

politan area. I did not intend to confine my remarks, however, entirely to London, and as the cost of hospital buildings and sites has gone up everywhere throughout the country, I am of opinion that it is essential that the whole question should be reconsidered on its merits, with a view to a large reduction on the sum now spent on new buildings for hospital purposes everywhere. My point has practically nothing to do with existing hospitals occupying old buildings and sites which have been devoted to hospital purposes for a century or more. I was merely dealing with the item of extraordinary expenditure on new buildings, especially where a hospital has to be rebuilt upon a new site. I need not, therefore occupy your space by labouring this point.

The Reconstruction of the Older Hospitals.

I do not think, having studied the expenditure in St. George's Hospital as I have already said, that any competent critic could reasonably object to any material part of it. It is one of the most gratifying facts connected with the metropolitan hospitals that the authorities of the older institutions have become alive to the necessity of reconstruction and refurnishing, and it would be an immense gain if the War Office could be induced to devote a reasonable sum to the re-decoration, reconstruction and refurnishing of the military hospitals in the United Kingdom which at the present time strike an intelligent visitor with feelings of dismay owing to their shabby and neglected condition. Probably the shabbiest, worst-furnished, and most-neglected interior of any hospital building in these islands is that portion of old Greenwich Hospital occupied by the Seamen's Hospital Society. I know that some eminent gentlemen who recently visited the wards there were so shocked at the appearance they presented that they were unanimously opposed to a large sum being paid to its credit. The Trustees of Greenwich Hospital ought to pull down the present buildings, with the exception, perhaps, of Somerset Ward, and arrange with the Seamen's Hospital for the erection thereon of a modern hospital. The present state of affairs is becoming a scandal, and must ultimately bring discredit upon everybody concerned.

TROPICAL AND SUB-TROPICAL DISEASES IN CANADA.

REPORT BY PROFESSOR ADAMI.

WE have received from Professor Ray Lankester, F.R.S., Director of the Natural History Department of the British Museum, the following interesting report on the occurrence of malaria and other tropical or sub-tropical diseases in the Dominion of Canada, addressed to the Secretary of State for the Colonies by Dr. J. G. Adami, Professor of Pathology in McGill University, Montreal, on behalf of the Medical Faculty of that University:—

Molson Pathological Laboratory,
McGill University,
Montreal,

October 24th, 1899.

To the Right Honourable Joseph Chamberlain,
Secretary of State for the Colonies,
Downing Street, London, England.

SIR,—Copies of your circular letters addressed to the Government of this Dominion have by them been forwarded to the Medical Faculty of our University, and I am directed to have the honour to answer those circulars on behalf of our body.

CLIMATE.

Naturally from its position in the North Temperate Zone, and stretching from that into the Arctic Region, Canada affords little opportunity for the study of the diseases termed "tropical." Nevertheless, while thus situated, it has to be remembered that the climate is what is termed "Continental," and that, while the mean temperature for the whole year is low, for some weeks, not to say months in summer, the temperature rises to a great height, much higher than is usual during the same months in Great Britain. It thus follows that certain of the diseases more characteristic of subtropical regions are not entirely prevented from affecting the more southern portions of the

Dominion. As a matter of fact, however, these have never gained any foothold, nor can it be said that the incidence of disease in the Dominion to any appreciable extent varies from that met with in the Old Country.

MALARIA.

With regard to malaria, in which you, Sir, manifest special interest; just as in Great Britain even to the middle of this century cases occurred with considerable frequency, more especially in the Fen district and in Lincolnshire (so that I have personally met with those in Cambridge who can remember the time when it was deemed unsafe to have the windows overlooking marshy land open of an evening for fear of malarial infection), so here in Canada during times within the memory of old inhabitants I am informed that malaria was not infrequent along the St. Lawrence, even in the neighbourhood of Montreal.

Now, however, it is only in the most southerly portion of Canada, namely in the peninsula of Ontario, between the Great Lakes, that malaria is met with, and there not to any great extent. So far as I can learn members of the genus *Anopheles* are still present; some other conditions, however, than the presence of the hosts of the malarial micro-organism would seem necessary for the persistence and propagation of the malarial germ. And when the extraordinary abundance of lakes and large bodies of water throughout eastern Canada is called to mind, and the relatively small proportion of the country that has undergone full drainage and full cultivation, the gradual disappearance of the disease becomes a problem difficult to solve. For myself, during the seven years I have been Pathologist to the two largest hospitals in Montreal in succession, I have come across but one case of malaria in one who had not been out of the country; this was in an old Red Indian who came from Ontario.

Taking into account the enormous numbers of mosquitos present throughout Canada during the early summer months, and the fact that the further north one goes into Labrador or into Alaska the greater becomes their number, until in some regions, during the months of June and July, it is almost impossible to live on account of them, Canada should supply a very good ground for the study of the relationship of mosquitos to the conveyance of more than one form of disease.

We have forwarded your communications, including the pamphlet on "How to Collect Mosquitos," to the Montreal Natural History Society, believing that certain members of that Society will gladly aid in collecting the various forms of Canadian mosquitos and forwarding them to the British Museum.

DYSENTERY.

Of other tropical diseases there is little to be said; we occasionally meet with cases of dysentery due to the amoeba coli; I, however, know of only one case in which this disease occurred in a native who had not been outside the limits of the Dominion. It is possible that in the southern part of Ontario investigations will show this disease to exist.

CHOLERA NOSTRAS.

Summer diarrhoea, or cholera nostras, is much more common and more fatal in the large towns in Canada than it is in the British Isles—a fact to be explained, I am inclined to think, by the rapid and very considerable rise of temperature in the summer months.

TYPHOID FEVER.

Throughout the northern part of North America typhoid fever is very prevalent; judging, however, from the relatively low rate of mortality in Montreal—namely, a little over 4 per cent.—either the treatment here is more efficacious, or the disease is of a milder type than that met with in Europe and in the tropics.

In the Rocky Mountains there are frequent epidemics of low febrile conditions, often possessing local names, such as Red River fever, and classified together under the term "mountain fever." Recent observations show that these, judging from the results of the serum reaction, are but forms of typhoid fever. That special form of disease of the American diagnostician—typho-malarial fever—has not made its entrance into Canada; in fact, it is now thoroughly discredited in the United States and recognised as being purely typhoid or enteric fever.

LEPROSY.

Another disease which, while developing in all climates, is at the present moment mainly tropical—namely, leprosy—occurs in Canada. In British Columbia its incidence is among the Chinese; in Nova Scotia it is interesting to note that apparently the disease was brought originally from Brittany during the last century, or yet earlier, and that it still propagates itself, although rarely, among the descendants of the old Breton fishermen. In connection with this, I may point out that my colleague, Professor Wyatt Johnson, of this city, has published a very ready means of diagnosis where the disease is cutaneous. His method consists of merely scraping the surface of one of the tubercles until a little blood or serum exudes, then spreading this upon a coverslip and staining by the special stains. If the disease be present, abundant characteristic bacilli are to be recognised.

MYCETOMA PEDIS.

A few years ago it was my good fortune, along with the late Dr. Kirkpatrick of this city, to report the first certain case of Madura foot or mycetoma pedis occurring in America. Of this disease, which is common in India, many cases have been reported from Algeria and a few from Italy, but none have occurred in the British Isles. My case occurred in a young French Canadian in the neighbourhood of Montreal who had never travelled. Since then some five other cases have been reported in the United States, two if not three of these from Texas and the more southern portions.

DISEASES OF CATTLE.

With regard to the diseases of cattle, there is the possibility of Texas fever occurring through the importation of animals from the Southern States. It has, however, been abundantly proved that this subtropical disease dies out so soon as it reaches the latitude of Massachusetts, the onset of winter surely killing off the ticks which are the means of conveyance of the parasites of this disease from one animal to another.

At the present moment there is a very localised epizootic in British Columbia of a remarkable and ill-understood form of blackwater fever or hæmaturia among the cattle. This appears to be neither the ordinary hæmaturia of cattle nor the hæmaturia accompanying anthrax. Dr. Duncan McEachran, the Chief Inspector, is at present in British Columbia studying the disease, and it will be interesting to find whether this is due to the existence of any blood parasite. Other localised epizootics of uncertain causation have been found peculiar to other strictly localised districts; these can, however, in no sense be regarded as allied to any special tropical disease, and need not here be mentioned.

If fuller information upon any individual disease be required, information based upon reports from various sections of the Dominion, I would suggest application to the Canadian Medical Association (Hon. Secretary, Dr. F. N. G. Starr, Toronto), which this July holds its meeting in Ottawa.

I have, etc.,

(Signed) J. GEORGE ADAMI, M.A., M.D., F.R.S.E.,
Professor of Pathology, McGill University.

While revising the proof of the above letter, I take opportunity to make this following additions (June 1st, 1900).

BERI-BERI.

It is interesting to note that just as cases of this disease have shown themselves recently in Dublin, so also here in one of the asylums outside Montreal there have been a few cases clinically unrecognisable from this disease.

BLASTOMYCETIC DERMATITIS.

Another disease first noted further south, namely, blastomycetic dermatitis (of which the peculiar yeast-like parasite was first isolated and studied by Dr. Gilchrist, of Johns Hopkins in Baltimore, Maryland, an old student of the Owens College Medical School), has evidently a wide range northwards, for several cases have been recorded from Chicago, and my colleague, Dr. F. Shepherd, has within the last few weeks studied and described two cases in "habitants" of the Montreal district.

RABIES.

Here it may be mentioned that just as rabies is unknown in Sweden and Norway, so is it unknown in the Province of

Quebec, and peculiarly rare in the Dominion generally. Indeed, in the course of his long and wide experience, Dr. McEachran, the head of the Veterinary Department of the Dominion, has never seen a definite case of the disease. Of late years, however, isolated cases have been recorded in the peninsula of Ontario and crossing the border, immediately to the south; the disease is not uncommon in the State of New York.

HEALTH CONFERENCE IN AMERICA.

THE Conference of State and Provincial Boards of Health in North America was held in Atlantic City, New Jersey, on June 1st and 2nd under the presidency of Dr. U. O. B. WINGATE (Milwaukee).

The Construction and Ventilation of School Buildings.—The scientific work of the Conference began with a symposium on school hygiene, introduced by Mr. J. HORACE COOK, Architect and Supervisor of the Philadelphia Public Schools, who read a paper on this subject. He recommended class rooms for 50 pupils to measure about 24 by 32 feet with a height of 13 feet which contain about 10,000 cubic feet of air space. Such rooms might be divided by sliding partitions, and if the doors were filled in with slate they furnished blackboards for each room. The rooms might also be so arranged that four or five of them could by sliding the partitions be turned into one large hall for lecture purposes. Experiments in Philadelphia led Mr. Cook to the opinion that a perfect system of closet arrangements had yet to be devised. The dry closet, while theoretically perfect, had not been practically so, and has been abandoned.

Legislation for the Protection of School Children.—Dr. LEE thought one of the main reasons why the school children of Pennsylvania had been favoured with good school legislation was to be found in the clause of the Constitution adopted in 1873, which made it possible for women to become members of the School Boards.

The School Age.—Dr. McCUTCHEON (Louisiana) read a paper on the Age at which Children should be set to Work in School. He said that in New Orleans children were admitted to the kindergarten between the ages of 4 and 6 years, and received instruction for two and a half hours a day (9 to 11.30) six days in the week. In the primary schools they were admitted between 6 and 10 years of age, and had five and a-half hours school work, with two intermissions. He advocated extending the kindergarten age to at least the seventh year.

A National Commission of Public Health.—Dr. WINGATE (the President), who delivered an address on this subject, expressed the opinion that some organisation separate and apart from any other service, devoting its entire time to a consideration of the public health, and presided over by a competent member of the medical profession, should be created by Congress.

School Closure.—On the second day the discussion of matters pertaining to school hygiene were renewed, special attention being given to the question of closing schools during outbreaks of endemic diseases. After discussion, Dr. LEWIS (New York) introduced the following resolutions, which were adopted by the unanimous vote of the Conference:

That, in the opinion of this Conference, the closing of schools upon the appearance of contagious diseases among the pupils is seldom necessary or advisable. That the medical inspection of schools is an absolute necessity in such cases. That the establishment of public health bacteriological laboratories is of such vital importance as a public-health measure that their establishment in every State represented in this Conference is hereby requested and urged.

State Vaccination.—Dr. SWARTS presented a paper on the question, Is it advisable for a State to Provide Vaccine Virus? He contended that if the State demands vaccination for the protection of its people, then the people should make no objection to paying for that protection. He believed that the State should provide such laboratories, and, where that was not possible, that it should take the necessary steps to make sure that it was securing the most reliable virus manufactured by the commercial bodies.

Education in Hygiene.—Dr. LINDSAY (Connecticut) discussed the Most Practical and Successful Ways of Educating the Public in the Principles and Practice of Sanitary Science. He considered the press the most powerful promoter of progress.