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PARLIAMENT OF TASMANIA.

INTERCOLONIAL MEDICAL CONGRESS, DUNEDIN,
1896:

REPORT OF GREGORY SPROTT, M.D., D.P.H.,
REPRESENTATIVE OF TASMANIA.

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REPORT BY DR. GREGORY SPROTT, REPRESENTATIVE OF TASMANIA,
INTERCOLONIAL MEDICAL CONGRESS, DUNEDIN.

To the Honorable the Premier, SIR E. N. C. BRADDON.

SIR,

I HAVE the honor to inform you that, in accordance with your request I attended the Fourth Session of the Intercolonial Medical Congress, which opened its proceedings at Dunedin, New Zealand, on February 3rd, 1896, and continued for a week. A large number of eminent medical men attended from all the Australasian Colonies, and numerous papers were read in the various branches of Medicine, Surgery, and Public Health.

The papers read, and the discussions that followed, must be of incalculable benefit to the medical profession and the public; whilst the resolutions adopted by the Congress in matters relating to public health will, I trust, be of great assistance to the various Colonial Governments in carrying out their hygienic functions.

At a general meeting the subject of "Tuberculosis in Man and Animals" was fully discussed, at the close of which discussion a representative Committee was appointed to frame resolutions having as their object the general preventive measures deemed necessary for the prevention of Tubercular disease. The Committee brought up the following resolutions, which were unanimously adopted by the Congress at their next general meeting.

Resolutions.

I. That this congress expresses the opinion that it is unwise and cruel to recommend advanced cases of Phthisis to seek Australasia as a health resort; that, whilst there are many places in the different Colonies of great climatic value in the earlier and curable stages, the coastal regions generally are to be regarded as unsuitable for almost all stages.

II. That this Congress recommends for the use of medical men in their routine treatment of Phthisis the following Table of Advice and Information, originally drawn up by the Australian Health Society:—

Table of Advice.

(a.) The best safeguard is personal health: such a birthright is denied those born of weak or unhealthy parents. Its continuance depends upon obedience to the laws of health, and especially upon attention to residence, surroundings, clothing, diet, and development.

(b.) The constitutionally weak require special care: the milk they drink must be beyond suspicion, their houses must be dry, their bed-room air pure, their ailments specially treated; while occupation and climate should be selected for them. Of special value are sea and mountain air, and out-door life.

(c.) A catarrh frequently affords the lodgement to the germs of disease—hence never neglect a cold.

(d.) The germs may enter by means of infected milk, especially in the case of children. Mothers', wet nurses', cows' milk known to be infected, must be forbidden. For entire safety, milk should be boiled before use.

(e.) The germs may enter by means of infected meat. The flesh of animals suffering from even early tubercular disease may convey the disease if eaten in a raw or partially cooked state.

(f.) Most frequently, however, in the case of adults, the germs enter by means of infected air. The ordinary consumptive is an ambulatory volcano, whose spittle is a virulently infective product, which should be carefully and promptly disinfected and destroyed. He should expectorate into temporary receptacles only which may be burned or scalded with boiling water. Neglect to carry out this essential precaution is the main cause of the spread of consumption. Handkerchiefs, bed-

ding, floors, rugs, carpets, rooms, conveyances, halls, streets, &c. become infected by the dust of the dried sputum, and in this sputum lurk the germs of the disease. It is important to remember that the sputum should be kept moist until scalded or burned.

(g.) As far as possible, therefore, the consumptive should spit only into special spittoons containing a little carbolic solution of a strength of two tablespoonfuls of pure carbolic acid to a pint of water. These can be made of pasteboard enclosed in a tin case. After use the former can be burnt and the latter scalded. When walking, Dettweilers' pocket flask or similar contrivance can be carried. If handkerchiefs are used, they should be of paper, and burnt after use; or if of cotton, plunged into boiling water before the sputum dries on them. Public spittoons should be filled with sawdust saturated with carbolic acid solution, and their contents frequently burnt. It is a menace to the health of those around him for the consumptive to spit into any receptacle.

(h.) The consumptive should have a bedroom to himself, open to the morning sun, and with as few furnishings as possible in it. The floor should be sprinkled, say with wet tea leaves, before sweeping, and the sweepings burnt; the furniture frequently wiped with some disinfectant solution, and contaminated articles disinfected by boiling water or steam. The room should be kept thoroughly ventilated, and before reoccupation should be thoroughly cleansed and disinfected. The consumptive may reinfect himself from his own sputum, and may produce consumption of the bowels by swallowing his sputum.

(i.) Individual effort should be supplemented by inspection of dairies and dairy cattle, inspection of meat supply, improved sanitation as regards the ventilation and dryness of the house, inspection of premises, advice to inmates as by printed slips; disinfection of rooms, public spittoons, conveyances, and the like; the more general recognition of the disease as an infectious one, and the spread of information as to the precautions which must be adopted if infection is to be prevented or restricted.

III. That, recognising the serious extent to which Tubercular disease prevails throughout Australasia, the fact that the disease is an infectious one, spreading through the medium of infected milk, meat, and air, this Congress begs respectfully to bring under the notice of the Governments of the different Colonies the necessity which exists for the continuous and skilled inspection, veterinary as well as medical, of cattle and dairy stock, dairies, milk shops, abattoirs; and for the proper disinfection of public spittoons, conveyances, buildings, &c. known or suspected to have become infected. The Congress also strongly urges the general use of Tuberculin as a test for the presence of tubercular disease in dairy and other stock.

I hardly think any comment is necessary from me on these resolutions; they are the outcome of a general discussion, and the work of a very able and representative committee. The practical question for us to decide is, How are we going to carry them out? Many believe if we included Tuberculosis in our list of diseases under the Compulsory Notification Act the Health Authorities could deal with it as with other cases of infectious diseases; but there are difficulties in the way of notifying consumptive cases, inasmuch as they are an unsettled part of the community.

Until we have either a voluntary or compulsory notification we must by every means at our command invoke the assistance of the medical profession and the individual members of the community. Let it be known that Tuberculosis is the greatest single cause of death in the Australian Colonies,—that it is responsible for about one-sixth ($\frac{1}{6}$) of all deaths amongst civilized races,—that it is an infectious disease spread about by vitiated atmosphere from tubercular discharges, as well as by the meat and milk supply,—further that it is a preventible, and, under favourable circumstances, a curable disease,—then we may hope for a united action which will tend to prevent the one disease from which one great authority foresees the possible extinction of the human race.

I would also recommend that the "Table of Advice" given under Resolution No. II. be printed in leaflet form. These leaflets could be distributed to the medical men throughout the Colony, with a request that they should, in addition to their usual instructions, leave one of these printed forms for the patient's future guidance.

A number of copies of the same "Table of Advice" might be printed in large type on canvas, and posted up in conspicuous places at Public Institutions, Post Offices, &c. Vitiating atmosphere and insanitary surroundings are the most common means of spreading the infection in adults, but with children the milk is more often responsible.

It is estimated that about one-fourth ($\frac{1}{4}$) of all the children that die under two years of age die of Tuberculosis. It has been shown that dairy, and more especially the aged milkers are more commonly affected than any other class of stock.

In Germany about twenty per cent (20%) of all the cattle killed are tubercular; English and Australian Statistics show about the same percentage. It has been clearly proved that in animals suffering from Tubercular disease the milk is a source of infection, and hence it is that we get such a large mortality among children from Tuberculosis during the earlier years of infancy, when milk is almost their exclusive diet.

The necessity for having all dairies supplying milk for human consumption under proper supervision is obvious. Every dairy ought to be registered in Country as well as Town by the Central Health authorities. Periodical inspection should be made by a competent inspector, to see that all the surroundings are kept in a good sanitary condition. The cows themselves ought also to be inspected, and any animal suspected of being tubercular should at once be isolated and the

Tuberculin test applied. It is generally agreed among veterinary surgeons that 97 per cent. of the cases of reaction with Tuberculin show evidence of Tuberculosis on *post mortem* examination, and Mr. A. Park, Acting Government Veterinary Surgeon of New Zealand, stated at the Congress that he was perfectly satisfied that with Tuberculin he could eradicate Tuberculosis from the dairies. The great safeguard which the public have is the boiling of all milk before use.

With regard to the meat supply, the primary preventive here is the thorough inspection of all animals before as well as after killing, by a skilled inspector. In order to carry this out efficiently, all animals should be slaughtered at a public abattoir. The thorough cooking of all meat is an efficient way of destroying the germs of infection.

If we would seek to be rid of this disease, we must rely on our preventive measures. It is therefore the duty of every member of the community to pay strict heed to the "Table of Advice" already given under Resolution No. II., while the thorough inspection of our meat and milk supply is one of the most important hygienic duties of any Government.

The Sub-section connected with diseases of the eye, ear, or throat, brought up the following report, which was adopted by the Congress at a general meeting:—

Testing the Vision.

The Congress urges—

I. That the Government of the different Colonies should take steps to ensure the proper testing of the vision of all men who are employed either at sea or in railway services, whose duties are such that the lives of others depend upon the acuteness of their sight either for form or colour.

II. That all examinations of visions should be made by a properly qualified ophthalmic surgeon.

III. That a high standard of vision and perfect colour sense shall be insisted on for all men who are engaged as deck hands at sea, and who have to undertake duty on the look-out or in steering. Also, that such a standard be fixed for those engaged in the engine-room as will suffice for their own safety and that of the ship.

IV. That a high standard be fixed for vision and perfect colour sense required in all deck officers of ships; that they may be re-examined on each promotion, and after reaching the rank of master at intervals of five years.

V. That the attention of the different Governments be called to the Report of the Committee on Colour Vision, presented to the Houses of Parliament on June, 1892, and to the Report of the Council of the British Medical Association on the efficient control of Railway Servants' Eyesight, published in the same year, and that the standards recommended in these Reports be taken as the basis on which the requirements of vision should be framed.

VI. That the attention of the different Governments be specially directed to the law passed in the State of Alabama in 1887, dealing with Railway Servants' Eyesight, entitled "An Act for the protection of the Travelling Public against Accidents caused by Colour Blindness and Defective Vision," as a model on which suitable legislation might be based.

In order to put in a definite form the standard that should be aimed at, the Congress suggest that no candidate be allowed to enter the dangerous services unless he is free from any chronic inflammation of the conjunctiva or lids; he must be free from strabismus, and possess perfect equilibrium of the external ocular muscles; his distant vision must not be less than 6.6 in one eye and 6.9 with the other without glasses, the tests to be made with Snellins' types; he must have a perfect colour sense, tested both with Holmgrens' wools and with distant colour tests under varying conditions; and he must also have a normal field of vision for both form and colour. Hypermetropia of more than one diopter should be a bar to entering the services.

There can be no doubt as to the desirability, and experience has shown of the necessity in many instances, of giving effect to these Resolutions. While it falls more clearly to the lot of the ophthalmic surgeon as a specialist, any well qualified medical practitioner is competent to carry out the necessary tests of vision.

PUBLIC HEALTH SECTION.

The Committee brought up the following Report, which was agreed to by the Congress:—

Hygiene in Schools.

I. That in the opinion of this Congress Elementary Hygiene should form a subject for instruction in all State-supported schools, and where practicable teachers in such schools should be required to undergo a course of instruction in the same subject previous to being licensed to teach.

It was stated that in Victoria this system has been and is now in operation in 5000 schools, and the Health Society hold examinations and grant certificates to those who are proficient in the subject. While it might be desirable to include Hygiene amongst the subjects of instruction in the higher-grade schools of this colony, I cannot see that it would be of any advantage to make it compulsory in all schools. The latter part of the Resolution is impracticable here, inasmuch as we have no place where teachers could be instructed in Elementary Hygiene.

Contagious Diseases Act.

II.—(a.) That the question of the Contagious Diseases Act be referred to the next Congress.
(b.) That the petitions and letter from the St. Saviour's Guild be referred to the Sanitary Institute of Dunedin, with a recommendation to bring them before the medical societies and Government medical officers of the Australasian Colonies.

These Resolutions were arrived at after a discussion on several letters and petitions addressed to the Congress requesting it to take active steps to have the Contagious Diseases Act repealed. As the question was not altogether a medical but partly a social one, it was thought better to refer the matter to the Sanitary Institute. This Institute is composed of medical as well as lay members interested in public health matters, and it will be their duty to collect all the available information from the different medical societies and Government medical officers, and frame a report to be presented at next Congress. It is to be hoped, therefore, that any information asked for by the Sanitary Institute will be supplied by the medical officers in charge of the Contagious Diseases Hospitals, so that the report may be as complete as possible.

Sanitary Conference.

III. That this Conference respectfully begs to draw the attention of the different Colonial Governments to the scheme by which the Authorities of British India propose to deal with sanitary administration and the public health, with the view to the local adoption of such portion thereof as may be suitable to their respective requirements, and that they be respectfully asked to authorise a conference of their medical advisers empowered to report as to the best manner in which sanitary progress may be furthered.

No branch of medicine has made such progress in recent years as that of preventive medicine or public health; but though much has been done, a great deal remains undone. It is the duty of those who take an interest in the prevention of disease to show the State what to do, and it is equally the duty of the State to do it. This is just what has taken place in India. In January, 1895, a Medical Congress was held at Calcutta, and Mr. Ernest Hart, of London, assisted by Dr. Simpson, Medical Officer of Health, Calcutta, laid down the outline of a scheme for the re-organization of the sanitary services in India. This scheme was approved of by the Congress and forwarded to the Secretary for Home Affairs of the Indian Government. The result has been the founding of an Imperial Sanitary Institute, the President of which shall have a seat in the Viceroy's Council. He shall be assisted by a Sanitary and an Assistant Sanitary Commissioner, a Medical Statist, a Sanitary Engineer, and a Veterinary Commissioner.

The Institute will be provided with laboratories with trained experts, and its duties will be to advise the Viceroy and Council on all important health matters, as well as to exercise a supervision over all Provincial Governments in regard to sanitary matters.

Each Provincial Government will have also a sanitary department with a trained staff. This department will make investigations on any particular disease at any particular spot, and report the same to the Imperial Department. They will also make by-laws and amend sanitary laws, and exercise a supervision over the local sanitary bodies.

The local bodies will be composed of the local Municipal Council, with a medical president. They will have a medical officer of health, sanitary engineer, and a staff as required. Their duties will be to look after the water supply, drainage, building regulations, registration of births and deaths, vaccinations, stamping out of infectious diseases, &c.

This is but an outline of the scheme, and it is easily seen, if carried out in its entirety, the Sanitary Department of the Indian Government will be a most complete arrangement.

It may be that when we get a Federated Australasia we shall have a Federal Sanitary Institute, such as the Imperial Institute of India. Our present Central Boards of Health will then take up the duties corresponding to those of the Provincial Sanitary Departments, with a similar and efficient staff. The present Local Boards of Health will then carry out local sanitary matters as in India, and will be under the constant supervision of the Central Board of Health. With regard to the latter part of the Resolution, should a Conference be held in sanitary matters, it would be well that your Central Board of Health should be represented.

Antitoxin in Diphtheria.

The only other subject which was brought up of importance, from a public health point of view, was the treatment of Diphtheria by Antitoxin.

The statistics of the Brisbane Hospital, where careful records are kept, were quoted to show that the mortality of diphtheria had decreased from 40 to 21 per cent. since its introduction, while the mortality after tracheotomy had decreased from 60 to 40 per cent.

It was the general opinion amongst those who spoke on this matter that Antitoxin was a great advance in the treatment of Diphtheria; but it was important that it should be given early in the case before any functional or organic changes had reached a dangerous stage. I am one of those who believe if we could only get our cases in the early stage of the disease, with Antitoxin we need have little fear of a fatal result.

I have to record my hearty appreciation of the liberal way in which the Government of New Zealand treated the members of the Congress by granting them free passes over all the Government railways.

In conclusion, I have to thank you, Sir, for the honour conferred upon me by appointing me as your Delegate to the Intercolonial Medical Congress.

I have the honor to be,
Sir,

Your obedient Servant,

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

Medical Officer of Health, City of Hobart,

*Representative of Tasmania, Intercolonial Medical
Congress, Dunedin.*

Hobart, 18th March, 1896.