The Third Cincinnati Meeting of the American Association for the Advancement of Science.

THE seventy-eighth meeting of the American Association for the Advancement of Science, and of associated societies, was held in Cincinnati during convocation week, December 27-January 2, by invitation of the University of Cincinnati. This was the annual meeting for the fiscal year 1924, which began October 1. The various sessions were held in the buildings of the University of Cincinnati and in the Hughes High School nearby. Many features of the programme bore on the jubilee character of this meeting, in celebration of the seventy-fifth anniversary of the founding of the Association, which occurred at Philadelphia in September 1848.

The arrangements for the meeting were very efficient and satisfactory, and in some respects they greatly excelled those for any earlier meeting of the Association. In every way the meeting was entirely successful. The total number of persons who registered is 2211, and it is probable that a considerable number were present who failed to register. In attendance, this meeting therefore almost equalled the Boston meeting of the previous year; it did not fall far short of the last Chicago meeting, held in December 1920, which was the largest on record, having a registered attendance of 2413. All of the fifteen sections of the Association were well represented in the programme, and thirty-four societies and other organisations were also represented. Of the latter, twenty-four are officially associated with the Association, eighteen of these being affiliated and therefore taking part in the direction of the work of the Association. One hundred and sixty-six scientific sessions were held, at which 1139 papers were read. In addition, there were many business sessions, dinners, and other social functions.

The fine hospitality of the University of Cincinnati and of the Cincinnati people, which made this meeting such a pronounced success, will not soon be forgotten by those who were fortunate enough to be able to attend. The local committee, under the able chairmanship of Prof. Louis T. More, of the University of Cincinnati, contributed invaluable services to the Association and the societies. Special mention should be made of the very efficient work of Profs. More, Edgar Dow Gilman, C. N. Moore, Nevin M. Fenneman, and Ralph E. Oesper.

The preliminary announcement of the meeting, a booklet of 90 pages, was sent to all members of the Association about December 1, and to other members of the societies that took part in the meeting. The booklet contains more information than has been possible in the case of any similar announcement in past years. Copies of a second edition of the announcement were distributed in the registration room during the meeting. About 26,000 announcements, of both first and second editions, were distributed.

The General Program—a book of 182 pages—contains for the first time a series of cross references, which greatly enhances its usefulness. Another new feature is the use of tinted paper for the summary of events, arranged by session periods. Supplements to the General Program were introduced at this meeting, in which were published additions, corrections, etc.

It is impossible to present here anything more than an inadequate statement regarding the Cincinnati Exhibition. It represented the rapid development of research apparatus in America, and the very high standards that have been attained by American manufacturers since the War. The Exhibition included a wide range of materials, embracing many

intricate electrical instruments for controlling conditions and automatically recording the results of experiments. The latest potentiometers, electro-metric titration and electrical conductivity apparatus, galvanometers, rheostats, etc., were displayed; a large assortment of medical instruments and research accessories were to be seen, as were also some very fine binocular and high-power microscopes, with dark field illuminators of most recent types. A very interesting exhibit was a nitrogen-fixation plant in operation. Wax models and mounted biological specimens were to be seen, one of the exhibits being specimens of *Peripatus*. There were the latest models of balances, both torsion and swing, with devices to facilitate accuracy and speed in weighing. One of the chemical exhibits consisted of more than a thousand kinds of chemicals, stains, and dyes, useful in biological research, histology, cytology, and colorimetric determinations of all kinds. Cases suitable for the storage of apparatus and chemicals and for the filing of reprints and manuscripts were exhibited. Special mention should be made of the exhibit of the Bausch and Lomb Optical Company, which had twenty projection lanterns in operation in as many session rooms where projection was needed. Besides instruments, some very fine specimens of lithographic reproduction were shown, illustrating scientific and commercial uses of lithography. Books and periodicals were to be seen, illustrating the last word in the art of presentation and preservation of knowledge in printed form. In addition to the general exhibition, many societies had special exhibits in connexion with their session rooms, which were of great interest and value to these special groups.

The Association's collection of portraits and autograph letters of all past presidents were on display for the first time at this meeting. They proved to be a very attractive feature, being hung on the walls of the rest room near the registration room.

One gratifying feature of the annual exhibitions is the growing interest in them shown by visiting men of science and the general public. The attendance grows each year, and in time these exhibitions will become, it is hoped, an exceedingly valuable means of disseminating knowledge of research methods, apparatus, and results, not only among scientific specialists but also to others. It represents an educational and informational project that deserves to be fostered by the Association.

The publicity arrangements at the meeting were in charge of the sub-committee on publicity, which included C. N. Moore as chairman, W. H. Bucher and A. F. Stanley.

The committee was again helped by Science Service, as in previous years. That organisation was represented at Cincinnati by its director, Dr. Edwin E. Slosson, and by its managing editor, Mr. Watson Davis. As advance programme material came in at the Washington office, the permanent secretary sent a request to each person who was to give a paper, asking him to supply Science Service as soon as possible with a copy of his paper or an abstract. About 275 speakers responded and their manuscripts began to arrive early in December. Advance publicity material began to appear in the local newspapers on Sunday, November 25, and it appeared in increasing amounts up to the opening of the meeting. There is no doubt that this served very considerably to stimulate public interest in the convention and resulted in the newspapers devoting more attention

to the actual covering of the meeting than would otherwise have been the case.

For the first time in the history of the Association a prize was awarded for a paper presented at the meeting. To mark the anniversary, a member of the Association gave the sum of one thousand dollars "to be awarded to some person presenting at the third Cincinnati meeting a notable contribution to the advancement of science." All papers presented at the meeting were eligible for consideration, whether or not the authors were members of the Association. The secretary of each section and society meeting at Cincinnati was asked to consult others and submit titles of papers presented in the sessions of his organisation that should be considered in making the award. These suggestions were carefully considered by a special committee named by the council, which worked throughout the meeting. The award was made to Dr. L. E. Dickson, professor of mathematics in the University of Chicago, for his paper on "Algebras and their Arithmetics" (presented at the Friday afternoon session of Section A with the Chicago Section of the American Mathematical Society and the Mathematical Association of America), together with his papers on "The Theory of Numbers and Generalised Quaternions," and on "Quadratic Fields in which Factorisation is always Unique," presented at the Saturday afternoon session of the Chicago Section of the American Mathematical Society. Prof. Dickson has been able to unify and enlarge the whole subject of the theories of algebra.

There were four general sessions of the Association at Cincinnati. The meeting was formally opened on the evening of Thursday, December 27, in Emery Auditorium. Prof. Louis T. More, chairman of the local committee on arrangements, presided at the opening session and introduced President F. C. Hicks, of the University of Cincinnati, and Mr. George P. Carrel, mayor of Cincinnati, each of whom spoke a few well-chosen words of welcome. Then the president, Dr. Charles D. Walcott, was introduced and responded for the Association. He introduced the main speaker of the evening, the retiring president, Prof. J. Playfair McMurrich, of the University of Toronto. Prof. McMurrich delivered a very inspiring and scholarly address, entitled "A Retrospect." (For this address, see *Science*, December 28, 1923, vol. 58, pp. 521-31.) Prof. McMurrich, on whom the degree of LL.D. *honoris causa* of the University of Cincinnati was conferred, was at one time a professor in the University of Cincinnati, and the conferring of the degree was specially appropriate on this occasion.

The opening session was followed by a general reception in the ballroom of the Hotel Sinton, given by the Cincinnati Chamber of Commerce and the University of Cincinnati in honour of the president and retiring president of the Association. The reception was exceptionally well attended. The second general session was held in the auditorium of Hughes High School on the evening of Friday, December 28. This session was under the joint auspices of the Society of Sigma Xi and the Association, the president of the Society, Dr. Henry B. Ward, presiding. The address of the evening was the second annual Sigma Xi lecture, given by Dr. Willis Rodney Whitney, director of the research laboratory of the General Electric Company, Schenectady. Dr. Whitney spoke on "The Vacuum, there's something in it." The lecture was accompanied by striking experimental demonstrations of some of the latest developments in the field of vacuum tubes.

The third general session was held under the joint auspices of the Association and the Cincinnati Garden Club, in the auditorium of the Cincinnati Women's

Club, on Saturday afternoon, December 29. Dr. George T. Moore, director of the Missouri Botanical Garden, St. Louis, introduced Mrs. Charles D. Walcott, who showed selections from her fine collection of lantern slides, hand-coloured by herself and made from her own photographs of wild flowers of the Canadian Rockies. Wonderful scenic and geological features of the region were also shown. Mrs. Walcott has devoted many years to the preparation of these pictures, and their exceptional beauty and general excellence won enthusiastic praise from all who were able to be present.

The fourth general session was devoted to the intimate history of the Association, with special reference to the celebration of the seventy-fifth anniversary. Dr. Charles D. Walcott presided. Dr. Herman L. Fairchild, emeritus professor of geology in the University of Rochester, and long a member of the committee on policy and the executive committee of the Association, read a paper on the development of the present organisation from beginnings made seventy-five years ago. Following Dr. Fairchild's paper, Dr. T. C. Mendenhall, president of the Association at the Toronto meeting in 1889, read a letter from Dr. Edward S. Morse, the past president of longest standing—he was president at Buffalo in 1886—and then Dr. Mendenhall spoke in his characteristic way of some of his own recollections of the earlier days of the organisation. Dr. T. C. Chamberlin, president at Baltimore in 1908, spoke of some of his experiences and of the advance of science during the life of the Association. Dr. L. O. Howard, for many years permanent secretary, and president at Chicago in 1920, made some interesting and amusing remarks; and Prof. J. Playfair McMurrich, the present retiring president, closed the session with very good advice for the Association drawn from a study of the past and a look into the future.

The newly elected president and the vice-presidents for 1924 are as follows:

President: J. McKeen Cattell, editor of *Science*.

Vice-presidents for the Sections: Section A (Mathematics), J. C. Fields, University of Toronto; Section B (Physics), E. F. Nichols, Nela Research Laboratory, Cleveland, Ohio; Section C (Chemistry), W. F. Hillebrand, Washington, D.C.; Section D (Astronomy), John A. Miller, Swarthmore, Pa.; Section E (Geology and Geography), W. C. Mendenhall, U.S. Geological Survey; Section F (Zoological Sciences), Edwin Linton, Augusta, Ga.; Section G (Botanical Sciences), G. R. Lyman, University of West Virginia; Section H (Anthropology), E. A. Hooton, Cambridge, Mass.; Section I (Psychology), R. S. Woodworth, Columbia University; Section K (Social and Economic Sciences), Thomas S. Baker, Carnegie Institute of Technology; Section L (Historical and Philological Sciences), L. C. Karpinski, University of Michigan; Section M (Engineering), A. E. Kennelly, Harvard University; Section N (Medical Sciences), William A. MacCallum, Johns Hopkins University; Section O (Agriculture), L. R. Jones, University of Wisconsin; Section Q (Education), L. A. Pechstein, University of Cincinnati.

Under the present rules the Association holds its main meeting each year during convocation week—at the time of the Christmas vacation in schools and colleges. It frequently holds a smaller summer meeting also. Because of the early date set for the Toronto meeting of the British Association for the Advancement of Science, it has been decided to hold no summer meeting of the American organisation this year. The American Association will do all in its power to aid in making the Toronto meeting of the British Association a pronounced success.

SAM F. TRELEASE.