

attracting attention, and Brewster's indignant complaints as to countenance withheld and royal favours ungranted had, happily, an even better effect than the mere attainment of courtly patronage, or government doles, for they stimulated the interest and induced the united exertions of scientific men, and were the initial steps in the formation of that powerful confederacy of scientific workers who established the British Association.

Unlike most other scientific societies, the British Association was less a growth than a creation, springing into being, as Professor Trail, one of its earliest members observed, "like Pallas from the head of Jove, in perfect panoply." The famous Royal Society owed its origin, in 1645, to the meeting of a little coterie of gentlemen who assembled weekly in a room over an apothecary's shop in the Strand, to discuss physical science. The origin of the French Academy, the chief precursor of the present Institute, a few years earlier, was very similar, namely, a little club of seven or eight persons who used to meet in Paris at each other's houses for literary discussion. The immediate prototype of the British Association had its origin in Leipsic in 1822, where a society of German Naturalists and Physicists had been formed, the chief object of which was to afford cultivators of science opportunity of knowing each other, and of co-operating for a common end, with which view they agreed to meet each year at a different place, and deliberate, with open doors, on scientific questions.

In 1831, Sir David Brewster definitely proposed the establishment of a British Association of men of science similar to that which, for eight years, had existed in Germany. The proposal was received with much favour, and circulars were issued to literary and scientific societies and individuals convoking a meeting for the following September, in the rooms of the Philosophical Society, at York. The time arrived, and although the country was in the throes of a great political convulsion which resulted in the Reform Bill of 1832, no less than 353 persons attended the inaugural meeting.

This meeting was justly regarded both as satisfactory in itself, and as leaving future success no longer a problem. It further tended to somewhat lighten the gloomy picture which had been painted by some of its promoters as to the national scientific decadence, by illustrating the existence of an amount of interest and even enthusiasm in the objects of science which might scarcely have been anticipated. The purposes and aims of the association were then unfolded in a few comprehensive sentences which have ever since been annually published as the avowed exposition of its objects, namely: "To give a stronger impulse and a more systematic direction to scientific enquiries; to promote the intercourse of those who cultivate science in different parts of the British Empire with one another, and with foreign philosophers; to obtain a more general attention to the objects of science, and a removal of any disadvantages of a public kind which impede its progress."

Instead of any one place being selected as a permanent home, it was decided, after the example of the German societies, that the association should be peripatetic, holding its meetings in a different city each year. In this way, each annual gathering brings home the realities of science, the fascination by which it enthral its followers, and the grandeur of its discoveries, to some locality in which these things had, it may be, previously received an indolent assent, but in which they had not been held as articles of a real and living faith. Although the meetings are mainly upheld by those who habitually frequent them, they are also largely attended by associates drawn from the locality, and it is in bringing home the truths of science to new audiences that much of the best work of the association has been accomplished; for, notwithstanding its title, the association has for many years accepted the function of promulgating and popularizing science, rather than of advancing it, and its usefulness perhaps chiefly depends upon its achievements in the former direction.

The most important item in the programme of each meeting is necessarily the president's address. These addresses are usually thoughtful and suggestive discourses drawn up by acknowledged masters of science, and therefore claiming more than momentary attention. Their character of course widely varies. The president may attempt to sketch a hasty outline of the boundaries of the vast field of knowledge, or he may confine himself, as did Professor Cayley at the last annual meeting, to some subject lying closely within his chosen scientific sphere. Some of the presidential addresses, for instance that of Professor Tyndall at Belfast in 1874, have been productive of much comment and discussion, but as a rule they have been so prepared as to state results rather than to provoke disputation. For the purpose of scientific deliberation the association is divided into sections, to each of which a special department of science is awarded. The sections are as follows: A—Mathematical and Physical Science; B—Chemical Science; C—Geology; D—Biology, with three sub-sections,

Anatomy and Physiology, Zoology and Botany, and Anthropology; E—Geography; F—Economic Science and Statistics; G—Mechanical Science.

Very much the same plan of proceeding is followed at the annual meetings, which as a rule are held in the month of September. They are opened by the president's address, usually delivered on a Wednesday evening, and continue for a week thereafter. During the day the association is broken up into its various sections, but the evenings are generally devoted to lectures, *conversazioni*, and other entertainments. The sectional discussions embrace a very wide field of subjects, and although in the sections devoted to the exact sciences the discussions are generally extremely quiet, decorous, and what the non-scientific public—many of whom become associates, and flock to all sections—term dry, yet in the consideration of subjects admitting of latitude of opinion, and incapable of demonstration, the discussions are often animated, and at times much excitement prevails. Besides the sectional meetings, other modes are adopted of carrying out one of the avowed objects of the Association—to wit, the promotion of intercourse between the cultivators of science, and the evenings, as already stated, are generally devoted to scientific lectures on recent discoveries. From the enthusiastic manner in which both the public authorities and private individuals in Canada have entered into preparation for the meeting at Montreal, it may be safely predicted that, whatever may be its scientific importance, the social and other attractions in connection with this gathering will not be inferior in brilliancy or interest to those of any preceding occasion.

It is, however, not so much by its main meetings, as by the committees annually appointed, and by the plans they organize, that the substantial work of the Association is done. The record of achievement accomplished by these committees is altogether too lengthy to be even summarized, and reference can only be made for it to the annual reports, of which some fifty-two bulky volumes have been published, and which besides containing an epitome of existing theoretical and practical science, furnish a valuable history of the progress of science during the last half century. The reports on special subjects undertaken at the request of the association are printed in full, as are also such of the sectional papers as may be recommended. Of papers deemed less important, merely abstracts are published, whilst of others the titles only are preserved on record. It should be noted that the committees, which work throughout the year, gratuitously devote their time, labour and thought to the duties entrusted to them, the sums granted by the Association for the prosecution of such duties being strictly confined to the necessary expenses incurred. The fund from which appropriations are made is derived from the subscriptions of the members and associates; life members paying £10 for that privilege, ordinary members £1 admittance and £1 annual subscription, both classes being entitled to an annual volume of reports. So far as growth in numbers and in popular estimation is concerned, the success of the Association has been most unequivocal. The number of persons present at the first meeting held in New York was 353, while at Newcastle it exceeded 3,000.

Among the distinguished men whose names have added lustre to the presidential chair may be mentioned His Royal Highness the Prince Consort, who presided at Aberdeen in 1849, and delivered a comprehensive address reviewing the general progress of science, not simply from the scholar's technical standpoint, but in its relation to the common interests of mankind; the Marquis of Lansdowne, father of the present Governor-General of Canada; the Earl of Rosse, Sir John Herschel, Sir Roderick Murchison, Sir David Brewster, the Duke of Argyll, Sir William Armstrong, Sir Charles Leyell, Dr. Joseph Hooker, Professor Huxley, Professor Tyndall, and Sir John Lubbock, besides many others of almost equal note, each one representing the highest range of scientific investigation and erudition in one direction or another.

Having thus briefly outlined the history and leading features of the British Association, it only remains to refer in conclusion to the approaching meeting at Montreal, which, for reasons already stated, promises to be especially eventful. The project of a visit to Canada on the part of the Association was first publicly mooted by the Marquis of Lorne, who, while Governor-General, always evinced a warm interest in the scientific and literary progress of the Dominion over which he presided. At the Southport meeting, although some slight opposition was manifested by Conservative members, who did not like the idea of going so far afield, the motion to meet this year in Montreal was enthusiastically adopted. A large, influential, and enthusiastic public meeting was held, at which resolutions were passed pledging the city to do all in its power to make the meeting successful, and a powerful committee of leading citizens was at the same time appointed to carry these resolutions into effect. Since then no stone has been left unturned to make the meeting as brilliant a success as possible. The Dominion Government, at its last session, voted