....	282,597

Total cases of rodent plague to Sept. 4 by species:	
Mus musculus.....	4
Mus rattus.....	16
Mus alexandrinus.....	8
Mus norvegicus.....	221
Total rodent cases to Sept. 4, 1915.....	249

Week Ended Sept. 11, 1915.

OUTGOING QUARANTINE.

Number of vessels fumigated with sulphur.....	20
Number of vessels fumigated with carbon monoxide.....	17
Number of vessels fumigated with hydrocyanic gas.....	2
Pounds of sulphur used.....	4,133
Coke consumed in carbon monoxide fumigation, pounds.....	24,600
Pounds of potassium cyanide used in hydrocyanic gas fumigation.....	152
Pounds of sodium carbonate used in hydrocyanic gas fumigation.....	120
Pounds of sulphuric acid used in hydrocyanic gas fumigation.....	184
Clean bills of health issued.....	38
Foul bills of health issued.....	4

FIELD OPERATIONS.

Number of rats trapped.....	5,345
Number of premises inspected.....	7,444
Notices served.....	2,337
Poisons placed.....	50
Number of garbage cans installed.....	114

BUILDINGS RAT-PROOFED.

By elevation.....	74
By marginal concrete wall.....	131
By concrete floor and wall.....	81
By minor repairs.....	164
Total buildings rat-proofed.....	450
Square yards of concrete laid.....	6,622
Number of lots and sheds, planking removed.....	35

BUILDINGS RAT-PROOFED—continued.

Number of buildings demolished.....	43
Total buildings rat-proofed to date (abated)	91,017

LABORATORY OPERATIONS.

Rodents received by species:

Mus rattus.....	115
Mus norvegicus.....	1,217
Mus alexandrinus.....	91
Mus musculus.....	3,865
Wood rats.....	43
Muskrats.....	18

Putrid (included in enumeration of species)..... 92

Total rodents received at laboratory.....	5,349
Rodents examined.....	1,582
Number of suspicious rats.....	1
Number of human plague cases.....	1
Last case of human plague, Sept. 8, 1915.	
Last case of rodent plague, Sept. 2, 1915.	
Total number of rodents captured to Sept. 11.....	436,664
Total number of rodents examined to Sept. 11.....	284,179

Total cases of rodent plague to Sept. 11, by species:

Mus musculus.....	4
Mus rattus.....	16
Mus alexandrinus.....	8
Mus norvegicus.....	221

Total rodent cases to Sept. 11, 1915..... 249

HAWAII—HONOLULU—PLAGUE PREVENTION.

The following report of plague-prevention work at Honolulu for the week ended August 28, 1915, was received from Passed Asst. Surg. Fauntleroy, of the United States Public Health Service:

Total rats and mongoose taken.....	393
Rats trapped.....	323
Mongoose trapped.....	3
Rats shot from trees.....	67
Examined microscopically.....	354
Showing plague infection.....	None.
Classification of rats trapped:	
Mus alexandrinus.....	140
Mus musculus.....	109
Mus norvegicus.....	63
Mus rattus.....	11

Classification of rats shot from trees:

Mus alexandrinus.....	67
Average number of traps set daily.....	984
Cost per rat destroyed..... cents..	18½
Last case rat plague Aiea, 9 miles from Honolulu, Apr. 12, 1910.	
Last case human plague, Honolulu, July 12, 1910.	
Last case rat plague Kalopa stable, Paauhau, Hawaii, Aug. 29, 1914.	
Last case human plague, Paauhau Landing, Hawaii, Aug. 16, 1914.	

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.

Kansas—Doniphan County.

Collaborating Epidemiologist Crumbine reported that during the week ended September 11, 1915, one case of cerebrospinal meningitis was notified in Doniphan County, Kans.

State Reports for August, 1915.

Place.	New cases reported.	Place.	New cases reported.
Maryland:		Ohio—Continued.	
Carroll County—		Lawrence County.....	1
Westminster, R. F. D.....	1	Lucas County—	
Dorchester County—		Toledo.....	1
Church Creek.....	1	Mahoning County.....	1
Prince Georges County—		Miami County.....	1
Laurel.....	1	Montgomery County—	
Total.....	3	Dayton.....	1
		Stark County—	
Ohio:		Alliance.....	1
Carroll County.....	2	Summit County.....	3
Cuyahoga County—		Tuscarawas County.....	1
Cleveland.....	7	Total.....	20
Hamilton County—			
Cincinnati.....	1		

City Reports for Week Ended Sept. 4, 1915.

Place.	Cases.	Deaths.	Place	Cases.	Deaths.
Baltimore, Md.....	1		Lynn, Mass.....		1
Boston, Mass.....	1	1	Nashville, Tenn.....	1	
Buffalo, N. Y.....	1	1	New York, N. Y.....	3	2
Chicago, Ill.....	1		Passaic, N. J.....		1
Cleveland, Ohio.....	1		Philadelphia, Pa.....	1	1
Lawrence, Mass.....	1	1	St. Louis, Mo.....		1

DIPHTHERIA.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2889.

ERYSIPELAS.**City Reports for Week Ended Sept. 4, 1915.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Boston, Mass.....		2	Johnstown, Pa.....	1	
Buffalo, N. Y.....	4		New York, N. Y.....		1
Chicago, Ill.....	5	1	Philadelphia, Pa.....	4	
Cincinnati, Ohio.....	1		Pittsburgh, Pa.....	3	2
Cleveland, Ohio.....	2		St. Louis, Mo.....	5	

GONORRHEA.**Ohio Report for August, 1915.**

Collaborating Epidemiologist McCampbell reported that during the month of August, 1915, 194 cases of gonorrhoea were notified in Ohio.

MALARIA.**Mississippi—Near Jackson.**

Asst. Surg. Wheeler reported that 8 cases of malaria had occurred among 25 men engaged in road construction three miles from Jackson, Miss.

State Reports for August, 1915.

During the month of August, 1915, cases of malaria were notified in States, as follows: Maryland, 14; New Jersey, 58; Ohio, 5; South Carolina, 120.

City Reports for Week Ended Sept. 4, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Cleveland, Ohio.....	2		Newton, Mass.....	1	
Everett, Wash.....	1		Orange, N. J.....	1	
Galveston, Tex.....		1	Philadelphia, Pa.....	1	
Montclair, N. J.....	1		Pittsburgh, Pa.....	3	
Newark, N. J.....	2		Sacramento, Cal.....	4	
New Orleans, La.....		2	Stockton, Cal.....	1	

MEASLES.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2889.

PELLAGRA.**State Reports for August, 1915.**

During the month of August, 1915, pellagra was notified in States, as follows: Maryland, 1 case; South Carolina, 66 cases.

City Reports for Week Ended Sept. 4, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Charleston, S. C.....		1	New York, N. Y.....	2	
Chicago, Ill.....		1	Northampton, Mass.....		1
Detroit, Mich.....	1		Philadelphia, Pa.....		1
Mobile, Ala.....		1	Seattle, Wash.....	1	
Nashville, Tenn.....	50		Wilmington, N. C.....	2	
New Orleans, La.....		1			

PLAGUE.

California—Contra Costa County—Plague-Infected Squirrel Found.

Senior Surg. Pierce reported that a ground squirrel found on the J. M. Pereira ranch August 23, 1915, was on September 14, 1915, after bacteriological examination, proven to be plague-infected.

Louisiana—New Orleans—Plague-Infected Rat Found.

Surg. Creel reported by telegraph September 17, 1915, that a plague-infected rat had been found at 837 South Fulton Street, New Orleans, La.

PNEUMONIA.

City Reports for Week Ended Sept. 4, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Binghamton, N. Y.	1	1	Philadelphia, Pa.	11	.....
Chicago, Ill.	48	30	Pittsburgh, Pa.	7	4
Cleveland, Ohio	9	6	San Francisco, Cal.	5	4
Kalamazoo, Mich.	3	1	Steubenville, Ohio.	1	1
Los Angeles, Cal.	6	2	Stockton, Cal.	1	1

POLIOMYELITIS (INFANTILE PARALYSIS).

State Reports for August, 1915.

Place.	New cases reported.	Place.	New cases reported.
District of Columbia.....	1	Ohio:	
Maryland:		Cuyahoga County.....	43
Baltimore city.....	13	Erie County—	
Anne Arundel County—		Sandusky.....	1
Brooklyn.....	1	Hamilton County—	
Harwood.....	1	Cincinnati.....	2
Carroll County—		Hardin County.....	1
Louisville R. F. D.....	1	Jefferson County.....	6
Baltimore County—		Lorain County.....	1
Hamilton.....	1	Medina County.....	1
Highlandtown.....	1	Richland County.....	3
Overlea.....	1	Stark County—	
Rognel Heights.....	1	Alliance.....	5
Sparrows Point.....	1	Canton.....	23
Texas.....	1	Summit County.....	12
Prince Georges County—		Tuscarawas County.....	2
Brentwood.....	1	Total.....	109
Total.....	23	South Carolina:	
New Jersey:		Hampton County.....	1
Middlesex County.....	1		

City Reports for Week Ended Sept. 4, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio.....	8	2	Jersey City, N. J.....	.....	1
Boston, Mass.....	2	.....	Lincoln, Nebr.....	1	.....
Buffalo, N. Y.....	1	6	Los Angeles, Cal.....	1	.....
Canton, Ohio.....	3	.....	Lowell, Mass.....	1	.....
Cleveland, Ohio.....	15	.....	New Orleans, La.....	2	.....
Detroit, Mich.....	1	.....	New York, N. Y.....	1	.....
Erie, Pa.....	3	.....		

RABIES.**Nevada—Elko and Reno—Rabies in Animals.**

Asst. Surg. Wayson reported by telegraph September 20, 1915, that a case of rabies in a dog had been reported at Elko, Nev., and that during the week ended September 20 three cases of rabies in animals were reported at Reno. Since April, 1915, laboratory examinations have proven 13 animals (coyotes and dogs) at the latter place to have had rabies.

City Reports for Week Ended Sept. 4, 1915.

During the week ended September 4, 1915, cases of rabies in man were reported in cities, as follows: Chelsea, Mass., 1 case; Chicago, Ill., 1 case; Oakland, Cal., 1 death; Pittsburgh, Pa., 1 case, 1 death.

SCARLET FEVER.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2389.

SMALLPOX.**Kansas.**

Collaborating Epidemiologist Crumbine reported that during the week ended September 11, 1915, cases of smallpox were notified in counties of Kansas as follows: Clay, 6; Montgomery, 5; Morris, 1; Nemaha, 1; Reno, 1; Sedgwick, 1; Sumner, 5; Wilson, 1.

Ohio Report for August, 1915.

Place.	New cases reported during month.	Deaths.	Vaccination history of cases.			
			Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
Ohio:						
Columbiana County.....	1				1	8
Coshocton County—						
Coshocton.....	1					1
Cuyahoga County—						
Cleveland.....	4					5
Erie County—						
Sandusky.....	1				1	1
Guernsey County.....	3					3
Hamilton County—						
Cincinnati.....	5				1	4
Hardin County.....	5				5	
Huron County.....	9			1	8	
Licking County.....	1					1
Lorain County.....	10				7	3
Lucas County—						
Toledo.....	15				1	12
Mahoning County—						
Youngstown.....	3			1		2
Mercer County.....	4				4	
Noble County.....	7					7
Portage County.....	1					1
Stark County—						
Canton.....	1				1	
Summit County—						
Akron.....	4					4
Washington County.....	1			1		
Williams County.....	5				4	1
Total.....	91			3	25	53

SMALLPOX—Continued.**Miscellaneous State Reports.**

During the month of August, 1915, 1 case of smallpox was notified in the District of Columbia. During the same month cases were notified in counties of South Carolina, as follows: Abbeville, 1; Charleston, 2.

City Reports for Week Ended Sept. 4, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Alton, Ill.....	9	.....	Milwaukee, Wis.....	1	.....
Butte, Mont.....	1	.....	Racine, Wis.....	1	1
Davenport, Iowa.....	3	.....	Rock Island, Ill.....	1	.....
Detroit, Mich.....	4	.....	Tacoma, Wash.....	1	.....
Lincoln, Nebr.....	1	.....	Toledo, Ohio.....	2	.....

SYPHILIS.**Ohio Report for August, 1915.**

Collaborating Epidemiologist McCampbell reported that during the month of August, 1915, 67 cases of syphilis were notified in Ohio.

TETANUS.**City Reports for Week Ended Sept. 4, 1915.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Charleston, S. C.....	.....	1	New Orleans, La.....	.....	1
Chicago, Ill.....	2	.....	New York, N. Y.....	.....	2
Columbus, Ohio.....	.....	1	Philadelphia, Pa.....	1	1
Lawrence, Mass.....	.....	1	St. Louis, Mo.....	3	2

TUBERCULOSIS.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2889.

TYPHOID FEVER.**Kentucky—Lumber Camp, Near Jackson.**

Surgeon McMullen reported by telegraph September 17, 1915, that 15 cases of typhoid fever had occurred in a lumber camp at Quicksand, near Jackson, Ky.

State Reports for August, 1915.

Place.	New cases reported.	Place.	New cases reported.
District of Columbia.....	81	Maryland—Continued.	
Maryland:		Anne Arundel County—	
Baltimore City.....	158	Annapolis.....	2
Allegany County—		Annapolis R. F. D.....	6
Allegany Hospital.....	1	Bayard.....	1
Cumberland.....	9	Churchton.....	2
Lonaconing.....	1	Earleigh Heights.....	1
Luke.....	5	Elvaton R. F. D.....	1
Oldtown.....	1	Fairfield.....	1
Western Maryland Hospital.....	1	Galloways.....	1
Westernport.....	7	Glenburnie.....	3
		Lake Shore.....	1

TYPHOID FEVER—Continued.

State Reports for August, 1915—Continued.

Place.	New cases reported.	Place.	New cases reported.
Maryland—Continued.		Maryland—Continued.	
Anne Arundel County—Continued.		Charles County—	
McKendree R. F. D.	1	Brentland	1
Sudley	1	Bryantown	2
Baltimore County—		Chapel Point	2
Alberton R. F. D.	1	Hughesville	4
Bay View Hospital	2	Ironside	1
Catonsville	1	La Plata	1
Chase	1	La Plata R. F. D.	2
Cockeysville	1	Marbury	1
Cockeysville R. F. D.	2	Ryceville	1
Ellicott City R. F. D.	1	Dorchester County—	
Fork	2	Airey R. F. D.	1
Freeland	1	Andrews	3
Glyndon	1	Cambridge	7
Granite	5	Castle Haven	5
Govans	2	Church Creek R. F. D.	1
Halethorpe	1	East New Market	3
Hamilton	2	Hurlock	2
Highlandtown	10	Lloyds	1
Lansdowne	1	Madison	1
Lauraville	3	Ragged Point	1
Monkton	2	Reids Grove	3
Mount Washington	1	Wingate	1
Mount Winans	2	Frederick County—	
Owing Mills	1	Brunswick	1
Parkton	1	Buckingham Industrial School	1
Pikesville	1	Ellerton	1
Raspeburg	1	Ellerton R. F. D.	1
Reisterstown	1	Ijamsville	1
Relay	2	Lime Kiln R. F. D.	1
Rogers Forge	1	Middletown R. F. D.	1
Roland Park	3	Montevue Hospital	2
Rossville	1	Mount Airy R. F. D.	1
St. Agnes Hospital	1	Myersville R. F. D.	2
St. Mary's Industrial School	3	Petersville R. F. D.	1
Timonium	1	Smithsburg R. F. D.	1
Turners Station	2	State Sanatorium	1
Violetsville	1	Thurmont	2
Westport	2	Walkersville	2
White Marsh	1	Garrett County—	
Calvert County—		Kitzmilller	1
Bowens	1	Harford County—	
Broomes Island	4	Belair	1
Chesapeake Beach	1	Havre de Grace	2
Cove Point	1	Laurel Brook	1
Dares	1	Perryman	2
Paris	1	Rocks	1
Poplars	2	Howard County—	
Prince Frederick	1	Clarksville R. F. D.	1
Sunderland	1	Cooksville	1
Willows	2	Dayton	1
Caroline County—		Elk Ridge	1
Bridgetown R. F. D.	1	Ellicott City	5
Denton	1	Ellicott City R. F. D.	4
Federalburg	2	Gary	2
Federalburg R. F. D.	2	Glenelg	7
Goldsboro	2	Glenelg R. F. D.	3
Goldsboro R. F. D.	4	Glenwood	2
Henderson	1	Highland	1
Ridgely	1	Kent County—	
Cecil County—		Chestersown	2
Elk Mills	1	Millington	3
Elkton	2	Rock Hall	4
North East	1	Montgomery County—	
Carroll County—		Dickerson	3
Cranberry	1	Damascus R. F. D.	1
Marriottsville	1	Mount Ephraim	1
Marriottsville R. F. D.	1	Silver Spring	1
New Windsor	1	Prince Georges County—	
Oakland	1	Bladensburg	2
Oakland Mills	1	Brandywine	1
Sykesville	1	Cedarville	1
Sykesville R. F. D.	5	Forrestville	2
Taneytown	1	Hyattsville	1
Westminster R. F. D.	1	Landover	1
Woodbine	1	Laurel	1

TYPHOID FEVER—Continued.

State Reports for August, 1915—Continued.

Place.	New cases reported.	Place.	New cases reported.
Maryland—Continued.		New Jersey—Continued.	
Prince Georges County—Continued.		Monmouth County.....	26
Mitchellville R. F. D.....	1	Morris County.....	1
Mount Rainier.....	1	Ocean County.....	3
Nottingham.....	2	Passaic County.....	1
Oakland.....	1	Salem County.....	3
Oak Grove R. F. D.....	1	Somerset County.....	9
Oxen Hill.....	2	Sussex County.....	5
Pomfret R. F. D.....	1	Union County.....	6
Suitland.....	1	Warren County.....	3
T. B. R. F. D.....	1	Total.....	215
Queen Annes County—		Ohio:	
Carmichael.....	2	Adams County.....	3
Centreville.....	1	Allen County.....	14
Centreville R. F. D.....	2	Ashland County.....	2
Chester.....	2	Ashtabula County—	
Church Hill R. F. D.....	1	Ashtabula.....	4
Fords Store.....	2	Conneaut.....	1
Queenstown.....	1	Athens County.....	4
Queenstown R. F. D.....	1	Auglaize County.....	3
Stevensville.....	5	Belmont County.....	16
Stevensville R. F. D.....	1	Brown County.....	1
Sudlersville.....	2	Butler County.....	4
Somerset County—		Carroll County.....	5
Crisfield R. F. D.....	2	Champaign County.....	1
Ewell.....	1	Clark County.....	8
Hopewell.....	1	Clermont County.....	1
Marion.....	3	Clinton County.....	1
Marion R. F. D.....	2	Columbiana County.....	10
Peninsula Junction.....	1	Coshocton County—	
Princess Anne R. F. D.....	1	Coshocton.....	3
Ward.....	1	Crawford County—	
Talbot County—		Bucyrus.....	3
Easton.....	5	Cuyahoga County.....	70
Easton R. F. D.....	3	Darke County.....	8
Longwoods R. F. D.....	1	Defiance County.....	6
Oxford.....	1	Delaware County.....	2
Royal Oak.....	1	Erie County—	
Trappe.....	3	Sandusky.....	3
Trappe R. F. D.....	4	Fairfield County.....	4
Washington County—		Fayette County.....	10
Clearspring.....	4	Franklin County.....	27
Hagerstown.....	8	Fulton County.....	1
Hancock.....	1	Gallia County.....	1
Hancock R. F. D.....	1	Geauga County.....	1
Millstone.....	2	Greene County.....	3
Sharpsburg.....	2	Guernsey County.....	11
Wicomico County—		Hamilton County.....	20
Mardella Springs.....	1	Hancock County.....	4
Nanticoke.....	1	Hardin County.....	7
Quantico.....	1	Harrison County.....	1
Salisbury.....	9	Henry County.....	2
Salisbury R. F. D.....	1	Hocking County.....	5
Worcester County—		Huron County.....	2
Berlin.....	6	Jackson County.....	4
Eden R. F. D.....	1	Jefferson County.....	18
Girdletree R. F. D.....	1	Knox County.....	8
Ocean City.....	1	Lawrence County—	
Pocomoke City.....	7	Ironton.....	2
Showell.....	2	Licking County.....	6
Snow Hill.....	3	Logan County.....	2
Snow Hill R. F. D.....	1	Lorain County—	
Stockton.....	2	Lorain.....	4
Whaleysville.....	1	Lucas County.....	56
Total.....	553	Madison County.....	3
New Jersey:		Mahoning County.....	12
Atlantic County.....	7	Marion County.....	9
Bergen County.....	10	Medina County.....	3
Burlington County.....	17	Meigs County.....	1
Camden County.....	16	Mercer County.....	11
Cumberland County.....	4	Miami County.....	6
Essex County.....	30	Monroe County.....	3
Gloucester County.....	3	Montgomery County.....	40
Hudson County.....	16	Morgan County.....	4
Hunterdon County.....	1	Morrow County.....	5
Mercer County.....	15	Muskingum County.....	9
Middlesex County.....	39	Noble County.....	1

TYPHOID FEVER—Continued.

State Reports for August, 1915—Continued.

Place.	New cases reported.	Place.	New cases reported.
Ohio—Continued.		South Carolina—Continued.	
Perry County.....	1	Charleston County.....	25
Pickaway County.....	5	Cherokee County.....	5
Preble County.....	5	Chester County.....	5
Putnam County.....	6	Clarendon County.....	7
Richland County.....	7	Darlington County.....	3
Ross County.....	1	Dorchester County.....	3
Sandusky County.....	2	Edgefield County.....	7
Scioto County.....	15	Fairfield County.....	1
Seneca County.....	2	Florence County.....	4
Shelby County—		Greenville County.....	25
Sidney.....	3	Greenwood County.....	4
Stark County.....	6	Hampton County.....	3
Summit County.....	15	Kershaw County.....	2
Trumbull County.....	3	Lancaster County.....	3
Tuscarawas County.....	6	Laurens County.....	12
Union County.....	5	Marion County.....	2
Van Wert County.....	3	Marlboro County.....	3
Washington County.....	7	Newberry County.....	1
Williams County.....	4	Oconee County.....	4
Wood County.....	3	Orangeburg County.....	16
Wyandot County.....	3	Pickens County.....	5
Total.....	581	Richland County.....	37
South Carolina:		Saluda County.....	3
Abbeville County.....	49	Spartanburg County.....	6
Aiken County.....	3	Williamsburg County.....	3
Bamberg County.....	5	York County.....	1
Berkeley County.....	3	Total.....	250

City Reports for Week Ended Sept. 4, 1915.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio.....	2		Kalamazoo, Mich.....	3	
Alton, Ill.....		1	Kansas City, Kans.....	1	
Altoona, Pa.....	1		Lancaster, Pa.....	3	
Atlantic City, N. J.....			Lawrence, Mass.....	1	1
Baltimore, Md.....	51	4	Lexington, Ky.....	1	
Beaver Falls, Pa.....	1		Lima, Ohio.....	1	
Berkeley, Cal.....	1		Little Rock, Ark.....	2	
Binghamton, N. Y.....	2		Lorain, Ohio.....	1	
Boston, Mass.....	12	2	Los Angeles, Cal.....	3	
Braddock, Pa.....	1		Lowell, Mass.....	7	1
Bridgeport, Conn.....	3		Lynchburg, Va.....	4	
Brockton, Mass.....	1		Lynn, Mass.....	5	
Buffalo, N. Y.....	15	3	Malden, Mass.....	1	
Camden, N. J.....	5		Manchester, N. H.....	2	1
Charleston, S. C.....	14	3	Medford, Mass.....	1	
Chicago, Ill.....	16	3	Mobile, Ala.....	1	
Chicopee, Mass.....	2		Morristown, N. J.....	1	
Cincinnati, Ohio.....	9	1	Nashville, Tenn.....	21	
Cleveland, Ohio.....	15	1	Newark, N. J.....		1
Clinton, Mass.....	1		New Bedford, Mass.....	1	
Coffeyville, Kans.....	1		New Britain, Conn.....	1	
Columbus, Ohio.....	6	1	Newburyport, Mass.....	2	
Covington, Ky.....	1		New Castle, Pa.....	1	
Cumberland, Md.....	2		New Haven, Conn.....	15	1
Danville, Ill.....	1		New Orleans, La.....	3	1
Dayton, Ohio.....	2		Newton, Mass.....	1	
Detroit, Mich.....	15	1	New York, N. Y.....	132	13
Duluth, Minn.....	4		Norristown, Pa.....	3	
East Orange, N. J.....	1		Oakland, Cal.....	1	1
Elgin, Ill.....	3		Passaic, N. J.....	1	
Erie, Pa.....	4		Pawtucket, R. I.....	1	1
Fall River, Mass.....	3		Perth Amboy, N. J.....	1	
Galesburg, Ill.....	6		Philadelphia, Pa.....	26	1
Galveston, Tex.....	1		Pittsburgh, Pa.....	8	
Harrisburg, Pa.....	1		Plainfield, N. J.....	1	
Hartford, Conn.....	10	2	Portsmouth, Va.....	1	
Jersey City, N. J.....	1		Providence, R. I.....		1
Johnstown, Pa.....	1		Reading, Pa.....	3	

TYPHOID FEVER—Continued.**City Reports for Week Ended Sept. 4, 1915—Continued.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Richmond, Va.....	4	.....	Steuenville, Ohio.....	3	.....
Roanoke, Va.....	3	.....	Stockton, Cal.....	1	.....
Rutland, Vt.....	1	.....	Tacoma, Wash.....	2	.....
Sacramento, Cal.....	2	.....	Taunton, Mass.....	1	.....
St. Louis, Mo.....	7	1	Toledo, Ohio.....	16	1
San Francisco, Cal.....	5	1	Trenton, N. J.....	11	.....
Saratoga Springs, N. Y.....	2	.....	Waltham, Mass.....	.....	1
Seattle, Wash.....	1	.....	Williamsport, Pa.....	1	.....
Somerville, Mass.....	2	.....	Worcester, Mass.....	1	.....
Springfield, Ill.....	2	.....	Zanesville, Ohio.....	3	.....
Springfield, Mass.....	3	.....		

TYPHUS FEVER.**Maryland Report for August, 1915.**

Collaborating Epidemiologist Fulton reported that during the month of August, 1915, 1 case of typhus fever was notified in Baltimore, Md.

City Reports for Week Ended Sept. 4, 1915.

During the week ended September 4, 1915, cases of typhus fever were reported in cities, as follows: Baltimore, Md., 1 case; New York, N. Y., 1 case.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.**State Reports for August, 1915.**

State.	Cases reported.			State.	Cases reported.		
	Diphtheria.	Measles.	Scarlet fever.		Diphtheria.	Measles.	Scarlet fever.
District of Columbia.....	17	50	5	New Jersey.....	319	.....	116
Maryland.....	105	62	53	Ohio.....	437	263	199
				South Carolina.....	54	.....	31

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

City Reports for Week Ended Sept. 4, 1915.

City.	Popula- tion as of July 1, 1915 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Over 500,000 inhabitants:										
Baltimore, Md.	584,605	153	19	3	3		10	1	43	9
Boston, Mass.	745,139	201	25	5	14		16		52	14
Chicago, Ill.	2,447,045	619	65	10	37	3	18		299	81
Cleveland, Ohio.	656,975	168	32	1	8	2	3		18	11
Detroit, Mich.	554,717	153	29		1		8		30	10
New York, N. Y.	5,468,190	1,287	176	9	73	12	41	1	403	161
Philadelphia, Pa.	1,683,664	372	27	1	25	1	7		126	41
Pittsburgh, Pa.	571,984	143	19	1	23	2	16		17	7
St. Louis, Mo.	745,988	197	55	1	2		3		34	10
From 300,000 to 500,000 inhab- itants:										
Buffalo, N. Y.	461,335	128	7		28	3	5		14	7
Cincinnati, Ohio.	406,706	105	14		6	1	5		24	13
Jersey City, N. J.	300,133	76	10	1	13		9		20	8
Los Angeles, Cal.	465,367	81	4	1	3		4		44	13
Milwaukee, Wis.	428,062	70	14		6		4		20	4
Newark, N. J.	399,000	90	14		11		4		39	16
New Orleans, La.	366,484	126	20	3					34	20
San Francisco, Cal.	1,416,912	142	11	2	1		4		16	11
Seattle, Wash.	330,834	41	1						9	2
From 200,000 to 300,000 inhab- itants:										
Columbus, Ohio.	209,722	57	10				5		7	3
Portland, Oreg.	272,833	40	3						5	6
Providence, R. I.	250,025	76	8	2			4		1	15
From 100,000 to 200,000 inhab- itants:										
Bridgeport, Conn.	118,434	26	2	1			1		4	
Cambridge, Mass.	111,669		1	1	2		3		7	1
Camden, N. J.	104,349		4				1		2	
Dayton, Ohio.	125,509	25	4	1			4		3	1
Fall River, Mass.	126,904	35			31	1			5	5
Grand Rapids, Mich.	125,759	36	2	2			2		4	3
Hartford, Conn.	108,969	32							6	1
Lowell, Mass.	112,124	38	1				1		2	1
Lynn, Mass.	100,316	19	2				4		1	1
Nashville, Tenn.	115,978	31	5	1			2		14	1
New Bedford, Mass.	114,694	35	1		5		5		6	1
New Haven, Conn.	147,095		7				3		6	2
Oakland, Cal.	190,803		3		2		2		6	5
Reading, Pa.	105,094	26	1	1	4				1	1
Richmond, Va.	154,674	42							5	6
Springfield, Mass.	103,216	31	4	1						
Tacoma, Wash.	108,094								1	
Toledo, Ohio.	187,840	52	2	1	1		1		16	6
Trenton, N. J.	109,212	36	5	1	9		1		9	2
Worcester, Mass.	160,523	40	2						8	9
From 50,000 to 100,000 inhab- itants:										
Akron, Ohio.	82,958	31					2			2
Altoona, Pa.	57,606	14	2						2	3
Atlantic City, N. J.	55,806	11	2		2		1		7	
Bayonne, N. J.	67,852		2		2				3	
Berkeley, Cal.	54,879	12			1					
Binghamton, N. Y.	53,082	17	4						2	2
Brockton, Mass.	65,746	16	3		1		1		6	1
Canton, Ohio.	59,139	10					2		1	
Charleston, S. C.	60,427	30	2						1	1
Covington, Ky.	56,520	7	3						1	
Duluth, Minn.	91,913		2		1		4		1	1
El Paso, Tex.	51,936	68		1						8
Erie, Pa.	73,798	20	3							
Harrisburg, Pa.	70,754	21	3		1					3
Johnstown, Pa.	66,585	28	1		1		1		1	
Kansas City, Kans.	96,854		4		3				3	1
Lancaster, Pa.	50,269		3						1	
Lawrence, Mass.	98,197	28	7		2		2		5	2
Little Rock, Ark.	55,158	17	1				1			
Malden, Mass.	50,067	8	3	1			1			1
Manchester, N. H.	76,959	18							1	1
Mobile, Ala.	56,536	9								1

* Population April 15, 1910; no estimate made.

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

City Reports for Week Ended Sept. 4, 1915—Continued.

City.	Popula- tion as of July 1, 1915 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 50,000 to 100,000 inhabit- ants—Continued.										
New Britain, Conn.....	52,203		2		1		1			
Passaic, N. J.....	69,010	14	3	2	2		1		3	1
Pawtucket, R. I.....	58,156	8	1							1
Rockford, Ill.....	53,761	17								
Sacramento, Cal.....	64,806	17	1						2	1
Saginaw, Mich.....	54,815	14								
San Diego, Cal.....	51,115	13	2							
Somerville, Mass.....	85,460	22	2						3	3
Springfield, Ill.....	59,468	15	5	1						
Wilkes-Barre, Pa.....	75,218	32	1						7	1
From 25,000 to 50,000 inhabit- ants:										
Alameda, Cal.....	27,031	3	1							
Brookline, Mass.....	31,984	7	2							1
Butler, Pa.....	26,587	7	2	1						
Butte, Mont.....	42,918		1						23	1
Chelsea, Mass.....	132,452	12							3	1
Chicopee, Mass.....	23,689	3							2	
Cumberland, Md.....	25,564	7	1			1				
Danville, Ill.....	31,554	8							2	2
Dubuque, Iowa.....	39,650	2							1	1
East Orange, N. J.....	41,155	6	1						2	
Elgin, Ill.....	27,844	9								2
Everett, Mass.....	38,307	5			1				1	
Fitchburg, Mass.....	41,144	10	3	1		4			1	1
Galveston, Tex.....	41,076	19	2	1		1				1
Haverhill, Mass.....	47,774	20	6	1		2			2	3
Kalamazoo, Mich.....	47,364	13	2			1			2	1
Kenosha, Wis.....	30,319									
Lexington, Ky.....	39,703	22	1						1	2
Lima, Ohio.....	34,644	9	1						1	1
Lincoln, Nebr.....	46,028	8	1							
Lorain, Ohio.....	35,662	3				2				
Lynchburg, Va.....	32,385	14	1			1			1	
Madison, Wis.....	30,084		1		1					2
Medford, Mass.....	25,737	3				1				
Montclair, N. J.....	25,550	1	1		2					
New Castle, Pa.....	40,351		6			1			1	
Newport, R. I.....	29,631	7				1			4	
Newton, Mass.....	43,085	8	1							
Niagara Falls, N. Y.....	36,240	14					3		1	
Norristown, Pa.....	30,833	6			1					
Ogden, Utah.....	30,466	3								
Orange, N. J.....	32,524	2	1		1				2	
Pasadena, Cal.....	43,859								3	
Perth Amboy, N. J.....	39,725		4		1		1			
Pittsfield, Mass.....	37,580	9								
Portsmouth, Va.....	38,610	4	1			1				2
Racine, Wis.....	45,507				1					1
Roanoke, Va.....	41,929	15	18	2		1			2	2
Rock Island, Ill.....	27,961	7								
Steubenville, Ohio.....	26,631	10				1				
Stockton, Cal.....	34,508					3			1	11
Superior, Wis.....	45,285	7				2				1
Taunton, Mass.....	35,957	11			1	2			1	1
Waltham, Mass.....	30,129	17		1	1				1	3
West Hoboken, N. J.....	41,893		2						5	
Wheeling, W. Va.....	43,097	8	2			2				3
Williamsport, Pa.....	33,495	7								
Wilmington, N. C.....	28,264	13				1				1
From 10,000 to 25,000 inhabit- ants:										
Alton, Ill.....	22,493	9	1				1			1
Ann Arbor, Mich.....	14,979	12					1			2
Beaver Falls, Pa.....	13,316								2	
Braddock, Pa.....	21,310		1		5		1			
Cairo, Ill.....	15,583	4								
Clinton, Mass.....	13,075	6					2		2	2
Concord, N. H.....	22,480	9					1			

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

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

City Reports for Week Ended Sept. 4, 1915—Continued.

City.	Popula- tion as of July 1, 1915 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 10,000 to 25,000 inhabit- ants—Continued.										
Galesburg, Ill.....	23,923	6					1			
Harrison, N. J.....	16,555								1	
Kearny, N. J.....	22,753	6		1					1	
Key West, Fla.....	21,437	3				2				
Melrose, Mass.....	17,166	1				1			2	
Morristown, N. J.....	13,158	6				1				
Muscatine, Iowa.....	17,287	4								
Nanticoke, Pa.....	22,441	6								
Newburyport, Mass.....	15,195	4								
New London, Conn.....	20,771	9								
North Adams, Mass.....	12,019	6							2	2
Northampton, Mass.....	19,846	6							2	1
Plainfield, N. J.....	23,280	5								
Rutland, Vt.....	14,624	8	1							
Saratoga Springs, N. Y.....	12,842	4	1							
Stelton, Pa.....	15,337									1
Wilkinsburg, Pa.....	22,361	2	1		1		1		2	1
Woburn, Mass.....	15,862	2								1

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

FOREIGN REPORTS.

AUSTRIA-HUNGARY.

Cholera—Trieste.

During the period from June 30 to August 7, 1915, 11 cases of cholera with 5 deaths were notified at Trieste. The first case occurred in a laborer who had been employed with the army in Galicia. The second case developed in a person who had arrived a few hours previously from Doberdo (Monfalcone). The remaining nine cases occurred in persons who had not been absent from Trieste for a month previously. Four cholera carriers were found during the period under report.

BERMUDA.

Dengue Epidemic.¹

During the week ended September 4, 1915, dengue was reported still present in epidemic form in Bermuda. Five cases were notified among troops.

CHINA.

Examination of Rats—Shanghai.

During the week ended August 7, 1915, 178 rats were examined at Shanghai. No plague infection was found.

The last case of human plague at Shanghai was notified January 3, 1915; the last case of rat plague, June 19, 1915.

Plague—Plague-Infected Rats—Hongkong.

During the two weeks ended August 7, 1915, 20 cases of plague with 20 deaths were notified at Hongkong.

During the week ended July 24, 1915, out of 2,134 rates examined at Hongkong, 4 were found plague-infected.

CUBA.

Communicable Diseases—Habana.

Communicable diseases were notified at Habana during the period from August 21 to 31, 1915, as follows:

Disease.	New cases.	Deaths.	Remain- ing under treat- ment Aug. 31 1915.
Diphtheria.....	5	.....	5
Leprosy.....	3	.....	251
Malaria.....	2	.....	2
Measles.....	2	.....	2
Paratyphoid fever.....	.....	.....	3
Scarlet fever.....	.....	.....	1
Typhoid fever.....	13	2	44
Varicella.....	.....	.....	1

¹Public Health Reports, Sept. 17, 1915, p. 2821.

GERMANY.**Cholera.**

During the week ended August 7, 1915, 154 cases of cholera, with 40 deaths, were notified in Germany. Of these, 2 cases with 1 death occurred among the civilian population, 129 cases with 33 deaths among prisoners of war, and 23 cases with 6 deaths among German troops.

Typhus Fever.

During the week ended August 7, 1915, 2 cases of typhus fever were notified among German troops. Of these, 1 case occurred at Breslau and 1 in the district of Unterfranken, Bavaria. Cases of the disease were reported during the same period among prisoners of war in the Government districts of Königsberg, Luneburg, Potsdam, and Schleswig, and in the archduchy of Baden.

GREAT BRITAIN.**Examination of Rats—Liverpool.**

During the two weeks ended August 14, 1915, 323 rats were examined in Liverpool. No plague infection was found.

JAMAICA.**Pellagra—Kingston.**

Pellagra has been notified in the district of Kingston as follows: Month of July, 1915, 3 fatal cases; month of August, 1915, 2 fatal cases.

TYPHUS FEVER.**Reports Received During Week Ended Sept. 24, 1915.¹**

Place.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary:				
Austria.....	July 4-17.....	855		
China:				
Harbin.....	July 5-11.....	1		
Dutch East Indies:				
Java.....	July 8-24.....	28	3	
Egypt:				
Alexandria.....	Aug. 6-12.....	4	1	
Cairo.....	July 2-15.....	20	34	
Germany:				
Bavaria (Government district, Unterfranken).	Aug. 1-7.....	1		Military.
Breslau.....	.....do.....	1		Do.
Russia:				
Moscow.....	July 25-Aug. 7....	86	1	

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

TYPHUS FEVER—Continued.

Reports Received from June 26 to Sept. 17, 1915.

Place.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary:				
Austria.....	Apr. 25-May 22...	1,212		Mainly among soldiers, prisoners of war, and persons from Galicia; 6 among the civil population, of which 1 in Vienna.
Do.....	June 6-July 3.....	2,046		
Bosnia-Herzegovina.....	May 2-15.....	64		Mainly among military.
Hungary—				
Budapest.....	May 16-July 17....	18	6	
Azores:				
Terceira.....	May 23-29.....	1		July 24, 1915: present.
Canada:				
Ontario—				
Kingston.....	Aug. 22-28.....	1	1	
Canary Islands:				
Santa Cruz de Teneriffe.....	May 16-June 19....		2	
China:				
Antung.....	June 28-July 4.....	1		
Hankow.....	July 4-10.....		1	
Hungtaohotze Station.....	Apr. 19-25.....	1		On Eastern Chinese Ry. Present.
Mukden.....	June 6-July 3.....			
Tientsin.....	do.....		1	
Cuba:				
Santiago.....	July 4-10.....	2	2	
Curacao.....	Aug. 8-14.....	4	1	
Dominican Republic:				
Santo Domingo.....	July 19-31.....		1	
Dutch East Indies:				
Java.....	Apr. 25-May 10....	35	7	
Batavia.....	June 6-July 10....	35	7	
Egypt:				
Alexandria.....	May 21-July 22....	138	41	
Cairo.....	May 7-July 1.....	231	225	
Port Said.....	do.....	10	8	
France:				
La Rochelle.....	July 11-17.....	1	1	
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.
Do.....	June 6-26.....	33		Among military: Present in prison camps.
Do.....	June 27-July 31....	122		
Aix la Chapelle.....	May 30-June 5.....		1	
Bavaria.....	July 11-17.....	2		
Bremen.....	May 30-June 12....	1	1	
Breslau.....	May 30-June 5.....			
Bromberg—				
Government district.....	July 18-24.....	1		
Cassel—				
Government district.....	do.....	1		
Erfurt.....	do.....	1		
Frankfurt—				
Government district.....	July 11-17.....	1		
Hamburg.....	July 18-24.....	1		
Konigsberg.....	July 25-31.....	1	1	
Leipzig.....	June 6-12.....	3		
Merseburg—				
Government district.....	July 25-31.....	1		
Saxe-Weimar.....	July 11-17.....	10		At Jena
Saxony.....	July 18-24.....	27		
Stettin—				
Government district.....	July 25-31.....	1		
Great Britain and Ireland:				
Dublin.....	May 23-July 31....	7		
Glasgow.....	May 29-Aug. 21....	3		
Newcastle.....	June 27-July 3....	1		
Greece:				
Athens.....	June 14-July 19....		4	
Saloniki.....	May 30-July 17....		21	
Italy:				
Florence.....	May 1-31.....	5	1	
Turin.....	May 17-23.....	1		
Japan:				
Tokyo.....	June 7-13.....	2		
Mexico:				
Aguascalientes.....	June 21-27.....		1	
Mexico City.....	Aug. 28.....	1	1	
Russia:				
Moscow.....	May 2-July 24....	225	60	
Petrograd.....	May 9-July 10....	17	4	

TYPHUS FEVER—Continued.

Reports received from June 26 to Sept. 17, 1915—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Russia—Continued.				
Riga.....	Mar. 1-31.....	1	1	
Do.....	June 6-12.....	1		
Vladivostok.....	June 15-July 14....	2	1	
Warsaw.....				Sept. 27-Oct. 31, 1914: Cases, 31; Nov. 1-28, 1914: Cases, 31; deaths, 1. Maximum incidence, Nov. 22-28: Cases, 29; deaths, 1. Prevalent.
Serbia.....	Apr. 27.....			
Spain:				
Madrid.....	June 1-30.....		1	
Switzerland:				
St Gall.....	July 25-31.....	1		
Zurich.....	May 30-July 10....	2		
Turkey in Asia:				
Adana.....	May 9-July 10.....			Present.
Beirut.....	May 27-June 2.....	2	1	June 1-30, 1915: Present.
Harput.....	Apr. 1-30.....			Present.
Jaffa.....	Apr. 25-July 17....	17	9	
Mesina.....	May 9-21.....	2	2	
Tarsus.....	May 9-July 10.....			Do.
Trebizond.....				Oct., 1914-May 22, 1915: 6,000 fatal cases (estimated).
Tripoli.....	May 9-15.....	1	1	

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX.

Reports Received During Week Ended Sept. 24, 1915.¹

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary:				
Austria—				
Trieste.....	June 30-Aug. 7....	11	5	4 carriers.
Bosnia-Herzegovina.....	July 4-10.....	78	38	63 carriers.
Borneo:				
Sandakan.....	July 25-31.....	1	1	In jail
Dutch East Indies:				
Java—				
Batavia.....	July 18-24.....	4	3	
Germany.....				Aug. 1-7, 1915: Cases, 154; deaths, 40. Of these: Civilians, cases, 2; 1 death. Military, cases, 23; deaths, 6. Prisoners of war, cases, 129; deaths, 33.
Arnsberg, government district.	Aug. 1-7.....	2	1	Military.
Berlin.....	do.....	2	2	Do.
Breslau.....	do.....	2		Military, 1.
Bromberg, government district.	do.....	1		Military.
Danzig, government district.	do.....	1	1	Civilian.
Hamburg.....	do.....	3		Military.
Luneburg, government district.	do.....	1	1	Do.
Madgeburg, government district.	do.....	1		Do.
Marienwerder, government district.	do.....	131	34	Military: 4 cases, 1 death.
Minden, government district.	do.....	2	1	Military.
Oppeln, government district.	do.....	5		Do.
Stade, government district.	do.....	2		Prisoners.
Stettin, government district	do.....	1		Military.
India:				
Akyab.....	July 10-17.....		3	
Basseln.....	do.....		1	
Bombay.....	Aug. 1-7.....	1	1	
Karachi.....	do.....	1	1	
Madras.....	do.....	1	2	
Indo-China:				
Salgon.....	July 11-31.....	117	98	

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

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.**Reports Received During Week Ended Sept. 24, 1915—Continued.****PLAGUE.**

Place.	Date.	Cases.	Deaths.	Remarks.
Brazil:				
Rio de Janeiro.....	Aug. 1-7.....	1	1	
Ceylon:				
Colombo.....	July 25-Aug. 7....	7	6	
China:				
Hongkong.....	.....do.....	20	20	
Dutch East Indies:				
Surabaya.....	July 10-17.....	1	1	
India:				
Bassein.....	July 18-24.....		1	
Bombay.....	Aug. 1-7.....		1	
Moulmein.....	July 18-24.....		1	
Indo-China:				
Saigon.....	July 10-17.....	2	2	

SMALLPOX.

Australia:					
New South Wales— Newcastle district.....	July 30-Aug. 5....	4			
Austria-Hungary:					
Prague.....	Aug. 8-14.....	1			
Vienna.....	.....do.....		1		
Brazil:					
Rio de Janeiro.....	July 18-Aug. 7....	52	9		
Ceylon:					
Colombo.....	July 25-Aug. 7....	50	7		
China:					
Hongkong.....	Aug. 1-7.....	1	1		
Nanking.....	Aug. 8-14.....				Present.
Dutch East Indies:					
Java.....	July 8-24.....	39	7		
Egypt:					
Cairo.....	July 2-15.....	1	2		
India:					
Bombay.....	Aug. 1-7.....	9	4		
Madras.....	.....do.....	1	1		
Mexico:					
Acapulco.....	Aug. 16-22.....		1		
Aguascalientes.....	Aug. 23-29.....		2		
Frontera.....	Aug. 1-14.....	14	10		
Nuevo Laredo.....	Sept. 11.....	2			In persons from San Luis Potosi.
Portugal:					
Lisbon.....	Aug. 22-28.....	4			
Russia:					
Petrograd.....	July 18-24.....	14	7		
Union of South Africa:					
Cape Town.....	June 24-July 30..	3			

Reports Received from June 26 to Sept. 17, 1915.**CHOLERA.**

Place.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary:				
Austria.....	May 2-July 17....	3,433	1,141	July 3-17, 1915: 5 cases in Galacia.
Vienna.....	May 9-15.....	9	3	Among soldiers and prisoners.
Trieste.....	June 27-July 3....	1		
Bosnia-Herzegovina.....	Apr. 25-July 3....	216	71	202 cholera carriers.
Croatia-Slavonia.....	May 3-July 19....	558	207	14 among soldiers.
Hungary.....	Apr. 26-July 11..	1,179	518	May 16-23: 5 additional cases notified.
Budapest.....	June 28-July 10..	2		
Borneo:				
Sandakan.....	July 18-24.....	6	4	Within jail limits.
Ceylon:				
Colombo.....	Apr. 25-May 22....	8	1	
China:				
Hongkong.....	May 2-8.....	1	1	

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

Reports Received from June 26 to Sept. 17, 1915—Continued.

CHOLERA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Dutch East Indies:				
Java—				
Batavia.....	Apr. 25-July 10....	58	52	Sept. 3, 1915: Epidemic. Among soldiers: 15 cases, 1 death in prison camps.
Do.....	July 24-31.....			
Germany.....	July 18-31.....	215	25	Among soldiers.
Berlin.....	July 18-24.....	1		Do.
Berlitz.....	do.....	1		Do.
Brandenburg on the Oder.....	Aug. 15-21.....	2	1	Do.
Breslau.....	July 18-31.....	2		Do.
Bromberg.....	July 25-31.....	1		Do.
Cannstatt.....	do.....	1		Do.
Danzig.....	July 18-24.....	1		Do.
Frankfort on the Oder.....	Aug. 22-28.....	2		
Furstenwalde and Klotsh.....	Aug. 8-14.....	4	4	Aug. 15-21, 1915: 1 case at Klotsh.
Hanover.....	July 25-31.....	1		Among soldiers.
Jagerndorf.....	June 13-July 2.....	1		
Landsberg.....	July 25-31.....	1		Do.
Leipzig.....	do.....	1		Do.
Patschkau.....	July 18-24.....	1		Do.
Posen.....	July 25-31.....	1		Do.
Rosenberg.....	June 13-July 2.....	1		
Sachsenhausen.....	do.....	1	1	
Schneidemuhl.....	July 25-31.....	1		Do.
Silesia.....	July 3-17.....	5		
Slaventzitz.....	June 13-July 2.....	1		
Sommerfeld.....	July 18-24.....	1		Do.
Spandau.....	July 25-31.....	1		Do.
Striegan.....	July 18-24.....	1	1	Do.
Government districts—				
Breslau.....	June 13-July 24....	4		
Frankfort on the Main.....	do.....	1		
Gumbinnen.....	do.....	1		
Konigsberg.....	do.....	2		
Liegnitz.....	do.....	1		
Marienwerder.....	do.....	12		
Oppeln.....	do.....	5		
Potsdam.....	do.....	3		
Wiesbaden.....	do.....	1		
India:				
Akyab.....	May 16-29.....		2	
Bassein.....	Apr. 18-July 10....		28	
Bombay.....	June 6-July 31.....	5	4	
Calcutta.....	Apr. 25-July 10....		187	
Madras.....	May 2-July 31.....	8	6	
Pegu.....	July 4-10.....	1		
Rangoon.....	Apr. 24-July 24....	13	13	
Indo-China.....				
Provinces—				
Anam.....	Jan. 1-Feb. 28.....	9	5	
Cochin China.....	do.....	621	297	
Laos.....	Feb. 1-28.....	46	21	
Tonkin.....	Jan. 1-Feb. 28.....	84	39	
Saigon.....	May 2-July 10....	1,190	723	
Italy:				
Leghorn.....	Aug. 11.....	1		
Venice.....	do.....	3		
Russia:				
Moscow.....	June 6-12.....	75	14	
Serbia.....	June 25-July 2.....	2		
Siam:				
Bangkok.....	Apr. 19-July 10....		6	
Straits Settlements:				
Singapore.....	May 9-June 12.....	2	1	
Sumatra, island:				
Toba district.....	Apr. 12-June 26....	159	110	

Jan. 1-31, 1915: Cases, 284; deaths, 178.

YELLOW FEVER.

Brazil:				
Bahia.....	July 11-17.....	1	1	

CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.**Reports Received from June 26 to Sept. 17, 1915—Continued.****PLAGUE.**

Place.	Date.	Cases.	Deaths.	Remarks.
Azores:				
Terceira, island.....	July 25.....			Present.
Bahrein, island.....	Apr. 1-30.....			Do.
Brazil:				
Bahia.....	June 20-July 10....	4	3	
Ceylon:				
Colombo.....	May 9-29.....	3	3	
China:				
Amoy.....	May 2-June 5.....			Present. Present in Sio-Khe Valley, 60 miles inland.
Do.....	June 13-19.....			Increasing.
Do.....	June 20-26.....			40 deaths daily (estimated). At Kulangsu, international settlement, 1 case.
Do.....	June 27-July 10....			Present. July 4-17, 1915: Cases, 95 (estimated).
Hongkong.....	May 9-July 17.....	57	51	
Cuba:				
Habana.....	Aug. 15.....	1		
Dutch East Indies:				
Java.....				Jan. 1-Feb. 25, 1915; Cases, 2,094; deaths, 1,864.
Do.....	Mar. 12-July 10....	2,115	1,015	
Kediri residency.....	do.....	37	32	
Madloen residency.....	do.....	5	5	
Paseroean residency.....	do.....	29	26	
Surabaya residency.....	do.....	14	14	
Surakarta residency.....	do.....	2	2	
Surabaya.....	Apr. 18-July 10....	23	22	
Ecuador:				
Guayaquil.....	May 1-31.....	1		
Egypt:				
Alexandria.....	May 21-27.....		1	Jan. 1-May 20, 1915: Cases, 93; deaths, 48. Jan. 1-July 15, 1915: Cases, 188; corresponding period, 1914: Cases, 157.
Assiout, province.....	May 14-June 3.....	7	2	
Fayoum, province.....	May 14-Aug. 12....	52	9	
Galloubeh, province.....	May 14-27.....	1		
Minieh, province.....	May 14-July 15....	14	5	
Port Said.....	May 28-Aug. 5.....	10	3	
Greece:				
Zante.....	Aug. 1-11.....	12	13	
India:				
Bassein.....	Apr. 18-July 17....		65	
Bombay.....	May 2-July 31....	168	140	
Calcutta.....	Apr. 25-July 3.....		59	
Henzada.....	May 2-8.....	1		
Karachi.....	May 2-July 31....	619	534	
Mandalay.....	Apr. 25-July 17....		8	
Moulmein.....	May 23-July 3.....		8	
Myingyan.....	Apr. 5-17.....		1	
Pegu.....	Apr. 18-May 1.....		5	
Rangoon.....	Apr. 18-July 24....	192	157	Apr. 1-May 31, 1915: Cases, 94; deaths, 92.
Toungoo.....	Apr. 25-May 1.....		38	
Indo-China:				
Saigon.....	May 9-June 19....	10	6	Jan. 1-31, 1915: Cases, 73; deaths, 58.
Provinces—				
Anam.....	Jan. 1-Feb. 28....	62	54	
Cambodia.....	do.....	37	34	
Cochin China.....	do.....	40	19	
Laos.....	Feb. 1-28.....	20	20	
Japan:				
Taiwan Island—				
Kagi.....	May 30-July 3.....	7	7	
Tokyo.....	May 31-Aug. 8.....	9	5	
Mauritius:				
June 14.....		1		
Persia:				
Mohammerah.....	Apr. 10-June 1....	3		
Peru:				
Callao.....	May 3-9.....	1		
Lima (city).....	do.....	1		
Mollendo.....	do.....	1		
Salaverry.....	Apr. 26-May 27....	2		May 30. Vicinity.
Trujillo.....	May 3-9.....	2		May 30, 7 cases in hospital.
Siam:				
Bangkok.....	July 4-10.....	1		
Straits Settlements:				
Singapore.....	Apr. 25-June 5....	4	1	

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

Reports Received from June 26 to Sept. 17, 1915—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Turkey in Asia:				
Bagdad.....	May 2-July 26.....	768	574	Present.
Chios, island.....	Aug. 6.....			
Union of South Africa:				
Cape Province—				
Tarka, district.....	June 2-16.....	2	1	At Dordrecht.
Wodehouse, district.....	June 5.....	2	2	
Zanzibar:				
Zanzibar.....	Mar. 1-31.....		1	

SMALLPOX.

Australia:				
New South Wales—				
New Castle District.....				June 10-July 24: Cases, 13.
Cessnock.....	June 10-July 1.....	4		
Hamilton.....	July 16-22.....	1		
Kurri Kurri.....	May 26-July 22.....	8		
Plattsburg.....	July 16-22.....	1		
Standford Morthyr.....	June 25-July 24.....	1		
Victoria—				
Melbourne.....	Apr. 20.....	1		At Point Nepean quarantine station, from S. S. Lord Derby from Rangoon.
Western Australia—				
Fremantle.....	Apr. 27.....	1		At Woodmans Point quarantine station, from S. S. City of Baroda from Calcutta via Colombo.
Austria-Hungary:				
Austria.....	May 2-July 10.....	3,568		August, 1914-May 8, 1915: Cases, 1,487; deaths, 316. May 9-15, 1915: Cases, 28. June 6-12: Cases, 13.
Dalmatia, Province.....	May 2-8.....	1		
Vienna.....	May 2-July 31.....	36	9	
Hungary—				
Budapest.....	.....do.....	291	1	
Prague.....	Aug. 1-7.....	3		
Brazil:				
Rio de Janeiro.....	Apr. 18-July 10.....	114	34	Epidemic.
Rio Grande do Sul.....	Sept. 2.....			
Canada:				
Alberta—				
Edmonston.....				Epidemic 30 miles south closed Aug. 14, 1915: Cases, 100 (estimated).
Ontario—				
Hamilton.....	June 1-30.....	2	4	
Peterborough.....	July 10-17.....		1	
Sarnia.....	June 13-19.....	1		
Toronto.....	June 6-Aug. 7.....	7		
Quebec—				
Montreal.....	June 13-Aug. 7.....	11		
Sherbrooke.....	June 1-30.....		1	
Canary Islands:				
Santa Cruz de Teneriffe.....	July 18-24.....		1	
Ceylon:				
Colombo.....	May 2-July 24.....	58	10	
China:				
Amoy.....	July 4-17.....			Present.
Chungking.....	May 23-June 19.....			Do.
Foochow.....	May 9-22.....			Do.
Harbin.....	May 3-9.....	1		
Hongkong.....	May 9-July 3.....	8	5	
Manchuria Station.....	June 21-27.....	2		Eastern Chinese Railway.
Nanking.....	June 20-July 24.....			Present.
Shanghai.....	May 9-July 3.....	5	5	Natives.
Tientsin.....	May 16-22.....		1	
Dutch East Indies:				
Java.....	Apr. 18-July 17.....	601	150	Do.
Batavia.....	Apr. 25-July 17.....		30	
Egypt:				
Alexandria.....	May 21-July 15.....	41	14	
Cairo.....	Apr. 30-July 1.....	16	6	

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

Reports Received from June 26 to Sept. 17, 1915—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Germany				Total, May 16-July 3, 1915: 9 cases.
Hamburg	June 6-12	1		
Government districts—				
Allenstein	June 13-19	1		
Arnsberg	do	1		
Breslau	June 20-July 3	1		
Danzig	June 13-July 31	3		
Gumbinnen	May 23-29	2		
Marlenwerder	May 23-July 31	3		
Merseburg	June 20-July 3	1		
Oppeln	May 16-July 31	9		
Posen	May 30-June 5	3		
Potsdam	June 13-July 3	3		
Great Britain:				
Bristol	Mar. 21-May 22	29	7	1 from vessel from Bombay. Maximum incidence, Apr. 4-17: Cases, 22; deaths, 2.
London	May 30-June 12	3		
Greece:				
Saloniki	May 23-29		1	
India:				
Bassein	May 2-8		1	
Bombay	May 2-July 31	212	114	
Calcutta	Apr. 25-July 10		255	
Karachi	May 2-July 31	25	4	
Madras	do		26	
Moulmein	May 23-29		1	
Pegu	Apr. 18-June 12	1	1	
Rangoon	Apr. 18-July 24	119	55	May 1-31, 1915: Cases, 37; deaths, 14.
Indo-China:				
Provinces—				
Anam	Jan. 1-31			Present.
Cambodia	Jan. 1-Feb. 28	32	5	
Cochin China	Jan. 1-31	12		
Laos	Feb. 1-28	6		
Tonkin	Jan. 1-Feb. 28	66	12	
Saigon	May 23-July 10	2	2	
Italy:				
Milan	May 1-31	1		
Turin	Aug. 16-22	1		
Japan:				
Taiwan, island	May 23-29	1		
Mexico:				
Acapulco	July 14-20		1	
Aguscalientes	June 7-Aug. 8		14	
Frontera	May 23-July 31	115	41	
Mazatlan	June 23-July 13		3	
Montarey	June 14-Aug. 1	9		
Progreso	June 6-July 24	7	1	
Salina Cruz	June 1-30	4	1	
Vera Cruz	June 7-Aug. 22	95	49	Soldier from San Geronimo.
Portugal:				
Lisbon	May 23-July 17	23		
Russia:				
Moscow	May 2-15	19	5	
Petrograd	May 8-July 17	315	123	
Riga	May 9-July 17	61		
Vladivostok	May 29-June 4	1		
Warsaw				
Serbia	Apr. 21-May 3	356		
Spain:				
Madrid	June 1-July 31		7	
Seville	May 1-June 30		7	
Valencia	May 30-Aug. 21	82	10	
Straits Settlements:				
Penang	Apr. 25-May 15	6	2	
Singapore	May 23-29	1		
Switzerland:				
Basel	May 16-July 3	18		
Turkey in Asia:				
Bagdad	May 2-8			Present.
Beirut	May 16-July 31	78	32	
Haifa	May 3-July 25	9	1	
Jaffa	May 9-29	2		
Mersina	May 30-June 5	1		
Tripoli	May 2-8			Do.

SANITARY LEGISLATION.

COURT DECISIONS.

TENNESSEE SUPREME COURT.

The Tennessee Law Regulating the Sale of Habit-Forming Drugs Held Valid.

HYDE V. STATE, 174 S. W. Rep., 1127. (Mar. 20, 1915.)

In the exercise of the police power it is competent for the legislature to strictly regulate the sale and distribution of any drug of a poisonous nature the use of which tends to debauch the public in the formation of a habit which undermines the physical, mental, and moral constitution of its users.

A statute prohibiting the sale of certain poisons except on the prescription of a practicing physician was held to be constitutional.

A statute requiring that a physician who prescribes habit-forming drugs must be in personal attendance upon the patient for whom they are intended is not unreasonable or arbitrary.

A detective requested a practicing physician to give him a prescription for morphine for a friend. He then took the prescription to a drug store and had it filled. The court held that the physician was guilty under the law of Tennessee as a principal in the illegal sale of the drug, although the name of the "friend" was fictitious and no such person existed.

The fact that the prescription was caused to be issued and the sale to be made by means of the solicitation of an agent of the State government for the purposes of a criminal prosecution did not constitute a valid defense.

WILLIAMS, J.: H. B. Hyde, a practicing physician, was indicted and tried for an alleged violation of chapter 11 of the Acts of the First Extra Session of the General Assembly of 1913; one count of the indictment charging an unlawful sale, and the other an unlawful distribution, of morphine, a derivative of opium.

A motion to quash the indictment was made in behalf of accused, in which the constitutionality of the act was challenged, but it was overruled by the trial judge. The trial before a jury resulted in a verdict of guilty, and the defendant below moved for a new trial and in arrest of judgment, which motions were overruled, with consequent appeal to this court.

The act on which the prosecution was based may be partially quoted and partially outlined as follows:

SECTION 1. *Be it enacted by the General Assembly of the State of Tennessee, That, on and after the taking effect of this act, it shall be unlawful for any person in the State of Tennessee to sell, barter, distribute, or give away any opium or coca leaves, or any compound, manufacture, salt, derivative, or preparation thereof: Provided, That this shall not apply:*

a. To the dispensing or distribution of any said drugs to any patient by a physician, dentist, or veterinary surgeon registered in the State of Tennessee under the provisions of the several acts regulating the practice of their profession: *Provided, however, that said distribution or dispensing shall be in the course of his professional practice only, and such physician, dentist, or veterinary surgeon shall personally attend such patient.*

b. To the sale, dispensing, or distribution of any said drugs by pharmacists registered under the laws of the State governing the practices of the profession of pharmacy to a consumer under and in pursuance to a written prescription issued by a physician, dentist, or veterinary surgeon of the standing mentioned in "a" above: *Provided, however, That such prescription shall be dated as of the day on which signed, and shall be signed by the physician, dentist, or veterinary surgeon who shall have issued the same.*

c. To the sale or distribution of any of the aforesaid drugs by any wholesale druggist, dealer, or jobber within the State to a retail dealer.

By section 3 of the act it is provided that the possession of any of the aforesaid drugs by persons, other than those excepted by sections 1 and 2, shall be presumptive evidence of a violation of the act.

Its section 6 provides that it is the duty of certain designated State officials to enforce the provision of the act, and that rules and regulations for its enforcement shall be made by them.

It may be observed, in passing, that the act is modeled after, and closely conforms to, the act of Congress later passed and approved December 17, 1914, effective on and after the 1st day of March, 1915, so far as the provisions of the congressional enactment can be made applicable to and regulate intrastate sales of the drugs affected.

Deeming that for the local act there is yet left a no inconsiderable field for operation, and that the act is the initial step in this State in the regulation of the sale of habit-forming drugs, we have examined with care the several assignments of error urged by the appealing physician.

The facts of the case appear to be: That one Allen, a detective, under employment by the pure food and drug department of the State, went to the office of Dr. H. B. Hyde, in Nashville, and requested a prescription for morphine for an alleged friend of his, Louise Walker, who he said lived on Russell Street. No such woman existed, and there was no such street address as that given. Having obtained the prescription and paid for it, the detective took it to a pharmacy, where it was filled; the detective paying therefor.

The drug passed out on the prescription was morphine in the form of hypodermic tablets.

The first question duly raised is that the act in question does not come within the purview of the call of the governor for the extra session of the legislature of 1913, at which the act was passed. Included in the governor's call for that session was the following as a measure to be considered:

54. A bill to regulate the intrastate trade or sale of opium or coca leaves, or any compound, manufacture, salt, derivative or preparation thereof.

It is urged that the bill so passed, as far as appellant, Hyde, is concerned, was a regulation of the practice of medicine, and not a regulation of sale or sales. We think it quite obvious that the legislation is within the purview of the call. The practice of medicine is not undertaken by it to be regulated; it is affected at but a single and minor point, by way of incident to the distribution of the particular drugs a physician may find it necessary in his practice to prescribe. (State ex rel. v. Woolen, 128 Tenn., 487; 161 S. W., 1006.)

It is next claimed as error that the act violates the fourteenth amendment of the Federal Constitution, and article 1, section 8, of the State constitution, the last of which provides that no man shall be deprived of his liberty or property but by the law of the land. The particular provision pointed out as working such denial is that of subsection (a) of the act, which is, in effect, that a physician can only prescribe the indicated drugs when he is in personal attendance on the patient; thus, it is claimed, arbitrarily curtailing his right to practice by prescribing according to methods formerly obtaining.

We think it clear that, in the exercise of the police power, it is competent for the legislature to strictly regulate the sale and distribution of any drug of a poisonous nature the use of which tends to debauch the public in the formation of a habit that undermines the physical, mental, and moral constitution of its users. (Matter of Yun Quong, 159 Cal., 508; 114 Pac., 835; Ann. Cas., 1912C, 969; ex parte Mon Luck, 29 Or., 421; 44 Pac., 693; 32 L. R. A., 738; 54 Am. St. Rep., 804.)

A statute prohibiting the sale of certain poisons except on the prescription of a practicing physician has been held to be constitutional. (Ex parte Hallawell, 155 Cal., 112; 99 Pac., 490.)

We are of opinion that the legislature, in the act under review, validly specified the condition under which the prescription of such a physician may be issued. It is not unreasonable or arbitrary to hedge about their issuance by making it a condition

that the physician "shall personally attend the patient"; since only by personal observation and diagnosis can the physician be sure that the drug is needed—that he himself is not being imposed on in an effort through him to defeat the very purpose the statute has in view. The assignment of error must therefore be overruled.

Several other errors are assigned attacking the constitutionality of certain other provisions of the act, to wit:

The provision of its section 6 that the pure food and drug inspector and the secretary of the State board of health shall make rules and regulations for the enforcement of the act is urged to amount to an unwarranted delegation of the legislative power. It is also said that the provision of section 3 of the act, to the effect that possession of the drugs on the part of any person other than those mentioned in section 1 shall be presumptive evidence of a violation of the act, is in contravention of article 1, section 8, of our constitution. The appellant is not being prosecuted for the violation of any rule or regulation made by the officials named, but for a violation of an offense prescribed by the act itself. He is not being prosecuted for having in possession such drugs. He therefore is not in a position to raise these constitutional questions. (*Palmer v. Southern Express Co.*, 129 Tenn., 116; 165 S. W., 236; *Noell v. Power Co.*, 130 Tenn., —; 169 S. W., 1169.)

It must not, of course, be inferred from what is thus said that we entertain doubt as to the constitutionality of the provisions of the act attempted to be assailed.

The next contention of the appellant is that, upon the facts appearing on the record, his guilt is not established; that, since there was no patient in existence to whom the drug could have been dispensed, Louise Walker being but a fictitious person, there was no delivery to anyone other than an agent of the State, the detective, who received the drug not for use, but solely for the purposes of a prosecution of appellant.

There was a sale consummated between the druggist as vendor and the detective as vendee, which could only have been induced or brought about by the existence of the prescription in the hands of the latter.

May the appellant be treated as aiding in this sale, and therefore guilty of the prescribed misdemeanor as a principal?

The Court of Criminal Appeals of Texas, in *McLain v. State* (43 Tex. Cr. R., 213; 64 S. W., 865), held that, where a physician assists a person to purchase liquor by giving him an illegal prescription, the physician thereby becomes a party to the sale and an accomplice of the seller. The court said:

There is no kind of prescription authorizing the sale except that provided by statute, and it is not a prescription until it has complied with the law. Where a sale occurs, an illegal prescription is no protection to the seller or the physician, because in that event the physician makes himself a party to the sale, by giving an illegal prescription by means of which the law is evaded. As in misdemeanors all are principals, so, when a physician gives an illegal prescription under which a sale occurs, he is as much responsible for the sale as is the seller.

The prescription put out by a physician such as appellant is a requisite to, and, indeed, the basis of, any valid sale on the part of a druggist; an inducement, therefore, in a true sense, proceeding from one on whose discretion as a trusted agent of society the legislature had made the dispensing of the drug to depend. We hold that, on sound principle and true policy, the physician must be held to answer as a principal in the offense committed in the illegal sale.

May the physician successfully defend by proving that the prescription was caused to be issued and the sale to be made by means of the solicitation of an agent of a department of the State government, for the purposes of a criminal prosecution?

Whatever may have been the trend of the earlier authorities, it is now a well-established rule that such acts of Government agents do not absolve the defendant's act of criminality. Perhaps the leading case is that of *Grimm v. United States* (156 U. S., 604; 15 Sup. Ct., 470; 39 L. Ed., 550), where it appeared that a post-office

inspector suspected Grimm of being engaged in the business of selling obscene pictures and sending them through the mails. Under assumed names the inspector wrote for a supply of the pictures and received them from defendant. The defense was that the deposit made in the mails was at the instance of the Government, and through the solicitation of its agent, and was addressed to a fictitious person. In the court's unanimous opinion, delivered by Mr. Justice Brewer, it was said:

It does not appear that it was the purpose of the post-office inspector to induce or solicit the commission of a crime, but it was to ascertain whether the defendant was engaged in an unlawful business. The mere facts that the letters were written under an assumed name, and that he was a Government official—a detective, he may be called—do not of themselves constitute a defense to the crime actually committed. The official, suspecting that the defendant was engaged in a business offensive to good morals, sought information directly from him, and the defendant, responding thereto, violated a law of the United States by using the mails to convey such information, and he can not plead in defense that he would not have violated the law if inquiry had not been made of him by such Government official. The authorities in support of this proposition are many and well considered. * * * The law was actually violated by the defendant; he placed letters in the post office which conveyed information as to where obscene matter could be obtained, and he placed them there with a view of giving such information to the person who should actually receive those letters, no matter what his name; and the fact that the person who wrote under these assumed names and received his letters was a Government detective in no manner detracts from his guilt.

This case has been followed by *Goode v. United States* (159 U. S., 669; 13 Sup. Ct., 136; 40 L. Ed., 300), involving the use of a decoy letter; *Rosen v. United States* (161 U. S., 29; 16 Sup. Ct., 434; 40 L. Ed., 610); and other cases.

By an overwhelming weight of authority it is held that a person making an unlawful sale of intoxicating liquor is not excused of the criminal consequence because the sale was induced for the purpose of securing inculcating testimony. In *Excise Com'rs v. Backus* (29 How. Pr. (N. Y.), 33), involving a sale of liquor, it was said:

The mode adopted by the plaintiffs to bring to light the malfeasance of the defendant has no necessary connection with his violation of law. He exercised his own volition, independent of all outside influence or control.

A long line of authorities is in accord, among the cases being *Evanston v. Myers* (172 Ill., 266; 50 N. E., 205); *People v. Murphy* (93 Mich., 41; 52 N. W., 1042); *State v. Lucas* (94 Mo. App., 117; 67 S. W., 971); and see note 17 Ann. Cas., 296.

It should be stated that the authorities make note of the fact that in cases of larceny cited in behalf of the appellant in the pending case the rule yet is that, if the evidence shows that the owner of the goods or his agent suggests to the accused the criminal design, and assists toward or in the taking, the owner thereby so consents as that there is no trespass to mark the transaction as larceny.

In the case at bar we fail to see how appellant can avail himself of the fact that the person prescribed for was nonexistent. Rather would it seem that this fact shows at once the recklessness of the accused and a substantial reason for the provision in the statute that the giving of a prescription for the drug should be only to a patient actually attended. Appellant's attempted defense comes to this: There can be no guilt if there be no real and indicated patient to receive the product of the prescription; therefore, in order to a defeat of the statute with impunity it is only necessary to put out prescriptions for fictitious persons. If the prescriptions or the drugs derived through them come into the hands of habitual users or whomsoever, what does it concern the physician?

The lawmakers certainly did not intend to pass a statute thus inane. The beneficent end they had in view should not be thwarted by any refinement of reasoning; certainly not by reasoning that leads to a conclusion so unsatisfactory, not to say unsound.

The judgment of the lower court, being found to be without error, is affirmed.

UNITED STATES DISTRICT COURT—MONTANA.

Opium—Conviction for Unlawful Possession Sustained.

UNITED STATES *v.* YEE FING, 222 Fed. Rep., 154. (April 3, 1915.)

The United States statutes of February 9, 1909, and January 17, 1914, prohibit the importation of opium after April 1, 1909, except under certain conditions, make its possession unlawful if it was imported in violation of the statute, and provide that after July 1, 1913, all smoking opium "found within the United States shall be presumed to have been imported after the 1st day of April, 1909, and the burden of proof shall be on the claimant or the accused to rebut such presumption." The court held these statutes constitutional and valid.

A person who receives smoking opium in the United States must bear in mind the statutes regulating its importation and possession, must ascertain its history, and be prepared to show, if necessary, that it was not unlawfully imported.

The defendant was convicted on a charge of receiving smoking opium which had been unlawfully imported. There was no direct evidence to show when the opium was imported or that its importation was unlawful, but the court held that, under the United States statutes, the jury was justified in finding the defendant guilty, and the conviction was sustained.

BOURQUIN, District Judge: This is a motion for a new trial. Defendant was charged with unlawful importation of smoking opium and with having knowingly received the same. The prosecution introduced evidence that, November 21, 1914, in Anaconda, defendant, an aged Chinese garden and laundry laborer of many years' local residence, was taken with 2½ pounds of smoking opium in his possession. Defendant testified that about that time at night in an alley near Chinatown in Butte, upon an unknown white man's solicitation, he purchased the opium, paying therefor \$100. Thereupon, upon the prosecution's unopposed motion, the first charge was dismissed and upon the second charge was a verdict of guilty.

Defendant's contention is that the evidence apart from statutory presumptions is insufficient to sustain the verdict, and that said presumptions should be rejected as unconstitutional in that their application deprives defendant of liberty and property without due process of law.

The statute of February 9, 1909, prohibits importation of opium after April 1, 1909, save that opium for medicinal purposes and other than smoking opium can be imported under regulations. Unlawful importation and knowingly receiving such opium are offenses and incur forfeiture and punishment, and upon trial therefor possession of such opium "shall be deemed sufficient evidence to authorize conviction unless the defendant shall explain the possession to the satisfaction of the jury." (35 Stat., 614.) The statute of January 17, 1914, provides that on and after July, 1, 1913, all smoking opium "found within the United States shall be presumed to have been imported after the 1st day of April, 1909, and the burden of proof shall be on the claimant or the accused to rebut such presumption." (38 Stat., 276.)

These statutes provide for presumptions or prima facie proof of the offense, which, while sufficient to sustain a verdict of guilty, may or may not be sufficient to satisfy the jury of the guilt of the accused beyond a reasonable doubt. They are but what are commonly styled rules of evidence, and not substantive law creating offenses, and do not deprive the jury of its function of weighing evidence and determining facts. Though the accused presents no evidence, the circumstances inevitably appearing in the prosecution's evidence may often be such that the jury will and should refuse to draw the inferences these statutes authorize, but do not and probably could not command, in that it is not satisfied they should be drawn—not convinced that the accused is guilty beyond a reasonable doubt. Like presumptions are familiar to common and statutory law in England and this country, in the former prior to emigration of our ancestry and now. So, too, to civil law. They dictate the burden of evidence as public policy may require. Conforming to ancient procedure, when not prohibited by constitutions, legislative bodies have power to create them, and in their application

is "due process of law," provided there is rational connection between the facts proved and the facts therefrom inferred, that the inferences are not so unreasonable as to be mere arbitrary mandates, and that the party affected is free to oppose them. See *Luria v. U. S.* (231 U. S., 25; 34 Sup. Ct., 10; 58 L. Ed., 101), and cases cited. For other cases, see *State v. Potello* (40 Utah, 56; 119 Pac., 1027).

The presumptions here involved, though beyond any in revenue laws or elsewhere brought to the attention of the court, appear to come within the limits of legislative power. Doubtless they go far to prevent possession, use, and intrastate traffic in opium, which are subject only to State police power; but this is only incidental to regulation of foreign commerce over which Congress has exclusive authority.

The court takes judicial notice that opium is not commercially a domestic product. Perverted to evil uses, it is in general an outlaw. Its presence in this country, apart from statutes, is practically a conclusive presumption of importation. Presence and possession in the accused invoke the statutory presumption that he imported it or received it after importation. And since its importation is unlawful these six years, in view of its nature, the statutory presumption that it was imported within said period and to the knowledge of any receiving it is not unreasonable to the extent hereinbefore indicated. This is not presumption upon presumption, for the inferences are created by legislative power and are not inferences of fact from inferred fact by the jury's unaided reason.

It is true, as urged, that the opium may have been imported before made unlawful, or it may have been grown in this country, or it may have been imported under regulations and here converted into smoking opium, or accused may have received it not knowing it was of unlawful importation, in either of which events no offense would have been committed. That is, possession and the statutory presumptions are not absolute proof of the facts constituting guilt. But absolute proof is never required; these suppositions are remote probabilities or negative, and in view thereof and of the nature of the thing the burden to make them or any of them so far appear that upon the whole case the jury entertains a reasonable doubt of accused's guilt as charged, under settled law in familiar and like cases may be by statute imposed upon accused. He who with safety would receive opium must have in mind these statutory presumptions of which he is charged with knowledge, and must so far ascertain its history and arm himself with evidence that he can sustain this burden. In this case, when defendant made the purchase he knew the opium was imported since April 1, 1909, and so unlawfully, as that was the statutory presumption of which he was charged with knowledge and which he was bound to assume until he was otherwise advised.

It is not, as urged by way of analogy, a case of an article of only beneficial use and produced at home as well as from abroad, wherein like presumptions might be held unreasonable and their application not "due process of law." It is a case of an article under the ban of the law save in exceptional instances.

The motion is denied.

MASSACHUSETTS SUPREME JUDICIAL COURT.

Cream—Adulteration of "Heavy Cream" by Addition of Water.

COMMONWEALTH *v.* ELM FARM MILK Co., 108 N. E. Rep., 911. (May 19, 1915.)

Under the Massachusetts statute prohibiting the adulteration of milk by the addition of water or any foreign substance, cream is considered the same thing as milk, and the addition of water to "heavy cream" is a violation of the statute.

CARROLL, J.: The defendant is charged with violating R. L., chapter 56, section 55, which prohibits the keeping, with intent to sell, of milk to which water has been added. A quantity of cream was found in the possession of the defendant, which it

intended to sell, to which water had been added. This cream was known as heavy cream and contained a greater percentage of milk fat than is required by Statutes 1907, chapter 216, which provides that all cream offered for sale must contain 15 per cent of milk fat.

The agreed statement of facts shows that heavy cream contains from 30 to 40 per cent of milk fat; that cream is a specific article of commerce, is separated and manufactured from milk by a centrifugal process, and is generally known and dealt with in the trade as cream; and the defendant argues that the milk statute (R. L., ch. 56, sec. 55) is not infringed by the addition of water to cream, because cream and milk are different substances.

Generically, milk and cream are the same thing, and under the statute seeking to prevent the adulteration of milk by the addition of water or any foreign substance, cream is considered to be the same thing as milk. The fact that cream is known as a specific article of commerce and is manufactured as stated in the bill of exceptions does not make the cream so designated and manufactured under the statute any different from the cream which is separated by some natural process. Neither the trade name nor the method of separating changes the essential nature of the substance.

The statute was passed for a purpose. It was to protect the public health. The adulteration may be equally serious, whether it is in the whole milk or in any of its component parts, such as cream or skim milk, and the protection of the consumer is as much desired in the sale of the component parts of milk as in the sale of milk itself. Under Public Statutes, chapter 57, section 5, a statute similar to the one we are considering, it was decided that the word "milk" as used in that statute was broad enough to include cream. (*Com. v. Gordon*, 159 Mass., 8; 33 N. E., 709.) The defendant relies on *Com. v. Boston White Cross Milk Co.* (209 Mass., 30; 95 N. E., 85; Ann. Cas., 1912B, 386). That case decides that where milk is separated into cream and skim milk and each part is separately treated under a patented process wherein certain chemical changes are involved, whereby the milk loses its identity as such and a new and unique product known as "concentrated milk" results, the statute forbidding the addition of water to milk is not violated by the addition of water to this compound because it is not milk, but a different substance. When milk is so completely changed in its essential parts and a new article of commerce is produced which is so substantially different that it is no longer milk but is something else, differing from milk in name and nature, like butter, cheese, condensed or concentrated milk, then the statute has no application. But in the case at bar, where cream is separated from the milk, whether the separation is by a natural process or by some process of manufacture, the statute controls, and the case of *Com. v. Gordon*, supra, is not overruled by *Com. v. Boston White Cross Milk Co.*, supra.

Exceptions overruled.

STATE LAWS AND REGULATIONS PERTAINING TO PUBLIC HEALTH.

FLORIDA.

Schools—Medical Inspection of Pupils. (Reg. Bd. of H., Aug. 30, 1915.)

RULE 1. County medical inspectors appointed by boards of county commissioners will be authorized to enter upon their duties as prescribed by law when found by the State health officer to be possessed of proper professional qualifications and of good health, personal, and professional character, and upon their written assent to abide by the rules and regulations of the State board of health and instructions issued from time to time by the State health officer. They shall be subject to revocation of appointment by the county commissioners on the advice and recommendation of the State health officer for neglect of duty, infractions of the rules and regulations or said instructions, or immoral or unprofessional conduct.

RULE 2. The county medical inspectors aforesaid, for their services, shall receive remuneration at the rate of 10 cents per pupil per annum for the necessary examination of school children under their jurisdiction, named in accordance with the statutes and rules and regulations of the State board of health, and instructions of the State health officer. County superintendents of public instruction shall certify to the correctness of their accounts.

RULE 3. Boards of county commissioners shall divide their counties into such districts as may be necessary when such division is required by law.

RULE 4. Every child attending any school, public or private, white or colored, shall be examined at least once each year in accordance with these rules and regulations and the instructions of the State health officer, by such county physician or county medical inspector as may have jurisdiction over the territory in which such child may be enrolled for school attendance.

RULE 5. Such examination by said physicians shall be instituted as soon as possible and within one month after the beginning of the school year.

RULE 6. The examinations shall include the following:

- (1) Previous disease, including infectious diseases.
- (2) General condition and circumstances.
 - (a) Height and weight.
 - (b) Nutrition (good, medium, bad).
 - (c) Cleanliness (including vermin of the head and body).
 - (d) Clothing (sufficiency, cleanliness, footgear).
- (3) Throat, nose, and articulation (mouth-breathing, snoring, stammering, tonsillar and glandular conditions, adenoids).
- (4) External eye disease and vision-testing.
- (5) Ear disease and deafness.
- (6) Teeth and oral sepsis.
- (7) Mental capacity (normal, backward, defective).
- (8) Present disease or defect.
 - (a) Deformities or paralysis.
 - (b) Rickets.
 - (c) Tuberculosis (glandular, pulmonary, osseous, or other).

(8) Present disease or defect—Continued.*(d) Diseases of the skin and lymph glands.**(e) Diseases of the heart or lungs.**(f) Nervous or metal diseases.**(g) Ruptures.**(h) Spinal disease or orthopedic defect.**(i) Anemia.**(j) Hookworms or other intestinal parasites.**(k) Any weakness or defect unfitting the child for ordinary school life or physical drill, or requiring either exemption from special branches of instruction or particular supervision.*

and shall be made, recorded and reported in accordance with detailed instructions of the State health officer, and upon forms approved by him and furnished by the State board of health.

RULE 7. Said physician shall be charged with the care and custody of said reports and records and shall deliver them to their successors in office, or as they may be instructed by the State health officer.

RULE 8. In cities of over 5,000 inhabitants, where medical inspection of school children has already been established under the jurisdiction of the city board of health and [sic] the said board shall make reports as instructed by the State health officer.

RULE 9. The county superintendents of public instruction shall instruct all principals and teachers to devote such time and attention as may be necessary in the judgment of the county medical inspector to carry out the purposes and provisions of the law, these rules and regulations, and the instructions of the State health officer.

KANSAS.

Sewage—Construction of Plants for the Pumping of, in Certain Cities. (Chap. 129, Act Mar. 13, 1915.)

SECTION 1. Whenever, in the judgment of the mayor and council or mayor and commissioners of any city of the first, second, or third class in the State of Kansas, in the construction of a main sewer or a main intercepting sewer in connection with its system of sewers and drains, that, on account of elevation or for any other reason, it is impracticable or too expensive to excavate in connecting such main sewer or main intercepting sewer with another main sewer district or main intercepting sewer, in order to provide an outlet for the sewage of such main sewer or main intercepting sewer district, the mayor and council or mayor and commissioners of such city are hereby empowered to construct a pumping station for the purpose of pumping sewage of such main sewer or main intercepting sewer to some other main sewer district in said city, in order to conduct the sewage thereof to a point of outlet.

SEC. 2. Before any such pumping plant shall be constructed the plans and specifications of such pumping station shall first be submitted to the department of the board of health of the State of Kansas and be approved by such department.

SEC. 3. The cost of construction of such pumping station may be paid from the general fund of such city, or if there be not sufficient money in such fund such city is hereby authorized to issue improvement bonds for the payment thereof to an amount not to exceed the actual cost of said pumping plant. The bonds issued under this act shall be signed by the mayor and attested by the city clerk under seal of the city, and the interest coupons thereto attached shall be signed by the written or lithographed signature of the mayor; such bonds may be in any denomination from \$100 to \$500, and may be payable at any time, not exceeding 20 years from the date thereof, at the fiscal agency of the State of Kansas. Such bonds shall not be issued or sold at less than par, nor bear a greater rate of interest than 5½ per cent per annum, payable semi-annually. Each of said bonds shall contain a recital that it is issued under the pro-

visions of this act, which recital shall be conclusive that the proper ordinance authorizing such issuance has been passed, and that all other conditions precedent to the issuing of said bonds have been complied with.

SEC. 4. None of the restrictions and limitations contained in any of the statutes of the State of Kansas heretofore enacted shall apply to or in any way affect the issuance of the bonds authorized by this act, or the bonds so issued.

MASSACHUSETTS.

Cold Storage Eggs—Marking of. (Reg. Bd. of H., July 6, 1915.)

The sign or placard required by section 1 of chapter 538¹ of the Acts of 1913, as amended by chapter 55² of the General Acts of 1915, to be placed upon or immediately above cold-storage eggs, or upon the basket, box, or other container in which cold-storage eggs are placed, shall consist of the words "Cold-storage eggs," printed in uncondensed gothic type, in letters not less than 1 inch in height, printed in black on a white background, no other lettering to appear on or to be attached to said sign or placard. (This sign or placard to be used only where cold-storage eggs are offered or exposed for sale.)

The marking required by section 1 of chapter 538 of the Acts of 1913, as amended by chapter 55 of the General Acts of 1915, to be placed upon the container in which cold-storage eggs sold at retail are delivered to the customer, shall consist of the words "Cold-storage eggs," printed or stamped in letters not less than 1 inch in height, or, if in letters of uncondensed gothic type, not less than one-half inch in height, in black, purple, or red ink, no other lettering to appear in connection with the words "Cold-storage eggs."

Vinegar—Methods for Estimation of the Solids and the Acid Content of. (Reg. Bd. of H., July 6, 1915.)

According to the provisions of chapter 239³ of the General Acts of 1915, the following are hereby declared, until further notice, to be the methods for the estimation of the solids and the acid content of vinegar for determining the composition or value of said vinegar as a basis for payment in buying or in selling, or for the purpose of inspection:

Solids.—Measure 10 cubic centimeters of filtered vinegar into a tarred flat-bottom platinum dish of 50 millimeter diameter, evaporate on the water bath to a thick sirup and dry for exactly two and one-half hours in the drying oven at the temperature of boiling water; cool and weigh. It is essential to use a flat-bottom dish.

Total acids.—Titrate a suitable amount of the sample, which has been diluted until it appears very slightly colored, with standard alkali, using phenolphthalein as indicator. One cubic centimeter of tenth-normal alkali is equivalent to 0.0060 gram of acetic acid.

All weights and measures, if used by a chemist of recognized standing, must have been standardized by himself, and if used by other than a chemist of recognized standing, must have been standardized by the Bureau of Standards at Washington, D. C. All alkali used in the estimation of the acid content of vinegar must have been standardized by a chemist of recognized standing.

NEW HAMPSHIRE.

Common Towels—Prohibited in Public Places. (Reg. Bd. of H., Aug. 10, 1915.)

To carry into effect the requirements of the act above quoted [an act to restrict the use of common towels, Public Health Reports, Aug. 27, 1915, p. 2595], health

¹ Public Health Reports, July 25, 1913, p. 1583; Reprint No. 264, p. 225.

² Public Health Reports, Apr. 9, 1915, p. 1117.

³ Public Health Reports, July 23, 1915, p. 2199.

officers are hereby directed, under authority of law, to prohibit the use of the common towel in hotels, schools, railroad stations, public halls, churches, barber shops, stores, public baths, and all other public places.

The term "common towel" shall be considered to mean a roller towel or a towel available for use by more than one person without being washed after such use.

NEW YORK.

Deaths—Transportation of Dead Bodies by Common Carriers. (Reg. Commissioner of Health, June 25, 1915.)

[In effect throughout the State of New York, except in the city of New York, on Aug. 1, 1915.]

RULE 1. A transit permit and transit label issued by the local registrar of vital statistics must accompany each dead body transported by a common carrier.

The transit permit shall state the date of issuance, the name, sex, race, and age of the deceased, and the cause and date of death. The transit permit shall also state the date and route of shipment, the point of shipment and destination, the method of preparation of the body, and shall bear the signature of the undertaker and the signature and official title of the officer issuing the permit.

The transit label shall state the date of issuance, the name of the deceased, the place and date of death, the name of the escort or consignee, the point of shipment and destination; and shall bear the signature and official title of the officer who issued the transit permit. The transit label shall be attached to the outer box or case.

RULE 2. The transportation by common carriers of bodies dead of any diseases other than those mentioned in rule 3 shall be permitted only under the following conditions:

(a) The coffin or casket shall be encased in a strong outer box made of good, sound lumber, not less than seven-eighths of an inch thick. All joints shall be securely put together and the box tightly closed. Either the coffin or casket, or the outer box or case, shall be water-tight.

(b) When the destination can not be reached within 24 hours after death, all body orifices shall be closed with absorbent cotton, and the body placed at once in a coffin or casket, which shall be immediately closed and the coffin or casket shall be encased in a strong outer box made of good, sound lumber, not less than seven-eighths of an inch thick. All joints must be securely put together and the box tightly closed, and either the coffin or casket, or the outer box or case, shall be water-tight.

RULE 3. The transportation by common carrier of bodies dead of smallpox, plague, Asiatic cholera, typhus fever, diphtheria (membranous croup, diphtheritic sore throat), scarlet fever (scarlet rash, scarlatina), shall be permitted only under the following conditions:

All body orifices shall be closed with absorbent cotton, the body shall be enveloped in a sheet saturated with an effective disinfecting fluid, and shall be placed at once in a coffin, which shall be immediately and permanently closed. The coffin or casket shall be encased in a strong outer box made of good, sound lumber, not less than seven-eighths of an inch thick, all joints of which shall be securely put together, and the box shall be tightly and permanently closed. Either the coffin or casket, or the outer box or case, shall be water-tight.

RULE 4. No dead body shall be disinterred for transportation by common carrier without the previous consent of authorities having jurisdiction at the place of disinterment. The transit permit and transit label shall be required as provided in rule 1, and paragraph (a) of rule 2 shall apply.

RULE 5. Every outside case holding any dead body offered for transportation by common carrier shall bear at least four handles, and when over 5 feet 6 inches in length shall bear six handles.

Health Officers—Qualifications Required for Appointment. (Reg. Public Health Council, July 6, 1915.)

Resolved, That it is the sense of the council that the following qualifications should be required of health officers hereafter appointed:

I. They shall be physicians of several years' standing.

II. They shall when appointed be not less than 24 nor more than 65 years of age.

III. They shall have complied with one of the following requirements:

1. A course of at least six weeks, including practical laboratory and field work with lectures and reading, at an educational institution. Such courses to be approved by the public health council. Examination and certificate.

2. Correspondence course of one year followed by at least one week of practical demonstrations in laboratory and field work. Both correspondence course and demonstrations to be given under conditions approved by the council with examination and certificate for each.

3. Evidence satisfactory to the public health council of special training and practical experience in public health work. Such evidence to be afforded if required by successful examination.

Provided, That under special conditions specified in writing by the local board of health or other appointing power these qualifications may be waived by the public health council.

[These requirements become effective Nov. 1, 1916.]

Health Officers—Appointment of, Previous to November 1, 1916. (Res. Public Health Council, July 6, 1915.)

Resolved, In view of the qualifications to be required of local health officers to be appointed after November 1, 1916, the public health council recommends to local health boards and other appointing officers called upon to make such appointments previous to November 1, 1916, when these requirements become effective, that they specify that the health officer to be appointed shall agree to conform to the requirements within the first year of the new term.

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

BALTIMORE, MD.

Mosquitoes—Prevention of Breeding of. (Ord. 2, June 22, 1915.)

SECTION 1. That in order to get rid of the discomfort and annoyance and danger to health from mosquitoes the following regulations are hereby ordained:

It shall be the duty of the commissioner of street cleaning and his assistants and employees to perform the duties imposed upon him by this ordinance, and it shall be the duty of all owners and agents having charge of property within the limits of the city of Baltimore and all tenants and occupiers of any land and premises within the city limits to obey the said regulations, as follows:

1. It shall be unlawful to have, cause, maintain or permit within the municipality of Baltimore any collection of standing or flowing water in which mosquitoes breed, or are likely to breed, unless such collection of water is treated so as to effectually prevent such breeding.

2. The collections of water referred to in section 1 of this ordinance shall be held to be those contained in ditches, gutters, rain gutters or roof gutters, ponds, pools, excavations, holes, depressions, open cesspools, privy vaults, fountains, cisterns, tanks, shallow wells, barrels, troughs (except horse troughs in frequent use), urns, cans, boxes, bottles, tubs, buckets, or other similar containers.

3. The methods of treatment of the collections of water specified in section 2 so as to prevent breeding of mosquitoes shall be any one or more of the following:

(a) Screening with wire netting of at least 16 meshes to the inch each way or any other material which will prevent the ingress or egress of mosquitoes.

(b) Complete emptying every seven days or at shorter periods of unscreened containers.

(c) Using a larvicide approved and applied under the direction of Dr. Henry R. Carter, Assistant Surgeon General of the United States or any one deputized by him for that purpose.

(d) Covering completely once every seven days the surface of the water with kerosene, petroleum, or paraffin oil in sufficient quantities to remain covered at least 12 hours each time.

(e) Cleaning and keeping sufficiently free of vegetable growth and other obstructions and stocking with mosquito destroying fish; absence of half-grown or larger mosquito larvæ to be evidence of compliance with this measure.

(f) Filling or draining to the satisfaction of the commissioner of street cleaning of Baltimore City or any one deputized by him for that purpose.

(g) The removal of tin cans, tin boxes, broken or empty bottles, and similar articles likely to hold water at least once every seven days. If not removed they must be so completely destroyed as not to be able to hold water.

4. The natural presence of mosquito larvæ in standing or running water shall be evidence that mosquitoes are breeding there, and failure by the owner or occupant of the premises to prevent such breeding within five days after notice from the commissioner of street cleaning shall be deemed a violation of this ordinance.

5. Should the person or persons responsible for conditions giving rise to the breeding of mosquitoes fail or refuse to take necessary measures to prevent the same within 10 days after due notice has been received, the commissioner of street cleaning is hereby authorized to do so, and all necessary costs incurred by him shall be a charge against the property owner or other person offending, as the case may be.

6. The commissioner of street cleaning and the police department shall enforce the provisions of this ordinance, and for this purpose may at all reasonable time enter in and upon any premises within the limits of Baltimore city, and any person or persons charged with any of the duties imposed by this ordinance failing, within the time designated by this ordinance or within the time stated in any notice served in pursuance hereof, as the case may be, to perform such duties shall be deemed guilty of a violation of this ordinance, and each day after the expiration of such time that said person fails to comply with this ordinance shall be deemed a separate violation of this ordinance.

7. The owner of the premises, and, in his absence, the agent of the owner, shall be held under this ordinance to be responsible for the prevention or correction of conditions giving rise to, or likely to give rise to, breeding of mosquitoes: *Provided*, Any tenant, trespasser, or other persons causing said conditions without the knowledge or consent of the owner or agent shall be held responsible.

8. Any person who shall violate any provision of this ordinance shall on each conviction be subject to a penalty of not less than \$1 nor more than \$10, to be collected as other penalties imposed by ordinances, and the payment of any costs incurred under paragraph 5 hereof.

EAU CLAIRE, WIS.

Milk and Cream—Production, Care, and Sale. (Reg. Bd. of H., Mar. 31, 1915.)

1. All milk shall be clean, wholesome, and free from sediment. Milk which tests "A" shall be standard. A test of "C" for three successive tests on separate days shall forfeit the license of the dealer. Tests are to be made by the health department in accordance with the methods approved by State board of health.

2. All milk and cream must be bottled and securely sealed in usual manner in a room used exclusively for handling milk and cream. Bottling in wagons, stores, private houses, or except as herein authorized, is strictly forbidden and subjects offender to fines and revocation of license.

3. On and after April 15, 1915, the use of loose or card milk or cream tickets that can be used a second time is forbidden. Record cards or sheets or cards with perforated and removable slip or ticket thereon only shall be used.

4. Licenses are not transferrable. In case of sale or transfer of wagons or routes, new licenses and new numbers must be secured and displayed as required. Violations hereof will be promptly prosecuted.

5. Horses or other animals must not be kept housed or permitted at any time in that part of the barn used for dairy or milk cows. Partitions used for separation of such stock must be tight, and kept secure against dust and dirt, and to the approval of the health officer.

6. Records of inspection of milk and cream tests, and all other information relating to the city milk and cream supply and the treatment, sale, and distribution thereof by producers, distributors, and dealers, are public records and kept on file in the office of the health officer for the board of health. They are open to and for the public at any and all reasonable times.

7. Any and all conveyances at any time used or employed in the sale or distribution of milk or cream, shall bear a durable sign with satisfactory lettering on each side of such conveyance giving the name of the license holders and the number of the license.

PASSAIC, N. J.**Poultry—Keeping of, for Sale—Permit Required. (Reg. Bd. of H., Mar. 10, 1915.)**

SEC. 127. No live poultry or fowl of any kind shall be brought, kept, or maintained, within the city limits, for the purpose of sale, without a permit from the board of health, subject to the provisions thereof. Said permit shall be granted upon the payment of a fee of \$2, and shall be revokable at the pleasure of this board. Said permit shall be renewed annually and all such permits shall expire upon the last day of July of each year.

Any person violating any of the provisions of this ordinance shall forfeit and pay a penalty of \$25.

[This regulation was effective Apr. 14, 1915.]

Soda Water and Ice Cream—Sale of. (Reg. Bd. of H., May 12, 1915.)

SEC. 128. No person shall engage in the business of selling or dispensing soda water or ice cream in the city of Passaic unless the premises in which said business is conducted is provided with running water at the dispensing counter, with proper washing facilities, approved by the board of health, and sufficient plumbing properly connected, in accordance with rules and regulations adopted by the board of health of the city of Passaic.

The term soda water shall be held to apply to all beverages commonly known as soft drinks.

Any person violating any of the provisions of this section shall forfeit and pay a penalty of \$25.

[This regulation was effective June 12, 1915.]

Fats, Meats, Refuse, etc.—Collection of. (Reg. Bd. of H., May 12, 1915.)

SEC. 121. No person shall engage in the business of collecting fats, meats, refuse, etc., in the city of Passaic without first obtaining a permit from the board of health, for which an annual license fee shall be charged of \$20. In no case shall any collected fats, meats, refuse, etc., be left or deposited at any place within the corporate limits of the city for any purpose; nor shall fats, meats, refuse, etc., be assorted at any time or place other than the place from which they are collected, and no reassortment thereafter shall take place on the streets or anywhere else within the limits of the city of Passaic. All fats, meats, refuse, etc., so collected shall be placed in protected covered vehicles, which shall be first submitted to the board of health for their approval.

Any person violating any of the provisions of this section shall forfeit and pay a penalty of \$25.

[This regulation was effective June 12, 1915.]

Buildings—Lighting, Ventilation, and Toilet Facilities of, when Occupied. (Reg. Bd. of H., May 12, 1915.)

SEC. 37. No owner, agent, or lessee of any building, or any part thereof, shall use, lease, or let, or hire out the same, or any portion thereof, to be occupied by any person or allow the same to be occupied as a place in which anyone may dwell, lodge, or use as public offices a railway depot or station, except when such building or parts thereof are sufficiently lighted, ventilated, drained, sewerred, and properly provided with toilets and water-closets, and are in all respects in that condition of cleanliness and wholesomeness for which this ordinance or any law of this State provides, or which they, or either of them, require any such premises to be kept, or which is required for the well-being and health of the inhabitants, occupants, or users thereof.

Any person violating any of the provisions of this section shall forfeit and pay a penalty of \$50.

[This regulation was effective June 12, 1915.]

PATERSON, N. J.**Papering of Walls and Ceilings—Old Paper to be Removed and Walls Cleaned—Penalty. (Reg. Bd. of H., Mar. 2, 1915.)**

That section 2 of an ordinance¹ entitled "An ordinance concerning the papering of walls and ceilings" be amended to read as follows:

SEC. 2. Any owner, agent, contractor, or subcontractor, or foreman or foremen or person or persons who shall violate the provisions of this ordinance shall be guilty of a misdemeanor, punishable by a fine of not less than \$10 nor more than \$100.

STAUNTON, VA.**Stables and Disposal of Manure. (Reg. Bd. of H., Apr. 14, 1915.)**

Every stable in the city of Staunton in which horses, mules, cows, or other live stock is kept shall be kept in a sanitary condition, have sufficient light to make cleaning possible, and sufficient ventilation to keep the stable air-pure at all times.

Every stable shall have either within or immediately adjoining a water-tight, covered room, box, bin, or barrel for receiving and holding manure and litter which accumulates between the times of removal from the premises. The box, bin, or barrel shall be kept tightly closed except when opened for the depositing or removal of manure.

Every stable shall be thoroughly swept and cleaned once a day, and all droppings shall be removed from the stable at least twice a day in addition to this.

Manure from stables shall be removed twice weekly, from March 15, to December 1, and once a week from December 1, to March 15, and taken beyond the city limits, unless disposed of within the city limits in such manner as meets with the approval of the city board of health.

The presence of maggots in manure when used within the city limits shall be sufficient evidence that the manure has not been rendered suitable for use within the city.

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

All liquids that fall on floor of stable shall be caused to flow as promptly as possible into a public sewer, or if such sewer is not available, to that portion of the premises where they will cause the least possible nuisance.

Privies and Cesspools—Location and Construction—Water-Closets. (Reg. Bd. of H., Apr. 14, 1915.)

No owner of real estate shall construct, permit, or maintain upon his premises a cesspool or privy vault where a city sewer runs through a street or alley either in front or in the rear of such premises and contiguous thereto, provided such connection can be made.

All privy vaults in the city of Staunton shall not be less than 6 feet deep and shall not be erected within 20 feet of any building used or occupied for residence purposes, nor within 100 feet of any well or spring the water of which is used for drinking purposes; neither shall such a vault be dug within 10 feet of any street, or 5 feet of any alley, and such privy vault shall have 9-inch walls, constructed of hard burned brick or stone, laid in cement mortar, or of concrete, with bottom and sides cemented so as to be water-tight; size not to be less than 4 feet in diameter and 6 feet deep.

¹ Public Health Reports, Feb. 26, 1915, p. 676.

SECTION 1. All privies shall be so constructed as to prevent the access of flies to the night soil container. In order that this may be accomplished, the compartment under the seat in which stands the night soil container shall be tightly constructed of sound lumber without cracks or crevices. Any openings into this compartment for ventilation shall be covered with wire fly screening. There shall be at the back or sides of this compartment an opening for the removal of the night soil container, which opening shall be provided with a tightly fitting, let-down, board cover, hinged to the house, and so constructed as to prevent the access of flies to the night soil. This cover shall always be kept closed.

SEC. 2. The night soil container shall be a strongly constructed water-tight wooden box or tub. It shall not rest on the ground, but on cleats or a platform, in such a position that its top shall not be more than 1 inch below the undersurface of the closet seat. Whenever such a box or tub shall cease to be water-tight it shall be replaced by a sound one.

SEC. 3. The roof of each privy or earth closet shall be water-tight, and if it slopes to the rear of the house it shall project not less than 6 inches beyond the rear wall of the house. The doors of all privies shall be tight-fitting and self-closing, and any windows or openings for ventilation shall be covered by wire fly screens.

SEC. 4. In case of existing privies which are not in accordance with the above rules, the owner of the property will not be required to reconstruct the privy unless, in the opinion of the board of health, said privy is a menace to health, but all privies shall comply with the following minimum requirements: The roof shall be water-tight and shall not discharge rain water in the night soil container. The house shall be without openings and cracks through which flies may enter. It shall be provided with a tight self-closing door, and shall have an opening or openings for light and ventilation, which shall be screened for the exclusion of flies. The seat shall have a self-closing hinge cover, of sufficient size to completely cover the opening or openings in the seat. There shall be a tightly fitted let-down hinged cover over the box opening for the exclusion of flies. The box or tub shall be water-tight and shall not project beyond the house. All alterations or repairing which shall be hereafter made on any privy in the city of Staunton shall be made in accordance with the requirements under sections 1, 2, 3, and 4, and whenever it shall become necessary to entirely reconstruct or change the location of any existing privy the new privy shall be constructed throughout in conformity with said requirements. Whenever, in the opinion of the board of health, the condition of any privy, cesspool, or privy vault is such that it can not be put in a sanitary condition, the board of health shall order a new privy, cesspool, or privy vault constructed in conformity with said sections above. All privies shall be kept clean at all times. The door of the house shall not be allowed to remain open at any time. No wash water, garbage, kitchen slops, or other liquid wastes shall be emptied into the privy. No night soil from any person suffering from typhoid fever, or other serious bowel trouble shall be deposited in any privy without being previously disinfected in such manner as directed or approved by the city board of health.

For all sewer-connected buildings occupied or to be occupied there must be at least one water-closet, and there must be an additional water-closet for every 15 occupants or fractional part thereof. No water-closet of any description shall be supplied with water or flushed directly from the water supply pipes. Water-closets must not be located in the sleeping apartments nor in any room where food is prepared for human consumption of any building, nor in any room or apartment which has not direct communication with the external air, either by a window or air shaft, having an area to the open air of at least 4 square feet. When water-closets are placed in the yard they shall be so arranged as to be adequately flushed from a reservoir. No water-closet shall be put into or upon any property, house, or building except those flushed by a tank containing not less than 5 gallons of water, or water-closets flushed by a flush-

ometer valve. Plunger closets, Philadelphia hoppers, pan closets, or any other closets where the supply to the bowl is direct from the street service or building supply, are prohibited in all cases, and where such exists shall be removed and replaced with tank closets.

Whenever it shall come to the knowledge of the board of health that the plumbing or drainage in any building has become a nuisance, or is contrary to the provisions and requirements of these rules, or of the ordinances of the city, or is of faulty construction, and liable to breed disease or endanger the health of the occupants, the board of health shall thereupon notify the owner or agent of any such building of the changes which are necessary to be made within the time fixed by the board of health, and upon refusal or neglect to obey such orders, the board of health shall institute legal proceedings to have such changes made and said nuisance abated.

TACOMA, WASH.

Foodstuffs—Licensing of Factories and Stores Where Made or Sold. (Ord. 6090, Apr. 14, 1915.)

SECTION 1. That sections 2 and 3 of ordinance No. 5191, passed Jan. 15, 1913, and entitled, "An ordinance providing for the licensing of meat, fish, and oyster markets, lunch rooms, restaurants, grocery stores, butter and cheese stores, candy stores, candy factories, ice-cream factories, delicatessens, bakeries, macaroni factories, and vegetable and fruit stands; providing a penalty for the violation thereof, and repealing ordinances Nos. 4414 and 4829 of the city of Tacoma," be amended so as to read as follows:

"SEC. 2. Any person, firm, or corporation desiring to obtain a license to conduct any business mentioned in section 1 of this ordinance shall file with the city clerk an application therefor and pay to him the required fee, which shall be computed at the rate of \$2 per annum: *Provided, however,* No license shall be issued for a less fee than 25 cents. The application shall be signed by the applicant and shall state the place where the business is to be carried on and the character of the business there to be conducted.

"SEC. 3. Upon the receipt of such application, accompanied by the license fee as above provided, except in case of renewal, it shall be the duty of the city clerk to notify the pure-food inspector that such application has been made, and he shall inspect, or cause to be inspected, the premises where said business is to be conducted, and if the premises are found to be in a sanitary condition and to comply in all respects with the provisions of the health and food ordinances of the city of Tacoma relating thereto, he shall recommend to the city clerk that such license be issued; but in case he shall find such premises to be in an unsanitary condition or that they do not comply with the ordinances above mentioned, he shall recommend that the license be refused.

"The inspector's recommendation shall be indorsed on the application. In case the inspector shall recommend that the license be refused, the city clerk shall return to the applicant the license fee deposited with him; but if he shall recommend that such license be issued the city clerk shall thereupon issue to the applicant a license to conduct the business mentioned in said application, at the place therein named. All licenses issued pursuant to this ordinance shall expire on the 31st day of December following. No license shall be transferable. All licenses must be conspicuously posted in a public place upon the premises for which such license was granted."

TOLEDO, OHIO.**Foodstuffs—Protection of—Persons Affected with Communicable Diseases Prohibited from Working Where Foodstuffs are Made or Sold. (Reg. Bd. of H., Apr. 29, 1915.)**

SECTION 1. That no person or persons shall operate any bakery, confectionery, creamery, dairy, dairy barn, milk depot, laboratory, hotel, restaurant or eating house, packing or slaughter house, or ice cream plant, huckster wagon or other vehicle, or any place where any butter, butterine, meat, lard, cheese, bird, fruit, cake, candy, confectionery, fish, fowl, vegetable, or other food article or food product is manufactured, packed, stored, deposited, collected, prepared, kept or exposed for sale, or offered for sale, produced or sold, for any purpose whatever, except bananas in the bunch, oranges, lemons, pineapples, grapefruit, uncut melons, and nuts of all kinds in the shell, where any of the said food articles or food products are not securely protected, by coverings or otherwise, so as to thoroughly protect the same from dust, dirt, flies, and by all reasonable means from all foreign or injurious contamination.

SEC. 2. That no employee, person or persons, operating any place recited in the first section of this order and regulation shall knowingly require, permit, or suffer any person to work in any building, room, cellar, basement, or vehicle, or any other place used or occupied for the purpose or purposes recited in section 1 hereof who is affected with any venereal disease, smallpox, diphtheria, scarlet fever, yellow fever, Asiatic cholera, leprosy, trachoma, typhoid fever, tuberculosis, epidemic dysentery, measles, mumps, German measles, whooping cough, chicken pox, or any other infectious or contagious or loathsome disease.

Bakeries—Construction and Sanitary Regulation. (Reg. Bd. of H., Apr. 29, 1915.)

SECTION 1. Each bakeshop inspector shall visit each bakeshop in his or her district as often as practicable, see that the regulations relating to bakeshops are strictly enforced, and perform such other duties as may be assigned.

SEC. 2. All bakeries shall be drained and plumbed in a sanitary manner and provided with such air shafts, windows, or ventilating pipes as are provided for by law. No cellar or basement shall be used as a bakeshop.

SEC. 3. Each bakeshop shall be provided with a suitable washroom and water-closet apart from the bake rooms where the manufacture of food products is conducted. No water-closet, earth closet, privy, or ash pit shall be in, or communicate directly with a bakeshop or any bakery for a hotel or public restaurant.

SEC. 4. Each room used for the manufacture of flour or meal food products shall be at least 8 feet in height. Side walls of such a room shall be plastered or wainscoted and the ceiling plastered or ceiled with lumber or metal. If required by the bakeshop inspector, such side walls and ceilings must be whitewashed or painted at least once in three months. The furniture, utensils, and machinery of each room shall be so arranged as to be easily moved and the furniture and floor kept thoroughly cleaned and in a sanitary condition.

SEC. 5. Manufactured flour or meal food products shall be kept in dry and airy rooms, so arranged that the floors, shelves, and other facilities for storing can be easily and thoroughly cleaned.

SEC. 6. The sleeping rooms for persons employed in a bakeshop shall be kept separate from a room where flour and meal, or flour and meal products are manufactured or stored. The inspector of bakeshops may inspect such sleeping places, if they are on the same premises as the bakeshop, and order them cleaned in compliance with sanitary principles.

SEC. 7. If, on inspection, it is found that the provisions herein relating to bakeshops have been complied with, the inspector may issue a certificate to the owner or operator of such bakeshop that it is being conducted in accordance with such provisions. If any order has been issued by the inspector to improve the condition of a bakeshop, such certificate shall not be issued until such order has been complied with.

WINTHROP, MASS.

Stables—License—Connections with Sewers. Manure—Care and Disposal. (Reg. Bd. of H., Apr. 5, 1915.)

That Rule 12¹ of the regulations of the board of health of the town of Winthrop be, and is hereby, amended by striking out said rule 12 and inserting in the place thereof the following:

“RULE 12. SECTION A. All parties proposing to erect a building to be used as a stable, shall, before commencing the erection thereof, file a petition with the board of health for a license, and a public hearing shall be held on such petition, notice of which hearing shall be published in the local newspaper.

“SECTION B. All stables erected after May 1, 1915, shall be connected with the public sewer, and all existing stables shall be so connected with the public sewer, if ordered by the board of health, whenever said board deems such connection necessary for the public health.

“SECTION C. No manure pile shall be left exposed, but all manure shall be placed in covered receptacles or in a pit with concrete sides and bottom, such pit to be properly covered and connected with the public sewer.

“The contents of all receptacles shall be removed at least twice each week, and all pits shall be cleaned out and the contents removed at least once each week during the months of May, June, July, and August each year.”

¹ Public Health Reports, Aug. 14, 1914, p. 2170; Reprint No. 230, p. 366.