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## RECENT PUBLIC HEALTH LEGISLATION.

A REVIEW OF THE MORE IMPORTANT STATE LAWS AND REGULATIONS ADOPTED DURING THE YEAR ENDED JUNE 30, 1915.

The following is a brief discussion of the more important public health legislation adopted during the year ended June 30, 1915:

### State Health Organizations.

During the year ended June 30, 1915, the health departments of Massachusetts, New Jersey, West Virginia, and the Philippine Islands were reorganized.

*Massachusetts.*—The Massachusetts department of health has replaced the former "board of health." The executive officer is the commissioner of health, who is appointed by the governor for a term of five years. He must be a "physician skilled in sanitary science and experienced in public health administration." His salary is \$7,500 per annum.

The public health council consists of the commissioner of health and six other members, who are appointed by the governor for three-year terms. The members receive "\$10 a day while in conference, and their necessary traveling expenses while in the performance of their official duties." It is the duty of the public health council to "make and promulgate rules and regulations; to take evidence in appeals; to consider plans and appointments required by law; to hold hearings; to submit annually to the general court, through the governor, a report including recommendations as to needed health legislation; and to discharge other duties required by law," but it has no administrative or executive functions.

The State is divided by the commissioner of health into eight health districts with a health officer in charge of each district. (Public Health Reports, Oct. 30, 1914, p. 2941.)

*New Jersey.*—The New Jersey act provides for a department of health governed by a board of eight members, appointed by the governor for four-year terms. Three of the members must be physicians, one a veterinarian, and two sanitary engineers.

The executive officer is the director of health, who is selected by the board. He must be a resident of the State of New Jersey, skilled in sanitary science, and must have had "actual experience in an administrative or executive capacity in some well-organized department of public health." His term of office is four years, and the salary \$5,000 per annum.

The department is required to enact a State sanitary code, embodying rules and regulations "the observance of which, in its opinion, will promote health and prevent disease." It is given power to enforce the laws of the State and the sanitary code in localities where, after notice, the local authorities fail to enforce them.

The board is required to codify the various laws of the State of New Jersey relating to the health of the people, and to continue the work from year to year "with the idea of preserving in concrete form the history and development" of the department of health of the State, "and contributing materially to a better and more comprehensive understanding of all laws relating thereto." (Public Health Reports, July 16, 1915, p. 2139).

*West Virginia.*—The State of West Virginia has also substituted for its State board of health a department of health, with a commissioner of health and a public health council. The law establishes two divisions in the department, one of preventable diseases and the other of sanitary engineering, with a director in charge of each division.

One provision of the law authorizes the commissioner of health, when in the opinion of the public health council any local health authority fails or refuses to enforce necessary laws and regulations to prevent the spread of diseases, to enforce the rules and regulations of the State department of health within the territorial jurisdiction of such local health authority. The public health council is also authorized to remove from office any local health officer who refuses to carry out the lawful orders and regulations of the council. (Public Health Reports, Apr. 9, 1915, p. 1119.)

*Philippine Islands.*—The bureau of health of the Philippine Islands has been superseded by the "Philippine health service," under the direction of a director of health and a council of hygiene. The act took effect July 1, 1915. (Public Health Reports, May 7, 1915, p. 1415.)

#### **Morbidity Reports.**

Many laws relating to morbidity reports have been adopted within the last few years. This is an indication that members of legislatures and others interested in the welfare of communities realize the importance of prompt notification of cases of communicable diseases in order that measures may be taken to prevent their spread.

During the calendar year 1913 more than half of the States of the Union adopted or amended laws or regulations requiring that cases of controllable diseases be reported to the health authorities. (Reprint No. 264, from the Public Health Reports.)

The State Board of Health of Ohio on October 21, 1914, adopted nearly all the provisions of the model law for morbidity reports in the form of a regulation. (Public Health Reports, Nov. 6, 1914, p. 3007.)

During the fiscal year ended June 30, 1915, the legislatures of Maine and Michigan amended the laws of those States requiring the notification of cases of communicable diseases. (Public Health Reports, Apr. 30, 1915, p. 1365, and June 18, 1915, p. 1853.)

Regulations providing for the reporting of communicable diseases were adopted in Delaware (Public Health Reports, Apr. 16, 1915, p. 1201) and in Illinois (Public Health Reports, June 4, 1915, p. 1723).

Additions to the lists of notifiable diseases were made in Louisiana, Montana, Porto Rico, and Vermont.

An amendment to the Massachusetts law requires more complete records to be kept by local health officers of cases reported to them, and the New York Sanitary Code makes provision for morbidity reports.

#### Control of Communicable Diseases.

Among the many legislative measures for controlling communicable diseases, adopted during the fiscal year ended June 30, 1915, the following may be noted:

*Tuberculosis.*—The Legislature of Michigan appropriated \$100,000 for the purpose of making a tuberculosis survey of the State and conducting an antituberculosis campaign. The money is to be expended during the fiscal years ending June 30, 1916, and June 30, 1917. (Public Health Reports, June 18, 1915, p. 1853.)

In Minnesota provision was made for the employment by the State forester of patients from the State Tuberculosis Sanatorium who are able to work. Counties or groups of counties are authorized to establish tuberculosis sanatoria. The law gives detailed instructions for the establishment and maintenance of such county sanatoria. (Public Health Reports, June 25, 1915, p. 1965.)

Indiana adopted a law extending the requirements for notification of cases of tuberculosis and requiring disinfection after the termination of each case. (Public Health Reports, May 28, 1915, p. 1657.)

*Plague.*—The outbreak of plague in New Orleans resulted in regulations in Louisiana and Mississippi intended to prevent the spread of this disease by vessels. (Public Health Reports, Apr. 9, 1915, p. 1116; Aug. 28, 1914, p. 2277.) The State of Texas appropriated \$25,000 to be used in preventing the introduction of plague. (Public Health Reports, Apr. 16, 1915, p. 1214.)

*Spread of diseases by dairy products.*—The Legislature of Maine passed an act authorizing the State board of health to prohibit the sale of milk or other dairy products from any place where contagion exists. (Public Health Reports, Apr. 30, 1915, p. 1362.)

*Venereal diseases.*—The legislature of Vermont passed an act intended to prevent the spread of venereal diseases. The act makes it a crime for any person knowing himself to be afflicted with gonorrhoea or syphilis to marry or to have sexual intercourse with another person. Physicians are required to report cases of venereal diseases and the State board of health is required to make and enforce regulations for the quarantining and treatment of cases of gonorrhoea and syphilis. (Public Health Reports, Apr. 16, 1915, p. 1214.)

*Communicable diseases generally.*—The State board of health of Delaware adopted general rules for the reporting of cases, placarding, and quarantining of communicable diseases, and for terminal disinfection. (Public Health Reports, Apr. 16, 1915, p. 1201.)

The Illinois State Board of Health adopted regulations for the control of communicable diseases, and specific regulations for cases of smallpox, scarlet fever, measles, and diphtheria. (Public Health Reports, Apr. 30, 1915, p. 1355 et seq.; June 4, 1915, p. 1723 et seq.)

The laws of Maine relating to the control of communicable diseases were amended. (Public Health Reports, Apr. 30, 1915, p. 1365.)

*Ophthalmia neonatorum.*—The legislature of the State of Louisiana passed an act requiring the notification of cases of ophthalmia neonatorum and making it the duty of local health officers to investigate each case. The State board of health is authorized to promulgate rules and regulations for the prevention of ophthalmia neonatorum and to provide for the gratuitous distribution of a prophylactic. (Public Health Reports, Oct. 30, 1914, p. 2933.)

An Oregon act requires that cases of inflamed, swollen, or reddened eyes in infants within two weeks after birth shall be reported within 24 hours to the local health officer, who is required to notify parents of the danger and instruct them as to the proper treatment. (Public Health Reports, Apr. 30, 1915, p. 1369.)

#### Schools.

*Medical inspection of school children.*—A regulation of the territorial board of health of Hawaii adopted February 11, 1915, requires that "teachers and scholars in all public and private schools" shall provide themselves each year with physician's certificates as to their freedom from any communicable disease. School physicians are to examine teachers and pupils not provided with certificates. (Public Health Reports, June 11, 1915, p. 1803.)

The Legislature of the State of Vermont passed an act providing for medical examination of school children, provided the voters of the

county, city, or incorporated district vote for such inspection. (Public Health Reports, May 14, 1915, p. 1459.)

A North Dakota act authorizes boards in charge of schools to provide for the medical inspection of school children "at least once annually." (Public Health Reports, June 4, 1915, p. 1730.)

A regulation promulgated in Porto Rico August 28, 1914, requires that every child upon enrollment "in the public and private schools and asylums" must present a certificate "as to his indemnity respecting trachoma." All school children are to be examined in January and April of each year. (Public Health Reports, Oct. 9, 1914, p. 2739.)

*Communicable diseases.*—A regulation of the State board of health of Mississippi makes it unlawful to employ in any school or other public or private institution any teacher, janitor, or other person suffering from a communicable disease. (Public Health Reports, Nov. 27, 1914, p. 3231.)

*Vaccination.*—A law passed by the New York Legislature prohibits the admission of any unvaccinated child into schools in any of the larger cities. In smaller places unvaccinated children must be excluded from school when the State commissioner of health certifies to the school authorities that smallpox exists in the "city or school district or in the vicinity thereof." Vaccination must be performed in the manner prescribed by the State commissioner of health. (Public Health Reports, Apr. 23, 1915, p. 1281.)

*Dental inspection and treatment.*—A board of dental hygiene was established in the Philippine Islands by an act approved February 5, 1915, for the purpose of "furnishing free dental service to the poor children in the public schools of the Philippine Islands \* \* \* and to any and all children attending public and private schools of primary instruction." (Public Health Reports, May 7, 1915, p. 1423.)

The Legislature of the State of Kansas authorized cities having a population of 40,000 or more to provide free dental inspection for school children. (Public Health Reports, May 14, 1915, p. 1457.)

*Open-air schools.*—An addition to the Indiana law makes it lawful to establish open-air schools. (Public Health Reports, May 28, 1915, p. 1658.)

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## PUBLIC HEALTH ADMINISTRATION IN CHICAGO, ILL.

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

By J. C. PERRY, Senior Surgeon, United States Public Health Service.

[This is the third installment of this report. The first installment appeared in the Public Health Reports of August 20, 1915, at page 2442, and the second appeared in the Public Health Reports of August 27, page 2536.]

**BUREAU OF HOSPITALS, BATHS, AND LODGING HOUSES.**

The activities of this bureau are indicated by the name; in addition certain establishments are inspected as a preliminary for licensing. The functions of the bureau are best considered under the following subdivisions: (a) Hospitals; (b) public baths; (c) municipal lodging houses; and (d) other activities.

**Organization.**

A bureau chief directs the several activities, and three medical inspectors constitute the active supervising field force. The number of clerical assistants is small, as most of the records are kept in the different institutions.

Before taking up for consideration the different activities, an abstract of the ordinances governing the various institutions over which this bureau acts in a supervisory capacity will be given. These apply especially to activities other than those directly connected with establishments operated by the health department and furnish the authority for the inspection service conducted by the bureau. They are briefly summarized as follows:

*Bathing beaches.*—Persons conducting boating, fishing, or bathing beaches must have a license.

By methods approved by the commissioner of health bathing suits must be disinfected, washed, and dried before being given out.

The location of a beach must be approved by the commissioner, and the beach must be equipped with boats, life rafts, etc.

Every beach must have a life-saver who has presented satisfactory evidence to the commissioner that he is familiar with approved methods for resuscitation of those apparently drowned.

Each beach must have a pulmotor.

*Dispensaries.*—Dispensaries are defined as places where medical and surgical advice and treatment are given free to indigent persons and drugs dispensed at a nominal cost.

Any dispensary must have a license and the person in charge must apply for it in writing to the commissioner, giving accommodations, the nature of the treatment, and the names and addresses of the physicians.

The commissioner must satisfy himself as to the truth and satisfactoriness of the application before recommending that a license be granted.

Every dispensary must keep a complete record of patients treated, and this must be open for the inspection of the commissioner or his representative.

Persons conducting a dispensary are required to report to the department at once by telephone and mail all cases of smallpox, scarlet fever, diphtheria, measles, whooping cough, rabies, cerebrospinal meningitis, gonorrhoeal ophthalmia, and other markedly contagious or communicable diseases.

Furthermore, each licensee must report weekly to the department of health all cases of consumption, typhoid fever, syphilis, and gonorrhoea reported to the dispensary, with the names and addresses of the patients.

A monthly report must be sent to the department of health showing a complete record of the dispensary during the month and the number of patients and treatments given, with a proper classification of the diseases.

*Hospitals.*—A hospital is defined as a place used for the reception or care, temporary or continuous, of two or more sick, injured or dependent persons, or used for

the treatment of two or more persons suffering from any mental or physical disease or bodily injury. The definition includes any hydropathic or massage institution.

A maternity hospital is defined to mean any place used for the reception and care of one or more women during pregnancy while awaiting confinement, during confinement, or for one month or less while recovering from confinement.

Such places must secure licenses and the application must make a true statement of the location of the hospital, the person for whom maintained, the accommodations, the kind of treatment, and the name and address of the chief physician, surgeon, or board of physicians.

The commissioner must have the facts of the application investigated before recommending that a license be granted.

A hospital building board, composed of the commissioner of health, commissioner of buildings, and the fire marshal, is created by one of the ordinances.

In every hospital each room to be occupied by patients must be of dimensions to give each patient not less than 800 cubic feet of space, and for each two beds there must be one window connecting with the air outside which will secure for each patient not less than 2,400 cubic feet of fresh air per hour by natural ventilation or a similar supply by mechanical means. Each bed must have at least 80 square feet of floor space. Each wing of the hospital must be provided with adequate toilet fixtures, bathrooms, lavatory, and running water. The building as a whole must be supplied with adequate stairways, exits, and proper fire escapes.

Each hospital building must have a suitable room for the isolation of communicable diseases.

No persons connected with any hospital may allow the body of a dead patient to be removed to an undertaking establishment inside of 24 hours, unless with the authority of some member of the family.

Complete records of all patients admitted must be kept. In the case of maternity hospitals the record must show the date of birth, sex, and disposition of every child born.

The superintendent, or other person in charge, must report to the commissioner daily by telephone and mail all cases of contagious diseases, such as smallpox, chicken pox, diphtheria, scarlet fever, measles, mumps, German measles, infantile paralysis, and other diseases classified by the commissioner as actively communicable. Weekly report must also be made covering mental diseases or drug addiction, typhoid fever, tuberculosis, epidemic cerebrospinal meningitis, pneumonia, and other diseases of this class. Monthly reports must be rendered, giving complete data concerning the number of patients treated, the diseases according to proper classification, and the names and addresses of patients dying during the month with the causes of death. In maternity hospitals the report must also set forth the registered number of patients received and discharged, the disposition of the infants born there, and the results of treatment.

It is unlawful for any physician, midwife, or nurse to take any women into his or her home for confinement or to place her for confinement in any place except a licensed maternity hospital.

*Nursery.*—A public nursery is defined as a place where, for hire or reward, infants are received and retained for more than 24 hours, while under the age of three years, for nursing and maintaining apart from their parents.

All nurseries must be licensed, the application setting forth all the particulars as to location, accommodations, and the name of the person in charge.

If investigation shows that the location, equipment, and accommodations are satisfactory, and that the superintendent is a person of good moral character and possesses sufficient knowledge for carrying out work of this character, the license is recommended.

Every person conducting a nursery must keep a register giving the name, age, and sex of every infant received, the date of reception, the names of the persons from whom

the child was received, and so far as possible the names, addresses, nationality, religion, and occupation of the parents, the time of removal, and the names and addresses of those by whom the child is removed.

Monthly reports, giving name, age, and sex of each child which is or has been in the institution during the month shall be made to the commissioner of health. Exceptions are made in institutions under the operation of the United States, State, and city officials.

#### Hospitals.

The following-named hospitals, operated by the department of health, are under the direction of the bureau: Contagious Disease Hospital, Isolation Hospital, and Iroquois Memorial Hospital.

*Contagious Disease Hospital.*—This institution receives cases of diphtheria only, and has a normal capacity of 65 beds, but when the exigency arises 80 patients can be accommodated. The hospital consists of five main buildings of two stories and basement, connected by corridors. Three of these are utilized for patients, who are distributed in the following manner in respective wards: Men and boys over 6 years, women and girls over 6 years, boys under 6 years, girls under 6 years, babies, and special rooms in which vaginitis in children is isolated. In addition, there are rooms for the isolation of cases of scarlet fever and measles that may develop in the hospital. The other two buildings are used as quarters for the employees. This hospital was constructed 20 years ago, and though the wards are light, airy, and satisfactory, much of the basement section is poorly arranged, and some essential features of a modern hospital do not exist. However, this deficiency has been overcome to a large extent by intelligent use of available facilities.

The hospital is under the direction of a capable medical superintendent, whose ability is exemplified by the excellent condition existing in this establishment. He and two assistant physicians furnish the medical care, and a staff of 17 nurses provides adequate nursing service. The necessary number of maids, orderlies, and attendants complete the personnel of the hospital proper. All employees reside on the premises.

On inspection this hospital was found scrupulously clean, and the administrative details were found correct in principle and application. The possibility of spread of infection to or through visitors is amply safeguarded.

*Ambulance service.*—In connection with this hospital and under the direction of the superintendent an ambulance service is maintained for handling all cases of contagious diseases removed to the different hospitals. The hospitals receiving such cases are the Contagious Disease, Isolation, Cook County, Durand, and St. Francis.

This service is equipped with five modern motor-driven ambulances and has a personnel of five ambulance surgeons, five chauffeurs,



feurs, and five attendants. There is, therefore, a surgeon, chauffeur, and attendant for each ambulance in service.

The method governing the calls for use of an ambulance has already been given in considering the division of contagious diseases. A book record is kept of the trips made, and when the case is taken to some other hospital the station is telephoned to ascertain if there are other calls to be made before returning.

The city also maintains a general ambulance service, which transports accident and emergency cases and those of all classes other than contagious diseases. This is under a superintendent, and for some reason not clearly defined is under the control of the police department.

It is believed that for efficiency of operation and economy of administration this service should be transferred to the health department, so that all the ambulances will be under one head and in the main kept ready for call at one central point. When the new Contagious Disease Hospital is completed, a garage of ample size could be erected on the grounds, and thus provide a satisfactory station. Nevertheless, it would probably be necessary to have a few substations to facilitate the work on account of the large territory covered by the city.

*Isolation Hospital.*—This hospital is located on the same grounds as the Contagious Disease Hospital, but sufficiently removed from the latter to meet all requirements. The Isolation Hospital receives only cases of smallpox. It has a capacity of 35 beds, but if necessary 50 patients can be accommodated, and by the use of tents, which are kept on hand, 100 cases of smallpox can be taken care of. The general arrangement of the building is satisfactory, consisting as it does of small wards and rooms for patients of different sex and age.

The hospital administration is under sisters of charity and it is satisfactorily conducted. A medical superintendent visits the hospital each morning when there are cases under treatment. He does not live on the premises, but all the employees directly connected with the hospital live in sections of the building set aside for that purpose.

An inspection showed the hospital clean, sufficiently equipped, and carefully administered to guard against any spread of infection.

*Iroquois Memorial Hospital.*—This is a small emergency hospital located in a congested district of the city. It was built as a memorial from funds subscribed by persons who lost relatives in the Iroquois Theater disaster. Upon completion there was no endowment to provide for its operation and it was turned over to the city and transferred to the health department for this purpose.

It has only a limited personnel; a medical superintendent, one physician, two nurses, and a few orderlies. This hospital is strictly

a first-aid institution and is not equipped for the care of patients other than as a temporary expedient. Any patient is received and given first-aid treatment, and then sent to his home or some other hospital.

Antihydrophobia treatments are given at this hospital free to all persons who have been bitten by rabid animals and who apply for the same. The cords used are generally secured from the Hygienic Laboratory of the United States Public Health Service.

An inspection showed the hospital to be clean and properly administered.

#### Public Baths.

There are maintained 18 public baths located throughout the poorer and tenement sections of the city. These baths are free and there is no restraint on the number of times a person can attend. They are open four afternoons a week for men and boys and twice a week for women and girls. Individual clean towels and cakes of soap are furnished each bather.

The bathhouses are in the majority of instances small, being equipped with showers varying from 14 to 40, with an average of 25. Most of the bathhouses are equipped with closed baths, arranged to provide an undressing place in connection with the shower. Three or four have open showers for men and boys, but in these houses there are closed baths for women and girls. In a few bathhouses a tub has been installed for use in bathing young children and old women. Open baths are satisfactory for men, but women and girls will not use them, and on the whole the closed ones, affording privacy, are the most desirable.

Most of the bathhouses are built with two stories and a basement; the boilers for heating the water, storage tank, and laundry are located in the basement; the baths are installed on the first floor; and the second story comprises a four or five room flat. The last mentioned provides living quarters for the bath superintendent, although in specific instances this flat is used for other purposes.

The waiting rooms at most of the baths are too small, and the patrons often have to stand on the outside waiting their turn to bathe. In the new bathhouses contemplated, greater reception-room capacity should be provided. The majority of the houses and their equipment can be considered in only fair condition. The stairways at the rear of the buildings are in need of repair, and the interior of many houses requires painting. Suitable laundry tubs and washers are needed in most of the bathhouses, and in some instances the steam plants should be repaired.

*Operation.*—The number of employees at a bath is limited and insufficient on account of lack of necessary funds for this activity. Each bath has a superintendent and one or two female attendants.

The former receives the people, assigns the baths, turns on the hot and cold water, regulates the duration of bath, and acts as fireman. He also keeps a record of the number bathed and forwards reports to the bureau. In the mornings he often does general repair work, pipe fitting, painting, etc. The superintendents all seem to be interested in their work and endeavor to maintain the baths of which they are in charge in as satisfactory a condition as possible. The female attendants wash the towels, all of which are boiled, scrub out the bathroom, do general cleaning, and have immediate charge of the baths when women and girls are bathing. Thirty minutes are allowed each group in which to undress, bathe, and dress. As they file out of the bathroom they must deposit the towels used in a specific place in view of the superintendent. This procedure obviates a great loss of towels.

It may be stated, in general, that the operation of the baths is satisfactory, the buildings are kept clean, and, although the number of employees is too few for the best results, this can not be avoided, since adequate funds for this activity have not been given.

The records show that a large number of people living in the vicinity of a bath freely utilize such bathing facilities, and as they are located in the poorer sections of the city, where many of the houses are not provided with bathtubs, these baths prove a boon to this class of inhabitants.

The department desires to extend such facilities and has asked for an appropriation to build a number of new bathhouses and thoroughly repair the existing ones. A larger sum is also needed for maintenance and operation, but as yet ample funds have not been appropriated.

#### **Municipal Lodging Houses.**

The city operates a main lodging house and two branch ones, which together can accommodate about 4,400 lodgers each night. Only one of the houses is owned by the city; this was formerly used as a fire station and has been repaired and equipped for its present use. The building is old and not very well suited for the purpose. The other two buildings are rented. The need of greater accommodations for the city's unfortunates is apparent and a large building of satisfactory equipment should be provided. This necessity has been realized by the health department, and an appropriation for this purpose has been requested.

The administrative center is located in this building and the records are kept here. All those who apply for lodging for the first time and those who are indisposed, suffering from colds, or are old and feeble are assigned beds in this building. Others are distributed to the branch houses, which have no sleeping accommodations except the floor, but on cold nights a blanket is furnished to each lodger.

*Operation.*—A superintendent has control of the three lodging houses, with his headquarters in the main one; he has an assistant and a clerk for keeping the records. There are 11 acting assistant superintendents or supervisors and 16 attendants on duty in the buildings, so that a requisite number is on duty in each watch. These employees are selected from some of the more capable lodgers.

The cooks and firemen are selected in the same manner and are paid a nominal wage. A number of housemen are selected from the lodgers for the work of scrubbing the floors and keeping the quarters generally clean. They are furnished a cot for sleeping and their food.

Another employe, who may be termed a social worker, goes among the lodgers, especially the "first nighters," learns their history and their capabilities, and endeavors to find employment for the worthy.

There is no charge for sleeping quarters and each lodger who comes in before 10.30 p. m. is given a cup of coffee and a third of a loaf of bread; at times, when the weather is extremely severe a plate of meat stew is also provided. All lodgers are also given coffee and bread in the morning.

The lodging houses open at 5 o'clock in the afternoon and remain open throughout the night. No one who applies is turned away. Each lodger, as he enters, gives his name, and the record is consulted to ascertain if this is his first application or not. If he has not previously made use of the municipal lodging house, a record card is made out, giving his name, nationality, age, occupation, how long in the United States, etc. Boys are questioned as to their condition and family history, and if they have run away as a result of an estrangement, their parents are communicated with and an effort is made to send them home. In other cases an effort is made to find employment for them.

A physical examination is made of a "first nighter" to determine whether he is suffering with a contagious disease or physical defects, and he is vaccinated if necessary. All lodgers are inspected on entrance to detect contagious disease, and all that are ill are examined by a physician and sent either to the county hospital or referred to the county physician for treatment.

Those that are furnished a bed are given duplicate checks, one of which is placed around the person's neck, and the other on the bag in which he puts his clothes. After undressing he must take a bath, put on the night shirt furnished him and go to bed. In the morning he delivers his check to an attendant, secures his clothes, and leaves the house. No lodgers are allowed to remain in the building during the day. No smoking in the building is allowed. When the applicant has been a lodger on a previous night, his card is marked with the current date, and he is assigned to one of the branch houses.

Each building is equipped with a kitchen and some rough tables for the serving of the bread and coffee.

The lodging houses open the middle of October and close June 15. In the early fall months the attendance is comparatively small, but with the advent of cold weather the number rapidly increases and remains more or less constant until spring. The number for the past two years has shown a marked increase, and during the present season the nightly average has been near 4,000.

An inspection of the municipal lodging houses found them clean and satisfactorily administered.

*Rufus Dawes Hotel.*—There are a number of privately owned lodging houses, but a consideration of them in this report is not required. However, one, the Rufus Dawes Hotel, is such a worthy example of what philanthropy can do for the "down and out" that brief mention seems advisable. This lodging house furnishes a bed in the main room for 5 cents or in a private room for 10 cents. It is equipped with 520 beds, ample bathing facilities, lavatories, lobby, and dining room. Bread, coffee, and meat stew can be purchased for 5 cents. The above nominal charges are made for both beds and food, and neither is furnished free. No profit is expected from the venture, but it is stated that the small charge made practically pays the cost of operation.

*Inspection of lodging houses.*—The bureau carries out a general inspection of all lodging houses the first of the year, but the limited personnel does not permit of satisfactory supervision. The State has several lodging-house inspectors on duty in the city, but as there are specific city ordinances regulating the cubic air space per person and the ventilation of such buildings it would seem advisable to transfer this important activity to the city health department and to enlarge the functions of this bureau by providing the necessary number of inspectors to execute this inspection service.

#### Other Activities.

Under this subdivision are embraced the general inspection and supervision of such institutions as hospitals, dispensaries, asylums, nurseries, and bathing beaches. A careful inspection is made of all such new establishments as a necessary preliminary for license, and a general canvass is made of all institutions of this class twice a year, in order to ascertain if the requirements of the ordinances are met and to determine their general sanitary condition. In cases where corrections have been required more frequent inspections are made until the change has been effected.

Three medical inspectors are employed in this service, and their work is more in the nature of special investigations than ordinary inspection duty. They report at the bureau each morning for assignments.

Other work performed by this bureau is the examination of persons designated as life-savers at the different bathing beaches and swimming pools. Applicants are required to undergo a practical examination as to methods of rescuing people from the water and in the resuscitation of those apparently drowned. These examinations are generally carried out at one of the gymnasiums, and the applicant is required to show thorough fitness for the position which he seeks.

#### Administration.

This bureau is efficiently administered, and considerable work is accomplished with a limited personnel. The different institutions under its direction are kept clean and maintained to as high a degree of efficiency as is possible with the amount of funds allotted for the different activities.

The work accomplished during 1914 is presented herewith:

#### Contagious Disease Hospital:

|   |       |
|---|-------|
| Total cases treated.....                      | 1,318 |
| Total cases diphtheria treated.....           | 1,261 |
| Total cases diphtheria, laryngeal type.....   | 219   |
| Total deaths, diphtheria, laryngeal type..... | 105   |
| Total deaths.....                             | 143   |

#### Isolation Hospital (smallpox):

|                                   |       |
|-----------------------------------|-------|
| Total cases admitted.....         | 74    |
| Total vaccinations, smallpox..... | 1,322 |

#### Iroquois Memorial Hospital:

|  |        |
|--|--------|
| Total cases admitted.....                          | 1,426  |
| Total out-patients treated.....                    | 5,332  |
| Total treatments given.....                        | 16,668 |
| Total treatments, antihydrophobia (new cases)..... | 234    |
| Total treatments, antihydrophobia (old).....       | 4,663  |
| Total Wassermans made.....                         | 428    |

#### Ambulance service:

|                        |       |
|------------------------|-------|
| Total day trips.....   | 1,351 |
| Total night trips..... | 738   |

#### Contagious diseases removed to hospitals:

|                    |       |
|--------------------|-------|
| Total cases—       |       |
| Diphtheria.....    | 1,559 |
| Scarlet fever..... | 699   |
| Measles.....       | 128   |
| Smallpox.....      | 67    |

#### Bathhouses:

|                        |         |
|------------------------|---------|
| Total baths given..... | 816,328 |
| Men.....               | 552,806 |
| Boys.....              | 139,120 |
| Women.....             | 49,278  |
| Girls.....             | 75,124  |

#### Lodging houses:

|                               |         |
|-------------------------------|---------|
| Total number of lodgings..... | 452,361 |
| Admitted for first time.....  | 27,733  |
| Visual inspections.....       | 363,869 |
| Found diseased.....           | 5,559   |

**Miscellaneous:****Inspections—**

|                                |     |
|--------------------------------|-----|
| Hospitals (primary).....       | 187 |
| Asylums (primary).....         | 147 |
| Dispensaries (primary).....    | 31  |
| Nurseries (primary).....       | 20  |
| Bathing beaches.....           | 26  |
| Swimming and wading pools..... | 23  |
| Bathing establishments.....    | 50  |
| Lodging houses.....            | 16  |
| Complaints investigated.....   | 66  |
| Special investigations.....    | 23  |
| Hospital plans approved.....   | 4   |

**BUREAU OF SANITARY INSPECTION.**

The work of this bureau is extensive and of a diversified character and is probably best considered by taking up in detail that performed by each division. For purposes of administration nine divisions have been created, as follows: Plan examination, plumbing, ventilation, restaurants and bakeries, workshops and stables, miscellaneous, complaints, suits, and clerical.

Six of the divisions are in immediate charge each of a supervisor, the miscellaneous division is supervised by the assistant bureau chief, and the plan examination division and office are respectively under the supervision of a plan examiner in charge and a chief clerk. The line of authority is theoretically from the supervisors through the assistant bureau chief to the chief of bureau; but as it actually exists all matters go directly to the bureau chief, and the assistant only has charge of the miscellaneous division, which has three inspectors and an ill-defined authority over the plumbing division.

In a bureau having such varied activities there is some seasonable fluctuation in the number of inspectors in the different divisions. In the spring of the year more inspectors are assigned to those divisions in which inspections of various establishments are required for issuance of licenses. During summer a greater number of complaints are received, and in the winter more employes are assigned to house-to-house inspections.

**Division of Plan Examination.**

One of the most important functions of the bureau is the control exercised over the construction of all new buildings and any alteration or repairs of existing buildings, especially the changing of dwellings into tenement houses, and the remodeling of buildings for bakeries, restaurants, and motion-picture theaters.

The operations are carried out by the division of plan examination under authority of the State law of 1881 and ordinances governing construction, altering, or repairing of buildings.

One chief examiner and three assistants are intrusted with this work, and the plan examiner in charge is given authority to settle all minor questions as to the construction of the ordinance in particular cases. When doubt arises whether the plans, as presented, meet the particular requirements as to ventilation, plumbing, or the specific purpose for which the building is to be used, the plan is referred to the supervising inspector of the respective division. Complicated plans, and those in which examination show marked variation from the requirements of the ordinances, are referred to the chief of bureau or the assistant chief for final decision of the changes that must be made before approval will be granted.

The method pursued is to take up in turn the plans presented by applicants and examine them for the various points under the jurisdiction of the health department, such as lighting (window area), plumbing, ventilation, and size of rooms. If the plan is found unsatisfactory in any of these particulars, the person presenting it is advised of the changes necessary for approval, although in some cases a formal letter is sent the architect, covering the salient points. When the plan is approved, it is turned over to a clerk who makes a record card embracing the pertinent data, and sends the plan to the photographic room for photostatic copy to be filed with the card. Formerly a copy of the plan was retained and this method of filing proved very cumbersome.

The questions which arise in connection with new buildings of any type are relatively simple, but the application of ordinance requirements to the alteration and reconstruction of buildings often involves serious questions of reasonableness as to the extent to which the requirements affecting new houses should be applied in reconstruction cases. The consideration of such points often requires a careful weighing of salient features in order to arrive at a just and satisfactory conclusion, and one occupying the position of plan examiner must not only be endowed with certain technical knowledge but also with sound judgment.

*Summary of ordinance provisions.*—The provisions of ordinances governing buildings are quite extensive and difficulty has been experienced in summarizing them briefly without omitting important points; therefore, in the following abstract the importance of a clear understanding of the requirements governing buildings, especially tenement houses, in their relation to health, has been borne in mind.

Ordinances provide as follows:

All plans for the construction or alteration of any building or other structure, for which building permits are required, shall, before such permits are issued, be presented to the commissioner of health for examination and approval as to the proposed plan of ventilation of rooms, light and air shafts, windows, drainage, and plumbing. Plans must also be presented to the fire marshal for approval as to standpipes, fire-fighting apparatus, and safety.



Architects' plans, properly and accurately drawn to scale, showing lot lines, and the entire sewerage and drain pipes and the location of all plumbing fixtures must be presented.

In erecting, altering, or repairing any building, no departure from the plan approved by the commissioner of buildings and the commissioner of health shall be made, when such departure affects means of egress, ventilation, natural lighting, or sanitary conditions, without first obtaining the consent of the commissioners to the changes. Such a departure from the approved plans involves a violation of the building ordinances and operates to annul the permit issued for such work and renders the same void.

In event any work is done under a permit authorizing erection, alteration, or repair of a building or structure, which work is contrary to approved plans, the commissioner of buildings or the commissioner of health and his assistants shall have power at once to stop such work and to order all persons engaged therein to stop.

No contractor or builder shall begin work on any building or structure for which a permit is required until such permit has been secured. In case any such work has been commenced the commissioner of buildings and his assistants shall have power at once to stop the same.

*Classification of buildings.*—All buildings are divided into specific classes. Class II, subdivided into Class IIa, Class IIb, and Class IIc.

(a) Class IIa includes every building used for office purposes, and also every building used for clubhouse purposes where sleeping accommodations are provided for less than 20 persons.

(b) Class IIb, includes every building used for hotel, club, lodging, or rooming house purposes, where such building has sleeping accommodations for 20 or more persons.

(c) Class IIc includes every building used for hospital, for housing sick and infirm, imbeciles, or children, jails, police stations, asylums, houses of correction and detention, and homes for aged and decrepit, where sleeping accommodations are provided for more than 10 persons.

In every building hereafter erected for or converted to the purposes of Class II, courts shall be of width and area prescribed by ordinance, and every room used as a sitting room or as a sleeping room shall have at least one window opening directly upon a street, alley, yard, or court. The glass area of such window or windows shall be not less than one-tenth of the floor area of such room; at least the upper half of the window shall be capable of being opened; provided that sleeping cells in jails, police stations, and houses of detention need not have each a window, if such cells are in block which has windows equal to one-fourth of the floor area of such block, and that such cells shall be equipped with a system of mechanical ventilation approved by the commissioner of health.

In every such building there shall be at least one window in every pantry, bathroom, water-closet and urinal compartment, one-tenth of the floor area of such room, opening on street, alley, court, or ventilating shaft. If such room is located in upper story it may be lighted and ventilated by skylight having glass area of one-tenth of floor space. However, such rooms or compartments in a building used for office, club, or hotel purposes may be ventilated by an approved ventilating system in lieu of such windows.

Every mechanical ventilating system shall be tested for volumetric efficiency in the presence of a representative of the commissioner of health, and such system shall not be considered as meeting the requirements until approved by said commissioner.

*Sleeping stalls.*—They shall not be constructed or used in any room of any building unless such room has two or more windows which open directly upon a street, alley, yard, or court and have a total area of at least one-tenth of the floor area of such room,

nor unless the semipartitions are so constructed as to have a clear interval of at least 30 inches between their top and the ceiling. Such stalls must have not less than 400 cubic feet of air for each person when all the stalls are occupied to their full capacity.

Buildings of Class IIc shall be of fireproof construction if of more than two stories in height. Proper fire escapes, standpipes, portable pumps, and fire extinguishers shall be provided.

Class III: In this class shall be included every building used as a family residence, garage, or for stabling purposes, and having an area of less than 500 square feet.

In every building of this class every habitable room shall have a window or windows equal to one-tenth of total floor area of said room; and no window shall have a glass area of less than 10 square feet. Such room shall have a floor area of not less than 80 square feet and a clear height from floor to ceiling of not less than 8 feet 6 inches. However, attic rooms may be only 8 feet 6 inches high for more than one-half their area, and such rooms shall have a total cubic content of not less than 750 cubic feet.

In every building hereafter erected or converted for the purpose of Class III, every pantry, water-closet, bathroom, and urinal compartment shall have at least one window with a glass area of not less than 6 square feet.

Class IV: Buildings falling in this class and its subdivisions are churches, banquet halls, dance halls, assembly halls, etc. Those for motion-picture shows, vaudeville, also skating rinks, and grandstands at athletic or amusement parks.

Class V: This class contemplates buildings used as public theaters and assembly halls hereafter erected that have a seating capacity of over 300, and containing a permanent stage on which scenery and theatrical apparatus are used, and in which regular performances are given.

Class VI: In this class shall be included every tenement and apartment house or building or portion thereof, intended to be used as a residence for two or more families living in separate apartments.

Extensive provisions are made governing the construction of new tenement houses, briefly as follows:

New buildings or changes or alterations of existing tenement houses shall conform to all the requirements of ordinances, shall not be begun until a permit therefor has been issued by the commissioner of buildings, and no tenement house shall be occupied for human habitation until a permit has been issued by the commissioner of health that said building conforms to all the requirements relative to light, ventilation, plumbing, and drainage, applicable to such buildings, nor until the commissioner of buildings grants a certificate that requirements relative to fire escapes and egress have been met.

At the time of application for permit, a plat of the lot showing the dimensions and position of the building to be erected thereon shall be presented. The height of a new tenement house shall not exceed by more than one-half the platted width of the widest street on which it abuts, and no existing tenement house shall be increased beyond such height.

No existing tenement house shall be so enlarged or its lot diminished so that the rear line of any building on such lot approaches nearer than 10 feet to the rear line of the lot. If the rear of lot abuts on an alley, the rear line of the building shall be not less than 16 feet from the opposite side of such alley.

When a building exists or is erected on a lot, no other building shall hereafter be placed on the front or rear of the lot, unless there is a minimum distance of at least 10 feet between the buildings if both are only one story; five additional feet are added to the minimum distance of 10 feet for every additional story.

Existing houses shall not be enlarged, lot diminished in size, nor new building erected so as to cover more than 85 per cent of the lot area when on a corner, although in some instances 90 per cent may be allowed. On all other lots not more than 75 per cent of the lot area shall be covered by the building or buildings.

There shall be a yard or alley in the rear which is free and unobstructed from earth to sky; excepting that fire escapes, not more than four feet wide, may encroach on this space. Such yard shall have an area of at least 8 per cent of the superficial area of corner lots and 10 per cent on other lots. Every such yard shall be increased 1 per cent of the superficial area for every story above three stories in height of the tenement houses situated thereon.

The width and area of inner courts are prescribed for new tenement houses in accordance with the number of stories in height of such buildings.

Provisions also prescribe the size of outer lot line courts and their connection with street or alley.

The width and area of ventilating shafts are prescribed in accordance with the number of stories of the building, as well as the connection of such ventilating shafts with a street or alley by one or more horizontal ducts or intakes, at a level not lower than the finished grade of the building, nor higher than the second-story floor; the total area of such ducts to be not less than 3 per cent of the area of such ventilating shaft.

Every public stair hall shall have for each story a window of an area of not less than 12 square feet opening on street, alley, court, or shaft; or shall have an unobstructed vertical wellhole of proper area according to number of stories, and directly over the wellhole a skylight of twice the minimum area.

In every new tenement house all habitable rooms shall be of the following sizes:

In each apartment there shall be at least one room containing not less than 120 square feet of floor area and every other room shall contain at least 80 square feet of floor area. Each room shall be not less than 8 feet 6 inches high from floor to ceiling.

No part of any room in a tenement house shall be inclosed or subdivided by a curtain, portière, fixed or movable partition, or other device, unless each part of the room subdivided contains a separate window and has a floor area of at least 80 square feet.

No room in any tenement house shall be occupied so that the allowance of air to each adult person living or sleeping in such room shall be less than 400 cubic feet, or less than 200 cubic feet for each person under 12 years of age.

Every habitable room shall have a window area equal to at least one-tenth of the floor area. Such window shall have a glass area not less than 10 square feet and be so constructed as to at least permit opening the upper half. Bathroom, pantry, water-closets, and urinal compartment shall have windows of at least 6 square feet for each compartment.

In no new tenement houses shall any room in a cellar be constructed or occupied for living purposes, and no room in the basement shall be used for living quarters unless such room shall be at least 8 feet 6 inches high in the clear, and shall have at least one-half of such height above the finished grade of said premises at the building.

Every new tenement house more than five stories and basement high, shall be of fireproof construction; every new tenement building of three stories and basement high, and less than five stories, shall be of slow-burning or fireproof construction.

In all new tenements not of fireproof construction entrance halls and stair halls shall be inclosed with walls of solid masonry, and divisions between different apartments shall be of the same material.

Sufficient stairways and fire escapes shall be provided in accordance with character of construction, number of stories of buildings, and number of rooms. Stairways and fire escapes shall be kept unobstructed, in proper repair, and provided with suitable landing stages.

Proper plumbing shall be installed, including at least one kitchen sink with running water in each apartment, and in existing buildings where this provision does not exist, there shall be at least one sink on each floor.

Class VII: Includes every building known and described as a department store.

Class VIII: Includes every building used for school purposes and having a seating capacity of more than 100 students.

*Garbage.*—Proper vessels for garbage shall be provided by the owner, agent, or occupant of any building, apartment, or tenement where persons reside, board, or lodge and where food is served. This can shall be of metal with tightly fitting cover. A separate vessel shall also be provided for ashes and miscellaneous waste.

The work of plan examination is carefully executed and before approval is granted the plan of the proposed building must be accurate and complete in details. The construction of the building is followed, and the salient features pertaining to the work of different divisions are carefully watched by the inspectors. Any departure from the approved plan is noted and reported to the bureau, which orders necessary changes, or stops the work until the matter is adjusted.

This control over buildings by the commissioner of health and his assistants is a wise provision and constitutes one of the most important functions of the health department. The requirements governing the construction of tenement houses has resulted in improved housing conditions for the poorer inhabitants.

*The tenement problem.*—The ordinance governing the construction of tenement houses is one of the best the writer has seen, and as the requirements are now being enforced, the housing conditions are showing a gradual improvement. The law was not enacted until 1911, and previous to 1910 the work of construction was not followed up after approval of plans, and departures from the plan as presented were often made in the construction of the building. Control is now also exercised over the moving of a building from one lot to another, or to another portion of the same lot. Sufficient data must be presented to show that the proper space between buildings, yard area, etc., will exist, and one of the plan inspectors generally verifies this by actual inspection of the premises. Special attention is also paid to buildings in which repairs and alterations are approved in accordance with plans, and inspections of the work are made to determine that they are carried out.

The question of proper housing is one of the most important subjects engaging the attention of the sanitarians. The relation between damp, dark, crowded, and improperly ventilated living quarters and tuberculosis is so clearly defined that our municipal authorities and citizens generally are demanding improvements in the tenements as a preventive measure.

Chicago has its housing problem as well as every other large city, and though its rows of tenements differ in being only two and three

story buildings, the crowding in dark and unventilated rooms presents an insanitary condition that in some districts is as bad as, if not worse than, those existing in other large cities. The population per area is not so crowded as in New York, but the house and room conditions are no better.

The growth of the city has been so rapid and the influx of immigrants so large that certain definite tenement sections for unskilled labor requiring cheap living quarters have sprung up around the big industrial plants and the terminals of the various railroads. Cheaply constructed of wood, insufficiently lighted, and inadequately equipped with plumbing, in order to insure a cheap rental, these buildings are in the main insanitary and badly crowded.

The working class of the population is distributed mainly over the western and southern divisions of the city. The former section is the factory and work shops district, and contains many very insanitary tenements. In the southwest, where the lots were cheap, frame houses covering practically all the lots have been erected, and these are badly crowded and insanitary.

The poorest and most overcrowded districts are in the central portion of the city, and here the inhabitants of different nationalities occupy specific areas. In the heart of this district the Italians live; near them to the west the Poles and Jews have congregated; the Bohemians live at the southern end of this district; the Germans and Swedes occupy the north and northwest portion of this district; and the Slavs live back of the stockyards. The old houses in these districts are two-story wooden structures, overcrowded and insanitary.

The Jewish ghetto is in the heart of this district, and is squalid, dirty, and insanitary. The houses are old wooden, dilapidated affairs, and the only novelty offered is their street markets. This section is inhabited mostly by Russian Jews.

In the northern section of the city a large percentage of the buildings are brick.

The great bulk of the laboring class live in rented apartments of four to six rooms. The skilled workmen, especially the Poles, Bohemians, and Germans, however, show a strong desire to purchase their homes and build two-story apartment houses of wood or brick, living on the first floor and renting the second.

A large number of these two-story apartment houses have been built, and they are strictly a "Chicago type." An alley space, 4 feet wide, is required between houses, and a certain yard area must be provided. The new two and three story tenement houses are very satisfactory, and they are gradually replacing the old insanitary and poorly constructed buildings.

Another factor that will act to eliminate the old type of tenement is the increasing value of the lots for commercial purposes in several such sections. In a few years a decided reduction in the number of these tenement houses will thus be effected.

In order to show the improvements that are taking place in providing better housing conditions, the following statistics are presented:

*New buildings.*

|                                       | 1909   | 1910   | 1911   | 1912   | 1913   | 1914   |
|---------------------------------------|--------|--------|--------|--------|--------|--------|
| Residences, one family.....           | 3,078  | 3,075  | 2,989  | 3,266  | 3,745  | 3,846  |
| Flats and tenements.....              | 4,304  | 4,362  | 4,599  | 4,767  | 6,043  | 6,300  |
| Total (including other buildings).... | 11,241 | 11,409 | 11,106 | 11,325 | 11,091 | 11,395 |

## ANALYSIS.

|  | 1913   | 1914   |
|--|--------|--------|
| <b>Tenement buildings:</b>               |        |        |
| Two stories.....                         | 3,834  | 3,519  |
| Three stories.....                       | 2,207  | 2,761  |
| Four stories and over.....               | 2      | 20     |
| <b>Number of families in apartments:</b> |        |        |
| First floor.....                         | 5,744  | 6,285  |
| Second floor.....                        | 6,394  | 6,775  |
| Third floor.....                         | 2,535  | 3,132  |
| Basement.....                            | 430    | 385    |
| <b>Number of rooms in apartment:</b>     |        |        |
| Two rooms.....                           | 150    | 292    |
| Three rooms.....                         | 347    | 535    |
| Four rooms.....                          | 5,091  | 5,577  |
| Five rooms.....                          | 4,581  | 5,150  |
| Six rooms and over.....                  | 4,936  | 5,023  |
| Total number of apartments.....          | 15,105 | 16,577 |
| Number of apartments with bathtubs.....  | 14,553 | 16,250 |

A study of the analysis of tenement houses shows that a very small per cent of apartments are in the basement, and these are nearly in all instances for the accommodation of the janitor of the building. In the old tenement houses there is a considerable number of basement apartments. There are very few apartments above the third floor and this is probably explained by the fact that such occur only in fireproof buildings. It also shows that the "Chicago type," a two-story apartment house, predominates.

**Division of Plumbing Inspection.**

The department of health has had control of plumbing inspection for several years, and to facilitate the operations of this division the city is divided into 23 districts, to each of which an inspector of plumbing is assigned. A supervisor directs their work. If, in the case of the plumbing in new buildings, or those undergoing repairs or alterations, any objection is made to the plans presented

because of arrangement or number of fixtures, the supervisor passes on the point.

*Inspection.*—The procedure is as follows: When a plan for a new building has been approved, a clerk makes an extract embracing the data concerning plumbing in the house, with street address at which the proposed building is to be erected, and a duplicate of this card is given the inspector in whose district the work is located. It is the inspector's duty to follow the construction of the building, to report progress, and especially to supervise the installation of the plumbing to see that it conforms to the requirements of the plumbing ordinance and that the requisite number of fixtures are installed and properly placed. The inspector must report within two months on the condition of the building.

The ordinance governing plumbing is embodied in 126 sections, and as the subject matter is that generally embraced in plumbing codes, a full abstract of the ordinance is not deemed necessary in a report of this character.

Briefly summarized, it provides for the examination and licensing of plumbers; proper tests of plumbing installations; specifies the number of fixtures in different buildings according to the number of persons residing or employed therein; also the size, support, and connection of the different pipes and the type of the different fixtures.

The plumbing ordinance was enacted several years ago, and some revision and amending is needed to make it more satisfactory; for instance, the size of pipe for smaller fixtures is not given, and if amended so as to require a test or clean-out plug on the house drain near the wall of the building, the work of testing the plumbing would be expedited. Furthermore, changes in plumbing in an existing building without structural changes in the house do not require a permit, so that much work of this character is installed without any supervision or testing. The inspector in the district is expected to detect these changes and see that proper installation is made; but, in the absence of any information as to locality, this haphazard procedure naturally results in much of this work escaping his attention. The remedy is to require a person desiring to change the plumbing in his house to secure a permit.

The primary test is made when the fixtures and pipes are roughed in. When the work has reached this stage, the plumber notifies in writing that the work is ready for testing. An entry is made of this fact, and the inspector is notified that certain tests are waiting his attention. A water-pressure test is then made, the record entered on the card for the particular building, and the card filed in the group of incomplete work. When the work is finished and final inspection

has been made, the record is completed and the card placed in the proper file.

As the ordinance provides that no trap shall be placed in the house drain between the building and the sewer, the proper closing of the drain for application of the water test at times taxes the ingenuity of the plumber. A simple and effective apparatus designed by the supervisor of this division consists of a rubber bag of sufficient size when distended with water firmly to close the drain pipe, with a long piece of rubber tubing attached. The method of using it is as follows: A clean-out plug is removed and the bag pushed in place and filled with water through the tube, then the clean-out opening is closed with plaster of Paris and the tube securely clamped.

The ordinance provides that after the completion of the work either a smoke test under a pressure of one inch water column or a peppermint test shall be made. The latter test is the one usually employed, but in the main must be considered unreliable and not very satisfactory. Five ounces of oil of peppermint are used for each stack up to five stories in height, and for each additional five stories or fraction thereof one additional ounce is required. This is dissolved in a sufficient quantity of warm water to cause rapid diffusion and is poured in the stack and the top of the pipe closed. As the main to the sewer is open and strong winds blowing down the street exercise a siphoning effect, this test often falls short of any practical utility. The smoke test yields more accurate results and is the proper one to be employed; but most of the apparatus is heavy and not easy to transport from place to place, and on that account not extensively used. A small smoke testing apparatus would meet the objections and yield tests of practical value.

*House drains.*—By the present arrangement the supervision of laying house drains is under the bureau of sewers, and such work does not fall under the plumbing inspectors. This seems to be an unnecessary division, and as the plumbing inspectors watch the construction of the building and supervise the installation of the plumbing, there is no good reason why they could not at the same time inspect the laying of the house drains. The transfer of this work to the health department would result in saving the salary of 15 inspectors and seems desirable for both administrative and economical reasons.

In addition to operations under the plumbing code the inspectors are required by bureau order to exercise functions under the ordinance governing tenement houses in determining that such houses conform with respect to lighting, ventilation, and size of rooms or courts. While it is impossible for them to verify conditions in all houses in crowded districts, they do discover many matters which require attention.



*Statistics.*—The work of this division is active and gradually increasing, as the following tables will show:

*Plumbing inspections.*

|                   | 1911          | 1912          | 1913          | 1914          |
|-------------------|---------------|---------------|---------------|---------------|
| January.....      | 2,925         | 3,000         | 3,653         | 3,926         |
| February.....     | 1,526         | 2,577         | 2,696         | 3,201         |
| March.....        | 2,845         | 3,148         | 3,167         | 3,874         |
| April.....        | 2,681         | 3,780         | 3,118         | 3,590         |
| May.....          | 2,921         | 3,490         | 3,058         | 3,845         |
| June.....         | 2,960         | 3,500         | 3,392         | 3,977         |
| July.....         | 2,638         | 3,253         | 3,432         | 3,486         |
| August.....       | 3,471         | 3,425         | 3,043         | 3,245         |
| September.....    | 3,139         | 3,495         | 3,318         | 3,503         |
| October.....      | 3,177         | 3,271         | 3,725         | 3,867         |
| November.....     | 3,113         | 2,496         | 3,327         | 3,289         |
| December.....     | 3,412         | 2,865         | 3,564         | 3,946         |
| <b>Total.....</b> | <b>35,808</b> | <b>37,300</b> | <b>39,493</b> | <b>43,749</b> |

VARIETY OF PLUMBING INSPECTIONS, 1914.

|  |               |
|--|---------------|
| Water tests.....                       | 13,018        |
| Final tests.....                       | 11,903        |
| Work not ready.....                    | 3,873         |
| Special examinations.....              | 14,956        |
| <b>Total plumbing inspections.....</b> | <b>43,749</b> |

The work of this division has been followed to some extent, and it was found to be satisfactorily performed. On the other hand, the number of cases found not ready for test shows that the procedure of notification by the plumbers should be modified to obviate the loss of time by inspectors.

**Division of Ventilation.**

So far as known the health department of Chicago has been the only one to organize a division of ventilation, and the results accomplished furnish an example worthy of being followed by other health agencies. This division was created in June, 1912; but as only one inspector was then available, the actual work dates from the commencement of the year 1913. Consequently these activities have been prosecuted for only two years. Already marked progress has been made.

*Ordinance provisions.*—The ordinance provides as follows:

The air in any room used as an auditorium in buildings of Class IV and V hereafter erected, and the air in assembly halls in buildings of Class VIII hereafter erected, shall be changed so as to provide each person for whom seating accommodation is provided at least 1,500 cubic feet of air per hour.

In buildings of Class VII hereafter erected the air in the different rooms shall be supplied as follows: Basement, 2,000 cubic feet for each person per hour; first to third stories, inclusive, 1,500 cubic feet per person per hour; fourth story and above, 1,300 cubic feet per hour.

For the purpose of determining the number of persons on any floor in buildings of this class in calculating the means of ventilation, the floor area per person per floor shall be on the following basis: Basement, 20 square feet per person; first story, 20 square feet per person; second story, 50 square feet; third story, 60 square feet; fourth and above, 80 square feet.

The amount of carbon dioxide in the air of auditoriums, classrooms, assembly halls, or space frequented by the public in Class VII buildings shall not be permitted to rise above 10 parts per 10,000 parts of air, and where heated artificially the temperature shall not exceed 68° F., with a relative humidity not less than 45° nor more than 80°.

In existing buildings of the class specified there shall be supplied not less than 1,200 cubic feet of air per person per hour, and the amount of carbon dioxide in the air shall not exceed 12 parts.

The ventilation of street cars shall be such as to provide 750 cubic feet of air per person per hour, and the carbon dioxide shall not exceed 12 parts.

*Humidity.*—The ventilation and heating, with degree of humidity, is so important for the occupants of public buildings that it is surprising how little attention has been paid to this vital subject. Supplying some fresh air and requisite heat has been the usual practice; and comfort zones, dependent upon proper humidity, are not even now receiving the necessary consideration. The heated air is often dryer than that over a desert and the high temperature necessary for a feeling of warmth in such an atmosphere produces headache and lassitude.

The necessary degree of humidity in the air at different temperatures to insure a proper sensation of warmth and comfort for the occupants of a room, has been made the subject of careful and interesting experiments by Prof. Shepperd of the Chicago Normal School. These data show a direct relation between the humidity and temperature of the air, and emphasize the necessity for careful control of the former in all properly ventilated rooms.

*Procedure.*—Improvement in the ventilation of theaters and other public buildings is now receiving attention. What has already been accomplished and the work outlined by the health department are of interest.

In new construction, plans of building showing means of ventilation must be submitted, and if satisfactory are approved by the plan examiner; however, if the proposed ventilation seems inadequate, the plan is submitted to the chief of the division of ventilation or one of the inspectors of this division for decision, and if necessary, changes are made so as to conform with the requirements of the ordinance. If a mechanical system is necessary all the essential data must be shown on the plan, including size and location of intake, size of fan, air washer, area of tempering and heating coils, ducts, etc., in a supply system; and in an exhaust system the size of ducts or vents, dimensions of fans, etc.

For facility in administration the city is divided into five districts and an inspector is assigned to each. A list of all buildings in which mechanical systems are to be installed is prepared by districts and is furnished to the field ventilation inspector having jurisdiction over the respective section. The duty of the inspector is to study

the plans and prepare a card for the building, making a small drawing of the floor plan and ventilation system on the reverse side of this card. This is used for reference during the installation of the system, which the inspector is required to keep under supervision, and when the work has been completed and final test made, this card is filed in the office and becomes a record for comparative purposes. In old buildings in which structural changes are made to convert them into theaters, assembly halls, workshops, and other buildings of this class, the same procedure is carried out wherever a mechanical system of ventilation is deemed necessary.

The department now makes photostat copies of general plans, and if such copies were also made in duplicate for the ventilation system, it would be in the interest of economy, as considerable time spent by the inspectors in studying the large plans and making a drawing of them would be saved.

The installation is carefully followed, and if any departures are made from the specifications on approved plans, the work is stopped and the contractor required to make the necessary changes. When completed, a final test is made of the boiler capacity, temperature of the room in determining the efficiency of the heating coils, the amount of air supplied and temperature of same, in order to ascertain whether the system supplies the requisite amount of air per person per hour, and also if the air of the room is sufficiently heated. At times the relative humidity is also taken. Anemometer readings are taken at the intake and at the main supply register to determine the volume of air, and are generally sufficiently accurate for all practical purposes; but when greater accuracy in determining volumetric measurement is desirable, the Pitot tube is used.

The above description briefly indicates the procedure during installation and final testing as a requisite for approval of the system and licensing, but no matter how perfect the system is, if it is not properly operated the desired results will not be obtained. Other duties of these inspectors are to visit the buildings from time to time in order to ascertain that the requirements of the ordinance are being met.

The activities of this bureau are devoted to new buildings, especially theaters, schools, hotels, department stores, restaurants, factories, and workshops; also to existing buildings where ventilation is inadequate, and to the heating and ventilation of street cars.

It seems desirable in this connection more specifically to describe the activities of this division in respect to particular buildings.

*Theaters.*—The ordinance provides that this class of buildings shall be sufficiently ventilated and that in all new buildings there shall be supplied 25 cubic feet of air per minute per person with all seats occupied. In existing buildings of this type the supply shall be not less than 20 cubic feet per minute. In new structures the carbon dioxide

shall not exceed 10 parts, and in old buildings shall not be more than 12 parts. If after due notice the proprietor or owner of a theater in which the ventilation is inadequate does not install a satisfactory system or improve the ventilation to meet the requirements, the commissioner of health is empowered to have the theater closed until the remedial measures have been carried out.

The first work to engage the attention of this division was the ventilation of theaters, and the following data are interesting in showing the vigor with which this was pushed: On December 31, 1912, there were 565 theaters, of which only 25 were ventilated; one year later there were 609, with 200 unventilated; and on December 31, 1914, there were 616 theaters, of which 156 had not been ventilated, as follows: Eighty-three closed, 56 installing equipment, leaving only 17 in operation in which the work of installation had not been started. Of the total number of theaters, only two were sufficiently ventilated by natural means; all the others have mechanical systems installed. In the term "theater" are included motion-picture halls.

Some of the large theaters have air washers installed and most of this type ventilate by means of plenum space and floor supply registers, the vent registers being placed in the walls some distance above the floor. The standard of volumetric supply through such registers is 150 cubic feet per minute, and the mushroom type of register is recommended. The smaller motion picture theaters have not installed air washers, but the intake is required to be some distance above the street level to avoid dust, and in these rooms the supply registers are either in the side walls or on each side of the stage some distance above the floor, and the vent registers are placed on the same side near the floor line, except when the supply registers are near the stage, when they are at the back of the room near the floor line.

Inspectors visit theaters during performances for collecting air samples to determine the amount of carbon dioxide. They also take samples for dust where the condition of the air indicates their advisability, and cultures are made by exposing a culture medium in a petri dish. The standard for satisfactory air is not more than 15 colonies resulting from a five minutes' exposure.

I think it can be stated without fear of contradiction that Chicago has taken the lead in enforcing proper ventilation of its theaters.

*Churches.*—There are 1,260 churches in Chicago and practically none have mechanical systems of ventilation, natural means being the only method of supplying fresh air; however, as they generally have ample window space the air supply is in the main satisfactory. The division has attempted no work on this class of buildings.

*Dance halls.*—There are 1,140 dance halls and about 50 per cent are equipped with an exhaust system of ventilation.

*Hotels.*—New buildings of this character are required to have an exhaust system with vent registers in all toilet and lavatory com-

partments, and a supply system for the cellar, basement, main, and first floors. Old buildings used for hotels and lodging houses are inadequately ventilated.

*Schools.*—Schools more than any other class of public buildings require proper heating and ventilation, as these have a direct bearing on the health and comfort of the pupils and the progress in their studies. Except in the construction of new school buildings, the division of ventilation does not exercise jurisdiction, unless complaints are made, and the installation and operation of heating and ventilation systems are under the supervision of the chief engineer of the school board. Through the courtesy of that official I visited several schools and studied the ventilation system practiced.

Of the 550 schools in Chicago, 330 are public and 220 parochial; 25 high schools are included in the former class. All the newer school buildings are properly heated and ventilated, being equipped with both supply and exhaust systems. Eighty per cent of the public schools use a plenum chamber for supplying either heated or tempered air, or the two combined, by means of dampers automatically controlled by thermostats in each room; but only a few have air washers and practically no attention is paid to humidity supply or control, both essential features for the proper ventilation of classrooms. The old school buildings are not so satisfactory and the ventilation systems are being changed in some, more modern and satisfactory types being installed. The ventilation in parochial schools is defective in more than 50 per cent of such buildings or rooms.

*Street cars.*—When consideration is given to the fact that of 4,715 cars of the elevated and surface lines, only 990 have mechanical ventilation systems installed, and that during 1914 the surface cars (3,284 in number) transported 853,785,689 passengers, it will be seen that the heating and ventilation of street cars has a relative bearing on the comfort of a greater proportion of the city's inhabitants than any other public place or utility. Only a few of the elevated cars have mechanical systems, and of the surface cars 1,982 are of the monitor deck type with no ventilation except by transoms for vents and the supply through the windows and doors. Since the ventilation during cold weather is entirely inadequate, this type of car is unsatisfactory. Mechanical systems of ventilation are required in all new cars placed in service.

The study of this subject involves two distinct problems—equipment and operation. The department primarily concerned itself with operation of cars in service and attempts have been made to require compliance with ordinances by civil action; but, as the ordinances make failure to equip with sufficient heaters a distinct offense, attention to equipment is now engaging attention.

Investigations carried out by the inspectors of this division during the cold weather showed that a considerable percentage of the cars are inadequately heated.

A consideration of the amount of work requiring attention to ventilation in existing buildings, new buildings, and street cars, will show that the number of inspectors allowed in this division is inadequate. The number of inspectors should be increased so as to allow extension of the activities of this division.

#### Division of Bakeries and Restaurants.

*Bakeries.*—The city is divided into six bakery districts, to each of which is assigned an inspector whose duty is to exercise supervision over the bakeshop proper, the construction of the room or rooms, natural lighting, ventilation, toilets, wash rooms, cleanliness of utensils, clothing of bakers, and general sanitary conditions in the shop. The supervision of the finished products of the bakery in the salesroom is under the inspectors of the food bureau.

The ordinances governing bakeries are briefly summarized as follows:

All bakeries must be licensed, and the commissioner of health must cause them to be examined as to location, lighting, ventilation, sanitary arrangement, and equipment as a preliminary to licensing.

No new bakery is to be established in any room, basement, or cellar in which the height between floor and ceiling is less than 8 feet 6 inches, or in any room or place the floor of which is more than 5 feet below the street or sidewalk adjacent to the building, or in any room not naturally lighted by means of door and windows.

The floors of bakeries below street level must be of cement, tile, or other impervious material, and those above street level of hard wood or impervious material; also the walls and ceiling shall be smooth, kept in good repair and kept painted, lime washed, or calcimined.

Every place used as a bakery must be kept in a clean and sanitary condition as to its floors, walls, ceiling, fixtures, tools, machinery, and utensils. All parts of the bakery must be adequately lighted and properly ventilated.

Every bakery must be kept free from flies, and windows and doors and any other openings are to be fitted with wire screens between April 1 and December 1. The bakeries are also to be provided with satisfactory plumbing and sinks, and water-closets in a separate compartment.

Persons afflicted with consumption, venereal disease, or any other communicable or loathsome skin disease will not be allowed to work in a bakery.

All employees engaged in the manufacture or handling of bakery products must have washable clothes and slippers or shoes for use in the bakery.

No person may sleep in any bakery or in the rooms where flour or meal or food products are stored. No domestic animals except cats are allowed in bakeries.

In a city the size of Chicago, with a population of various nationalities, the bakeries will be found to vary considerably in general sanitary condition; and it was noted in the inspection work carried out that the character of the neighborhood was largely reflected in the cleanliness of the bakeries. Those in the better and newer sections of the city were cleaner and of better construction than those in the older and poorer sections. Furthermore, it was shown that the bakeries located in basements and cellars were, in the majority of instances, in a less satisfactory condition than those in other parts of a building. Of 16 cellar bakeries, 5 were found satisfactory and 11 unsatisfactory. Forty-two other bakeries were also inspected. Four large bakeries were in excellent condition, and 1

large cellar bakery was very insanitary. Of the remaining 37, conditions were satisfactory in 15, fair in 14, and poor in 8. Sixty-two other bakeries were inspected by employees of the efficiency division, and the conditions found correspond closely to those given above.

There are several very large bakeries, modern in every detail, including mechanical ventilation systems with air washers, in which practically all operations are carried out by machinery even to wrapping the loaves. In one of the new bakeries, where the wrapping machine was in process of installation, the conditions of cleanliness had been met by requiring the employees to wear clean white gloves while handling the finished products.

The conditions found in many of the so-called "home bakeries" reached the other extreme. In many the floors, pans, proof boxes, and other equipment were dirty, and the employees often did not pay necessary attention to cleanliness in handling bakery products. Careful study was made of the character, conditions, and general cleanliness of the floors of the bakeries inspected. This showed that cement floors are the most difficult to clean and were practically always in a dirty condition. Hardwood floors are much easier to clean, and they were in a much cleaner and more satisfactory state. The difference in point of cleanliness was forcibly illustrated in several instances where a portion of the cement floor had been covered with hardwood, demonstrating that either hardwood, or in the case of cellar bakeries, a cement floor with such a wood covering is the most satisfactory floor. This statement applies especially to the small bakeries. In the large modern ones the cement floor is satisfactory.

The salient features of the score cards of 500 bakeries are presented in the following tabulated statement:

### *Bakeries.*

|   |   |
|---|---|
| <p>Location:</p> <p>Entire building..... 5</p> <p>Upper floors..... 28</p> <p>First floor..... 392</p> <p>Basement..... 15</p> <p>Cellar..... 59</p> <p>Subcellars..... 1</p> <p style="text-align: right;"><u>500</u></p> <p>Total..... 500</p> <p>Ventilation:</p> <p>Adequate..... 471</p> <p>Inadequate..... 29</p> <p style="text-align: right;"><u>500</u></p> <p>Total..... 500</p> <p>Mechanical..... 34</p> <p>Natural..... 466</p> <p style="text-align: right;"><u>500</u></p> <p>Total..... 500</p> <p>Air circulation:</p> <p>Good..... 392</p> <p>Fair..... 88</p> <p>Poor..... 18</p> <p>None..... 2</p> <p style="text-align: right;"><u>500</u></p> <p>Total..... 500</p> <p>Lighting:</p> <p>Adequate..... 470</p> <p>Inadequate..... 30</p> <p style="text-align: right;"><u>500</u></p> <p>Total..... 500</p> | <p>Construction of floors:</p> <p>Hardwood..... 346</p> <p>Cement..... 90</p> <p>Hardwood and cement..... 36</p> <p>Pine..... 25</p> <p>Tile..... 2</p> <p>Hardwood and brick..... 1</p> <p style="text-align: right;"><u>500</u></p> <p>Total..... 500</p> <p>Condition of floors:</p> <p>Good..... 470</p> <p>Fair..... 23</p> <p>Poor..... 7</p> <p style="text-align: right;"><u>500</u></p> <p>Total..... 500</p> <p>Basement bakeries with licenses..... 13</p> <p>Cellar bakeries with licenses..... 36</p> <p>Cellar bakeries without licenses..... 24</p> <p>Bakeries licensed..... 427</p> <p style="text-align: right;"><u>500</u></p> <p>Total..... 500</p> <p>General cleanliness, average for 500..... 81.33</p> <p>Cleanliness of employees, average for 388..... 82.25</p> <p style="text-align: right;"><u>82.25</u></p> <p>Number of employees..... 1,502</p> |
|---|---|

The percentage average of general cleanliness of bakeries and employees given in the table seems too high and was not borne out by the writer's inspections.

It will be noticed that a number of cellar bakeries are operating without a license, although required by ordinance; therefore an explanatory statement becomes necessary.

The validity of the bakery ordinance is in question and suits brought under it fail in convicting the offender. If an appeal to the Supreme Court is taken and a favorable verdict rendered, the campaign for improved conditions in bakeries can then be pushed with vigor; should the decision be unfavorable a new ordinance will need to be enacted.

The work of the sanitary bureau has been seriously handicapped by its inability to enforce the necessary requirements; but it has been successful in its campaign to eliminate cellar bakeries and has reduced the number of this class from 581 in 1907 to 187 in 1914. Of the cellar bakeries remaining, 62 are operating under agreement to vacate the premises upon the expiration of their leases.

A general improvement not only in the location of bakeries, but also in their general sanitary condition, has been effected, and although much is still necessary to bring the bakeries as a whole up to the required sanitary plane proper for such establishments, there is no doubt that steady progress will be made until this level is reached.

The table presented herewith is interesting in showing progress made in improving conditions governing bakeries.

*Bakeries.*

|  | 1907  | 1908 | 1909  | 1910  | 1911  | 1912  | 1913  | To Dec.<br>31, 1914. | Total | In-<br>crease. | De-<br>crease. |
|--|-------|------|-------|-------|-------|-------|-------|----------------------|-------|----------------|----------------|
| Cellar bakeries.....                             | 581   | 485  | 333   | 294   | 271   | 240   | 202   | 187                  | ..... | .....          | 394            |
| Daylight.....                                    | 744   | 855  | 1,022 | 1,093 | 1,164 | 1,342 | 1,419 | 1,454                | ..... | 710            | .....          |
| Building plans approved<br>for new bakeries..... | ..... | 65   | 78    | 60    | 41    | 55    | 47    | 30                   | 373   | .....          | .....          |
| Proposed locations ex-<br>amined.....            | ..... | 186  | 228   | 192   | 172   | 168   | 230   | 202                  | 1,368 | .....          | .....          |

The proposed location of a new bakery is inspected and report made as to whether the room is satisfactory in natural lighting, ventilation, and space to be occupied. Many of the bakeries are crowded into rooms too small for the purpose. In new bakeries the work of construction or alteration in existing buildings is supervised, and the proper installation of equipment followed up. Advice is often given as to location of the oven, etc., that the space can be properly utilized with a maximum of light and air circulation.

A score card is made for each bakery, containing pertinent data as to floors, walls, lighting, ventilation, and general sanitary conditions; on the reverse side of this card a floor plan of the bakery is drawn to scale, showing the location, number, and size of windows,



place occupied by the oven, etc. This furnishes an office record of value.

A supervisor is in charge of the division. He examines plans for new bakeries and has general control of the work in the division and supervision of the field inspectors.

It has already been stated in the brief mention of bakeries in the report on the food bureau, that the inspection of bakeries should be performed by the food inspectors after the structural changes and equipment have been concluded. This suggestion has met with approval, and the operation of bakeries, the manufacture of food products, and the general sanitary conditions pertaining thereto have been transferred to the food bureau. There are more specific ordinances governing the proper preparation of food products, and these can be made effective concerning bakery products, so that more supervision will be exercised under the new régime, and prosecutions for failure to maintain satisfactory sanitary conditions will be more effective:

*Restaurants.*—The types and varieties of restaurants vary considerably in different localities, and as in bakeries, they are often an index of the general conditions in the district. Many of them are poorly equipped and not kept as clean as they should be; yet, on the whole, their average is better than that of bakeries.

It is necessary for the proprietor to secure a license, and in all new restaurants an inspection is made to determine if the place is suitable, special attention being paid to lighting, ventilation, and general sanitary condition. The supervision of construction and equipment is vested in the inspectors of the sanitary bureau, but after operation is commenced the inspectors of the food bureau have jurisdiction.

#### **Division of Workshops and Stables.**

*Workshops.*—The definition of a workshop under the ordinance is a house, room, or place used for the purpose of carrying on any process of making, altering, repairing, or finishing for sale or wages any clothing, purses, feathers, fans, artificial flowers, or cigars.

Ordinances provide as follows:

Such work may not be carried on in any living or sleeping room, nor in any cellar or basement, and the workshop must be kept clean and in a sanitary condition.

A license must be secured, and kept posted. Before it is granted the proposed workshop must be inspected for light, ventilation, and general sanitary condition.

There must be 500 cubic feet of air space for each and every person employed, and ventilation must be sufficient to provide four complete changes of air per hour during the hours of employment.

Referring to the definition, it will be seen that factories engaged in the manufacture of articles other than those enumerated do not

fall in the class of workshops. They are more specifically regulated by the State law governing factories.

Workshops are divided into two general classes: (a) Cigar shops and (b) shops in which clothing, etc., are manufactured. They are also divided into those with no employees and not requiring a license, and those with one or more employees, which do require a license.

Every place where work of the variety mentioned is carried out is designated as a workshop, but when only the owner is engaged in the work and no one is employed for wage, a license is not required. One-third of the total number of licensed shops have only 1 employee, and those employing less than 10 persons constitute more than three-fourths.

The following table presents this data:

*Workshops, licensed and unlicensed, 1914.*

| Cigar shops unlicensed..... 227 |                  | Other shops unlicensed..... 4,008 |                  |
|---------------------------------|------------------|-----------------------------------|------------------|
| (No employees.)                 |                  | (No employees.)                   |                  |
| Cigar shops licensed..... 310   |                  | Other shops licensed..... 4,297   |                  |
| As follows:                     |                  | As follows:                       |                  |
| Number of employees in shop.    | Number of shops. | Number of employees in shop.      | Number of shops. |
| 1.....                          | 83               | 1.....                            | 1,418            |
| 2.....                          | 47               | 2.....                            | 725              |
| 3.....                          | 39               | 3.....                            | 354              |
| 4.....                          | 30               | 4.....                            | 272              |
| 5.....                          | 20               | 5.....                            | 149              |
| 6.....                          | 11               | 6.....                            | 128              |
| 7.....                          | 10               | 7.....                            | 94               |
| 8.....                          | 8                | 8.....                            | 85               |
| 9.....                          | 9                | 9.....                            | 57               |
| 10.....                         | 4                | 10.....                           | 77               |
| 11.....                         | 5                | 11.....                           | 52               |
| 12.....                         | 3                | 12.....                           | 49               |
| 13.....                         | 4                | 13.....                           | 36               |
| 14.....                         | 5                | 14.....                           | 39               |
| 15.....                         | 2                | 15.....                           | 48               |
| 16.....                         | 4                | 16.....                           | 33               |
| 17.....                         | 2                | 17.....                           | 27               |
| 18.....                         | 2                | 18.....                           | 22               |
| 19.....                         | 1                | 19.....                           | 29               |
| 20-50.....                      | 11               | 20-50.....                        | 351              |
| 50-100.....                     | 7                | 50-100.....                       | 122              |
| 100-500.....                    | 2                | 100-500.....                      | 83               |
| 500-1,000.....                  | 1                | 500-1,000.....                    | 13               |
| Over 1,000.....                 | —                | Over 1,000.....                   | 4                |
|                                 | 310              |                                   | 4,297            |
| Total cigar shops.....          | 537              | Total other shops.....            | 8,305            |
|                                 |                  |                                   | 537              |
| Total shops per canvass.....    |                  |                                   | 8,842            |

Workshops secure an annual license the 1st of May, and prior to this date a thorough canvass is made of all shops to determine if change of location has been effected, if the establishment is employing a larger number of persons, and if structural changes in the building or rooms, effecting natural lighting, ventilation, and the proper required air space per person, have been made. The cleanliness and general sanitary condition of the premises are investigated and the shop scored precedent to issuing a license. Eight inspectors, under the direction of a supervisor, are employed in making this canvass. The character of the walls, especially window space, floors, and ceilings, are considered in scoring the premises;

and the cubic capacity of the room or rooms is determined, and the number of persons allowed to be employed in the shop is stated for each room. Particular attention is paid to natural lighting and proper ventilation, and if a shop is found deficient in these particulars and has insufficient air space to conform to the ordinance requirements, license is withheld until the necessary changes have been effected. Toilet facilities for the different sexes are required, and this provision is rigidly enforced.

In addition to the general canvass, two inspectors are engaged in reinspection work throughout the year. They follow up shops which have been required to improve conditions.

Tables presented below show the average scores of two classes of shops:

*Scores of 500 workshops.*

EMPLOYING 20 OR LESS PERSONS.

| Scores.       | 50 | 55    | 60 | 65    | 70 | 75  | 80  | 85  | 90 | 95 | 100   | Total. | Average. |
|---------------|----|-------|----|-------|----|-----|-----|-----|----|----|-------|--------|----------|
| Floors.....   | 3  | ..... | 25 | ..... | 42 | 100 | 156 | 106 | 63 | 5  | ..... | 500    | 79.46    |
| Walls.....    | 1  | ..... | 19 | 1     | 33 | 69  | 135 | 129 | 97 | 13 | 3     | 500    | 81.544   |
| Ceilings..... | 1  | ..... | 19 | 1     | 33 | 71  | 129 | 132 | 98 | 13 | 3     | 500    | 81.584   |

EMPLOYING 21 OR MORE PERSONS.

|               |   |       |    |       |    |    |     |    |    |    |   |     |        |
|---------------|---|-------|----|-------|----|----|-----|----|----|----|---|-----|--------|
| Floors.....   | 2 | ..... | 13 | ..... | 65 | 78 | 159 | 82 | 89 | 11 | 1 | 500 | 79.804 |
| Walls.....    | 5 | 1     | 10 | ..... | 54 | 61 | 171 | 89 | 93 | 15 | 1 | 500 | 80.846 |
| Ceilings..... | 5 | ..... | 10 | ..... | 53 | 63 | 164 | 91 | 98 | 15 | 1 | 500 | 81.016 |

The general sanitary condition of workshops in Chicago is very good, in fact better than one would expect, and the standard maintained could be followed advantageously by many of the larger cities. "Sweat shops," in the common acceptance of the term, do not exist there. Adequate lighting and ventilation exist in nearly all the shops, and several of the large establishments have supplemented the natural ventilation by the installation of a mechanical system.

Many of the owners have learned that the efficiency of the employees is dependent largely upon the conditions under which they work, and in the arrangement of the machines in their rooms have taken into consideration adequate natural lighting by ample window space and the necessity for a sufficient supply of fresh air. Some of the largest shops maintain in the building a dispensary in charge of a trained nurse, equipped with cots, medicines and surgical dressings. Many dressings for minor injuries are made and medicines for simple ailments administered, so that employees, after a dressing or a short rest, can resume their work, earn their wage for the day, and save the fee of a physician's consultation.

One establishment visited has provided a large dining room for the use of employees in eating their lunch, and maintains a kitchen where soup, meat, and various other articles of food can be purchased at cost price, a few cents buying a fair lunch.

Although the ordinance prohibits the existence of workshops in basements and cellars, some small ones, with one or a few employees, exist; but the majority have been closed and none are licensed except a few in which mechanical ventilation has been installed. The majority of these cellar shops are in bad condition, with no natural light and poor and inadequate ventilation. An effort is being made by the department to close these insanitary shops, but the process is slow and tedious on account of legal difficulties that often arise.

The State board of health has 30 factory inspectors who operate under the provisions of the State factory law. A number of these inspectors are on duty in Chicago and maintain an inspection service of factories of all classes. They pay especial attention to safety devices and require their installation. Attention is also paid to ventilation, lighting, and the employment of measures for the prevention of occupational diseases. As the work of these inspectors covers a large variety of establishments not embraced by city ordinance, there is little overlapping of work by these State inspectors and those of the city health department.

*Stables.*—The inspection of stables as to their construction, cleanliness, and the care of manure is placed under this division, for the purpose of administration.

An ordinance enacted November 24, 1913, specifically places the care and disposal of manure under the jurisdiction of the health department, and provides that all vaults, boxes, or other receptacles for manure shall be constructed of impervious material or built with metal to answer this requirement, and shall be flyproof and fitted with flyproof covers or doors. The boxes must be of sufficient capacity to hold all the manure produced in the stable in 72 hours, and the contents of the receptacles must be removed every 72 hours by licensed scavengers at the expense of the stable owner.

The ordinance further provides that all stables of more than two stalls shall have impervious floors, and be drained to the sewer when so located as to make this possible.

In considering the general condition of stables it must be borne in mind that only a year has elapsed since specific authority over them was granted to the health department. In a city the size of Chicago considerable time is necessary for making a canvass and actually locating these establishments, and a marked improvement in their general condition and changes in the manure boxes should not be expected in a short time.

Several inspectors have been engaged during the past year in making an inspection of stables, ascertaining their general sanitary conditions, and noting especially the type and condition of the manure boxes, with a view of enforcing the provisions of the ordinance governing such receptacles. Notices have been issued in many cases and several suits have been instituted. None of these cases have yet come to trial, and the campaign for requiring the installation of proper receptacles has not been pushed with vigor because it was deemed advisable to proceed slowly until a satisfactory verdict had been reached in some of the suits filed.

A study has been made of the reports on 500 stables and these pertinent data are presented in the following tables:

*Conditions found in 500 stables.*

VENTILATION, REPAIR, AND CLEANLINESS.

|            | Ventila-<br>tion. | Condition<br>of stable. | Condition<br>of floors. | Floor<br>drainage. | Floor<br>cleanliness. |
|------------|-------------------|-------------------------|-------------------------|--------------------|-----------------------|
| Good.....  | 257               | 250                     | 219                     | 58                 | 74.62                 |
| Fair.....  | 233               | 235                     | 242                     | 151                | .....                 |
| Bad.....   | 10                | 15                      | 39                      | 7                  | .....                 |
| None.....  | .....             | .....                   | .....                   | 284                | .....                 |
| Total..... | 500               | 500                     | 500                     | 500                | 74.62                 |

FLOORS AND SCREENS.

|                         |     |
|-------------------------|-----|
| Construction of floors: |     |
| Wood.....               | 415 |
| Cement.....             | 34  |
| Wood and cement.....    | 36  |
| Wood and earth.....     | 6   |
| Earth.....              | 5   |
| Wood and brick.....     | 2   |
| Stone.....              | 1   |
| Cement and brick.....   | 1   |
| Total.....              | 500 |
| Screens:                |     |
| In use.....             | 25  |
| None.....               | 475 |
| Total.....              | 500 |

STALLS.

|              | Number of stalls. |     |           |            |             |             |             |             |             |              |               |               |               |
|--------------|-------------------|-----|-----------|------------|-------------|-------------|-------------|-------------|-------------|--------------|---------------|---------------|---------------|
|              | 1                 | 2   | 3 to<br>5 | 6 to<br>10 | 11 to<br>15 | 16 to<br>20 | 21 to<br>30 | 31 to<br>40 | 41 to<br>50 | 51 to<br>100 | 101 to<br>150 | 151 to<br>200 | 201 to<br>225 |
| Stables..... | 117               | 127 | 160       | 43         | 14          | 4           | 7           | 6           | 2           | 10           | 3             | 0             | 1             |

MANURE RECEPTACLES.

|                       |     |                        |     |
|-----------------------|-----|------------------------|-----|
| Location:             |     | Condition:             |     |
| Barn.....             | 51  | Good.....              | 108 |
| Alley.....            | 191 | Fair.....              | 76  |
| Yard.....             | 48  | Bad.....               | 160 |
| Lot.....              | 54  | Total.....             | 344 |
| Total.....            | 344 | Covers:                |     |
| Kind:                 |     | With.....              | 249 |
| Boxes.....            | 216 | Without.....           | 95  |
| Vaults.....           | 116 | Total.....             | 344 |
| Chutes.....           | 5   | Drainage:              |     |
| Wagons.....           | 5   | Drains.....            | 6   |
| Barrels.....          | 2   | None.....              | 338 |
| Total.....            | 344 | Total.....             | 344 |
| Construction:         |     | Receptacles, none..... | 156 |
| Wood.....             | 279 | Total stables.....     | 500 |
| Cement.....           | 34  |                        |     |
| Wood and brick.....   | 10  |                        |     |
| Brick.....            | 7   |                        |     |
| Cement and brick..... | 5   |                        |     |
| Stone.....            | 5   |                        |     |
| Iron.....             | 3   |                        |     |
| Earth.....            | 1   |                        |     |
| Total.....            | 344 |                        |     |

A study of the tabulated data shows that the score of floor cleanliness of 74.62 per cent is too high from a sanitary standpoint, as more than 50 per cent of the stables are without drainage and the bulk of the floors are of wood and not impervious material. Furthermore the condition of the manure boxes is very unsatisfactory. The inspectors of the efficiency division examined 142 stables, and in no instance was the manure receptacle found to be fly-proof.

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

#### Miscellaneous Division.

There are grouped under this division the following: Rendering plants, soap factories, tanneries, glue factories, and the licensing and control of private scavengers.

*Rendering plants.*—There are 41 rendering plants, some of which are quite extensive and utilize all the by-products of slaughtering for the manufacture of different articles; in fact, it may be said that a large establishment like that of Armour & Co., and a few others of similar magnitude are able to utilize every part of a slaughtered animal.

Ordinances provide as follows:

License must be secured and the application to the commissioner of health must show location of said business and plans and specifications of the buildings to be maintained, the details of construction, devices, and appliances to be employed and the proposed manner of operation.

Offensive odors arising from rendering plants must be destroyed by combustion, condensation, or other means equally effective, and must not be allowed to escape into the outside air. The type of condenser and methods of operation are prescribed.

No person is permitted to conduct any process of rendering in a manner to generate offensive gases, deleterious gas, deposits, or exhalations that are dangerous or detrimental to life or health, and the production of such gases constitutes a nuisance.

The large plants operate, in connection with their rendering establishments, soap factories, glue factories, the manufacture of fertilizers, cleaning powders, and, in one visited, the manufacture of glycerin. One also made a specialty of chicken feed, composed of the dried meat residue, after grease extraction, and bone meal.

The smaller rendering plants are chiefly engaged in producing grease for soap making, one handling especially the garbage from restaurants and hotels for this purpose.

An inspection was made of nine rendering plants, two soap, two fertilizer, one glue factory, and three tanneries. Conditions were found unsatisfactory in two small rendering plants; another was dirty, and a third could have been kept cleaner.

One inspector is detailed for supervision of the rendering plants, and these plants in the main are kept in a satisfactory condition. Two other inspectors in this division inspect tanneries and manure-loading stations, and exercise supervision over 200 private scavengers and collectors of butchers' offal. There are 15 soap factories and 20 tanneries.

*Private scavengers.*—Ordinance provides that any person or corporation acting as a private scavenger shall be licensed and shall pay the sum of \$5 for each and every wagon used in the service, and that a bond shall be given to insure proper performance of the work.

Private scavengers are those engaged in the removal of garbage from hotels, restaurants, boarding houses, apartment houses, cafés, and other places not otherwise provided for by the city; and the removal and disposal of manure, swill, or any animal or vegetable refuse.

The manure is taken in covered carts to one of 17 loading stations, where it is loaded on cars and shipped to the country for sale to the farmers. Two contractors handle the manure at the station, arrange for the cars, and effect the sale. These loading stations are kept in a satisfactory condition.

As already stated, the garbage from hotels, restaurants, etc., is taken to one of the rendering plants for grease extraction. As such garbage is rich in particles of meat, the yield more than pays for cost of collection.

Ashes are also removed by private scavengers from hotels, etc., and are either taken to one of the dumps or used as filling material along the water front.

*Privy vaults.*—As the cleaning of privy vaults must be done by licensed night-soil scavengers, this is probably the best place to consider them.

The ordinance provides that the sides shall be water-tight and it governs the location and the manner of cleaning.

Any person or corporation that removes the contents of privy vaults is deemed a night-soil scavenger and must be licensed and execute a bond in favor of the city.

A permit for cleaning must be secured. The permit fixes the price at not exceeding 10 cents for each cubic foot of night soil removed.

The ordinance governing the construction of privy vaults is not effective and privies are generally poorly built with wooden sides. Where sewer connections are available all houses must install plumbing fixtures and connect with the street sewer. All existing privy vaults in such localities must be filled and abated.

There are approximately 4,000 privy vaults in the outlying sections of the city. When a canvass was made a few years ago there were 8,000, but this number has been reduced about 50 per cent by the extension of the sewer system, and on account of the fact that

persons are now more disposed to build only in the improved districts. The installation or construction of septic tanks for the use of houses in unsewered districts does not seem to have claimed attention.

#### Division of Complaints.

This division has probably the most complicated functions of any in the bureau, as it deals with the complaints of citizens and the abatement of nuisances. The work is of a nature to require application of the ordinances and the judgment and sound sense of the inspectors.

The city, for administration purposes, is divided into a central section containing eight districts, and an outlying section embracing six districts. Each section is under a supervisor, and an inspector is assigned to each district; therefore, there are 16 employees engaged in the work of this division.

*Ordinance provisions.*—Ordinance provides as follows:

It is the duty of the commissioner of health to serve a notice in writing upon the owner, occupant, agent, or person in possession, charge, or control of any building or lot in or upon which any nuisance may be found, to abate the same in such manner as he shall prescribe, within a reasonable time.

Matters and things dangerous or detrimental to health constitute a nuisance, and are not allowed to exist in connection with any business.

Factories, stables, tanneries, rendering plants, and other establishments of this kind which become foul and offensive are a nuisance.

Whenever any nuisance is found on any premises, the commissioner of health is authorized in his discretion to cause the same to be abated in such manner as he may direct.

*Administration.*—Complaints are received by letter or postal card, telephone or verbally, and anonymous complaints are now accepted in writing, whereas formerly it was held that if the condition complained of was not of sufficient gravity to warrant the name of the complainant it was too trivial to investigate. The information given is often meager and not sufficiently exact to facilitate the work of the inspector, and he has often to search different premises in the neighborhood before locating the conditions concerning which complaint has been made.

Two junior clerks are now engaged in receiving complaints, and as the records show that about 46 per cent of the complaints received show no cause when investigated, it is evident that a more experienced clerk, one familiar with the ordinances concerning nuisances, should be assigned to this duty, and more attention paid to securing exact data as to the location and nature of the nuisance, especially from persons calling at the office or using the telephone.

The method used in handling complaints is as follows: The receiving clerk writes the pertinent data on a card, giving the location of the premises and the conditions about which complaint has been made.



The name of the person making the complaint is written on the back of this card, except in anonymous cases. These cards are arranged in piles according to districts and turned over to a stenographer who transcribes this data on duplicate assignment slips. There are generally several complaints enumerated on a slip. The original is given to the inspector and the duplicate retained as an office copy. The inspector investigates and reports conditions found, and indicates the proper remedial measures to be carried out and the time necessary for abating the nuisance. These data are entered on a file card and a written notice is sent to the responsible party to remedy the insanitary conditions in a specified time. Upon the expiration of the time granted, a reinspection is made and if nothing has been done, a commissioner's letter is written; then if another reinspection shows that the nuisance has not been abated, the case is turned over to the suit clerk and the responsible party is prosecuted.

Often complaints are made that clearly fall in the province of another bureau, and in such cases the complaint is referred to the bureau having jurisdiction.

A study was made of 1,500 complaint cards and the following pertinent data may be of interest in this connection:

|   |               |
|---|---------------|
| Complaints without cause.....           | 724           |
| Anonymous complaints.....               | per cent.. 13 |
| Anonymous complaints without cause..... | do..... 46    |

This study showed that the average time between the date of assignment to the inspector and that of issuance of notices was 6.5 days, and between the date of notice and that of abatement, 62.25 days. This is a very satisfactory showing concerning the time for investigation, and that for abatement is a marked improvement over the results secured in preceding years.

In some instances the subject matter of these complaints is trivial, but in many cases there is some real basis of annoyance or offense.

In the pronounced cases, serious nuisances exist that may involve large areas, thereby taxing the ingenuity of the inspectors in indicating the proper remedial measures for abatement. In the investigation of complaints much depends upon the judgment of the inspector and the interest he has in his work for the proper determination of the cause and the suggesting of a sufficient remedy.

During 1914 this division handled 22,582 complaints and issued 15,774 notices. More than 40,000 reinspections were made.

The steady increase in the number of complaints is shown by years as follows:

|           |         |
|-----------|---------|
| 1910..... | 15, 100 |
| 1911..... | 16, 200 |
| 1912..... | 19, 605 |
| 1913..... | 17, 071 |
| 1914..... | 22, 582 |

*House-to-house inspection.*—This important sanitary work is not receiving the necessary attention on account of lack of a sufficient number of inspectors to execute this work and that of the various activities of the bureau of sanitation. It is estimated that there are 1,200 blocks in the city of Chicago where such an inspection service is desirable, but the most that can be accomplished is the inspection of an average of 120 blocks annually. Generally one, but at times two inspectors, are engaged in the work, who are supplemented by other inspectors when the investigation of complaints does not require all their time.

There is no inspection of tenement houses other than mentioned above. In fact, no ordinance exists authorizing such an inspection service.

#### Division of Suits.

By far the greater number of suits instituted by the health department originate in the bureau of sanitation on account of its diversity of functions and its having charge of complaints and the abatement of nuisances.

When there is violation of an ordinance and the responsible party, upon notification by the health department and after a commissioner's letter has been sent, fails to correct the conditions resulting from the violation, suit is instituted by the following procedure: After reinspection shows that the violations have not been corrected the reviewing inspector turns the slip over to the inspector in charge of suits, who prepares, on a card, which is transmitted to the commissioner's office, all the data embraced by the violation, the resulting conditions to be remedied; and the numbers of sections of the ordinance violated.

On the day or two preceding the date set for trial of the case, the suit inspector visits the premises on which the report has been made so that he will be able to testify at the trial concerning present conditions.

All the suits originating in the bureau are handled by one inspector designated for the purpose of preparing the case, examining the premises, and testifying in court; hence none of the other inspectors are obliged to lose time by appearing as witnesses in cases.

The records of the bureau show that 2,848 suits were instituted during 1914, of which number 1,897 were disposed of as follows: Convictions were secured in 749 cases, and 982 were withdrawn, dismissed, or otherwise terminated with the consent of the department because the orders were complied with before the case finally came to trial, leaving 166 nonsuited, withdrawn, canceled, etc. The remaining number had not reached final disposition; they embraced suits filed in the last months of the year, not yet reached on the court calendar.

**Clerical Division.**

The general work of the office is under the direction of a chief clerk who is very competent in routing the different work and in keeping the office records up to date. The volume of work in the office is large. In 1914 the office handled 21,991 complaints, issued 36,174 notices, and wrote 15,154 prosecuting attorney's letters.

The work of the office is best considered under the following heads:

*Time keeping.*—Three methods of keeping time are followed:

(a) Roll call at 9 a. m. of all employees, field and office.

(b) All field employees are required to make daily reports of the manner in which they utilized their time during working hours.

(c) Office employees indicate their time on regular civil service form prescribed for this purpose.

It would seem that the roll call could be dispensed with, since the time of the employees is recorded on their daily time reports.

The inspectors' daily report cards provide spaces for indicating time spent in office, in the field, at lunch, and work done at home; also for indicating class of inspection done and variety of test made; and contain spaces for entering in detail each address at which an inspection or test was made. These cards are in the main satisfactory.

*Efficiency records.*—The bureau endeavors accurately to record the efficiency of employees, and has worked out minimum work schedules for the different classes of inspection. However, the absolute marks obtained in this manner are often modified by a judgment mark, and the efficiency of office employees is marked solely on a judgment basis. Some classes of inspection work require more time than others, and this fact should be taken into consideration in efficiency markings; recognizing this, the bureau appointed a committee on efficiency to work out a proper standard for estimating the units of work that should be required in a day. The relative values of different inspections, based on the time required for properly marking, were computed and graded, and 30 work units a day were considered the minimum standard. As each class of work was given its proper rating, an inspector could attain the day's requirements by any total combination of the units for the different inspections. A scheme of this kind furnishes a more reliable index of the amount and character of work done by the inspector and to a large extent eliminates judgment markings.

*Files.*—The activities of this bureau are so varied that an extensive filing system is required and 20 distinct files are kept. This seems to be a large number, but as each activity requires a file for its records and several cross index files are necessary, it becomes apparent that the work of the bureau is best served by this complete system. The

files are in good order and up-to-date, but the charging system for records removed from the files is not carefully administered and could be improved.

*Statistics.*—Statistics are compiled by the longhand method, and it would seem advisable to employ mechanical tabulation for this work. The statistics cover every activity of the bureau and are therefore voluminous.

#### Administration.

The study of this bureau shows that the general administration is faulty in some respects.

1. The bureau chief requires practically all matters to be referred to him and does not place a proper division of the work on the assistant chief and the supervisors. The bureau chief is of unquestioned ability and a tireless worker, but much of the minor details that consume his time could as well be left to his assistants, thereby enabling him to exercise a closer check over his supervisors, and have more time to devote to the extension of the activities of his bureau in important matters affecting the public health.

2. The assistant bureau chief should be given more authority and the control of more than one division, so that all questions for which a precedent exists or which do not involve intricate problems could be decided by him, thereby relieving the chief of much unnecessary time-consuming labor.

3. The supervisors at present spend most of their time in the office, as follows: (a) Office routine; (b) consultation with inspectors; (c) consultation with the public; and (d) consultations with the bureau chief (for the latter purpose often wasting considerable time waiting for an opportunity). The duties of the supervisors are indicated by their titles, but in order to determine that the inspectors are properly carrying out their work this supervision must extend to field activities; the more time spent in checking up the work of the inspectors the better, and certainly at least 50 per cent of their time should be spent in the field. The supervisors should be given authority to decide all routine questions upon which the inspectors desire information and decision, consulting the chief of their division, assistant bureau chief, or chief of bureau only on questions for which no precedent exists or those involving questions of policy.

4. Under present schedule the inspectors report at the bureau at 9 a. m. and are given one hour to prepare a report of the preceding day's work, receive assignments, and consult on matters that require instructions. They are expected to start to their respective districts at 10 a. m. A study of the daily time reports of the inspectors shows that instead of spending only 6 hours a week in the office, the average time for all inspectors so spent is 12½ hours, with a minimum of 4 hours

and a maximum of 40½ hours. There is no question that too much time is spent in the office, and very often the inspector does little work before his hour for lunch is taken. One hour is sufficient for preparing ordinary reports and the supervisors should be held responsible for their inspectors, should be required to see that time is not wasted by dilatory practices, and that the inspectors start promptly for their districts, and should follow their inspectors up in order to see that the proper amount of work is being performed.

The new organization for 1915, which provides a supervisor of housing and sanitation, will increase the efficiency of the bureau and will be advantageous in every respect. It provides for three divisions instead of nine and divides responsibility among three heads as assistants to the bureau chief, and relieves the latter of much detail and routine work, thereby enabling him to devote more time to questions of policy and insuring better supervision of the work of the bureau as a whole.

In concluding this report on the study of the work of the bureau of sanitation, attention is directed to the following statistical data, which show a steady increase in the activities of this bureau. It is also believed that the quality of the investigations made has progressively improved.

*Comparative statements by years.*

|                            | 1908    | 1909    | 1910    | 1911    | 1912    | 1913    | 1914    |
|----------------------------|---------|---------|---------|---------|---------|---------|---------|
| Plumbing inspections.....  | 28,886  | 26,359  | 30,386  | 35,808  | 37,300  | 39,493  | 43,749  |
| All other inspections..... | 36,298  | 42,532  | 42,258  | 43,175  | 43,285  | 45,356  | 63,485  |
| Reinspections.....         | 40,868  | 66,174  | 76,233  | 81,855  | 67,502  | 93,351  | 108,507 |
| Grand total.....           | 106,052 | 135,065 | 148,877 | 160,838 | 148,087 | 178,200 | 215,291 |

The relatively small number in 1912 was occasioned by lack of appropriation and the consequent laying off of the inspectors near the end of the year.

The following table contains data pertinent as showing the increase in work out of proportion to the increase in the number of employees and the money expended:

*Report of sanitary bureau for years 1909 to 1914 compared with year 1908 in regard to cost per inspection, increase of work, etc.*

|   | 1908         | 1909         | 1910         | 1911         | 1912         | 1913         | 1914         |
|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Number of employees....                   | 88           | 89           | 87           | 90           | 105          | 102          | 116          |
| Total appropriation, salaries.....        | \$111,998.00 | \$106,559.73 | \$102,152.00 | \$110,978.00 | \$129,445.00 | \$137,664.00 | \$158,564.00 |
| Actual expenditures, salaries.....        | \$100,081.14 | \$100,810.80 | \$102,005.28 | \$110,758.61 | \$118,511.72 | \$137,584.65 | \$151,010.28 |
| Per cent increase of salaries.....        |              | 0.007        | 2            | 10           | 18           | 37           | 51           |
| Total inspections and re-inspections..... | 106,052      | 135,065      | 148,877      | 160,838      | 148,087      | 178,200      | 215,291      |
| Per cent increase of work.....            |              | 27           | 40           | 51           | 40           | 68           | 103          |
| Per cent increase of force.....           |              | 1            | -1           | 2            | 19           | 16           | 31           |
| Cost per inspection.....                  | \$0.94       | \$0.74       | \$0.68       | \$0.68       | \$0.80       | \$0.77       | \$0.70       |

[This report will be concluded in a subsequent issue.]

**PLAGUE-PREVENTION WORK.**

**CALIFORNIA.**

The following report of plague-prevention work in California for the week ended August 14, 1915, was received from Senior Surg. Pierce, of the United States Public Health Service, in charge of the work:

**SAN FRANCISCO, CAL.**

**RAT PROOFING.**

|   |        |
|---|--------|
| <b>New buildings:</b>                               |        |
| Inspections of work under construction..            | 81     |
| Basements concreted (square feet, 18,725)           | 20     |
| Floors concreted (square feet, 10,800)....          | 4      |
| Yards, passageways, etc. (square feet, 7,500).....  | 48     |
| Total area of concrete laid (square feet)           | 37,025 |
| <b>Old buildings:</b>                               |        |
| Inspections made.....                               | 151    |
| Wooden floors removed.....                          | 13     |
| Yards and passageways, planking removed.....        | 6      |
| Cubic feet new foundation walls installed.          | 1,860  |
| Concrete floors installed (square feet, 3,375)..... | 4      |

**Old buildings—Continued.**

|   |        |
|---|--------|
| Basements concreted (square feet, 17,925).                        | 20     |
| Yards and passageways, etc., concreted (square feet, 10,489)..... | 55     |
| Total area concrete laid (square feet)....                        | 31,789 |
| Floors rat proofed with wire cloth.....                           | 0      |
| Buildings razed.....  | 3      |
| New garbage cans stamped approved.....                            | 613    |
| Nuisances abated.....   | 152    |

**OPERATIONS ON THE WATER FRONT.**

|  |    |
|--|----|
| Vessels inspected for rat guards.....    | 27 |
| Reinspections made on vessels.....       | 23 |
| New rat guards procured.....             | 10 |
| Defective rat guards repaired.....       | 4  |
| Vessel on which cargo was inspected..... | 1  |

| Amount of cargo and description of same.                 | Condition. | Rat evidence. |
|--|------------|---------------|
| Steamer President from Seattle:                          |            |               |
| 195 cases milk, salmon, cheese, and household goods..... | O. K.      | None.         |
| 500 sacks flour, fertilizer, and oats.....               | O. K.      | None.         |

|   |       |
|---|-------|
| Rats trapped on wharves and water front...  | 41    |
| Rats trapped on vessels.....  | 20    |
| Traps set on wharves and water front.....   | 177   |
| Traps set on vessels.....   | 55    |
| Vessels trapped on.....   | 10    |
| Poisons placed on water front (pieces).....   | 1,800 |
| Poisons placed within Panama-Pacific International Exposition grounds (pieces)..... | 7,200 |
| Bait used on water front and vessels. Bacon (pounds).....                           | 6     |
| Amount of bread used in poisoning water front (loaves).....                         | 6     |
| Pounds of poison used on water front.....   | 3     |

**RATS COLLECTED AND EXAMINED FOR PLAGUE.**

|                     |       |
|---------------------|-------|
| Collected.....      | 337   |
| Examined.....       | 245   |
| Found infected..... | None. |

**RATS IDENTIFIED.**

|                       |     |
|-----------------------|-----|
| Mus norvegicus.....   | 152 |
| Mus alexandrinus..... | 40  |
| Mus musculus.....     | 73  |
| Mus rattus.....       | 72  |

**SQUIRRELS COLLECTED AND EXAMINED FOR PLAGUE.**

|                          |     |
|--------------------------|-----|
| Contra Costa County..... | 954 |
| San Benito County.....   | 250 |
| Monterey County.....     | 258 |

**SQUIRRELS COLLECTED AND EXAMINED FOR PLAGUE—Continued.**

|                        |       |
|------------------------|-------|
| Alameda County.....    | 33    |
| Stanislaus County..... | 19    |
| Total.....             | 1,614 |

**RANCHES INSPECTED AND HUNTED OVER.**

|                          |     |
|--------------------------|-----|
| Contra Costa County..... | 83  |
| Alameda County.....      | 6   |
| San Benito County.....   | 43  |
| Monterey County.....     | 19  |
| Stanislaus County.....   | 2   |
| Total.....               | 153 |

**PLAGUE-INFECTED SQUIRRELS.**

|  |  |
|--|--|
| <b>Contra Costa County:</b>  |  |
| Shot July 31, 1915, Alexander Ranch, 6 miles northwest of Lafayette, 2 squirrels; J. Silva Ranch, 4½ miles northwest of Lafayette, 1 squirrel. |  |
| Shot August 5, 1915, J. Domingo Ranch, 7 miles southwest of Lafayette, 1 squirrel, sec. 14, T. 1 S., R. 3 W.                                   |  |
| <b>San Benito County:</b>  |  |
| Found dead July 12, 1915, Abrams and Brandt ranch, 8 miles southwest of Llanada, sec. 31, T. 16 S., R. 11 E., 1 squirrel.                      |  |
| Shot July 26, 1915, Abrams and Brandt ranch, 9 miles southwest of Llanada, sec. 5, T. 17 S., R. 11 E., 1 squirrel.                             |  |



*Plague rats.*

| Case No. | Address.                    | Captured.     | Diagnosis confirmed. | Treatment of premises.  |
|----------|-----------------------------|---------------|----------------------|---|
| 248      | No. 2503 Howard Street..... | Aug. 17, 1915 | Aug. 25, 1915        | Intensive trapping. Summary destruction of rat harborage; spraying of premises with pulicide. Rat proofing in neighborhood expedited. |

|  |          |   |     |
|--|----------|---|-----|
| Suspicious human cases examined.....             | 1        | Total cases of rodent plague to Aug. 28 by species: |     |
| Number of human plague cases.....                | None.    | Mus musculus.....                                   | 4   |
| Last case of human plague, Oct. 4, 1914.         |          | Mus rattus.....                                     | 16  |
| Last case of rodent plague, Aug. 25, 1915.       |          | Mus alexandrinus.....                               | 8   |
| Total number of rodents captured to Aug. 28..... | 424, 878 | Mus norvegicus.....                                 | 220 |
| Total number of rodents examined to Aug. 28..... | 280, 864 | Total rodent cases to Aug. 28, 1915...              | 248 |

**WASHINGTON—SEATTLE—PLAGUE ERADICATION.**

The following report of plague-eradication work at Seattle for the week ended August 21, 1915, was received from Surg. Lloyd, of the United States Public Health Service, in charge of the work:

**RAT PROOFING.**

|  |         |
|--|---------|
| New buildings inspected.....                                     | 11      |
| New buildings reinspected.....                                   | 28      |
| Basements concreted, new buildings (square feet, 12,380).....    | 17      |
| Floors concreted, new buildings (square feet, 24,430).....       | 3       |
| Yards, etc., concreted, new structures (square feet, 1,732)..... | 7       |
| Total concrete laid, new structures, square feet.....            | 38, 542 |
| New premises rat proofed, concrete.....                          | 11      |
| Old building inspected.....                                      | 1       |
| Premises otherwise rat proofed, old building                     | 1       |
| Openings screened, old buildings.....                            | 12      |
| Rat holes cemented, old buildings.....                           | 3       |
| Doors rat proofed, old building.....                             | 1       |
| Wire screening used, square feet.....                            | 45      |
| Building razed.....  | 1       |

**LABORATORY AND RODENT OPERATIONS.**

|  |       |
|--|-------|
| Dead rodents received.....                 | 28    |
| Rodents trapped and killed.....            | 242   |
| Total.....                                 | 270   |
| Rodents examined for plague infection..... | 216   |
| Rodents proven plague infected.....        | None. |
| Poison distributed, pounds.....            | 13    |
| Bodies examined for plague infection.....  | 3     |

**CLASSIFICATION OF RODENTS.**

|                       |    |
|-----------------------|----|
| Mus rattus.....       | 13 |
| Mus alexandrinus..... | 74 |

**CLASSIFICATION OF RODENTS—continued.**

|                     |     |
|---------------------|-----|
| Mus norvegicus..... | 155 |
| Mus musculus.....   | 28  |

**WATER FRONT.**

|  |    |
|--|----|
| Vessels inspected and histories recorded....                                       | 10 |
| New rat guards installed.....  | 4  |
| Defective rat guards repaired.....   | 1  |
| Port sanitary statements issued.....   | 69 |
| The usual day and night patrol was maintained to enforce rat guarding and fending. |    |

**MISCELLANEOUS WORK.**

|  |    |
|--|----|
| Rat-proofing notices sent to contractors, new buildings..... | 20 |
| Letters sent in re rat complaints.....                       | 10 |

**RODENTS EXAMINED IN EVERETT.**

|  |       |
|--|-------|
| Mus norvegicus trapped.....                | 46    |
| Mus norvegicus found dead.....             | 4     |
| Mus musculus trapped.....                  | 1     |
| Total.....                                 | 51    |
| Rodents examined for plague infection..... | 48    |
| Rodents proven plague infected.....        | None. |

**RAT-PROOFING OPERATIONS IN EVERETT.**

|  |   |
|--|---|
| New buildings inspected.....             | 4 |
| New buildings, concrete foundations..... | 2 |
| New buildings elevated 18 inches.....    | 2 |



## HAWAII—PLAGUE PREVENTION.

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

## Honolulu.

WEEK ENDED AUG. 14, 1915.

|  |       |  |     |
|--|-------|--|-----|
| Total rats and mongoose taken.....     | 343   | Classification of rats killed by sulphur dioxide:  |     |
| Rats trapped.....                      | 336   | Mus rattus.....                                    | 1   |
| Mongoose trapped.....                  | 5     | Average number of traps set daily.....             | 984 |
| Rats found dead (mus alexandrinus).... | 1     | Cost per rat destroyed.....cents..                 | 21  |
| Rats killed by sulphur dioxide.....    | 1     | Last case rat plague, Aiea, 9 miles from Honolulu, |     |
| Examined microscopically.....          | 299   | Apr. 12, 1910.                                     |     |
| Showing plague infection.....          | None. | Last case human plague, Honolulu, July 12, 1910.   |     |
| Classification of rats trapped:        |       | Last case rat plague, Kalopa stable, Paauhau,      |     |
| Mus alexandrinus.....                  | 183   | Hawaii, Aug. 29, 1914.                             |     |
| Mus musculus.....                      | 69    | Last case human plague, Paauhau Landing,           |     |
| Mus norvegicus.....                    | 71    | Hawaii, Aug. 16, 1914.                             |     |
| Mus rattus.....                        | 13    |  |     |

## Hilo.

WEEK ENDED JULY 31, 1915.

|  |       |  |     |
|--|-------|--|-----|
| Rats and mongoose taken.....           | 2,017 | Classification of rats trapped and found dead: |     |
| Rats trapped.....                      | 1,995 | Mus norvegicus.....                            | 469 |
| Mongoose taken.....                    | 22    | Mus alexandrinus.....                          | 266 |
| Rats and mongoose examined macroscopi- |       | Mus rattus.....                                | 564 |
| cally.....                             | 2,017 | Mus musculus.....                              | 636 |
| Rats and mongoose plague infected..... | None. | Last case of rat plague, Paauhau Sugar Co.,    |     |
|  |       | Aug. 29, 1914.                                 |     |
|  |       | Last case of human plague, Paauhau Sugar Co.,  |     |
|  |       | Aug. 16, 1914.                                 |     |

## PORTO RICO—PLAGUE PREVENTION.

The following table shows the number of rats and mice examined in Porto Rico for plague infection during the two weeks ended August 20, 1915. No plague infection was found.

| Place.                | Rats. | Mice. |
|-----------------------|-------|-------|
| San Juan.....         | 310   | 22    |
| Puerta de Tierra..... | 120   | 5     |
| Santurce.....         | 212   | 11    |

# 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.

#### Mississippi Report for July, 1915.

The State Board of Health of Mississippi reported that during the month of July, 1915, cases of cerebrospinal meningitis were notified in counties as follows: Harrison, 1; Union, 2.

#### Idaho Report for April, 1915.

The State Board of Health of Idaho reported that during the month of April, 1915, 1 case of cerebrospinal meningitis was notified in Bingham County.

#### City Reports for Week ended August 21, 1915.

| Place.             | Cases. | Deaths. | Place.                 | Cases. | Deaths. |
|--------------------|--------|---------|------------------------|--------|---------|
| Akron, Ohio.....   | 2      | .....   | Duluth, Minn.....      | 1      | 1       |
| Baltimore, Md..... | 4      | .....   | Hartford, Conn.....    | 1      | .....   |
| Boston, Mass.....  | 1      | 1       | Los Angeles, Cal.....  | 1      | .....   |
| Buffalo, N. Y..... | .....  | 1       | Nashville, Tenn.....   | 1      | .....   |
| Chicago, Ill.....  | 1      | .....   | New Castle, Pa.....    | 1      | .....   |
| Dayton, Ohio.....  | 1      | 1       | Springfield, Mass..... | 1      | 1       |
| Detroit, Mich..... | 1      | 1       |                        |        |         |

### DIPHTHERIA.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2752.

### ERYSIPELAS.

#### City Reports for Week ended Aug. 21, 1915.

| Place.                | Cases. | Deaths. | Place.                  | Cases. | Deaths. |
|-----------------------|--------|---------|-------------------------|--------|---------|
| Akron, Ohio.....      | 1      | 1       | New Bedford, Mass.....  | .....  | 1       |
| Baltimore, Md.....    | .....  | 1       | Philadelphia, Pa.....   | 4      | 1       |
| Boston, Mass.....     | .....  | 1       | Pittsburgh, Pa.....     | 2      | .....   |
| Chicago, Ill.....     | 5      | 1       | St. Louis, Mo.....      | 2      | .....   |
| Cleveland, Ohio.....  | 3      | .....   | San Francisco, Cal..... | 1      | .....   |
| Detroit, Mich.....    | 1      | .....   | Stockton, Cal.....      | 3      | .....   |
| Harrisburg, Pa.....   | 1      | .....   | Tacoma, Wash.....       | 1      | .....   |
| Los Angeles, Cal..... | 5      | .....   | Wilkes-Barre, Pa.....   | 1      | .....   |

## LEPROSY.

## Hawaii Report for July, 1915.

The Territorial Board of Health of Hawaii reported that during the month of July, 1915, cases of leprosy were notified in the islands of Hawaii as follows: Hawaii, 1; Oahu, 7.

## California—Los Angeles.

During the week ended August 21, 1915, 1 case of leprosy was notified at Los Angeles, Cal.

## Pennsylvania—Pittsburgh.

During the week ended August 21, 1915, a case of leprosy was notified at Pittsburgh, Pa. This is the same case which was reported in Washington, D. C., December 10, 1914, as noted in the Public Health Reports of January 22, 1915, page 266. The patient recently escaped from detention at Washington.

## MALARIA.

## Mississippi Report for July, 1915.

| Place.                      | New cases reported. | Place.                   | New cases reported. |
|-----------------------------|---------------------|--------------------------|---------------------|
| Mississippi:                |                     | Mississippi—Continued.   |                     |
| Adams County.....           | 80                  | Lincoln County.....      | 75                  |
| Alcorn County.....          | 82                  | Lowndes County.....      | 278                 |
| Amite County.....           | 56                  | Madison County.....      | 250                 |
| Attala County.....          | 239                 | Marion County.....       | 174                 |
| Benton County.....          | 55                  | Marshall County.....     | 143                 |
| Bolivar County.....         | 1,420               | Monroe County.....       | 220                 |
| Calhoun County.....         | 233                 | Montgomery County.....   | 140                 |
| Carroll County.....         | 275                 | Neshoba County.....      | 290                 |
| Chickasaw County.....       | 173                 | Newton County.....       | 20                  |
| Choctaw County.....         | 250                 | Noxubee County.....      | 121                 |
| Claiborne County.....       | 148                 | Oktibbeha County.....    | 205                 |
| Clarke County.....          | 40                  | Panola County.....       | 257                 |
| Clay County.....            | 187                 | Pearl River County.....  | 41                  |
| Coahoma County.....         | 1,025               | Perry County.....        | 98                  |
| Copiah County.....          | 152                 | Pike County.....         | 104                 |
| Covington County.....       | 141                 | Pontotoc County.....     | 50                  |
| De Soto County.....         | 60                  | Prentiss County.....     | 87                  |
| Forrest County.....         | 226                 | Quitman County.....      | 82                  |
| Franklin County.....        | 66                  | Rankin County.....       | 30                  |
| George County.....          | 40                  | Scott County.....        | 237                 |
| Greene County.....          | 28                  | Sharkey County.....      | 216                 |
| Grenada County.....         | 127                 | Simpson County.....      | 95                  |
| Hancock County.....         | 56                  | Smith County.....        | 142                 |
| Harrison County.....        | 145                 | Sunflower County.....    | 922                 |
| Hinds County.....           | 506                 | Tallahatchie County..... | 336                 |
| Holmes County.....          | 662                 | Tata County.....         | 268                 |
| Issaquena County.....       | 109                 | Tippah County.....       | 118                 |
| Itawamba County.....        | 119                 | Tishomingo County.....   | 66                  |
| Jackson County.....         | 38                  | Tunica County.....       | 368                 |
| Jasper County.....          | 38                  | Union County.....        | 40                  |
| Jefferson County.....       | 147                 | Walthall County.....     | 20                  |
| Jefferson Davis County..... | 44                  | Warren County.....       | 505                 |
| Jones County.....           | 337                 | Washington County.....   | 981                 |
| Kemper County.....          | 115                 | Wayne County.....        | 114                 |
| Lafayette County.....       | 153                 | Wilkinson County.....    | 69                  |
| Lamar County.....           | 89                  | Winston County.....      | 848                 |
| Lauderdale County.....      | 238                 | Yalobusha County.....    | 216                 |
| Lawrence County.....        | 137                 | Yazoo County.....        | 853                 |
| Leake County.....           | 137                 |                          |                     |
| Lee County.....             | 296                 | Total.....               | 18,301              |
| Leflore County.....         | 1,003               |                          |                     |

## MALARIA—Continued.

## City Reports for Week ended August 21, 1915.

| Place.                 | Cases. | Deaths. | Place.                | Cases. | Deaths. |
|------------------------|--------|---------|-----------------------|--------|---------|
| Boston, Mass.....      | 1      | .....   | Pittsburgh, Pa.....   | 1      | .....   |
| Everett, Mass.....     | 1      | .....   | Plainfield, N. J..... | 1      | .....   |
| Jersey City, N. J..... | 1      | .....   | Richmond, Va.....     | 1      | .....   |
| Mobile, Ala.....       | .....  | 2       | Sacramento, Cal.....  | 4      | .....   |
| Montclair, N. J.....   | 1      | .....   | Stockton, Cal.....    | 2      | .....   |
| Newton, Mass.....      | 2      | .....   | Toledo, Ohio.....     | 1      | .....   |
| Norfolk, Va.....       | 1      | 1       |                       |        |         |

## MEASLES.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2752.

## PELLAGRA.

## Washington—Seattle.

Surg. Lloyd reported by telegraph September 4, 1915, that a case of pellagra had been notified in Seattle, Wash.

## Mississippi Report for July, 1915.

| Place.                      | New cases reported. | Place.                   | New cases reported. |
|-----------------------------|---------------------|--------------------------|---------------------|
| Mississippi:                |                     | Mississippi—Continued.   |                     |
| Adams County.....           | 14                  | Lincoln County.....      | 46                  |
| Alcorn County.....          | 7                   | Lowndes County.....      | 29                  |
| Amite County.....           | 2                   | Madison County.....      | 45                  |
| Attala County.....          | 16                  | Marion County.....       | 14                  |
| Bolivar County.....         | 502                 | Marshall County.....     | 23                  |
| Calhoun County.....         | 10                  | Monroe County.....       | 48                  |
| Carroll County.....         | 56                  | Montgomery County.....   | 6                   |
| Chickasaw County.....       | 25                  | Neshoba County.....      | 34                  |
| Choctaw County.....         | 6                   | Newton County.....       | 12                  |
| Claiborne County.....       | 9                   | Noxubee County.....      | 26                  |
| Clarke County.....          | 10                  | Oktibbeha County.....    | 10                  |
| Clay County.....            | 14                  | Panola County.....       | 34                  |
| Coahoma County.....         | 345                 | Pearl River County.....  | 11                  |
| Copiah County.....          | 54                  | Perry County.....        | 23                  |
| Covington County.....       | 28                  | Pike County.....         | 7                   |
| Desoto County.....          | 7                   | Pontotoc County.....     | 6                   |
| Forrest County.....         | 84                  | Prentiss County.....     | 2                   |
| Franklin County.....        | 6                   | Quitman County.....      | 22                  |
| George County.....          | 5                   | Rankin County.....       | 3                   |
| Greene County.....          | 6                   | Scott County.....        | 29                  |
| Grenada County.....         | 9                   | Sharkey County.....      | 10                  |
| Hancock County.....         | 5                   | Simpson County.....      | 8                   |
| Harrison County.....        | 28                  | Smith County.....        | 10                  |
| Hinds County.....           | 49                  | Sunflower County.....    | 145                 |
| Holmes County.....          | 64                  | Tallahatchie County..... | 75                  |
| Issaquena County.....       | 1                   | Tate County.....         | 8                   |
| Itawamba County.....        | 20                  | Tippah County.....       | 6                   |
| Jackson County.....         | 3                   | Tishomingo County.....   | 4                   |
| Jasper County.....          | 5                   | Tunica County.....       | 48                  |
| Jefferson County.....       | 8                   | Union County.....        | 8                   |
| Jefferson Davis County..... | 5                   | Walthall County.....     | 2                   |
| Jones County.....           | 149                 | Warren County.....       | 56                  |
| Kemper County.....          | 25                  | Washington County.....   | 195                 |
| Lafayette County.....       | 10                  | Wayne County.....        | 19                  |
| Lamar County.....           | 23                  | Wilkinson County.....    | 2                   |
| Lauderdale County.....      | 54                  | Winston County.....      | 17                  |
| Lawrence County.....        | 27                  | Yalobusha County.....    | 17                  |
| Leake County.....           | 7                   | Yazoo County.....        | 66                  |
| Lee County.....             | 16                  |                          |                     |
| Leflore County.....         | 51                  | Total.....               | 2,891               |

## PELLAGRA—Continued.

## City Reports for Week ended August 21, 1915.

| Place.               | Cases. | Deaths. | Place.                 | Cases. | Deaths. |
|----------------------|--------|---------|------------------------|--------|---------|
| Baltimore, Md.....   |        | 1       | New Orleans, La.....   | 2      | 2       |
| Boston, Mass.....    |        | 1       | Northampton, Mass..... | 1      |         |
| Mobile, Ala.....     |        | 2       | Richmond, Va.....      | 1      | 1       |
| Nashville, Tenn..... | 67     |         | Roanoke, Va.....       |        | 1       |

## PLAGUE.

## Louisiana—New Orleans—Human Case.

Surgeon Creel reported by telegraph that a case of plague in man developed in New Orleans, La., August 27, and was confirmed bacteriologically September 8, 1915.

## Louisiana—New Orleans—Plague-Infected Rat Found.

Surg. Creel reported by telegraph September 3, 1915, that a plague-infected rat had been found at the Harmony Street Wharf, New Orleans, La.

## POLIOMYELITIS (INFANTILE PARALYSIS).

## Mississippi Report for July, 1915.

The State Board of Health of Mississippi reported that during the month of July, 1915, cases of poliomyelitis were notified in counties of Mississippi as follows: Copiah, 1; Grenada, 1; Tallahatchie, 1; Yazoo, 1.

## Idaho Report for February, 1915.

During the month of February, 1915, 1 case of poliomyelitis was notified in Weiser Township, Washington County.

## City Reports for Week ended August 21, 1915.

| Place.               | Cases. | Deaths. | Place.               | Cases. | Deaths. |
|----------------------|--------|---------|----------------------|--------|---------|
| Akron, Ohio.....     |        | 1       | Erie, Pa.....        | 8      |         |
| Brockton, Mass.....  | 1      |         | Lincoln, Nebr.....   | 1      |         |
| Canton, Ohio.....    | 8      |         | Pittsburgh, Pa.....  | 1      |         |
| Cleveland, Ohio..... | 16     |         | Rochester, N. Y..... | 2      |         |

## RABIES.

## Nevada—Lovelock—Human Case.

Asst. Surg. Wayson reported by telegraph September 3, 1915, that a fatal case of rabies in man had occurred at Lovelock.

**RABIES—Continued.****Pennsylvania—Pittsburgh—Human Case.**

During the week ended August 21, 1915, 1 death from rabies was notified in Pittsburgh.

**SCARLET FEVER.**

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2752.

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

Collaborating Epidemologist Bracken reported by telegraph that during the week ended September 4, 1915, two new foci of smallpox infection were reported in Minnesota, cases of the disease having been notified as follows: Olmsted County, New Haven Township, 1; St. Louis County, Sagal Township, 1.

**Miscellaneous State Reports.**

| Place.                | Cases. | Deaths. | Place.                   | Cases. | Deaths. |
|-----------------------|--------|---------|--------------------------|--------|---------|
| Colorado (July 1-31): |        |         | Mississippi (July 1-31): |        |         |
| Las Animas County—    |        |         | Counties—                |        |         |
| Trinidad.....         | 1      | .....   | Coahoma.....             | 12     | .....   |
| Logan County—         |        |         | Copiah.....              | 4      | .....   |
| Sterling.....         | 4      | .....   | Holmes.....              | 3      | .....   |
| Phillips County—      |        |         | Lafayette.....           | 1      | .....   |
| Huxton.....           | 1      | .....   | Lauderdale.....          | 3      | .....   |
| Total.....            | 6      | .....   | Tallahatchie.....        | 6      | .....   |
|                       |        |         | Yazoo.....               | 1      | .....   |
|                       |        |         | Total.....               | 30     | .....   |

**Idaho Reports for the Period January to June, 1915.**

| Place.               | Cases. | Deaths. | Place.                 | Cases. | Deaths. |
|----------------------|--------|---------|------------------------|--------|---------|
| January:             |        |         | April:                 |        |         |
| Cassia County.....   | 7      | .....   | Bingham County.....    | 5      | .....   |
| Elmore County—       |        |         | Custer County.....     | 1      | .....   |
| Glenns Ferry.....    | 4      | .....   | Fremont County.....    | 2      | .....   |
| Lewis County.....    | 4      | .....   | Total.....             | 8      | .....   |
| Total.....           | 15     | .....   | May:                   |        |         |
| February:            |        |         | Franklin County.....   | 2      | .....   |
| Bingham County.....  | 28     | .....   | Nez Perce County.....  | 1      | .....   |
| Cassia County.....   | 1      | .....   | Shoshone County.....   | 1      | .....   |
| Elmore County—       |        |         | Total.....             | 4      | .....   |
| Glenns Ferry.....    | 1      | .....   | June:                  |        |         |
| Franklin County..... | 1      | .....   | Bingham County.....    | 1      | .....   |
| Fremont County.....  | 5      | .....   | Bonneville County..... | 1      | .....   |
| Latah County.....    | 5      | .....   | Fremont County.....    | 2      | .....   |
| Total.....           | 41     | .....   | Nez Perce County.....  | 1      | .....   |
| March:               |        |         | Total.....             | 5      | .....   |
| Cassia County.....   | 3      | .....   |                        |        |         |
| Custer County.....   | 1      | .....   |                        |        |         |
| Franklin County..... | 1      | .....   |                        |        |         |
| Fremont County.....  | 1      | .....   |                        |        |         |
| Latah County.....    | 3      | .....   |                        |        |         |
| Minidoka County..... | 2      | .....   |                        |        |         |
| Total.....           | 11     | .....   |                        |        |         |

## SMALLPOX—Continued.

## City Reports for Week ended Aug. 21, 1915.

| Place.                | Cases. | Deaths. | Place.                    | Cases. | Deaths. |
|-----------------------|--------|---------|---------------------------|--------|---------|
| Akron, Ohio.....      | 4      | .....   | Racine, Wis.....          | 1      | .....   |
| Brownsville, Tex..... | 3      | .....   | Salt Lake City, Utah..... | 1      | .....   |
| Butte, Mont.....      | 2      | .....   | Springfield, Ill.....     | 1      | .....   |
| Cleveland, Ohio.....  | 2      | .....   | Superior, Wis.....        | 2      | .....   |
| Milwaukee, Wis.....   | 1      | .....   |                           |        |         |

## TETANUS.

## Hawaii—Maui Island.

The Territorial Board of Health of Hawaii reported that during the month of July, 1915, 1 case of tetanus was notified in the island of Maui.

## City Reports for Week ended Aug. 21, 1915.

| Place.               | Cases. | Deaths. | Place.                | Cases. | Deaths. |
|----------------------|--------|---------|-----------------------|--------|---------|
| Buffalo, N. Y.....   | .....  | 1       | Los Angeles, Cal..... | 2      | 1       |
| Cleveland, Ohio..... | .....  | 1       | Pittsfield, Mass..... | 1      | .....   |
| Detroit, Mich.....   | .....  | 1       | Sacramento, Cal.....  | .....  | 1       |
| Erie, Pa.....        | 2      | .....   | St. Louis, Mo.....    | 1      | .....   |

## TUBERCULOSIS.

See Diphtheria, measles, scarlet fever, and tuberculosis, page 2752.

## TYPHOID FEVER.

## State Reports for July, 1915.

| Place.                          | New cases reported. | Place.                     | New cases reported. |
|---------------------------------|---------------------|----------------------------|---------------------|
| <b>Hawaii:</b>                  |                     | <b>Hawaii—Continued.</b>   |                     |
| Hawaii—                         |                     | Oahu—                      | 3                   |
| South Hilo District.....        | 1                   | Ewa District.....          | 4                   |
| Kauai—                          |                     | Honolulu.....              | 1                   |
| Koloa District.....             | 1                   | Koolau-poiko District..... | 1                   |
| Makaweli District.....          | 2                   | Waialua District.....      |                     |
| Maui—                           |                     | <b>Total.....</b>          | <b>15</b>           |
| Lahaina District.....           | 1                   |                            |                     |
| Paunene and Kihei District..... | 1                   |                            |                     |

## TYPHOID FEVER—Continued.

## State Reports for July, 1915—Continued.

| Place.                      | New cases reported. | Place.                        | New cases reported. |
|-----------------------------|---------------------|-------------------------------|---------------------|
| <b>Mississippi:</b>         |                     | <b>Mississippi—Continued.</b> |                     |
| Adams County.....           | 6                   | Lincoln County.....           | 15                  |
| Alcorn County.....          | 12                  | Lowndes County.....           | 6                   |
| Amite County.....           | 8                   | Madison County.....           | 16                  |
| Attala County.....          | 15                  | Marion County.....            | 22                  |
| Bolivar County.....         | 24                  | Marshall County.....          | 11                  |
| Calhoun County.....         | 5                   | Monroe County.....            | 10                  |
| Carroll County.....         | 10                  | Neshoba County.....           | 4                   |
| Chickasaw County.....       | 14                  | Newton County.....            | 5                   |
| Choctaw County.....         | 8                   | Noxubee County.....           | 13                  |
| Claiborne County.....       | 2                   | Oktibbeha County.....         | 16                  |
| Clarke County.....          | 8                   | Panola County.....            | 7                   |
| Clay County.....            | 7                   | Pearl River County.....       | 9                   |
| Coahoma County.....         | 15                  | Perry County.....             | 1                   |
| Copiah County.....          | 27                  | Pike County.....              | 28                  |
| Covington County.....       | 5                   | Pontotoc County.....          | 6                   |
| Forrest County.....         | 11                  | Prentiss County.....          | 12                  |
| Franklin County.....        | 14                  | Rankin County.....            | 1                   |
| George County.....          | 3                   | Scott County.....             | 26                  |
| Grenada County.....         | 5                   | Simpson County.....           | 16                  |
| Hancock County.....         | 13                  | Smith County.....             | 6                   |
| Harrison County.....        | 25                  | Sunflower County.....         | 18                  |
| Hinds County.....           | 41                  | Tallahatchie County.....      | 24                  |
| Holmes County.....          | 16                  | Tate County.....              | 23                  |
| Issaquena County.....       | 2                   | Tippah County.....            | 22                  |
| Hawamba County.....         | 5                   | Tishomingo County.....        | 11                  |
| Jasper County.....          | 6                   | Tunica County.....            | 3                   |
| Jefferson County.....       | 1                   | Union County.....             | 7                   |
| Jefferson Davis County..... | 9                   | Walthall County.....          | 4                   |
| Jones County.....           | 24                  | Warren County.....            | 12                  |
| Kemper County.....          | 9                   | Washington County.....        | 28                  |
| Lafayette County.....       | 10                  | Wayne County.....             | 2                   |
| Lamar County.....           | 10                  | Wilkinson County.....         | 6                   |
| Lauderdale County.....      | 30                  | Winston County.....           | 11                  |
| Lawrence County.....        | 4                   | Yalobusha County.....         | 30                  |
| Leake County.....           | 11                  | Yazoo County.....             | 26                  |
| Lee County.....             | 12                  |                               |                     |
| Leflore County.....         | 15                  | <b>Total.....</b>             | <b>899</b>          |

## Idaho Reports for the Period January to June, 1915.

| Place.              | Cases.   | Deaths. | Place.                 | Cases.   | Deaths. |
|---------------------|----------|---------|------------------------|----------|---------|
| <b>January:</b>     |          |         | <b>May:</b>            |          |         |
| Ada County—         |          |         | Ada County—            |          |         |
| Boise.....          | 1        |         | Boise.....             | 1        |         |
| Madison County..... | 1        |         | Bonner County.....     | 1        |         |
| <b>Total.....</b>   | <b>2</b> |         | Bonneville County..... | 1        |         |
| <b>February:</b>    |          |         | <b>Total.....</b>      | <b>3</b> |         |
| Latah County.....   | 3        |         | <b>June:</b>           |          |         |
| <b>March:</b>       |          |         | Ada County—            |          |         |
| Ada County—         |          |         | Boise.....             | 2        |         |
| Boise.....          | 1        |         | Bonneville County..... | 1        |         |
| Madison County..... | 1        |         | Bingham County.....    | 2        |         |
| <b>Total.....</b>   | <b>2</b> |         | Fremont County.....    | 2        |         |
| <b>April:</b>       |          |         | Washington County..... | 1        |         |
| Ada County.....     | 1        |         | <b>Total.....</b>      | <b>8</b> |         |
| Boise.....          | 2        |         |                        |          |         |
| Madison County..... | 1        |         |                        |          |         |
| <b>Total.....</b>   | <b>4</b> |         |                        |          |         |



## TYPHOID FEVER—Continued.

City Reports for Week ended August 21, 1915.

| Place.                  | Cases. | Deaths. | Place.                    | Cases. | Deaths. |
|-------------------------|--------|---------|---------------------------|--------|---------|
| Akron, Ohio.....        | 9      |         | Nashville, Tenn.....      | 17     | 3       |
| Alameda, Cal.....       | 1      | 1       | New Bedford, Mass.....    | 3      |         |
| Ann Arbor, Mich.....    | 2      |         | New Haven, Conn.....      | 11     |         |
| Auburn, N. Y.....       | 6      | 2       | New London, Conn.....     | 1      |         |
| Baltimore, Md.....      | 33     | 7       | New Orleans, La.....      | 5      | 2       |
| Bayonne, N. J.....      | 1      |         | Newton, Mass.....         | 4      |         |
| Berkeley, Cal.....      | 2      | 1       | Niagara Falls, N. Y.....  | 1      |         |
| Binghamton, N. Y.....   | 3      |         | Norfolk, Va.....          | 9      | 1       |
| Boston, Mass.....       | 18     | 1       | Norristown, Pa.....       | 3      |         |
| Buffalo, N. Y.....      | 22     | 2       | Oakland, Cal.....         | 3      | 1       |
| Cairo, Ill.....         | 4      |         | Ogden, Utah.....          | 1      |         |
| Charleston, S. C.....   | 4      |         | Philadelphia, Pa.....     | 23     | 1       |
| Chelsea, Mass.....      | 1      |         | Pittsburgh, Pa.....       | 3      |         |
| Chicago, Ill.....       | 27     | 3       | Plainfield, N. J.....     | 2      |         |
| Cleveland, Ohio.....    | 13     |         | Portland, Oreg.....       | 1      |         |
| Columbus, Ohio.....     | 13     | 1       | Portsmouth, Va.....       | 2      |         |
| Covington, Ky.....      | 2      |         | Providence, R. I.....     | 38     | 4       |
| Cumberland, Md.....     | 2      | 1       | Reading, Pa.....          | 3      |         |
| Dayton, Ohio.....       | 12     |         | Richmond, Va.....         | 6      |         |
| Detroit, Mich.....      | 14     | 1       | Roanoke, Va.....          | 3      | 1       |
| Erie, Pa.....           | 3      |         | Rochester, N. Y.....      | 6      |         |
| Fall River, Mass.....   | 4      | 1       | Sacramento, Cal.....      | 4      |         |
| Galesburg, Ill.....     | 1      | 1       | St. Louis, Mo.....        | 11     |         |
| Galveston, Tex.....     | 1      | 1       | Salt Lake City, Utah..... | 3      |         |
| Grand Rapids, Mich..... | 1      |         | San Diego, Cal.....       | 2      |         |
| Hartford, Conn.....     | 21     |         | San Francisco, Cal.....   | 2      |         |
| Haverhill, Mass.....    | 1      |         | Somerville, Mass.....     | 1      |         |
| Jersey City, N. J.....  | 3      |         | South Bethlehem, Pa.....  | 2      |         |
| Johnstown, Pa.....      | 2      |         | Springfield, Ill.....     | 1      | 1       |
| Kansas City, Kans.....  | 2      |         | Springfield, Mass.....    | 2      |         |
| Kenosha, Wis.....       | 1      |         | Steubenville, Ohio.....   | 6      |         |
| Lincoln, Nebr.....      | 1      |         | Stockton, Cal.....        | 1      |         |
| Little Rock, Ark.....   | 8      |         | Tacoma, Wash.....         | 2      |         |
| Lorain, Ohio.....       |        | 1       | Toledo, Ohio.....         | 10     |         |
| Los Angeles, Cal.....   | 1      |         | Trenton, N. J.....        | 2      |         |
| Lowell, Mass.....       | 7      | 1       | Waltham, Mass.....        | 6      |         |
| Lynchburg, Va.....      | 9      |         | Washington, D. C.....     | 14     |         |
| Lynn, Mass.....         | 3      | 3       | Wheeling, W. Va.....      | 3      |         |
| Malden, Mass.....       | 2      |         | Wilkes-Barre, Pa.....     | 1      |         |
| Milwaukee, Wis.....     | 3      |         | Williamsport, Pa.....     | 1      |         |
| Mobile, Ala.....        | 2      |         | York, Pa.....             | 3      |         |

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

State Reports for July, 1915.

During the month of July, 1915, 1 case of diphtheria and 10 cases of measles were notified in the Hawaiian Islands; and in Mississippi 28 cases of diphtheria, 87 cases of measles, and 19 cases of scarlet fever were notified during the same month.

Idaho Reports for the Period January to June, 1915.

| Month.        | Cases reported. |          |                | Month.     | Cases reported. |          |                |
|---------------|-----------------|----------|----------------|------------|-----------------|----------|----------------|
|               | Diphtheria.     | Measles. | Scarlet fever. |            | Diphtheria.     | Measles. | Scarlet fever. |
| January.....  | 11              | 24       | 14             | May.....   | 3               | 281      | 4              |
| February..... | 12              | 466      | 6              | June.....  | 5               | 55       | 3              |
| March.....    | 7               | 490      | 19             |            |                 |          |                |
| April.....    |                 | 156      | 35             | Total..... | 38              | 1,472    | 81             |

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

City Reports for Week ended August 21, 1915.

| City.                                     | Popula-<br>tion as of<br>July 1, 1915<br>(estimated<br>by U. S.<br>Census<br>Bureau). | Total<br>deaths<br>from<br>all<br>causes. | Diph-<br>theria. |         | Measles. |         | Scarlet<br>fever. |         | Tubercu-<br>losis. |         |
|---|---|---|------------------|---------|----------|---------|-------------------|---------|--------------------|---------|
|   |   |   | Cases.           | Deaths. | Cases.   | Deaths. | Cases.            | Deaths. | Cases.             | Deaths. |
| Over 500,000 inhabitants:                 |   |   |                  |         |          |         |                   |         |                    |         |
| Baltimore, Md.                            | 584,606   | 197                                       | 15               | 1       | 10       |         | 6                 |         | 27                 | 25      |
| Boston, Mass.                             | 745,139   | 226                                       | 51               |         | 20       |         | 20                |         | 71                 | 18      |
| Chicago, Ill.                             | 2,447,045   | 574                                       | 69               | 10      | 42       | 1       | 19                | 1       | 275                | 69      |
| Cleveland, Ohio.                          | 656,975   | 166                                       | 25               | 4       | 26       | 1       | 7                 |         | 39                 | 9       |
| Detroit, Mich.                            | 554,717   | 182                                       | 20               |         | 2        |         | 2                 |         | 38                 | 11      |
| Philadelphia, Pa.                         | 1,683,664   | 435                                       | 22               | 1       | 68       | 1       | 3                 |         | 126                | 41      |
| Pittsburgh, Pa.                           | 571,984   | 160                                       | 29               | 3       | 20       |         | 8                 |         | 22                 | 20      |
| St. Louis, Mo.                            | 745,988   | 163                                       | 31               | 2       | 9        |         | 4                 |         | 26                 | 10      |
| From 300,000 to 500,000 inhabit-<br>ants: |   |   |                  |         |          |         |                   |         |                    |         |
| Buffalo, N. Y.                            | 461,335   | 138                                       | 10               | 1       | 37       | 2       |                   |         | 27                 | 12      |
| Jersey City, N. J.                        | 300,133   | 58  | 18               | 1       | 6        |         |                   |         | 25                 | 5       |
| Los Angeles, Cal.                         | 465,367   | 102                                       | 3                | 1       | 2        |         | 1                 |         | 32                 | 17      |
| Milwaukee, Wis.                           | 423,062   | 60  | 5                | 1       | 6        |         | 2                 |         | 18                 |         |
| New Orleans, La.                          | 366,484   | 123                                       | 25               | 1       |          |         |                   |         | 19                 | 28      |
| San Francisco, Cal.                       | 1,416,912   | 126                                       | 15               |         |          |         | 7                 |         | 34                 | 9       |
| Washington, D. C.                         | 353,679   | 107                                       | 2                |         | 7        |         |                   |         | 19                 | 11      |
| From 200,000 to 300,000 inhabit-<br>ants: |   |   |                  |         |          |         |                   |         |                    |         |
| Columbus, Ohio.                           | 209,722   |   | 6                |         |          |         | 6                 |         | 3                  | 4       |
| Portland, Oreg.                           | 272,833   | 41  | 2                | 1       | 2        |         | 1                 |         | 6                  | 4       |
| Providence, R. I.                         | 250,025   | 76  | 4                | 1       |          |         | 5                 |         | 5                  | 5       |
| Rochester, N. Y.                          | 250,747   | 47  |                  |         | 1        |         |                   |         | 9                  | 2       |
| From 100,000 to 200,000 inhabit-<br>ants: |   |   |                  |         |          |         |                   |         |                    |         |
| Cambridge, Mass.                          | 111,669   | 22  | 5                |         |          |         | 5                 | 1       | 5                  | 4       |
| Camden, N. J.                             | 104,549   |   | 4                |         |          |         |                   |         | 5                  |         |
| Dayton, Ohio.                             | 125,509   | 37  | 7                |         |          |         | 1                 |         | 4                  | 6       |
| Fall River, Mass.                         | 126,904   | 54  | 2                |         | 1        |         | 2                 |         | 5                  | 2       |
| Grand Rapids, Mich.                       | 125,759   | 20  |                  |         | 2        |         |                   |         | 5                  |         |
| Hartford, Conn.                           | 108,969   | 35  | 3                |         |          |         | 1                 |         | 5                  | 2       |
| Lowell, Mass.                             | 112,124   | 34  | 2                |         |          |         | 1                 |         | 8                  | 4       |
| Lynn, Mass.                               | 100,316   | 18  |                  |         | 2        |         | 5                 |         | 5                  |         |
| Nashville, Tenn.                          | 115,978   | 37  | 1                |         |          |         |                   |         | 3                  | 1       |
| New Bedford, Mass.                        | 114,694   | 24  | 1                |         | 4        |         | 2                 |         | 11                 | 2       |
| New Haven, Conn.                          | 147,095   |   | 3                | 1       |          |         |                   |         | 5                  |         |
| Oakland, Cal.                             | 190,803   |   | 12               |         |          |         | 1                 |         | 3                  | 4       |
| Reading, Pa.                              | 105,094   | 38  | 1                |         | 4        |         |                   |         |                    |         |
| Richmond, Va.                             | 154,674   | 42  | 2                |         |          |         | 1                 |         | 6                  | 2       |
| Salt Lake City, Utah.                     | 113,567   | 17  | 1                |         | 1        |         | 2                 |         |                    | 1       |
| Springfield, Mass.                        | 103,216   | 26  | 4                |         | 3        |         |                   |         | 3                  | 2       |
| Toledo, Ohio.                             | 187,840   | 39  | 2                |         | 4        |         |                   |         | 11                 | 5       |
| Trenton, N. J.                            | 109,212   | 33  | 5                |         | 5        |         | 4                 |         | 5                  | 3       |
| Worcester, Mass.                          | 160,523   | 51  | 4                |         |          |         |                   |         | 4                  | 2       |
| From 50,000 to 100,000 inhabit-<br>ants:  |   |   |                  |         |          |         |                   |         |                    |         |
| Akron, Ohio.                              | 82,958  |   | 3                |         | 1        |         |                   |         | 1                  | 2       |
| Altoona, Pa.                              | 67,606  | 9   | 4                | 1       |          |         | 1                 |         |                    |         |
| Bayonne, N. J.                            | 67,582  |   | 4                |         | 1        |         |                   |         | 5                  |         |
| Berkeley, Cal.                            | 54,879  | 10  |                  |         |          |         |                   |         |                    | 1       |
| Binghamton, N. Y.                         | 63,082  | 26  | 3                |         | 1        |         |                   |         | 2                  | 1       |
| Brockton, Mass.                           | 65,746  | 11  | 1                |         | 3        |         | 1                 |         |                    | 2       |
| Canton, Ohio.                             | 59,139  | 17  |                  |         | 1        |         | 1                 |         |                    | 2       |
| Charleston, S. C.                         | 60,427  | 34  | 1                |         |          |         |                   |         |                    | 5       |
| Covington, Ky.                            | 53,520  | 17  | 1                |         |          |         | 1                 |         | 2                  | 4       |
| Duluth, Minn.                             | 91,913  |   | 3                |         |          |         | 2                 |         | 3                  | 2       |
| Erle, Pa.                                 | 73,798  |   | 3                |         | 1        |         | 5                 |         | 5                  |         |
| Harrisburg, Pa.                           | 70,754  | 16  | 2                |         | 2        |         |                   |         |                    |         |
| Johnstown, Pa.                            | 66,365  | 24  | 2                |         | 2        |         |                   |         | 2                  | 3       |
| Kansas City, Kans.                        | 96,854  |   | 5                |         |          |         | 1                 |         | 2                  | 1       |
| Lancaster, Pa.                            | 50,209  |   | 1                |         | 1        |         |                   |         | 2                  |         |
| Little Rock, Ark.                         | 55,158  | 17  | 3                |         |          |         |                   |         |                    |         |
| Malden, Mass.                             | 50,067  | 9   | 2                |         |          |         | 1                 |         |                    |         |
| Manchester, N. H.                         | 76,959  | 20  |                  |         |          |         |                   |         | 1                  | 1       |
| Mobile, Ala.                              | 56,536  | 21  |                  |         |          |         |                   |         |                    | 4       |
| New Britain, Conn.                        | 82,206  |   |                  |         |          |         |                   |         | 6                  | 3       |
| Norfolk, Va.                              | 83,076  |   |                  | 1       |          |         | 1                 |         | 2                  | 2       |
| Passaic, N. J.                            | 69,010  | 20  |                  |         |          |         |                   |         |                    | 2       |
| Pawtucket, R. I.                          | 53,156  | 10  |                  |         |          |         |                   |         |                    |         |

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

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

City Reports for Week Ended August 21, 1915—Continued.

| City.  | Popula-<br>tion as of<br>July 1, 1915<br>(estimated<br>by U. S.<br>Census<br>Bureau). | Total<br>deaths<br>from<br>all<br>causes. | Diphtheria. |         | Measles. |         | Scarlet<br>fever. |         | Tubercu-<br>losis. |         |
|--|---|---|-------------|---------|----------|---------|-------------------|---------|--------------------|---------|
|  |   |   | Cases.      | Deaths. | Cases.   | Deaths. | Cases.            | Deaths. | Cases.             | Deaths. |
| From 50,000 to 100,000 inhabit-<br>ants—Continued. |   |   |             |         |          |         |                   |         |                    |         |
| Rockford, Ill.                                     | 53,761  | 9   | 1           |         |          |         |                   |         |                    | 1       |
| Sacramento, Cal.                                   | 64,806  | 25  |             |         |          |         |                   |         | 3                  | 3       |
| San Diego, Cal.                                    | 51,115  | 17  | 2           |         |          |         |                   |         | 1                  | 3       |
| Somerville, Mass.                                  | 85,460  | 17  |             | 2       |          |         | 1                 |         | 2                  | 2       |
| South Bend, Ind.                                   | 67,030  | 15  | 1           |         | 2        |         |                   |         |                    | 2       |
| Springfield, Ill.                                  | 59,468  | 14  | 1           |         |          |         |                   | 3       | 1                  | 3       |
| Wilkes-Barre, Pa.                                  | 75,218  | 27  | 1           |         |          |         |                   |         | 7                  | 2       |
| York, Pa.  | 50,543  |   | 1           |         |          |         |                   |         | 4                  |         |
| From 25,000 to 50,000 inhabit-<br>ants:            |   |   |             |         |          |         |                   |         |                    |         |
| Alameda, Cal.                                      | 27,031  | 9   |             |         |          |         |                   |         |                    | 1       |
| Auburn, N. Y.                                      | 36,947  | 10  |             |         |          |         |                   |         |                    |         |
| Brookline, Mass.                                   | 31,934  | 1   | 6           |         |          |         |                   |         | 1                  |         |
| Butler, Pa.  | 26,587  | 7   | 1           |         |          |         | 2                 |         |                    |         |
| Butte, Mont.                                       | 42,918  | 11  |             |         |          |         |                   |         | 2                  | 6       |
| Chelsea, Mass.                                     | 132,452   | 5   | 1           |         | 1        |         |                   |         | 2                  |         |
| Chicopee, Mass.                                    | 28,688  | 8   |             |         |          |         | 2                 |         |                    |         |
| Clinton, Iowa                                      | 27,094  | 2   | 1           |         |          |         |                   |         |                    | 1       |
| Cumberland, Md.                                    | 25,564  | 8   |             |         |          |         |                   |         | 2                  |         |
| Danville, Ill.                                     | 31,554  | 7   |             |         |          |         | 1                 |         | 1                  |         |
| Dubuque, Iowa                                      | 39,650  | 3   |             |         |          |         |                   |         |                    | 2       |
| East Orange, N. J.                                 | 41,155  | 6   |             |         | 1        |         | 1                 |         |                    |         |
| Elgin, Ill.  | 27,844  | 5   |             |         |          |         |                   |         |                    |         |
| Everett, Mass.                                     | 38,307  | 7   | 2           |         | 1        |         | 3                 |         | 6                  |         |
| Fitchburg, Mass.                                   | 41,144  | 11  | 5           |         |          |         | 1                 |         | 3                  | 2       |
| Galveston, Tex.                                    | 41,076  | 27  |             |         |          |         |                   |         |                    |         |
| Haverhill, Mass.                                   | 47,774  | 5   | 2           |         | 1        |         |                   |         | 3                  |         |
| Kalamazoo, Mich.                                   | 47,364  | 12  | 2           |         |          |         |                   |         | 1                  |         |
| Kenosha, Wis.                                      | 30,319  |   |             |         |          |         |                   |         | 1                  |         |
| La Crosse, Wis.                                    | 31,522  | 8   | 4           |         | 1        |         |                   |         | 2                  |         |
| Lexington, Ky.                                     | 39,703  | 13  | 1           |         | 2        |         | 1                 |         |                    | 2       |
| Lorain, Ohio.                                      | 35,062  |   | 1           |         |          |         | 1                 |         |                    |         |
| Lynchburg, Va.                                     | 32,385  | 12  |             |         |          |         |                   |         |                    |         |
| Madison, Wis.                                      | 30,084  |   |             |         | 2        |         |                   |         | 2                  | 1       |
| Medford, Mass.                                     | 25,737  | 3   | 1           |         |          |         |                   |         | 1                  |         |
| Montclair, N. J.                                   | 25,550  | 2   |             |         |          |         |                   |         | 1                  |         |
| New Castle, Pa.                                    | 40,351  |   |             |         |          |         | 2                 |         |                    |         |
| Newport, Ky.                                       | 31,722  | 2   |             |         |          |         |                   |         |                    |         |
| Newport, R. I.                                     | 29,631  | 4   |             |         |          |         |                   |         | 1                  |         |
| Newton, Mass.                                      | 43,085  | 8   | 5           | 1       |          |         | 1                 |         | 1                  |         |
| Niagara Falls, N. Y.                               | 36,240  | 11  |             |         | 3        |         |                   |         | 2                  |         |
| Norristown, Pa.                                    | 30,833  | 6   |             |         |          |         | 1                 |         |                    |         |
| Ogden, Utah.                                       | 30,466  | 4   |             |         |          |         |                   |         |                    |         |
| Pasadena, Cal.                                     | 43,859  | 8   |             |         |          |         |                   |         | 4                  | 1       |
| Perth Amboy, N. J.                                 | 39,725  |   | 6           |         |          |         |                   |         |                    |         |
| Pittsfield, Mass.                                  | 37,589  | 8   |             |         |          |         | 1                 |         | 4                  |         |
| Portsmouth, Va.                                    | 38,610  | 3   |             |         |          |         |                   |         |                    |         |
| Racine, Wis.                                       | 45,507  | 11  | 1           |         |          |         |                   |         | 1                  | 1       |
| Roanoke, Va.                                       | 41,929  | 11  | 10          | 1       |          |         |                   |         | 20                 |         |
| Rock Island, Ill.                                  | 27,961  | 5   |             |         |          |         |                   |         |                    |         |
| Steubenville, Ohio.                                | 26,631  | 12  |             |         |          |         |                   |         |                    |         |
| Stockton, Cal.                                     | 34,508  |   | 1           |         |          |         |                   | 3       | 1                  | 1       |
| Superior, Wis.                                     | 45,285  | 2   |             |         |          |         |                   |         |                    |         |
| Taunton, Mass.                                     | 35,957  | 6   |             |         | 3        |         | 1                 |         |                    |         |
| Waltham, Mass.                                     | 30,129  | 10  | 4           |         | 3        |         |                   |         | 1                  | 1       |
| West Hoboken, N. J.                                | 41,893  | 2   | 1           |         |          |         |                   |         | 2                  | 1       |
| Wheeling, W. Va.                                   | 43,097  | 17  |             |         |          |         | 1                 |         |                    | 2       |
| Williamsport, Pa.                                  | 33,495  | 15  | 2           |         |          |         |                   |         |                    |         |
| Zanesville, Ohio.                                  | 30,406  |   |             |         |          |         | 1                 |         |                    |         |
| From 10,000 to 25,000 inhabit-<br>ants:            |   |   |             |         |          |         |                   |         |                    |         |
| Ann Arbor, Mich.                                   | 14,979  | 10  |             |         |          |         |                   | 1       |                    | 3       |
| Beaver Falls, Pa.                                  | 13,316  |   |             |         |          |         | 1                 |         | 2                  |         |
| Braddock, Pa.                                      | 21,310  |   |             |         | 2        |         | 1                 |         |                    |         |
| Cairo, Ill.  | 15,593  | 3   |             |         |          |         |                   |         |                    | 1       |
| Concord, N. H.                                     | 22,480  | 11  |             |         |          |         | 1                 |         |                    | 1       |
| Galesburg, Ill.                                    | 23,923  | 9   |             |         |          |         |                   |         | 2                  | 2       |
| Kearny, N. J.                                      | 22,753  | 7   |             |         | 2        |         | 1                 |         |                    |         |

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

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

City Reports for Week Ended August 21, 1915—Continued.

| City.  | Population as of July 1, 1915 (estimated by U. S. Census Bureau). | Total deaths from all causes. | Diphtheria. |         | Measles. |         | Scarlet fever. |         | Tuberculosis. |         |
|--|---|-------------------------------|-------------|---------|----------|---------|----------------|---------|---------------|---------|
|  |   |                               | Cases.      | Deaths. | Cases.   | Deaths. | Cases.         | Deaths. | Cases.        | Deaths. |
| From 10,000 to 25,000 inhabitants—Continued. |   |                               |             |         |          |         |                |         |               |         |
| Key West, Fla.....                           | 21,437  | 3                             |             |         |          |         |                |         |               | 1       |
| Melrose, Mass.....                           | 17,166  | 9                             | 1           |         |          |         |                |         |               |         |
| Morristown, N. J.....                        | 13,158  | 3                             | 1           |         | 4        |         |                |         |               |         |
| Muscatine, Iowa.....                         | 17,287  | 1                             |             |         |          |         |                |         |               |         |
| Nanticoke, Pa.....                           | 22,441  | 4                             |             |         |          |         |                |         |               |         |
| Newburyport, Mass.....                       | 15,195  | 5                             |             |         |          |         |                |         |               |         |
| New London, Conn.....                        | 20,771  | 4                             |             |         |          |         |                |         | 1             |         |
| North Adams, Mass.....                       | <sup>1</sup> 22,019   | 8                             |             | 1       |          |         |                |         | 4             | 1       |
| Northampton, Mass.....                       | 19,816  | 5                             |             |         |          |         |                |         | 2             | 1       |
| Plainfield, N. J.....                        | 23,280  | 3                             | 1           |         |          |         |                |         | 2             |         |
| Rutland, Vt.....                             | 14,624  | 5                             |             |         |          |         | 1              |         |               | 1       |
| Saratoga Springs, N. Y.....                  | 12,842  | 3                             |             |         |          |         |                |         |               |         |
| South Bethlehem, Pa.....                     | 23,522  | 1                             |             |         | 6        |         |                |         | 7             | 1       |
| Steelton, Pa.....                            | 15,337  |                               |             |         |          |         |                |         |               | 1       |
| Wilkinsburg, Pa.....                         | 22,361  | 9                             | 1           |         |          |         |                |         |               | 1       |
| Woburn, Mass.....                            | 15,862  | 11                            |             |         |          |         |                |         |               |         |

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

# FOREIGN REPORTS.

## AUSTRIA-HUNGARY.

### Cholera.

Cholera has been notified in Austria-Hungary as follows:

*Austria.*—July 4-17, 1915: Cases, 2,248; deaths, 882; mainly in civil population.

*Bosnia-Herzegovina.*—June 27-July 3, 1915: Cases, 54; deaths, 19.

*Croatia-Slavonia.*—July 5-19, 1915: Cases, 441; deaths, 167.

*Hungary.*—July 5-11, 1915: Cases, 259; deaths, 138.

### Cholera Carriers—Bosnia-Herzegovina.

During the week ended July 3, 1915, 26 cholera carriers were found in Bosnia-Herzegovina.

## CHINA.

### Examination of Rats—Shanghai.

During the week ended July 24, 1915, 219 rats were examined at Shanghai. No plague infection was found.

### Plague—Plague-Infected Rats—Hongkong.

During the two weeks ended July 17, 1915, 11 cases of plague were notified at Hongkong.

During the same period out of 4,276 rats examined at Hongkong 15 were found plague infected.

## CUBA.

### Communicable Diseases—Habana.

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

| Disease.                | New cases. | Deaths. | Remaining under treatment, Aug. 20. |
|-------------------------|------------|---------|-------------------------------------|
| Diphtheria .....        | 3          |         | 4                                   |
| Leprosy .....           |            |         | 248                                 |
| Malaria .....           | 2          |         | 1                                   |
| Measles .....           | 2          |         | 3                                   |
| Paratyphoid fever ..... | 1          |         | 3                                   |
| Plague .....            | 1          |         | 1                                   |
| Scarlet fever .....     | 3          |         | 4                                   |
| Typhoid fever .....     | 21         | 4       | 43                                  |
| Varicella .....         |            |         | 1                                   |

**DUTCH EAST INDIES.****Cholera Epidemic—Batavia, Java.**

Cholera was reported present at Batavia in epidemic form, September 3, 1915.

**GERMANY.****Cholera.**

During the week ended August 14, 1915, 4 fatal cases of cholera were notified at Furstenwalde and Koeltsch. The disease was also reported present in prison camps.

**GREAT BRITAIN.****Plague-Infected Rats—Liverpool.**

The finding of three plague-infected rats was reported at Liverpool August 27, 1915.

**Examination of Rats—Liverpool.**

During the two weeks ended July 31, 1915, 431 rats were examined at Liverpool. The total number of rats examined from July 25, 1914, to July 31, 1915, was 10,900. No plague infection was found.

**MAURITIUS.****Plague.**

A case of plague was notified in the island of Mauritius June 14, 1915.

**TYPHUS FEVER.****Reports Received During Week ended Sept. 10, 1915.<sup>1</sup>**

| Place.                          | Date.           | Cases. | Deaths. | Remarks. |
|---------------------------------|-----------------|--------|---------|----------|
| Canada:                         |                 |        |         |          |
| Ontario—                        |                 |        |         |          |
| Kingston.....                   | Aug. 22-28..... | 1      | 1       |          |
| Dutch East Indies:              |                 |        |         |          |
| Java—                           |                 |        |         |          |
| Batavia.....                    | July 4-10.....  | 17     | 3       |          |
| Germany:                        |                 |        |         |          |
| Hamburg.....                    | July 25-31..... | 1      |         |          |
| Merseburg, government district. | .....do.....    | 1      |         |          |
| Stettin, government district.   | .....do.....    | 1      |         |          |
| Russia:                         |                 |        |         |          |
| Petrograd.....                  | July 4-10.....  | 1      | 1       |          |
| Vladivostok.....                | July 8-14.....  | 1      |         |          |
| Switzerland:                    |                 |        |         |          |
| St. Gall.....                   | July 25-31..... | 1      |         |          |

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

## TYPHUS FEVER—Continued.

## Reports Received from June 26 to Sept. 3, 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     |         |  |
| Hungary:                   |                     |        |         | Mainly among military.   |
| Budapest.....              | May 16-July 17....  | 18     | 6       |  |
| Azores:                    |                     |        |         |  |
| Terceira.....              | May 23-29.....      | 1      |         | July 24, 1915; present.  |
| Canary Islands:            |                     |        |         |  |
| Santa Cruz de Tenerife.... | May 16-June 19....  |        | 2       |  |
| China:                     |                     |        |         |  |
| Antung.....                | June 28-July 4....  | 1      |         | On Eastern Chinese Ry. Present.  |
| Hankow.....                | July 4-10.....      |        | 1       |  |
| Hungtaohotze Station.....  | Apr. 19-25.....     | 1      |         |  |
| Mukden.....                | June 6-July 3.....  |        |         |  |
| Tientsin.....              | do.....             |        | 1       |  |
| Cuba:                      |                     |        |         |  |
| Santiago.....              | July 4-10.....      | 2      | 2       |  |
| Curacao.....               | Aug. 8-14.....      | 4      | 1       |  |
| Dutch East Indies:         |                     |        |         |  |
| Java.....                  | Apr. 25-May 10....  | 35     | 7       |  |
| Batavia.....               | June 6-19.....      | 18     | 4       |  |
| 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       | In German soldiers and 1 prison-camp employée; among prisoners of war in 14 districts and in Saxony and Hesse.                 |
| Germany.....               | May 16-22.....      | 12     |         |  |
| Do.....                    | June 6-26.....      | 33     |         | Among military: Present in prison camps.   |
| Do.....                    | June 27-July 24.... | 119    |         |  |
| 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.....  | 5      |         |  |
| Bromberg—                  |                     |        |         |  |
| Government district... ..  | July 18-24.....     | 1      |         |  |
| Cassel—                    |                     |        |         |  |
| Government district... ..  | do.....             | 1      |         |  |
| Erfurt—                    |                     |        |         |  |
| Government district... ..  | July 11-17.....     | 1      |         |  |
| Frankfort—                 |                     |        |         |  |
| Government district... ..  | July 18-24.....     | 1      |         |  |
| Konigsberg.....            | June 6-12.....      | 3      |         |  |
| Leipzig.....               | do.....             |        | 1       |  |
| Saxe-Weimar.....           | July 11-17.....     | 10     |         | At Jena.   |
| Saxony.....                | July 18-24.....     | 27     |         |  |
| Great Britain and Ireland: |                     |        |         |  |
| Dublin.....                | May 23-July 31....  | 7      |         |  |
| Glasgow.....               | May 29-Aug. 4.....  | 2      |         |  |
| 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:                    |                     |        |         |  |
| Aguaascalientes.....       | June 21-27.....     |        | 1       |  |
| Russia:                    |                     |        |         |  |
| Moscow.....                | May 2-July 17....   | 221    | 60      |  |
| Petrograd.....             | May 9-July 3.....   | 16     | 3       |  |
| Riga.....                  | Mar. 1-31.....      | 1      | 1       |  |
| Do.....                    | June 6-12.....      | 1      |         |  |
| Vladivostok.....           | June 15-21.....     | 1      | 1       |  |
| Warsaw.....                |                     |        |         |  |
|                            |                     |        |         | Sept. 27-Oct. 31, 1914: Cases, 31; Nov. 1-28, 1914: Cases, 31; deaths, 1. Maximum incidence, Nov. 22-28: Cases, 20; deaths, 1. |

## TYPHUS FEVER—Continued.

## Reports Received from June 26 to Sept. 3, 1915—Continued.

| Place.          | Date.               | Cases. | Deaths. | Remarks.                          |
|-----------------|---------------------|--------|---------|-----------------------------------|
| Serbia.....     | Apr. 27.....        |        |         | Prevalent.                        |
| Spain:          |                     |        |         |                                   |
| Madrid.....     | June 1-30.....      |        | 1       |                                   |
| Switzerland:    |                     |        |         |                                   |
| Zurich.....     | May 30-July 10....  | 2      |         |                                   |
| Turkey in Asia: |                     |        |         | Present.                          |
| Adana.....      | May 9-July 10.....  |        |         |                                   |
| Beirut.....     | May 27-June 2.....  | 2      | 1       |                                   |
| Harput.....     | Apr. 1-30.....      |        |         | Do.                               |
| Jaffa.....      | Apr. 25-June 25.... | 15     | 8       |                                   |
| Mersina.....    | May 9-29.....       | 2      | 2       |                                   |
| Tarsus.....     | May 9-July 10.....  |        |         | Do.                               |
| Trebizond.....  |                     |        |         | October, 1914-May 22, 1915: 6,000 |
| Tripoli.....    | May 9-15.....       | 1      | 1       | fatal cases (estimated).          |

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

Reports Received During Week ended September 10, 1915.<sup>1</sup>

## CHOLERA.

| Place.                        | Date.               | Cases. | Deaths. | Remarks.                 |
|-------------------------------|---------------------|--------|---------|--------------------------|
| Austria-Hungary:              |                     |        |         |                          |
| Austria.....                  | July 4-17.....      | 2,248  | 882     |                          |
| Bosnia-Herzegovina.....       | June 27-July 3..... | 54     | 19      | 26 cholera carriers.     |
| Croatia-Slavonia.....         | July 5-19.....      | 441    | 167     |                          |
| Hungary.....                  | July 5-11.....      | 259    | 133     |                          |
| Dutch East Indies:            |                     |        |         |                          |
| Java—                         |                     |        |         |                          |
| Batavia.....                  | July 4-10.....      | 2      | 2       | Sept. 3, 1915, epidemic. |
| Germany:                      |                     |        |         |                          |
| Fursienwalde and Koeltsh..... | Aug. 8-14.....      | 4      | 4       |                          |
| India:                        |                     |        |         |                          |
| Bassein.....                  | July 4-10.....      |        | 1       |                          |
| Bombay.....                   | July 18-24.....     | 1      |         |                          |
| Madras.....                   | do.....             | 1      | 1       |                          |
| Peau.....                     | July 4-10.....      |        | 1       |                          |
| Rangoon.....                  | July 4-17.....      | 6      | 5       |                          |
| Indo-China:                   |                     |        |         |                          |
| Saigon.....                   | June 27-July 10...  | 174    | 143     |                          |
| Siam:                         |                     |        |         |                          |
| Bangkok.....                  | July 4-10.....      |        | 2       |                          |

## PLAGUE.

|                    |                    |    |    |  |
|--------------------|--------------------|----|----|--|
| China:             |                    |    |    |  |
| Hongkong.....      | July 11-17.....    | 5  | 5  |  |
| Dutch East Indies: |                    |    |    |  |
| Java.....          | July 4-10.....     | 58 | 59 |  |
| Surabaya.....      | June 27-July 3.... | 4  | 4  |  |
| India:             |                    |    |    |  |
| Bassein.....       | July 4-10.....     |    | 3  |  |
| Bombay.....        | July 18-24.....    | 5  | 3  |  |
| Karachi.....       | July 18-24.....    | 1  | 2  |  |
| Rangoon.....       | July 4-17.....     | 38 | 37 |  |
| Japan:             |                    |    |    |  |
| Tokyo.....         | July 26-Aug. 8.... | 4  |    |  |
| Mauritius.....     | June 14.....       | 1  |    |  |
| Siam:              |                    |    |    |  |
| Bangkok.....       | July 4-10.....     |    | 1  |  |
| Turkey in Asia:    |                    |    |    |  |
| Bagdad.....        | June 21-July 5.... | 17 | 11 |  |

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



**CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.****Reports Received During Week ended Sept. 10, 1915—Continued.****SMALLPOX.**

| Place.                                 | Date.                 | Cases. | Deaths. | Remarks.  |
|--|-----------------------|--------|---------|-----------|
| <b>Austria-Hungary:</b>                |                       |        |         |           |
| Austria .....                          | July 4-10 .....       | 1,271  |         |           |
| Vienna .....                           | July 4-17 .....       | 2      |         |           |
| <b>Brazil:</b>                         |                       |        |         |           |
| Rio de Janeiro .....                   | July 10-17 .....      |        | 14      | Epidemic. |
| Rio Grande do Sul .....                | Sept. 2 .....         |        |         |           |
| <b>Ceylon:</b>                         |                       |        |         |           |
| Colombo .....                          | July 4-17 .....       | 6      | 3       |           |
| <b>China:</b>                          |                       |        |         |           |
| Nanking .....                          | July 18-24 .....      |        |         | Present.  |
| <b>Dutch East Indies:</b>              |                       |        |         |           |
| Java .....                             | June 27-July 10 ..... | 22     | 9       |           |
| Batavia .....                          | July 4-10 .....       |        | 4       |           |
| <b>Germany:</b>                        |                       |        |         |           |
| Danzig .....                           | July 25-31 .....      | 1      |         |           |
| Marinwerder, government district ..... | do. ....              | 1      |         |           |
| Oppeln, government district .....      | do. ....              | 2      |         |           |
| <b>India:</b>                          |                       |        |         |           |
| Bombay .....                           | July 18-24 .....      | 13     | 2       |           |
| Madras .....                           | do. ....              | 3      | 3       |           |
| Rangoon .....                          | July 4-17 .....       | 19     | 4       |           |
| <b>Indo-China:</b>                     |                       |        |         |           |
| Saigon .....                           | July 4-10 .....       | 1      | 1       |           |
| <b>Mexico:</b>                         |                       |        |         |           |
| Vera Cruz .....                        | Aug. 2-8 .....        | 14     | 1       |           |
| <b>Russia:</b>                         |                       |        |         |           |
| Petrograd .....                        | July 4-17 .....       | 41     | 16      |           |

**Reports Received from June 26 to Sept. 3, 1915.****CHOLERA.**

| Place.                    | Date.                 | Cases. | Deaths. | Remarks.   |
|---------------------------|-----------------------|--------|---------|--|
| <b>Austria-Hungary:</b>   |                       |        |         |  |
| Austria .....             | May 2-July 3 .....    | 1,185  | 259     | July 3-17, 1915: 5 cases in Galicia. Among soldiers and prisoners. |
| Vienna .....              | May 9-15 .....        | 9      | 3       |  |
| Trieste .....             | June 27-July 3 .....  | 1      |         |  |
| Bosnia-Herzegovina .....  | Apr. 25-June 26 ..... | 162    | 52      | 176 cholera carriers.  |
| Croatia-Slavonia .....    | May 3-June 7 .....    | 117    | 40      | 14 among soldiers.   |
| Hungary .....             | Apr. 26-July 4 .....  | 926    | 390     | May 16-23: 5 additional cases notified.                            |
| Budapest .....            | June 23-July 10 ..... | 2      |         |  |
| <b>Ceylon:</b>            |                       |        |         |  |
| Colombo .....             | Apr. 25-May 22 .....  | 8      | 1       |  |
| <b>China:</b>             |                       |        |         |  |
| Hongkong .....            | May 2-8 .....         | 1      | 1       |  |
| <b>Dutch East Indies:</b> |                       |        |         |  |
| Java—                     |                       |        |         |  |
| Batavia .....             | Apr. 25-June 5 .....  | 56     | 50      |  |
| <b>Germany:</b>           |                       |        |         |  |
| Do. ....                  | July 24-31 .....      |        |         | Among soldiers; 15 cases, 1 death.                                 |
| Do. ....                  | July 18-31 .....      | 215    | 25      | In prison camps.   |
| Berlin .....              | July 18-24 .....      | 1      |         | Among soldiers.  |
| Berlitz .....             | do. ....              | 1      |         | Do.  |
| Breslau .....             | July 18-31 .....      | 2      |         | Do.  |
| Bromberg .....            | July 25-31 .....      | 1      |         | Do.  |
| Cannstatt .....           | do. ....              | 1      |         | Do.  |
| Danzig .....              | July 18-24 .....      | 1      |         | Do.  |
| Hanover .....             | July 25-31 .....      | 1      |         | Do.  |
| Jagerndorf .....          | June 13-July 2 .....  | 1      |         |  |
| Landsberg .....           | July 25-31 .....      | 1      |         | Do.  |
| Leipzig .....             | do. ....              | 1      |         | Do.  |
| Patschkau .....           | July 18-24 .....      | 1      |         | Do.  |
| Pöcsen .....              | July 25-31 .....      | 1      |         | Do.  |
| Rosenberg .....           | June 13-July 2 .....  | 1      |         |  |
| Sachsenhausen .....       | do. ....              | 1      | 1       |  |
| Schneidmühl .....         | 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.  |

**CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.****Reports Received from June 26 to Sept. 3, 1915—Continued.****CHOLERA—Continued.**

| Place.                      | Date.                | Cases. | Deaths. | Remarks.  |
|-----------------------------|----------------------|--------|---------|-----------|
| <b>Germany—Continued.</b>   |                      |        |         |           |
| Government districts—       |                      |        |         |           |
| Breslau.....                | June 13-July 24..... | 4      | .....   |           |
| Frankfort on the Main.....  | do.....              | 1      | .....   |           |
| Gumbinnen.....              | do.....              | 1      | .....   |           |
| Königsberg.....             | do.....              | 2      | .....   |           |
| Liegnitz.....               | do.....              | 1      | .....   |           |
| Marienwerder.....           | do.....              | 12     | .....   |           |
| Oppeln.....                 | do.....              | 5      | .....   |           |
| Potsdam.....                | do.....              | 3      | .....   |           |
| Wiesbaden.....              | do.....              | 1      | .....   |           |
| <b>India:</b>               |                      |        |         |           |
| Akyab.....                  | May 16-29.....       | .....  | 2       |           |
| Bassein.....                | Apr. 18-July 3.....  | .....  | 27      | Epidemic. |
| Bombay.....                 | June 6-July 10.....  | 3      | 3       |           |
| Calcutta.....               | Apr. 25-July 10..... | .....  | 87      |           |
| Madras.....                 | May 2-July 17.....   | 5      | 5       |           |
| Rangoon.....                | Apr. 24-July 10..... | 6      | 6       |           |
| <b>Indo-China.....</b>      |                      |        |         |           |
| 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-June 26.....   | 1,016  | 575     |           |
| <b>Italy:</b>               |                      |        |         |           |
| Leghorn.....                | Aug. 11.....         | 1      | .....   |           |
| Venice.....                 | do.....              | 3      | .....   |           |
| <b>Russia:</b>              |                      |        |         |           |
| Moscow.....                 | June 6-12.....       | 75     | 14      |           |
| <b>Serbia.....</b>          |                      |        |         |           |
| .....                       | June 25-July 2.....  | 2      | .....   |           |
| <b>Siam:</b>                |                      |        |         |           |
| Bangkok.....                | Apr. 19-May 15.....  | .....  | 4       |           |
| <b>Straits Settlements:</b> |                      |        |         |           |
| Singapore.....              | May 9-June 12.....   | 2      | 1       |           |

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

**YELLOW FEVER.**

|                |                 |   |   |  |
|----------------|-----------------|---|---|--|
| <b>Brazil:</b> |                 |   |   |  |
| Bahia.....     | July 11-17..... | 1 | 1 |  |

**PLAGUE.<sup>1</sup>**

|                             |                      |       |       |   |
|-----------------------------|----------------------|-------|-------|---|
| <b>Bahrein, island.....</b> |                      |       |       |   |
| .....                       | Apr. 1-30.....       | ..... | ..... | Present.  |
| <b>Ceylon:</b>              |                      |       |       |   |
| Colombo.....                | May 9-29.....        | 3     | 3     |   |
| <b>China:</b>               |                      |       |       |   |
| 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.  |
| Hongkong.....               | May 9-June 26.....   | 52    | 46    |   |
| <b>Cuba:</b>                |                      |       |       |   |
| Havana.....                 | Aug. 15.....         | 1     | ..... |   |
| <b>Brazil:</b>              |                      |       |       |   |
| Bahia.....                  | June 20-July 10..... | 4     | 3     |   |
| <b>Dutch East Indies:</b>   |                      |       |       |   |
| <b>Java.....</b>            |                      |       |       |   |
| Do.....                     | Mar. 12-July 3.....  | 1,057 | 956   | Jan. 1-Feb. 25, 1915: Cases, 2,094; deaths, 1,864.                          |
| Kediri residency.....       | do.....              | 37    | 32    |   |
| Madioen residency.....      | do.....              | 5     | 5     |   |
| Paseroean residency.....    | do.....              | 29    | 26    |   |
| Surabaya residency.....     | do.....              | 14    | 14    |   |
| Saerakarta residency.....   | do.....              | 2     | 2     |   |
| Surabaya.....               | Apr. 13-June 19..... | 16    | 15    |   |

<sup>1</sup> The report of a case of plague at Paauhau, Hawaii, June 29, 1915, and heretofore published in this table, was an error. Bacteriological examinations made after the death of the patient proved the disease not to be plague.

**CHOLERA, YELLOW FEVER, PLAGUE, AND SMALLPOX—Continued.****Reports Received from June 26 to Sept. 3, 1915—Continued.****PLAGUE—Continued.**

| Place.                   | Date.                | Cases. | Deaths. | Remarks.   |
|--------------------------|----------------------|--------|---------|--|
| Ecuador:                 |                      |        |         |  |
| Guayaquil.....           | May 1-31.....        | 1      |         |  |
| Egypt.....               |                      |        |         | Jan. 1-May 20, 1915: Cases, 93; deaths, 48. Jan. 1-July 15, 1915: Cases, 188; corresponding period, 1914: Cases, 157 |
| Alexandria.....          | May 21-27.....       |        | 1       |  |
| Assiout, province.....   | May 14-June 3.....   | 7      | 2       |  |
| Fayoum, province.....    | May 14-July 15.....  | 50     | 9       |  |
| Galioubeh, province..... | May 14-27.....       | 1      |         |  |
| Minieh, province.....    | May 14-July 15.....  | 14     | 5       |  |
| Port Said.....           | May 28-July 15.....  | 9      | 3       |  |
| Greece:                  |                      |        |         |  |
| Zante.....               | Aug. 1-11.....       | 12     | 13      |  |
| India:                   |                      |        |         |  |
| Bassein.....             | Apr. 18-June 26..... |        | 58      |  |
| Bombay.....              | May 2-July 17.....   | 156    | 141     |  |
| Calcutta.....            | Apr. 25-July 3.....  |        | 59      |  |
| Henzada.....             | May 2-8.....         | 1      |         |  |
| Karachi.....             | May 2-July 17.....   | 616    | 531     |  |
| Mandalay.....            | Apr. 25-July 3.....  |        | 5       |  |
| Moulmein.....            | May 23-July 3.....   |        | 8       |  |
| Myingyan.....            | Apr. 5-17.....       |        | 1       |  |
| Pegu.....                | Apr. 18-May 1.....   |        | 5       |  |
| Rangoon.....             | Apr. 18-July 10..... | 141    | 108     | 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-June 13.....  | 5      | 5       |  |
| 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.   |
| Straits Settlements:     |                      |        |         |  |
| Singapore.....           | Apr. 25-June 5.....  | 4      | 1       |  |
| Turkey in Asia:          |                      |        |         |  |
| Bagdad.....              | May 2-June 20.....   | 739    | 555     |  |
| Chios, island.....       | Aug. 6.....          |        |         | Present.   |
| Union of South Africa:   |                      |        |         |  |
| Cape Province—           |                      |        |         |  |
| Tarka, district.....     | June 2-16.....       | 2      | 1       |  |
| Wodehouse, district..... | June 5.....          | 2      | 2       | At Dordrecht.  |
| 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. |

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

## Reports Received from June 26 to Sept. 3, 1915—Continued.

## SMALLPOX—Continued.

| Place.   | Date.                 | Cases. | Deaths. | Remarks.   |
|--|-----------------------|--------|---------|--|
| Australia—Continued.<br>Western Australia—<br>Fremantle..... | Apr. 27.....          | 1      |         | At Woodmans Point quarantine station, from S. S. City of Baroda from Calcutta via Colombo.   |
| Austria-Hungary:   |                       |        |         |  |
| Austria.....   | May 2-June 26....     | 2,297  |         |  |
| Dalmatia, Province.....                                      | May 2-8.....          | 1      |         |  |
| Vienna.....  | May 2-July 17....     | 31     | 8       | Aug., 1914-May 8, 1915: Cases, 1,487; deaths, 316. May 9-15, 1915: Cases, 28; June 6-12: 13. |
| Hungary—<br>Budapest.....                                    | May 2-July 17....     | 291    | 1       |  |
| Brazil:<br>Rio de Janeiro.....                               | Apr. 18-July 10..     | 114    | 34      |  |
| Canada:  |                       |        |         |  |
| Alberta—<br>Edmonston.....                                   |                       |        |         | Epidemic 30 miles south closed Aug. 14, 1915: Cases, 100 (estimated).                        |
| Ontario—<br>Hamilton.....                                    | June 1-30.....        | 2      | 4       |  |
| Sarnia.....  | June 13-19.....       | 1      |         |  |
| Toronto.....   | June 6-Aug. 7....     | 7      |         |  |
| Quebec—<br>Montreal.....                                     | June 13-Aug. 7....    | 11     |         |  |
| Sherbrooke.....  | June 1-30.....        |        | 1       |  |
| Canary Islands:<br>Santa Cruz de Teneriffe.....              | July 18-24.....       |        | 1       |  |
| Ceylon:<br>Colombo.....                                      | May 2-29.....         | 21     | 7       |  |
| China:   |                       |        |         |  |
| Chuncking.....   | May 23-June 19..      |        |         | Present.   |
| 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 10..     |        |         |  |
| Shanghai.....  | May 9-June 25... 4    |        | 5       | Natives.   |
| Tientsin.....  | May 16-22.....        |        | 1       |  |
| Dutch East Indies:   |                       |        |         |  |
| Java.....  | Apr. 18-June 26.. 550 |        | 140     |  |
| Batavia.....   | Apr. 25-June 19.. 29  |        | 29      | Natives.   |
| Egypt:<br>Alexandria.....                                    | May 21-July 15.. 41   |        | 14      |  |
| Cairo.....   | Apr. 30-July 1... 16  |        | 6       |  |
| Germany.....   |                       |        |         | Total, May 16-July 3, 1915: 9 cases.   |
| Hamburg.....   | June 6-12.....        | 1      |         |  |
| Government districts—<br>Allenstein.....                     | June 13-19.....       | 1      |         |  |
| Arnsberg.....  | .....do.....          | 1      |         |  |
| Breslau.....   | June 20-July 3... 1   |        |         |  |
| Danzig.....  | June 13-19.....       | 2      |         |  |
| Gumbinnen.....   | May 23-29.....        | 2      |         |  |
| Marienwerder.....  | .....do.....          | 2      |         |  |
| Merseburg.....   | June 20-July 3... 1   |        |         |  |
| Oppeln.....  | May 16-July 3... 7    |        |         | Prisoners of war.  |
| 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:<br>Saloniki.....                                     | May 23-29.....        |        | 1       |  |
| India:   |                       |        |         |  |
| Bassein.....   | May 2-8.....          |        | 1       |  |
| Bombay.....  | May 2-July 17... 190  |        | 107     |  |
| Calcutta.....  | Apr. 25-July 10.. 255 |        | 255     |  |
| Karachi.....   | May 2-July 17... 24   |        | 4       |  |
| Madras.....  | .....do.....          | 17     | 7       |  |
| Moulmein.....  | May 23-29.....        |        | 1       |  |
| Pegu.....  | Apr. 18-June 12.. 1   |        | 1       |  |
| Rangoon.....   | Apr. 18-July 10.. 100 |        | 49      | May 1-31, 1915: Cases, 37; deaths, 14.   |

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

## Reports Received from June 26 to September 3, 1915—Continued.

## SMALLPOX—Continued.

| Place.               | Date.                | Cases. | Deaths. | Remarks.  |
|----------------------|----------------------|--------|---------|---|
| Indo-China:          |                      |        |         |   |
| Province—            |                      |        |         |   |
| 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 23-29.....       | 1      | 1       |   |
| Italy:               |                      |        |         |   |
| Milan.....           | May 1-31.....        | 1      |         |   |
| Japan:               |                      |        |         |   |
| Taiwan, island.....  | May 23-29.....       | 1      |         |   |
| Mexico:              |                      |        |         |   |
| Acapulco.....        | July 14-20.....      |        | 1       |   |
| Aguascalientes.....  | June 7-Aug. 8.....   |        | 14      |   |
| Frontera.....        | May 23-July 31.....  | 115    | 41      |   |
| Mazatlan.....        | June 23-July 13..... |        | 3       |   |
| Monterey.....        | June 14-Aug. 1.....  | 9      |         |   |
| Progreso.....        | June 6-July 24.....  | 7      | 1       |   |
| Salina Cruz.....     | June 1-30.....       | 4      | 1       | Soldier from San Geronimo.  |
| Vera Cruz.....       | June 7-Aug. 1.....   | 69     | 42      |   |
| Portugal:            |                      |        |         |   |
| Lisbon.....          | May 23-July 17.....  | 23     |         |   |
| Russia:              |                      |        |         |   |
| Moscow.....          | May 2-15.....        | 19     | 5       |   |
| Petrograd.....       | May 8-July 3.....    | 274    | 107     |   |
| Riga.....            | May 9-July 17.....   | 61     |         | Mar. 1-31, 1915: Cases, 89; deaths, 22.<br>Sept. 27-Oct. 31, 1914: Cases, 51; deaths, 16. Nov. 1-28, 1914: Cases, 70; deaths, 23. |
| 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. 1.....   | 74     | 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 17.....  | 64     | 25      |   |
| Haifa.....           | May 3-June 20.....   | 6      |         |   |
| Jaffa.....           | May 9-29.....        | 2      |         |   |
| Mersina.....         | May 30-June 5.....   | 1      |         |   |
| Tripoli.....         | May 2-8.....         |        |         | Do.   |

# SANITARY LEGISLATION.

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## COURT DECISIONS.

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### MICHIGAN SUPREME COURT.

#### Garbage—Injunction Granted Forbidding Unauthorized Collection.

KELLEY *v.* DAVIDSON, 151 N. W. Rep., 671. (Mar. 18, 1915.)

Garbage, in itself, is a nuisance, and in the exercise of the police power a municipality may control the manner of its collection and disposition.

The board of health of a city, under authority of an ordinance, entered into a contract for the disposal of all garbage produced in the city, the collecting to be done by the city. The defendant, without a license, collected garbage, and the board secured an injunction prohibiting him from continuing the work. The court held that, although an injunction will not ordinarily be issued to prevent the commission of an act which constitutes a violation of an ordinance, the injunction was proper in this case to prevent the continuance of a nuisance.

BROOKE, C. J.: The bill of complaint in this case is filed by the board of health of the city of Grand Rapids against Benjamin Vink for the purpose of enjoining said Vink from engaging in the business of a scavenger in the city of Grand Rapids and—

From the removing of garbage, and such garbage as is described herein in this bill of complaint and from in any manner violating the said ordinances or amendments thereof.

It appears that the city of Grand Rapids, on the 18th day of July, 1898, passed an ordinance, which was amended on April 28, 1904, relative to the regulation, collection, removal, and cremation of garbage, etc. This ordinance authorized the board of health to enter into a contract with a suitable person—

For the purpose of furnishing proper vessels or tanks for the reception of garbage, offal, and all other insanitary matter, and for furnishing the necessary vehicles for collecting and removing the same in the manner directed by said board, or the said city of Grand Rapids, or said board of health under the rules and regulations of said board may collect the garbage, offal, and all other insanitary matter, or collect and dispose of such substances. Such board of health shall have the power to make such rules, regulations, and requirements as said board may from time to time deem for the best interests of the city; and said board may also divide said city into garbage districts, and shall have power to regulate the gathering of night soil and the collecting and conveying of dead animals, garbage, slop, and offal to the crematory or other place or places as may be directed by the said board. The person entering into a contract for the collection of and removal of such garbage, offal, dead animals, and other insanitary matter, as hereinbefore stated, shall, upon the recommendation of the said board of health, receive a license for that purpose, issued by the mayor of said city, and no license shall be issued to any other person, firm, or corporation for the gathering of such garbage; such person so licensed shall give a bond to the city of Grand Rapids, with sufficient sureties and in such amount as may be required by said board of health. \* \* \* No person, firm, or corporation, excepting the city of Grand Rapids, shall collect or convey through the streets of said city any garbage, offal, dead animals, or other insanitary matter, unless he, they, or it shall have first received a license therefor issued by said city and execute a bond as required by this ordinance.

Section 7 of said ordinance provides that upon the conviction of, and failure to comply with, the conditions of the ordinance the offending person may be—

Subject to a fine of not less than \$1 nor more than \$25 and costs of prosecution, or by imprisonment at hard labor in the common jail of the county of Kent, or in any penitentiary, jail, workhouse, or house of correction of said city, in the discretion of the court or magistrate before whom a conviction may be had, for a period of not less than 5 days nor more than 90 days.

On February 10, 1913, the city of Grand Rapids entered into a contract with the Grand Rapids Garbage Holding Co., of Grand Rapids, Mich., by the terms of which the city undertook the task of the collection of all the garbage and the delivery of the same upon cars at a point certain within the city of Grand Rapids. The cars were to be furnished by the city, but were to be kept in repair by the Garbage Holding Co. It was further provided that the delivery of the garbage should be made by and under the management of the board of health of the city of Grand Rapids or such branch of the city government as may be provided by charter. The contract further provided that the Garbage Holding Co. should receive and dispose of the garbage in a certain specified manner, and—

In consideration of the delivery of such substances by the said party of the first part to said second party, said second party hereby agrees to pay to said party of the first party 50 cents per ton, payable monthly, during the time that this contract shall be in force.

Further:

Said first party hereby agrees to diligently prosecute all persons unlawfully collecting or removing garbage within said city of Grand Rapids at any and all times, and particularly upon 30 days' notice by said second party to said first party, in writing, or any person unlawfully collecting or removing garbage within said city.

Further:

Said first party hereby agrees that if the quality or quantity of garbage within said city is at any time during the life of this contract materially reduced by unlawful collection or removal to proportionately reduce the price per ton of said garbage to be paid by said second party to said first party hereunder while said reduction in quality or quantity continues.

The bill sets out the ordinance and contract, and avers that the defendant, without license, proceeded upon a day certain to collect garbage from certain hotels, boarding houses, and other places contrary to the provisions of said ordinance. It describes the character of the refuse, and states—

That the material being placed in said vessels and barrel consisted of tomatoes, bread, cooked meat, lemon and grapefruit peels, onions, clamshells, celery, beans (cooked), eggshells, cabbage, etc., all in a mushy and wet condition; that it was refuse and waste matter such as comes from tables and a kitchen; that it was of the nature of swill; that it had in part undergone process of fermentation and gave forth an odor very strong and disagreeable and injurious to the public health. \* \* \* And your orator further shows and states the fact to be that the removal of garbage in this manner is a violation of the city ordinance, and that the removal of garbage of this character is injurious and dangerous to the public health, and should be restrained by the injunction and order of the courts; that the continuation of such removal of garbage in vessels of this character violates and sets at naught the costly methods of removal of garbage by city officials and endangers the public health and is a standing menace to the best efforts of the city, constituting damage not only in hundreds of dollars but probably thousands of dollars that can not well be measured.

To this bill of complaint the defendant filed an answer, admitting the fact that he had collected the garbage without a license, but denied that the matter collected had in part or at all begun fermentation, or that it gave forth a bad or disagreeable odor, or that it was in any way injurious to the public health. He further averred that the method employed by him for the removal of said

material was more sanitary and more satisfactory to the owners of said material than the method employed by the city.

The cause was heard in open court, and evidence introduced on behalf of the complainant tending to show that upon the day in question the defendant was engaged in collecting garbage in said city. Upon the particular occasion in question the defendant had upon his wagon some eight or nine cans and one barrel filled or partially filled with garbage. The substance was described by one witness as "soft and mushy like."

Q. Whether any of those cans or the barrel was tightly closed with tight covers?—A. I don't think there was one of them had a lid on that morning.

Q. Whether or not you are positive that there were some cans or the barrel that had garbage in it, as you have described it, that did not have a tight cover?—A. Yes, sir.

Q. You are positive of that, are you?—A. Yes, sir.

Q. What have you to say in reference to the cleanliness of this barrel and cans—whether or not there was any odor?—A. Well, there was some odor from them.

Q. Was it a good odor?—A. Pretty fair.

Q. What have you to say in reference to the odor?—A. There was a bad smell to it—sour.

Q. Disagreeable, was it?—A. A sour, disagreeable smell to it; yes.

Q. What have you to say in reference to the cleanliness of the barrel and cans?—A. They were not very clean—more or less greasy.

Q. On the outside?—A. The outside and inside, too.

Q. Greasy and dirty from the garbage that had been thrown upon them?—A. Grease and dust had settled on them.

A decree passed as prayed for by the complainant perpetually enjoining the defendant from engaging in the business of a scavenger and from the removing of garbage and of such garbage as is described, and from in any manner violating the ordinances of the city of Grand Rapids with reference to garbage or removal thereof.

The right of a city, in the reasonable exercise of its police power, to enact an ordinance covering the collection and disposal of garbage is not, as we understand it, questioned by counsel for appellant. Indeed, in view of the decisions of this and other courts, such right could not well be questioned. (*People v. Gardner*, 136 Mich., 693; 100 N. W., 126; *id.*, 143 Mich., 104; 106 N. W., 541. *Gardner v. Michigan*, 199 U. S., 335; 26 Sup. Ct., 106; 50 L. Ed., 212.)

On behalf of appellant, however, it is strenuously contended that a court of equity is without jurisdiction to entertain the bill in this case for the purpose of enjoining a breach of a municipal ordinance. Many cases are cited in support of this position, and among them the following: *Village of St. Johns v. McFarlan* (33 Mich., 72; 20 Am. Rep., 671); *City of Grand Rapids v. De Vries* (123 Mich., 570; 82 N. W., 269); *Micks v. Mason* (145 Mich., 212; 108 N. W., 707; 11 L. R. A. (N. S.), 653; 9 Ann. Cas., 291); *Dequeen v. Fenton* (98 Ark., 521); *Lyric Theater v. State* (98 Ark., 437; 136 S. W., 174; 33 L. R. A. (N. S.), 325); *Mayor v. Thorne* (7 Paige (N. Y.), 261); *Davis v. Am. Soc., etc.* (75 N. Y., 362); *Village of New Rochelle v. Lang* (75 Hun., 608; 27 N. Y. Supp., 600); *Mayor v. Smith* (64 N. H., 380; 10 Atl., 700); *Rochester v. Walters* (27 Ind. App., 194; 60 N. E., 1101); *Waupun v. Moore* (34 Wis., 450; 17 Am. Rep., 446); and *Houlton v. Titcomb* (102 Me., 272; 66 Atl., 733; 10 L. R. A. (N. S.), 580; 120 Am. St. Rep., 492). Many other cases are cited, but the foregoing will be found sufficient to demonstrate the fact that usually courts of equity will not interfere and enjoin the breach of a penal ordinance. Most of the cases cited, however, will be found on examination to refer to ordinances prohibiting the erection of buildings of a certain character within certain prescribed fire limits. The fact is emphasized in many of the decisions that the erection of such a



structure is not in itself a nuisance, and, as was said in the case of *Mayor v. Thorne*, supra :

It is no part of the business of this court [chancery] to enforce the penal laws of the State, or the by-laws of a corporation, by injunction, unless the act sought to be restrained is a nuisance.

Counsel for appellant cite and rely on the case of *Micks v. Mason* (145 Mich., 212; 108 N. W., 707; 11 L. R. A. (N. S.), 653; 9 Ann. Cas., 291). In that case the complainants sought to restrain the municipal authorities from razing a building said to have been erected by complainants in defiance of a municipal ordinance, which declared that a building erected in defiance of its terms should be deemed a nuisance. The bill was dismissed. We are unable to see how the conclusion reached in that case has any bearing upon the question presented in the case at bar, where the bill is filed by the municipality itself, or one of its boards, to enjoin a course of conduct on the part of the defendant which it is charged not only resulted in a public nuisance, but entailed upon the city considerable financial loss through its failure to secure, deliver, and receive pay for the garbage so unlawfully collected by the appellant.

In the case of *Detroit Realty Co. v. Barnett* (156 Mich., 385; 120 N. W., 804; 21 L. R. A. (N. S.), 585), this court held that equity has jurisdiction to abate a saloon, if a private nuisance, although the nuisance is also a breach of the criminal law, citing cases. Very lately, in the case of *Building Commission of Detroit v. Kunin* (148 N. W., 207), the equitable jurisdiction of the court was invoked to enjoin a threatened violation of a municipal ordinance relating to the erection of a building. We there held that, though the ordinance did not in terms declare a building erected in violation of its provisions a nuisance, by virtue of the provision in the ordinance providing for injunctive relief, the court would exercise equity jurisdiction.

A case upon its facts very much like the case at bar is that of *Reduction Company v. Sanitary Works* (199 U. S., 306; 26 Sup. Ct., 100; 50 L. Ed., 204). In that case the board of supervisors of the city and county of San Francisco had adopted an ordinance by the terms of which they had given to the assignor of the complainant company an exclusive right for 50 years to collect, cremate, and destroy within that city all garbage. A part of that ordinance consisted in a penal clause declaring any violation thereof punishable by a fine of not exceeding \$250, or by imprisonment for a term not exceeding 100 days. The bill was filed by the complainant for the purpose of obtaining a decree restraining the defendants by injunction from removing from said city any of the garbage or other material specified in the ordinance. The circuit court, Judge Morrow presiding, passed a decree giving the relief asked. (94 Fed., 693.) That decree was affirmed in the circuit court of appeals, Judge Hawley delivering the opinion of the court. (126 Fed., 29; 61 C. C. A., 91.) It was removed to the Supreme Court of the United States, and the opinion, which reviews all the authorities extending up to 1905, when it was written by Mr. Justice Harlan, affirms the decree of the lower court.

In the case of *Re Debs* (158 U. S., 564; 15 Sup. Ct., 900; 39 L. Ed., 1092) injunctive relief was given. The following headnotes indicate the holding of the opinion :

A court of equity has power to interfere by injunction in cases of public nuisance.

The jurisdiction of a court of equity to enjoin interferences with property rights is not destroyed by the fact that they are accompanied by or are violations of the criminal law.

In the case at bar the averments of the bill, without using the word "nuisance," set out facts which, if proven, would be sufficient upon which to predicate a finding that the method of collection adopted by the appellant was

in itself such as to constitute a public nuisance. The evidence as to that method is quoted supra. It is claimed on behalf of appellant that his method was quite as sanitary and free from objection as that adopted by the city. We think, however, that even if this be true, it is no answer to the charge that appellant was creating a nuisance. All authorities agree in holding that garbage in and of itself is a nuisance, and all agree that, in the exercise of the police power, a municipality may control the manner of its collection and disposition. It is obviously for the interests of the whole public that such offensive offal should be collected by persons under the immediate control of the municipal authorities, and this control the ordinance in question seeks to preserve.

The record discloses the fact that, besides defendant and appellant, several others in the city of Grand Rapids were engaged in an enterprise similar to his own. The difficulty of maintaining a constant surveillance over unlicensed and irresponsible collectors must be obvious to all. It is perhaps, however, not necessary to base determination upon this phase of the case. The bill avers and the evidence shows that the city had a direct financial interest in the garbage in question. Its right to compel delivery thereof to its own collectors and to receive pay therefor from the Garbage Holding Co. can not be questioned. The activity of the appellant and others in collecting the garbage prevented the city from receiving the agreed price for so much thereof as appellant and the other unlicensed collectors secured. It is easy to believe that the continued collection of garbage by appellant and others might so reduce the amount collected by the city and delivered to the Garbage Holding Co. under its contract as to render it impossible for the contract to receive practical performance. Nor can it be said that a prosecution under the penal clause of the ordinance would afford the city an adequate remedy. The offending party is entitled to appeal after conviction from court to court and thus cause delay. In the meantime the city is subjected to the loss of the material which, though not property in an ordinary sense, has under the contract between the city and the Garbage Holding Co. a certain fixed value determined by that contract.

For both reasons stated, we are of opinion that the decree of the court below perpetually enjoining defendant from collecting garbage within the city of Grand Rapids should be, and it is, affirmed.

## NEW YORK SUPREME COURT, APPELLATE TERM, FIRST DEPARTMENT.

### Milk—Adulterated—New York Act Construed.

PEOPLE v. MARTIN, 151 N. Y. Supp., 69. (Jan. 7, 1915.)

The New York act defining "adulterated milk" refers to all milk sold, and not merely to milk to be used in the making of butter, cheese, and other articles enumerated in the law.

Guy, J.: Plaintiff sued the defendant to recover a penalty of \$50 alleged to have been incurred under section 52 of the agricultural law for exposing for sale adulterated milk, as defined by subdivisions 1 and 2 of section 30 of said law. The respondent's counsel urges, and this seems to have been the view taken by the learned trial justice in the court below, that section 30, subdivisions 1 and 2, of the agricultural law, prescribe no standard for the selling or exposing for sale of adulterated milk, and that the use of such milk is only forbidden, and the standard prescribed, when such milk is used in the manufacture of butter, cheese, and the other articles enumerated in such section.

This construction of the section referred to can not be upheld. Section 30 of the agricultural law reads as follows:

SEC. 30. *Definitions.*—The terms "butter" and "cheese" when used in this article mean the products of the dairy usually known by those terms which are manufactured exclusively from pure, unadulterated milk or cream, or both, with or without salt or rennet, and with or without coloring matter or sage. The terms "oleomargarine," "butterine," "imitation butter," or "imitation cheese" shall be construed to mean any article or substance in the semblance of butter or cheese not the usual product of the dairy and not made exclusively of pure and unadulterated milk or cream or any such article or substance into which any oil, lard, or fat not produced from milk or cream enters as a component part, or into which melted butter or butter in any condition or state, or any oil thereof, has been introduced to take the place of cream. The term "adulterated milk" when so used means:

1. Milk containing more than 88 per cent of water or fluids.
2. Milk containing less than 12 per cent of milk solids.
3. Milk containing less than 3 per cent of fats.
4. Milk drawn from cows within 15 days before and 5 days after parturition.
5. Milk drawn from animals fed on distillery waste or any substance in a state of fermentation or putrefaction or on any unhealthy food.
6. Milk drawn from cows kept in a crowded or unhealthy condition.
7. Milk from which any part of the cream has been removed.
8. Milk which has been diluted with water or any other fluid or to which has been added or into which has been introduced any foreign substance whatever.

All adulterated milk shall be deemed unclean, unhealthy, impure, and unwholesome. The terms "pure milk" or "unadulterated milk," when used singly or together, mean sweet milk not adulterated; and the terms "pure cream" or "unadulterated cream," when used singly or together, mean cream taken from pure and unadulterated milk. The term "adulterated cream" when used shall mean cream containing less than 18 per cent of milk fat or cream to which any substance whatsoever has been added.

It is perfectly apparent from the reading of the section that the standard for pure milk is fixed by its requirements, and that milk that contains more than 88 per cent of water or fluids or milk not conforming to the several specifications contained in section 30 is "adulterated" milk within the purview of the statute without regard to its specific use, and that by the sale or exposing for sale of such milk the vendor is liable for the penalty of \$50 prescribed by section 52 of the act. The construction sought to be placed upon this section by the defendant would permit the sale of milk regardless of its adulterations and without conforming to the requirements of the section.

The other points raised by the appellant are equally untenable. No evidence was offered by the defendant, and the complaint was dismissed at the close of the plaintiff's case. It was shown that samples of milk were taken from a wagon from which one of the men in charge delivered milk to a house in Prince Street, New York City. The analysis of the milk, made by a competent chemist and by the best-known method for determining the amount of solids or fats, show that the milk contained 89.69 per cent of water, the solids being 10.31 per cent, thus failing within the definition of adulterated milk as prescribed in the statute.

Judgment reversed and new trial ordered, with costs to the appellant to abide the event. All concur.

# STATE LAWS AND REGULATIONS PERTAINING TO PUBLIC HEALTH.

## PENNSYLVANIA.

### Communicable Diseases—Notification of Cases—Quarantine—Placarding—Disinfection—Attendance at Schools and Public Gatherings—Burial—Interference with Officers of Health Department. (Act 268, May 28, 1915.)

SECTION 1. That every physician practicing in any portion of this Commonwealth who shall treat or examine any person suffering from or afflicted with actinomycosis, anthrax, bubonic plague, cerebrospinal meningitis (epidemic), (cerebrospinal fever, spotted fever), chicken-pox, Asiatic cholera, diphtheria (diphtheritic croup, membranous croup, putrid sore throat), epidemic dysentery (bacillary or amebic dysentery), erysipelas, German measles, glanders (farcy), rabies (hydrophobia), leprosy, malarial fever, measles, mumps, pneumonia (true), puerperal fever, relapsing fever, scarlet fever (scarlatina, scarlet rash), smallpox (variola, varioloid), tetanus, trachoma, trichiniasis, tuberculosis in any form, typhoid fever, paratyphoid fever, typhus fever, whooping cough, yellow fever, anterior poliomyelitis, impetigo contagiosa, pellagra, scabies, or uncinariasis shall, if said case shall be located in a township of the first class, a borough, or a city, forthwith make a report in writing to the health authorities of said township, city, or borough; and if said case shall be located in a township of the second class or a city, borough, or township of the first class not having a board of health or body acting as such, to the health officer appointed by the State department of health for such district upon blanks supplied for that purpose, in which report he shall, over his or her own signature, state the name of the disease and the name, age, sex, color, nativity, and occupation, if any, of the person suffering therefrom, together with the street and house number of the premises in which said person may be located, or otherwise sufficiently designate the same, the date of the onset of the disease, the name and occupation of the householder in whose family the disease may have occurred, the number of children in said household attending school, and the name or names of the school or schools so attended, together with such information relating to said case as may be required by said health authorities and the State department of health.

SEC. 2. Upon receipt by the health authorities of any township of the first class, borough, or city, or by the health officer of the State department of health, of a report of the existence of a case of anthrax, bubonic plague, cerebrospinal meningitis (epidemic) (cerebrospinal fever, spotted fever), chicken-pox, Asiatic cholera, diphtheria (diphtheritic croup, membranous croup, putrid sore throat), German measles, glanders (farcy), leprosy, malarial fever, measles, mumps, relapsing fever, scarlet fever (scarlatina, scarlet rash), smallpox (variola, varioloid), typhoid fever, paratyphoid fever, typhus fever, whooping cough, or yellow fever the said health authorities, or the health officer of the State department of health, as the case may be, shall quarantine or cause to be quarantined the premises in which such disease exists; and any person or persons who has or have been exposed thereto in the manner prescribed by the rules

and regulations, both of said health authorities and the State department of health, and shall post or cause to be posted in a conspicuous place or places upon the premises in which said disease may be located a placard or placards upon which shall be printed in conspicuous letters the name of the disease from which the person or persons in said house or premises is or are suffering, with the warning that the said premises are quarantined, that no person or persons other than the attending physician and trained nurse shall enter or leave the said premises except by permission of the health authorities, and setting forth the penalties prescribed by this act for violations of quarantine: *Provided*, That variola or varioloid shall be placarded as "smallpox," and that diphtheritic croup, membranous croup, and putrid sore throat shall be placarded as "diphtheria," that scarlatina and scarlet rash shall be placarded as "scarlet fever," and that paratyphoid fever shall be placarded as "typhoid fever": *Provided further*, That, in addition to the placarding aforesaid, said health authorities may, for the purpose of enforcing quarantine regulations, place a guard or guards over said house or premises.

SEC. 3. That the said placard or placards shall remain in place until the expiration of the quarantine period fixed by the health authorities, and the recovery, death, or removal of the person or persons affected; and shall only be removed by the health officer, at which time he shall disinfect the premises, except for typhoid fever and paratyphoid fever, in accordance with the rules and regulations of the health authorities and the State department of health regarding the destruction and disinfection of infected bedding, clothing, and other articles which have been exposed to infection, and the disinfection of rooms, premises, and inmates.

SEC. 4. The quarantine period for anthrax, bubonic plague, cerebrospinal meningitis (epidemic) (cerebrospinal fever, spotted fever), Asiatic cholera, typhus fever, yellow fever, relapsing fever, leprosy, and whooping cough shall be until the recovery, death, or removal of the patient so suffering, and shall be determined in accordance with the rules and regulations of the health authorities. The quarantine period for smallpox (variola, varioloid) and scarlet fever (scarlatina, scarlet rash) shall be a minimum period of 30 days, or until such time thereafter as the last person in the premises so suffering shall have fully recovered, or until death or removal. The quarantine period for diphtheria (diphtheritic croup, membranous croup, putrid sore throat) shall be a minimum period of 21 days, or until complete recovery or the death or removal of the patient: *Provided*, That if antitoxin has been used for curative purposes for the patient, and for the immunizing of all of the inmates of the premises, and two negative bacteriological cultures have been secured from the diseased area of each patient on the premises, for two successive days, the minimum period of quarantine may be 14 days. The quarantine period for measles, German measles, chicken-pox, and mumps shall be for a minimum period of 16 days, or until the recovery of the last person on the premises so suffering, or until complete recovery or the death or removal of the patient.

SEC. 5. No child or other person suffering from anthrax, bubonic plague, cerebrospinal meningitis (epidemic) (cerebrospinal fever, spotted fever), Asiatic cholera, smallpox (variola, varioloid), typhus fever, yellow fever, relapsing fever, leprosy, diphtheria (diphtheritic croup, membranous croup, putrid sore throat), measles, German measles, glanders (farcy), chicken-pox, mumps, or whooping cough shall be permitted to attend any place of amusement, or any church, or any other public gathering, or to be exposed on any public street, or in any store, shop, factory, or other place of business, or be permitted to attend any public, private, parochial, Sunday, or other school; and

the teachers of public schools, and the principals, superintendents, teachers, or other persons in charge of private, parochial, Sunday, or other similar schools, are hereby required to exclude any of such persons from said schools; such exclusion to continue until the case has recovered, the quarantine lifted, and the premises thoroughly disinfected.

SEC. 6. No child or other person suffering from scarlet fever (scarlatina, scarlet rash) shall be permitted to attend any place of amusement, or any church, or other public gathering, or to be exposed on any public street, or in any store, shop, factory, or other place of business, or be permitted to attend any public, private, parochial, Sunday, or other school; and the teachers of public schools, and the principals, superintendents, teachers, or other persons in charge of private, parochial, Sunday, or other schools, are hereby required to exclude any and all such persons and children from said school; such exclusion to continue for a period of 10 days following the removal of quarantine and a thorough disinfection of the premises, subject to a certificate of complete recovery furnished to the health authorities by the attending physician.

SEC. 7. No child or other person residing in the same premises with any person suffering from anthrax, bubonic plague, cerebrospinal meningitis (epidemic) (cerebrospinal fever, spotted fever), Asiatic cholera, smallpox, (variola, varioid), typhus fever, yellow fever, scarlet fever (scarlatina, scarlet rash), relapsing fever, leprosy, diphtheria (diphtheritic croup, membranous croup, putrid sore throat), measles, German measles, chicken-pox, or mumps shall be permitted to attend any place of amusement, or any church, or other public gathering, or to be exposed, except by permission of the health authorities, on any public street or in any store, shop, factory, or other place of business, or be permitted to attend any public, private, parochial, Sunday, or other schools; and the teachers of public schools, and the principals, superintendents, teachers, or other persons in charge of private, parochial, Sunday, or other similar schools, are hereby required to exclude any and all of such persons from said schools; such exclusion to continue until quarantine is lifted and the premises thoroughly disinfected.

SEC. 8. Any child or person residing on the same premises with any person suffering from anthrax, cerebrospinal meningitis (epidemic) (cerebrospinal fever, spotted fever), or typhus fever may be allowed, after taking a disinfecting bath and putting on disinfected clothing, to remove from the said premises and take up his or her residence on other premises, and may after such removal be admitted into any of the said schools; and any child or person residing on the same premises with anyone suffering from diphtheria (diphtheritic croup, membranous croup, putrid sore throat) may be allowed, after taking a disinfecting bath and putting on disinfected clothing, and after antitoxin has been administered for immunizing purposes, to remove from the said premises and take up his or her residence on other premises occupied only by adults; and may, after five days from said removal, be admitted into any of the said schools; and any child or person residing on the same premises with any child suffering from scarlet fever (scarlatina, scarlet rash), measles, German measles, mumps, or chicken pox may be allowed, after taking a disinfecting bath and putting on disinfected clothing, to remove from the said premises and take up his or her residence on other premises occupied only by adults, or by children who are immune to the disease (scarlet fever, scarlatina, scarlet rash, measles, German measles, mumps, or chicken pox) existing on the said premises from which the said child or person has removed, such immunity being shown by the official health records; and may, 14 days after such removal, be admitted to any of the said schools: *Provided*, That if the child or person residing on the

same premises with any person suffering from any of the said diseases (scarlet fever, scarlatina, scarlet rash, measles, German measles, mumps, or chicken-pox) and removing therefrom as above provided is himself or herself immune from the disease existing on the said premises by virtue of a former attack, this fact being shown by the official health records or by other evidence satisfactory to the health authorities, such immune child or person may, on the day following such removal, be admitted to any of the said schools; and any child or person residing on the same premises with any person suffering from relapsing fever may be allowed, after taking a disinfecting bath and putting on disinfected clothing, to remove from the said premises and take up his or her residence on other premises, and may, after 10 days from such removal, be admitted to any of the said schools.

SEC. 9. That every teacher, principal, superintendent, or other person or persons in charge of any public, private, parochial, Sunday, or other school having in any such school any child or person showing an unusual rash or skin eruption, or complaining of soreness in the throat, or having symptoms of whooping cough, or any disease of the eye, shall immediately exclude such child or other person from the schools pending the action of the health authorities, and shall report such fact to the health authorities, and shall report such fact to the health officer of the city, borough, or township, giving the name and residence of such child or other person.

SEC. 10. No child or other person excluded from any school by the provisions of this act shall be readmitted thereto unless he or she, or some person on his or her behalf, shall furnish to the principal, superintendent, or teacher, or other person in charge of said school, a certificate setting forth that the conditions for such readmission prescribed by this act have been complied with, which certificate shall be signed by a person to be designated for that purpose in cities, boroughs, and townships of the first class by the health authorities thereof exclusively; and in townships of the second class, and cities, boroughs, and townships of the first class not having boards of health or bodies acting as such, by the State department of health; and the registry of all public, private, parochial, Sunday, and other schools shall exhibit the names and residences of all children and persons excluded therefrom or readmitted thereto agreeably to the provisions of this or any other act of assembly; and said register shall be open at all times to the inspection of the city, borough, or township authorities and the State department of health and their respective officers and agents.

SEC. 11. Blanks whereon to make the reports and certificates required by this act shall be supplied in cities, boroughs, and townships of the first class by the health authorities thereof respectively; and in townships of the second class, and in cities, boroughs, and townships of the first class not having boards of health or bodies acting as such, by the State department of health.

SEC. 12. It shall be the duty of the health authorities of cities, boroughs, and townships of the first class, respectively, to furnish daily, by mail or otherwise, to principals, superintendents, teachers, and other persons in charge of public, private, parochial, Sunday, and other schools a printed or written bulletin containing the name, location, and disease of all persons suffering from any of the diseases mentioned in sections 5 and 6 of this act upon receipt by them of reports of such cases from physicians, as required by section 1 of this act; and such bulletin shall be daily furnished to such persons in charge of such schools in townships of the second class, and in cities, boroughs, and townships of the first class not having boards of health or bodies acting as such, by the health officer for the State department of health.

**SEC. 13.** Upon the removal to a hospital or other place, or upon the discharge by the recovery or death of any person or persons who has or have suffered from tuberculosis or any of the diseases mentioned in section 2 of this act all premises which have been occupied by the said person or persons while suffering from any of the said diseases shall be fumigated and disinfected or destroyed at such time and in such manner as may be authorized and required by the health authorities.

**SEC. 14.** No person suffering from any of the diseases mentioned in section 2 of this act, nor anyone who has charge of the persons so suffering, shall enter any hired vehicle or other public conveyance, or permit anyone in his or her charge who is suffering therefrom to enter such vehicle, without previously securing the consent of health authorities, and notifying the owner or driver thereof that he or she, or the person in his or her charge, is so suffering; and the owner or driver of such vehicle shall immediately provide for the disinfection of such conveyance, under the direction of the health authorities, after it has with the knowledge of such owner or driver conveyed any such sufferer.

**SEC. 15.** No person suffering from anthrax, bubonic plague, cerebrospinal meningitis (epidemic) (cerebrospinal fever, spotted fever), chicken-pox, Asiatic cholera, diphtheria (diphtheritic croup, membranous croup, putrid sore throat), measles, German measles, glanders (farcy), mumps, relapsing fever, scarlet fever (scarlatina, scarlet rash), smallpox (variola, varioloid), typhus fever, typhoid fever, yellow fever, or whooping cough, shall willfully expose himself or herself in any street or public place, or public conveyance, nor shall any person in charge of anyone so suffering thus expose the sufferer.

**SEC. 16.** No person shall, without previous disinfection, give, lend, sell, transmit, or expose any bedding, clothing, rags, or other articles which have been exposed to infection from any of the diseases mentioned in section 1 of this act: *Provided*, That such restriction shall not apply to the transmission of articles, with proper precaution, for the purpose of having the same disinfected.

**SEC. 17.** No person shall let any room, house, or part of a house, in which there has been a person suffering from tuberculosis or any of the diseases mentioned in section 2 of this act, without having such room, house, or part of a house, and all articles therein, previously disinfected to the satisfaction of the health authorities. The keeping of a hotel, boarding house, or apartment house shall be deemed as letting a part of a house to any person who shall be admitted as a guest into such hotel, boarding house, or apartment house.

**SEC. 18.** The health authorities of the several townships, boroughs, and cities of this Commonwealth may, and they are hereby authorized and empowered to, establish additional rules and regulations regarding the isolation and quarantine of persons who may be suffering from any of the diseases mentioned in section 1 of this act, and for the destruction, disinfection, and fumigation of bedding, clothing, or other infected articles, and for the disinfection and fumigation of houses and premises, and for the carrying out of the provisions of this act, as they may in good faith declare the public safety and health demand; which rules and regulations they may, from time to time, alter or amend, but in no instance shall such rules abridge in any way the provisions of this act or the regulations of the State department of health.

**SEC. 19.** In the preparation for burial of the body of any person who has died of Asiatic cholera, glanders (farcy), bubonic plague, smallpox (variola, varioloid), yellow fever, typhus fever, scarlet fever (scarlatina, scarlet rash), relapsing fever, cerebrospinal meningitis (epidemic cerebrospinal fever, spotted fever), diphtheria (diphtheritic croup, membranous croup, putrid sore throat), tetanus, or leprosy it shall be the duty of the undertaker, or person acting as such, to thoroughly disinfect and place such body within the



coffin or casket in which it is to be buried within 6 hours after being first called upon to take charge of the same, provided said call is made between the hours of 5 a. m. and 11 p. m.; otherwise, such body shall be placed in such coffin or casket within 12 hours; the coffin or casket then to be closed tightly, and not again opened unless permission be granted by the health authorities for special and satisfactory cause shown.

SEC. 20. The body of a person who has died of any of the diseases mentioned in section 19 of this act shall not remain unburied for a longer period of time than 36 hours after death, unless special permission be granted by the health authorities extending the time during which said body shall remain unburied, for special and satisfactory cause shown. The undertaker, or person acting as such, shall be responsible for any violation of the provisions of this section.

SEC. 21. All services held in connection with the funeral of the body of a person who has died of any of the diseases mentioned in section 19 of this act shall be private, and the attendance thereat shall include only the immediate adult relatives of the deceased, who may not at the time be under absolute quarantine restrictions, and the necessary number of adult pallbearers, and any advertisement of such funeral shall state the cause of death.

SEC. 22. The body of a person who has died of any of the diseases mentioned in section 19 of this act shall in no instance be taken into any church, chapel, public hall, or public building, for the holding of funeral services. The undertaker, or person acting as such, and the sexton, janitor, or other person having control of such church, chapel, public hall, or public building, shall be responsible for any violation of the provisions of this section.

SEC. 23. No undertaker, or person acting as such, at the funeral or burial of the body of a person who has died of any of the diseases mentioned in section 19 of this act, shall furnish or provide for such funeral or burial more than the necessary number of conveyances for such adult relatives as are mentioned in section 21 of this act, and pallbearers; and all such conveyances shall be fumigated and disinfected, at such time and in such manner as may be directed and required by the health authorities.

SEC. 24. The body of a person who has died of any of the diseases mentioned in section 19 of this act shall not be conveyed from any dwelling, or other building or place, to any cemetery or other point or place, except in a hearse, or other vehicle used for the purpose of carrying corpses only, or in such vehicles as shall be satisfactory to the health authorities, and under such regulations as they may in any case adopt. The undertaker, or person acting as such, having charge of the funeral or transportation of such body, shall be responsible for any violation of the provisions of this section.

SEC. 25. The health authorities of the several cities, boroughs, and townships of the first class, shall, at the end of each week, and for the fraction of each week occurring at the end of each month, report to the State department of health, upon blanks supplied for that purpose, a list of all cases of communicable diseases, mentioned in section 1 of this act, which have been reported to them during said period; which report shall contain the name of each person suffering therefrom, respectively, and his or her age, sex, color, and nativity, together with the name of the disease and the date of the onset thereof; and, in the event of no reports of any of said diseases having been received by the aforesaid health authorities, respectively, during any said period, that fact shall be reported to the State department of health.

SEC. 26. Any person who shall remove, deface, cover up, or destroy, or cause to be removed, defaced, covered up, or destroyed, any placard relating to any of the diseases mentioned in section 2 of this act, shall, for every such offense, upon conviction thereof in a summary proceeding before any magistrate or

justice of the peace of the county wherein such offense was committed, be sentenced to pay a fine of not less than \$10 or more than \$100, to be paid to the use of said county, and costs of prosecution, or to be imprisoned in the county jail for a period of not less than 10 days or more than 30 days, or both, at the discretion of the court. Any person, other than the attending physician or trained nurse, who shall enter or leave any quarantined premises without having secured permission from the health authorities, or who shall violate any of the quarantine restrictions imposed by this act, or by the rules and regulations of the health authorities of any city, borough, or township of the first class, or the rules and regulations of the State department of health; or who shall interfere with a health officer or any other duly qualified agent of the State department of health, or of any local board or department of health, in the discharge of his official duties in the placarding, quarantining, disinfecting, or releasing from quarantine of any premises, or in the investigation of any alleged case of a quarantinable disease, shall, for every such offense, upon conviction thereof in a summary proceeding before any magistrate or justice of the peace of the county wherein said offense was committed, be sentenced to pay a fine of not less than \$50 or more than \$100, to be paid to the use of the said county, and costs of prosecution, or to be imprisoned in the county jail for a period of not less than 10 or more than 30 days, or both, at the discretion of the court.

Any physician, undertaker, teacher of a public school, principal of a school, superintendent of a Sunday school, sexton, janitor, parent, or guardian, or any other person or persons who shall fail, neglect, or refuse to comply with, or who shall violate, any of the provisions of this act, shall, for every such offense, upon conviction thereof in a summary proceeding before any magistrate or justice of the peace of the county wherein said offense was committed, be sentenced to pay a fine of not less than \$20 or more than \$100, to be paid to the use of said county, and costs of prosecution, or to be imprisoned in the county jail for a period of not less than 10 or more than 30 days, or both, at the discretion of the court.

SEC. 27. Section 1 (except the enacting clause thereof) and sections 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, and 19 of an act entitled "An act to provide for the more effectual protection of the public health in the several municipalities of this Commonwealth," approved June 18, 1895, and the act of May 14, A. D. 1909, entitled "An act to safeguard human life and health throughout the Commonwealth, by providing regulations for the control of certain communicable diseases and the prevention of infection therefrom, and prescribing penalties for violation of said regulations," and all other acts, or parts of acts, inconsistent herewith are hereby repealed.

#### **Public Eating Places—Diseased Employees—Utensils—Common Towels and Common Drinking Cups. (Act 281, May 28, 1915.)**

SECTION 1. That no person or persons, firm, corporation, or common carrier operating or conducting any hotel, restaurant, dining car, or other public eating place in this Commonwealth shall hereafter employ or keep in their employ, in the capacity of cook, waiter, chambermaid, kitchen help, or other house servant, any person or persons who is or are suffering from trachoma, active tuberculosis of the lungs, open skin tuberculosis, syphilis, gonorrhoea, open external cancer, or barber's itch; and all persons so employed who, at the time of the passage of this act, are suffering from any of the said diseases shall at once be excluded from such employment in such hotel, restaurant, dining car, or other public eating place.

SEC. 2. If any person or persons, firm, corporation, or common carrier operating or conducting a hotel, restaurant, dining car, or other public eating place shall institute and maintain a medical inspection for their cooks, waiters, chambermaids, kitchen help, and other house servants at intervals of at least twice a year for the purpose of excluding from such employment persons found to be suffering from any of the diseases mentioned in section 1 of this act, and shall thereupon promptly exclude from such employment any person or persons found to be so suffering, they shall be considered as complying with the provisions of section 1 of this act, unless (1) any person or persons employed in any such capacity after the passage of this act shall have been suffering from any of the diseases mentioned in section 1 of this act at the time when they were so employed; or unless (2) the diseased condition of such employee suffering with any of the diseases mentioned in section 1 of this act is manifest in the interim between such inspections; or unless (3) notice of the diseased condition of any such employee suffering from any of the diseases mentioned in section 1 of this act has been served, in writing, upon the owner, operator, or manager of any such hotel, restaurant, dining car, or other public eating place by a physician or by the health authorities.

SEC. 3. That no person or persons, firm, or corporation operating or conducting any hotel, restaurant, dining car, or other public eating place in this Commonwealth shall keep in their employ in any of the several capacities mentioned in section 1 of this act any person who is a carrier of typhoid fever, after notice that any person so employed by them is a carrier of typhoid fever has been served, in writing, upon the owner, operator, or manager of any such hotel, restaurant, dining car, or other public eating place by a physician or the health authorities.

SEC. 4. That no person or persons, firm, or corporation operating or conducting any hotel, restaurant, dining car, or other public eating place in this Commonwealth shall furnish to their patrons or customers any dish or other receptacle or utensil used in eating or drinking which has not been thoroughly cleansed since it was used by another individual.

SEC. 5. That no person or persons, firm, or corporation operating or conducting any hotel, restaurant, dining car, or other public eating place, and having and maintaining in connection therewith any wash room for public use or for the use of their patrons or customers, shall furnish in such wash room any towel, unless such towel be laundered or discarded after each individual use.

SEC. 6. That no person or persons, firm, or corporation operating or conducting any hotel, restaurant, dining car, or other public eating place shall furnish or keep in or about such establishment at any drinking fountain or public drinking place to which the public or their customers or patrons have access any common drinking vessel for common use: *Provided*, That this section shall not preclude the use of vessels which are cleansed by washing with hot water and soap or are disinfected or destroyed after each individual use.

SEC. 7. That any person or persons, firm, or corporation who shall violate any of the provisions of this act shall, upon conviction thereof in a summary proceeding before any justice of the peace or alderman in the county in which the offense was committed, be sentenced to pay a fine of not less than \$5 or more than \$100, to be paid to said county, and the costs of prosecution, or to be imprisoned in the county jail for a period of not more than 30 days, or both, at the discretion of the court.

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

NEW YORK, N. Y.

**Foodstuffs—Manufacture, Care, and Sale. (Reg. Dept. of Health, Mar. 30, 1915.)**

Regulations of the department of health of the city of New York, adopted March 30, 1915, effective April 1, 1915, relating to section 148 of the sanitary code, which provides as follows:

SEC. 148. *Manufacture and storage of food and drink regulated.*—No building, room, or place where food or drink is prepared, cooked, mixed, baked, exposed, bottled, packed, handled, stored, or manufactured shall be conducted, operated, maintained, or used otherwise than in accordance with the regulations of the board of health.

REGULATIONS GOVERNING THE CONDUCT AND MAINTENANCE AND OPERATION OF ANY BUILDING, ROOM, OR PLACE WHERE FOOD OR DRINK IS PREPARED, COOKED, MIXED, BAKED, EXPOSED, BOTTLED, PACKED, HANDLED, STORED, MANUFACTURED, OFFERED FOR SALE, OR SOLD.

REGULATION 1. *Food or drink not to be stored in stables, or other insanitary places.*—Food or drink shall not be prepared, cooked, mixed, baked, exposed, bottled, packed, handled, stored, manufactured, offered for sale, or sold in any stable, room used for sleeping purposes, or in any room or place which is dark, damp, poorly ventilated, or insanitary.

REG. 2. *Water-closet compartments.*—Every water-closet compartment, except when provided with mechanical means of ventilation, shall have a window at least 1 foot by 3 feet between stop beads opening to the external air and the entire window shall be made so as to readily open, or an opening connected with the external air measuring at least 144 square inches for each water-closet or urinal, with an increase of 72 square inches for each additional water-closet or urinal. The door or doors of the water-closet compartment shall be self-closing. Where the water-closet is in direct communication with the room in which food or drink is prepared, cooked, mixed, baked, exposed, bottled, packed, handled, stored, manufactured, offered for sale, or sold, if required by the department of health, a suitable and properly lighted vestibule shall be provided. The door of the vestibule shall be self-closing. All water-closet fixtures, water-closet compartments, and vestibules shall be maintained in a clean and sanitary condition and in good repair.

REG. 3. *Stables.*—Food or drink shall not be prepared, cooked, mixed, baked, exposed, bottled, packed, handled, stored, manufactured, offered for sale, or sold in any room located in a building where horses, cows, or other animals are stabled except when said room is separated from said stable by impenetrable walls without doors, windows, or other openings.

REG. 4. *Rubbish, useless or offensive material.*—No accumulation of rubbish, useless or offensive material shall be permitted in any room or place where food

or drink is prepared, cooked, mixed, baked, exposed, bottled, packed, handled, stored, manufactured, offered for sale, or sold.

REG. 5. *Lighting*.—All rooms or places in which food or drink is prepared, cooked, mixed, baked, exposed, bottled, packed, handled, stored, manufactured, offered for sale, or sold shall be properly and adequately lighted, so that all parts thereof may be readily inspected.

REG. 6. *Screening of doors, windows, and other openings*.—All doors, windows, and other openings shall be properly screened from May 1 to October 31. Screen doors shall be provided with self-closing devices.

REG. 7. *Construction of walls and ceilings*.—Walls and ceilings shall be of a smooth, hard material, and must be kept clean and sanitary and in good repair, and shall be kept well painted with a light-colored waterproof paint.

REG. 8. *Construction of floors*.—Floors shall be smooth and water-tight, and must be kept clean and sanitary and in good repair. Floors, where required, shall be properly graded and drained into one or more drains properly trapped and sewer connected.

REG. 9. *Counters, shelves, show cases, and windows*.—All show or display cases or windows, counters, or shelves used in handling, keeping, and displaying food and drink shall be kept clean and sanitary, free from dust, dirt, and other contaminating material, and in good repair.

REG. 10. *Refrigerators, ice boxes, etc.*—All refrigerators, ice boxes, and appurtenances thereof used for the storage of food or drink shall be kept clean and sanitary and in good repair, and the compartment used for the storage of ice shall be lined with some proper metallic substance so as to be water-tight.

REG. 11. *Drainage of refrigerators, ice boxes, etc.*—Waste water from refrigerators, ice boxes, refrigerated display cases, windows, or counters, vats or tanks, or other containers used in refrigerating and storing food and drink shall discharge into an open, water-supplied, properly trapped, sewer-connected sink.

REG. 12. *Refrigeration of perishable foodstuffs*.—All perishable food and drink shall be stored and kept refrigerated in a properly constructed refrigerator.

REG. 13. *Maintenance of machinery, floors, walls, stairs, shelves, etc.*—All machinery, floors, walls, stairs, shelves, furniture, utensils, yards, areaways, plumbing, drains, and sewers in or in connection with any room or place where food or drink is prepared cooked, mixed, baked, exposed, bottled, packed, handled, stored, manufactured, offered for sale, or sold; or in water-closets and wash rooms, or rooms where raw materials are stored; or in rooms where the manufactured product is stored, shall at all times be kept in good repair and maintained in a clean and sanitary condition, free from all kinds of vermin.

REG. 14. *Covering of vats, tanks, and mixing machines*.—All vats, tanks, and mixing machines shall be provided with suitable covers and kept covered, so as to protect food and drink from contamination.

REG. 15. *Protection of machinery, apparatus, and pipes*.—All machinery, apparatus, and pipes shall be properly protected so as to prevent oil, waste, dust, dirt, or other foreign or offensive material from dropping, entering, or otherwise contaminating food or drink.

REG. 16. *Sinks and water supply*.—Suitable sinks, with an adequate supply of running hot and cold water, shall be provided, and, wherever required, hose connection shall be installed.

REG. 17. *Appliances for cleansing and sterilizing bottles, vessels, etc.*—Suitable means or appliances shall be provided for the proper cleansing and sterilizing of all bottles, vessels, or other containers used in the storing, handling, delivering, or selling food or drink.

REG. 18. *Cleanliness of utensils.*—All utensils used in the preparation, service, and sale of food or drink shall be properly cleansed with hot water after each day's use or run or after individual service, and no utensil shall, under any circumstances, be used a second time unless it shall have been, after previous use thereof, so cleansed; and in such cleansing the use of water which has become insanitary by previous use is prohibited.

REG. 19. *Use of rusted or badly worn utensils prohibited.*—The use of any utensil used in the preparation, service, and sale of food or drink, which is badly worn, rusted, corroded, or in such condition that it can not be rendered clean and sanitary by washing is prohibited.

REG. 20. *Cleansing of bottles, vessels, and other containers.*—All bottles, vessels, or other containers used in the storing, handling, delivering, or selling of food and drink shall be properly cleansed and sterilized after being used, and no such bottles, vessels, or other container shall, under any circumstances, be used the second time unless it shall have been after previous use thereof so cleansed and sterilized.

REG. 21. *Protection of foodstuffs.*—All food, drink, or raw material used in the preparation of food or drink not protected by a fly and dust proof wrapper must be kept covered so as to prevent contamination by dust, dirt, flies, and other contaminating material.

REG. 22. *Storage of food on floor, sidewalk, etc.*—No food intended for human consumption shall be deposited or allowed to remain within 2 feet of the surface of any sidewalk, street, alley, or public place or the floor of any building where exhibited unless the same shall be contained in boxes or other receptacles so as to be protected from dogs and other animals and their excretions.

REG. 23. *Storing of foodstuffs to be considered prima facie evidence of its use.*—The presence of food, drink, or raw material in any part of the establishment shall be deemed prima facie evidence of its use for human food.

REG. 24. *Raw material.*—All food and raw material used in the preparation, service, and sale shall be healthy, fresh, sound, wholesome, and safe for human consumption.

REG. 25. *Coloring matter or preservatives.*—The presence in any part of an establishment of any prohibited coloring matter or preservative shall be deemed prima facie evidence of its use and the presence of any such material may be sufficient cause for the prosecution of the owners and proprietors of the establishment.

REG. 26. *Use of lead or other metallic faucet, tanks, etc., that may affect liquids.*—No person shall use any tap, faucet, tank, fountain, or vessel, or any pipe or conduit in connection therewith, which shall be composed or made, either wholly or in part, of lead or other metal or metallic substance that is or will be affected by a liquid so that dangerous, unwholesome, and deleterious compounds are formed therein or thereby, or such that soda water, sirups, or other liquids, or any beverage, drink, or flavoring material drawn therefrom shall be unwholesome, dangerous, or detrimental to health.

REG. 27. *Disposition of foodstuffs unfit for human consumption.*—Food or drink which has become unfit for human consumption shall be kept separate and apart from other foodstuffs which are held, kept, and offered for sale, properly denatured, marked "Condemned," and removed daily.

REG. 28. *Garbage receptacles.*—Suitable water-tight, properly covered, galvanized-iron, or other sanitary metal cans for receiving and holding without leakage all garbage and other waste material shall be provided. A tight-fitting cover shall be provided for each can, and the can shall be kept covered. All garbage and other waste material shall be removed from the premises daily and shall not be allowed to become a nuisance.

REG. 29. *Water-closets and washing facilities.*—A sufficient number of water-closets conveniently located shall be provided for all employees engaged in the preparation or handling of food and drink, and such water-closets shall be kept clean and sanitary and in good repair. A wash room conveniently located shall be provided, furnished with soap, running water, and fresh, clean, individual towels daily. A notice shall be conspicuously posted in water-closet compartment or wash room directing all employees to cleanse their hands before leaving and immediately before commencing work. The use of common towel is prohibited.

REG. 30. *Health of employees.*—No person who has any infectious or venereal disease shall be permitted to prepare or handle food or drink or any utensils used in preparing, manufacturing, or handling same.

REG. 31. *Habits of employees.*—All persons preparing, manufacturing, or handling food or drink shall be cleanly in their habits, and must wash their hands before beginning work and after visiting toilet.

REG. 32. *Clothing of employees.*—All persons preparing, manufacturing, or handling food or drink shall wear clean, washable, outer garments.

REG. 33. *Cleanliness of employees engaged in mixing ingredients.*—All persons immediately before engaging in the mixing of ingredients entering into the composition of food or drink or its subsequent handling shall thoroughly wash their hands and shall thereafter keep them clean during such manufacture and handling.

REG. 34. *Housing of animals prohibited.*—No animals, excepting cats, shall be housed or kept in any room where food or drink is prepared, cooked, mixed, baked, exposed, bottled, packed, handled, stored, manufactured, offered for sale, or sold.

REG. 35. *Construction of apparatus, utensils, etc.*—All apparatus, utensils, and appurtenances thereof used in the preparation, manufacture, or handling of food or drink shall be so constructed and placed that they can be thoroughly cleaned and shall be kept clean and sanitary and in good repair.

REG. 36. *Spitting signs.*—Placards prohibiting spitting on floors shall be conspicuously posted.

REG. 37. *Cuspidors.*—A sufficient number of cuspidors shall be provided and shall be cleansed and disinfected daily.

### Frozen Products—Manufacture, Care, and Sale. (Reg. Dept. of Health, Mar. 30, 1915.)

#### REGULATIONS GOVERNING THE CONDUCT, MAINTENANCE, AND OPERATION OF FROZEN PRODUCT MANUFACTORIES.

REGULATION 1. *Ice cream not to be manufactured in stables or other insanitary places.*—Ice cream, ices, or other frozen products shall not be exposed, packed, handled, stored, manufactured, offered for sale, or sold in any stable, room used for sleeping purposes, or in any room or place which is dark, damp, poorly ventilated, or insanitary.

REG. 2. *Water-closet compartments.*—Every water-closet compartment, except when provided with mechanical means of ventilation, shall have a window at least 1 foot by 3 feet between stop beads opening to the external air, and the entire window shall be made so as to readily open, or an opening connected with the external air measuring at least 144 square inches for each water-closet or urinal, with an increase of 72 square inches for each additional water-closet or urinal. The door or doors of the water-closet compartment shall be self-closing. Where the water-closet is in direct communication with the room

In which ice cream, ices, or other frozen products are exposed, packed, handled, stored, manufactured, offered for sale, or sold, if required by the department of health, a suitable and properly lighted vestibule shall be provided. The door of the vestibule shall be self-closing. All water-closet fixtures, water-closet compartments, and vestibules shall be maintained in a clean and sanitary condition and in good repair.

REG. 3. *Stables.*—Ice cream, ices, or other frozen products shall not be exposed, packed, handled, stored, manufactured, offered for sale, or sold in any room located in a building where horses, cows, or other animals are stabled, except when said room is separated from said stable by impenetrable walls without doors, windows, or other openings.

REG. 4. *Rubbish, useless or offensive material.*—No accumulation of rubbish, useless or offensive material, shall be permitted in any room or place where ice cream, ices, or other frozen products are exposed, packed, handled, stored, manufactured, offered for sale, or sold.

REG. 5. *Lighting.*—All rooms or places in which ice cream, ices, or other frozen products are exposed, packed, handled, stored, manufactured, offered for sale, or sold shall be properly and adequately lighted so that all parts thereof may be readily inspected.

REG. 6. *Screening of doors, windows, and other openings.*—All doors, windows, and other openings shall be properly screened from May 1 to October 31. Screen doors shall be provided with self-closing devices.

REG. 7. *Construction of walls and ceilings.*—Walls and ceilings shall be of a smooth, hard material, and must be kept clean and sanitary and in good repair, and shall be kept well painted with a light-colored waterproof paint.

REG. 8. *Construction of floors.*—Floors shall be of cement, properly graded to sewer-connected drains, and must be kept clean and sanitary and in good repair.

REG. 9. *Vehicles, platforms, and racks.*—All vehicles, platforms, and racks used in the preparation of ices, ice cream, or other frozen products shall be kept clean, sanitary, and in good repair.

REG. 10. *Refrigerators, ice boxes, etc.*—All refrigerators, ice boxes, and appurtenances thereof used for the storage of food and drink shall be kept clean and sanitary and in good repair, and the compartment used for the storage of ice shall be lined with some proper metallic substance so as to be water-tight.

REG. 11. *Drainage of refrigerators, ice boxes, etc.*—Waste water from refrigerators, ice boxes, refrigerated display cases, windows, or counters, vats, or tanks, or other containers used in refrigerating and storing food and drink shall discharge into an open water-supplied, properly trapped, sewer-connected sink.

REG. 12. *Sinks and water supply.*—Suitable sinks, with an adequate supply of running hot and cold water, shall be provided, and wherever required, hose connection shall be installed.

REG. 13. *Appliances for cleansing and sterilizing.*—Suitable means or appliances shall be provided for the proper cleansing and sterilizing of freezing vats or mixing cans or tanks, piping, and all utensils used as containers for ices, ice cream, or other frozen products or their components, and all tools used in the making or direct handling of such products.

REG. 14. *Method of cleansing and sterilizing.*—All freezing vats or mixing cans or tanks, piping, and all utensils used as containers for ices, ice cream, or other frozen products or their components, and all tools used in the making or direct handling of ice cream shall be properly cleansed and sterilized after use, and no such apparatus, utensil, or tool shall under any circumstances be used a second time unless it shall have been, after previous use thereof, so cleansed and sterilized.



REG. 15. *Use of rusted or badly worn utensils prohibited.*—The use of any utensils used in the preparation, service, and sale of food and drink which is badly worn or rusted, corroded, or in such condition that it can not be rendered clean and sanitary by washing is prohibited.

REG. 16. *Coloring matter or preservatives.*—The presence in any part of an establishment of any prohibited coloring matter or preservative shall be deemed prima facie evidence of its use, and the presence of any such material may be sufficient cause for the prosecution of the owners and proprietors of the establishment.

REG. 17. *Raw material.*—All raw material used in the manufacture of ice cream, ices, or other frozen products shall be healthy, fresh, sound, wholesome, and safe for human consumption.

REG. 18. *Storing of foodstuffs to be considered prima facie evidence of their use.*—The presence of any ice cream, ices, or other frozen products in any part of the establishment shall be deemed prima facie evidence of its use for human food.

REG. 19. *Storage of food on floor.*—No food intended for human consumption shall be deposited or allowed to remain within 2 feet of the surface of any sidewalk, street, alley, or public place or the floor of any building where exhibited unless the same shall be contained in boxes or other receptacles so as to be protected from dogs and other animals and their excretions.

REG. 20. *Return of old, soft, or melted ice cream prohibited.*—No old, soft, melted, salted, or broken packages, ices, ice cream, or other frozen products returned to the manufacturer for any cause whatsoever shall, under any circumstances, be melted, refrozen, or again used in the manufacture of any such product.

REG. 21. *Use of lead or other metallic faucet, tank, etc., that may affect liquids.*—No person shall use any tap, faucet, tank, fountain, or vessel, or any pipe or conduit in connection therewith, which shall be composed or made, either wholly or in part, of lead or other metal or metallic substance that is or will be affected by a liquid so that dangerous, unwholesome, and deleterious compounds are formed therein or thereby, or such that soda water, sirups, or other liquids, or any beverage, drink, or flavoring material drawn therefrom, shall be unwholesome, dangerous, or detrimental to health.

REG. 22. *Milk, cream, and condensed milk used in the manufacture of ice cream.*—No milk, cream, or condensed milk, or combination or mixture thereof shall be used in the manufacture or preparation of ices, ice cream, or other frozen products which does not comply with the provisions of the Sanitary Code.

REG. 23. *Filing of milk and cream tags.*—Immediately after contents of containers for milk, cream, condensed milk, or a combination or mixture thereof are emptied the tag thereon shall be removed and kept on file for a period of two months thereafter for the inspection of the department of health.

REG. 24. *Garbage receptacles.*—Suitable water-tight, properly covered, galvanized-iron or other sanitary metal cans for receiving and holding without leakage all garbage and other waste material shall be provided. A tight-fitting cover shall be provided for each can, and the can shall be kept covered. All garbage and other waste material shall be removed from the premises daily and shall not be allowed to become a nuisance.

REG. 25. *Water-closets and washing facilities.*—A sufficient number of water-closets conveniently located shall be provided for all employees engaged in the handling and manufacturing of ice cream, ices, or other frozen products, and such water-closets shall be kept clean and sanitary and in good repair. A wash room conveniently located shall be provided, furnished with soap, running water,

and fresh, clean, individual towels daily. A notice shall be conspicuously posted in water-closet compartment or wash room directing all employees to cleanse their hands before leaving and immediately before commencing work. The use of common towel is prohibited.

REG. 26. *Lockers for employees.*—Sufficient lockers of metallic construction shall be provided on premises for street clothing of employees engaged in the handling and manufacturing of ice cream, ices, or other frozen products; such lockers, however, shall not be located in any room where ice cream, ices, or other frozen products are manufactured or handled.

REG. 27. *Health of employees.*—No person who has any infectious or venereal disease shall be permitted to prepare or handle any ice cream, ices, or other frozen products, or any utensils used in preparing, manufacturing, or handling same.

REG. 28. *Habits of employees.*—All persons preparing, manufacturing, or handling ice cream, ices, or other frozen products shall be cleanly in their habits, and must wash their hands before beginning work and after visiting toilet.

REG. 29. *Clothing of employees.*—All persons preparing, manufacturing, or handling ice cream, ices, or other frozen products shall wear clean, washable outer garments.

REG. 30. *Cleanliness of employees engaged in mixing ingredients.*—All persons immediately before engaging in the mixing of ingredients entering into the composition of frozen products or its subsequent freezing or handling shall thoroughly wash their hands and shall thereafter keep them clean during such manufacture and handling.

REG. 31. *Employees designated to cut and wrap brick ice cream.*—Employees shall not touch the product with their hands at any times: *Provided, however,* Employees especially designated to cut and wrap brick ice cream and to fill fancy molds, which work necessitates some handling of the product, shall be scrupulously clean and wear clean, washable clothing and caps.

REG. 32. *Smoking and use of tobacco prohibited.*—Employees shall not smoke or chew tobacco while at work.

REG. 33. *Spitting signs.*—Placards prohibiting spitting on floors shall be conspicuously posted.

REG. 34. *Cuspidors.*—A sufficient number of cuspidors shall be provided and shall be cleansed and disinfected daily.

REG. 35. *Refrigeration of perishable foodstuffs.*—All ice cream, ices, and other frozen products stored for sale shall be stored and kept refrigerated in a properly constructed refrigerator.

REG. 36. *Housing of animals prohibited.*—No animals, excepting cats, shall be housed or kept in any room where ice cream, ices, or other frozen products are exposed, packed, handled, stored manufactured, offered for sale, or sold.

### **Bakeries—Construction and Operation. (Reg. Dept. of Health, Mar. 30, 1915.)**

REGULATION 1. *Definition of bakery.*—All buildings, rooms, or places used or operated for the purpose of making, preparing, or baking bread, biscuits, pastry, cake, doughnuts, crullers, noodles, macaroni, or spaghetti, to be sold or consumed on or off the premises, except kitchens in hotels, restaurants, boarding houses, or private residences wherein said products are prepared to be used or are used exclusively on the premises, shall for the purpose of these regulations be deemed bakeries.

REG. 2. *Definition of cellar.*—A cellar shall be taken to mean and include every basement or lower story of any building or house of which said basement

or lower story one-half or more of the height from the floor to the ceiling is below the level of the street adjoining or the surface of the adjacent yard or ground.

**REG. 3. *Drainage.***—All bakeries shall be provided with proper and sufficient drainage.

**REG. 4. *Suitable sinks to be provided.***—All bakeries shall be provided with suitable sinks supplied with clean running water for the purpose of washing and keeping clean the utensils and apparatus used therein.

**REG. 5. *Windows to be provided.***—All bakeries shall be provided with proper and adequate windows.

**REG. 6. *Height of bakeries.***—All bakeries shall be at least 8 feet in height, measured from the surface of the finished floor to the underside of the ceiling.

**REG. 7. *Height of bakeries operated prior to May 7, 1895.***—Any cellar or basement less than 8 feet in height, which was used for a bakery on the 7th day of May, 1895, need not be altered to conform to the provisions of regulation 6 with respect to height.

**REG. 8. *Construction of floors.***—Floors shall be of even, smooth cement, or of tile laid in cement, or a wooden floor so laid and constructed as to be free from cracks, holes, and interstices.

**REG. 9. *Construction of walls and ceilings.***—Side walls and ceilings shall be either plastered or ceiled.

**REG. 10. *Sufficient number of water-closets to be provided.***—Every bakery shall be provided with a sufficient number of water-closets, and such water-closets shall be separate and apart from and not connected with the bakery room or room where food products are stored or sold.

**REG. 11. *Floors, walls, stairs, etc., to be kept clean.***—All floors, walls, stairs, shelves, furniture, utensils, yards, areaways, plumbing, drains, and sewers in or in connection with bakeries or in bakery water-closets or wash rooms or rooms where raw materials are stored, or in rooms where the manufactured product is stored, shall at all times be kept in good repair and be maintained in a clean and sanitary condition and free from all kinds of vermin.

**REG. 12. *Interior woodwork, walls, and ceilings to be painted.***—All interior woodwork, walls, and ceilings shall be painted or lime washed once every three months where so required by the department of health.

**REG. 13. *Receptacles for storing coal, ashes, and refuse to be provided.***—Proper sanitary receptacles shall be provided and used for storing coal, ashes, and garbage.

**REG. 14. *Receptacles for refuse and garbage to be emptied daily.***—Receptacles for refuse and garbage shall have their contents removed from bakeries daily, and shall be maintained in a clean and sanitary condition at all times.

**REG. 15. *Use of tobacco prohibited.***—Use of tobacco in any form in bakery or in any room where raw material or manufactured product of such bakery is stored is prohibited.

**REG. 16. *Sleeping prohibited in bakery.***—No person shall sleep or be permitted, allowed, or suffered to sleep in a bakery or in any room where raw material or the manufactured product of such bakery is stored or sold.

**REG. 17. *Domestic animals or birds not allowed in bakeries.***—Domestic animals or birds, except cats, shall not be allowed to remain in any bakery or room where raw materials are stored.

**REG. 18. *Mechanical means of ventilation to be effective.***—Mechanical means of ventilation when provided shall be effectively used and operated.

**REG. 19. *Screening of windows and doors.***—Windows, doors, and other openings shall be provided with screens.

**REG. 20. *Clothing of employees.***—All employees while engaged in the manufacture and handling of bread shall wear slippers or shoes and suits of washable material, which shall be used for that purpose only, and such garments shall be kept clean at all times.

**REG. 21. *Lockers for street clothing to be provided.***—Lockers shall be provided for the street clothing of all employees.

**REG. 22. *Construction of furniture, troughs, and utensils.***—Furniture, troughs, and utensils shall be so arranged and constructed as not to prevent their cleaning or the cleaning of any part of the bakery.

**REG. 23. *Persons suffering with communicable disease not permitted to work in bakery.***—No person who has any communicable disease shall work or be permitted to work in any bakery.

**REG. 24. *Examination of employees by medical inspectors.***—Wherever required by the medical inspector of the department of health any person employed in a bakery shall submit to a physical examination by said inspector.

**REG. 25. *Employment of any person who refuses medical examination prohibited.***—No person who refuses to submit to a medical examination shall work or be permitted to work in any bakery.

**REG. 26. *Ventilating hoods to be provided.***—All bakeries shall be provided with ventilating hoods and pipes over ovens and ashpits, or with other mechanical means to so ventilate same as to render harmless to the persons working therein any steam, gases, vapors, dust, excessive heat, or any impurities that may be generated by or in the process of preparing or baking in any such bakery.

**REG. 27. *Bakery and storeroom to be adequately lighted and ventilated.***—Bakery and storeroom shall be adequately lighted by natural or artificial light, and shall be adequately ventilated to the external air by natural or mechanical means, or both.

**REG. 28. *Drainage of ice boxes.***—Ice boxes or refrigerators used for storing foodstuffs shall be properly drained into properly trapped, sewer-connected, water-supplied open sinks.

**REG. 29. *Water-closet compartment to be vestibuled.***—No water-closet compartment shall have direct communication with bakery, storeroom, or salesroom unless it shall be separated therefrom by means of a properly lighted vestibule.

**REG. 30. *Soap, running water, and individual towels to be provided.***—Soap, running hot and cold water, and clean individual towels shall be provided for all employees.

**REG. 31. *Spitting signs to be posted.***—Signs prohibiting spitting on floors shall be conspicuously posted in the bakery, storeroom, and salesroom.

**REG. 32. *Protection against condensation from suspended pipes.***—Suspended pipes shall be properly protected so as to prevent condensation from dropping into or on foodstuffs or any receptacles and apparatus used in the manufacture of food.

**REG. 33. *Ice boxes or refrigerators to be kept clean.***—Ice boxes or refrigerators shall be scrubbed with hot water and some suitable cleansing agent at least once weekly and shall be kept clean and sanitary at all times.

**REG. 34. *Construction of apparatus and utensils.***—All apparatus and utensils used in the mixing and preparing of breadstuffs shall be of smooth, hard material and shall be thoroughly cleansed after each day's use.

**REG. 35. *Sifting of ashes prohibited.***—Ashes shall not be unduly distributed and the sifting of same in bakery is prohibited.

**REG. 36. *Doors to be screened from May 1 to October 31.***—Properly constructed and fitted screens for doors, windows, and other openings shall be

provided from May 1 to October 31. All screen doors shall be provided with self-closing devices and kept closed.

REG. 37. *Habits of employees.*—A notice shall be conspicuously posted in water-closet compartment and wash room directing all employees to cleanse their hands before leaving toilet and immediately before commencing work. Use of common towel is prohibited.

REG. 38. *Storage of food on floor.*—No food intended for human consumption shall be deposited or allowed to remain within 2 feet of the surface of any bakery unless the same shall be contained in boxes or other receptacles so as to protect them from dogs and other animals and their excretions.

REG. 39. *Raw material used in manufacture.*—All raw material used in the manufacture of edible products shall comply with the provisions of the Sanitary Code relating to food and drink.

REG. 40. *Coloring matter or preservatives.*—The presence in any part of the bakery of any prohibited coloring matter or preservative shall be deemed prima facie evidence of its use, and the presence of any such material shall be sufficient cause for the prosecution of the owners or proprietors of the establishment.

#### Cemeteries, Crematories, Vaults, etc.—Establishment. (Reg. Dept. of Health, Mar. 30, 1915.)

Regulations of the department of health of the city of New York, adopted March 30, 1915, effective April 1, 1915, relating to section 45 of the Sanitary Code, which provides as follows:

SEC. 45. *Crematories, burying grounds, cemeteries, tombs, and vaults; permit required to establish, to bury, and to open receptacle; burial of dead body restricted.*—No new crematory, burying ground, cemetery, tomb, or vault to be used for the reception of dead human bodies shall be established, nor shall any dead body or the remains thereof, be placed in any existing burying ground, vault, tomb, or cemetery in the city of New York, nor shall any grave, vault, tomb, or other receptacle in which there is a human body, or any part thereof, be opened, exposed, or disturbed without a permit therefor issued by the board of health or otherwise than in accordance with the terms of such permit and the regulations of said board, and every body buried in any such place shall be buried to the depth of 6 feet below the surface of the ground, and 4 feet below any closely adjacent street, except that in the Borough of Queens a body may be buried to the depth of 3 feet below the surface of the ground.

#### REGULATIONS GOVERNING ESTABLISHMENT OF CEMETERIES, CREMATORIES, VAULTS, ETC.

REGULATION 1. *Applications to establish new cemeteries, etc.*—Applications to establish a new burial ground, crematory, or vault must be accompanied by a copy of the articles of incorporation of the society, association, or corporation, and must conform to the existing laws of the State of New York. In the event of any change in the name of the cemetery the board of health must be notified by the secretary of such corporate body.

REG. 2. *Retention of bodies in vaults.*—No body shall be retained in the general reception vault in any cemetery for a longer period than 10 days unless special permission therefor is granted by the sanitary superintendent, an assistant sanitary superintendent, the registrar of records, or an assistant registrar of records of the department of health, and such vaults must at all times be kept in good sanitary condition.

**REG. 3. *Vaults above ground.***—All vaults partly or wholly above ground must be kept free from offensive odors and must be provided with crypts or cells for the retention of dead bodies, and such crypts or cells must be hermetically sealed directly after the placing of bodies therein.

**REG. 4. *Notice of sale or lease of ground to societies, corporations, etc.***—No plot, range, or section situated within the boundaries of any existing cemetery shall be let, leased, transferred, or sold to any society, organization, lodge, or other corporate body unless notice of such transfer, lease, or sale shall have been given to the board of health.

**REG. 5. *Lists of burials to be furnished.***—A list of the names of all persons buried in any cemetery or cremated in any crematory within the city limits, with the number of the permit and the date of burial, must be returned weekly to the borough office of the department of health in which the cemetery or crematory is situated.

### **Disinterment and Shipment of Bodies. (Reg. Dept. of Health, Mar. 30, 1915.)**

#### **REGULATIONS FOR THE DISINTERMENT OF DEAD BODIES.**

**REGULATION 1. *Place of issuance of disinterment permits.***—Permits for the disinterment of bodies interred within the limits of the city of New York must be obtained at the office of the department of health in the borough in which the cemetery at which disinterment is to take place is situated. Such permit must be countersigned by the sanitary superintendent, an assistant sanitary superintendent, the registrar of records, or an assistant registrar of records.

**REG. 2. *Disinterment application to be accompanied by letter authorizing same.***—Applications to obtain permits for the disinterment must be made upon blank forms provided by the department of health and must have attached thereto an affidavit from the nearest surviving relative or other authorized person consenting to such disinterment.

**REG. 3. *Inclosure of bodies.***—All bodies disinterred within the limits of the city must be inclosed in a metallic or metallic-lined hermetically sealed casket, coffin, or outside box unless otherwise ordered by the sanitary superintendent, an assistant sanitary superintendent, the registrar of records, or an assistant registrar of records.

**REG. 4. *Shipments of disinterred remains.***—All bodies disinterred within the limits of the city which are to be shipped over railroads or steamboats to other towns, cities, or countries must be inclosed in metallic lined and hermetically sealed coffins, caskets, or outside boxes.