

medical journals would be best qualified to speak with full knowledge, and in professional circles knowledge gives authority whatever may be the case with the public at large. A practical difficulty in making such a change in the character of the appointments to the clinical chairs, which interests the university authorities directly, is the doubt whether properly prepared men would be willing to surrender the rewards and popular appreciation that are attached to the career of a successful physician. This is again the kind of question that discussion does not throw much light upon. When we meet with difficulties of this kind in laboratory work we put the matter to the test of experiment and thereby settle the dispute. Our country is in a peculiarly favorable position to make such an experiment. Our system of medical education has heretofore simply developed along lines laid down by the experience of foreign countries; perhaps in the direction suggested above we may have an opportunity to take the lead instead of trailing along in the rear. I have had occasions to talk with a number of young clinicians on this topic and I have arrived at the conviction that many of them would eagerly accept an offer which, while assuring them a modest but sufficient competence, would also open to them a career so promising in influence, reputation and possibilities for doing the highest good to mankind.

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*THE WINNIPEG MEETING OF THE BRITISH ASSOCIATION*¹

ON Wednesday, August 25, the British Association for the Advancement of Science will meet for the third time in the Dominion of Canada. Twenty-five years ago the first Canadian meeting of the association was held

in Montreal. Thirteen years later, in 1897, advancing a stage further westwards, the association met in Toronto. This year the place of meeting will be Winnipeg, the Gateway City, as it has been called, of the Canadian northwest.

The growing frequency of these flights of the British Association to the dominions beyond the seas will be realized when it is remembered that in the interval since the meeting in Toronto the association has paid a visit (in 1905) to British South Africa. The Montreal meeting in 1884, which initiated the extension of the British Association's meeting-grounds to places outside the British Isles, was not decided on without many heartburnings. For over half a century, since its establishment in 1831, the association had always held its annual meeting in one of the ancient seats of learning or one of the centers of modern industry and commerce in the mother country; and the proposal that it should depart from this custom excited much opposition from those who were wedded to the old order of things. The proposal was first mooted at the jubilee meeting of the association at York in 1881, when Captain Bedford Pim gave notice of his intention to move at the meeting of the following year "that the British Association do meet in Canada in 1885." In Canada itself this proposal was taken up with the greatest heartiness; and before the end of the year the Marquis of Lorne, then Governor-General of Canada, wrote to Mr. William Spottiswoode, as president of the Royal Society, giving an invitation to the association to meet in the dominion in 1883. Various circumstances prevented the council of the association from accepting this invitation, whereupon a further invitation was sent to the association to meet at Montreal in 1884. With a view to testing the feeling of members of the general committee with regard to a proposal which undoubtedly involved a serious departure from the accepted policy of the association, a circular letter was issued inquiring how many members of the committee would be able to accept the Canadian invitation. Only 230 out of 700 members of the general committee re-

¹The London *Times*.

plied to this letter, and of these replies only 74 were favorable.

At the Southampton meeting in 1882, the proposal was discussed at length, and ultimately it was decided to accept the invitation from Montreal. So strong, however, was the feeling on the part of many members against what they regarded as an undesirable and dangerous innovation that a memorial was drawn up and presented to the council, questioning the legality of the decision to meet outside the British Isles and calling for a special meeting of the general committee to be summoned to reconsider the matter. This request was not acted upon; and at the Southport meeting in 1883 the council was able to show that all fears that the proposed Canadian meeting would prove a fiasco, owing to the failure of any considerable body of members to attend, were groundless, since between four and five hundred members had already signified their intention of taking part in the Montreal meeting. As a matter of fact, as the time for meeting drew near so much eagerness was shown to take part in the visit of the association to Canada that the council had to take steps to restrict the election of new members. Many persons who failed to secure election in England went out to Canada without vouchers and presented themselves for enrolment in Montreal; and altogether the total number of visitors who crossed the Atlantic and registered their names on the lists of the association in Montreal amounted to 910, while the total attendance at the meeting was 1,777.

Much of the success of the Montreal meeting in attracting a large number of visitors from the old country was no doubt due to the exceptional nature of the privileges extended to members of the association by the Canadian authorities. The potential greatness of the resources of the Canadian northwest was not then realized as it is to-day; and the dominion government and people were eager to attract to their shores a representative gathering of the most eminent scientific men in this country who would not only give an impetus to the educational development of Canada, but who would spread on their return home a better

knowledge of the greatness of the heritage belonging to the empire in British North America. The privileges extended to the visitors in 1884 might, indeed, well make envious their successors in 1909. They were given free passes over all government railways, over the Canadian Pacific Railway, and over the Canadian Atlantic Railway, while after the meeting a special party of one hundred and fifty members was carried free to the limit of construction of the Canadian Pacific Railway, then open to Stephen, the summit level of the Rocky Mountains. The city of Toronto entertained as its guests after the meeting a party of three hundred members. The transatlantic steamship companies undertook to transmit a limited number of free messages from members to their friends in England, while the overland companies accepted social telegrams for free transmission to all parts of Canada and the United States. The dominion parliament voted a grant of \$20,000 as a contribution towards the traveling expenses of the visiting members, and an additional grant of \$5,000 was afterwards voted towards the general expenses of the executive committee. The city of Montreal voted \$5,000 towards the expenses of the visit, while the subscriptions of private citizens for the same object amounted to \$4,820. Thanks to all this public and private generosity, the Canadian committee was able to transmit to the association a sum of \$14,000 for the purpose of reducing the cost of members' passages to Canada.

Alike on the social and scientific side the meeting fully justified the faith of its promoters. At the inaugural gathering Lord Rayleigh assumed the presidency of the association, and dealt in his opening address with recent progress in physical science. At this distance of time, it is interesting to note that though Lord Rayleigh was able to describe the lighting of large passenger ships by electricity as already "an assured success," he had also to state that "at present we have no experience of a house-to-house system of illumination (by electric light) on a great scale and in competition with cheap gas; but preparations are already far advanced for trial on an ade-

quate scale in London." The vice-presidents of the meeting included the Governor-General of Canada, Sir John Macdonald (then Premier), Sir Lyon Playfair and Sir Charles Tupper; while among the sectional presidents were Lord Kelvin (then Sir William Thomson), Sir Henry Roscoe and Sir Richard Temple. Others who attended included Sir (then Professor) James Dewar, Admiral Sir Erasmus Ommanney, Dr. W. H. Perkin, Sir (then Mr.) W. H. Preece, Sir (then Professor) Robert Ball, Sir (then Professor) Oliver Lodge and General (then Lieutenant) A. G. Greely, of the United States Army, who was but lately returned from his famous Arctic expedition. It is interesting also to note that in 1884 the association met in only eight sections as compared with the eleven of the present day, physiology, botany and educational science then having no separate sections devoted to their special consideration.

The Toronto meeting, held in August, 1897, was again notable for the lavish hospitality extended to the visiting members of the association by their Canadian hosts. The meeting was not, however, nearly so large as that at Montreal, the attendance numbering only 1,362 members, associates and foreign guests. Otherwise this second trip of the British Association's to the Canadian Dominion was no less successful than the Montreal meeting in giving an impulse to the cultivation of the scientific spirit in Canada and in furthering the spread of imperial sentiments. At the inaugural gathering Sir John Evans, the treasurer of the Royal Society, took over the presidency of the association from Lord Lister; and one of the pleasantest of the social functions was a banquet given in honor of Lord Kelvin, Lord Lister and Sir John Evans. Among the sectional presidents were Sir (then Professor) William Ramsay, Sir (then Professor) Michael Foster and Dr. George Dawson, C.M.G., the late director of the Canadian Geological Survey; while the evening lecturers were Dr. John Milne, Professor W. Chandler Roberts-Austen and Dr. H. O. Forbes.

At Winnipeg, where the association is to hold its meeting this year, the visitors will

find themselves in a city which is the living embodiment of the remarkable development of Canada's western prairies during the quarter of a century which has elapsed since the association's first visit to Canada. Less than forty years ago a simple trading post of the Hudson's Bay Company occupied the position where to-day stands the third largest city in the whole Dominion of Canada. In 1870 Winnipeg was a mere outpost of the empire, boasting of a population of 215 souls. When the last census was taken in 1901 the population was 42,000, a sufficiently notable development, but small in comparison with the rapid extension of the city in the last few years. At the end of 1907, according to the handbook which has been issued by the local executive committee in connection with the forthcoming meeting, Winnipeg contained no fewer than 118,000 people. It was only in the spring of 1879 that the city was placed in railway communication with the outer world; and a handy "Souvenir of Winnipeg," issued in connection with the visit of the association to Montreal in 1884, contains as frontispiece a quaint view of the main street, in which the most prominent conveyances are single-horse trams. To-day smart electric trams traverse the city in all directions, and Winnipeg, situated at what has been called the wasp's waist of Canada's railway system, is one of the most important railway centers in the dominion. It is not uninteresting to note some of the statistical facts so proudly quoted in the handbook to which reference has been made as evidence of the extent and importance of the city. Winnipeg, we are there told, has 291 miles of paved and graded streets, 170 miles of water-mains, 675 electric street arc-lights, 29 miles of tramways and 28 schools. Covering an area of 19,000 acres, its total assessable property was valued in 1907 at \$106,000,000, or more than double the value in 1904. The output of its manufactures in 1905 was valued at \$19,000,000; its bank clearings in 1907 totaled \$600,000,000; while as the outlet for the wheat harvest of the Canadian northwest it boasts of being the greatest grain market in the British Empire.

Some particulars have already appeared in *The Times* of June 7 about the local arrangements for the forthcoming meeting. There is every prospect that a considerable body of members of the association will cross the Atlantic, though the inducements which are offered to undertake the journey are nothing like so tempting as in the case in the earlier Canadian meetings. The transatlantic steamship companies have decided that it is impossible to depart from the agreement which exists between them not to make any reduction of fares during August, though so far as possible they are prepared to allot special accommodation to members and associates traveling as first-class passengers. The Canadian railways have arranged to carry members of the British Association party at special rates, generally amounting to a single fare for the double journey. It is impossible, of course, to estimate with exactness the cost of the trip, everything depending on the individual tastes of the visitor and on the length of time he is prepared to spend in Canada.

In no case, however, can the trip be undertaken without a considerable expenditure of time and money. The local committee, without making any allowance for the reduction of railway rates, has estimated that the cost of the return journey, occupying about six weeks from Liverpool, will range from \$384 to \$500, or say in round figures from £75 to £100, according to the nature of the accommodation required. To meet the expenses of the visit the dominion government has made an appropriation of \$25,000, while the city of Winnipeg has voted \$5,000. A portion of these grants will be available to lighten the cost of the visit in the case of those taking an active part in the meeting, but the relief thus afforded will only be very small, and necessarily considerations of both time and cost will prevent many of the leaders of scientific thought in this country from undertaking the journey to Winnipeg. Those, however, who do go will, it may be hoped, form a fair representation of British men of science; and the particulars which are now available about the sectional programs afford abundant evidence that on the

scientific side the meeting will not fall below the high standard of former gatherings, either in this country or in the colonies.

The president of the association at Winnipeg will be Sir Joseph J. Thomson, F.R.S., Cavendish professor of experimental physics at Cambridge. In his opening address the president will refer to the importance of original research as a means of education, the advantages and disadvantages as a training for work in science of the systems of education now in force in our schools and universities. He will deal with the light thrown by recent investigation on the nature of electricity; on the relation between matter and ether and the part played by the ether in modern physics; and a discussion of some problems raised by the discovery of radium.

THE SMITHSONIAN AFRICAN EXPEDITION

THROUGH the Smithsonian African Expedition under the direction of Mr. Theodore Roosevelt, the National Zoological Park at Washington has been presented by Mr. W. W. McMillan, of Juju Farm, near Nairobi, British East Africa, with an exceptional collection of live African animals.

In a letter recently received at the institution from Lieut. Col. Edgar A. Mearns, of the expedition, it is stated that the collection includes eleven large mammals and three large birds, all in fine condition and for the most part well broken to captivity, as follows: a male and female lion, two years old; a male and two female lions, seventeen months old; a female leopard, a pet of Mrs. McMillan; two cheetahs; a wart hog, two years old; one Thompson's and one Grant's gazelle, well grown; a large eagle of unusual species; a small vulture, and a large Buteo. Specimens of none of these, except the lions and leopard, are at present contained in the park.

The collection is now at the farm near Nairobi. Mr. A. B. Baker, assistant superintendent of the National Zoological Park, has been designated to take charge of its transportation to this country, and for this purpose has sailed from New York on the White Star Line steamer *Arabic*. On his way to Nairobi,