

tributed greatly to the enjoyment and profit of all.

Delegates from the United States were present in large numbers and participated in the proceedings of this meeting of the British Association. Many of them were courteously invited to sit with the sectional committees and to join them in their deliberations. The formation of new and the renewal of old acquaintanceships, and the free interchange of thought thus afforded, made the meeting seem, to quote the language of the admirable address of Sir John Evans, like a 'family gathering in which our relatives, more or less distant in blood, but still intimately connected with us by language, literature and habits of thought, have spontaneously arranged to take part.'

In its management of business details the British Association presents some instructive points of contrast with our own organization. Without entering here upon a discussion of these points, it may be useful to mention three wherein the British Association appears markedly superior to the American. The first of these is the absence, at the summer meetings, of repeated and prolonged sessions of the Council, or governing body. Secondly, no sessions affording opportunity for miscellaneous debate by members in general are held. The entire energy of the members in attendance may thus be turned toward the object of the Association—the advancement of science. Thirdly, there is the advantage which comes from the greater freedom and powers of the sectional committees. These virtually control the proceedings of their respective sections at any meeting, and the work

of a section goes on with the vigor and effectiveness which characterize our independent or affiliated societies. In addition to these administrative matters, one cannot help noting the greater enthusiasm of our British kin for science and for scientific men, and the larger proportion of attendance at their meetings of their best men. With them the meeting of the British Association is one of the most important events of the year. With us, widely separated over a continent, there is less opportunity for the cultivation of enthusiasm and greater difficulty in coming together; but who shall say that these are insurmountable obstacles in the way of a worthy scientific zeal and enterprise?

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*INTERNATIONAL AMENITIES AT DETROIT  
AND TORONTO.*

IN accordance with action taken at Buffalo last year, members of the British Association for the Advancement of Science attending the meeting of the American Association at Detroit were made honorary members of the latter body for the 1897 meeting. Perhaps a score of British and Continental scientists availed themselves of this privilege; several of them took part in the work of the Sections, joining freely in discussion and in some cases participating also in the labors of the presiding officers; and it was a general opinion that the presence of these distinguished representatives of science from over seas contributed materially to the success of the Detroit meeting. Especially noteworthy, as an indication of the comity between the two Associations, was the presence of Professor A. B. Macallum, the Local Secretary of the British Association for the Toronto meeting, who came specially to extend in person the courtesies of this body and to make arrange-

ments for transportation, etc., on behalf of Americans desiring to visit Toronto. The Detroit meeting was unexpectedly successful; it is true that the attendance was barely 300 and therefore below the average, but in number and quality of papers, in value of discussions, and in attendance at sectional meetings it ranked, in the judgment of most of the old-time members present (including four past-Presidents), as one of the best meetings in the history of the Association. The pleasure of the meeting was enhanced by exceptional local interest, displayed not only by the local committee but by the citizens generally, and also by the notably excellent press of Detroit; but a large measure of the pleasure, as well as the success, of the meeting must be ascribed to the presence of so many prominent members of the British Association.

In the opinion of old-time members, the Toronto meeting of the British Association was well above the average in number and quality of communications and in the discussions, while the attendance (about 1360), though less than the average, was fully up to expectations. To this meeting American scientists, and particularly members of the American Association, contributed freely. This participation was encouraged by the older Association in making the general and sectional officers of the American Association honorary members, and in placing members of the American body on exactly the same footing as their own members, *i. e.*, admitting them to the privileges of the Association on payment of the customary membership fee. Some 250 American scientists, including about a score of officers of the American Association, availed themselves of these privileges; of these something less than 100 went directly from Detroit, leaving fully 150 Americans, nearly all members of the American Association, who chose Toronto rather than Detroit as a place for scientific association and

discussion, thereby paying the highest possible compliment to the older organization. They were made welcome in the Sections and general meetings; many of them were placed on sectional committees (which are more important in the British body than in the American), and several of them were elected to vice-presidencies; they presented numerous formal communications, joined freely in discussion, aided in administration even to the extent of actually presiding in the absence of the sectional presidents, and contributed in due measure toward shaping the scientific character of the meeting. A noteworthy feature was the attention given in the Section of Geography to a series of papers prepared expressly for this meeting by representatives of our National Geographic Society. In the general meetings and public functions special attention was shown to the American Association collectively as well as to the individual members; the officers were invited to occupy platform seats, and at the closing banquet two representatives of the American body were among the rather limited number of speakers. At this banquet, as on other occasions, the members of the two Associations had the same footing; some officers of both were guests, the list including the general officers, Vice-Presidents, and past-Presidents of the American Association. In thus extending courtesies to the younger organization of similar aims, the British Association departed considerably from its traditions and its eminently conservative custom; and it cannot be doubted that the departure must be credited in the first place to the good offices of the local committee, and in the second place to the exceptionally large common membership, growing out of the fact that in Canada the fields of the two Associations overlap.

The near conjunction of the two meetings in time and place has undoubtedly been most beneficial; it has extended individual

acquaintance between investigators pursuing related lines of research; it has made each Association better acquainted with the character and purposes of the other; it has increased mutual esteem between the men and institutions; and it strengthened both bodies in attendance and in quality and quantity of work, and has been especially beneficial in diffusing knowledge of and interest in scientific matters among the people of two countries. Some of the benefits were felt at the meetings; yet it seems fair to regard these as but the germs of greater benefits to come as the personal and collective relations begun at Detroit and Toronto mature and strengthen.

It seems specially desirable to note the international amenities characterizing the Detroit and Toronto meetings, since minor misapprehensions have come to the surface. For example, it has been alleged in the newspapers that certain members of the American Association were treated with discourtesy at the Toronto meeting. It must be evident, in view of the prevailing harmony and the unprecedented warmth of the courtesies extended by each of the Associations, that the sources of individual criticism are to be found in personal matters and not at all in general feeling. It may not be amiss to add that the Local Secretary of the British Association has explained, through the public press, that certain Americans, who complained, through the medium of associated press despatches, of discourtesy at Toronto, were not registered as members of the British Association, and therefore occupied the precise footing of the general public, which, in the British Association, is not entitled to admission to the meetings or other participation in the work of the body. The great and significant fact is that the relations between the two Associations at Detroit and Toronto were most cordial, sympathetic and beneficial; this fact assuredly over-

shadows any and all petty misapprehensions, and must serve to render the meetings memorable.

W J MCGEE.

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*THE SPREAD OF LAND SPECIES BY THE  
AGENCY OF MAN; WITH ESPECIAL  
REFERENCE TO INSECTS.*

AMONG the many influences which during the last century or two have been affecting that unstable condition of life which is expressed in the words 'the geographical distribution of animals and plants' none has approached in potency the agency of man exerted both purposely and unwittingly or accidentally.

Natural spread was for centuries the rule. Species dispersed under natural conditions along the line of least resistance. Winged animals and seeds were spread by flight and by the agency of winds, and at their stopping places thrived or did not thrive according as conditions were suitable or not suitable. Aquatic animals and plants and small land animals and plants were distributed by the action of rivers and streams and by the ocean itself. Wonderful migrations have occurred, commonly with birds, more rarely with other animals; ice floes and driftwood have carried animals and plants far from their original habitats and even volcanic action has taken part in the dispersal of species. Smaller animals, especially mollusks and insects, and the seeds of plants have been carried many hundreds of miles by birds and lesser distances by mammals.

With the improvement of commercial intercourse between nations by land and by sea another factor became more and more prominent, until in the present period of the world's history the agency of man in the spread of species, taking all plant and animal life into consideration, has become the predominating one. Potentially cosmopolitan forms, possibly even insular in-