ISSUED BY THE PROVINCIAL BOARD OF HEALTH, BRITISH COLUMBIA, 1907.

PLAGUE.

C. J. FAGAN, M. D.,
Secretary, Provincial Board of Health.

PROVINCIAL BOARD OF HEALTH,
VICTORIA, B. C., October 23rd, 1907.

The Honourable Dr. Young,
Provincial Secretary.

SIR,—I have the honour to submit a light resume of the history of bubonic plague.

As you are aware, we are now surrounded by the dread disease, in fact most of the ports with which we have direct communication are infected, Seattle and San Francisco being the latest. I do not wish to cause any scare, but I think I would be remiss in my duty did I not call your attention to the fact that we are in danger, and therefore should prepare.

The experience of infected countries points to the Chinese and Japanese as our great source of danger, and I therefore beg to suggest that these people be compelled to live more in conformity with our manner of living.

My suggestions may be radical, and no doubt will cause loss to many, but if we wish to protect ourselves and save the country from heavy loss we must take action.

We know that should the plague develop among them we would hear nothing of it till it assumed such proportions as to be impossible to conceal.

The following Regulations, in addition to those already adopted, would, I think, fairly well protect us:—

1. All Chinamen and Japanese to present themselves for medical examination every six months (or every month in time of such danger as at present), if considered necessary by the Provincial Board of Health. Certificates of health to be granted; such certificates to be produced, on demand, to the constituted authorities.

2. Private houses and lodging houses to be registered. Such registration stating full particulars as to owner, tenant and other occupants, and complete plan of building and sewerage connection.

3. All buildings occupied by Chinese and Japanese to be of proper size for number of occupants, with adequate light.

4. In cities, all Chinese and Japanese houses to have cement floors in basement, and under no condition will more than one cellar or room be allowed lower than the street level. Such room to be cemented and used only as a cellar.

5. No pigs or fowl to be kept nearer than fifty feet from dwellings.

6. All dwellings already in existence to be brought to above stated requirements, otherwise may be destroyed by order of the Provincial Board of Health, after due notice to owner or agent.

It is now established that rats and rat fleas are the greatest disseminators of plague. It should, therefore, be urged that cities and towns should adopt some method for the destruction of these vermin. The individual householder, too, should see that his place is clean and that no rats are allowed to live with him.

I have the honour to be,
Sir,
Your obedient servant,
C. J. FAGAN,
Secretary.

PLAGUE.

—:o:—

The disease known almost from time immemorial as "plague," or "pestis bubonica," or "black death," is now so near our own shores that it behooves us all to know something of this terrible scourge.

Ancient history and the Bible tell of the ravages of the plague. Thucydides had the disease and described it; Livy, who died 221 B. C., reports a great plague in Africa, when over one million persons died.

It was not till the sixth century of the Christian era that we find mention of the plague. In 542 it spread over Egypt, and during the same year carried off 10,000 persons in one day in Constantinople.

In the fourteenth century plague was introduced from the East, and spread all over Europe, with the result that over twenty-five millions of people died (Heckler). It is interesting to note that it was after this epidemic the first preventive measures were adopted, namely, at Venice, where a small island near the city was used as a quarantine station.

During the fifteenth, sixteenth and seventeenth centuries we find it appearing at various times all over the East and at different points in Europe, always leaving a sad and terrible memory.

In 1656 Naples lost 300,000 in five months, and during the same year London mourned for 69,596 in an estimated population of 460,000, out of whom two-thirds are supposed to have fled to escape contagion.

In the eighteenth century plague still had a hold on Europe, and continued to work destruction wherever it spread. In 1720 Marseilles lost 40,000 out of a population of 60,000; and in 1771, Moscow 50,000, which was about a quarter of its entire population. There are many such records, but these will suffice to show the terrible havoc wrought.

The nineteenth century has been marked by a recession of the plague toward the East, and from 1850 the western limit was the Canary Islands, and the most easterly point the Island of Formosa, off the coast of China. Within these limits there were isolated outbreaks from 1850 to 1893, when it appeared in epidemic form in Tonkin and Hong Kong, and shortly after in Bombay, and so on increasing up to date. As will be seen by statistics, this dread disease, when attacking where ignorance prevails, still shows the same virulence as it did in the middle ages. We find that early in the present epidemic the Bombay Presidency had 220,907 cases, with the enormous mortality of 164,083, and Hong Kong had 1,600 cases with 1,541 deaths.

These figures naturally aroused the authorities, and an effort was made to bring the recent scientific discoveries of Pasteur and Koch to bear on the trouble.

The English, French, German, American and Japanese Governments sent their most eminent bactereologists to infected districts to study the disease and find the cause. The honour of discovery fell to the Japanese physician Kitasate, and Yersin, of Paris; each about the same time isolated

and demonstrated the plague bacillus. This, I need hardly add, is the beginning of the end, for isolating and recognising this little pest means that its habits, characteristics and methods of propagation are no longer unknown to us. How it flourishes and spreads, and how it weakens and dies, are now matters of scientific certainty.

Preventive measures must be based on our knowledge of the disease, and the above discovery has already led Haffkine to prepare a prophylactic from this bacillus, which is now effecting great good. Yersin and Roux have also made a preparation—anti-pest serum—which is a curative agent, and is yielding excellent results.

From close observation under different conditions it has been found that the plague bacillus loses its virulence by drying, and retains it in the presence of moisture and low heat. Organic matter, animal or vegetable, in a state of decomposition, furnishes the most favourable nidus for its growth. In direct sunlight the bacillus dies in from three to four hours.

There are many other characteristics, but the above will suffice for our use. Applied to our own conditions, what do we find? Clean, dry, well lighted and aired homes are our best protection, while over-crowding (which causes moist, low heat), darkness and filthy surroundings are a constant menace. And where do we find such conditions? To a nicety you will get them in the Chinese quarters in our cities and other places. I sincerely trust the disease will not get a footing in our country, but if it does the present condition of Chinatown will hold it.

Sanitary defence is a matter of so much concern that I think no expense or trouble should be considered where there is any danger of harbouring this disease.

It is well known that microbial maladies may be divided into two great classes. In one the microbe is parasitic, and is dependent for its life on the organism it infests; such diseases are conveyed from person to person by actual contact. On the other the microbe is saprophytic, or capable of living and multiplying in organic refuse, aptly called "matter in the wrong place," or dirt. Such diseases can be carried from the sick by water, air or clothing, etc. The precaution necessary to be taken to prevent the diffusion of diseases depending on each class is, of course, different. The plague bacillus is capable of leading both a parasitic and a saprophytic existence, so that from a point of view of preventive measures, it is necessary not only to isolate the patient, but to render the surrounding condition unfavourable to the growth of the plague organism. So far we fortunately have not the germ to combat, but like the wise virgins, our lamps should be trimmed, so that should he come we have only to fight him as a parasitic and not as a parasite and a saprophytic.

We now have skimmed over the general history of plague, and there is one point which forced itself strongly in my mind while reading up the literature of this interesting subject, and that is the fact that all great epidemics started with light cases (pestis minor or ambulans), about which disputes arose as to the nature of the disease. Physicians had little experience of the trouble, and the obscurity which often surrounds the earlier cases has again and again led to terrible disaster by failure to grapple with the scourge in its initial and generally milder stages. This, I think, is a most important point, and one on which too much stress cannot be laid. I will

therefore conclude by giving the following clinical symptoms of plague. They are taken from a circular of instructions issued by the Department of Health of Berlin, and translated by the United States Bureau of Health from the supplement to the "Veroffentlichungen des Kaiserlichen Gesundheitsamtes":

"Clinical Symptoms of Plague.

"In all epidemics it has been found that even skilled physicians fail to recognise the disease, mistaking it for common carbuncle, infection of the lymph glands, typhus, intermittent fever, typhoid fever, pneumonia or anthrax.

"The disease attacks persons of all ages and social conditions, and both sexes. The condition of declared illness is preceded by warning symptoms, sometimes of an hour's, and sometimes of a day's, duration. These are pallor, depression, pains, headache, thirst, loss of appetite. The onset of the disease is frequently sudden, with sharp, burning, or dull pains on the spot on which later the glandular inflammation, or carbuncle, or the pneumonic manifestation, appears. This is followed by a sensation of cold, culminating in a severe, shaking chill, succeeded by fever. The fever may last an hour or a day before the local symptoms appear.

"The onset of the disease is almost invariably accompanied by a feeling of dizziness in the head. This may increase to a painful roaring, accompanied by indications of great weakness and failing power to control the limbs. Nausea and vomiting frequently accompany this condition, and not infrequently weakness of heart to the point of collapse.

"When the patient comes into the physician's hands, the disease is usually well developed. The staring gaze, the bloated, languid and expressionless face, the injected cornea, the thick, stammering speech, the uncertain gait, give the patient the aspect of a drunken man. This appearance is heightened by the outbreak of bloody boils. The tongue is red and lumpy, or else coated with white. The skin is generally hot and burning, especially about the face and trunk, while the pulseless limbs are cold and covered with a slimy sweat.

"The breathing is painful and laboured, the heart action weak, the arteries are relaxed, the pulse of the radials is dicrotic and approaches extinction, while the heart action is still good.

"After taking to his bed the patient lies in a condition of great weakness and tendency to sleep, murmuring softly and disconnectedly, or throws himself about restlessly, talking deliriously, imagining that he must return to his home or his business, or quench his thirst, and he will try to escape if his attendants do not hold him down in bed.

"With careful examination in the early stage of the disease the local focus of infection may be found in the majority of cases and the diagnosis made with accuracy. A freshly-developed glandular swelling or skin pustule, or the inception of an inflammation of the lungs, belong to the complete picture of plague infection. The disease presents itself under one of the three forms—glandular, skin or lung plague. Abdominal plague has been verified only in the case of animals.

"In glandular or bubonic plague the most frequent form of the disease is characterised by the appearance of a bubo, which, sooner or later and to a greater or less degree, develops into an inflamed swelling and affects the

surrounding tissues. Any external lymph gland may be the first seat of the disease. In most cases the bubo appears in the region of the thigh or groin, frequently under the arm, or, especially in children, on the neck. In isolated cases the buboes appear on the back of the head, at the elbow joint, the knee caps, the outer or inner ear glands, the hyoid bone, etc.

"The external lymph glands are often found to be in a minor state of inflammation or appear to have escaped the influence of the germ, while the concealed glands have developed buboes of the third or fourth order, so that, for example, the thigh glands may refrain free while a large iliac bubo or lumbar bubo may form that may be perceived as a perityphlitic swelling of the abdominal covering; or the neck glands may be only slightly swollen while there are evidences of the formation of a bubo in the upper chest cavity.

"The bubo may appear as a separate enlarged gland, or there may be an inflammation of the connective tissue, which is hard-packed and is frequently accompanied by a doughy œdema diffused about it. The bubo is generally not painful in itself, but on pressure, and the patient may lie in a position in which he suffers no pain. A small bubo is not often observed by the patient or his attendants, so that it must be sought for by the physician by pressure of suspected parts.

"Plague pustules or plague carbuncles are not frequent as compared with plague buboes. They begin with a spot about the size of a flea-bite or a pea on some part of the skin. From this very painful spot there devolops a blister filled with cloudy matter. It then either retains the character of a pustule, or the surrounding tissue becomes hard and thick, later developing into a deep carbuncle and then into a burning swelling. Inflamed lymph vessels may convey the infection to the nearest layer of glands, in which then a bubo may grow. A bubo may also make its appearance in the neighbourhood of a carbuncle.

"Pneumonic plague, which is the prevailing form in some plague epidemics, generally follows the course of an ordinary violent catarrhal or croupous pneumonia. When the general symptoms are very severe there may be difficulty in differentiating it from either inflammations of the lungs without bacteriological examination.

"Bubo, plague, pustule, or inflammation of the lungs appears at the beginning of the disease, sometimes even before the fever, or develops clearly a few hours or days after. Their appearance is seldom deferred till the third day.

"In all forms of plague the early appearance of heart weakness is noted, together with irritation of stomach and abdomen, extreme sensitiveness to pressure in the region of the epigastrium and the cæcum, violent nausea, later, also, the expulsion of black fæcal matter. A slight degree of swelling of the abdomen is the rule: soft swelling of the spleen and traces of nucleo-albumen and serum albumen in the urine; bloody vomit or blood in urine are less frequent. A diphtheritic affection of the tonsils is often found in the early stages. Almost universally there is observed a greater or less degree of irritation of the connective tissue, with which is frequently associated an inflammation of the cornea, which comes on suddenly and may lead to general suppuration of the eye. Hæmorrhagic points or streaks in the skin or

mucous membrane are much more frequently observed. In the course of the disease buboes develop in the vicinity of the lymph glands and in the different parts of the body.

"The course of the disease varies, many a case of skin and gland plague proving to be fairly mild and benignant, while pneumonic plague may terminate rapidly in death. In the bubonic form the neck buboes appear to be a condition of the gravest cases, frequently causing death by suffocation. There are also cases in which death occurs before any appearance whatever of localisation, before the patient is even made aware, by pain, of his condition. The third, or at most the fourth day, brings a reduction of the fever and very frequently death. If the patient passes the third or fourth day he may remain free from fever and in the end recover, or the fever may come on again and again run its course. On the sixth or ninth day a marked lowering of the temperature and pulse curve almost invariably occurs, so that a prolongation of the disease, even into the second week, may occur, apparently as the result of supplemental infection due to the formation of secondary buboes. The temperature of the body is usually 30° or 40° C., but may be much less. An increase to 41° C. may occur in the beginning or at the exacerbation of the disease. Before death the fall in the temperature of the body corresponds with the decline in strength, or it may fall suddenly. It may also rise and even in the dead body be 42° C. and more.

"The progress of the disease as here traced may be diverted by other infections. More frequently the accompanying infections are due to streptococci, staphylococci, pneumococci, or the bacilli of influenza.

"Death may occur at any point of the disease. In cases in which recovery occurs the decline of all the symptoms may take place suddenly or by degrees. When not due to suffocation, caused by neck buboes or pneumonia, death is usually caused by a general failure of the circulation.

"Recovery often occurs in 10 and often 40 per cent. of cases. It follows in bubonic plague on the decline of the fever or the disposal of the bubo—in cases of carbuncle, on the sloughing of the inflamed tissue.

"In severe cases recovery is slow. A sudden failure of the heart may attack a convalescent. Many patients die of septic fever; some of plague meningitis. Secondary infection of the respiratory passages, favoured by want of proper care or unfavourable environment, causes the death of numbers of convalescents. Even after weeks or months many languish and die from prolonged suppuration, progressive degeneration of the organs or impoverishment of the blood. Among the after effects paralysis plays a large part.

"Prognosis of the disease is difficult. It may be stated that when the patient is free from fever on the third or sixth day he will probably recover should no complication occur.

"The early appearance of the buboes is relatively favourable. Unfavourable symptoms are bloody vomit, bloody urine, petechiæ, the formation of boils or carbuncles, and diphtheria of the tonsils. Hiccough is the immediate precursor of death. Recovery from pneumonic plague is rare. Previously existing diseases of the lungs and other internal organs remove almost all hope of recovery. Mortality is extraordinarily great among the consumptive, the syphilitic, and infants.

"A second attack of plague is rare. The second attack is generally fatal. The diagnosis of plague during an epidemic is generally rendered easy

by the severe and febrile general symptoms, by the formation of local foci in the lymphatic glands, on the skin or in the lungs, by the unconscious condition of the patient, the unsteady gait, the extraordinarily weak pulse, the injection of the eyes, and the white tongue. When no epidemic prevails the disease may present, even in pronounced cases, an assemblage of symptoms resembling those of anthrax, typhus or pneumonia. The light cases with less severe local and general symptoms, and the gravest cases, in which death occurs before the manifestation of any local product of disease, escape diagnosis unless bacteriological examination is made, on the patient or in necropsy.

"Bacteriology of Plague."

"The evidence of the specific organism is especially important in preventing wrong diagnosis.

"The specific organism of plague is a bacillus without voluntary motion which in form and size shows considerable variations, according to the conditions of development, the nature of the culture media, etc. It usually appears as a short rod, with rounded ends, and two or three times as long as it is wide. Not infrequently the difference between length and breadth is so slight as scarcely to preserve the rod shape.

"The plague bacillus takes aniline colouration well in streaked preparations. The outer portions of the bacillus, and notably the ends, take colouration four times more strongly than the middle (polar staining), a peculiarity which is especially noticeable in careful methylen blue colouration.

"The culture of the plague bacillus succeds well at air temperature and in the usual culture media and culture fluids (agar-agar, solidified blood serum, gelatin, bouillon, etc.). When air is excluded the growth ceases. In culture media, containing sugar, the plague bacillus does not produce fermentation with development of gas. Its growth is good at a temperature of 25° to 37° C. Between 10° and 15° C. it is slow, but still strong, and even at 5° C. it is not completely arrested. When the material for planting is taken from a plague patient or a plague cadaver the development, even at a favourable temperature, is slow. On the surface of thick agar, for example, which has been kept at a temperature of 37° C., the beginning of the formation of colonies can be seen with the naked eye only after the lapse of twenty-four hours, and for full development a period twice or three times as long is required.

"Superficial cultures then appear on microscopic examination as transparant, small, drop-shaped colonies which have little tendency to coalesce. Cultivated in bouillon, the plague bacilli grow in chains like streptococci. On very dry agar, to which from two to three per cent. of cooking salt has been added, the plague bacilli grow abundantly in from one to two days in involution forms, being large, ball-shaped, or irregularly formed masses, which are deficient in their capacity to take colouration.

"Resistant forms of the plague bacillus are not known. In fluid media the bacilli die in ten minutes at a temperature of 55° or 60° C. At the boiling point they are killed immediately. Dried on linen and the like they remain alive in the Climate of Europe many weeks.

"The plague bacilli are found in all the morbid products of the living patient and generally throughout a plague cadaver. The fluid and tissue

of fresh buboes and carbuncles, the exudation of inflamed lungs, contain bacilli in enormous quantities. In the contents of the bubo, released either by spontaneous breaking down or by treatment, they are only exceptionally found, so that in cases of bubonic plague ending in recovery they must be obtained by incision of the fresh bubo. Yet these cases occasion error in diagnosis. Blisters and carbuncles readily yield, on puncture, material for bacteriological diagnosis.

"In the much more numerous cases of pneumonic plague the sputum, which always contains numerous bacilli, furnishes the most reliable diagnostic material. In the absence of sputum, section or puncture of the lung of a plague cadaver decides the diagnosis, if this decision has not already been arrived at by bacteriological examination of the blood. Examination should not be neglected in any plague case, since it is always easily practised and is often decisive. In the majority of plague cases which end fatally the bacilli are found, either sparingly or in quantities, in drops of blood drawn by a needle prick in the skin, made either during the last hours of life or several days previously. In the normal secretions they are not often found and are more difficult to obtain. They always appear in numbers in terminal lung œdema.

"If the bacteriological examination of a patient is for any reason unsatisfactory, it is always easy and reliable in the case of material from plague cadavers. Besides the primary localisations in the skin, lungs and glands, the blood, spleen, lung hypostasis, gall, cerebro-spinal fluid, furnish especially good objects for the identification of the bacillus.

"Necropsy undoubtedly demonstrates the fact of plague cases which during life were obscure. Anatomical findings are more uniform, and, therefore, more reliable than clinical symptoms. Besides the primary lesions, *i. e.*, the fatty or warty swellings of the lymph glands, juicy and often bloody permeation into the surrounding tissue, deep infiltration from carbuncular swelling, and lobular or lobar thickening of the lungs, almost every cadaver shows a soft, swollen spleen, shellac-coloured blood, and almost always bloody effusions into various organs, especially the stomach, small intestines, and caecum, the basin of the kidneys, etc.; also here and there foci of necrosis and highly developed parenchymatous degeneration of the intestines, especially the liver.

"Treatment.

"In the treatment of plague it is of the highest importance to secure a comfortable location, fresh air, and cool lotions. The great thirst from which the patient suffers should be unsparingly satisfied. Fresh water, acidulated drinks, and milk are the most acceptable. The use of effervescent drinks is discouraged by many physicians when there is marked depression of the brain or other vital centres.

"Cleansing of the digestive organs by means of castor oil, or similar mild medicament, is recommended by many physicians, and appears from necropsic findings to be efficacious. These often show inflamed and packed bowels, with bloody effusions. Physicians are not agreed as to heart stimulants.

"Cauterization of the pustules and the application of mercuric or carbolic washes or salves to the buboes or inflamed glands appear advisable. The further treatment of the buboes is surgical. In pneumonic plague the inhalation of a one per cent. carbolic and lime-water spray is desirable.

"The best protection for physicians and attendants is *absolute cleanliness.* The great danger of infection through the sputum of living plague patients and the œdematous exudation from the lungs of the dying are to be especially guarded against.

"Disinfection must be applied to all excreta of the patient and to all articles that come in contact with him. For chemical disinfection, solutions of sublimate ($\frac{1}{1000}$), carbolic solution (3 per cent.), cresol soap and chloride of lime solutions are especially to be recommended.

"As a prophylactic agent, for the protection of physicians and attendants, may be mentioned inoculation with dead plague culture, which constitutes the so-called active immunizing process. This plague protective inoculation has been shown, by extensive use in India, to be harmless and to confer protection against infection which, if not absolute, is yet unmistakable. As far as animal experimentation shows, the inoculation loses its protective power after seven days.

"*Epidemiology.*—It has been demonstrated that plague spreads slowly after its introduction. In many instances it has been found to be confined to the family in which the first case occurred and to persons who have come in contact with the plague patient. It will then make its appearance in neighbouring houses or in a distant quarter, to which it has been conveyed by persons who have been in contact with the plague patient. In this manner the disease fixes itself when it has found a favourable soil and remains unnoticed during weeks and months, when it often develops quite rapidly and reaches its maximum at first by quick and then by slow degrees. Its extinction is often only apparent. After a period of suspension, lasting weeks or months, a fresh epidemic not infrequently begins, and this may also have still further developments.

"Epidemics of sudden development, such as Asiatic cholera and abdominal typhus, which result from the long persistence of the germ in drinking water and water for domestic uses, are not observed in plague.

"*An important feature in the conditions affecting plague is the disposition of the disease to confine itself to separate dwellings and to discriminate among the persons resident there. When the persons affected are removed from the house further infection may, by care, be prevented.*

"In the propogation of plague the transference of the germ from man to man is in the first line of importance. This transference may occur directly or by means of contact with articles of clothing and laundry, or, in general, any articles of use.

"The manner in which the cause of disease leaves the body has already been shown. The danger of infection is generally slight in mild cases of the disease, where the plague germ is confined to the swollen gland. The conditions are scarcely altered when the bubo becomes soft or breaks down, since in that case the plague bacillus is, as a rule, already dead. The facility of infection is much greater in severe types of septicaemic cases of bubonic plague, in which the disease germ may be discharged, living, with the several secretions of the body, or found in quantities, shortly before death, in pulmonary œdema. The most dangerous cases are of pneumonic plague, on account of the quantities of bacilli which may be contained in the sputum, which are thrown into the air by coughing, or even in the act of speaking.

"The plague germ is received into the lymphatic system of a healthy organism by small unobserved injuries to the epidermis, slight scratches, flea-bites, and the like. In other cases it may be taken in by way of the mucous of the mouth or throat, the conjunctival sack or the nostrils, or may be taken into the bronchial tubes by way of the respiratory passages.

"*That these various means of infection from man to man constitute an open door for transmission when an unclean people live in close, dark and crowded houses is apparent. Where light and air are freely admitted and cleanliness prevails, plague finds no soil for an epidemic spread.*

"Direct or indirect transmission of infection from man to man is not the only means of the spread of plague. Many circumstances in the outbreak and spread of this disease are explained by the fact that animals living in the vicinity of men are attacked by fatal epidemics. *Of these animals rats are the most important, they being in the highest degree susceptible to infection by the abdominal canal. As they have the habit of gnawing their sick or dead fellows, plague is easily spread among them, when it has once broken out.*

"Plague-infected rats are dangerous not only to their own kind. Their excreta, which contain great numbers of plague bacilli, may easily infect human dwellings, as plague-infected rats generally lose their fear of man and not infrequently die in houses. Mice may play a similar part, if not one as apparent or pronounced.

"Subterranean and entirely uncontrollable conditions explain to some extent the apparently spontaneous outbreak of plague, together with its disposition to fix itself in crowded quarters and to persist even after a period of cessation.

"If the foregoing considerations meet the demand for an understanding of the nature and propagation of plague, their object will have been obtained. They may be especially useful in demonstrating the first cases of a plague outbreak. It need not be added that the final diagnosis of a plague case should be made only with corroborative statement of medical authorities and on the ground of reliable bacteriological examination."

PROVINCIAL BOARD OF HEALTH, BRITISH COLUMBIA.

Regulations for the Detection and Treatment of a Disease known as Bubonic Plague.

Approved by Order of His Honour the Lieutenant-Governor in Council, dated the 24th day of October, 1907.

1. All sick Chinese, Japanese, Sikhs or other Orientals must send or give notice of their illness to the Health Officer or Police Constable in the district where such Chinese, Japanese, Sikhs or other Orientals reside.

2. Physicians in attendance on sick Chinese, Japanese, Sikhs or other Orientals shall notify the Health Officer or Chairman of the Local Board of Health of Municipalities; or, if an outlying district, the Government Agent must be notified. Such notification should state the cause of illness and the condition of the glands throughout the body of the sick person, and should be delivered to the Health Officer, Chairman of the Local Board of Health, or Government Agent, as the case may be, at the earliest possible opportunity.

3. In City Municipalities, the Medical Health Officer shall be notified within six hours of the death of any Chinese, Japanese, Sikhs, or other Oriental, by the person on whose premises such death occurred, or by some relation or person having charge of the person so dying.

4. In Rural Municipalities, the Medical Health Officer or the Chairman or Secretary of the Local Board of Health must be notified within six hours of such death, and in outlying districts the Government Agent or Provincial Constable shall be notified within twelve hours after such death, or as soon after as possible. Certificates as to the cause of death must be signed by the Health Officer in Municipalities, and in outlying districts by the Government Agent or some person duly authorised by him.

5. No undertaker shall accept for burial the corpse of any Chinese, Japanese, Sikh or other Oriental without having received, with respect to such corpse, a certificate of death from a Medical Health Officer, or some other person duly authorised for the purpose by the Government.

6. Any person violating any provision of these regulations shall be liable, upon summary conviction before any two Justices of the Peace, for every such offence, to a fine not exceeding one hundred dollars, with or without costs, or to imprisonment, with or without hard labour, for a term not exceeding six months, or to both fine and imprisonment, in the discretion of the convicting Court.

By Command.

HENRY ESSON YOUNG,
Provincial Secretary.

CHARLES J. FAGAN, M.D.,
Secretary Provincial Board of Health.

VICTORIA, B. C.:
Printed by RICHARD WOLFENDEN, I.S.O., V.D., Printer to the King's Most Excellent Majesty.
1907.