

The sanitary institutions of the Imperial government of Japan / Central Sanitary Bureau of the Home Department.

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THE
SANITARY INSTITUTIONS
OF THE
IMPERIAL GOVERNMENT
OF JAPAN.

PUBLISHED BY
THE CENTRAL SANITARY BUREAU
OF THE
HOME DEPARTMENT,
1898.

PRINTED
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THE YOKOHAMA BUNSHA.
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THE
SANITARY INSTITUTIONS ACTUALLY IN FORCE,
OF THE
IMPERIAL GOVERNMENT OF JAPAN.

PART I.

THE ORGANIZATION OF THE SANITARY
INSTITUTION.

The administration of the Imperial Government is carried on in the nine Departments—the Home Department, the Foreign Department, the Treasury Department, the Army Department, the Navy Department, the Judicial Department, the Educational Department, the Agricultural and Commercial Department, and the Department of Communications. The whole country is divided into forty five prefectures—three Fu and forty two Ken—and the local Governors are put under the control of the Home Minister. Under the Fu and Ken there are Shi and Gun (very much like “county”) the head officials of which are *placed* under the direct control of the local Governors. Under Gun there are small divisions called Chō and Son which are equivalent to town and village. The head officers of the Chō and Son are directly controlled by the chief

officers of the Gun. These are the brief descriptions of the present administration.

The Fu, Ken, Gun, Shi, Chō and Son are all bodies of self government, and at the same time they are the administrative districts. Hokkai Do, the northern island, belongs to the control of the Home Minister, though the institutions somewhat differ from those of the other prefectures, as it is not quite civilized yet, and Taiwan, (Formosa), the island newly added as the result of the Japan and China War, is administered by the Governor General (Sōtoku) who is under the control of the Cabinet.

The central organization of the Sanitary Administration was first established in 1873 by establishing the Medical Bureau in the Educational Department; in 1875 it was transferred to the Home Department, and was named the Sanitary Bureau. Since then the Sanitary Administration was put under the control of the Home Minister, and this Bureau was made the centre of the sanitary administration of the country.

The Central Board of Health was organized for the purpose of considering Sanitary matters, also the Hygienic Laboratories were opened where drinks and foods etc, are examined; these are to be directly controlled by the Home Minister.

The local sanitary administration is carried out by the Police Office of the local authorities under which the Local Sanitary Board was established, where sanitary matters are fairly considered; in Gun, Shi and Chō-son the proper officers are appointed for improving the Sanitary condition of the population. The business

concerning Sanitary as well as police matters is undertaken by the local Police Stations.

Note.—When the Medical Bureau was first established in the Educational Department, the Dajō-kwan, the central Cabinet of the time, ordered the Educational Department to investigate the Medical Institution (really a sanitary institution), and the result of the investigation was reported in December 1873 by the Medical Bureau, to which the following words were added:—

The accompanying resolutions are drawn from the institutions of European as well as of American countries, and therefore they may not be well adapted to the present condition of the Empire. We shall, however, be satisfied if we can show in what direction, the sanitary administration should be carried out in future, and according to the progress of civilization the suitable institutions might be drawn after careful study &c.

The principal points of the medical institutions considered and reported, are as follows:—

RESOLUTIONS OF THE MEDICAL INSTITUTIONS INTRODUCTION.

1.—The medical *institutions* shall be administered for the purpose of improving the general health of the people, curing diseases as well as encouraging the studies of medical sciences. The business shall be managed by the Director and Vice-Director of the Medical Bureau in the Educational Department under the directions of the Minister.

2.—The whole country shall be divided into

seven sanitary districts, and in each district a Sanitary Office shall be instituted to undertake the sanitary matters of the district after consultation with the officers of the prefectural government.

3.—In each locality two Medical Managers shall be appointed to be engaged in the management of its medical affairs.

4.—The Medical Managers shall be appointed from among the medical men, druggists, and veterinary surgeons of the locality for the transaction of business according to directions and orders of the Sanitary Office, and the prefectural Government.

The Medical Managers shall receive petitions and inquiries from the medical men and druggists and hand them over to the proper offices.

The Medical Managers shall make an immediate report, after careful examination, to the Sanitary Office or to the prefectural Government, whenever they are informed of any cases of Choleraic diseases, or observe anything injurious to the health of the people, with regard to food, clothes, and dwellings, etc.

5.—The Head of the Sanitary Office shall consult about any important matters with the officers of the prefectural Government, the Principal of the Government School, and the Heads of hospitals, and shall receive directions from the Educational Department.

The Head of the Sanitary Office shall make statistics of the Sanitary matters.

(1). THE MEDICAL SCHOOLS.

6.—A medical school shall be established in each of the school districts in which a hospital is established. The terms of study in the medical school shall be as follows :—

The Preparatory Course 3 years, and the Regular Course 5 years.

7.—The young men who may be allowed to enter the Preparatory Course shall be those who have finished the studies in the elementary school, and must be between 14 and 18 years of age.

The course of study of the Preparatory Course shall be :—

1. Mathematics.
2. German.
3. Physics.
4. Chemistry.
5. General principles of Botany.
6. General principles of Zoology and Mineralogy.

8.—Those allowable to enter the Regular Course shall be the young men under the age of 25 years, and who have finished the studies of the Preparatory Course, or those having the equivalent knowledge.

The Course of study of the Regular Course shall be :—

1. Anatomy.
2. Physiology.
3. Pathology.
4. Pharmacy.

5. Medicine.

6. Surgery.

7. Medical Jurisprudence.

Those who have successfully finished the Regular Course may be entitled "Igakushi."

9.—A special course shall be opened for the benefit of the graduates in order to give them further studies, and the expenses may be supplied for the special investigation of the sciences.

10.—Free hospitals shall be attached to each medical school, and in the hospital there should be the Superintendent, the resident doctor, the Head of the pharmaceutical laboratory, and other officers. The prefectural government should share the expenses.

11.—The heads of hospitals, public or private, shall be the registered medical practitioners.

Hospitals, both public and private, when first founded shall be authorized by the Educational Department.

12.—Syphilitic hospitals, lunatic asylums, and similar hospitals may also be established according to these regulations.

(2). THE TEACHERS.

13.—The teachers of the medical schools, both public and private, shall obtain a license from the Sanitary Office.

The Heads of the Government Medical Schools shall be appointed by the Minister of Education,

with the approval of the Director of the Medical Bureau.

14.—The foreign teachers of the Preparatory Course shall be those who hold a license to be Teachers of the Middle School, and the teachers of the Regular Course shall be those who hold a licence for practising medicine.

The salary of such foreign teachers shall be not more than 400 yen monthly except in the medical school in the City of Tokyo, where more qualified Professors may be employed at a higher salary.

(3). MEDICAL MEN.

15.—Medical practitioners shall be licenced after they have obtained the diploma from medical schools, or shall have practised either general medicine, surgery, dentistry or obstetrics for more than two years.

For the present, the medical men practising hitherto without license, need no examinations, and a temporary license may be given after having carefully considered the history of their practising and its efficiency. This license consists of two grades.

The following examinations may be given to those candidates who present application during the first ten years after the Medical Institutions are formed.

1. Anatomy in general.
2. Physiology in general.

3. Pathology in general.
4. Pharmacy in general.
5. General medicine and surgery.
6. Therapeutic as well as surgical operations.

16.—Vaccination may be permitted to be performed only by those persons who have some knowledge of the nature of Small-Pox, and how to cure it, and they must also know the nature of vaccine virus and how to use it. A temporary license may be given to them after having been approved as such.

17.—Any persons practising the operation without license, or giving their prescriptions to the sufferers, shall be punished according to their crime.

18.—Physicians shall give no medicine, but only give prescriptions and receive the fees for examination. Physicians of the second grade may be permitted to give medicine, on their obtaining a license as Apothecaries.

19.—Physicians may be dismissed from their profession if they are so riotous and negligent as to be unable to perform their duties whenever called upon.

20.—Physicians shall report to the proper Medical Manager, within three days after the death of any patient, the facts of the case.

21.—Whenever any cases of epidemic diseases appear, physicians shall make an immediate report to the proper Medical Manager, and the head officers of Ku or Ko.

22.—When no remuneration is paid by patients

the *government office* will endeavour to collect for them if the physicians desired.

23.—Licenses as midwives will be given to those, who are more than forty years of age, and who have some knowledge of Anatomy, Physiology and Pathology. They must have a recommendation from an Obstetrician.

The midwives who have been previously practising may obtain temporary licenses according to their experience.

24.—Midwives, except in sudden cases, shall perform no operations unless they receive directions from an Obstetrician, or Doctor of Medicine or Surgeon; and then they shall neither use instruments nor give any medicine.

25.—Needle doctors or any person who applies moxa, shall perform no operation unless directions are given by a medical man or Surgeon. Should they ever secretly operate or give medicine, they may be dismissed from their profession, and also be punished.

(4). APOTHECARY ETC.

26.—The first hygienic laboratory was established in Tokyo, and branches were opened in convenient localities where it is necessary to perform such works as the examination of medicines, and the control of the sale of medicines, &c.

27.—A duly qualified apothecary and his licensed assistants only are allowed to compound medicines.

28.—A qualified apothecary shall be such person who has been in some apothecary's establishment as assistant for more than two years, and has passed the following examinations ; provided that the graduates from the school of pharmacy, and the graduates from medical schools need no examination :—

1. Applied Chemistry.
2. Pharmacy.
3. Principles of compounding medicine.
4. Principles of poisons.

For those persons previously in practice no examinations are required, and a temporary license may be given.

An Apothecary's Assistant before he can obtain a license must pass an examination of prescription writing and the subjects of the Preparatory Course of the Medical School.

All persons who present applications to be licensed for carrying out the business of Apothecaries during the first ten years after these institutions are published, must pass the following examinations :—

1. Arithmetic.
2. Chemistry and physiology in general.
3. Pharmacy in general.
4. General principles of prescription-writing.

29.—Persons who compound medicines or sell the same without a license, shall be punished according to law.

30.—In apothecaries' shops the best-made scales, and all drugs and chemicals as prescribed in the

Japanese Pharmacopoeia shall be sufficiently provided.

The officers of the Sanitary Office and the Hygienic Laboratory may make sudden inspections.

31.—Prescriptions should be kept for twenty years.

32.—No powerful medicines may be compounded or sold without the approval of the Hygienic Laboratory.

Powerful medicines may be sold by the prescriptions of physicians as well as by the approval of Chemists, and the approvals should be also kept for twenty years.

33.—Every apothecary must be licensed by the Sanitary Office ; medicines kept for sale without license shall be forfeited, and any person so offending will be punished according to law.

The officers of the Sanitary Office or of the Laboratory may make sudden inspections over the manufactories of medicines for sale.

34.—Apothecaries and drug-merchants shall pay the proper taxes.

In March, 1874, the Cabinet gave orders for the proposed institutions that they should be first carried out in the three Fu of Tokyo, Kyoto, and Osaka, according to the condition of the people, and gradually extend their areas after careful consideration of results. In August of the same year, therefore, according to the order of the Cabinet, these institutions were first given to the

prefectural government of Tokyo, and afterwards to that of Kyoto, and Osaka to show the principles of the same, telling them one or two points of great importance to be enforced as the case best required. The rest of the institutions were put in force in the same way first in the three cities of Tokyo, Kyoto and Osaka, and gradually in other prefectures.

In March, 1875, amendments were made to the institutions, and the provisions relating to the medical education were cancelled. Thus the distinction between Sanitation and Medical Education was clearly made. Since then, through various improvements and modifications, the present organization of the sanitary institutions was brought about.

THE CENTRAL SANITARY BUREAU.

The transaction of business of the Central Sanitary Bureau is carried out in the three distinct Offices, namely the Health Office, the Epidemic Prevention Office, and the Medical Office; and the business relating to the statistics, and general affairs, is transacted in the Office of the Director.

1.—The matters transacted in the Health Office are those relating to water works, sewage, nuisance removal, industrial sanitation, sanitation regarding labourers and poor people, foods and drinks, medicines kept for sale, and other matters relating to the general health of the public.

2.—The matters transacted in the Epidemic Prevention Office are those relating to the inspection and prevention of epidemic diseases, sera and vaccine, as well as the investigation into the nature of epidemic and local, diseases.

3.—The matters transacted in the Medical Office are those relating to physicians, pharmacutists, midwives, medicines, local hospitals, and so forth.

The Director of the Bureau is Chokunin Kwan; under him there is a Councillor (Sōnin) and a Secretary (Hannin) in the Director's Office, and in each Office there is a Gishi (Sōnin), Zoku-kwan, and Gishu (both Hannin Kwan). The present Director is Dr. Shimpei Gotō.

Note.—Since the revolution of the Meiji era, the Government published many orders relating to the control of opium, the spread of vaccination, and so forth, but no central sanitary organization was established till March of 1873. The Central Medical Bureau was first opened in 1873 in the Educational Department, and business was actually transacted from June 1873. In June 1875, three years later, the business was transferred to the Home Department and the first Central Sanitary Bureau was established.

The business of the Bureau at that time was divided into five parts—the miscellaneous, the statistical, those relating to medicines kept for sale, vaccination, and treasury; and the business relating to medicines kept for sale, and vaccination, were considered to be the most important for

the improvement of the public health, and thus the present organization were brought about after many changes which were necessarily made according to the progress of sanitary science, and its administration.

At the time when first the Sanitary organization was made, though imperfect, the "Sanitary Bureau Magazine" was published from the Bureau to circulate among the officers and private persons, hoping to give them some knowledge of the sanitary administration. The first publishment was made in April, 1876.

This magazine, together with the "Magazine for the Improvement of Sanitary and Medical Knowledge," which was a private paper, has done much good in pointing out important matters relating to sanitary and medical affairs, as well as in collecting useful materials from similar institutions of Europe and America. After that, many associations, such as Sanitary Society, and Medical Society, were formed by the people who were interested in the subject, and in consequence many magazines appeared for the very same purpose. The Bureau, seeing that so many private papers have appeared, and considering that there was no longer any need of the government paper, had stopped the publication of the "Sanitary Bureau Magazine" in March, 1884.

It was in the year 1871 that a man was first sent to Europe for the investigation of the sanitary institutions; the man first sent out was Dr. S. Nagayo a professor of the medical college of the

time, who was attached to the company of Prince Iwakura, the Ambassador sent to Europe and America.

Matters concerning foreign countries such as International Sanitary Meetings are chronically arranged as follows ;—

1.—In January 1881, the Ambassador to the U. S. A., Mr. K. N. Yoshida was ordered to be present at the International Sanitary Meeting in the United States of America, as a member of the committee.

2.—In May 1881, the result of examinations of mineral springs, and other natural products, models of bath tubs, photographs of hot springs, various maps and other matters collected from all parts of the country, were sent to the “Mineral Spring Exhibition,” held in Germany.

3.—In May 1883, Mr. S. K. Shibata was sent to the “Sanitary Danger-Saving Exhibition” of Berlin, Germany.

4.—In the the same month, drawings of hospitals, Sanitary statistics, photographs of hot-springs, history of the Vaccine Farm, vaccination needles, models of disinfecting offices, etc. were sent to the “International Exhibition” in Amsterdam, Holland.

5.—In May 1884, samples of the foods, clothes, and dwellings of Japan, and other things were sent to the “International Sanitary Exhibition,” in London, England, which Mr. K. J. R. Nagai a Secretary of the Home Department, was ordered to attend.

Mr. Nagai was ordered also to travel through Europe and America, on his way home, for the observation of the sanitary works.

6.—In August of the same year, Mr. Nagai again was sent, as one of a committee, to the “International Sanitary and Medical Meeting,” in Copenhagen, Denmark.

7.—In May 1885, the Ambassador, Mr. F. M. R. Tanaka, and a Secretary of the Home Department, Mr. K. I. R. Nagai, were ordered to attend the “International Sanitary Meeting” in Rome, Italy.

8.—In October 1887, Dr. C. T. Ishiguro the Surgeon General of the Army, who was in Europe at that time, was ordered to attend as a member of a committee, and Dr. S. S. R. Kitasato and Dr. T. I. R. Nakahama who were both studying medicine in Germany, were ordered to be present at as Sanitary Specialists at the “International Sanitary and Demography Meeting” in Vienna, Austria.

9.—In August 1891, Naimu-Gishi Dr. S. P. Goōt who was then studying in Germany, was sent as a member of a Committee, to the “International Sanitary and Demography Meeting” in London, England.

10.—In 1893, a model of the Shimonoseki Disinfecting Station, was sent to the “Columbian Exhibition” in Chicago, United States of America.

11.—In 1894, Prof. Dr. J. R. Tsuboi was sent as a member of a committee, to attend the “International Sanitary and Demography Meeting” in

Budapest, Hungary, as he was studying in Germany at that time.

12.—In August 1897, Dr. T. E. Takagi the Head of the Serum Institute was sent to the “International Medical Meeting in Moscow,” Russia.

For the investigation of the sanitary sciences, Dr. S. S. R. Kitasato, and Dr. T. I. R. Nakahama, both Naimu-Gishi, were sent to Germany; Naimu-Gishi Dr. S. P. Gotō and Naimu-Gishi Mr. Y. Z. Tahara, were also sent to Germany in 1890 to make investigations into the sanitary and hygienic institutions of that country, for three years, continuing in their positions in the Home Department as Naimu-Gishi.

In 1890, an English man Mr. Burton, a Professor of Sanitary Engineering in the Imperial University, engaged from England, was requested also to be the Sanitary Advisor of the Home Department; the foreigners who were engaged as Overseers in the Hygienic Laboratory continued to be indirectly the Advisors of the Sanitary Bureau.

THE HYGIENIC LABORATORIES.

The three Hygienic Laboratories of Tokyo, Osaka, and Yokohama, were put under the control of the Home Minister, and the works were divided into two parts, namely the Examination Part, and the Medical Part.

1.—In the Examination Part, matters relating to air, water, soil, food, clothes, dwellings and

mineral springs, as well as the medical treatment of police and judicial matters, and the investigation into the nature of diseases are treated.

2.—In the Medical Part, matters concerning the nature of medicines testing whether good or bad, pure or adulterated, whether they are suitable or not, way of examination as well as of testing and of analyzing them, are undertaken.

In each Laboratory, Gishi (high-engineer) and the Gishu (Sub-engineer) and a Secretary are attached, and one of the Gishi is the Chief. The Head of the present Hygienic Laboratory at Tokyo is Mr. Y. Z. Tahara; Mr. S. S. Tsujioka is the Head of the Hygienic Laboratory at Osaka, and Mr. K. J. Shimada is the Head of the Hygienic Laboratory at Yokohama.

Note.—The Hygienic Laboratories work not only for the Government, but also for the people; analyzing and testing, as well as judging of the quality of anything that may be brought in, are performed there for certain fees, when requested.

Articles considered in the Hygienic Laboratories to be suitable for medicine, should be approved by applying examination stamps. Those mentioned in the Japanese pharmacopœia, or those not mentioned in the Japanese Pharmacopœia, but in some foreign Pharmacopœia, should be both examined and judged according to the proper Pharmacopœia, and those which are not mentioned in any Pharmacopœia but are quite new, should be judged after having been carefully examined and tested in the Laboratories.

Pharmaceutists and other traders are prohibited from using stamps of the same kind as the examination stamps.

The powders of raw drugs for which examination stamps are required, are Ipecac powder, Jalapa powder, bloes powder, and Glycyrrhiza powder, and those raw drugs examined, as well as other powdered medicines made in the Hygienic Laboratories.

It is forbidden to use such words in an advertisement, or in any other printed papers, or on the wrappers of any package to endeavour to show that the article has been approved by the Sanitary Bureau or the Hygienic Laboratories, or examined by the Laboratories and so forth; but those who wish to show the result of examinations, must copy the whole sentence of the examination, without any alteration. Any one who violates this rule shall be liable to a fine.

Those who wish anything to be analyzed in the Hygienic Laboratories, shall pay fees on the following scale :—

Fees for examinations.

(a) Medicines.....50 *sen*. (for each)

For those to which stamps are required one *sen* additional shall be paid for each, and for those to which some notices are needed, twenty *sen* additional shall be paid for each notice.

(b) Drinking water, ice, snow.

For the analysis to see whether they are fit for drinking or not. 10 *sen* to 50 *sen*.

For qualitative analysis. 50 *sen* to 2 *yen*.

(c) Milk.

For simple theoretical analysis or qualitative analysis 20 *sen* to 1 *yen*.

For quantitative analysis 50 *sen* to 2 *yen*.

(d) Spirits.

For simple theoretical analysis or qualitative analysis 10 *sen* to 50 *sen*.

For quantitative analysis 50 *sen* to 5 *yen*.

(e) Drinks and foods.

For simple theoretical analysis or qualitative analysis 10 *sen* to 50 *sen*.

For quantitative analysis 50 *sen* to 5 *yen*.

(f) Air and injurious gases.

No matter whether qualitative or quantitative analysis 1 *yen* to 5 *yen*.

(g) Injurious metals used in making table instruments.

For qualitative analysis. 50 *sen* to 1 *yen*.

For quantitative analysis. 50 *sen* to 2 *yen*.

(h) Clothes 50 *sen* to 3 *yen*.

(i) Mineral Springs.

For qualitative analysis. 50 *sen* to 3 *yen*.

For quantitative analysis. 1 *yen* to 10 *yen*.

(j) Dye stuffs 20 *sen* to 2 *yen*.

(k) Injurious colouring of toys and other coloured articles 20 *sen* to 2 *yen*.

(l) Chemicals.

For qualitative analysis. 20 *sen* to 1 *yen*.

For quantitative analysis. 50 *sen* to 5 *yen*.

(m) Minerals and metals.

For qualitative analysis. 50 *sen* to 3 *yen*.

For quantitative analysis. 1 *yen* to 10 *yen*.

(n) Things relating to police and judicial matters.

According to the difficulties of examination and time required. 50 *sen* to 50 *yen*.

For things other than those mentioned above, fees must be paid according to the difficulty of examination and time required.

Those persons who request the articles above mentioned to be examined within any limited time, shall pay extra fees, not exceeding five times the usual fee.

Since western medical science was first introduced, the demand for western medicine gradually increased, and consequently the dishonest merchants of foreign countries brought in a large amount of inferior medicines. Thus it became necessary to have a Laboratory at the port where these foreign articles were landed, in order to prevent these inferior medicines from being imported by careful examination.

The first establishment of the Laboratory was made in Tokyo in March 1874; thus the present Tokyo Hygienic Laboratory was founded. In January 1875, a Laboratory was also established in Kyoto, and three months after that another one appeared in Osaka. In August 1876, the Kyoto Laboratory was closed, but one in Yokohama, and one in Nagasaki were established; in July 1881, the Nagasaki Laboratory was closed.

At the time when the Laboratories were first established, examinations were entrusted to the direction of foreigners, but after a few years,

native chemists of very high ability appeared, to whom the examinations might be well entrusted, and then the employment of foreigners was gradually given up.

Since then the native Heads of the Laboratories had become entirely responsible for the works, though a foreigner was still employed in the Yokohama Laboratory only, in 1880; since he died in 1884, no foreigner has been employed in any Laboratory. In May 1883, the Hygienic Laboratories in Tokyo, Osaka, and Yokohama were renamed the Sanitary Bureau Laboratories, and through many changes and improvements, the present organizations were established.

Examinations of imported medicines were made first of all, of Quinine, and Potassi Iodide which were not only most extensively demanded but very liable to be counterfeited or adulterated, and in order to approve the qualities, examination stamps were applied to the vessels containing them. As the importation of the counterfeited and adulterated medicines was thus successfully prevented, twenty more medicines, in May 1876, were added to the number for examinations. The number of medicines which was asked to be examined in the Laboratories, began to increase day by day, as the prices of other medicines than the twenty two already named, were very much affected as to whether they had any examination stamps of the Laboratories, or not.

In April 1877, the examination stamp was left out, and instead, notifications were given, by

which the result of the examination as well as the trade marks of the medicines examined were given, in order to ascertain the qualities of them, whether they were suitable as medicines, or not. In this way, examinations became very much stricter and at the same time druggists began to pay more attention to quality; thus the state of the drug market became entirely changed.

The examination of medicines was first done, when the ports were first opened, for the purpose of preventing the importation of bad medicines, by carefully examining their qualities, and therefore it was done in the Laboratories without fees, and only on request. The confidence in the examination stamps became much greater year by year, as the prices were affected. When the Government saw that such protection as examinations without fees was no longer needed, fees were fixed in September 1884, for the examination of medicines, foods, and drinks as well as the analysis of other things as it is now.

THE TOKYO MEDICINE MANUFACTORY.

So much Carbolic Acid was demanded for the use of treating the persons wounded during the Civil War of the 10th year of Meiji, or for disinfecting Cholera cases of the same year, that it was very difficult to have a sufficient supply of it, as we had none of home production, but all was imported from foreign countries. For the purpose

of satisfying this want the Tokyo Medicine Manufactory was first established by the Government for manufacturing it for the use of disinfection only.

The land of Japan is naturally rich in productions of medical materials, and it may be hoped that she will become one of the largest medicine manufacturing countries in the world. It was, however, the time of foreign worship, and only foreign productions were considered fit to be used as none of the home products were valued so highly.

It was so extreme that foreign trade marks were used on the merchandise manufactured within the country, and no exception was made with regard to medicines.

The Government of the time, therefore, decided for the purpose of encouraging the business of manufacturing medicines, to publish the Rules with regard to the license of the manufacturing of medicines, in 1876, and those who wish to learn how to manufacture them were allowed to study in the Hygienic Laboratories ; and there the Tokyo Medicine Manufactory also began to manufacture other medicines besides Carbolic Acid, in order to show the method of manufacture. Thus the manufacture of medicines was protected and encouraged in every way, and as a number of medicine manufactories were established by private persons, the Government works were given up in May 1883, because it was feared that some competition might ensue between the Government works and private enterprise.

THE MEDICINE MANUFACTURING DEPARTMENT.

As soon as the Tokyo Medicine Manufactory was closed the Medicine Manufacturing Department was established, and attached to the Tokyo Hygienic Laboratory. It was necessary because the Japanese Pharmacopoeia was being composed at that time but was not yet completed.

The Japanese Pharmacopoeia was completed in September 1885, and the Tokyo Medicine Manufacturing Company was formed ; and it was seen that the Medicine Manufacturing Department attached to the Tokyo Hygienic Laboratories was no longer in use, and was soon given up.

Note.—The Tokyo Medicine Manufacturing Company was a Joint Stock Company to which not only the instruments used formerly in the Tokyo Medicine Manufactory, but also the Subsidy of 50,000 *yen* was given by the government in the two years of 1884 and 1885, and the Company was put under the control of the Central Sanitary Bureau.

The Company was ordered to make medicines according to the Japanese Pharmacopoeia, and for this purpose it was quite necessary to give such assistance as mentioned above. The control of the Sanitary Bureau, however, was now given up and it has become purely a private concern.

THE BOTANICAL GARDEN OF MEDICAL PLANTS.

The Botanical Garden of Medical Plants was first opened in Tokyo, in July 1883, for the purpose of testing and judging the nature and ingredients of the home and the foreign products, and for facilitating the work of the manufacture of medicines ; and it was ordered that the plants in the Garden should be those suitable for manufacturing medicines as prescribed in the Japanese Pharmacopoeia. It was first under the control of the Central Sanitary Bureau, but since 1889 it was transferred to the Educational Department.

THE SANITARY MUSEUM.

The Sanitary Museum was first opened in December 1884, and books, papers and other things relating to sanitary matters were collected, and arranged in order, for the purpose of showing them to any persons who were interested. This museum is opened twice a week—Sundays and Wednesdays.

In the Sanitary Bureau they tried very hard to purchase books newly published in foreign countries for the help of transacting business ; but it was thought necessary to give some knowledge to the public in offering them opportunities of learning, as they were unable themselves obtain sufficient books on the subject. Not only books, but also statistical tables, drawings relating to sanitary matters, models of house buildings, waterclosets, sewages, crematories, etc. : samples and materials of foods, drinks and dwellings

were all provided there. And many other things, both of home and foreign production, relating to sanitary matters were shown in the Museum.

THE CENTRAL BOARD OF HEALTH.

The Central Board of Health was first organized in July 1879, as the preventive organ of Cholera which was fearfully prevalent in that year. Since December of the same year, it was made the Advisory Board together with the Local Board of Health as at present, and it was put under the control of the Minister of the Home Department; the Committee (*Ex officio* members) of the Board shall, according to the inquiries made by the Ministers of all Departments, consider all matters relating to the public health, as well as the health of animals, or they may offer any advice to the proper Minister.

(1). The President of the Board is Chokuninkwan (high officer appointed by the Emperor with the approval of the Cabinet), and the Manager is Sōninkwan (high officer appointed by the Cabinet) both being honorary positions. The present President is Dr. Sensai Nagayo, a Privy Councillor, and a member of the House of Lords; and the Manager is Dr. Shimpei Goto, the Director of the Central Sanitary Bureau.

(2). The Committee (*Ex officio* members) of the Board shall consist of the Director of the Medical Bureau attached to the Imperial Household Department, the Director of the Police

Bureau of the Home Department, the Director of the Central Sanitary Bureau of the Home Department, the two high officers of the Home Department, the Director of the Medical Bureau of the Army, the Director of the Medical Bureau of the Navy, the President of the Medical College of the Tokyo Imperial University, and in addition, not more than twenty persons in all of medical men and pharmacutists.

The present Committee appointed from medical men and pharmacutists are as follows :—

Hakase of Medicine S. S. R. Kitasato.

The Head of the Institution for the Investigation of Infectious Diseases.

Hakase of Medicine K. H. Takagi.

Retired Surgeon General of the Navy.

Hakase of Medicine H. Miyake.

A Member of the House of Lords.

Hakase of Medicine M. N. Ogata.

A Professor of the Tokyo Imperial University.

Hakase of Medicine T. M. Aoyama.

A Professor of the Tokyo Imperial University.

Hakase of Medicine R. T. R. Mori.

First Grade Doctor of the Army.

Dr. Tai Hasegawa.

The President of the Board of Advisory Committee on the Health of Schools.

Dr. S. J. Yamane.

Chief Medicial Jnspector of the Police.

Dr. T. E. Takagi.

The Head of the Serum Institute.

Hakase of Medicine T. R. Nakahama.

Hakase of Medicine M. K. Sasaki.

Hakase of Science N. Y. Nagai.

The term of the Committee is limited to four years.

(3). Occasional meetings of the Board are held whenever any special matter has occurred.

(4). The committee shall be appointed by the Cabinet with the approval of the Home Minister.

The regular meetings of the Central Board of Health shall be held every Wednesday but when there is nothing important to consider, no meeting need be called.

THE SERUM INSTITUTE.

The Serum Institute was established in Tokyo for manufacturing the serum for Diphtheria, and Dr. Tomoye Takagi was made the Principal. Under him there are Gishi and Gishu who are engaged in its manufacture; and also a secretary. And Hakase of medicine S. Kitasato is the Medical Adviser.

The Serum will be sold to physicians, pharmacutists, and druggists whenever desired.

The Serum is divided into three kinds according to the immunity unit. The prices are as follows:—

No. 1 (the immunity unit 600 pieces) 60 *sen*.

No. 2 (unit 1,000 pieces) 1 *yen*.

No. 3 (unit 1,500 pieces) 1 *yen* and 50 *sen*.

For the pharmacutists and druggists who sell this medicine, twenty percent is allowed from the fixed prices.

The Serum Institute was first established in June 1896, after having acknowledged the good result and

efficiency of the manufacture of the Diphtheria Serum made by the "Institution for the Investigation of Infections Diseases," and approved and allowed by the 9th Diet.

THE VACCINE FARM.

Two Vaccine Farms were established, one in Tokyo and one in Osaka, both of which were put under the control of the Home Minister. The Heads of both farms are Gishi (the high engineer), and there 22 Gishu (assistant engineers), and five Secretaries are provided. When Small Pox begins to prevail, and much demand for lymph is made, the number of workers temporarily may be increased, and when vaccine becomes prevalent in any local place a branch office may be temporarily opened in a suitable situation for manufacturing the same.

Any person may obtain vaccine lymph by paying five *sen* for one tube (Sufficient for five persons); no extra expense is required when persons request it to be sent to distant places, but they must enclose registered stamps for the amount at the time of ordering. The registered stamps are allowed to be used in order to avoid the trouble of sending money.

When the vaccine virus from foreign countries is demanded, it will be sent at the price of 30 *sen* a tube, but none will be sent if any inconvenience would be felt at home by doing so.

The present Head of the Tokyo Vaccine Farm is Dr. T. H. Noda, and that of the Osaka Vaccine Farm is Dr. N. F. Akanuma.

Note.—The work of obtaining Vaccine Virus in Japan was first done in Tokyo, in 1874, by the Government establishment of the Vaccine Farm. In the next year 1875, it was ordered by the Government to be distributed to local places for inoculation twice a year, in Spring and Autumn. The amount of vaccine distributed has been gradually increasing year by year according to the development of the vaccine manufacturing business. Thus it was desired to put an end gradually to inoculation with the virus taken from human bodies.

Since 1879, any person was allowed to obtain it at the fixed prices and the manufacturers worked hard for its improvement. In 1880, the use of Japanese calves was given up for taking vaccine lymph, but foreign calves only were used for the purpose, because the skins of Japanese calves are generally thick and hard so as to be inconvenient for the work.

Since 1883 and 1884, the Japanese vaccine virus has become much valued even in foreign lands, so that the demand for it has increased in Hongkong and in other Chinese ports, and after a few years the people in the Oceanic islands begun generally to use the Japanese article.

In 1888, a very good result was obtained, viz : that the calves' vaccine would keep for 200 days and more, but the manufacturers were working

very hard to bring the work as near perfection as possible. During this time the work was transferred to the Central Sanitary Society of Japan to which all the instruments and buildings as well as the ground which belonged to the Imperial Household, were given, and the Central Sanitary Bureau was made responsible for the work, it having been put under their control.

Since then the Central Sanitary Society has tried to improve the work in every possible way, and in January 1892, the vaccine taken from the human body was entirely given up, as it was thought that sufficient quantities of the pure calves, vaccine could be obtained to meet all demands. The Government on this point encouraged the use of calves' vaccine only, and in consequence the demand for the calves' vaccine has been wonderfully increased, as private persons considering it to be a profitable undertaking, have begun to engage in the business of manufacturing vaccine lymph. After some years, however, an evil has been observed that the quality was becoming worse and worse, which could not be allowed. Such an evil is unavoidable when a business of this kind is allowed to be undertaken by private individuals, because they can see nothing but their own profit. So it was decided, with the consent of the 9th Diet, that the work should be undertaken by the Government; thus the National Vaccine-Lymph Manufactory was opened again in June 1896.

THE "INSTITUTION FOR THE INVESTIGATION
OF INFECTIOUS DISEASES."

This Institution was established by the Central Sanitary Society, and was not a national one in its character. But it was put under the control of the Director of the Central Sanitary Bureau, and was responsible as an organ of the Government so long as it continued to receive a subsidy from the Government. The subsidy of 15,000 *yen* is given yearly from the government treasury.

Note.—In 1885, Dr. S. Kitasato the Gishi of the Home Department, was sent to Germany for the investigation of medical science, and he was ordered to study Bacteriology in Berlin under Dr. von Robert Koch. When his term ended in 1890, Dr. Koch his teacher had published a new method of curing consumption; on this great invention Dr. Kitasato worked and studied as his assistant, and moreover Dr. Kitasato himself discovered the nature of Tetanus and other diseases. The Imperial Household, wanting him to make further investigations, ordered him to continue his studies by giving money through the Central Sanitary Society.

In 1892, when Dr. Kitasato returned to Japan, the Central Sanitary Society opened the "Institution for the Investigation of Infectious Diseases" in the Park of Shiba, Tokyo, after having received assistance from several persons most influential in society, especially by the great help of Mr. Fuku-

zawa. It was established on a small scale at first. In the Educational Department also an institution of the same kind was expected to be opened in the Imperial University, in which Dr. Kitasato was wanted to engage in this laudable and worthy investigation.

The resolution was drawn up in the Educational Department and was brought into Diet; in the Diet, however, after careful consideration the resolution was rejected, for the reason that it would be very much better to enlarge the Institution already established by the Central Sanitary Society by giving support from the national funds, than to inaugurate another institution. Their opinion was presented to the government, saying that it would help Dr. Kitasato in the most agreeable way because he could study freely and voluntarily without any interference. The Government joyfully accepted this opinion and immediately informed the Sanitary Society that 20,000 *yen* would be given for enlarging the Institution, as well as the yearly subsidy of 15,000 *yen* for three years. When the term for subsidy was terminated in 1896, it was ordered to be continued for three years longer.

THE LOCAL SANITARY ADMINISTRATION.

The local sanitary administration is under the control of the local Governors, the Heads of Gun, the Heads of Shi (cities), the Council Board of Shi, and the Heads of Chō and Son (equivalent to towns and villages).

In each local Government there are two principal Offices, namely the Local, and the Police Office, and the sanitary business is treated in the Sanitary Office of the Police, or by the Sanitary Officers. The local Governor of each Fu and Ken directs and superintends the works of the Heads of Gun, Shi, Chō and Son as well as the Council Board of Shi; and the Sanitary and Police matters are managed in the Police office or in the branch station of Police.

The Police Offices and their branch stations are established to manage police matters under the authority of the Governor, and the number of the Police Offices is nearly equal to the number of Gun; in the city of Tokyo the Sanitary and Police matters are placed in the hands of the Police Master General, and are managed in the General Police Office.

The Sanitary expenses of Fu and Ken are defrayed out of the local taxes of Fu and Ken; the same of Gun are paid out of the Gun taxes; and the expenses of Shi, Cho, and Son are paid out of the taxes of the same local divisions.

The local Sanitary Board was organized for the benefit of the local Governor that he might bring before the Board any questions relating to sanitary matters, to be considered and discussed as follows;—

(1). The local Sanitary Board of each Fu and Ken may meet to consider, when required by the Governor, matters relating to the public health and the health of animals, within the Fu and Ken, or they may present to the Governor their opinions with regard to the same matters.

(2). The local Governor is the Head of the Board.

(3). The members of the Committee of the Board shall not be more than 15, and they are composed of the Secretary of Fu or Ken, the Head of the Police Office, one Councillor, four members of the local Council-Board, the Head of Shi or Gun of the place where the local Government is, and the others shall be appointed from physicians, pharmacutists, and veterinarians of the place. In some special cases when necessary, a special committee may be appointed temporarily.

The members of the local Council-Board are those appointed by the Governor after mutual election; and physicians, pharmacutists, and veterinarians are directly appointed by the Governor, and their term of office is settled for four years.

(4). One of the officials of Fu or Ken is attached as secretary.

The Head of each Gun directs and superintends the Heads of Chō and Son of his jurisdiction for the sanitary business, and he can appoint one of his secretaries as the sanitary officer.

The Heads of Shi, Chō, and Son may appoint sanitary officers, according to the Regulations of Shi, Chō, and Son, from the officers under them.

PART II.

INSTITUTIONS AS TO THE PREVENTION OF INFECTIOUS DISEASES.

The earliest development of the institutions for the prevention of infectious diseases, was the institution for the prevention of Small Pox. In 1877 after ten years of the great political revolution of the Meiji era, when the civil war known as the South-west War broke out, the epidemic of Cholera was most fearfully prevalent, and then the "Regulations relating to the Prevention of Infectious Diseases" were made.

Now the "Epidemic Prevention Office" in the Central Sanitary Bureau is managing the business relating to infectious diseases. Besides that it was settled that a "Temporary Epidemic Inspection Bureau" should be opened in the Central Government at any time when necessary; and against diseases brought from foreign countries the quarantine measures shall be strictly enforced.

THE TEMPORARY ORGANS AS TO THE PREVENTION OF INFECTIOUS DISEASES.

The "Central Temporary Epidemic Inspection Bureau"—The Central Temporary Epidemic Inspec-

tion Bureau" may be established by the Home Department whenever necessary for the prevention of epidemics.

The Head of the Bureau is Choku-nin (the high rank of office appointed by the Emperor), and the Manager is Sō-nin (the high officer under Choku-nin-kwan), four managing officers (Sō-nin-kwan), Gishu (assistant engineers), and Secretaries are to be appointed.

The "Local Temporary Epidemic Inspection Office" — The "Local Temporary Epidemic Inspection Office" may be opened by the local Government when any infectious disease is so prevalent that it becomes impossible to put them down by the usual means. It will be opened and closed by the orders and directions of the Home Minister. There shall be a President, a Vice President, and Inspectors; and the President is to be the Head of the high police men, the Vice President is to be the Councillor, and the inspectors shall be appointed by the Governor from among the local officers, physicians, pharmacutists etc.; and it is provided that a monthly salary of not more than 100 *yen* may be given to those who are already salaried officers.

The "Central Temporary Epidemic Inspection Bureau" and the "Local Temporary Epidemic Inspection Office" are both placed under the control of the Home Minister, as national organs occasionally called forth at the time of necessity; and as the local organs of the temporary measures of preventing epidemics, the "inspection committee" is organized, and as the temporary organ of Shi, Chō, and Son the "Prevention Committee" is formed, according to the "Regula-

tions relating to the prevention of infectious diseases.”

The “ quarantine works ”—To the ships coming from Taiwan (Formosa) the newly occupied island, and from foreign lands, the quarantine operations are applied when necessary, by opening the Quarantine Stations at the important ports ; and the ports at which the preparations for disinfection, establishment of quarantine stations, as well as the quarantine hospitals are perfectly provided and regulated, are those five ports of Nagasaki, Shimonoseki, Kōbe, Yokohama, and Hakodate ; and therefore ships coming to other places, when the quarantine operations etc. are required are ordered to go round to that one of the five ports just named which may be most convenient.

The quarantine operations were first regulated in 1882 by the “ Quarantine Regulations applicable to ships coming from places infected with Cholera,” published by the Home Department Notification No. 31 ; and subsequently modifications were made to the Regulations by the Imperial Decree No. 65 in 1891, and by the Imperial Decree No. 56 in 1894, by which the operations are to be actually enforced.

Though the quarantine operations were made to be directly controlled by the Home Minister the local Governors of the places where they are enforced, are made reponsible, and the expenses are supplied by the central Government, when necessary, to employ more persons for the work.

At the time when the quarantine operations are thought necessary, the Home Minister, after asking opinions of the Central Board of Health will settle the places where they ought to be in force, by issuing a

notification ; and at the same time the Foreign Minister gives information to the foreign Ambassadors resident in Japan.

The measures actually applied for the inspection of ships are as follows :—

(1). All ships coming from the foreign ports specified by the Home Minister, and Taiwan, (Formosa) when they come to any port where the quarantine operations are enforced, or pass by the same ports, must stop and wait for the Inspectors to come on board.

(2). At the quarantine station the quarantine signal is displayed as follows ; at night two red lanterns are hung at the fore mast of the quarantine ship ; and the ships which do not stop on seeing these signal lanterns, will be fired at.

(3). No ship can be allowed to proceed or to land, or even to unload goods, unless she has first obtained a licensed paper in which the inspectors have certified that the necessary inspection has been made.

(4). The ships in which no disease is found shall be immediately set free ; but the ships in which any infectious disease may be discovered shall be disinfected, and be obliged to remain in the port or in a place appointed by the Government, for seven days ; and the passengers and crew shall stay in the ship, or in the station specially provided for the purpose, for the same number of days.

The ships, if not more than five days after they have departed from an infected port or those in

which any cases of infectious diseases may have appeared during their voyage, or those which were thought by the Inspectors to be dangerous, though they have no disease actually on board shall be treated in the same way as the ships actually infected with any malignant disease.

(5). The patients shall be carried to the quarantine hospital attached to the Quarantine Station for medical treatment; corpses may be given to relatives only who wish to receive them; and if there are no applicants the corpses should be burnt or buried.

(6). Any persons violating the Quarantine Regulations shall be punished according to the Criminal Law; viz: by Imprisonment without hard labor from one month to one year; or by a fine of from twenty *yen* to two hundred *yen*; and the captain of the ship shall be liable to a much heavier punishment.

“REGURATIONS RELATING TO THE
PREVENTION OF EPIDEMICS.”

The present “Regulations relating to the Prevention of Epidemics” are those published by the Law No. 36, in March 30th 1897; after having been ratified by the 10th Diet. The Minister of the Home Department then issued the necessary orders to put the Law into effect, and it has been enforced since May of the same year.

The essential points of the Law, and orders, are as follows:—

(1). This Law is to be applied to the following eight infectious diseases ; viz : Cholera, Dysentery, Typhoid Fever, Small Pox, Typhus Fever, Scarlet Fever, Diphtheria, and the Pest. If any other disease in addition to these eight above-named diseases appear, and it be considered necessary to apply this Law, the local Governors may carry out a part, or whole of it, as the case may be, according to the directions of the Home Minister.

(2). Physicians after examining any patient or patients from epidemic diseases, or on having been informed of any deaths therefrom, shall show the family the methods of disinfecting, and forward an immediate report to the Police Officers and to the Heads of Shi, Chō, and Son.

The same shall be done in any case when the patients are moved to, or returned from any other place.

Any person in whose house any infectious disease, or any suspected case, or death may appear, shall immediately be examined by a physician, who shall report the same to the proper officers of the district.

The proper officers upon receiving such report, or when they themselves find any case of, or death from any infectious disease, shall inform one another so that the Police shall immediately report to the local Government, and the Heads of Shi, Chō, and Son shall also report to the local Government through the Head of Gun. Thus the local Government may know the place where such disease has appeared from the one report, and may collect the

statistics from the other.

The proper officers if they find any thing suspicious with regard to any person, shall ask a physician to examin him.

(3). The owner of the house in which any case of infectious disease has appeared or a death caused by the same, is responsible for carrying out the measures of cleansing and disinfecting, according to the directions of the physicians, or the proper officers; and all those of his neighbours, or the inhabitants or any house that has communicated with the infected person, or house, shall perform the duties of cleansing and disinfecting when ordered by the proper officers.

If any persons do not carry out the measures ordered, or imperfectly perform them, or do not perform them within the time appointed, the proper officer will perform the same, and the consequent expenses may be paid out of the funds of Shi, Chō and Son, and shall be recovered from the offender.

(4). The proper officer is allowed to move the patients to the epidemic hospitals, or the isolated hospitals (isolated hospitals are those imperfectly provided as epidemic hospitals), and he may also move healthy persons to the isolated houses, if considered necessary.

(5). The house in which any case of Cholera, Dysentery, Typhus Fever or Pest has appeared is to be isolated, and its neighbours are also to be isolated, according to the opinions of the Police. Even after any patient has been moved to, or

returned from another place, if he suffered from Cholera or Dysentery, he is to be isolated for five days ; and if from Typhus Fever, for seven days.

(6). No patient, nor corpse will be allowed to be moved to any other place unless permitted by the Medical Officers, and if so permitted, information of the facts must be previously reported to the proper officers of the district.

(7). All articles infected with any disease or suspected of being infected, are prohibited from being used from being given away, or thrown away, or even from being washed.

(8). The corpse of any patient dying from any epidemic must be incinerated, and it may be buried only when permitted by the Police.

No buried bodies are allowed to be removed unless they had been perfectly disinfected before burial, nor until three years have elapsed since the burial.

(9). The proper officers are authorized to enter any house when considered to be necessary for the prevention of diseases, provided that they must bring an order from the proper Authorities.

(10). Local Governors may order a Sanitary Band to be formed ; viz : a band in which a number of families are bound together for the benefit of sanitary purposes to perform the duties of cleansing, disinfecting, and other measures relating to the prevention and precautions against infectious diseases ; for which purpose the necessary rules must be made. They may also order medicines and instruments to be provided for the use of

disinfection, and the bodies Shi, Chō and Son should pay a part or whole of the expenses.

(11). The duties of the self-governing bodies of Shi, Chō, and Son, according to the directions of the local Governor, are as follows :—

(1). To organize a Prevention Committee including physicians, as the temporary prevention organ of Shi, Chō, and Son.

(2). To employ physicians, coolies, &c., and to provide instruments, medicines, etc., for the use of cleansing and disinfecting.

(3). To provide epidemic hospitals, isolated hospitals, isolated houses, and disinfecting stations.

(12). Local Governors may appoint an Inspection Committee as a temporary prevention organ under their jurisdiction as follows :—

(1). Local Governors may appoint an Inspection Committee from officers of Fu, Ken, Gun, and Ku, as well as from physicians, pharmacutists etc.

(2). The President of the Committee is made the Head of the Police, and the Vice-President is appointed from the members of the Committee.

(3). The members of the Committee are sent to various Gun and Shi, and in all cases in which they may have to undertake preventive measures, an Inspection Office is organized in which the Head of Gun or of the Police shall be the Director.

(4). The duties of the Committee are to

superintend the preventive operations of Shi, Chō, and Son or to perform the operations of ship and railway-inspections, as well as the prevention and relief of diseases.

(13). Local Governors are authorized to carry out the ship-inspection as follows;—(the quarantine operations applied to foreign ships are carried out by the Home Minister as mentioned on page 40):—

(1). The permission of the Home Minister is required in carrying out the inspection of ships.

(2). Ships coming to the ports where the inspection of diseases is being carried out, are not allowed to proceed, or to communicate with the shore, or to land, or even to remove goods, unless they receive proper permission to do so after inquiry and inspection.

(3). A yellow flag shall be hung at the fore mast of any ship having any disease on board.

(4). Ships in which no disease is found may be allowed to proceed, or to land; but the ships infected with any disease must be disinfected, and remain at the Quarantine Station, and the passengers as well as the crew must remain in the ship or in the appointed station on land. The length of their stoppage is five days for Cholera, and seven days for Pest and Typhus Fever.

For the ship-inspection no other disease is specified, except Pest and Cholera. Those passengers and crew only who are suspected

of being infected are stopped, and the goods are allowed to be taken away after having been thoroughly disinfected.

(5). The patients shall be moved to the epidemic hospitals, or to some other properly appointed place for treatment, and corpses are handed to any person who wishes to receive them; if no person wishes to receive them they must be handed to the Heads of Shi, Chō, or Son to be treated according to the regulations.

(6). The Inspectors will enter any ship professionally without charging any fees.

(7). When Inspectors are carrying out the measures of disinfection, the crew must render assistance, and the Inspectors shall provide the necessary medicines and instruments.

(8). When Inspectors think necessary, the measures of cleansing and disinfecting may be carried out even on the ships in which no disease is found.

(9). For small ships the proper local Governor may apply suitable measures.

(14). Local Governors may carry out the measures of the railway inspections of disease as follows:—

(1). Permission from the Home Minister is required when the railway-inspection of disease is to be carried out.

(2). The treatment of any case or death found in the railway cars is the same as in the case of the inspection of disease in ships.

(3). All the passengers and goods which are in the car in which any case, or death, has appeared, are to be detained, and the car is to be taken away for disinfection.

If such cases have occurred in a small railway station, where the preparations for disinfection are very imperfect, the car shall be closed up and moved to the next station, to be treated as is required.

(4). The Inspectors may ride in the car, paying no fare, when necessary for carrying out these regulations.

(15). Local Governors may carry out the following measures when deemed necessary for the prevention of diseases :—

(1). To examine whether there is any epidemic case or not.

(2). To isolate a part or the whole of a town or village.

(3). To restrain, or forbid crowds at the heathen festivals, or to forbid theatrical performances or any large meetings, etc., for the prevention of diseases.

(4). To restrain or stop the conveying of any goods liable to be infected, such as old cloths, rugs, old cotton and other articles ; or to destroy them when necessary.

(5). To prohibit the selling or giving of such foods or drinks as may be considered liable to become the medium of spreading the evil of any epidemics ; or to destroy them when necessary.

(6). To order the employment of physicians on ships, or to make all necessary preparations for the prevention of diseases in ships, railway cars, or in any place where a large number of persons may assemble.

(7). To order the necessary operations for cleansing and disinfecting to be carried out, or to order to make, to repair, to make alterations, or to take away, or to forbid the use of wells, water works, sewerages, canals, collections of dust and filth, water closets, etc., as may be necessary.

(8). To restrain, or forbid the use of fishing and swimming places, and the use of the water therein, or to limit the time for using them.

(16). When any cases of epidemics appear or are suspected in government establishments, prisons, as well as schools, hospitals, manufactories etc., both private and public, the Head of each is made responsible for carrying out the preventive measures according to this Law, after consultation with the proper local Governor.

When any case of epidemics appears or is suspected in the Army or the Navy, the Head of that division of the army, or the Captain of the ship, is made responsible for carrying out the preventive measures, according to this Law, as well as the regulations specially provided, and at the time of necessity he shall consult with the proper local Governor.

(17). The following expenses are to be paid by Shi, Chō, and Son :—

(1). Expenses relating to the Preventive Committee.

(2). Expenses relating to the operations of cleansing, disinfecting, and vaccination.

(3). Expenses relating to the employment of physicians and other persons for the preventive relief, and the supplies of instruments and medicines necessary for the prevention of diseases.

(4). Expenses relating to the preparations of epidemic hospitals, isolated hospitals, isolated houses, and disinfecting stations.

(5). Expenses payable to the persons employed for the preventive relief as remuneration, medical expenses for the wounded or infected, and other expenses which may be given to the family, or families, for their support, as well as funeral expenses when such persons die during the time of employment.

(6). Expenses required for the isolation of the infected houses or those in the neighbourhood, or the expenses to be given to those persons who have lost work by the carrying out of the isolation, and have become helpless for the time being.

Other expenses necessary for the operations of the preventive measures in Shi, Chō, and Son.

(18). The following expenses should be paid by the prefectural Governments of Fu and Ken :—

(1). Expenses relating to the Inspection Committees.

(2). Expenses relating to the railway or ship inspections.

(3). Expenses necessary for the isolation of districts, and for giving support to those who have lost the means of living owing to the isolation.

Other expenses necessary for carrying out the preventive measures in every Fu and Ken.

(19). For the expenses required in Shi, Chō, and Son for the prevention of diseases, Fu and Ken shall assist to the amount of one sixth to one half of the expenses (if the expenses are too heavy for Shi, Chō, and Son, Fu or Ken will pay the whole of them) ; the proportion to be fixed by the Home Minister at each time.

For the expenses required in Fu and Ken for carrying out the preventive measures, the national treasury will assist to the amount of one sixth of them.

(20). Local Governors may carry out the operations of preventive measures out of the funds of Fu and Ken, when the local corporations such as Shi, Chō, and Son or private persons do not perform their duties ; such expenses to be recovered afterwards from the offending parties.

(21). Penalties :—

(1). All persons not performing their duties within the time appointed, when ordered by the proper officers according to this Law and directions, are liable to a fine of not exceeding five *yen*.

(2). Physicians who do not make a report

within 12 hours after they have examined any patient suffering from any epidemic, or who may make a false report of the same, are liable to a fine of five *yen*, but not exceeding fifty *yen*.

(3). All Persons in whose houses any case of epidemics has appeared and who have not been examined by any physician, nor made any report of the case, or who do not carry out the measures of cleansing and disinfecting, or who move the patient, or corpse to any other place without previous permission, or those who use, give or throw away any thing infected by epidemics, or who have buried the dead bodies without having previously disinfected them, or who have buried them carelessly instead of having incinerated them, or those who have reburied corpses within three years, or who have violated the rules of isolations, or who have made no report of the case, by bribing, or endeavouring to bribe the physicians, or who have interrupted the report, are liable to a fine of not less than two *yen*, and not exceeding twenty *yen*.

(22). The methods of cleansing :—

(1). The infected rooms must be cleansed after disinfection, and all collections of dust and filth must be burnt.

(2). The dust and other dirty things collected under the floors must be removed and burnt.

(3). All wells, kitchen sinks, aqueducts, and water closets must be emptied, and dust heaps

of the infected houses must be swept up ; and when necessary it may be ordered to empty, and clean, or to make repairs to the wells.

(4). Whenever any epidemic disease is prevalent, canals or streams must not be stirred up ; or if necessary to do so, lime must be thrown in.

(5). Hitherto lime has been used for scattering *even* in the case of carrying out the usual cleansing measures, but now in the case of sweeping no disinfecting medicines are said to be needful.

(6). The dirty mud taken from streams must be kept in properly constructed utensils, and must be thrown away in some specified places in such a way that there may be the slightest injury to health.

(23). The disinfecting methods are divided into four, and they should be applied as may be necessary to the different articles, and it, has been decided to spend more time, and to use a larger quantity of disinfectants for the sake of better efficiency, as follows :

(1). Disinfection by burying.

(2). Disinfection by steaming.

Air in the disinfecting instruments to be driven out by steam, and the articles to be subjected to heat 100° (Centigrade) for more than one hour.

(3). Disinfection by boiling.

After steaming the articles they are to be boiled fore more than one hour.

(4). Disinfection by medicine.

1. Carbolic acid solution 5 percent (crystallized carbolic acid 5 parts, hydrochloric acid 1 part, water 94 parts); but in disinfecting clothing, the hydrochloric acid is omitted the clothing being steeped for more than 12 hours.

2. Corrosive sublimate 1 premille solution.

(Corrosive sublimate 1 part, hydrochloric acid 10 parts, water 989 parts, colouring with phloxin.)

3. Quick lime powder.

Milk of lime 10 percent.

Quick lime 1 „

Water 9 „

In the place of quick Lime, twice the quantity of common Lime is to be used.

Wood ash.

For the excreta and vomita of patients suffering from Cholera, Dysentery, and Typhus Fever, one fifth of the weight may be used.

The rule is to add 4 parts of water to 1 part of lye, and boil.

4 Chlorinated lime solution 5 percent.

Chlorinated lime 5 parts, water 9 parts may be used in the place of milk of lime.

(24). The provisions for the epidemic hospitals must be as follows :—

(1). The epidemic hospitals must be conveniently situated for conveying patients, and bad roads, or any inconvenience of communication are to be avoided.

(2). The epidemic hospitals must be provided with such buildings as follows :—

- (a) Rooms for severe cases.
- (b) Rooms for light cases.
- (c) Rooms for convalescents.

These rooms must be detached from all other buildings, having separate water closets, and in the rooms for convalescents there must be a bath-room.

(d) Rooms for the Physicians, Managers, Sick-Nurses, as well as rooms for compounding medicines and cooking, and also bath-rooms and kitchens.

- (e) Disinfecting-rooms.

Washing places should be provided.

- (f) Rooms for dead bodies.

Proper places for the collection and burning of dust must be added.

- (g) Store-rooms.

In Chō and Son, the rooms for severe cases, and those for light cases may be in the same building according to circumstances, but they must be strictly separated in the building.

(3). The size of these sick-rooms must be in the proportion of one tsubo and a half for each person.

(4). The floors and walls of the sick-rooms must be made of wood, in such a manner as to be convenient for cleansing and disinfecting.

(5). The floors of the rooms for dead persons must be made of wood, or Shikkui

(white plaster), or Tataki (a hard floor made by pounding sand and mortar together).

(6). The ground under the floor of each sick-room must be made of shikkui or tataki, giving a little slope for the convenience of carrying away the dirty water; the dirty water must be made to flow down to a place from where no water can pass away.

(7). Physicians, medicine compounders, sick-nurses, and managers must be employed in each of the epidemic hospitals according to the following proportions:—

- a. Head physician.
- b. Physicians. One for 15 to 20 patients.
- c. Medicine compounders. More than 2.
- d. Sick nurses. One for 5 patients.
- e. Managers. A certain number.

In Chō and Son there may be no Head Physician nor medicine compounders, but the physicians themselves may perform these duties according to circumstances.

(25). The “Quarantine Regulations” are issued separately, and this Law is not applicable for the prevention of diseases to ships coming from foreign countries.

Note.—When there are any cases of such fearful diseases as Cholera or Pest in any Chinese ports, or in Hongkong, the Japanese consul in the place must never neglect to mention it by telegram; but when informed by some coresponsible person, or by common report, the Government will make inquiry as to the facts from

the proper consul in such foreign lands. And necessary instructions are given by telegram to the local Governors of the places which have shipping communication with the infected port, to pay strict attention to prevent the disease from being introduced, and if it is feared that it will be brought in on account of the ship communication, the Quarantine Operations are to be immediately enforced.

When any epidemic appears in the country, the officers of Shi, Chō, and Son as well as the Police shall immediately visit the infected house, and give the patients proper treatment, carrying out the disinfecting measures and isolation. As the report is necessarily made to the local authorities, the proper officers shall come and give directions with regard to disinfection ; and warnings are given to the other authorities of Gun, Shi, Chō, and Son not only for the purpose of preventing the disease but also for eradicating it.

When there is any sign of it spreading, directions are given to Shi, Chō, and Son to organize the Prevention Committee, and also the Inspection Committee is to be appointed by the local Government ; then the Inspection Offices are to be opened in Gun and Shi. If it seem to be impossible, to subdue the disease by the effort of that Fu or Ken only, a Temporary Epidemic Inspection Department shall be established in that locality at the expense of the Central Government ; in the Central Government also

a Temporary Epidemic Inspection Bureau shall be opened to carry out the necessary measures for the prevention, and officers shall be sent from time to time to superintend the work.

If the infected locality has communications with other ports, ship and railway—inspection of diseases is to be carried out, and at the port or ports Inspection Offices shall be opened, and at the railway stations there the proper officers shall be sent.

After the disease has been eradicated the measures for general cleansing shall be carried out, and every other method of precaution must be carefully performed.

VARIOUS INFECTIOUS DISEASES.

LYSSA.

During the years 1895, and 1896, recurrent Fever was prevalent, which was thought to have been introduced after the Japan-China War. It was the first appearance of this disease, and therefore instructions were given to local Governors to carry out preventive measures according to the "Regulations relating to the Prevention of Infectious Diseases." Measles, Influenza, and similar diseases were also prevalent but no strict measures for disinfection were applied, and they were entirely left to the care of individuals; though there were some localities in which it was ordered to make reports of cases or deaths therefrom.

For the prevention of Lyssa the "Regulations as to the Prevention of Animal Diseases" published by the Law No. 60 1896, were enforced, and when any case appeared, not only the dog infected with Lyssa, but also all wild dogs were ordered to be killed; the owner of the dog was obliged to keep it at home, and to use a muzzle and a leading-rope when it was taken out.

PART III.

INSTITUTIONS FOR VACCINATION.

The present institutions for vaccination are those made and promulgated in 1885, and the compulsory system is as follows :—

1. After a child is born, he or she must be vaccinated within one year, and if unsuccessful, vaccination must again be performed within the next year ; and even if successful, revaccination must be performed every five to seven years afterwards.

2. When small pox is prevalent, vaccination is compulsorily carried out, under the directions of the proper officers, even within the period above mentioned.

3. When vaccination cannot be performed on account of sickness or from other reasons, it must be reported to the Heads of Shi, Chō, and Son, with the certificate of a physician, or of some approved neighbour, or family relation.

4. All persons who have been vaccinated shall be examined by a physician at the time stated, and they can not refuse to allow the vaccine lymph to be taken.

5. All persons who have been vaccinated shall report to the Offices of Shi, Chō, and Son, with the certificate of a physician.

6. All persons violating this law shall be liable to a fine of not exceeding fifty *sen*.

PART IV.

THE PUBLIC HEALTH INSTITUTIONS.

(1). EXAMINATION FOR SYPHILIS.

The Syphilitic hospital was first established in September 1867, in Yokohama by the Feudal Government of Tokugawa, and immediately afterwards hospitals were opened in Kōbe and Nagasaki, for the purpose of examining prostitutes.

In April 1876, instructions were given by the Home Department to other local Governments besides those of the three ports above named, to perform the examination for syphilis ; and now it is carried on throughout the whole country in places where there are prostitutes.

Prostitutes who are infected with this disease shall be immediately taken to the hospital belonging to the Syphilis Examination Office, and their licenses shall be confiscated. This examination is generally performed once a week.

(2). LOCAL DISEASES.

The principal local diseases in the empire are Kakke and Distoma. While Kakke is seen everywhere in the country, in the city of Tokyo it is most fearful. Distoma is seen mostly in Chiogoku, in the southern part of the main island. These diseases are made subjects of investigation by scientific men, and no preventive institutions have been hitherto.

Other diseases such as Intermittent Fever, and Leprosy, are of frequent occurrence ; the former is in Okinawa Ken, and Yaiyama isl. and being of an especially bad nature.

Tsujigamushi disease has been in Niigata Ken from old times, but its sphere is limited to that Ken only, and has never spread to other places.

Venomous snakes are most numerous and dangerous in Okinawa Ken, and its neighboring islands ; for protection from these snakes various plans have been tried ; such as paying so much per head for their destruction etc., at the expense of the national funds and local taxes.

(3). PATENT MEDICINES.

Regulations relating to the selling patent medicines were first made in 1877, to which many alterations and amendments have been since made.

1. A license for selling patent medicines is granted by the local Government, after careful examination.

2. Poisonous and powerful medicines, as well as medicines very apt to be misused, are generally forbidden to be sold ; but a few powerful medicines of which the quality and the quantity are limited, may sometimes be allowed for compounding, after examination. The examination should be performed according to the directions given by the Home Minister.

3. Retail merchants, and peddlers must hold a license for selling such articles.

4. When any medicines are discovered to be injurious to health, or are very badly manufactured, they shall be prohibited from sale, and such prohibited medicines are not allowed to be retailed or carried about.

5. Duties must be paid for selling patent medicines as follows :—

Yearly duty for each formula..... 2 *yen*.

For license of selling, for each formula...20 *sen*.

All patent medicines must have medicine stamps of the value of one tenth of the selling price.

6. Penalties.

a. Any peddler convicted of selling patent medicines without a license, or of selling them by borrowing a license from another person, as well as those who have lent the said license, shall be liable to a fine of 5 *yen* for every offence ; those who retail them in the same way shall be liable to a fine of 10 *yen* for every such patent medicine.

b. Any person changing the formula without permission, or defrauding the public by describing false opinions shall be liable to a fine of 10 *yen* to 25 *yen* for each preparation.

c. Any wholesale dealer selling patent medicines without a license, or making retailers medicines for sale, or those retail merchants who make patent medicines by themselves without a license, shall be liable to be deprived of all monies thus gained, and to a fine of not less than 25 *yen* and not exceeding 50 *yen*.

d. Any person counterfeiting patent medicines, or holding a false license, shall be liable to a confiscation of all the money thus gained, and shall also be liable to a fine of not less

than 50 *yen*, but not exceeding 100 *yen*, for each counterfainted formula.

- e. Any person distributing poisonous medicines without permission, shall be liable to a fine not less than 100 *yen*, but not exceeding 500 *yen*, for each prescription, and also the money thus gained shall be confiscated.

Any person discovering these crimes and reporting the same, may receive half the fine.

- f. When no patient medicine stamps are applied, or if applied insufficiently, the vendors shall be liable to a fine, of not less than 2 *yen*, but not exceeding 200 *yen*.

The business of selling patent medicines has been practised since old times, as patent medicine manufacturers exist in every place throughout the country ; of these places the most flourishing is Toyama, Toyama Ken, from where a large number of peddlers are sent out every year, as we can see the wrappers of Toyama-medicines everywhere in almost every house, especially in country places. But no rules or regulations were made with regard to the quality or quantity of the formulas, which were entirely left to the manufacturers.

In October 1870, it was decided that the business of selling patent medicines must be controlled by the Tōkō (the name given to the Medical College of the time) ; thus the rules for their control and examination were made for the first time, and therefore it was decided to give a license for selling patent medicines, after careful examination, from the Medical College.

These rules were cancelled, and the licenses were ordered to be returned in July 1872.

Since March 1873, when the Medical Bureau was established in the Educational Department, it was ordered again that licenses should be required for carrying on the business of selling patent medicines, after careful examination of the same. In 1877, the "Regulations for selling Patent Medicines" were published for the purpose of collecting duties, which were expected to be used in the improvement of sanitary works. The present institutions were thus founded, though many alterations have been since made.

At first the license was given by the Home Department, but this power was transferred to the local Governments in 1878; the local Governments gave instructions regarding the business of selling patent medicines, expecting the treatment of them to be the same throughout the whole country. The period of practising the business was settled for six years at first, and the licenses were renewed every six years, hoping that a gradual improvement would be made; but now the period is omitted, and any patent medicine is allowed to be sold regardless whether it be effectual or non-effectual, provided it is not injurious to health. The duties were only two *yen* a year, while the license might seem to show the approval of the Government, and the business annually became more profitable.

Since 1882, the growth of the business was moderately restrained, and was hoped to increase the national income which is applied for the improvement of the Sanitary works. This was the first idea

when the patent medicine stamps were invented, but now the expectation is in vain, as the income from this cause is put into the general treasury, to fill up the deficiencies of other expenses.

(4). FOODS, DYE-STUFFS, AND PAINTS USED
IN DRAWING.

The control of the injurious foods, dye stuffs, and paints used in drawing was entrusted to the local Governments, by whom suitable rules were made, and carried out, but as it was found to be necessary for the Central Government to interfere in the matter, new regulations are under consideration and investigation for this purpose.

(5). BURIAL PLACES AND FUNERALS.

1. Dead bodies may be either buried or incinerated. Cemeteries as well as crematories are specially appointed by the local Governments, and no other places are allowed such purposes. Such burial places and crematories are exempt from taxation.

2. Dead bodies are not allowed to be buried or incinerated within twenty four hours after death, with the exception of some particular cases specified by the regulations.

3. The approval of the Heads of Shi, Chō, and Son as well as the death certificate are needed before burial or incineration.

4. The usual cemeteries may be used for the burial, bodies of inhabitants of the place as well as of travellers who may have died in the place, regardless of different ranks and religions.

The graves must be dug not less than six feet in depth.

The dead bodies of criminals are not allowed to be buried with any ceremonies, and must be distinctly separated from others in specified precincts.

5. Crematories must be situated far from houses, or crowded places, at a distance of not less than 120 ken (more than 720 feet) and not on the line of the prevailing wind: in addition to the furnaces, tall chimnies must be provided to prevent any bad odours therefrom; and also fences must be erected around them.

The operation is allowed only after sun set.

Incineration was practised in Japan in the olden times, having originated from religious beliefs; and it chiefly prevails in the city of Tokyo. In the present day institutions have been founded to perform incineration almost compulsorily on the bodies of persons who have died from any infectious disease, and the idea of the Government is to encourage it more and more.

In the feudal times each locality had its own rules and customs; and though no burial was allowed beyond the bounds of monasteries in the city or town, yet it was the custom for the people to select the graves within these grounds as they pleased. However, in August 1872, the burial of corpses at the edge of any cultivated ground was prohibited, and in October 1873, burials in private grounds were entirely prohibited.

(6). CLEANING OF DUST AND FILTH ETC.

The Cleaning of dust and filth, rivers and roads, has been entrusted to the local Government for proper treatment, but recently it was found necessary to make some regulations concerning it. These regulations are already drawn up, and only await the consent of Diet.

(7). WATER WORKS AND SEWERAGE.

The Act concerning Water Works of the Japanese Empire was first enacted and published in 1890 as follows :—

1. The water works must be constructed at the public expense of Shi, Chō, and Son, and are not allowed to be undertaken by any private company, or by individuals.

2. When any water works are required a petition must be first presented to the Home Minister, with the designs, estimated expense of construction, water rates, and all necessary drawings, etc., in order to obtain his consent thereto.

3. The land for the water works is except from taxation, and if it belongs to the Government Property it may be sold, or leased, if necessary.

4. Local Governors may occasionally send officers to inspect the works, and they may order, after consultation with the local Board of Health, any necessary improvements or repairs, when the water of bad quality, or of insufficient quantity, etc.

5. When the works, or repairs are completed, the same must be inspected by the proper officers of the local Government.

6. For the benefit of those persons who can not provide water pipes for their own use, pipes of the usual kind must be furnished by the local Authority.

7. Arrangements must be made for the extinguishing of fires, so as to provide the necessary apparatus, and a sufficient supply of water for this purpose.

The first water-works having iron pipes with the proper pressure, were constructed in Yokohama in 1887. Since then the necessity for improvements in the water supply has been greatly desired by the public, and consequently the places where water works are demanded, are increasing more and more in number. This Act was published because it was feared some evil results might ensue from such eagerness.

After the Act was published, the national water works of Yokohama were sold, and transferred to the hands of the Yokohama corporation. Subsequently improved water works were made and conveniently used in the cities of Hakodate, Nagasaki, and Osaka, and those of Tokyo and Kōbe are now in course of construction ; the water works for military use in the city of Hiroshima are also not quite completed. And there are some others in addition to those mentioned above which are already completed ; in Osaka, additional works are now about to be undertaken.

No laws or regulations have been made with regard to sewerage, but it is left in the hands of the local Authorities, as before. At present it is generally carried away in open streams. The cleansing and

seavengering of sewers and drains in every locality is encouraged by various provisions, but the system of sewers and drains differs in different localities according to circumstances, such as the flourish and the decay, the rise and the fall of towns and cities, or too much complication and confusion, and so it became necessary to construct a complete system of the same, at least in the large cities of the country. The regulations concerning this matter have been drawn up, and are ready for presentation to the next Diet.

Sewerage works of a comparatively perfect system have already begun to be constructed in Osaka and Bakwan; and as the port of Nagasaki is the outpost for the introduction of epidemics from foreign lands, considerable improvements were made to the sewerage system there in 1886 at the expense of the National Funds; this was the year in which Cholera was most fearfully prevalent almost throughout the whole country.

Note.—In 1883, when the business of the Central Sanitary Bureau was greatly developing and extending, Mr. Isoji Ishiguro (a first Engineer of the Navy) returned from Europe, where he had been studying Sanitary Engineering in the employ of this Bureau. This was the commencement of the improved sanitary engineering in Japan.

In order to test the models of the engineers, sewerage works were first undertaken in the city of Tokyo, by giving the support of 50,000 *Yen* each year in 1884 and 1885, to be added to the local taxes of the city of Tokyo, which might be spent for this purpose; and thus the improved

Sewerage works were first tried in the lower and wetter parts of the city. It was, however, discontinued, for the reason that it differs from water works, and no income could arise therefrom, and that the necessity for this work was not felt as it is now, and also that the support from the Central Government was stopped, etc.

Subsequently, in 1887, Mr. Burton, an English Engineer, was employed in the Imperial University as a professor of Sanitary engineering, and since 1889 he has also been employed in the Sanitary Bureau as the Sanitary Adviser; and with whom a certain number of native engineers has been attached for purposes of investigation.

(8). THE INDUSTRIAL HEALTH.

The matters relating to the industrial health were entrusted to the control of the local Governments, but it is now found necessary to form institutions for the protection of the health of the industrial classes, according to the recent development of the industries. Investigations have been made relating to the supervision of factories and workshops, and for the protection of the health of the labourers; and the regulations on these points are almost ready.

PART V.

MEDICAL INSTITUTIONS.

(1). THE EDUCATION OF PHYSICIANS.

Physicians are educated in the Tokyo Imperial University, in five High Schools, in local Medical Schools, and in private schools. In the University, there are the Medical College, and the Post Graduate Courses; in the Medical College they can study theory, and its applications to the Medical Sciences, and after graduation they are allowed to use the title Igakushi (Equivalent to Bachelor of Physic). After they have graduated from the Medical College they may enter the Post Graduate Course in order to conduct deeper investigations of the Medical Science, and the title Igakuhakase (Equivalent to Doctor of Physic) is given to those who have successfully finished their studies there. The course of study at the Medical College extends over four years, and that of the Post Graduate Course over five years.

In the Medical College they may study as follows:—Anatomy, Physiology, Medical Chemistry, Pathology, Pathological Anatomy, Pharmacology, Internal Medicine, Obstetrics, Gynecology, Paediatrics, Surgery, Ophthalmology, Dermatology, Bacteriology, Psychiatry, Hygiene, Forensic Medicine and Pharmacy: Besides these there is a special course of State Medicine in which students

may study methods of Pathological Anatomy, Hygiene, Forensic Medicine, Psychiatry, the Medical Institutions of Japan, and Sanitary Regulations.

For the benefit of the practical training of students two hospitals are attached to the University which contain 500 patients.

In the Medical Department of the High Schools, and in other local Government Medical Schools, the General Principles of Medicine are taught, and the graduates therefrom are allowed to practise medicine without further examination; private medical schools are in every locality, of which the most flourishing is Saisei-Gakusha, Tokyo, from which a large number of graduates is sent out every year.

Note.—In the Japanese Empire the origin of Medical Treatment is very old; gradual developments were made, and in 554 of the Christian era, a medical doctor of high reputation was engaged from Corea whereby Chinese Medicines were first introduced. Since then frequent communications were opened with China, and consequently Chinese System of Medicine was widely studied, by employing teachers from China, or by sending students to that country. In the year 701, a medical institute was first established in which a manufacturer of medicines was employed, several subjects were prepared for study, and the rules of examinations were decided upon.

In the end of the 16 century Western Medical Science was introduced by the Portuguese and the Dutch, at the same time that they introduced Christianity to our country. At this time no one could read foreign books, and the Dutch system of

Medicine was only transmitted orally and thus it was not till 120 or 130 years ago that the Western Medical Science was really introduced and publicly taught, in Japan.

Dr. Riyotaku Maino who served the earl of Nakatsu, Buzen, lived at this time, and he frequently went to Nagasaki, the port first opened, with a desire of studying the Dutch System of Medicine. He could only learn by means of interpreters, because he could not read their books. He tried hard to learn the Dutch alphabet, but without much success. He obtained a book named "Table Anatomia" written by a certain Prussian, and translated by a Dutch man, and took it to Yedo, now Tokyo, and at the same time his friend Dr. Genpaku Sugita had the same book, but neither of them could read; and they only wondered at the anatomical pictures contained therein. It was said that in these feudal times anatomical operations were forbidden, though occasionally the dead bodies of criminals were granted for the purpose of dissection. So most of the medical men were quite ignorant of the internal organs of the human body, and they had no ambition for further study.

During the Meiwa era (one hundred and twenty eight years ago), an order was given by the Government that the dead body of a criminal might be granted for dissection; the two doctors were very pleased at being able to study the internal system of the human body, by comparing it with the pictures in the book. They brought their friends to the place, and very much wondered that the pictures in the book perfectly agreed with the dissected body.

As they became aware of the truth of the Dutch System of medicine they found that the old doctrines of the Japanese and Chinese Systems were full of false explanations, and of no value for study. Their earnest desire was to translate the book into Japanese, and the next day they gathered together in the house of Dr. Maino, in order to read the book, but none of them could read at all, with the exception of Dr. Maino, and he could only read the alphabet.

It was very much like a ship floating on the great ocean, having no means of guidance. But they studied very diligently in order to read it, trying every way possible, for the space of four years. At the end of that time they completed the translation and published it. This was in the 3rd year of the Anyei era, that is, 125 years ago. It was really a wonderful work, and was the first translation in Japan of a Medical Book. After that many books on Medical Science and Chemistry were translated; these two doctors opened a Private School where they taught Dutch, and in the 6th year of the Bunsei era, that is 76 years ago, a Dutch doctor came to Nagasaki. He was an Austrian educated in Holland, and his name was Dr. Siebold.

Since then wonderful progress has been made in the study of Western Medical Science, and Dr. Chōyei Takano's Physiology was the most noted work on the subject. In the 4th year of Ansei, that is 42 years ago, the feudal Government of Tokugawa sent Dr. Jūn Matsumoto who is a retired Surgeon General of the Army, to Nagasaki to study medicine under Dr. Pompe. In 1849 Dr. Matsumoto was permitted

by the Government, to establish a hospital in Nagasaki, and there he taught Medical Science also; in the next year he employed in his school a foreigner, Dr. Boudwin, and taught his pupils Physical Analysis, Physiology, Pathology, Internal medicine, Surgery, and other subjects, and in the next year two students of his school were sent to Holland to study Medicine; this was the first time that students were sent to Europe.

In 1857, there were more than 80 medical practitioners in Tokyo, who had received a Western Education; they contributed some money and established a large school in the city. Three years after that the feudal Government gave support to this school, and in the next year it was entirely converted into a Government College. In 1857 at the time of the Great Revolution, when the feudal system broke down and the Imperial Government was re-established, this College was attached to the Army Hospital, and was called Daigaku Toko.

In 1866, German principles were adapted and twelve students were sent to Germany; in the next year when a German professor was employed, the rules of the College were much improved, and the course of study was greatly changed. Two courses, viz: a Preparatory Course and a Regular Course were organized; in 1874, the Nagasaki Medical School was united to this College. In 1875, day scholars were allowed to enter, and the general principles of medicine were taught in Japanese. In July of the same year a new building was designed and was finished in 1877. This is the

present Medical College of the Tokyo Imperial University.

Besides the Tokyo University a Government Medical School was established in Osaka in 1870, and as a result, medical schools and hospitals, both public and private, made their appearance in various places, in some of which foreign teachers were employed.

Through political changes and improvements, local assemblies were established in 1879, according to the local self governing policy; and then the subjects taught in the local medical schools greatly differed, according to the circumstances of the places. In 1882, a Regulation was published concerning medical education, by the Educational Department; and the Local Medical Schools were divided into two kinds, No. A and No. B. In the Medical School No. A a complete course of study was taught for the purpose of producing qualified physicians, and in that of No. B the simple and general principles were taught for the purpose of making physicians quickly in order to satisfy the wants of the public. The four years' course was provided in the No. A School, and three years' in the No. B.

In 1886, the educational institutions were amended, and the medical course similar to that of the Medical School No. A was established in the High Middle School which is sustained at the national expense. Soon after, the High Middle School was named "The High School," and its Medical Posts were in Chiba, Sendai, Kanazawa, Okayama and Nagasaki, and the local hospitals of the places were attached to each of these.

In 1888 most of the local Medical Schools were closed, as it was prohibited to pay the expense of the local Medical Schools, and only those schools continued which had sufficient funds to support the school expenses. These were the three Medical Schools of Osaka, Kyoto, and Aichi.

(2). EDUCATION OF MIDWIVES AND SICK-NURSES.

With the exception of in cities and towns, there were no special sick-nurses in the old times, and consequently no complete system of education had ever existed.

After the Revolution of 1868, midwives were educated in the University, or in some Obstetric Hospital, or even in some private Medical Schools.

The education of sick-nurses was the same as that of midwives and it was very recent date, but now they are educated and trained in nearly all the hospitals; and the hospitals where the largest number of them is taught and trained are the Red Cross Society Hospital, and the Tokyo Jikei Byōin.

(3). EDUCATION OF PHARMACEUTISTS.

Pharmacy is taught in the Medical College of the Tokyo Imperial University, and when the students have finished the three years course of study there, they are allowed to use the title Yakugakushi (pharmacist). A Pharmaceutical Department is opened also in the High Schools; in Private Medical Schools, or in Private Schools of Pharmacy, the students are taught so that they may be able to pass examinations as practicing pharmacists.

Note.—The teaching of pharmacy in the University was first opened in 1873, and in 1882 the general rules of the Medical Schools were published, and at the same time the rules of the schools of pharmacy were also published. But in our country, from the old times, no distinction was made between physicians and pharmacutists, and physicians gave medicines compounded by themselves ; thus physicians did the work of pharmacutists. This was the custom of our physicians, and so the demand for pharmacutists was very little ; no schools of pharmacy were established and maintained at the local expense, but it was partially taught in the Medical College.

In our country therefore, there were no pharmacutists, and physicians gave medicines to their patients ; the business of an apothecary was nothing more than that of other merchants who sell merchandise and drugs in their shops, and they needed no special education.

The special studies of pharmacy were first seen after the Revolutionary War of Meiji.

(4). LICENSE OF MEDICAL PRACTITIONERS AND THE CONTROL OF THEIR PROFESSIONS.

The institutions with regard to medical practitioners are as follows :—

1. Physicians must pass the examinations for practicing medicine, and must hold a license from the Home Minister.

2. The graduates from the Medical College of the Tokyo Imperial University, from the Medical Depart-

ment of High Schools, and from the Local Medical Schools specially privileged, require no examination in order to obtain the license for practising medicine. The local schools to which Special privileges may be given, shall be qualified as follows :—Provided that (1) more than three graduates from the Tokyo Imperial University are employed as teachers, (2) a sufficient number of assistant teachers for the number of students are employed, (3) not less than a four years' course be provided, and rules for teaching and examinations be perfectly prepared, (4) a hospital must be attached for the convenience of students in learning practical operations, (5) instruments and models must be sufficiently provided.

3. Graduates from Medical Colleges, or from the Schools of foreign countries may obtain licenses for practicing medicine without examinations.

4. In remote and desolate places where physicians are very inconveniently few, persons may obtain temporary licenses to practise medicine in the specially limited places without examinations but with the approval of the local Governor.

5. The fees for the registration of the medical license are settled at 20 *yen*.

6. The names of physicians to whom the medical license has been granted, are registered in the list of physicians of the Home Department, and are published.

7. Should any physicians commit a crime, or any fraudulent act in connection with their professions, the Home Minister, acting on the decision of the Central Board of Health, may suspend them from practising.

8. Any physician refusing to perform any medical operation ordered by the Government Authorities, shall be liable to a fine of not less than four *yen*, but not exceeding forty *yen*; any physician practising medicine without a license shall be liable to a fine of not less than 10 *yen* but not exceeding 100 *yen*. Any physician who refuses to visit sudden and dangerous cases when requested to do so, shall be liable to imprisonment etc. according to the Criminal Laws.

9. Examinations for practicing medicine are carried out under the directions of the Minister of the Home Department; and the Examination Committee shall be composed as follows:—

(1). The Committee shall consist of a President, two principal Managers, and a certain numbers of committee; the present President of the Committee is the Director of the Central Sanitary Bureau, the Managers are Gishi of the Home Department, and the whole number of members of the Committee is about one hundred. Those members who are not Government officers shall be treated the same as Sōnin Kwan.

(2). All members of the Committee shall be appointed by the Cabinet with the approval of the Home Minister, and their terms of office are settled for four years.

(3). The President of the Committee after having investigated the result of examinations, will grant diplomas with his signature to successful candidates; the Managers shall regulate the business of the examinations, and sometimes they will direct

the affairs in the absence, or in the place of the President.

(4). A sufficient number of Secretaries will be attached to the Committee; they are appointed from among the officers of the Home Department.

10. The Rules of the examination for practicing medicine are as follows:—

(1). The examinations will be held twice a year in three places; the time and places to be notified six months previously by the Home Minister.

(2). The examinations are divided into two; a preliminary examination, and a final examination; no one will be allowed to receive both examinations at the same time, but only one examination is required on dentistry. Unsuccessful candidates in the practical part of the final examination, and in that on dentistry, but who have been successful in the theoretical examinations, may present themselves for the practical examinations only on the next occasion.

The preliminary examinations are as follows:—

1. Physics.
2. Chemistry.
3. Anatomy.
4. Physiology.

The final examinations are as follows:—

1. Surgery.
2. Internal medicine.
3. Pharmacy.
4. Ophthalmology
5. Obstetrics.
6. Clinical operations.

The examinations on dentistry are as follows :—

1. Dental anatomy and physiology.
2. Dental pathology and the art of curing.
3. Medicines for the Practice of dentistry.
4. Instruments for the practice of dentistry.
5. Clinical operations.

(3). For the Preliminary and Final Examinations, a course of study of at least one year and half, and for dentistry, a course of not less than two years' study is required ; and in the candidates' applications, the signatures of their teachers, or those of not less than two physicians are required to be appended.

(4). The applications of the candidates for the examinations must be written by themselves, and their own photographs must be enclosed.

(5). The President of the Committee, and the other members will consult in choosing questions for the examinations, which the candidates must answer in writing ; the time allowed for each question being limited to one hour.

(6). Three *yen* for the Preliminary Examination, and five *yen* for the Final Examination, as well as for that of dentistry, will be charged as the examination fees. The fees must be paid by means of registration stamps, which must be enclosed with the applications.

(7). The time for the examinations will be between 9 o'clock in the morning and 3 o'clock in the afternoon.

(8). The candidates for the examinations must wear either hakama, or European clothes, and they must not practise any rude behaviour.

(9). The candidates must bring pens and ink with them, but no books nor writings will be allowed. Papers are provided free of charge.

(10). In the examination hall, no names of the candidates may be used, but numbers only. Even in the papers of answers no names may be used, but numbers only.

Patients (to whom some compensation may be given), may be obtained when practicable from the hospital of the place, for the purpose of the Practical Examinations; but it is very difficult to obtain the patients suitable for such purpose. In order to obtain suitable patients, and also to carry out the idea of the Government that these occasional examinations should be made permanent, a dispensary has been attached to the examination hall in Tokyo since 1897, and dispensaries of the same kind for the same purpose are expected to be also established in Osaka and Kumamoto.

Note.—In February 1875, it was enacted in the three cities of Tokyo, Kyoto, and Osaka that, besides those physicians who have been practicing hitherto, any one also may wish to practise must obtain a license. The license is given only to those who have passed the examinations provided as follows:—

1. The examinations are the general principles of Physics, Chemistry, Anatomy, Physiology, Pathology, Pharmacology, Internal Medicine, and Surgery.

Those who wish specially to practice Obstetric, Ophthalmology, etc. must pass examinations on the general principles of Physiology, and Pathology, Anatomical operations of the local parts, and therapeutical methods.

2. Examinations are carried out in different prefectures, four times a year in January, April, July, and October as may be approved by the Educational Department.

3. The licenses for practicing are granted by the Educational Department, according to the approval of the prefectural Governor.

Since the Act of February 1895 to the three great cities of Tokyo, Kyoto, and Osaka relating to the examinations for the practice of medicine, various other localities have asked that Examinations might be conducted, according to circumstances, with measures suitable for the locality, and hospitals also have been established in many places. The Government, noting this progress, gave general instructions to every Fu and Ken on the same principles, but it was soon seen that it was impossible to conduct them in the same way throughout the country, neither was the time yet ripe for doing so. Permission was therefore granted to apply them in the manner that each Governor might think most suitable.

Since that time the practice of Chinese Medicine gradually came to an end, because no more Chinese practitioners were allowed to practice, and there was a great revolutionary period for our Medical Society. And we must not forget to acknowledge the benefits of the energetic efforts of the officers etc.

In 1877, it was enacted that the physicians who had been hitherto employed in the Government Hospitals might be allowed to practice without examinations.

The examinations for the practice of medicine were carried out in every Fu and Ken, according to the instructions given by the Home Department, and the local

authorities of Fu and Ken ordered the local hospitals to choose suitable questions for the purpose of conducting the examinations as instructed by the Central Government. The answers thus collected were sent to the Central Sanitary Bureau, where they were examined, and where it was decided whether they were successful or not in obtaining licenses. This arrangement was very complicated and confused, and comparatively imperfect, but it was the time when every thing was very imperfect, and no better means could then be found for the improvement of the medical practice.

As the examinations were conducted in a different way in different places, the answers collected by the Sanitary Bureau were of great variety; some were intricate and scientific, some were simple and shallow. This observation refers not only to the answers, but also to the questions. So the candidates from some districts were fortunate enough to pass easier examinations than those given to candidates from other districts, and thus they naturally began to find the places where they could pass the easier examinations; such evil results were unavoidable. And therefore in February 1879, the former instructions of the Home Department were entirely annulled, and a new ordinance was issued relating to the examinations for the practice of medicine, which gave another step in advance; as follows:—

1. Subjects for the examinations.

- (1). Physics.
- (2). Chemistry.
- (3). Anatomy.
- (4). Physiology.
- (5). Pathology.

- (6). Pharmacy.
- (7). Internal Medicine.
- (8). Surgery.

Either internal medicine, or surgery was allowed to be chosen as a special subject.

2. The candidates were required to be more than twenty years of age. (It was amended afterwards that the candidates must have studied medicine for upwards of three years)

3. Those persons who had obtained diplomas from Government Colleges, or from foreign colleges were allowed to be licensed without examinations.

4. Examinations were held four times a year, viz : in February, May, August, and October.

5. The questions for the examinations were chosen by the Home Department, and enclosed in envelopes ; and these enclosed questions were distributed in different localities to be given to the candidates. According to request, in the City of Tokyo only it was allowed that a Special Committee might prepare the questions.

6. The Examination Committee was appointed by the local authorities, from physicians, chemists and physiologists of good reputation, and the heads of hospitals.

7. The answers to the questions were sent to the Home Department to be examined, and to those who were successful, licenses were granted.

In January 1882, the graduates from those local Medical Schools in which more than three graduates from the Imperial University were employed as professors ; having a sufficient number of assistant teachers, providing more than four courses of study, rules of teaching and well regulated exa-

minations, and to which suitable hospitals for the practical training were attached, were allowed to be licensed without examinations. They were qualified like those graduates from the Japanese course of medicine of the Imperial University, because at that time there was a very great demand for physicians who had received modern education.

At the time of these medical revolutions, the physicians who had been practising from old times were allowed to practise as they were, without examinations, but there was a large number of their brothers and sons who were assistants to them. These young men, when their fathers or brothers became so old as to be unable to practise, or when they died, had to succeed to the practices but they had no time nor money to obtain the modern education which would enable them to pass the examinations; and they would thus have to give up their fathers' or brothers' practices if the new regulations were enforced on them. At this time, moreover the number of the Medical Schools where they could receive such modern education was insufficient, and if they were compelled to abandon their practices the public would suffer from the want of physicians. It would prove not merely a misfortune to these medical men, but also a great inconvenience to the public; and therefore at the end of 1881, it was enacted that those persons who had been assistant physicians for more than twenty five years might obtain their license without examinations, they being considered to be physicians who had previously practised.

In August 1882, an ordinance was enacted relating to the supervision of physicians, especially with regard crime or fraud committed in the discharge of professions, and it was ordered that in all such cases the Minister of the

Home Department would suspend them from practising professions, as is now the case.

The medical education has been gradually improving and extending, and it was found that more than 1,100 persons appeared each time as candidates for examination; so in June 1883, the "Regulations relating to the Licenses for the Practise of Medicine" were published, with the hope of advancing the profession to perfection.

In the year 1884, the Spring Examination was held in the nine places of Tokyo, Nagoya, Sendai, Okayama, Osaka, Matsuyama, Hirosaki, Kanazawa, and Nagasaki; subsequently the number was gradually reduced, and now the examination is usually held in three places only. Previous to the examinations, the President and Secretaries of the Committee were formerly sent to the different districts to consult with the local officers, but now the Committee arrange matters by themselves. The Committee for the Examinations of the Medical Practice were formerly appointed for each occasion, but in May 1889, it was decided by a regulation that the Committee should be permanent, and special powers were conferred on them, because it was difficult to obtain proper persons as a Committee, according to the progress of society. Such are the present institutions.

(5). SUPERVISION OF MIDWIVES ETC.

The Supervision of midwives is entrusted to the local Governments, and their examinations are divided into two kinds namely A. and B.

The result of the A. examinations is ordered to be sent to the Home Department for inspection, and licenses are granted by the Home Minister to the successful candidates ;

the answers of the B. examinations are inspected by the local Government, and licenses are granted to the successful candidates by the local Governor.

Licenses are also granted by the Home Minister to those students who have successfully finished their studies in the Obstetric Hall of the Imperial University, after careful inspection of their diplomas.

No institutions are as yet provided with regard to the supervision of sick-nurses, etc., and the control of the practice of needle curing, and moxa curing, is now entirely left to the local Government.

(6). THE LICENSES OF PHARMACEUTISTS.

The present institutions relating to pharmacutists are as follows :—

1. Pharmacutists must be more than twenty five years of age, and must obtain a license for practising after having passed the necessary examinations.

2. The examinations for pharmacutists are held twice a year, the same as those held for the practice of medicine ; and the time and places are notified six months previously.

3. The Subjects selected for the examination are as follows :—

- (1). Physics.
- (2). Chemistry.
- (3). Botany.
- (4). Pharmacology.
- (5). Pharmaceutical Chemistry.

The above is the theoretical part.

- (1). Analysis of Medical plants.
- (2). Inspection of Medicines.

(3). Manufacture of Medicines.

(4). Dispensing.

The above is the practical part.

4. The fees for the examinations are settled at five *yen*.

5. Candidates who fail in the practical part of the examinations but are successful in the theoretical part, are allowed to receive the practical part only, on the next occasion, and they must pay three *yen* as fees.

(6). The supervision of the examination halls is the same as that provided for the examinations for the practice of Medicine.

(7). The names of those persons who have obtained the license of pharmacutists are, as a rule, registered in the list of pharmacutists in the Home Department, and they must pay three *yen* for registration fee.

(8). Pharmaceutical offices.

(1). No one but a pharmacist is allowed to open a pharmaceutical office; the opening and closing must be reported to the local Government within ten days. No pharmacist is allowed to open more than two offices, and when he wishes to open a branch office he must employ another licensed pharmacist.

(2). In the pharmaceutical offices, the medicines mentioned in the first table of the Japanese Pharmacopoeia, must be provided.

(3). In the Pharmaceutical offices, proper weighing scales must be provided. The scales must be able to weigh at least one centigramme.

(4). When a pharmacist receives any prescription from a medical practitioner, he must compound the medicines any time during the day or night, and must not refuse without a reasonable excuse.

(5). The prescriptions containing powerful and poisonous medicines must be carefully kept in his possession for more than ten years.

(6). On the face of vessels, or paper bags holding medicines, the mode of using them, quantity, date, patient's name, name of the pharmacopoeia used, and name and address of the pharmacist, must be clearly mentioned, with a notice as to whether the medicines are to be used for internal or external application.

All persons other than pharmacutists, such as druggists, and manufactures of medicines, must obtain licenses for the practice of their professions from the local Government, and they are prohibited from selling any powerful and poisonous medicines.

Note.—Since the Medical regulations were given to the three cities of Tokyo, Kyoto, and Osaka, it has been also enacted that the druggists newly engaging in business must obtain their license after having passed examinations.

The City of Kyoto first carried out the examinations from March 1875, under the directions of the Central Government, and in December of the same year the subjects of examinations were settled, and ordered for the two other cities of Tokyo, and Osaka, that the new drug merchants or their brothers or sons who wished to succeed to their brothers' or fathers' professions, must pass the examinations in order to be licensed.

The subjects of the examinations were settled as follows :—

- (1). Arithmetic in General.
- (2). Physics in General.
- (3). Chemistry in General.
- (4). Pharmacy in General.
- (5). Prescribing in General.

The local Governments conducted the examinations according to the directions and orders of the Central Government as above mentioned, and the answers were sent to the Home Department, where they were inspected and examined, and the license for the practicing was given ; but this was amended, and changed, according to the present institutions in March 1889.

(7). SUPERVISION OF MEDICINES.

The Japanese Pharmacopoeia first appeared in 1886, and was amended and published in 1891.

At first it was ordered to be composed by the foreigners employed in the Manufactory of Medicine ; and in November 1880, a “ Committee for the Investigation and Composition of a Pharmacopoeia ” was appointed, to which a few foreigners were added. After careful investigation it was completed and published in 1891.

The present institutions with regard to the supervision of medicines are as follows :—

1. Medicines described and mentioned in the Japanese Pharmacopoeia must be manufactured so as to comply with the nature and quality described in that Pharmacopoeia, for selling or giving away.

Those medicines not mentioned in the Japanese Pharmacopoeia but described in any foreign Pharmacopoeia, must comply with it in nature and quality, and the name of the country of that Pharmacopoeia must be mentioned; and those new medicines not mentioned in any Pharmacopoeia, must be examined in the Hygienic Laboratories, and the result of examination must be mentioned.

2. The powerful and poisonous medicines mentioned in the instructions of the Home Department must be kept separate from other medicines, and especially the poisonous medicines must be kept locked up in a safe place.

3. When a written order is received from persons professionally needing these powerful and poisonous medicines, they may be sold to them, but such medicines must not be handed to children, or to any irresponsible person.

Such written order must be kept for more than ten years.

4. The Home Minister will sometimes send officers to the pharmaceutical offices, to the medicine manufactories, or to the druggists' shops, to make inspections.

These inspectors are appointed from the sanitary officers, police officers, and pharmacentists.

Note.—At the time when Western medicine was first introduced, all the articles had to be imported from other countries, and according to the progress of the medical profession, the demand for the Western medicines became greater and greater, year by year; and thus some me-

dicines badly manufactured, or adulterated, etc. began to be imported through the hands of dishonest merchants.

It was seen necessary, therefore, to take some precautions against the importation of such inferior medicines, and a Medicine Manufactory was established in March 1874 for the purpose of inspecting the imported medicines. The poisonous medicines were prohibited from sale to any persons except physicians, and industrial men.

It was enacted that the persons who sell or keep Quinine or Potassium Iodide, counterfeited or adulterated, shall be liable to a fine of not exceeding fifty *yen*, and upon a second offence they shall be liable to a fine of twice as much, so on. In February 1877, an order was made and by which powerful medicines, and poisonous medicines, were distinguished; in March 1880, it was amended and published as the "Regulations relating to the Treatment of Medicines."

By these Regulations, medicines were divided into three kinds, namely (1) medicines needing much attention and careful treatment, (2) poisonous medicines, (3) powerful medicines; and the species of them were shown, and the modes of treatment and selling were explained.

In 1886, the Japanese Pharmacopœia was published, and in 1890, the present regulations were given.

According to the increase of the demand for medicines the business of the manufacture of medicines has very much increased, and in May

1876, the rules relating to the manufacture of medicines were published, by which the manufacturers of medicines were required to obtain a license by presenting their petitions together with samples of the medicines manufactured by them, to the Home Department. The license was given after the examination and the approval of the medicines; and also facilities were given to the manufacturers, that if they came to the Medicine Manufactory they could learn how to make medicines.

Now these rules have all been given up, and the license for the manufacture of medicines is given by the Local Government. So much encouragement was given to the business of Medicine Manufacturing, that in 1884 when the Tokyo Medicine Manufacturing Company was established, some subsidy was given, and now much progress and improvement has been made in this business, especially in Tokyo, and Osaka.

(8). REGARDING OPIUM FOR MEDICAL
PURPOSE AND OPIUM SMOKING.

The present regulations as to opium were published in February 1897 by the Law No. 27 with the consent of the 10th Diet.

(1). The manufacturers of opium must obtain permission from the local Governor, and the manufactured opium is bought by the Government before the 20th December every year.

For the opium considered to be good, after examination, a price is paid, but for the bad article no

price is paid, and it is ordered to be burnt and destroyed.

(2). Opium is sold with a seal of the Government for medical purposes only, and for no other purpose. No person is allowed to sell or buy or to give or even to keep opium for any other purpose than the aforesaid.

(3). Local Governors are ordered to appoint wholesale merchants of opium in their jurisdictions. Drug-gists, or any person dealing in medicines, may buy opium from these appointed wholesale merchants on presentation of the prescription, and no other way is permitted.

(4). All persons, other than pharmacutists, are prohibited from selling opium with breaking the seals.

(5). Prescriptions and written orders for buying opium must be kept for ten years.

(6). Any person violating these regulations shall be liable to a fine of not less than ten *yen* but not exceeding five hundred *yen*.

The business of buying opium is transacted in the Hygienic Laboratories, and the making of it into powder, which was formerly only inspected and controlled by an Official sent from the Tokyo Medicine Manufacturing Company, is now performed in the Tokyo Hygienic Laboratory.

Vessels holding opium for sale shall be of three kinds according to weight namely.

- | | | |
|----------------------|-------|-------------------|
| (1). Vessels holding | | 1 <i>momme</i> . |
| (2). do. | | 10 <i>momme</i> . |
| (3). do. | | 50 <i>momme</i> , |

and the stamps of the Hygienic Laboratories must be affixed.

The prices are as follows :—

Vessels holding	1 <i>momme</i>	10 <i>yen</i> each.
do.	10 <i>momme</i>	1 <i>yen</i> each.
do.	50 <i>momme</i>	5 <i>yen</i> each.

(One *momme* is equivalent to 58.33 grains Troy.)

The prices paid by the Government are as follows :—

Quantity of morphine contained in
one hundred *fun* of opium.

			Price.
From	5 to 6 <i>fun</i>	per 100 <i>momme</i>	1.00 <i>yen</i> .
do.	6 to 7 <i>fun</i>	per 100 <i>momme</i>	1.50 <i>yen</i> .
do.	7 to 8 <i>fun</i>	per 100 <i>momme</i>	2.00 <i>yen</i> .
do.	8 to 9 <i>fun</i>	per 100 <i>momme</i>	2.50 <i>yen</i> .
do.	9 to 12 <i>fun</i>	per 100 <i>momme</i>	1.00 <i>yen</i> .
More than 12 <i>fun</i> ...	for every additional <i>fun</i>50 <i>yen</i> .

Less than 5 *fun* is one *yen* for every 100 *momme*, regardless of the quantity of morphine contained.

Opium smoking is very strictly prohibited in Japan, and no person smokes it in the country, except some Chinese who smoke it secretly.

According to the criminal laws of our country, any person who imports, or manufactures, or sells opium for smoking shall upon conviction be liable to be kept for penal servitude for any term of not less than 12 years and not exceeding 15 years, and any person who imports, sells, or makes the instruments for smoking, shall be liable to be kept in penal servitude for any term of not less than 6 years and not exceeding 8 years; any custom house officer who knowingly allows smoking opium, or its instruments to be imported, shall receive a still heavier punishment; any persons renting rooms for gain for the

purpose of smoking opium, or inducing others to smoke opium, shall be punished by imprisonment with lighter labour; those who smoke opium shall be liable to be imprisoned for two or three years with hard labour; those who keep the smoking instruments, or give, or lend them to others shall be liable to be imprisoned for any term not exceeding one year but not less than one month; and strict control of smoking opium is exercised also in Taiwan, (Formosa) the newly occupied island, where a large number of Chinese are living; and to those persons only who can not give up the smoking at once, a certain limited quantity of smoking opium is sold by the Colonial Government of the island.

Note.—Opium was one of the national prohibitions at the time of the Feudal Government of Tokugawa, and provisions relating to opium were added to the foreign treaties. In 1868, an “Opium Smoking Prohibition Act” was promulgated, by which it was enacted that those persons who sell smoking opium shall be executed; those who induce other persons to smoke shall be hanged; and various other punishments were provided, but no punishment was lighter than one year’s imprisonment.

And at the same time the “Regulations relating to the Control of Raw Opium” were published according to which local governors were ordered to inspect the quantities of opium kept in druggists’ shops and have the quantity registered; those who sell opium for medical purposes, both the seller and the buyer must report the amount. When it was known that opium was required, the local Governor had to report the case to the Central Government, and the Govern-

ment would import it in a special way, and supply it to that locality.

The poppy plants are cultivated somewhat abundantly in our country, and some parties have tried to make opium out of the poppy, to which end the Government offered encouragement.

The opium thus made however, was of bad quality, unsuitable for medical purposes, so that it was found necessary to wait for the imported article; in June 1876, therefore, the modes of cultivation and manufacture of opium were shown. Samples of opium were collected from various places, and after being analyzed, the result of such analysis was published; thus they were encouraged, and taught how to manufacture better opium. The present regulations are the amended ones of the "Regulations relating to the Selling and Buying, as well as the Manufacture of Opium" published in August 1878.

(9). HOSPITALS.

No general regulations were made by the Central Government with respect to hospitals, but it was ordered that they should be controlled entirely by the local Governments.

Note.—The first establishment of an hospital was made in Nagasaki by Dr. Jun Matsumoto (now Surgeon General of the Army) under the order of the feudal Government of Tokugawa, when he was studying medicine there under Dr. Pompe. Subsequently hospitals were established in Saga, Fukui, Kanazawa and Osaka, etc.; since the Revolution of the Meiji era

(1868) hospitals may be seen in every Fu and Ken, and good doctors, chiefly from Tokyo, are employed as the Superintendents of them ; whilst the physicians of the place are employed as assistant doctors. The Superintendents of hospitals are well educated and experienced men, who can greatly improve hospital work ; and consequently the hospitals are so much trusted by the people that they after bring most dangerous and difficult cases, which have been given up by other physicians, for treatment therein.

Undoubtedly the art of curing disease in the hospitals is very much beyond that of other physicians ; this fact encouraged the physicians, indirectly to study more ; and at the same time the sanitary works of the local districts as well as the medical education of the young men were very much developed.

But the hospitals were hitherto affording benefit mostly to the better classes of society, and were not suitable for the poorer person who ought to be freely supported and cured. Recently, however, two large hospitals have been established for the purpose of the relief of the poor, are the Red Cross Society Hospital, and Tokyo Jikei Byoin.

The hospitals of other localities also began to receive poor patients, but these patients were principally appropriated for the practical training of the students, and therefore there are as yet no dispensaries either public or private for the relief of the poor.

Since 1875, the sites of public hospitals were exempted from taxation, and in 1876, it was ordered that the establishment of public hospitals should be

permitted by the Home Minister. Since 1887, however, the former regulations were cancelled and the matter was entirely entrusted to the control of the local Government.





