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METHODS OF SANITARY INSPECTION
IN
AMERICAN CITIES.

A Thesis submitted to the Faculty of
the Graduate College of the University
of Nebraska for the Degree of Master
of Arts,

By

Annie Hawes,

Lincoln, 1912.

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I.

Growth and Importance of Sanitary Inspection.

The Public Health and Marine Hospital Service made known its desire to publish city ordinances having a sanitary bearing. Letters were sent March, 1911, to cities of more than 25,000 inhabitants requesting that they report ordinances passed since May, 1910. Sixty-eight cities have reported two hundred and forty-seven ordinances regulating thirty-eight specific conditions which require inspection. The relative importance of the subjects as shown by the chart on the opposite page is the lesson of the increasing activities of these municipalities in safeguarding the public health. Sanitary inspection which has until recently been one of the minor services of city government has reached the rank of an important municipal institution. The existence of conditions which are the means of disseminating disease germs is beginning to be considered not merely an act of negligence but a crime against society.

II.

History of Sanitary Investigations.

The earliest type of sanitary investigation of which we have record is quarantine against contagious disease from external sources. Susan Wade Peabody in her "History of Legislation Regarding Public Health in the States of New York and Massachussetts", says that it is difficult to determine at what time the colonists attempted to introduce quarantine, although there is reason to believe that there was such an attempt under the Dutch rule in 1667.¹

The earliest records of sanitary legislation are those of New York and Massachusetts. The other states have adopted, modified, or copied verbatim these sanitary codes and regulations.² This first attempt to safeguard the public health was brought about by the epidemics of smallpox and yellow fever in New York, Massachussetts, and Philadelphia in the latter part of the seventeenth century. These epidemics induced the exercise of quarantine but

1. Peabody, S.W., History of Legislation Regarding Public Health in New York and Mass. Part 1, ch.2, p.3

2. Ibid, p.1.

quarantine of vessels only.¹ A step in advance was taken in 1700 when Massachusetts passed a double quarantine law. One part was concerned with maritime quarantine, the other with land quarantine, removal and isolation. It was not until the close of the eighteenth century that the non-contagious theory of the origin of disease was formulated. Yellow fever was brought to Boston in infected ships. The cases were at first along the wharves but spread to the residence portion and among those living "adjacent to the mill pond". These facts together with the comparative immunity of those living on higher ground led the majority of the physicians to accept the "non-contagious" theory and to find the causes in "marsh exhalation" and "human effluvia", or in "many green hides in a state of putrefaction near the wharves".²

Prior to 1800 the fight had been against smallpox and yellow fever. With the appearance of Asiatic Cholera it was found that quarantine alone would not suffice and sanitary inspection was directed against nuisances.³

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1. History of Legislation Regarding Public Health in the States of New York and Massachusetts, pp.4-5.
 2. Ibid, p. 42.
 3. Ibid, p. 46.

During the nineteenth century the quarantine law changed from the detention of infected vessels in the ports to a detailed law creating a complete system and placing power in the hands of officials to enforce it.¹ In 1867 the term nuisance, which at the beginning of the century had been restricted to the conditions resulting from noxious trades and filth, was extended to include "whatever is dangerous to human life or detrimental to health".²

The older methods of suppressing diseases and epidemics have been relegated to an unimportant place since the causes of death have been lessened through the operations of laws of health, better personal and household hygiene, and municipal sanitary work. Epidemics rarely take place in civilized countries. The newer methods of prevention are vaccination, the use of anti-toxin, the collection and disposal of refuse and garbage, the disposal of sewage, and the sanitary management of the food and water supply.

1. Ibid, pp. 18-20

2. Ibid p. 27.

III.

Organization for Sanitary Inspection.

There was no profession of sanitation fifty years ago. Organizations were formed as interest in sanitary problems and public health increased. These organizations called for officers and inspectors. The sanitary field has widened and enlarged until at present there are several thousand men in the United States engaged in the service. Sanitary practice is now differentiated and specialized in many branches, each with its special inspectors.

Purpose of the Organization.

The primary purpose of the organization is to control communicable diseases. Suppressing measures, quarantine, isolation and disinfection, are applied to cases that are reported; preventive measures are employed to discover cases that have not been reported and to eliminate causes of infection. Such methods are the inspection of tenements, lodging houses, hotels, laundries, bakeries, and all places where food is manufactured, prepared or offered for sale. Other important functions are the abatement of nuisances, the regulation of professions and business injurious to health.

The work of local sanitary inspection is under the direction of a board of health. A few phases of the work such as the water and sewerage systems, and sometimes the garbage service are directed by the department of public works.

Bureau of Central Control.

We find four types of central control varying with the size of the city for the municipal organization. (1) In the smaller cities the health officer serves as a sanitary inspector and directs his assistants who very frequently are policemen detailed for service. (2) The plan in common usage in large cities is to assign the work of sanitary inspection to a sanitary board which is composed of lay inspectors who do general inspection work; there are also departments of special inspection such as food, milk, meat, chemical and bacteriological examinations which require special inspectors whose work is independent of the sanitary board but under the control of the health officer. Indianapolis, Los Angeles, Columbus, Kansas City, Milwaukee, Minneapolis, and Syracuse, N.Y. have this form of organization. A description of the work in Syracuse and Los Angeles

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1. In many cities there is a special department for contagious diseases. Rochester, N. Y. has a special inspector for diphtheria.

will illustrate this type of organization.

In Syracuse,¹ the Commissioner of Public Safety has jurisdiction, supervision, and control of the government, administration and discipline of the police, fire, and health departments. The bureau of health is organized in fourteen divisions: contagious diseases, milk inspection, city hospital, sanitation, care and treatment of tuberculosis, bacteriological laboratory, chemical laboratory, medical school inspection, vital statistics, meat inspection, district physicians, plumbing, psycopathic hospital, and smoke. The inspectors of the division of sanitation inspected yards, privies, cess pools, tenements, factories, mercantile establishments, contagious diseases, business places, hotels, saloons, streets, alleys, sewers, streams, barns, stables, and rag shops. The other divisions have special inspectors.

There are fourteen sanitary inspectors in Los Angeles who are on duty regularly. One is retained for work in the office, one for duty in bacteriological laboratory, and one continuously detailed as keeper of the smallpox hospital. Temporary details are frequently made

1. Letter from chief sanitary inspector. January, 1912.

Buffalo.

Health Commission.

Ass't Commissioner

Plumbing

Child Hygiene

vital statistics

Communicable diseases

Sanitation and tenements

Midwives

Tuberculosis

Child labor

City physicians placarding

Publicity

Sanitation

Baths

Food and Drugs

Scavenger

Municipal hospitals

Tenement

Small-pox

Food

Contagious diseases

Cattle

Milk

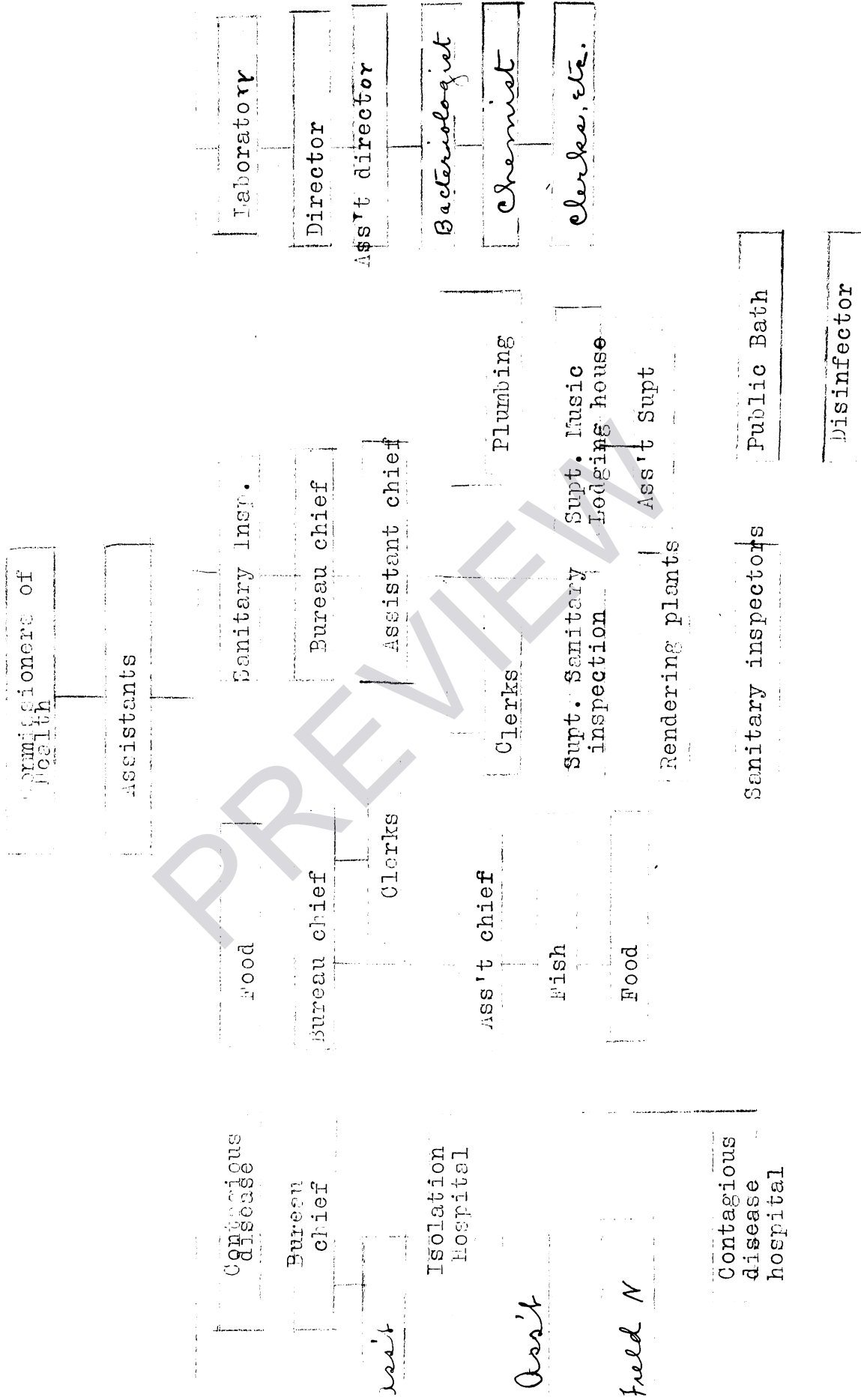
Bacteriology Lab.

Labor

Fumigator

Chemistry Laboratory

Sanitary Organization, Chicago.



to assist the fumigator, meat inspectors, and also to work on various matters which can hardly be classed as sanitary inspection. One man works on inspection of fruit and vegetables, one on restaurants and bakeries, one on lodging houses, hotels and apartment houses, and one on smoke inspection. There are also six inspectors who are assigned to six districts of the city to enforce the sanitary laws. On an average each of these inspectors has more than ten square miles of territory to cover.¹

(3) Boards of Health in a few of the great cities as New York, Philadelphia, Chicago, Buffalo, and New Orleans are organized into bureaus which consist of divisions and subdivisions. Every bureau has its chief inspector and assistants for divisions; the bureau of sanitation is very similar to the sanitary boards of the cities mentioned. The Buffalo¹ organization comprises eight bureaus everyone of which has one to five divisions. The Chicago² plan is simpler but more comprehensive. There are three bureaus - sanitation, food, and contagious diseases - which supervise sanitary inspection.

1. Annual Report Dep't of Health, Buffalo, 1910.

2. Report of Dep't of Health, Chicago, 1907-1910.

The Sanitary service of New Orleans¹ ranks as one of the best in the United States. This unusually progressive health board has three departments, two of which - food and sanitary - do inspection work. The sanitary department has charge more especially of (1) communicable diseases, (2) house-to-house inspection, and (3) anti-mosquito work. The board of health employs a special corps of inspectors of communicable diseases. This includes a special inspector who is a physician, three medical inspectors of schools, and an assistant inspector of communicable diseases who carries out special instructions. The board employs a bacteriologist who attends to the diagnosis of diphtheria, tuberculosis, malaria, and typhoid fever. Deopts are maintained throughout the city where the necessary material can be secured free of cost by physicians for collecting and preparing specimens. In addition to the medical officers, the service in the sanitary department consists of a superintendent, a general clerk, a permit clerk, ten house-to-house inspectors, four tenement house inspectors, two laundry inspectors, two inspectors for surveillance of nuisance boats, two for placarding houses and -----

1. Biennial Report of Board of Health, New Orleans,
1908 - 1910.

securing histories of communicable diseases, two for investigating complaints, four inspectors, one general utility man (in office), one in charge of chemicals and apparatus, ladders, oil, etc. at the warehouse. Guards, extra fumigators, and vaccinators are employed as needed. Two police officers are permanently detailed to assist the board in its sanitary work.

The fourth plan¹ of central control is that in which the city is divided into sanitary districts as working units. Grand Rapids, Michigan and Seattle, Washington, are typical of this class. Grand Rapids is divided into eight districts with one inspector in each. These inspectors have full police authority to enforce all rules and ordinances regarding the quarantine and sanitary conditions in their districts. They are supposed to make inspections of all premises, residences, and outbuildings as often as possible. They act, also, as quarantine inspectors, to placard houses and investigate the history of all contagious diseases existing in their districts.

A City Claiming perfect sanitary conditions having district organization.

The city of Seattle², Washington, is divided into

1. Communication from Health Commissioner, January, 1912.

2. Letter from Sanitary Engineer, December, 1911.

three sanitary districts. These districts are subdivided and every subdivision is in charge of a district inspector. The chief sanitary engineer directs the work; the chief district inspectors direct their assistants and are responsible to the chief sanitary engineer. Twenty inspectors are employed to look after the sanitation of buildings and private premises. Three men make house-to-house inspections and look after all things surrounding premises from the front yard to the back yard, from the garret to the basement as regards plumbing, ventilation and general cleanliness. Among these inspectors there are three who look after the restaurants, bakeries, and confectioneries. Three inspectors and a chief are employed to inspect all new plumbing work. Two inspectors and a chief are in charge of the inspection of all butcher shops and slaughter houses. Three men are veterinarians and they look after the city's live stock. There are two inspectors and a chief in charge of dairy inspection.

Civil Service Examinations and Free Transportation.

Other means for promotion of efficiency are examinations testing the qualifications of inspectors and provision of free transportation. The requirement that

all inspectors shall pass a civil service examination is becoming popular in many cities. Kansas City, Denver, and New York City are foremost among the number demanding such requirements. In most cities lay inspectors are not required to pass examinations but receive their appointment in return for political services rendered. However, certain qualifications are required of special inspectors. The health officer must be a physician and the meat inspector a veterinarian. In cities where the Civil Service examination is required the special inspectors such as meat, milk, chemical, and bacteriological must possess certain qualifications. Milwaukee¹ is an illustration of this requirement. The chief meat inspector and his assistants shall be graduates of regularly incorporated colleges of veterinary surgery. The remaining six meat inspectors shall be competent and practical butchers of not less than five year's experience in the handling of animals, meats, game, fish, and poultry. All of these are appointed from an eligible list prepared in accordance with the civil service laws and the rules of the City Service Commission. In the department of milk inspection in addition to the civil service exami-

1. Milwaukee Health Ordinances. Chap. 5, sec. 41-42, June, 1908.

nation the chemist and bacteriologist must be skilled in analytical chemistry and bacteriology.¹

The Civil Service examination² consists of ten to thirty questions. Five to six hours are allowed for the examination. The test for lay inspectors consists of technical questions based on sanitation and questions regarding their experience. The test for special inspectors consists of technical questions to show knowledge of the subject, questions bearing on local laws, the candidate's experience and arithmetic- fundamentals, mensuration and compound numbers.

Free transportation on street cars is provided. In some cases this privilege is granted to special inspectors only. Kansas City³ grants free transportation to the entire force. Los Angeles⁴ provides motor cycles for the fruit and vegetable and the city milk inspectors.

1. Unusual to have chemist as head of milk department.

2. Appendix No. 1

3. Health and Hospital Board, Kansas City, 1911.

4. Monthly report of department of health, Los Angeles,
July, 1912.

The routine of an inspector includes definite hours of service, reporting at a central or district office for assignment of work, house-to-house and special inspections, the reporting of work done and the handling of complaints.

Time on Duty.

The hours of service of an inspector varies from six to nine hours a day. A call to service may be ordered at any hour, day or night, in case of epidemics, emergencies or special danger to public health. In Chicago¹ the hours are from 9 A.M. to 5 P.M. with one hour for lunch; on Saturdays the hours are 9 A.M. to 12 M.; Sundays and holidays no service is required except in an extreme situation. In New York City the time is 9 A.M. to 4 P.M. with one hour for lunch. In Denver,² 8 A.M. to 4 P.M. with one hour for lunch. An illustration of the punctuality required is shown in the Chicago registrations. Two reports of tardiness within a month that are not satisfactorily explained is ground for disciplinary action. A record of time is entered by the inspector upon the official time record sheet. A failure to accurately keep such a record

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1. Report of Health, Chicago, 1907-1910, Departmental Rules.
 2. Manual of Ordinances of Health, 1908, Denver.

for one day or more unless by consent of the head of the bureau results in disciplinary action. In Chicago¹ food inspectors are not granted vacations in July, August, and September; vacations are only granted to disinfectors in June, July, August and September. The field inspectors are required in the average city to go directly to their work on leaving the office and they must take the most direct routes from the office to their districts.

Reporting Work.

Inspectors report at stated times which differs in every city. Denver employees report daily at 4 P.M. and are required to communicate with the office twice a day by telephone. In Providence reports are made twice a day at the main office. In Charleston, S.C. inspectors visit fifty premises a day, reporting at the main office daily at noon and the report must have the signatures of the occupants of the fifty premises inspected. The inspectors in Seattle make daily reports to the office of the board of health showing just where they have called and what was done. This report is made to a district chief inspector who incorporates all of the work done, as reported by the

1. Report of Dep't Health, Chicago, 1907-1910. Departmental Rules.

inspectors, into a ten day report to the chief sanitary inspector. The chief sanitary inspector incorporates these reports at the end of each month into one report to the Commissioner of Health showing the work done in the Division of Inspection of the Department of Health and Sanitation.¹

Inspectors are held responsible for sanitary conditions in their districts. They are to find and suppress all remediable nuisances. For this purpose they make house-to-house inspection, examining buildings, yards, alleys, and streets. Upon finding anything which can be considered a nuisance and which can not be corrected at once by a personal effort, the inspector enters a complaint upon what is termed a "working sheet". This "working sheet" gives the number of the premises and the name of the owner or agent, the character of the nuisance, and what action is taken, or advised by the inspector. Finally, when the nuisance is abated, the "working sheet" is so stamped and is filed in the office for future reference should occasion arise. This is typical of Seattle.² A successful plan is in operation in Syracuse, New York. The inspector upon finding a nuisance

1. Appendix No. 2.

2. Letter from Chief Sanitary Inspector, Seattle, Jan. 1912.

gives the property owners or occupants a notice to correct the same within a period varying from twenty-four hours to ten days. At the end of the time specified, re-inspection is made. In cases of failure to comply with orders, houses are placarded as insanitary and tenants are directed to move or proceed to court.¹

The Handling of Complaints.

The greater part of the time of sanitary inspectors is taken up with the investigation of complaints. When these are made by citizens they are received at the central office of the board of health by telephone, in writing, or by personal information. The complaint contains the name and address of complainant, the location of the property, the name and address of the owner or agent, the name of the tenant, and the cause of complaint. In Chicago² the complainant writes his name on the back of the complaint card. The field investigator is given a copy of the complaint. The name of the person giving notice of the nuisance is not revealed. The next step is to copy the complaint on a card in such a form that the nature of the complaint as well as the address of the place is given. The card is filed and a duplicate which does not contain the name of the complainant

1. Appendix No. 5.

2. Report of Dep't Health, Chicago, 1907-1910.