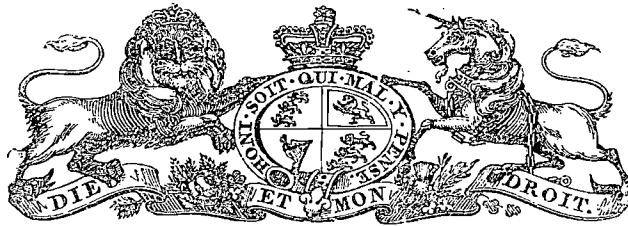


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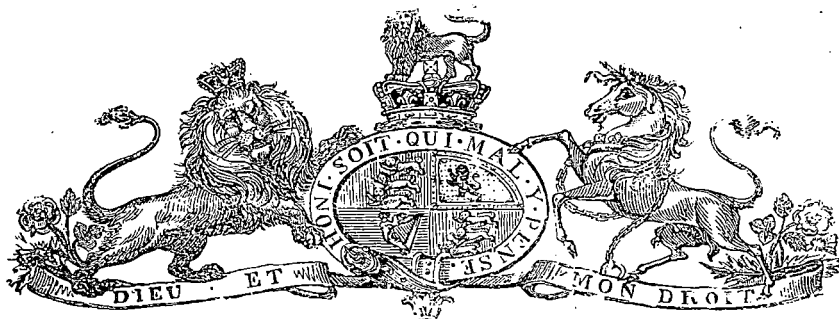
PARLIAMENT OF TASMANIA.

BUBONIC PLAGUE:

CONFERENCE OF DELEGATES, MELBOURNE, APRIL, 1901

Presented to both Houses of Parliament by His Excellency's Command.

Cost of printing—£21 14s. 8d.



MELBOURNE PLAGUE CONFERENCE.

11TH to 15TH APRIL, 1900.

To the Hon. G. T. COLLINS, M.L.C. and M.E.C., Chief Secretary of Tasmania.

SIR,

WE have the honour to submit to you our Report on the proceedings of the Intercolonial Conference held at Melbourne on the 11th, 12th, and 13th April, 1900, and, by adjournment, at Sydney, on the 15th April, which we attended, under your instructions, as delegates of the Government of Tasmania. We have held over the presentation of this Report until we had received the official Report of the Proceedings, which we forward herewith. We regret the delay that has taken place, but it has been quite unavoidable on our part.

The Colonies represented at the Conference were Queensland, South Australia, Tasmania, Victoria, and Western Australia, and their Delegates were the Presidents or Chief Executive Officers of their Health Departments. New South Wales was not represented, on the plea that the staff of its Health Department was so fully engaged in dealing with the Plague at Sydney that no delegate could be sent to Melbourne. When the Conference met by adjournment at Sydney, the President of the Department of Public Health of New South Wales was present, and occasionally took part in the discussions, but did not vote on any of the questions raised.

The Conference was convened by the Government of Victoria, at the request of the Government of South Australia, for the purpose of considering what common action should be taken by the Colonies to prevent the spread of Bubonic Plague, of which one case had been reported at Adelaide and more than one hundred at Sydney.

The first meeting of the Conference was held at the Office of the Department of Public Health of Victoria at 10 o'clock in the forenoon of the 11th April, when the delegates were received by the Hon. the Minister of Health of the Colony, who shortly stated the object of the Conference and then retired. The delegates present, in addition to the undersigned, were—Dr. Love, Secretary of the Central Board of Health of Queensland; and Dr. Wray, Chief Health Officer of that Colony; Dr. Ramsay Smith, President of the Central Board of Health of South Australia; Dr. Greswell, President of the Health Department of Victoria; and, a little later in the day, Dr. Black, President of the Central Board of Health of Western Australia. On the retirement of the Minister of Public Health, Dr. Greswell was unanimously appointed Chairman of the Conference.

Dr. Greswell explained that as he had learnt that the representative of the Colony at whose desire the Conference had been called was not prepared with any programme for the proceedings, he thought that the object of the Conference would best be secured by first taking the Venice Plague Convention, and methodically discussing such parts of it as were considered to be applicable to the Australian Colonies with or without modification, and then taking cognizance of any other matters that, though they were not within the scope of the Convention, were needed to meet the special circumstances of Australia. He then invited the delegates to express their views on this course of procedure, and to give what information they could on the measures their respective Governments had already taken with regard to the Plague.

The delegates generally agreed that the whole subject would be best discussed by following the lines of the Venice Convention; and they laid on the table copies of the circulars issued, regulations made, and directions given by their respective Health Departments in connection with the prevention of or dealing with Plague.

In Queensland, in the month of January, all Local Authorities had been called upon to institute immediate systematic measures for dealing with all insanitary conditions in their several districts. On the 1st of March, regulations, approved by the Governor in Council, were issued for the treatment of persons affected with Plague, and for preventing the spread of that disease. These regulations included provisions for the immediate notification of all cases or suspected cases, whether on land or on board ship, the inspection, isolation, and detention or removal of such cases or suspected cases; inspection of all overland arrivals in the Colony; inspection and disinfection of all houses and ships; and for the burial of persons dying from Plague. The regulation with regard to the class of ships called in the Venice Convention "infected ships," and which were dealt with in the First Section of the Tasmanian Regulations of the 27th March last, is virtually the same as that of the Convention, and more liberal than the Tasmanian Regulation—the sick being detained, and the other passengers being allowed to go free on giving their names and destinations. But the Central Board of Health of Queensland does not seem to have control of the Quarantine Department, and so the regulation does not affect the action of that department. On the 21st March further regulations were issued by the Governor in Council for preventing the landing of rats from vessels, providing for fendering vessels four feet off from the wharves, tarring hawsers, gangways, &c., but not providing for night-watching.

In South Australia, on the 10th of January, 1900, a circular was issued on the measures necessary to prevent and eradicate plague, insisting upon inspection of all arrivals in the Colony, and isolation of all suspects and contacts for ten full days, and upon local sanitation. On the 9th March another circular was issued on the means of detection of plague. And on the 27th March a circular set forth special measures for the prevention of the spread of plague—consisting of the early recognition of the disease; the isolation of patients; the removal and supervision of contacts; the disinfection of persons, houses, and things; the burial of the dead; improved house sanitation; extermination of rats, and prevention of their landing from ships; and exclusion from the Colony of all infected persons and things. The exclusion of persons arriving by sea was left to the ordinary quarantine law, and no provision had yet been made with regard to passengers arriving by land—the South Australian delegate explaining that he thought that these matters ought to be regulated by the Conference. The ships' berthing regulations were the same as the Tasmanian.

In Victoria, on the 10th March, a circular was issued by the Board of Public Health giving information on the characteristics of the Plague, methods of infection, and measures to be taken to prevent its introduction and spread, beginning with such as should be taken by every householder, and going on to those to be carried out by the Local and Central Health authorities. Attention was called to the degree of protection given by inoculation with Haffkine's Prophylactic, which would be performed, on application, at the Board's offices. On the 4th of April berthing regulations were issued in the form of a bond to be entered into between every ship-owner or master and the Victorian Government for the fulfilment of the conditions to be observed by all vessels coming into port. The Tasmanian regulations were based chiefly on these. But it appears that no special regulations were published under the Quarantine Act with regard to Plague, the ordinary provisions of the Act being strictly enforced; nor were any regulations issued with respect to land traffic, though it was understood that inspection of passengers had taken place at the frontier stations.

In Western Australia the Government *Gazette* of the 3rd April contained an Order in Council, with special Quarantine Regulations. Some of these regulations appear to us to have been made in complete disregard or forgetfulness of the provisions of the Venice Convention, although the Western Australian Government had notified its adhesion to that Convention, and, consequently, was bound by its terms. In other respects the regulations were very comprehensive, and the schedule of questions to be answered by the master or surgeon of a ship on arrival, very long and minute. In the same *Gazette* are regulations made by the Central Board of Health, the first part of which relates to the destruction of rats on land, and the measures to be taken to prevent the migration of rats from ships to wharves; the second part relates to the precautions to be taken with plague patients, the disinfection of houses and goods, the isolation of infected houses, and the burial of the dead; the third part deals with precautionary and preventive measures on board ships arriving from infected places.

Although, as New South Wales was not represented at the Conference at Melbourne, no papers were tabled showing what measures had been taken with reference to plague, it may be useful to give the following information as to what was being done in that Colony, derived from papers furnished during our sitting, by adjournment, at Sydney, on the 15th April. No special Quarantine Regulations dealing solely with plague appear to have been issued, and the action taken was that provided by the Quarantine Law generally; but a very great deal had been and was being done in regard to the dealing with cases as they arose, and preventing the spread of the disease. On the 1st of March a circular was issued by the Department of Public Health to all householders, with instructions for the prevention of plague then present in Sydney, laying great stress on the extirpation of rats, and the thorough cleansing of houses, yards, drains, and giving directions for special cleansing and disinfecting, with offers of gratuitous supply of some effectual disinfectants. The public authorities were also called upon to cleanse and purify the streets and sewers in their charge, and to exercise their powers with regard to general sanitation. Hereinafter some details are given of the work the department itself was doing in the parts of Sydney where plague was most prevalent. On the 19th March a circular notice was sent to the owners and

masters of all vessels from Sydney trading with other New South Wales ports, requiring the thorough fumigation of the vessel at Sydney before such voyage, so as to insure the destruction of rats; and on the 30th of March a further circular on the subject was issued, with fuller instructions. But no similar measures were taken with respect to ships proceeding directly to the other Colonies.

The special measures taken in Tasmania up to the time of the meeting of the Conference were as follows:—On the 7th March special regulations were issued stating the conditions under which ships from infected ports would be permitted to berth in Tasmanian Ports, and they were framed with the object of preventing the migration of rats from the ships to the land. On the 8th March, a circular was issued to all Local Health Authorities setting forth the usual manner of the propagation of plague, and the best measures to be taken to prevent its spread, and charging these authorities to do all in their power to have these measures carried out. On the 27th March, New South Wales was proclaimed under the Quarantine Act, as infected with plague, and an Order in Council issued containing regulations to be observed with regard to vessels, persons, and things coming thence to Tasmania. These regulations were based on the articles, as far as they were applicable to Australia, of the Venice Convention, and entirely accorded with its spirit. In order to carry out the regulations with regard to the inspection of persons coming from infected places, medical officers were engaged throughout the Colony to inspect them wherever they might go during the time considered as the incubatory period of the disease. On the same day a general circular was issued to all Local Boards of Health, Marine Boards, Health Officers, Shipowners and masters, and others, calling special attention to the regulations, and in particular to those parts of them as came within the sphere of their respective powers and duties; and advice and instructions were given relative to disinfection both of persons, things, houses, and ships, and, with respect to the latter, the measures that should be taken on board both while in port and during the voyage. We had the satisfaction of knowing that it was generally admitted that the precautionary measures taken in Tasmania were at least as complete as those of any other Colony.

After the preliminary statements made by each of the delegates, and the tabling of papers issued by each Health Authority, the articles of the Venice Convention, so far as applicable to Australia, were considered in committee. With regard to the greater part of these articles, there was virtual accord, and it was only with respect to the precautions to be taken with passengers arriving overseas from infected places, that divergence of opinion became marked. To explain this divergence it is necessary to recall the articles of the Venice Convention, classifying ships under three categories and dealing with the passengers of each class of ship differently:—

- i. *Infected Vessels* are such as have a case of plague on board or have had one within twelve days of arrival, and the patients from them are to be landed and isolated, and the passengers who are healthy are also to be landed and put under “*observation*” (quarantine) or “*surveillance*” (daily inspection at their own homes) for a period not exceeding ten days.
- ii. *Suspected Vessels* are those on which there has been a case of plague but not within twelve days of arrival.
- iii. *Healthy Vessels* are those which, though coming from an infected port, have not, and have not had, any case of plague on Board.

We agreed that for intercolonial purposes, as the duration of the voyage was so short as virtually to eliminate the Second of the above classes, and merge it into the third, it would be better to divide the third into two—*Ordinary Healthy* and *Healthy*, the former being vessels of the class as above-described that had left an infected port within ten days, and the latter those that had made a longer voyage. With these four classes it is evident that all steam vessels coming to Tasmania from Sydney would belong either to the *Infected* or the *Ordinary Healthy Classes*.

With regard to healthy passengers on board “infected” ships, some of the delegates urged that however safe it might be to adopt the Venice Convention Regulations as Tasmania had done, public opinion in the other Colonies would not allow it; that France had given up “*surveillance*” and adopted “*observation*”; and that England adopted “*surveillance*” on commercial and monetary considerations. To these arguments, or rather statements, it was replied, and not only by the Tasmanian delegates, that the object of the Conference was to advise the respective Governments as to what should be done from a hygienic, and not from a popular point of view; that France, in preferring “*observation*” to “*surveillance*,” was quite consistently carrying out the Convention that allowed either course to be taken, and equally, if the Convention regulation were adopted by the Conference it would be open to any Colony to take either course; and that England, so far from being actuated by mere monetary considerations in health matters, had spent more money on them in the last thirty years than all the rest of the world taken together, and had only given up quarantine when the absolute futility of it had been clearly shown; and that the wisdom of her policy was proved by the fact that with an infinitely larger traffic she had secured far greater control over epidemic disease than any quarantine enforcing country ever possessed.

With respect to healthy passengers on board “suspected” and “ordinary healthy” ships, some of the delegates advocated the compulsory application of quarantine “*observation*,” again alleging the example of France, and laying still greater insistence on the example of India under English rule. In support of the allegation concerning France, copies of the decree of the President of the Republic, dated 20th July, 1899, were produced. The copies were lithographed manuscripts, covering seven (7) foolscap folio pages, that it was impracticable to carefully read during the discussion, which accordingly proceeded on the assumption that the allegation was correct. But it is needless

to refer further to the discussion, as subsequent careful reading of the decree shows that compulsory "observation" only attaches to passengers who would not, or could not, obtain the sanitary passport—the equivalent to our "licence to land." With regard to the action of the Indian Sanitary Administration, we denied its relevancy to the case in Australia. Among the native populations in India living under caste and religious ordinances it was absolutely impracticable to carry out "surveillance," especially in the case of women, so that if any supervision had to be exercised it could only be by seclusion or "observation."

As above mentioned, this disagreement was only with respect to the treatment of healthy passengers coming over-sea, for concerning overland passengers there was no proposal to subject them to quarantine "observation" only, but it was left to the option of the local health authorities to adopt "surveillance" if they thought fit.

After the consideration of the whole of the articles of the Convention applicable to Australia, some special matters not specifically mentioned therein were considered, and an understanding concerning them arrived at. A special Sub-Committee consisting of Dr. Greswell, Dr. Ramsay Smith, and Mr. Mault was appointed to draft the form in which the regulations should be submitted first to the Committee and then to the Conference for adoption. The draft regulations thus prepared included the Venice Convention Regulation, applicable to infected vessels, as all along contended for by the Tasmanian delegates. On receiving this draft, it was provisionally adopted by the Committee, which then adjourned to Sydney in order to give the New South Wales Health Authorities the opportunity of joining with those of the other Colonies in taking common action with regard to the purpose for which the Conference had been called.

At Sydney, the Committee of the Conference resumed the discussion of the draft regulations in the presence of the President of the Department of Public Health of New South Wales as before-mentioned, and then formally voted upon them. At this voting each Colony had but one vote, and Queensland was represented by the Chief Officer of the Quarantine Department and not by that of the Central Board of Health, with the result that the Venice Convention Regulation on the subject of infected vessels was modified so as to leave no option to any of the Colonies as to dispensing with quarantine under any circumstances. The voting on this point being—for adopting the Venice Convention Regulation, South Australia and Tasmania; for modifying it, Queensland, Victoria, and Western Australia. As we have already pointed out, the voting of the delegate of the last-mentioned colony was made in ignorance of the fact that Western Australia had already adopted the Venice Convention.

The Conference then resumed, and the regulations, as amended, were passed, the Tasmanian delegate reserving the right to record his dissent from the proposed modification of the Venice Convention Regulation as to infected ships. The note recording this is attached to the official Report of the proceedings of the Conference forwarded herewith.

While at Sydney, such of the delegates as had gone there took the opportunity of seeing the practical measures that were being taken to meet the visitation of the Plague. Some districts of the City where Plague had been prevalent were isolated, the separation being effected by strong close-paled fences, with posts framed and strutted into sleepers so as to avoid disturbance of the pavements. There were lifting panels where needed, and all were patrolled by police. The whole block to be isolated was surrounded by this fencing, which ran along the channel nearest to the infected area. Everyone who lived in the isolated area was kept in it, the able-bodied men and youths being employed at the necessary demolitions, cleansing and disinfecting, and suchlike work. They were lodged and victualled, some in their own homes and some in the shipping and other large sheds, where cooking-rooms and dormitories had been arranged. There was a daily medical inspection of all isolated persons whether employed or not.

It was astonishing to see the destruction that was going on, a clean sweep of all the buildings being made in some parts of the area, and in all other parts of it the flooring and paving were taken up, and the rat-burrows filled up. The decking of the wharves was pulled up, and what had been the open spaces behind the sheet piling of the water frontages was being filled up solidly with broken stone—the intention being ultimately to replace the wooden wharves with masonry or concrete, in which there would be no harbour for rats.

The whole soil of the isolated areas was first well watered with a five-per-cent. solution of sulphuric acid (on wooden floors five-per-cent. solution of carbolic acid was used); but still in the demolition work there appeared to be too much dust allowed to be blown about. When dug up or demolished all combustible material was burnt, and all incombustible—even the sound bricks of the buildings—lightered out to sea and discharged into deep water.

In the first area we visited, including Sussex Street and neighbouring wharves, the overcrowding—especially amongst the Chinese—had been evidently very great. All of what had been the small yards and gardens left beside and behind the cottages that were originally built in the street, had been covered with buildings leaving no airspace, and often placed over the old cess-pools which had not been cleaved or properly filled up. And these places were occupied as lodging houses by Chinese and others. The Wexford street area, with its large Chinese and Malay population, was in perhaps a worse condition, except that it was on a higher and drier site. What we saw was a striking exemplification of what a century of neglect by the Municipal Authorities of sanitary administration can produce in the midst of a wealthy community. And altogether apart from the question of plague prevention, the work that the Central Health Authority of New South Wales has done in the City cannot fail to have good effect upon the health of the population.

While at Sydney we also inspected the arrangements made for the conveyance of plague patients to the Quarantine Hospital, and their reception there, and the precautions taken to prevent the spread of infection thence by medical and other officials having to visit the patients, and have duly noted them for adoption should plague unfortunately occur in Tasmania.

At Melbourne we also inspected the arrangements made at the Bacteriological Laboratories at the University, and since our return obtained your authority to make use of the services of Dr. Cherry of that Institution, should they be required to bacteriologically determine the existence or otherwise of plague in any case here. We also inspected the method of disinfection by heat used at the hospitals, and the fumigation of ships for the destruction of rats.

In conclusion, we beg to recommend that when the ratification of any Convention based on the Melbourne Conference is asked for from the Government of Tasmania, that such ratification should be given subject to the retention of the option given by the Venice Convention to each Government adhering to it, to subject all healthy persons on suspected ships to either *observation* or *surveillance* at its discretion.

We have the honour to be,

Sir,

Your obedient humble Servants,

A. MAULT,

L. S. HOLMES, L.R.C.S.,

G. SPROTT, M.D.

Hobart, 18th May, 1901.

APPENDIX.

AUSTRALIAN AND TASMANIAN INTERCOLONIAL PLAGUE CONFERENCE OF MELBOURNE, VICTORIA, 1900.

This Conference, which met in Melbourne, in April, 1900, on the invitation of the Honorable Allan McLean, Premier of Victoria, to the Governments of Australia and Tasmania, consisted of Delegates from all those Governments except that of New South Wales, the presence of Plague in the latter Colony requiring the special attention of the Officers of the Health Department there.

PROCEEDINGS OF THE CONFERENCE AT THE OFFICES OF THE DEPARTMENT OF PUBLIC HEALTH.

FIRST MEETING, WEDNESDAY MORNING, 11TH APRIL, 1900.

All the delegates were present, namely:—

On behalf of the Government of Victoria, Dr. D. A. GRESSWELL, Permanent Head of the Department, and Chairman of the Board, of Public Health of that Colony;

On behalf of the Government of Tasmania, Mr. MAULT, Secretary to the Central Board of Health of that Colony, assisted by Dr. HOLMES, Port Health Officer, Launceston, and Dr. SPROTT, Medical Officer of Health, Hobart;

On behalf of the Government of South Australia, Dr. RAMSAY SMITH, Chairman of the Central Board of Health of that Colony;

On behalf of the Government of Queensland, Dr. WILTON LOVE, Secretary to the Central Board of Health of Queensland, and Dr. WRAY, Government Medical Officer of that Colony and Port Health Officer, Brisbane;

And on behalf of the Government of Western Australia, Dr. BLACK, President of the Central Board of Health and Acting Principal Medical Officer of that Colony.

The Conference was opened by the Honorable DONALD MELVILLE, M.L.C., Minister of Health, Victoria. He heartily welcomed the delegates, and stated that the Victorian Government could hardly over-estimate the importance of the Conference. The danger threatening Australia was more terrible than war; and the Government, Parliament, and people looked to the delegates as their protectors. Their united expressions would be most valuable, and he sincerely hoped that their efforts would be crowned with success. He need not assure them that the Government would do all in its power to carry out their suggestions for the protection of the colonies against infection by plague. He hoped the disease would be kept out of Australian ports; but, if unsuccessful in this, he was sure that every endeavour would be made to eradicate it. He could assure the delegates that the Government would do its utmost to carry out their suggestions.

The Minister then withdrew.

Dr. GRESSWELL was unanimously appointed President, on the motion of Dr. WILTON LOVE, seconded by Dr. RAMSAY SMITH.

The PRESIDENT took the chair, and warmly thanked the delegates for the position they had assigned him. He was sure that all would admit the onerous nature of the responsibility resting on the Conference, and that each would give his best consideration to the measures required for dealing with the malady with which the colonies were threatened. He would suggest, as a basis on which to conduct the discussions, that the Conference adopt the Venice Plague Convention, which had been the result of the united and best efforts of many of the foremost authorities in the world. At the same time there were, he thought, questions requiring consideration that had not been dealt with at the Venice Conference of 1897. The Conference had to consider not only oversea and intercolonial traffic, but also, he would suggest, principles affecting intracolony sanitary conditions. Questions would arise as to the obligations to be imposed on masters of ships and shipping companies in regard to their vessels, in port as well as at sea. In the absence of a Federal Government, it was not likely that a convention would be perfectly observed, more especially in regard to obligations imposed on shipping companies. Before entering upon the detailed work for which the Conference had met, he would venture to suggest that the several delegates address the Conference generally on the subject under consideration. At the last Intercolonial Quarantine Conference such procedure had, at the outset, revealed a number of important questions for discussion, questions which, in fact, formed the basis of the work conducted on that occasion. As the main basis of the work before them, he would propose the Venice Plague Convention.

Mr. MAULT.—He would have preferred the medical members to have preceded him in addressing the Conference. He would briefly review what the Government of Tasmania were doing in regard to the plague prevailing at Sydney; from that the views of the Tasmanian Government would be understood. Speaking generally, they frankly accepted the Venice Plague Convention; and their efforts would be directed to carrying out the Convention as far as possible. In other words, he did not think it was the intention of the Tasmanian Government to continue further than was absolutely necessary, the old system of quarantine. The Government intended to follow the example of the European Powers and America, and endeavour, by very strict medical inspection of every person and everything coming in from an infected port, to exclude infection. The procedure adopted was as follows:—every passenger permitted to land in Tasmania was required to undertake to submit himself, at a place appointed by the Government, to medical inspection for a period of ten days from the time of leaving an infected port. At all the outports there were health officers, who carried out that inspection. For passengers going inland, it had been arranged that either the officers of health of the various local bodies, or, in case of sparsely-populated districts, some other medical practitioner should make the inspections. A regulation to that effect was already in force, and so far there had been no difficulty in carrying it out. Imported goods were dealt with under special regulations framed under an Order in Council, and based upon the Venice Convention. Vessels were divided into three classes (the infected, the suspected, and the clean), and each class was dealt with in accordance with the regulations. An infected vessel was not to be admitted to any port, but was to be sent to the Quarantine Station. The infected persons were to be landed, and kept either in hospital or in an observation-ward. The rest of the passengers who, in the opinion of the health officer, were in good health, were to be treated precisely as the other passengers—they were to be allowed to land, provided they undertook to submit themselves to inspection. The infected vessel and the personal baggage were to be disinfected to the satisfaction of the health officer—his satisfaction being the ultimate standard of the requirements. So far no case had arisen. As to the berthing of ships alongside the wharves, the Tasmanian Government had followed the example set by Victoria. And concerning general sanitary conditions, arrangements were being made for the thorough cleansing of all ports and towns, in preparation for the visitation that some people thought inevitable, and special attention would always be paid to the chief means of preventing the dissemination of the disease.

Dr. SMITH.—No better basis for the Conference could be found than the Venice Convention. No doubt the conditions in Australia differed considerably from those in Europe, so much so, indeed, that for a time it was doubted whether plague could ever occur in the Southern hemisphere or on the Australian continent. Prior to the Noumea outbreak, he believed, no case had been recorded in the Southern hemisphere. The Venice Convention took such a broad view of the subject that the application of it to any country where plague might break out was a mere matter of detail. The South Australian Board of Health gave attention to the articles of that Convention about October of last year, and adopted them in their entirety, little thinking at the time that their colony would occupy the unenviable position of being the first to deal with plague on the Australian continent. Their attitude towards plague was foreshadowed in a circular, dated 10th January, 1900, in which the subjects of inspection, notification, and quarantine were dealt with. Quarantine necessarily had a place in the circular, because South Australia was practically the port of entrance for passengers and mails for Victoria and New South Wales. One difficulty arose from their custom of clearing vessels at any hour of the day or night, so that, when the matter of daylight inspection was mooted, a hardship to the shipping companies appeared. The South Australian Acts dealing with public health and quarantine were, however, elastic enough to prevent any unnecessary hardship to shipping companies, and elastic enough to enable the Board of Health to carry out any decision the Conference now sitting might arrive at regarding shipping, overland inspection, and local sanitation. A nation or a colony might possibly prevent the importation of plague by forbidding all commerce or communication with every port of the world, just as an individual might possibly secure immunity from fracture of the arm or from a sprain by never venturing to leave his bed. But, as a rational individual must take a certain amount of risk in order to live with a certain degree of usefulness and contentment, so a nation or a colony must run necessary risks. He, personally, was in favour of letting inspection take the place of quarantine, as in Europe; but it was very difficult in the British colonies to educate people up to that standard. A tremendous advance in this direction in deal-

ing with plague, small-pox, and other diseases would be made if this Conference placed on record its belief that a thorough system of inspection would be trustworthy and practical. The President had referred to intercolonial matters, and he (Dr. Smith) would impress upon the Conference the desirability of arriving at an understanding as to the relative duties of Governments, municipalities and other local bodies. This was advisable, because, as soon as plague or other infectious disease arose, the first question was—"What do they do elsewhere?" and if the procedure was not as in other countries the executive was subjected to no end of criticism, with the result that time and brain material were expended that otherwise might be used in active sanitary work. The South Australian Central Board was very strong indeed on making local boards responsible for local sanitation, believing thoroughly in local government in health matters. The new Health Act in South Australia had shown the local authorities that the right to lay hold of an individual, and deprive him of his liberty, on the ground that he was a menace to the community, carries with it the right to expend the local rates upon the isolation of that individual. He was not sure that the Health Act altogether recognised the undoubted right of the individual to live in his own house, or walk about at his pleasure, so long as he did not actually interfere with his neighbour. These were points on which the Conference might give its opinion, and so tend to a better understanding between Governments and local boards. The South Australian Board had issued a circular as to the special measures to be taken for preventing the spread of plague, taking it almost word for word from the plague regulations of the Indian Government. The terms of that circular had been settled only after long and earnest consideration. The South Australian Board had adopted the Tasmanian regulations as to ship berthing. At all ports of South Australia there was daylight inspection for all vessels arriving, whether oversea or from another colony. Nothing had so far been done in the way of land-inspection.

Dr. LOVE.—The suggestion that the Venice Convention be made the basis of the deliberations received his support. In September last the Queensland Government asked the opinion of the Intercolonial Medical Conference, then sitting in Brisbane, whether the Venice Convention should be adopted by them, and it was decided that, as the conditions in the colonies were so different from those in Great Britain and other settled countries, it would hardly be wise to adopt the Convention in its entirety, especially as to surveillance. It was thought that quarantine was necessary, especially in the unsettled portions of Queensland, because it was quite impossible with the existing machinery to allow suspects to land, and subject them merely to surveillance; in other words, that it was absolutely necessary to carry on the cumbrous system of quarantine. The Queensland Government accepted that decision. In Queensland, the outbreak of plague had brought out the fact that in the health regulations no provision existed for enforcing land quarantine; and it was, therefore, necessary to recognise that in the regulations dealing with plague. The Queensland Health Act was, in fact, passed in 1884, and at that time there was no railway communication with New South Wales. The point had been met by introducing a special clause in the plague regulations. That clause had been put in force at Wallangarra, where, during the past month, an officer who had been instructed how to deal with cases of plague and suspected cases had been inspecting the daily mail. The Board had endeavoured to impress upon the public the necessity for cleanliness. A circular on this subject had been sent to all the local authorities (some 180) in Queensland. Plague regulations had been framed dealing with maritime and land quarantine, and the most essential of the ship-berthing regulations of Victoria had been adopted in Queensland ports. Sheets of information concerning disinfection and disinfectants had been distributed broadcast over the colony. He regretted that New South Wales was not represented, and that the Conference had not met in Sydney, where, owing to the occurrence of plague, the work proceeding would be instructive.

Dr. SPROTT.—It was not necessary for him to add anything to what Mr. Mault had said.

Dr. HOLMES.—He could repeat what Dr. Sprott had said. He would, however, state that the previous night, when he was taken by the Melbourne authorities to see the disinfection of the s.s. *Laura*, he observed that while disinfectants were being put into the hold of the ship there was no precaution to prevent rats passing from her on to a hulk alongside. The hulk would probably afterwards be taken alongside some wharf, and, though there were watchmen on the wharfs armed with sticks, there was no watchman on the hulk. The same thing had troubled him in Launceston, the Tamar being a tidal river, and it was a point he would like to hear discussed. In reply to the President, he stated that he was not sure that fenders were not provided.

The PRESIDENT. — The Victorian regulations forbade such an arrangement, but he would make inquiry into the case.

Dr. WRAY.—The quarantine regulations in Queensland for the last 25 to 30 years had been very stringent, with the object of preventing the introduction of small-pox, cholera, and diseases of that sort. Quarantine was the only means of effecting that object. He had never thought the system of allowing incoming passengers to go directly inland for inspection at the places of destination practicable. He was not decided as to the period of quarantine for plague. Ships were allowed to proceed to Lytton for inspection, but no inspection was allowed between sunset and sunrise. When his assistant at Lytton had given pratique, he (Dr. Wray) had nothing further to do with the ship; the ship and passengers then passing under Dr. Love. The Government had requested the shipping companies to have each vessel fumigated to the satisfaction of the Health Officer of the port of departure before taking in cargo, and again fumigated at the port of destination before taking in return cargo. If a ship arrived with plague he would take her to quarantine and land the people. It would be a matter for after consideration how long he would keep them in quarantine. In the Quarantine Act, and in all proclamations, the Health Officer had discretionary power. The period of quarantine was fourteen days, but if the Health Officer advised the Minister that the ship be released after ten days, that course might be adopted. Queensland had never tried the experiment of allowing people to land and taking their word for it that they would come up for inspection for ten or fifteen days. The large majority would not come. The great

question was as to the mode in which plague was carried, and he thought it would be discovered that there were other means than the rat. He was agreeably surprised that the disease had been kept out of Queensland so long, seeing that the opportunities for infection of Queensland were more numerous than in the cases of the other colonies. Queensland was the first port of call for the Eastern and Indian vessels, and he thought the climate and the sunlight were great factors in keeping the disease away. Queensland had not had small-pox for 21 years, and, with the aid of the other colonies, Queensland, he hoped, would keep out the plague.

The PRESIDENT.—The Conference might possibly find it necessary to encourage one colony to do more than another, owing to difference of risk of infection, a point to be considered, he thought, for instance, in the relations of Queensland to Polynesia and Eastern countries. Each member had favoured the adoption of the Venice Convention as a fitting basis for the proceedings, and the question would now arise as to whether the Conference should continue open, or resolve into committee of the whole.

Mr. MAULT.—He moved that the Conference resolve into committee of the whole. Dr. Love seconded the motion, and it was carried.

SUSCEPTIBLE ARTICLES.

The PRESIDENT.—Susceptible articles might be taken as the first matter for consideration. He thought the list should be adopted, with the addition of "bones," and he would suggest consideration of such articles as bananas, which formed excellent rat-bait, and which might become infected at the port from which they were sent, or on the vessels in transit, or in the case of bananas after arrival in the very unwholesome places in which they were matured. The last point, however, was a matter of intracolony administration. He understood, from what he took to be a very trustworthy source, that there was but little action taken at Sydney to prevent rats from getting on board vessels, and the question arose in connection with vessels from Queensland, and with bananas on board, putting in at Sydney, and so becoming infected with plague rats.

Dr. WRAY.—If Brisbane became largely infected, or if Cairns became infected, the prohibiting of importation into other colonies would, he thought, be justifiable. But if bananas, why not also apples and potatoes?

Mr. MAULT.—Tasmania had adopted the list given in the Venice Convention. He agreed as to bones. As to apples, which in great numbers were exported from Tasmania, they were usually put on board as quickly as possible. Potatoes were kept longer than apples, but neither the one nor the other was kept very long. What applied to bananas would apply to apples and potatoes in a considerably smaller degree, because the latter did not need to be ripened, whereas bananas were put to ripen very often in very dirty places. Tasmania would, however, gladly take any precautionary measures that might be suggested.

Dr. SMITH.—The matter appeared to be a local one, *i.e.*, for the importing colonies, to deal with, and the remedy was to prevent the ripening in dirty places. In South Australia, if there was the slightest evidence that fruit was being improperly stored, the whole lot would be confiscated; but they would not object to the importation.

It was agreed to place "bones" and "bananas" on the list.

HAWKERS.

Dr. SPOTT.—He would be glad to have the position of hawkers in regard to plague considered.

The PRESIDENT.—That was specially provided for in the Venice Convention (Titre V.), each signatory reserving to itself the right to take special measures with regard to certain classes of persons, especially tramps, immigrants, and persons coming over the frontiers in considerable numbers. He thought it would be justifiable, nay, necessary, in some cases, to deal with them on arrival by sea also in a special manner. He had recommended the Victorian Government not to encourage communication for the present with Sydney by issuing cheap excursion tickets, and he would stop the movement of Chinese from a place that was much infected.

Mr. MAULT.—The object of the regulation, referred to by the President, was to leave each Government free to act as it chose. The Conference had taken care not to interfere with the individual rights of the different Governments.

Dr. SMITH.—The Conference should recommend, in regard to this matter, that the health authorities be at liberty to deal with each ship or railway load on its merits.

Mr. MAULT.—Though unwilling to brand any particular class, he felt that the Indian hawkers, who took Dacca muslins and other things, that had very likely been produced in filthy Indian cities, round the country in Tasmania, needed regulation, for there had been strong suspicion once or twice, that fever had been carried by those articles.

Dr. LOVE.—The plague had broken out in Stephen-street, in Sydney, which was inhabited solely by Chinese.

Dr. SMITH.—Special attention should be drawn to the matter.

Dr. WRAY.—Queensland had a great many Polynesians, Japanese, Philipinos, Malays, and such like people, and he thought it should be left to the discretion of each Government to admit or to exclude.

Mr. MAULT.—The point raised might be met by altering the wording of the last paragraph, and making it commence with the words—"That the Governments be recommended to take special measures, &c.," and he supported the suggestion that the Governments should not encourage communication with plague-infected places by issuing cheap excursion tickets.

The suggestion was adopted.

NOTIFICATION.

The PRESIDENT.—Intercolonial notification of any plague occurrence was very necessary. This was agreed to.

LAND QUARANTINE.

The PRESIDENT.—Land quarantine directly concerned all the colonies except Tasmania.

Mr. MAULT.—It also affected Tasmania, because, with maritime quarantine against New South Wales, Tasmania would get all its Sydney traffic through Victoria, and the latter traffic was chiefly by land.

The PRESIDENT.—As illustrative of the action that might, he thought, be advantageously taken in regard to a place regarded as considerably plague-infected, he stated that, as a protection against infection from Sydney, Victoria had two health officers at the border at Wodonga, where almost all of the land traffic with New South Wales passed. Passengers there were examined, and their names and addresses were taken, and they were requested to report themselves afterwards. Preparations had been made for erection of a camp there for isolation of plague cases. The health officers travelled into New South Wales to Wagga Wagga, and the Railway authorities of New South Wales had kindly arranged to keep a close watch on all passengers for sickness of any sort. It was not proposed to isolate more than the person or persons infected, or suspected of being infected, unless there were some special risk of infection owing to the nature of the attack, or to condition as to cleanliness or insect-vermin, the rest of the passengers being merely required to report themselves.

Dr. WRAY.—The passengers must be trusted in such a case, to report themselves. They could not be compelled to come up for examination.

Dr. SMITH.—They could either be made to enter into a bond, or be placed in quarantine.

Mr. MAULT.—The present medical inspection in Tasmania was quite sufficient.

Dr. LOVE.—He and his fellow delegate, on passing the Victorian border, were not medically inspected. At Wallangarra the Queensland medical officer went some distance up the line, and came on with the train.

The PRESIDENT.—The Victorian health officer did the same thing. The health officers had strict instructions to allow no one to pass who was in any way indisposed, without examination. (It afterwards transpired that one of the Victorian health officers did actually converse in the same carriage with Dr. Love when on his way across the frontier.)

Dr. SMITH.—The isolation should extend not only to the plague-infected, but to the plague-suspected, if Tasmania and South Australia were to be protected by the examination at the crossing from New South Wales into Victoria. The inspection was also as necessary on the land frontier between Victoria and South Australia as between Victoria and New South Wales.

Dr. WRAY.—Taking the incubation period at three to five days, there would be more likelihood of picking up a case from Sydney on entering Adelaide than Melbourne.

Mr. MAULT.—During the existence of plague in Australia, the colonies should furnish one another with full information of the movements of persons from infected places.

Dr. SMITH.—As all the colonies would share in the benefit, they should all share in the expense. If Tasmania went to the expense of cabling the name of every person leaving the island, the benefit would be for the colonies getting the information, and not for Tasmania.

Mr. MAULT.—The benefit would be reciprocal.

Dr. SMITH.—Even if, as between Victoria and Tasmania, the number of people going and returning were the same, Tasmania would be proportionately out of pocket, because it had the smaller population.

Dr. SPROTT.—The Union Company, and Messrs. Huddart, Parker, and Company, insisted upon every passenger, when taking his berth, signing a paper declaring where he came from, and if a man declared he came from Sydney, that information was forwarded.

The PRESIDENT.—The signatories to the Melbourne Small-pox Intercolonial Convention were committed to the view that such work was of a Federal nature, and that the expense should be pooled, each colony paying its proportion on a capitation basis.

Dr. SMITH.—He would invite attention to the statement by Dr. Routh, reviewing the whole subject of Arabian plague, viz., that he had never known a man well enough to leave the hospital communicate the plague to any one else. Hence, if a man were in a condition to spread the disease, his condition was such that any one could recognise that he was ill. This might be the criterion as to isolation of persons at the frontier. In reply to Dr. Holmes, he (Dr. Smith) stated that no precaution was being taken at the land frontiers by South Australia.

It was agreed that medical inspection at the land frontier was desirable in case of any considerable prevalence of plague in an adjoining colony.

Dr. BLACK, representative of Western Australia, arrived at this stage of the proceedings, and took his seat at the table, and the President briefly reviewed the foregoing deliberations.

REMOVAL OF MAILS FROM VESSELS BEFORE GRANTING PRATIQUE.

Dr. SMITH.—He desired that consideration should be given to the removal of mails from vessels prior to the granting of pratique. The mail steamers arrived at Adelaide from the West generally between two and three a.m., and the Eastern colonies were anxious to have their mails as soon as possible. Under the present regulations a ship could not be cleared until daylight, which generally meant a delay of four hours at Adelaide, and a delay of 12 to 24 hours at Melbourne. He desired that the question be discussed whether, supposing a ship came in with a clean bill of health, and the ship's surgeon stated that there had been no case of illness on board, the mails should be permitted to be landed prior to the granting of pratique.

The PRESIDENT.—The mails, in such a case, might be disinfected. The ship's statement as to illness was so frequently untrustworthy. Suppose infected rats had been over the mail bags, or suppose the mails had come from an infected post office, such as the one recently referred to in the Melbourne press?

Dr. SMITH.—If the mails were allowed to be landed, then the cargo also should be, *i.e.*, after disinfection and prior to examination of the passengers.

Mr. MAULT.—Though he would allow the mails to be landed, which were easily disinfected, he would not allow the cargo, *i.e.*, prior to examination of the passengers.

This was agreed to.

DISINFECTION OF MAILS.

Dr. SMITH.—He would like information as to the method adopted in the different colonies in disinfecting mails. Was it done on the ship or on lighters?

Dr. WRAY.—In Queensland the bags were fumigated on board ship. One of the ship's company then handed them over to a postal official; and, on arrival at the General Post Office, the bags were opened in a disinfecting chamber, and the letters fumigated.

Dr. BLACK.—He thought the only effectual way to disinfect a mail-bag and letters was to pass the bag through a Reck's disinfector with steam, under pressure. Western Australia had several of them in use.

Disinfection by steam was agreed to as the most effective method.

COALING BEFORE AWARDED PRATIQUE.

Dr. SMITH.—The shipping companies desired to coal as soon as they arrived, and that was often before daylight. Should this be allowed before pratique was granted, seeing that coal lumpers were required, as some of the ships, especially the English ships, did not carry coloured crews, and had not sufficient hands to take in their own coal, and that the lumpers were generally put on board, and must be allowed again to leave the ship?

The PRESIDENT.—With the coaling process at Melbourne, and dealing only with plague, he did not think there was appreciable danger with inoculated lumpers. With small-pox, protection was secured in Victoria by employing only recently successfully vaccinated lumpers, and changing their clothes.

Dr. WRAY.—At Honolulu the coal hulk was placed in quarantine, and the difficulties were thus overcome, the hulk and the coal lumpers being kept in quarantine.

Mr. MAULT.—In Tasmania the residence of every lumper was registered. As regarded Western Australia, mail vessels should be allowed to get on their way as quickly as possible.

INSPECTION OF SHIPS BETWEEN SUNSET AND SUNRISE.

The PRESIDENT.—Victoria forbade clearance of vessels at hours from ten p.m. to six a.m., and forbade clearance of vessels from plague-infected places between sunset and sunrise, but no clearance was allowed in the dark if there was the slightest doubt as to infection. Strong electric lights were generally available on mail steamers.

Dr. BLACK.—Considerable delay would arise if the health officer were not allowed to clear a mail steamer after ten p.m.

Dr. SMITH.—He would invite attention to the case of a ship which, having arrived at Adelaide with a cargo of sugar from Mauritius, was given pratique on the statement of the captain that there was no plague at the port of departure. But the cargo came from a plague-infected port, though there was no plague at the port the vessel had left.

The PRESIDENT.—Victoria did not differentiate between ports of a country such as Mauritius. The whole island was regarded as infected, though only a part might be known to be infected.

Dr. SMITH.—He would like an expression of opinion as to whether inspection should be conducted by night—say, by aid of electric light. The South Australian Quarantine Act required every ship on arrival to be inspected, and pratique to be granted before being allowed to discharge anything; the Government decided, however, to exempt intercolonial shipping. But when the plague broke out in Noumea that exemption was rescinded, and at the present time South Australia was acting under the original Quarantine Act, which required inspection of everything, and the Government had decided that the inspection be by daylight, in order to make sure of fair dealing with suspected cases on board.

The PRESIDENT.—He felt that, with a thoroughly competent health officer, ships might be cleared at almost any time.

Dr. WRAY.—A ship might arrive from an uninfected port and yet have infected cargo on board. Queensland required the master to declare where he received his cargo, and where he received his passengers from.

Dr. HOLMES.—He would leave it to the port administration.

Dr. SMITH.—He would like an expression of opinion from the Conference, as to whether ships from non-plague-infected ports should be cleared only between the hours of six a.m. and ten p.m.

The PRESIDENT.—He would rather not fix the hours for other colonies.

Mr. MAULT.—The local administration should deal with such a question.

This was agreed to.

PERIOD OF INCUBATION AS A BASIS FOR PRACTICAL MEASURES.

The PRESIDENT.—The Convention provided ten days as the maximum period both for observation and for surveillance. France, though a signatory to the Convention, was allowing 12 days; New South Wales had, he thought, adopted 12 days; Queensland, 14 days; South Australia, ten

days. The decision of New South Wales to adopt 12 days' quarantine against vessels from Noumea, when the latter became infected with plague, had, practically, as a matter of intercolonial comity, rendered it obligatory on Victoria to fix the same period. It appeared that, in the course of the discussion at the Venice Conference, on the duration of the incubation period as serving as a basis for practical action, a period of 15 days was first proposed, then successively shorter periods, until finally a period of ten days, which was adopted by an overwhelming majority, the minority consisting only of France, Great Britain, British India, and Egypt. The English and French delegates, however, would not have agreed to the adoption of that period for administrative purposes, had it not been that an overwhelming majority were against a further reduction. England and France, some might say, were the two Powers most concerned, and England more so than France, in reducing quarantine restrictions, owing to the extent of their commercial interests, and that it would accordingly be the aim of those Powers to reduce the period as far as possible; and yet, in spite of what had transpired at the Venice Conference, France had adopted quarantine, and, though a signatory to the Convention, allowed the period of it to extend to 12 days. It might also be noted that the sanitary condition and sanitary administration of Victoria (and, possibly, of other Australian colonies) were much behind those of England; and the question arose as to whether the risks were the same with backward, though progressive, young communities as with England, where the sanitary conditions and sanitary administration were on a very much more satisfactory footing. Moreover, what was possible here in regard to quarantine was absolutely impossible in England.

Dr. SMITH.—This affected South Australia, in that Noumea could just be cleared in a ten days', whereas it could not if a 12 days' period were adopted. With a ten days' limit a ship with passengers from Noumea could leave Adelaide with a clean bill of health; whereas, with a 12 days' limit, she would need to go to Albany in quarantine. He would prefer inspection to quarantine, if it could be done in the interests of health; and, considering the case of Noumea, he felt strongly the desirability of leaving the period at ten days. As to the difference between British and other delegates at Venice, there had been a general tendency to come to the British way of looking at quarantine periods. Though the British Government had adopted the Convention proposals *in toto*, they had done so by waiving their own views on the matter.

Mr. MAULT.—There was no doubt that, ever since the practice was established of having periodical conferences in regard to sanitary matters relating to international communication, the position that the English Government had taken up had been invariably a far more liberal position than that of all the other Powers. One of the most interesting facts to note, by one who had followed very attentively the history of these various international technical commissions, was the steady progression of the views that had been always advocated by England among the best medical delegates from other countries. At first the English delegates stood absolutely alone. Gradually they were supported by one country, and then by another, until in this case (and this had been the first time since their establishment), England had been put in a position in which she could permit herself to sign the Convention without any hesitation at all. He was quite satisfied that the tendency of things all the world over must, in the course of time, affect these colonies; and he hoped that one of the first steps towards realising that would be taken by the present Conference. Great Britain and France had the courage of their opinions in regard to quarantine. They were the only countries that had depended upon sanitation at home instead of quarantine, and that dependence was fully justified, and the dependence upon quarantine was disproved. The charge had been laid against England that her action as regards quarantine was taken for the sole purpose of saving her commercial profits, but the answer was complete, inasmuch as England alone had spent ten times as much as the whole of the rest of the world put together on sanitary work at home, and the result fully justified the dependence England had always had in keeping clean her house at home, instead of trying to keep out disease by means of quarantine.

Dr. SMITH.—He would lay great stress upon what Mr. Mault had said. No doubt quarantine was tolerated in many of the British possessions, simply because the adjoining States would stop all trade with such places if a period of quarantine were not imposed. This interchange of "national courtesies" had been apparent upon many occasions when British colonies had been proclaimed by most filthy places to be infected, and a system of very injudicious and rigorous quarantine had been imposed upon those places. Therefore, anything the present Conference could do to settle a reasonable term of quarantine—not a minimum or risky term, but one that would give confidence to the health authorities—should be done boldly.

Dr. WRAY.—He could not wholly agree with Dr. Smith that quarantine was supported by people who did not care about doing anything themselves. New York, for instance, had adhered to the old-fashioned quarantine, and he thought that city would compare favourably with London in regard to sanitation.

The PRESIDENT.—It was all very well to say that a dirty and badly-administered community should defend itself by the introduction of sound sanitary conditions, but that was not to be accomplished in a day; and such a community was, in his opinion, justified in defending itself by quarantine, while doing its best to introduce wholesome conditions and sound sanitary administration, so long as it was clean in regard to the infection, and the carrying out of the quarantine was practicable.

Mr. MAULT.—It was his confirmed opinion, after studying the question for 40 years, that leaning upon quarantine was leaning upon a broken reed. In no case in the history of the world had quarantine ever kept a community free from disease. In New South Wales the people firmly believed in vaccination, but the Government there had not the courage of their own opinions, and the result was that they had been called upon to expend £85,000 in fighting the introduction of small-pox.

The PRESIDENT.—He thought that Victoria might fairly claim that the quarantine system had, at any rate, for a considerable number of years, effectively dealt with any threatened introduction of small-pox.

It was agreed to leave the period at ten days.

The Conference then adjourned until 3 p.m. the same day.

SECOND MEETING, WEDNESDAY AFTERNOON, 11TH APRIL.

Present :

Dr. GRESSWELL, President ;

Mr. Mault,
Dr. Wilton Love,
Dr. Holmes,
Dr. Sprott,

Dr. Ramsay Smith,
Dr. Black,
Dr. Wray.

BANANA-TRADE.

The PRESIDENT.—One of the shipping companies (Messrs. W. Howard Smith and Sons) desired to address the Conference on the subject of the banana-trade.

This was agreed to.

Mr. W. HOWARD SMITH, who was then introduced, addressed the Conference. The Chinese were, he said, in great trouble because of the falling off in the banana-trade, owing to a report in a morning paper to the effect that bananas were ripened in Chinese quarters in the back slums. At this season of the year very little stuff except bananas came down from Queensland, and business would be crippled if the banana-trade were stopped. The paper referred to made mention also of the eating of bananas by rats. The ships carrying bananas were fumigated every three weeks, so that there was very little chance of rats getting at the bananas. He would be glad to see the statement corrected. The plague had been a source of great loss to the shipping companies, and the ships were running half empty as to both cargo and passengers. Concerning rats, he might inform the Conference that, whilst recently passing along a Melbourne wharf, he heard a great commotion in one of the sheds, and on going inside he found that the commotion was caused by three rats jumping out of a case of cargo that had just been landed.

The PRESIDENT.—It was well known that the Chinese matured bananas sometimes in very nasty surroundings, and that bananas were a very good bait for rats. On behalf of the Conference, he might inform Mr. Smith that his representations would receive careful consideration.

Mr. SMITH then withdrew, and it was agreed that the Conference could not undertake to make any announcement, as suggested, in the press.

DECLARATION ON OATH FROM DOCTOR OF SHIP.

The PRESIDENT.—Should this be advised? In Victoria a heavy penalty is already attached to a false statement.

Dr. BLACK.—A statutory declaration should be required.

The Venice Convention on this point was agreed to.

PERIOD OF DETENTION, WHEN TO DATE FROM.

The PRESIDENT.—If detention were imposed, the period should date from the time when disinfection was completed; in other words, when last there was danger of infection.

This was agreed to.

INTRACOLONIAL NOTIFICATION OF EXOTIC COMMUNICABLE DISEASES.

The PRESIDENT.—All had, he thought, subscribed to the need for intracolony notification.

Dr. SMITH.—The list of diseases to be notified was, he thought, much the same in the different colonies. He desired, however, to point out, concerning plague, that it was very difficult indeed for a medical man in a place where plague had never before appeared, or had appeared for the first time after many years, to notify a case as one of plague unless he were absolutely certain that it was such. By the South Australian Act, a medical man was not compelled to notify a case unless he were sure it was one of plague. It was almost the universal experience, that cases of plague were frequently not diagnosed or not notified; and it was not until the disease had made considerable progress that the true nature of the disease was found out.

Dr. LOVE.—Do not your regulations use the word "suspected."

Dr. SMITH.—No; a medical man had no protection in notifying a case that he merely suspected. He must be certain. He (Dr. Smith) was referring to the South Australian Health Act. In these circumstances, it was a tremendous responsibility for a medical man to take upon himself to say that a certain person was suffering from plague. If the case were suspicious, and he were called upon to report a suspicious case, then the circumstances would be altered. The central authority and the local authority would then be in a position to call in the necessary assistance to determine the true nature of the case. He (Dr. Smith) thought the difficulty might be met if the practice which had been adopted in India were followed, namely, to require cases of "fever with glandular swellings" to be notified. Some people might say that fever with glandular swellings was a common disease. He thought it was somewhat rare. He had kept accurate record of typhoid

fever in South Australia for three years past. Although complications of all sorts had been observed, such as abscesses, buboes, and skin-rashes of every variety; general glandular swelling, or even local swelling, had been one of the rare complications in that disease. He did not know how it applied in the other colonies, but he had studied the subject, and would say that "fever with glandular swellings" was not a common disease. But even if it were a common disease, and granting that in four out of five cases the glandular swelling was non-infectious, if the fifth case was found to be a possible case of plague, the discovery of that case would really be worth the money spent in the notification of the four harmless cases. He thought nothing could compare with the notification of cases of this character as a means of discovering plague cases. It had been the universal practice in nearly every district in India during the late plague outbreak. Not only had the medical practitioners to notify cases, but every one who might have a case brought under his notice (whether the conductor of a railway car, magistrate, or head of a family) was compelled to report the case to the health authority. Therefore, he thought this Conference might express its view that "fever with glandular swellings" was a disease the occurrence of a case of which ought to be brought under the notice of the health authorities.

The PRESIDENT.—What about cases of pneumonic or septicæmic plague?

Dr. SMITH.—He had considered that point, viz., that pneumonia and septicæmic conditions would not be covered. No one would propose to put pneumonia on the list of infectious diseases with the idea of discovering cases of plague. At the same time, in South Australia, the attention of medical practitioners had been directed generally to those points in the circulars of the Board of Health. This had been done because it was not considered possible to get pneumonia and peritonitis added to the list of infectious diseases.

The PRESIDENT.—Would not the whole thing be covered by the term "plague or suspected plague"?

Dr. SPROTT.—He thought "fever with glandular swellings" would not suit the case, and it would be most undesirable to report all cases of "fever with glandular swellings."

Dr. SPROTT.—The medical men in Tasmania are keen in reporting.

Dr. SMITH.—It was not so in all places. Medical officers of health had sent in cases to hospitals, as septic pneumonia, hæmorrhage of the brain, and such like, that had, in his opinion, been shown, by means of cultivations of the bacillus of plague, *post-mortems*, inoculations, and in other ways, to be cases of true plague. There was no means whatever of getting at those cases. The newspapers had no conception of the situation. The authorities might be put in a very difficult position on account of sneers of professional men, as also might those medical men who dared to diagnose a case as one of plague. He might tell the Conference that not a single scrap of evidence had been overlooked to prove the true nature of that disease in Adelaide. Those members of the Conference who had seen the specimens shown by himself that day, he thought, would unhesitatingly say that, whatever the disease might be in man in Sydney, and whatever disease might exist in Melbourne in rats—and there could be no doubt those diseases were one and the same—the Adelaide specimens were affected by the same disease. But, all the same, it had been said that anything indicating plague at Adelaide had been manufactured. The inoculated animals were there, and the organs from the *post-mortem* examinations were there; but it had been said—"We do not know where they came from; they may have been imported from Hong Kong." Anything the Conference could do to help health authorities to find out cases of plague must prove of the greatest service.

The PRESIDENT.—There would not, he thought, be the slightest hesitation in urging compulsory notification.

Dr. LOVE.—Would it not be well that a recommendation be come to that compulsory notification be enjoined?

The PRESIDENT.—That he took to be the feeling of the Conference.

It was agreed that compulsory notification of plague and suspected plague is necessary.

INTERNATIONAL AND INTERCOLONIAL NOTIFICATION OF PLAGUE CASES.

The PRESIDENT.—The colonies had, he thought, subscribed to the provision of the Venice Convention in regard to international, and, by inference, to intercolonial, notification of cases of plague. Victoria had done so.

Mr. MAULT.—The Conference should emphasise the need for daily notification of cases, and weekly notification of the general progress of the disease.

Dr. SMITH.—There was a special clause allowing adjacent countries to carry on a system of notification of their own, and exchange the news.

It was agreed that every fresh case should be at once notified, and that a general weekly report should be forwarded.

The Conference then adjourned at 5.45 p.m. until ten a.m. the following day.

THIRD MEETING—THURSDAY, 10 A.M., 12TH APRIL, 1900.

Present :

Dr. GRESSWELL, President;

Mr. Mault,
Dr. Wilton Love,
Dr. Holmes,
Dr. Sprott,

Dr. Ramsay Smith,
Dr. Black,
Dr. Wray.

The PRESIDENT.—Careful inquiry, he said, had been made as to the hulk alongside the *s.s. Leura*, referred to on the previous day by Dr. Holmes, and he had been informed that all the Victorian regulations had been scrupulously observed at the time referred to.

In reply to Mr. Mault, he said that Victoria had proclaimed as infected with plague, not merely Sydney, but the whole of New South Wales, and, on the ground that, in dealing with a ship from New South Wales, a proclamation as to Sydney left it open to passengers from that city to say that they had not come from that, but from some other, part of New South Wales.

INTERCOLONIAL MEDICAL PASSPORT SYSTEM.

The PRESIDENT.—Should such a system be introduced, and in what circumstances? In the event of a colony becoming infected to a large extent with plague, and in such a way as to be beyond control, should that colony be requested to issue medical passports to persons leaving for another colony, in the same way as was done, for instance, in India, *i.e.*, to the effect that such persons are not at the time of departure suspected of being affected with plague? At Madras, he understood, each person, on arrival, had to show a medical certificate that he was free of plague at the time of leaving the place from which he had proceeded, and afterwards, for a period of several days, he had to report himself daily to an officer appointed by the Government for the purpose; nor could he leave Madras without getting another certificate. If, for instance, the area of infection was regarded as circumscribed, and the disease was regarded as under control, he did not think such an obligation should be created. It would be a difficult work, no doubt, to carry out. He thought, however, circumstances might arise in which it should be undertaken, but he would leave it open for the colonies to agree together, as needs might arise, to ask any particular colony to undertake it, the basis of the agreement being a considerable degree of prevalence of the disease, and difficulty on the part of the health authority in controlling it. There were two questions—first, were circumstances likely to arise in which a medical passport system should be introduced; and, secondly, should New South Wales be requested to introduce such a system at the present time?

Dr. WRAY.—He thought the Queensland pratique-form would suffice, the health officer certifying that, after examination of the passengers, he had found them free of infection, and no one being allowed to board the vessel after issue of the certificate.

The PRESIDENT.—He would lay more stress upon the overland traffic than upon the sea traffic, owing to the fact that all could be examined thoroughly on the ship on arrival.

Dr. SMITH.—Why this system for Sydney, unless there be reason to suspect that the plague was more prevalent there than in other colonies? Suspicious cases might exist, and not be reported, and there were ambulatory cases that were not reported.

The PRESIDENT.—No doubt there were in all outbreaks of communicable disease undiagnosed cases, some being overlooked, some being ascribed to other causes, some being not readily communicable, some resulting even in death, without the true cause being ascertained; and it was, no doubt, the same with plague as with other diseases depending upon a living and, consequently, changing entity. One of the questions he submitted was whether, with such statements as Sydney supplied, and with such experience as the profession had of likelihood of error, the prevalence in Sydney should be deemed sufficient, or the disease so virulent or so difficult of control, as to justify the asking for a medical passport system.

Dr. BLACK.—The passport system was carried out most minutely and thoroughly in India.

Mr. MAULT.—Would it be necessary to deal differently with the sea and the land traffic in regard to passports?

The PRESIDENT.—He thought the system would be more required for overland than for sea passengers.

Dr. LOVE.—The inspection at the border of the colony would answer the same purpose, and being later would be more reliable.

Dr. WRAY.—He would have all examined before leaving an infected place.

The PRESIDENT.—A pass given at Sydney would not, he thought, be a great protection to Victoria, for passengers were examined at the land as well as the sea frontier on coming into the latter colony. The main thing was that examination at Sydney might lead to the detection of suspicious cases, and so to the prevention of a great deal of trouble on the train journey, and at the land-frontier of the adjoining colony, and, similarly, on the sea journey or at the port of destination.

Dr. LOVE.—The difficulties were so great that New South Wales would probably refuse. This brought him to the point of repeating that, as New South Wales was the colony against which the other colonies had at the present time to protect themselves, if they carried resolutions bearing somewhat hardly on New South Wales, and if that colony did not accept them, the work of the Conference would, to that extent, be null and void. For that reason, he desired to express regret at the absence of representatives from New South Wales, and, perhaps, it would be well if the Conference finished its sittings in Sydney.

The PRESIDENT.—He did not himself contemplate such difficulties. The question of establishing medical passports was a general one.

Dr. BLACK.—It would be desirable, he thought, to make an attempt to have New South Wales represented. New South Wales was the colony against which the other colonies would have to operate, and at present it was the only colony where the whole of the precautions were in actual working order. Therefore, it seemed to him to be a sensible proceeding to conclude the Conference in Sydney.

The PRESIDENT.—The question was not one that solely affected New South Wales. The questions that he submitted were—first, whether any colony having a large prevalence of plague should do so and so, and, if this were decided in the affirmative, then, in the second place, whether the Sydney prevalence was such at the present time as to justify a request from the other colonies that such action be taken. He did not see how New South Wales could influence them specially in determining those questions. If the Conference thought New South Wales should issue medical passports at the present time, it would be well to embody that in a resolution.

Mr. MAULT.—The Tasmanian Government was quite satisfied with the action taken by Victoria.

Dr. BLACK.—The Western Australian Government was also satisfied with that action.

Dr. SMITH.—He thought this would not be the only question in which Sydney would be of help. For instance, New South Wales would probably be glad to have the support of the Conference as to how contacts should be dealt with, about which there was a distinct difference of opinion.

Dr. LOVE.—Uniformity was really the *raison d'être* of such a conference.

The PRESIDENT.—A resolution to the effect that, in the event of plague being extensively or very considerably prevalent, a medical passport system should be introduced, was all that he would suggest. He would not care to go further than that.

Dr. BLACK.—A medical passport system was useful, not *per se*, but because the ordeal of the examination would act as a deterrent in any doubtful case.

It was agreed that, in the event of a considerable prevalence of plague in any colony, the health authority there should introduce a medical passport system.

INTRACOLONIAL MEDICAL PASSPORT SYSTEM.

The PRESIDENT.—In the event of any extensive prevalence of plague in any part of a colony, would an intracolony medical passport system be desirable?

Dr. SMITH.—He thought so; and it was agreed to.

DISINFECTION.

The PRESIDENT.—The Venice Convention required disinfection in regard to certain articles, *e.g.*, dirty linen, clothes, and other articles; allowed disinfection of merchandise, and forbade it in regard to letters, books, and journals. But what if the officials of a post office were infected, or if a post office were infested with plague rats, or if a type of plague developed, rendering detection difficult, whereby letters were freely distributed from plague dwellings?

Dr. SMITH.—The Conference could not go far wrong in adopting the Venice Convention, as to disinfection of letters and such articles.

Dr. WRAY.—It was as necessary to disinfect mail-bags as any other article.

Dr. SMITH.—The question was whether, if the post office were infected, it would affect the letters. It seemed to him that the Convention said it would not, and that letters might be put into the mail-bags without disinfection; but that did not mean that they were not to disinfect mail-bags. He did not think there was any possibility of a letter carrying infection. The plague bacillus was the most easily killed of all bacilli. (The President—"And yet it evidenced remarkable vitality in its extensive prevalences.") He would distinguish between mail-bags and correspondence.

Dr. WRAY.—There were hundreds of employes in the post offices, and each had his own ideas about infection. It would not detain the mail very long to disinfect it; it would satisfy a very large number of people, and would allay fear. Disinfection might not be worth anything, but the majority of the people believed in it.

The PRESIDENT.—As regards correspondence from a place largely infected, he would disinfect; but so long as the prevalence was not great, the matter might be left, he thought, as in the Convention.

This was agreed to.

MEASURES AT LAND-FRONTIERS, RAILWAY SERVICE, AND LAND TRAVELLERS.

The PRESIDENT.—The Convention allowed a soiled carriage, whether of a goods or a passenger train, to be detached from a train and disinfected; but it did not allow of land quarantine, though it left to the signatories discretion as to how certain classes of persons were to be dealt with. He thought each health authority should deal with contacts at the land frontier on the merits of the case.

Mr. MAULT.—The paragraph of the Convention referred to by the President was qualified by a subsequent paragraph, strongly recommending that the other persons should be subject to surveillance.

Dr. WRAY.—It would be impossible to have passengers in Queensland coming up daily for inspection for a period of ten days; that system could be carried out only at the seaports and in centres of population.

Mr. MAULT.—Arrangements have been made with medical practitioners all over Tasmania, and if there was no such practitioner available, then the Government employed some other man capable of doing the work.

The PRESIDENT.—The Conference had already passed a resolution concerning certain classes of persons, as also concerning cheap transit to and from plague-infected places.

The terms of the Convention were agreed to.

CLASSIFICATION OF SHIPS ACCORDING AS THEY ARE INFECTED OR NOT.

The PRESIDENT.—The definitions in the Convention might, perhaps, with advantage, be compared with those of a decree of the French Government, dated 20th July, 1899.

Dr. SMITH.—The Bombay definitions of 17th August, 1898,* were, he thought, the most precise.

The PRESIDENT.—There were then three sets of definitions—(1) That of the Convention; (2) that of the French decree; and (3) that of the Bombay code of regulations. He thought one of the two latter preferable to the first.

(1) *That of the Convention*.—Est considéré comme infecté le navire qui a la peste à bord ou qui a présenté un ou plusieurs cas de peste depuis douze jours.

Est considéré comme suspect le navire à bord duquel il y a eu des cas de peste au moment du départ ou pendant la traversée, mais aucun cas nouveau depuis douze jours.

Est considéré comme indemne, bien que venant d'un port contaminé, le navire qui n'a eu ni décès ni cas de peste à bord, soit avant le départ soit pendant la traversée soit au moment de l'arrivée.

(2) *That of the Decree*.—Est considéré comme indemne, bien que venant d'une circonscription contaminée, le navire qui n'a eu ni décès ni cas de maladie pestilentielle soit avant le départ, soit pendant la traversée, soit au moment de l'arrivée, et qui a quitté le port contaminé depuis plus de sept jours en cas de choléra plus de neuf jours en cas de fièvre jaune, plus de douze jours en cas de peste.

Est considéré comme suspect le navire à bord duquel il y a eu un ou plusieurs cas de choléra confirmés ou suspects au moment du départ ou pendant la traversée, mais aucun cas nouveau de choléra depuis sept jours, de fièvre jaune depuis neuf jours, de peste depuis douze jours, ou dont le temps de traversée n'atteint par ces délais.

Est considéré comme suspect tout embarcation montée ou armée par des natifs, provenant d'un port contaminé quelle que soit la durée de la traversée.

Est considéré comme infecté le navire qui présente à bord un ou plusieurs cas confirmés ou suspects d'une maladie pestilentielle, ou qui en a présenté pour le choléra depuis moins de sept jour, pour la fièvre jaune depuis moins de neuf jours, pour la peste depuis moins de douze jours.

(3) *That of the Bombay Regulations*.—"Infected vessel" shall include any vessel with a case of plague on board, or on board of which there has been a case of plague within twelve days of her arrival.

"Suspected vessel" shall include any vessel on board of which there has been a case of plague at the time of departure or during the voyage, but on which there has been no case of plague during the twelve days immediately preceding her arrival.

"Ordinary healthy vessel" shall include any vessel (not being an infected or suspected vessel) that has, within the period of ten days immediately preceding her arrival, left an infected port or communicated (otherwise than orally or by signal) with a vessel that has left an infected port within that period.

"Healthy vessel" shall include any vessel, even though coming from an infected port, which has had no death from unknown or suspicious causes, and has had no case of plague on board either before departure, during the voyage, or on arrival, and has not, within the period of ten days immediately preceding her arrival, left an infected port or communicated (except orally or by signal) with a vessel that has left an infected port within that period.

Dr. WRAY.—Not one of the definitions took cognisance of the condition of the cargo; a matter which he considered of importance.

Dr. SMITH.—He thought that, nevertheless, the method of dealing with the cargo of the different classes of ships were specified with sufficient care.

The PRESIDENT.—It would be well in the definitions to take cognisance, if possible, of the condition of the cargo, seeing that the ship might be infested with plague rats, and that though no case of plague were apparent among the ship's company, incubation might be proceeding; and if it were felt that the risks justified such action, there should be power to deal with the company as possibly infected.

It was agreed to classify vessels in accordance with the Bombay regulations, with the insertion of the words "or that has had a case of plague on board" after the words "that has left an infected port," and with the addition, after the words "within that period," of the words "or has not received any cargo from an infected place"; thus—

1. "Infected vessel" shall include any vessel with a case of plague on board, or on board of which there has been a case of plague within twelve days of her arrival.

2. "Suspected vessel" shall include any vessel on board which there has been a case of plague at the time of departure or during the voyage, but on which there has been no case of plague during the twelve days immediately preceding her arrival.

3. "Ordinary healthy vessel" shall include any vessel (not being an infected or suspected vessel) that has within the period of ten days immediately preceding her arrival left an infected port, or communicated (otherwise than orally or by signal) with a vessel that has left an infected port, or that has had a case of plague on board within that period, or has not received any cargo from an infected place.

4. "Healthy vessel" shall include any vessel, even though coming from an infected port, which has had no death from unknown or suspicious causes, and has had no case of plague on board either before departure, during the voyage, or on arrival, and has not within the period of ten days immediately preceding her arrival left an infected port, or communicated (except orally or by signal) with a vessel that has left an infected port, or that has had a case of plague on board within that period, or has not received any cargo from an infected place.

TREATMENT OF THE DIFFERENT CLASSES OF VESSELS.

The PRESIDENT.—For infected vessels the treatment under the Convention, the French decree, and the Bombay regulations, differed somewhat.

1. *The Convention* prescribed immediate removal and isolation of the sick; removal if possible of the others on board, and subjection of them to either observation or surveillance, the duration of which was to be dependent upon the sanitary conditions of the ship, and the time that had elapsed since the previous case, but was in no event to exceed ten days; the disinfecting of certain articles; the providing of wholesome water; the disinfecting of parts of the ships where the patients had been; and such further disinfecting as the local health authority might deem advisable. 2. *The French decree* prescribed immediate removal and isolation of the sick; removal as soon as possible of the other persons and subjection of them to quarantine for a period varying according to the sanitary

* These definitions are taken from "A compilation of Regulations issued by the Government of India, 1899"; and are referred to several times below.

condition of the ship and the date of the last case, but not exceeding twelve days; separation of the persons removed from the sick into small groups, so that in the event of any fresh case occurring only those of the group in which such case had occurred would be affected, and so on. 3. *The Bombay regulations* prescribed medical examination of the members of the company; disinfection of such soiled linen and personal effects of the passengers and crew as the Health Officer considers are infected; disinfection and discharge of bilge water; storing of a supply of wholesome water; disinfection of all parts of the vessel at the discretion of the Health Officer; quarantining of all passengers and such of the crew as are to be disembarked, who, in the opinion of the Health Officer, are in any way likely to spread infection; retention of the rest of the crew on the vessel under the medical supervision of the Health Officer, in such manner as he may direct, for ten days from the arrival of the vessel.

He (the President) would adopt the Convention, subject to omission of the words "or to surveillance."

Mr. MAULT.—Tasmania had adopted the English method, and in England the passengers were allowed at once to land.

Dr. SMITH.—South Australia proposed that each case of plague occurring in Adelaide should be dealt with on its merits. If there was no insanitary condition, the people should not be put in quarantine, and he thought the same system might be carried out with ships.

The PRESIDENT.—Surveillance in Victoria was not practicable, and, with the drawbacks to it, the public, he was sure, would not be satisfied with any attempt to carry it out. It was noteworthy that France, one of the signatories to the Convention, had set aside surveillance for "observation."

Dr. BLACK.—He felt sure that none of the colonies would be satisfied with surveillance.

Dr. SMITH.—The colonies would not, in the present circumstances, but if this Conference were to advocate the English custom, it might be adopted.

Mr. MAULT.—In Tasmania the Health Officer was at liberty to exercise his own judgment. If a case occurred in the fore-castle, the other men there would go into the observation ward, but the Health Officer had authority to let the rest of the ship's company land, *i.e.*, all persons who had not been near the case.

The PRESIDENT.—His own opinion was that surveillance, as a matter of practice for an infected ship, would be so very rarely adopted that it was not worth consideration; and, on that account, he was willing to accept the Venice Convention. But he scarcely saw the object to be gained by using the words "or to surveillance," seeing that no minimal period for observation was fixed by the Convention.

Dr. BLACK.—Western Australia put all who left the ship into quarantine.

Dr. WRAY.—Queensland would follow the same course.

Dr. SMITH.—The Small-pox Convention of 1896 allowed all who had been vaccinated within six months to leave the ship immediately after disinfection, and to mix with the population without any surveillance; and he thought the same could be done with the plague after inoculation.

The PRESIDENT.—Vaccination for small-pox and inoculation for plague he would not put on the same footing, though he was quite prepared to allow the protective influence of inoculations. Circumstances might, no doubt, arise in which he would be prepared to grant surveillance, but he thought they would be most exceptional.

Dr. SMITH.—He thought the Sydney experience would be valuable on this point.

The PRESIDENT.—There was a good deal to be said, he thought, for the popular view of the question in some uninfected countries; and it would be difficult to determine the risks of infection of other persons on board the infected ship. New South Wales was quarantining all vessels from Noumea, whether there was or was not sickness on board.

Mr. MAULT.—When England first took up the matter, she was met by the very same arguments that the President was now using, but she persevered, and she was more free from invasion of disease than any other country. The plague had never got established in England, and since this outbreak had occurred, other nations all over the world had adopted the English policy.

The PRESIDENT.—France has adopted observation, not surveillance.

Mr. MAULT.—Under observation France was no freer than England, though she did not run one-quarter of the risk.

Dr. SMITH.—In one case in the Thames they took the person out of the vessel, and let the vessel go, and the disease did not spread.

The PRESIDENT.—One case would not establish much. England, moreover, had not for centuries been threatened with plague from the Continent of Europe. She and other European countries were threatened from India and the East, and, so far, had obtained prolonged observation on the voyage, which, while plague was stirring in Sydney, was not the case, for instance, with Victoria.

Dr. SMITH.—The traffic between the Continent and Scotland was enormous, and yet, with cholera in Hamburg, and ships going to Scotland, the same procedure was followed, and so also with small-pox. They simply took out the sick, took names and addresses of the others, and asked them to report themselves.

The PRESIDENT.—He had no very decided objection to the Venice Convention. It would, he thought, end in practically the same result—no colony adopting surveillance.

Dr. BLACK.—There was no serious harm in adopting the quarantine system, whereas there might be with the other system. As far as Western Australia was concerned, the surveillance system was absolutely unworkable; the colony was so immense, and the places were so far apart, that there was no possibility of keeping those people under surveillance.

Dr. SMITH.—In such a case there was no need for surveillance. If a man took the disease into the bush, there was no need to further isolate him.

Dr. BLACK.—It was not the bush, but the outlying goldfields, that would get the infection.

Dr. WRAY.—England was not to be compared with a new country like this. They had many diseases there which we had not here. He did not see how the same procedure could be followed here as in England; and as to small-pox, England had compulsory vaccination, which Queensland had not.

Dr. SPROTT.—Some mode might be devised of isolating the contacts in the same class, and letting the others go. If a large mail steamer came in with a case of plague in the fore-castle, would all the first-class passengers have to go into quarantine?

The PRESIDENT.—No doubt circumstances might arise in regard to kind of attack, degree of isolation, and so on, in which he would not advocate quarantine of the whole company, but he imagined such cases would be so exceptional as not to require special regulation. No doubt, also, the time might come when the quarantine system would break down, but, while the country was clean, the public, he thought, would not for a moment tolerate the immediate liberation of persons who had arrived in a plague-infected ship.

Dr. BLACK.—The stewards of the different classes in a vessel mixed freely together, though the passengers did not.

The PRESIDENT.—The members of the crew, too, were not confined to the fore-castle, and rats, of course, had free play throughout the ship. While the prevalence of the infection in the colonies was as limited as it was at present, he would advise quarantine, though a time might come when, owing to a larger prevalence, quarantine would be absolutely impracticable, and surveillance become the only system possible.

The Conference then adjourned until 3 p.m.

FOURTH MEETING, THURSDAY, 3 P.M., 12TH APRIL.

Present:

Dr. GRESSWELL, President;

Mr. Mault,
Dr. Wilton, Love,
Dr. Holmes,
Dr. Sprott,

Dr. Ramsay Smith,
Dr. Black,
Dr. Wray.

The PRESIDENT.—The question was as to surveillance or observation.

Dr. HOLMES. — He was certain that the people of Tasmania would not stand surveillance, though that might be the scientific way of dealing with the disease.

Dr. SPROTT.—In Launceston they insisted upon having steamers tied up some miles down the river; but when they found that they had to pay 5s. per ton extra for their cargo, public opinion went in the opposite direction.

Dr. LOVE.—The question was as to whether there could be perfect surveillance of contacts on land.

The PRESIDENT.—He did not think there could be such surveillance in Victoria; while, on the other hand, it was possible, by means of quarantine, to make absolutely certain of preventing infection from the company of a ship found to be plague-infected. No doubt the system of quarantine might break down, but Sydney might be appealed to in order to show that a break-down would not be admitted until all efforts had proved unavailing. Would it not be time to speak about reducing the stringency of the method when we were locally infected? It might be proposed to say—"Observation, or, if that becomes impracticable by virtue of extension of prevalence, then surveillance." But he saw no good in an academic resolution of that sort, except to let it be known that the possibility, or, if the word were preferred, likelihood, of quarantine breaking down, had been foreseen. As to India and New South Wales, it might be observed that they were already infected, whereas the Conference was arranging for clean as well as for infected countries. While we were absolutely clean, nothing, he thought, would excuse the Conference in the eyes of the public if plague broke out under the surveillance system. Surveillance meant suspicion, and, if suspicion, why run a risk avoidable by "observation?" As he had already said, if the Conference adopted the Venice Convention with the omission of the words "or surveillance," the matter would still be left entirely at the discretion of the health authority for a regulation specifying a period of quarantine or observation not exceeding ten days, practically, meant but little. As to protection by inoculation, possibly some degree of immunity, or entire immunity in cases where the inoculation had been successfully performed, might be admitted. It might also be well to bear in mind that a place already infected had not the same need to protect itself as an uninfected place, and that it would not have the same trouble in case of a mistake as a place clean of infection.

Mr. MAULT.—His view was exactly opposite, viz., that in such circumstances the result of a mistake would be far more disastrous than in the case of a healthy and intelligent population, such as Australia possessed.

The PRESIDENT.—What did it matter, say, to Bombay, to have one or two additional cases? In Victoria one or two imported cases certainly meant a great amount of work, and it might mean an epidemic. Was it worth while to incur risk of the occurrence of a case under the surveillance system—a risk that could be absolutely prevented by quarantine, when it meant what it does in this country? Of course, he was referring to a ship on which plague had been discovered.

Dr. SMITH.—The preamble to the regulations showed that the Bombay regulations were framed before the plague had settled there, and for large tracts of country regulations were made for a system of land quarantine where there was only a risk by special pilgrimages and excursions, and such like. In other words, the regulations were framed to keep out an enemy that was only threatening.

The PRESIDENT.—The question as between observation and surveillance would arise again in connection with suspected and with ordinary healthy vessels; and it might be well to discuss the question as bearing, also, on those classes of vessels now. The essential difference between the Convention and the Bombay regulations regarding suspected and ordinary healthy vessels lay in the fact

that, whereas the Convention allowed only surveillance, the Bombay regulations prescribed that "such of the passengers and crew as in the opinion of the health authority, are likely to spread the infection, shall be kept under observation for a period not exceeding ten days from such time as the health authority may consider danger of infection to have ceased." This he thought a prudent provision.

Mr. MAULT.—That differed materially from the lines laid down in the Convention. The Convention was made after a conference similar to the present, where the different representatives held divergent views on certain points; therefore, the Convention permitted one or other of alternative courses to be pursued, at the discretion of the several health authorities, with regard to these points. The Conference should do the same, and not try to make one strict rule, based on the manner in which one or other of the parties to the Venice Convention had used their discretion to be obligatory on all. The parties to this Conference should have the same discretionary power as had been given at Venice, and should not take the Bombay, or any other specific regulations as being the best in all circumstances. He felt that the conditions of the population of Bombay should be regarded as being so entirely different from those of the populations of Australia, that it by no means followed that what was found necessary at Bombay was at all necessary here. Bombay was not the home of the plague, but it was close to it; and he thought it really a sort of impertinence—if he might use the word—for this Conference to say that the people here should be defended by similar measures to those that were found to be necessary in regard to the population of Bombay. The Bombay regulations in regard to suspected ships had departed from the spirit of the lines laid down by the Convention to such an extent that he did not think the Conference would be justified in the adoption of them. The Convention provisions were dictated in very large part by the medical officers from India, as being the best authorities on the subject, and he thought the Conference would be quite safe in following the lines laid down in the Convention. He wanted to reserve to himself the right when the actual measures which the Conference recommended were under discussion, to have something different passed. He was free to confess that, as far as Tasmania was concerned, this was simply the fringe of the question. What Tasmania was chiefly concerned in, was, to know what to do with infected or suspected vessels, and how to treat vessels arriving with a large number of persons on board. He merely mentioned the matter now, in order that his opinions might be thoroughly understood, and to avoid springing a surprise on the Conference by saying anything later on. He was advocating that it be left to the option of the different colonies whether they adopted observation or surveillance, so that Tasmania could adopt surveillance even though observation were carried out by the other colonies.

The PRESIDENT.—General adoption of surveillance in any one colony meant, by reason of intercolonial communication, that observation, as a general procedure in the other colonies, would be incomplete.

Dr. SMITH.—He invited attention to the treatment of infected vessels at Aden on page 213 of the Indian regulations, the rules providing for immediate disembarkation, and isolation of the sick, and the subjection of other persons to surveillance. He would refer, also, to page 216, regarding the treatment of infected ships at Calcutta. It was there provided that the persons should be taken to the sanitary station, and kept, at the discretion of the health officer, for a period not exceeding ten days from the date of the last case. It would thus be seen that Bombay had departed from the Convention more than had been found necessary in Calcutta and Aden. It was a very judicious provision to allow discretion based on the sanitary condition of the ship and of the people. He would like to hear what Sydney had to say on such a point, seeing that they had had experience of the working of both. Sydney had put every one that had been in contact into quarantine, but they had not quarantined all those living in the same tenement.

The PRESIDENT.—In the case, even, of small-pox, while quarantine was enforced for shipping, it was not enforced when, for instance, a large hotel had to be dealt with. All that was practicable, however, in the way of isolation, was done.

Mr. MAULT.—He desired that the same view should be adopted with regard to passengers on a ship as was the case with a large hotel.

The PRESIDENT.—It had never been accepted in Victoria, or, he thought, in any other Australian colony, in regard to small-pox. On ship-board everybody was quarantined.

Mr. MAULT.—The position was different in cases of plague and of small-pox. As far as he could ascertain from publications, the general medical idea was that plague was a disease especially communicable in crowded quarters. Anything that could be done to divide people who had been subjected in any sense to the infection of plague, the better it would be. His own view of dividing them was to send each person to his own premises, and watch him there.

The PRESIDENT.—The communicability of plague cases differed greatly, and differed, no doubt, from that of small-pox. The passage from New South Wales was so short, he might mention, that every vessel from Sydney was a suspected vessel, there hardly being time for the display of much infection. It was the Bombay regulations specially that were being considered in connection with the Convention.

Mr. MAULT.—That was why he had found it necessary to say what he had said with regard to Bombay. The Convention proposals referred to the whole world, whereas the Bombay regulations were made in view of a particular country, occupying a very particular position in regard to plague.

Dr. BLACK.—Every ship from Sydney is suspected.

Dr. HOLMES.—In Tasmania all ships arriving from New South Wales are suspected. We take the trouble of boarding and examining all of them.

Dr. SMITH.—He would invite attention to paragraph 9, page 173, of the Indian regulations. It referred to land-quarantine more particularly, but went on to describe, also, the practice in regard to sea-quarantine.

Mr. MAULT.—If Dr. Smith would read the whole of the paragraph, he would see that the Indian Government thought, if they could answer the objections in regard to land-quarantine, there was no need to discuss the subject of sea-quarantine. India was in one extremity of the scale in regard to land-traffic, and England was in the other as regarded sea-traffic. The land-traffic between the Mohammedan countries in Asia and the pilgrim places was, of course, extensive; but, in regard to sea-traffic, England had more than the rest of the world put together. England, as it were, could lay down the law, as far as experience went, in regard to sea-traffic; but could not do it, to the same extent, in regard to land-traffic.

The PRESIDENT.—England could not, if she would, carry out quarantine.

Mr. MAULT.—He held that English common sense was in advance of the common sense of the rest of the world, and that England listened to the views of common sense, and depended especially on the experience she had gained, which was far larger than that of any other country, and she followed the line of common sense and experience. England had been successful all along the line. He did not think a stronger case could be put of the facility of quarantine, and the reliability of inspection, than was afforded by the history of inspection in England in connection with small-pox. The greater part of the small-pox introduced into England had been introduced from Russia, Russian Poland, and the Northern States of Europe, in the immense migration to the United States. Nearly the whole of that immigration arrived at Hull. There were frequently little outbursts of small-pox among people who came to be transported across England to Liverpool, and started thence to America; and, if the Liverpool health officers' reports for years past were read, it would be learned how exceedingly successful they had been in keeping small-pox out of Liverpool—by good medical inspection at Hull, good information derived at Hull, and arrangements for preventing suspects coming there and mixing with the general population. They had done that; he did not say absolutely without having a small-pox case, but without having a small-pox case that could be traced to this immigration.

The PRESIDENT.—He had but little doubt that England owed much of her small-pox to the European Continent.

Mr. MAULT.—The Liverpool health officer stated that nearly the whole of the small-pox brought into Liverpool had come from the Continent. There was an immense traffic in hematite, or kidney-iron ore, from the north of Spain, where small-pox was endemic. There was no vaccination, and, consequently, it flourished there. Continually cases were being brought by sailors. They were immediately transhipped, and put into hospital, and kept there; and, by this means, the authorities had prevented the introduction of small-pox into Lancashire.

The PRESIDENT.—Small-pox depended upon vaccination and the efficacy of the measures taken by the local sanitary authorities; and, besides, it had a natural history of its own, which he did not think was allowed for in those statements.

Mr. MAULT.—He was calling attention to the general result. Here was a devious traffic, that was not attended with danger, on account of the precautions taken, and those precautions were of a nature that the Venice Convention recommended for plague, and the English Government recommended in regard to all infectious disease.

The PRESIDENT.—What about the small-pox outbreak in England in 1870 and 1871? Was not that part and parcel of an outbreak on the Continent?

Dr. WRAY. — At that time it was introduced into Liverpool by immigrants that were sent across country by the Midland Railway Company, and discovered in the barracks belonging to the company. It followed him (Dr. Wray) on his ship right to New York.

The PRESIDENT.—As a late medical inspector of the Local Government Board, England, he had seen a good deal of the extension of small-pox there, and he was not prepared to admit that for shipping any effective surveillance system had been introduced to prevent outbreaks of small-pox in England, nor could he admit that, with the weak local sanitary administration in many parts of Victoria, a surveillance system with that object could at present be introduced with probability of success. As it appeared that one vote would turn the scale for or against admitting the option in regard to surveillance in connection with infected vessels, he would, while in committee, join with the delegates of Tasmania and South Australia in adopting the Convention, with the words "according to the circumstances" inserted after the word "soumises," and the word "either" before the word "une observation."

This was agreed to.

Mr. MAULT.—Of course, it was understood that, in deciding the line of action as between observation on the one hand and surveillance on the other, the health officer had to consider the condition of the ship. If it was a dirty ship, with a lascar crew, special action could be taken.

The PRESIDENT.—As to "suspected" and "ordinary healthy vessels," the provision in the Bombay regulations "that such of the passengers and crew as, in the opinion of the health authority, are likely to spread the infection, shall be kept under observation for a period not exceeding ten days from such time as the health authority may consider danger of infection to have ceased" seemed sound.

This was agreed to.

TREATMENT OF HEALTHY VESSELS.

The Convention was adopted.

DIRTY VESSELS.

Dr. WRAY. — Queensland had special regulations for dirty ships, although they might not have come from an infected port.

Mr. MAULT.—No interference would take place with such special regulations as were framed for any particular class of ships. The Bombay regulations set out that special measures could be

taken with respect to over-crowded ships, especially immigrant ships, or any other ship having bad sanitary conditions. He thought, also, that it was very desirable to emphasise the conditions mentioned in the paragraph which held the health officer bound to take into consideration the presence of a doctor, and of a disinfection-stove, on board. That was part and parcel of the recommendation. He thought all shipping companies should be encouraged to supply these.

Dr. WRAY.—The Queensland regulations had a provision for dealing with ships from which there was a reasonable suspicion of danger; and he thought it would be well to incorporate that in the resolution.

Mr. MAULT.—The Tasmanian Quarantine Act had a similar provision. In the English directions, not only were actual cases of plague to be dealt with, but any person believed to be suffering from such illness as might prove to be plague was to be treated as if the illness were plague. The health officers had full power, and were not obliged to diagnose the disease specifically as plague.

The PRESIDENT.—Was it desired to pass a special resolution dealing with dirty ships? He felt that the Convention covered the point.

This was agreed to.

SPECIAL TREATMENT OF THE CREW.

Mr. MAULT.—In Tasmania there sometimes was some little difficulty in the treatment of the crew. Would the Conference recommend that in every case the crew of an infected vessel coming from an infected port should be kept on board ship during the stay of the vessel in port? For instance, in the case of the P. and O. and Orient boats that came to Hobart, should every officer and man be kept on board? Tasmania had issued regulations under which every man who wanted to go on shore must get a licence from the officer of health; and also requiring that every man should be examined daily.

The PRESIDENT.—He thought the companies should be urged to carry out such a regulation as far as practicable. In vessels arriving at Sydney from Noumea he understood that all on board were detained for a period of twelve days, even though no plague-infection were discovered on arrival; they were all quarantined.

Dr. SPROTT.—The lascar crews were different from European crews; and he thought it would be well to ask the companies to keep them on board instead of letting them free.

It was agreed to leave the matter in the hands of the local administrations.

DISINFECTION OF CARGO.

The PRESIDENT.—When the Venice Convention was drawn up, the importance of the rat factor in relation to plague was not, he thought, as clearly recognised as it had lately become. Since 1892, when the plague began to stir in the south-east of China, he had refused to allow any vessel from those parts to come alongside, except after disinfection by sulphur, or by sulphur with corrosive sublimate. All vessels from South-east China, Hong Kong, Bombay, Calcutta, and such places, had been thoroughly fumigated, to the immense annoyance of the shipping people—annoyance the greater, seeing that the holds had first been opened up at Adelaide or Sydney without disinfection. But, on becoming more and more convinced of the importance of preventing immigration of rats from plague-ports, he had given up fumigation, and substituted for it strict ship-berthing regulations, for the reasons that (1) fumigation, though useful in killing insect vermin, and, no doubt, also in disinfecting, and to some extent in killing rats, despite the presence of cargo, was apt to drive rats from the ship as soon as opportunity offered, on coming alongside; and (2) he felt that ship-berthing regulations of sufficient stringency could be enforced to prevent the landing of rats. Perhaps a combination of the two practices would be best, but he thought the ship-berthing regulations were sufficient.

Dr. LOVE.—In Queensland one or two of the health officers had been sufficiently zealous to order the disinfection of cargo coming from an infected port before allowing it to be landed. This had happened at Mackay; in the case of the *Aramac*, and also at Townsville. The shipping people appealed to the Government to know if it was necessary. We replied that unless an actual case of plague occurred, it was not necessary, and thus we were at loggerheads.

Mr. MAULT.—If fumigation were properly carried out, rats would be prevented from fleeing. The rats would be confined in the holds whilst the fumigation was going on.

Dr. BLACK.—There was plenty of room between the skin and the hull of the vessel for the rats to escape the fumes. He thought it would be well for the Conference to agree to compel the ships to completely fumigate, and kill as many rats as possible.

The PRESIDENT.—It was, he thought, impossible to kill all the rats of a vessel while the cargo was on board.

Dr. SPROTT.—Tasmania required the production of a certificate to the effect that the vessel had been disinfected in Sydney before the cargo was taken on board. If they had not been disinfected before arrival, they were required to undergo the process.

Mr. MAULT.—Pratique could be refused, but it had never been found necessary to go to that length.

Dr. LOVE.—As many as 300 rats had been killed in Sydney on board one vessel—the *Moncwai*.

Mr. MAULT.—A reliable man in charge of the disinfecting operations was required. The pressure had to be regulated in such a way that the fumes would be retained.

Dr. SMITH.—It might be urged, as a means of working the plague out, that the rats should be left alone. It was a question on which everything had been taken for granted.

Mr. MAULT.—The same argument was once applied in the case of small-pox, some people urging that small-pox should be left to work its own cure.

Dr. SMITH.—The circumstances were not the same. In regard to small-pox, a person could be so salted with a mild form of the disease as not to take the virulent form. But might not the

plague be dependent on, and practically due to, the slaughter of the rats in a place? The question might be put in this way—"Were we not putting too much stress on killing rats as a means of stopping the plague once it had started in a place?"

Dr. LOVE.—Dr. Cantley, who had observed the course of the plague in Hong Kong and Amoy, stated distinctly, that, in his opinion, the only rules of any value in fighting the plague were those dealing with the destruction of rats. Mason, Simpson, and other authorities declared that the only effectual means of combating the plague was by the destruction of the rats in stores, drains, and basements.

The PRESIDENT.—The Conference could not, he thought, get away from that. The question of the disinfection of the cargo itself was, in some measure, complicated by the rat-factor.

Dr. BLACK.—He would invite attention to the precautions taken in Western Australia in relation to the treatment of cargo, as given in the regulations of that colony.

Dr. LOVE.—Certain articles, such as hides, fleeces, &c., would be more likely to convey the infection than others.

Dr. SPROTT.—Would one colony accept a certificate from another colony in regard to disinfection?

Dr. SMITH.—If the certificate were given by a responsible Government officer, it might be; otherwise, it should not be accepted.

Dr. BLACK.—He did not think he should be inclined to take such a certificate. The cargo might be re-infected by the rats in the meantime.

The PRESIDENT.—The Conference might, he thought, ask that all vessels when empty be disinfected, and in such a manner as practically to kill off the rats. It would, however, mean a vast amount of work in Melbourne, as many of the ships would need to be sent down the river into the Bay if the disinfection were to be done with complete safety.

Dr. BLACK.—Such a work could be carried out in Western Australia in the outer anchorages.

Dr. SMITH.—It would mean a deal of work in South Australia.

Dr. WRAY.—Disinfection could not, he thought, be properly carried out with the cargo on board. He believed in disinfecting a ship when the cargo was out. He thought six hours' fumigation, at the very least, was necessary, but he preferred twelve hours.

The PRESIDENT.—The disinfection would, of course, apply only to ships coming from an infected place. Concerning the mode of fumigation in Victoria, he used a fan fumigator that was made to his order in 1892 for the purpose. Sulphur, or sulphur with corrosive sublimate (a preparation first made for this purpose by Nance, of Melbourne), was used, and the fumes were driven into the different parts of the ship. To be of any use, he thought 11b. of sulphur to 1000 cubic feet would be required, and that the fumigation should be continued for at least six hours.

Dr. BLACK.—The practice in Western Australia was to use sulphur. He thought the mode of fumigation should be left to the discretion of the authorities.

The PRESIDENT.—At Singapore, which was the centre of an enormous amount of commerce, though they did not, he understood, disinfect the cargo, they had had very few cases of plague.

Dr. WRAY.—In Queensland they had given up disinfection.

Mr. MAULT.—In the Venice Convention it was provided that the disinfection of merchandise was only to be applied to the things that the sanitary authority considered contaminated. It belonged to the authority to fix the mode and the place in which the disinfection should be carried out. He fancied that if the Conference agreed to that, in regard to maritime commerce, as well as land commerce, it would, perhaps, meet the case.

The Convention was agreed to.

SUCCESSFUL INOCULATION AS A PROTECTIVE.

Dr. LOVE.—Was the Conference prepared to remit a portion of the time of detention to persons successfully inoculated?

The PRESIDENT.—Several conditions, he supposed, would be required if such reduction were allowed; for instance, the inoculation must have been performed, say, seven days previously, and a medical certificate should be required.

Dr. LOVE.—A great many people in New South Wales, Victoria, and Queensland had been inoculated. If a man went to Queensland from Sydney or Melbourne, and had a certificate to the effect that the inoculation had been satisfactory, there would be no need to regard him as a contact after disinfection.

Dr. SMITH.—He would not allow reduction, in case the inoculation had been performed more than four months previously.

The PRESIDENT.—Many thought a second inoculation necessary. He thought it would be safe to accept such limits.

Dr. BLACK.—Haffkine did not consider six days necessary for partial protection.

Dr. LOVE.—Haffkine said seven days, in an article in the *British Medical Journal* of last year. The further question remained as to who should certify.

The PRESIDENT.—In any case, it must be a medical practitioner.

It was agreed to regard successful inoculation as affording immunity for a period of four months from the seventh day after inoculation.

SHIP BERTHING REGULATIONS.

Mr. MAULT.—It was, he thought, desirable that a code of ship-berthing regulations should be adopted. Tasmania had adopted the Victorian code.

Dr. LOVE.—Queensland had adopted the most essential items in it.

Dr. BLACK.—Some alterations, he thought, should be made in it. Western Australia had adopted the Victorian code, but had, for instance, prohibited the use of any other than wire ropes.

The PRESIDENT.—He scarcely thought it desirable to adopt any particular code. He was responsible for the Victorian code,* and, after he had drafted it, he had from time to time made alterations in it, and he was by no means sure that he had yet reached finality in the matter. He did not know of any other code that had introduced the use of tar on gangways, ropes, piers, and wharfs; but he thought such use of tar of material importance. He did not think it practicable to forbid hempen ropes, for instance, for small sailing craft.

Mr. MAULT.—He felt it would be as well to adopt a code, and he moved that the Victorian code be adopted.

This was agreed to.

DESTRUCTION OF RATS.

The PRESIDENT.—An essential in the prevention of plague was the destruction of rats. Rats might, apparently, be infected some time before they began to die, and some time before cases in man developed, or before they were recognised; at least, it had been so in Melbourne. Members of the Conference had seen some of the Melbourne rats, and yet, though pronounced by the bacteriologists, Dr. MacInerney, Dr. Nelly, and Dr. Cherry, to be plague-infected on pathological and bacteriological evidence, the rats at Melbourne were not dying. All the rats pronounced to be plague-infected had been trapped, and, as yet, no case in man had been recognised.

Dr. SMITH.—He had cultivated the bacillus of plague in the rat, and produced the typical bipolar cultures found in man. He had photographs and actual specimens of the bacillus in the liver of a plague patient, and it was exactly the rat bacillus. He had no doubt whatever as to the Melbourne rats which he had seen being plague-infected.

The PRESIDENT.—The rats of the Melbourne wharfs had been infected for months, and yet no case of plague in man had been recognised. At once, on the first discovery of plague-rats on the wharfs of Melbourne, he had instituted an extensive system of rat-poisoning, carried on by twelve or more men constantly engaged in the work. It had taken two men all their time to prepare the baits which the other ten had been engaged in laying at one and another part of the wharfs, piers, and riversides.

It was agreed that the extermination of rats as a protection against plague should be vigorously prosecuted.

The PRESIDENT.—The next question might be as to the fund from which the expenses involved in the destruction of rats should be met. In Victoria, the Board of Public Health considered itself called upon to guard against the introduction of the disease, and, accordingly, it attended to the destruction of rats on the wharfs and piers, while it did not hold itself responsible for the destruction of rats inland. In other words, the Government undertook the expenses in connection with the frontiers, while the municipalities undertook it inland, the State Departments being held responsible for the destruction on their several properties. An attempt had been made to make the Health Department responsible for the destruction on the properties of the other State Departments; but he had held that the Health Department, which was not responsible for the sanitary

* Victorian Code.

1. To keep the vessel off from the wharf or pier by a distance of at least 4 feet by means of fenders, and to prevent listing towards the wharf or pier.

2. To apply and keep applied to each end of every hawser and rope connecting the vessel with the wharf or pier tar kept constantly in a sticky condition (by repeated applications), and either a thick brush of metal bristles, or a funnel, or a stout metal disk at least 12 inches in diameter, and so constructed and so placed as to prevent transit of rats, the application of tar being made just beyond the side of the vessel and just above the end attached to the wharf or pier, the tar being applied over a length of at least 1 foot at each end of each hawser and rope, and the application of the brush, funnel, or disk being made near the tarred portion and towards the centre of the hawser or rope. (The tar may be applied on bagging fixed round the hawser or rope.)

3. To tar the fender and the fender-slings on such parts as to prevent migration of rats, and to keep the tar in a sticky condition by repeated applications.

4. Not to use any net between the vessel and the wharf or pier, whether in connection with the gangway or the hatches, unless the same be thoroughly tarred and the tar be kept in a sticky condition by repeated applications, and to remove any such net, though tarred, between 7 p.m. and 6 a.m., except only in case cargo is being discharged or delivered during that time.

5. To draw up and keep drawn up all gangways when not required for the discharging or the receiving of cargo from 7 p.m. until 6 a.m., and to apply tar to each gangway while down over a length of at least 1 foot at each end just beyond the side of the vessel and just above the end resting on the wharf or pier, and to keep the tar in a sticky condition by repeated applications.

6. To suspend over the side along the wharf or pier four sets (or more if required) of electric or other lights, distributed so as to afford thorough illumination fore and aft along the whole length of the side of the vessel.

7. To supply three watchmen by night, and one, or in the case of a mail boat two, by day; to supply the same with sticks, and to see that they constantly parade on the wharf or pier alongside the vessel from stem to stern, and that they take all practicable measures to prevent the passage of rats between the vessel and the wharf or pier. To supply the watchmen with a pot of tar and brush, and to direct them to renew the tarring of gangways, nets, hawsers, and ropes, so as to keep the tar in a sticky condition.

8. To completely obstruct all pipes, ports, cabin scuttles, and other holes in the side of the vessel next to the wharf or pier, and to keep the same obstructed while the vessel is alongside, in order to prevent both ingress and egress of rats.

9. To prevent any refuse matter from being discharged into the river.

10. Not to allow any vessel or any lighter alongside unless specially permitted to do so by the Board, and then to observe precisely the same conditions on the lightering side as set out above on the wharf or pier side of the vessel.

11. Not to allow the landing of any rags or of any old cordage or second-hand clothing or bedding or of any used or returned produce bags whatever.

12. To tar the wharf the whole of the length of the moorings to a width from the edge of 1 foot, and also the face of the wharf along the upper edge of each of the planks down to the water level.

13. To thoroughly disinfect the bilges to the satisfaction of the Board's inspecting officer.

N.B.—It will be of advantage to mix with the tar a little oil or tallow.

condition of those properties, should not be held responsible for the destruction of rats, conditions favouring rat-vermin being but part of the factors to be included in the general term unwholesomeness; that view had been agreed to by the Government, and was now being carried out.

Dr. SMITH.—Would the Conference recommend a central fund contributed to by the local boards? The wharfs in the different colonies were under different managements, and were not in all cases Government properties.

Dr. LOVE.—In Queensland, the local authorities paid for the destruction of rats. The local authorities, within a radius of 12 miles in and around Brisbane, were combining into a joint metropolitan board for the prevention of disease. That board was subsidised by the Government, and they paid for the destruction of rats on the wharfs, including Bundaberg and Townsville.

Dr. SPROTT.—In Tasmania, the wharfs were under the control of the Marine Board, which collected all rates and wharfages.

Dr. BLACK.—In Western Australia, the Central Board paid the expense.

Dr. SMITH.—He moved that a resolution on the subject be prepared.

This was agreed to.

DISPOSAL OF PLAGUE-CORPSES.

The PRESIDENT.—The disposal of corpses might next be considered. Should they be buried or burned? The Victorian Board of Public Health some years ago had passed a resolution to the effect that the bodies of all persons having died of certain exotic disease should be burned. The question had quite recently been put to the Government in the Legislative Assembly as to whether the Minister of Health had made arrangements for cremation in the event of deaths from plague occurring in the colony, and reply had been made that every preparation had been made.

Dr. SMITH.—Though he thought cremation advisable, there might be some difficulty in South Australia. The South Australian regulations required the use of slaked lime, and Parliament would not meet in South Australia for some time.

Dr. BLACK.—He had left instructions that a specially-isolated part was to be selected, and the body was to be surrounded completely with chlorinated lime to the amount of 1lb. to 1lb. weight of the body. This was more expensive than burnt lime, but he thought there could be no question as to its efficacy.

Dr. SMITH.—The whole object was to take the body with safety through the streets or through the country to the place of burial. There was no danger whatever if the winding-sheet were saturated with corrosive sublimate, and the coffin filled with fresh lime, and the outside disinfected.

Dr. WRAY.—The public would not, he thought, submit to cremation.

The PRESIDENT.—Oxide of lime would, perhaps, be sufficient.

It was agreed that burial should take place in lime.

QUARANTINE EXPENSES.

Dr. SMITH.—Who should bear the expense of persons in quarantine?

The PRESIDENT.—As regards ships, the expense in Victoria was borne by the shipping companies. As regards local outbreaks, the Government had undertaken it in all cases of exotic disease.

Dr. SMITH.—In South Australia, the local board was made responsible for the treatment of all infectious cases. Could the Conference recommend the Governments to bear the expense, for instance, in the following terms:—"That this Conference recommends the Governments, whatever the Public Health Acts may independently provide, to undertake the isolation and treatment of all inland plague cases at their own expense?"

The PRESIDENT.—He would prefer to leave it to the different Governments.

Dr. SMITH.—If the local authorities knew that the Government would bear the whole of the expense, they might become careless.

The PRESIDENT.—He had not found it so in Victoria. It was, indeed, remarkable how zealous the local authorities were in cases in which the Government bore the whole of the expense.

Dr. SMITH.—He would ask the Conference to pass some such resolution. In South Australia there was a constant fight over the matter.

The PRESIDENT.—Conflict between the central and local authorities was greatly to be deplored. It seemed to him (the President) that some of the expenses should be borne by the local authority, though the larger proportion were borne by the Government.

It was agreed that the expense incurred in quarantine should be borne by the Government.

PAYMENT FOR NOTIFICATION BY MEDICAL PRACTITIONER.

Dr. SMITH.—Every notification of infectious disease should be paid for. It was almost the universal rule, and it was the natural corollary of compulsory notification.

Dr. LOVE.—Legal opinion had been obtained to the effect that no prosecution would succeed against a medical practitioner for failure to notify a case, unless a fee were provided for such notification. The penal clauses would fall to the ground.

The PRESIDENT.—He did not see what right the State had to impose such a duty without payment.

Mr. MAULT.—In most colonies, as in England, there were special Medical Acts that conferred certain privileges on medical men; and, in return for those privileges, they were held to be bound to report.

Dr. BLACK.—He thought some fee should be paid.

It was agreed that the question was one for the different Administrations to deal with.

DRAFTING OF RESOLUTIONS.

The PRESIDENT.—As the next step, he would propose the drafting of the resolutions, and that a sub-committee of, say, three, should engage on that work and submit the result to the committee of the whole the next day at eleven a.m.

It was agreed that the President, Mr. Mault, and Dr. Smith should form a sub-committee for the purpose.

FIFTH AND SIXTH MEETINGS, FRIDAY MORNING AND AFTERNOON, 13TH APRIL.

Present:

Dr. GRESSWELL, President;

Mr. Mault,
Dr. Wilton Love,
Dr. Holmes,
Dr. Sprott,

Dr. Ramsay Smith,
Dr. Black,
Dr. Wray.

The PRESIDENT brought up the draft resolutions prepared by the sub-committee, and stated that a few points had been introduced, which, he thought, would be accepted as corollaries of what had definitely been agreed to. The view had been expressed, he said, that it would be well to confer with the President of the Board of Health of New South Wales, Dr. Ashburton Thompson, before finally concluding the work for which the Conference had been called together; and he was prepared to accompany the rest of the delegates to Sydney for that purpose.

It was agreed that the delegates proceed to Sydney the following day.

The draft resolutions were considered, and, after revision, were adopted as follows:—

This Conference is of opinion that the Venice Plague Convention should be adopted by the Governments of Australia and Tasmania, subject to the following alterations and additions:—

1. Each Government to send a report daily by telegraph to all the said Governments of every fresh case of plague, locality of same, and every notable occurrence; and, in addition, to send a general report of cases and deaths for each week, specifying type of case, and occupation of patient.

2. Every case of plague and suspected case of plague to be immediately and compulsorily notified to the central and local health authority.

3. No ship to leave an infected place until inspected by a medical officer appointed by the Government for the purpose, and until the master or person in charge of such ship has obtained, in the form of the schedule hereto attached, a bill of health, or certificate, from such officer that the master or person in charge and the crew and passengers have been medically examined by him, by day, after embarkation, and that every such person is free of plague: provided that, should any communication take place between the ship and the shore or any other ship (otherwise than orally or by signal), the ship shall not leave without a fresh examination and certificate, at the expense of the ship.

4. "Bones," and also "bananas," to be added to the list of susceptible articles.

5. Each Government to be recommended to take special measures concerning transit across land frontiers with regard to certain classes of persons, as referred to in the Convention.

6. Each Government to be recommended not to encourage, by means of cheap fares, the passage of persons from or to infected places.

7. If the prevalence of plague be considerable, a medical passport system to be introduced by the health authority of the infected Colony for overland passengers, certifying the name, age, occupation, residence, place of departure, and destination, and freedom from plague of the bearer; and a medical passport system to be introduced at the land frontiers of the adjoining Colonies for the purpose of exercising surveillance, notification being made at once to the health authority of the Colony to which the person under surveillance may be about to proceed.

8. The division of ships into four classes—infected, suspected, ordinarily healthy, and healthy—and the definitions of the same given in the Bombay regulations of August, 1898, to be adopted, with the insertion of the words "or that has had a case of plague on board" after the words "that has left an infected port," and with the addition of the words "or has not received any cargo from an infected place."

9. As regards regulations for "infected" ships, to insert the words "according to circumstances" after the word "soustises," and the word "either" before the words "une observation."

10. As regards regulations for "suspected" and "ordinary healthy vessels," to insert the words "such of the passengers and crew as in the opinion of the health officer are likely to spread infection shall be kept under 'observation' for such period not exceeding ten days from such time as the health authority may consider danger of infection to have ceased."

11. All vessels to be disinfected at once after discharge of cargo to the satisfaction of the health authority, and all practicable measures to be taken for the destruction of rats. Disinfection to be conducted either by means of steam sulphur fumes passed into the vessel under pressure, the sulphur being used in the proportion of 1 lb. to 1000 cubic feet, and the fumigation being continued for at least six hours, or by other equally effective means.

12. In all cases of death from plague, cremation, or burial at sea to be adopted where practicable, and where neither is practicable the corpse to be at once surrounded by a sheet soaked in the solution* of corrosive sublimate or carbolic acid, and placed in a coffin containing freshly burned lime or equally effective disinfectant and surrounded therewith, the burial, if possible, being made in a deep dry grave that is not likely to be again used or disturbed, and, if made in a cemetery, the coffin being surrounded by a layer of chlorinated lime at least 6 inches thick.

13. When a reasonable suspicion of danger from plague arises, the destruction of rats by poison at sea and land frontiers to be immediately undertaken and vigorously prosecuted, the expense of this procedure as far as regards shores, river banks, piers, and wharfs, to be borne in the first instance by the Government; and the several departments of the State, and the local sanitary authorities to immediately undertake and be responsible for the extermination of rats on their several properties or within their several districts; and the bodies of all rats taken alive or dead to be destroyed in every case by fire.

14. The Victorian regulations applicable to ship-berthing to be adopted and enforced by the several Governments.

* The solution prescribed in the Venice Convention.

15. Each Government to undertake the expense involved in the isolation and treatment of persons, not arriving by sea, whom such Government has deemed it necessary to isolate and treat.

16. Any person certified by a legally qualified medical practitioner as having been successfully inoculated with Haffkine's prophylactic within a period of not less than seven days, and not more than four months, to be dealt with as immune, and in the event of exposure to infection of plague, to be allowed freedom after disinfection.

17. No ship from any place where plague is known, or suspected to exist, to be granted pratique except between sunrise and sunset.

18. Persons on land exposed to the infection of plague to be subjected either to "observation" or to "surveillance" at the discretion of the health authority.

19. Each Government to provide special means for proper bacteriological investigations for determining the presence or absence of plague.

20. Each Government to regulate the mode of transport of articles suspected of being plague-infected, and forwarded for the purpose of bacteriological examination.

SEVENTH AND EIGHTH MEETINGS, SUNDAY MORNING AND AFTERNOON, 15TH APRIL.

OFFICES OF THE HEALTH DEPARTMENT, SYDNEY.

Present:

DR. GRESSWELL, President;

Mr. Mault,
Dr. Wilton Love,
Dr. Holmes,
Dr. Sprott,

Dr. Ramsay Smith,
Dr. Black,
Dr. Wray.

In Conference, and still in committee of the whole, with Dr. Ashburton Thompson.

The PRESIDENT, addressing Dr. Ashburton Thompson, said—It was desired by the members of the Conference to confer with him on the resolutions arrived at by them in committee of the whole, with the view to amendments being made to meet any suggestions he might be good enough to offer in connection with the intercolonial relations concerning plague, and, generally, with the management of that disease. The resolutions so far arrived at were merely provisional. Dr. Thompson had intimated his willingness to receive the committee, as requested the previous day in a telegram, that he (the President) had had the honour to send on behalf of the committee.

The provisional resolutions were then re-discussed, and the following final resolutions were passed:—Dr. Ashburton Thompson at each stage stating that he saw no objection to their adoption by the Committee. The only matter on which a vote was taken referred to the treatment of "infected" vessels. The President, on this subject, moved that the Venice Convention be adopted, the words *ou à une surveillance* being omitted; Dr. Wray seconded the motion; Dr. Thompson concurred *ad interim*. Discussion took place, and the motion was carried, Mr. Mault and Dr. Ramsay Smith dissenting.

THE RESOLUTIONS.

This Conference recommends that the Resolutions of the Venice Plague Convention be adopted by the Governments of Australia and Tasmania, subject to the following alterations and additions:—

1. Each Government to send through its health authority a daily telegraphic report to the health authorities of the said Governments of every fresh case of plague, locality of same, and notable occurrence, and, in addition, to send a weekly general report of cases and deaths, specifying type of case and occupation of patient.

2. Every case of plague and of suspected plague to be made immediately and compulsorily notifiable to the central and local health authorities.

3. If the prevalence of plague be considerable, no ship to leave an infected place for another Colony until inspected by a medical officer appointed or approved by the health authority for the purpose, and until the master or person in charge of such ship has obtained a certificate in the form of the schedule hereto appended from such officer that the master or person in charge, the crew, and passengers have been medically examined by him by day and after embarkation, and that every such person is free of plague. Provided, that in the event of any communication taking place after such certificate has been given between the ship and the shore, or any other ship (otherwise than orally or by signal), the ship shall not leave without a fresh examination and certificate.

4. "Bones" to be added to the list of "susceptible" articles.

5. If the prevalence of plague be considerable in any Colony, a medical passport system to be introduced on the land frontiers of adjoining Colonies for the purpose of exercising surveillance, notification being made at once to the health authority of the Colony to which any person under surveillance may be about to proceed.

6. Governments not to encourage by means of cheap fares the passage of persons from or to an infected place.

7. The division of ships into four classes—infected, suspected, ordinarily healthy, and healthy—and the definitions of the same given in the Bombay Regulations of the 17th August, 1898, to be adopted, with the insertion of the words "or that has had a case of plague on board" after the words "that has left an infected port," and with the addition of the words "or has not received any cargo from an infected place."

8. As regards the recommendation in the Convention for "infected ships" the words *ou à une surveillance* to be struck out.

9. As regards "suspected" and "ordinarily healthy" ships, such of the passengers and crew as in the opinion of the health authority are likely to spread the infection to be kept under observation for a period not exceeding ten days from such time as the health authority may consider danger of infection to have ceased.

10. Every ship to be disinfected at once after discharge of cargo to the satisfaction of the health authority, all practicable measures being at the same time taken for the destruction of rats, and disinfection being conducted either by means of steam-sulphur fumes passed into the ship under pressure—the sulphur being used in the proportion of 1 lb. to every 1,000 cubic feet, and the fumigation being continued for at least six hours—or by other equally effective means.

11. In all cases of death from plague, cremation or burial at sea to be adopted where practicable, and where neither is practicable then the corpse to be at once surrounded by a sheet soaked in the* solution of corrosive sublimate or carbolic acid, and placed in a coffin containing freshly burnt and slaked lime or other equally effective disinfectant, and surrounded therewith; the burial if possible being made in a deep dry grave that is not likely to be again used or disturbed, and if made in a cemetery the coffin being surrounded by a layer of chlorinated lime at least 6 inches thick.

12. When a reasonable suspicion of danger from plague arises, the destruction of rats by poison at sea and river-frontiers to be immediately undertaken and vigorously prosecuted, and the expense of this procedure, so far as regards shores, river-banks, piers, and wharfs, to be borne in the first instance by the Government; the several departments of State also and the local sanitary authorities to immediately undertake and to be responsible for the extermination of rats on their several properties or within their several districts—bodies of rats taken alive or dead to be destroyed in every case by fire.

13. Ship-berthing regulations, similar to those in operation in Melbourne and Sydney, to be enforced by each Government.

14. Each Government to undertake the expense involved in the isolation and treatment of persons, not arriving by sea, whom such Government has deemed it necessary to isolate and treat.

15. Each Government to afford facilities for persons being inoculated with Haffkine's prophylactic.

16. No ship from any place, where plague is known or suspected, to be granted pratique except between sunrise and sunset.

17. Persons on land exposed to infection of plague to be subjected either to observation or surveillance at the discretion of the health authority.

18. Each Government to provide special means for the proper bacteriological investigation for determining the presence or absence of plague-infection.

19. Each Government, for the purpose of preventing infection, to regulate the means of transport of articles suspected of being plague-infected and forwarded for the purpose of bacteriological examination.

SCHEDULE.

BILL OF HEALTH.

This is to certify that the ship _____, sailing under the _____ flag, and under the command of _____ as master, of _____, tons, bound for _____, with a crew of _____ persons† and passengers, and laden with a cargo of _____, is, at the time of leaving this port, in a satisfactory sanitary condition, and that no case of bubonic plague exists amongst her officers, passengers, or crew, all of whom have been inspected by me.

It is further certified that the town and port _____ are at present free‡ from plague.

The PRESIDENT moved, Dr. Smith seconded, and it was resolved—That the Conference resume.

The PRESIDENT moved—That the recommendations of the committee be adopted. The motion was seconded by Dr. Love, and carried, Mr. Mault reserving to himself the right to append his views on the treatment of "infected" ships.

The PRESIDENT tendered to Dr. Ashburton Thompson the warm thanks of the members of the Conference for his courteous reception of the Committee, and Dr. Thompson, in reply, stated that he was pleased to have had the opportunity, and invited the members to see what was going on in regard to plague in Sydney.

Dr. SMITH then moved—That a vote of thanks be accorded to the President for the manner in which he had conducted the proceedings. The motion was seconded by Dr. Holmes, and carried; and the President returned his warmest thanks, adding that it had afforded him real pleasure in presiding at meetings with colleagues who had evinced throughout but the one desire of arriving at the most practical and satisfactory conclusions.

(Signed).

D. A. GRESSWELL, M.A., M.D., Oxon. President.

A. MAULT.

W. RAMSAY SMITH, BSc., M.B., C.M.

WILTON LOVE.

ERNEST BLACK, Western Australia.

C. J. HILL WRAY, Govt. Med. Officer.

LOUIS S. HOLMES.

GREGORY SPROTT, M.D., D.P.H.

J. W. COLVILLE, Secretary

(present at the first six meetings),

21st September, 1900.

* Specified in the Venice Plague Convention.

† Including master, mates, engineers, apprentices, and private servants, when the latter are not mentioned in the ship's articles.

‡ Or as the case may be,

NOTE BY MR. MAULT IN REGARD TO "INFECTED SHIPS."

I do not concur in the eighth resolution of the Conference—That the words "or to a surveillance" be struck out of the regulation of the Venice Convention, dealing with "infected ships," and I enter this protest against the striking out of the words as being a proceeding contrary to the whole spirit of that Convention, as well as to the spirit of the seventeenth resolution of this Conference, and as being, in itself, unwise and inexpedient.

The striking out of the words takes away from each of the colonies in conference the right to follow the advice and example of the health authorities of the whole civilised world, except the Australian colonies, with regard to the adoption of proper medical inspection, instead of the old system of quarantine.

It also deprives all colonial health authorities of the power to make any difference of treatment of passengers or crews of the ships in question, whatever difference there may be in the character and condition of the ships, or in the carefulness and forethought exercised with relation to the treatment of any infection on board. So that, if a well-found mail steamer came into port with a single case of plague on board—say, a lascar seaman—who had been immediately and strictly isolated in the ward provided for the purpose, and in regard to whom every precaution had been taken by the ship's doctor in the way of disinfection and treatment, every person would have to be quarantined precisely in the same manner as if the ship were dirty, ill-found, overcrowded, swarming with rats, with numerous cases of plague on board, and without a doctor or means of isolation. On the other hand, the Venice Convention regulations studiously differentiate between such cases, and offer inducements to ship-owners to provide doctors and good sanitary appliances on board, by instructing health authorities to take such provisions into account when inspecting vessels on arrival.

Furthermore, with regard to land-borne plague, this Conference, in its seventeenth resolution, gives to health authorities the option to exercise medical supervision or to impose quarantine at their discretion. A plague patient in a train, without means of isolation, has had more opportunities of spreading infection, both in the railway carriage and at every station stopped at, than an isolated plague patient on board ship, yet the health authorities on land can use their judgment as to which passengers are to be quarantined, and which released under medical supervision. Why should not the port health authorities have equal discretionary power?

The giving of this discretionary power to both land and port health authorities would not interfere with any right of the Government of any colony to give such directions as it thought fit to its officers to guide them in the exercise of the power.

A. M.,
Hobart, 28th May, 1900.

ADDENDUM.

VENICE PLAGUE CONVENTION ALTERED BY THE RESOLUTIONS OF THE MELBOURNE
INTERCOLONIAL PLAGUE CONFERENCE OF APRIL, 1900.

(Prepared by Mr. Mault, Delegate of Tasmania at the said Conference.)

VENICE CONVENTION AS MODIFIED.

If the above resolutions be given effect to, the following will be the form that the clauses of the Venice Convention applicable to the Australian Colonies will take :—

RESOLUTION 1.—VENICE CONVENTION, CH. II., TIT. I.

Each Government adhering to the Convention shall send, through its health authority, a daily telegraphic report to the health authorities of the other adhering Governments of every fresh case of plague that occurs in its territory, locality of same, and notable occurrences; and, in addition, shall send, a weekly general report of cases and deaths, specifying type of case and occupation of patient.

RESOLUTION 2.—VENICE CONVENTION, AS ABOVE.

Every case of plague and suspected plague shall be made by each of the adhering Governments immediately and compulsorily notifiable to the central and local health authorities of the territory.

RESOLUTION 3.—VENICE CONVENTION, CH. I., SEC. 2.

If the prevalence of plague be considerable, no ship shall leave an infected place for another colony until inspected by a medical officer appointed or approved by the health authority for the purpose, and until the master or person in charge of such ship has obtained a certificate in the form of the schedule hereto appended from such officer that the master or person in charge, the crew, and passengers have been medically examined by him, by day, and after embarkation, and that every such person is free of plague. Provided that, in the event of any communication taking place after such certificate has been given between the ship and the shore, or any other ship, (otherwise than orally or by signal) the ship shall not leave without a fresh examination and certificate.

RESOLUTION 4.—VENICE CONVENTION, CH. II., TIT. IV., SEC. 1.

The entry of the following articles can be prohibited :—

1. Body linen, clothes, dresses, and bedding in use or having been used.
2. Rags and shoddy.
3. Used sacks, carpets, and hangings.
4. Green hides, dry untanned skins, fresh skins.
5. Fresh animal remains, claws, hoofs, horse-hair, or hair of other animals; raw silk and wool.
6. Human hair.
7. Bones.

DISINFECTION.—VENICE CONVENTION, CH. II., TIT. IV., SEC. 2.

With regard to baggage, disinfection shall be obligatory for all body-linen, clothes, dresses, and all articles forming part of baggage or house furnishing, coming from an infected place, or that the local health authority shall consider infected.

With regard to merchandise, disinfection shall only be applied to the articles that the local health authority shall consider infected, or to those of which the entry can be forbidden.

The disinfection shall be carried out in the mode and at the place appointed by the local health authority. It should be done so as to injure the articles as little as possible, and the question of damages caused by disinfection shall be left to be settled by the local authority. Mail matter, except postal parcels, shall not be disinfected nor interfered with.

RESOLUTION 5.—VENICE CONVENTION, CHAP. II., TIT. V.

If the prevalence of plague be considerable in any colony, a medical passport system shall be introduced on the land frontiers of adjoining colonies for the purpose of exercising surveillance, notification being made at once to the health authority of the colony to which any person under surveillance may be about to proceed.

But it is to be understood that the establishment of such passport system does not in any way interfere with the right of the health authority to detain and keep in hospital or under observation any person crossing the frontier who is suffering from plague or from any illness which, in the opinion of the health authority, may prove to be plague.

By "observation" is meant that the passengers are kept isolated in a place appointed by the health authority until they are released therefrom by the said authority. And by "surveillance" is meant that the passenger may go to his residence provided that he undertakes to submit himself to daily examination at a stated place, and for a fixed period, so that the state of his health may be ascertained.

RESOLUTION 6.—VENICE CONVENTION, AS ABOVE.

The Governments undertake not to encourage, by means of cheap fares, the passage of persons from or to an infected place.

VENICE CONVENTION, CH. II., TITS. II. AND III.

A "district" is a well-defined portion of the territory of any colony with an organised local authority, and it shall be considered infected when the existence within it of a case of plague has been officially ascertained. The Governments of other colonies may regard and treat such district separately from the rest of the colony in which it is situated when they are satisfied that the Government of the colony and local authority of the district are taking all necessary measures to prevent the spread of the plague and the exportation from the district of all objects capable of carrying infection.

VENICE CONVENTION, CH. II., TIT. II.

A colony or district that has been infected with plague shall be considered clean where it has been officially ascertained and declared that there has been neither a death from plague nor a fresh case of plague for ten days after the cure or death of the last plague patient, and that all the necessary measures of disinfection have been carried out.

RESOLUTION 7.—BOMBAY GOVERNMENT REGULATIONS, 17TH AUGUST, 1898 (PAGE 202). VENICE CONVENTION, CH. II., TIT. VIII.

Ships shall be regarded as of four classes—infected, suspected, ordinarily healthy, and healthy.

"Infected vessel" shall include any vessel with a case of plague on board, or on board of which there has been a case of plague within twelve days of her arrival.

"Suspected vessel" shall include any vessel on board of which there has been a case of plague at the time of departure or during the voyage, but on which there has been no case of plague during the twelve days immediately preceding her arrival.

"Ordinarily healthy vessel" shall include any vessel not being an infected or suspected vessel, that has within the period of ten days immediately preceding her arrival left an infected port or communicated (otherwise than orally or by signal) with a vessel that has left an infected port, or that has had a case of plague on board within that period, or has not received any cargo from an infected place.

"Healthy vessel" shall include any vessel, even though coming from an infected port, which has had no death from unknown or suspicious causes, and has had no case of plague on board either before departure, during the voyage, or on arrival, and has not within the period of ten days immediately preceding her arrival left an infected port, or communicated (except orally or by signal) with a vessel that has left an infected port within that period.

RESOLUTION 8.—VENICE CONVENTION, AS ABOVE.

"Infected vessels" shall be subject to the following regulations:—

1. The sick are to be immediately disembarked and isolated.
2. All other persons on board shall be liable to be, and should also be, disembarked if possible, and subjected to "observation" (or surveillance)* during a period that shall vary, according to the sanitary condition of the vessel, and according to the date of the last case of plague, but shall not exceed ten days.
3. The soiled linen, and things in use, and the baggage of the crew and passengers which, in the opinion of the local health authority, are considered infected, shall be disinfected.
4. The bilge water shall be discharged after disinfection, and good drinking water shall be substituted for that stored on board.
5. Every part of the ship that has been occupied by the plague patients must be disinfected. A more extended disinfection can be ordered by the local health authority.

RESOLUTION 9.—VENICE CONVENTION, AS ABOVE.

"Suspected vessels" and "Ordinarily healthy vessels" are subject to the following measures:—

1. Medical inspection and detention under observation, for a period not exceeding ten days, of every person, who, in the opinion of the health authority, is likely to spread the infection.
2. Disinfection: the soiled linen and things in use, and the baggage of the crew and passengers, which, in the opinion of the local health authority, are considered infected, shall be disinfected.
3. Discharge of bilge water after disinfection, and substitution of good drinking water for that stored on board.
4. Disinfection of all parts of the ship that have been occupied by plague patients. A more extended disinfection can be ordered by the local health authority.

* The words "or surveillance" are struck out by the 8th resolution.

It is recommended to subject to surveillance, with regard to their state of health, the crew and passengers during ten days from the date of the arrival of the ship.

It is also recommended that the crew be prevented from landing, except for matters of business or duty.

"Healthy vessels" shall be at once admitted to free pratique, whatever may be the nature of their bill of health.

But the local health authority may subject them to the 1st, 2nd, and 3rd of the foregoing measures applicable to "Suspected" and "Ordinarily healthy" vessels.

The local health authority may, and is recommended to, subject to surveillance, with regard to their state of health, the crew and passengers during ten days from the date of the departure of the ship from the infected port.

The local health authority may, and is also recommended to, prevent the crew from landing, except for matters of business or duty.

It is understood that the local health authority may always demand from the ship's doctor, or, if there be no doctor on board, from the captain, a certificate attested by oath that there has not been a case of plague on board since leaving the port of departure.

The local health authority, in applying the above-mentioned measures on board vessels of the above-mentioned four classes, shall take account of the presence on board of a doctor and of proper disinfecting apparatus.

Special measures may be prescribed with regard to overcrowded ships, emigrant ships, or any ship presenting bad sanitary conditions.

RESOLUTION 10.

Every vessel of the above-mentioned four classes shall be disinfected at once after discharge of cargo to the satisfaction of the local health authority, all practicable measures being at the same time taken for the destruction of rats. The disinfection shall be done either by means of steam sulphur fumes passed into the ship under pressure, the sulphur being used in the proportion of 1 lb. to every 1,000 cubic feet, and the fumigation being continued for at least six hours; or by other equally effective means such as those hereinafter mentioned.

VENICE CONVENTION, CH. II., TIT. VIII.

Every ship not willing to submit to the obligations imposed shall be free to again take to sea. It may be permitted to disembark cargo under certain prescribed conditions, and land such passengers as ask for permission, who will fulfil all prescribed conditions made by the local health authority.

Every colony ought to provide at least one port fitted up with an organisation and means to deal with a ship, whatever may be its sanitary condition.

Coasting vessels shall be dealt with by special regulations, to be agreed upon by the various colonies interested.

RESOLUTION 11.

In all cases of death from plague, cremation or burial at sea shall be adopted where practicable, and where neither is practicable, then the corpse shall be at once surrounded by a sheet soaked in the hereinafter described solution of corrosive sublimate or carbolic acid and placed in a coffin containing freshly-burned and slaked lime or other equally effective disinfectant, and surrounded therewith; the burial, if possible, being made in a deep, dry grave that is not likely to be again used or disturbed, and, if made in a cemetery, the coffin being surrounded by a layer of chlorinated lime at least 6 inches thick.

RECOMMENDATIONS AS TO DISINFECTION.—VENICE CONVENTION.—CHAPTER III.

1. Old clothing, rags, hospital dressings, papers, and other articles without value should be burnt.
2. Linen, bedding, clothes, mattresses, carpets, &c., infected or suspected, should be disinfected by heat in stoves working at normal pressure, or pressure of from $1\frac{1}{2}$ to 2 atmospheres, with or without saturated steam. The stoves should have self-registering thermometers, and the articles to be disinfected kept therein for from 10 to 15 minutes, while the thermometer registers 212° F. in the middle of the mattress.

3. Disinfecting Solutions:—

(a) One per 1000 solution of corrosive sublimate with pure salt added to half the weight of the sublimate. This solution should be coloured with aniline blue or indigo; it should not be put into metal vessels.

(b) Five per cent. solution of pure crystallized carbolic acid, or similar solution of common carbolic acid of commerce, in a hot solution of soft soap.

(c) Freshly prepared milk of lime.

4. These disinfecting solutions are recommended to be used as follows:—

Put into them and leave in them at least six hours, the linen, clothes, and articles soiled by the dejections of the patients.

Wash with the sublimate solution articles that will not stand disinfection in the stove, leather, glued wood, felt, velvet, silk, &c., and with the carbolic solution articles that will neither stand heat nor the action of the sublimate; for money and metals use the soapy solution.

Either of the solutions may be used by the nurses and attendants for washing hands and faces.

Milk of lime is especially recommended for the disinfection of the dejections and vomit. Purulent matter and spittle should be burnt.

5. To disinfect infected ships—

Empty the cabins and all parts that have been occupied by patients or suspects, and subject everything taken out to the foregoing prescriptions.

Add 10 per cent. of alcohol to the sublimate solution, and spray the ceilings and sides and wash the floors therewith; the sides should be begun at the top and sprayed down in horizontal bands successively, so that all the surface shall be covered with a close layer of little drops. Two hours after well scrub the whole of the surface with plenty of water.

6. To disinfect the hold of an infected ship—

First, to neutralise the sulphuretted hydrogen, throw in a sufficient quantity of sulphate of iron; then discharge the bilge water. (This must not be done within the port.) Then wash out with sea-water, and spray with the sublimate solution.

VENICE CONVENTION—CHAPTER IV., SECTION I.

Measures of Precaution recommended to be taken on board Ship.

At the port of departure—

(1) The captain shall take care not to allow the embarkation of persons suspected of being attacked by plague, and shall refuse to allow soiled linen, clothes, bedding, and other dirty or suspicious articles to be brought on board. No clothing, bedding, &c., that has belonged to a plague patient shall be allowed on board.

- (2) Before any embarkation, the ship should be put into a state of perfect cleanliness, and, if necessary, should be disinfected.
- (3) It is indispensable that the drinking water taken on board should be from a source absolutely free from contamination. All water should be distilled or boiled before use.

SECTION II.

During the voyage—

- (1) There ought to be on board every ship a special place reserved for isolating persons attacked by contagious disease.
- (2) If there be no such place, the cabin or any other place in which there is a plague patient, shall be put under an order of isolation. Only the persons in charge of the patient shall be allowed to go in; and such persons shall themselves be isolated from any contact with other persons.
- (3) The bedding, linen, and clothes which shall have been in contact with the patient shall immediately, and in the chamber of the patient, be plunged into a disinfecting solution. The soiled clothes of the attendants shall be served in like manner. All these articles which are not much value shall be burnt or thrown into the sea, if the ship is not in port or in a river. The rest shall be carried to the disinfecting stove in impermeable sacks washed in the sublimate solution, and in a way to avoid all contact with surrounding objects. If there is not a disinfecting stove on board, the articles shall remain covered with the disinfecting solution during six hours.
- (4) All excretions of the patient (spittle, faecal matter, urine) shall be received into vessels into which some of the disinfecting solutions shall have been poured beforehand. They shall be immediately thrown down the closets, which shall be rigorously disinfected after each throwing down.
- (5) Every place that has been occupied by a patient shall be rigorously disinfected in the manner previously set forth.
- (6) The dead body of a patient, after being wrapped in winding-sheets, impregnated with the sublimate solution, shall be weighted and buried at sea.
- (7) All prophylactic operations carried out during the voyage shall be entered in the ship's log, which shall be presented to the local health authority on the arrival in port.
- (8) All these prescriptions must be applied to all who have been in contact with the patient, whatever may have been the gravity or issue of the disease.

RESOLUTION 12.

When a reasonable suspicion of danger from plague arises, the destruction of rats by poison shall be immediately undertaken at sea and river frontiers, and vigorously prosecuted; and the expense of this procedure, so far as regards shores, river banks, piers, and wharfs, is to be borne, in the first instance, by the Government; the several departments of State also, and the local sanitary authorities, are to immediately undertake and to be responsible for the extermination of rats on their several properties or within their several districts. Bodies of rats taken alive or dead to be destroyed in every case by fire.

RESOLUTION 13.

The following Ship-berthing regulations, or similar ones, are to be enforced by each Government:—

Conditions to be observed by all vessels, whether steam-boats or sailing ships.

- | | | |
|--|----------|------------|
| BOND between the Owner or Agent or Master of | with the | Government |
|--|----------|------------|
- I hereby agree to observe the following conditions relative to the vessel if allowed to proceed to her berth at the _____, and to take her back into the Bay at once, on directions being given to that effect by any person authorized thereto, in the event of any of the conditions being contravened, the conditions being:—
1. To keep the vessel off from the wharf or pier by a distance of at least 4 feet by means of tenders, and to prevent listing towards the wharf or pier.
 2. To apply *and keep applied* to each end of every hawser and rope connecting the vessel with the wharf or pier tar kept constantly in a sticky condition (by repeated applications), and either a thick brush of metal bristles, or a funnel, or a stout metal disk at least 12 inches in diameter, and so constructed and so placed as to prevent transit of rats, the application of tar being made just beyond the side of the vessel and just above the end attached to the wharf or pier, the tar being applied over a length of at least 1 foot at each end of each hawser and rope, and the application of the brush, funnel, or disk being made near the tarred portion and towards the centre of the hawser or rope. (The tar may be applied on bagging fixed round the hawser or rope.)
 3. To tar the fender and fender slings on such parts as to prevent migration of rats, and to keep the tar in a sticky condition by repeated applications.
 4. Not to use any net between the ship and the wharf or pier, whether in connexion with the gangway or the hatches unless the same be thoroughly tarred, and the tar be kept in a sticky condition by repeated applications, and to remove any such net, though tarred, between 7 P.M. and 6 A.M., except only in case cargo is being discharged or delivered during that time.
 5. To draw up and keep drawn up all gangways when not required for the discharging or the receiving of cargo from 7 P.M. until 6 A.M., and to apply tar to each gangway while down over a length of at least 1 foot at each end, just beyond the side of the vessel, and just above the end resting on the wharf or pier, and to keep the tar in a sticky condition by repeated applications.
 6. To suspend over the side along the wharf or pier four sets (or more if required) of electric or other lights, distributed so as to afford thorough illumination fore and aft along the whole length of the side of the vessel.
 7. To supply three watchmen by night and one, or in the case of a mail-boat two, by day; to supply the same with sticks, and to see that they constantly parade on the wharf or pier alongside the vessel from stem to stern, and that they take all practicable measures to prevent the passage of rats between the ship and the wharf or pier. To supply the watchmen with a pot of tar and brush, and to direct them to renew the tarring of gangways, nets, hawsers, and ropes, so as to keep the tar in a sticky condition.
 8. To completely obstruct all pipes, ports, cabin scuttles, and other holes in the side of the vessel next to the wharf or pier, and to keep the same obstructed while the vessel is alongside, in order to prevent both ingress and egress of rats.
 9. To prevent any refuse matter from being discharged into the river.
 10. Not to allow any vessel or any lighter alongside unless specially permitted to do so by the health authority, and then to observe precisely the same conditions on the lightering side as set out on the wharf or pier side of the vessel.
 11. Not to allow the landing of any rags, or of any old cordage or second-hand clothing or bedding, or of any used or returned produce bags whatever.

12. To tar the wharf the whole of the length of the moorings to a width from the edge of one foot, and also the face of the wharf along the upper edge of each of the planks down to the water level.

13. To thoroughly disinfect the bilges to the satisfaction of the health authority's inspecting officer.

N.B.—It will be of advantage to mix with the tar a little oil or tallow.

I also hereby certify that I have received a copy of the above.

(Signed)

RESOLUTION 14.

Each Government is to undertake the expense involved in the isolation and treatment of persons, not arriving by sea, whom such Government has deemed it necessary to isolate and treat.

RESOLUTION 15.

Each Government is to afford facilities for persons being inoculated with Haffkine's prophylactic.

RESOLUTION 16.

No ship from any place where plague is known or suspected is to be granted pratique, except between sunrise and sunset.

RESOLUTION 17.

Persons on land exposed to infection of plague are to be subjected either to observation or surveillance, at the discretion of the health authority.

RESOLUTION 18.

Each Government is to provide special means for the proper bacteriological investigation for determining the presence or absence of plague infection.

RESOLUTION 19.

Each Government, for the purpose of preventing infection, is to regulate the means of transport of articles suspected of being plague-infected, and forwarded for the purpose of bacteriological examination.

SCHEDULE.

BILL OF HEALTH.

This is to certify that the ship _____, sailing under the _____ flag, and under the command of _____ as master, of _____ tons, bound for _____, with a crew of _____ persons* and passengers, and laden with a cargo of _____ is at the time of leaving this port in a satisfactory sanitary condition, and that no case of bubonic plague exists among her officers, passengers, or crew, all of whom have been inspected by me.

It is further certified that the town and port of _____ are at present free † from plague.

* Including master, mates, engineers, apprentices, and private servants, when the latter are not mentioned in the ship's articles.
† Or as the case may be.