Flora of North America, one of the most difficult and ambitious undertakings of its period. At 28 he was appointed to a professorship in the newly projected University of Michigan and commissioned to make an extended journey in Europe for the selection of books and equipment.

Nothing in Dr. Gray's whole career better illustrates the extraordinary qualities of the man than this first trip abroad. He was both in England and on the Continent received with a kindliness and cordiality which can only be explained by the singularly endearing qualities he must himself have possessed. That was not an epoch in which America was particularly popular abroad. Yet this country-bred American youth became at once the welcomed guest of Sir William Hooker, destined to be the director of the Royal Gardens at Kew. He received personal attention and aid from Robert Brown, the most eminent botanist of the British Museum, and from the distinguished botanists at Paris, Lyons, Montpellier, Padua, Trieste, Vienna, Munich, Geneva, Halle, Berlin and Hamburg. With all these he established friendly relations which continued through life and resulted in a steady interchange of specimens and literature between Europe and America of incomparable value to science. No American scientist, not even Agassiz, himself of European birth, has contributed so much to relations of friendly co-operation across the Atlantic.

In 1842 Gray was chosen to fill the newly created Fisher Professorship of Natural History at Harvard, a position which he continued to hold to the close of his career.

From 1845 to 1870 there occurred the great transcontinental surveys and exploring expeditions which brought in an immense mass of scientific specimens illustrating the flora of the western half of our continent. No one was so well prepared as Gray to classify and publish upon this material, and to him the greater part of it was sent. No one can ever again have such an opportunity. There are no more continents to be opened up in this way. Gray with eagerness and industry, with keen insight and sound judgment devoted himself to this gigantic undertaking. His scientific output was enormous. His writings comprise upward of 400 titles. He was scrupulously careful about his style and even his most technical papers have great finish and lucidity.

Personally he had a charming nature and was the ever welcome associate of that memorable group of talented men of whom Longfellow, Norton, Agassiz, James Russell Lowell and Oliver Wendell Holmes were members. He married Jane Loring, a beautiful daughter of one of Boston's fine old families. Together they made several journeys to Europe which were notable in extending the personal cordiality between New and Old World scientists.

He was a warm friend of Darwin and was the first to publish in defense of Darwin's position when it was subjected to prejudiced and unreasonable attack.

In the seventies Gray again attempted a flora of North America. It had grown to be a task far beyond the powers of any one writer. There can be no surprise that one lifetime was not sufficient for its completion. We can only marvel at the extent and excellence of what he did accomplish.

Gray was fortunate in the period during which he lived. His opportunities were unrivaled. Our country was even more fortunate in having at this epoch a scientist of Gray's acuteness to deal with its botanical problems. Otherwise they would have fallen largely to Old World investigators.

B. L. ROBINSON

HARVARD UNIVERSITY

SCIENTIFIC EVENTS

A SECOND TEN-YEAR INDEX TO CHEMICAL ABSTRACTS

THE American Chemical Society is planning to publish a collective index to *Chemical Abstracts* which will cover the period 1917 to 1926 inclusive. This project has been started in 1925 because it is necessary to obtain advance subscriptions to cover the greater part of the big expense and because an early decision as to the feasibility of issuing the index will favorably affect the economy of preparation and date of appearance. The advance subscription blanks were sent out by Secretary Charles L. Parsons, Mills Building, Washington, D. C., on May 9 and up to July 1 a little less than one third of the 3,000 advance subscriptions estimated to be necessary to insure publication had been received.

In view of the fact that *Chemical Abstracts* has stressed completeness in covering the literature of chemistry, the index, if published, will serve as a key to virtually the whole of the world's chemical progress during its most active ten-year period. It is estimated that 7,000 pages of double-column fine print will be necessary to index this literature by authors and by subjects as planned. This will make six big volumes. The subject index will be an index of subjects, not of words (there is a big difference), and it will be based on abstracts, not merely on titles.

It is not thought that the importance of this project needs emphasis. The first Decennial Index to *Chemical Abstracts* was well supported and has proved its

usefulness. The second Decennial Index, because it will cover a period more active chemically, should be even more useful. To help in making the project possible by entering an advance subscription order will not only be a good investment as a personal time saver and from a strictly financial point of view (the few remaining sets of the first Decennial Index are selling at double the original price), but also it will be a good investment in service to chemistry, more particularly to chemistry in America (the foreign abstract journals regularly publish collective indexes). Most scientists are anxious to aid the cause of science, realizing as they do that science is a good servant of humanity. Those of us responsible for *Chemical Abstracts* like to think that the journal plays an essential rôle in the development of chemistry. The success of this second Decennial Index project is of vital importance to the future of *Chemical Abstracts*.

E. J. CRANE

OHIO STATE UNIVERSITY,
COLUMBUS, OHIO

THE ORTON MEMORIAL LIBRARY OF GEOLOGY

IN 1916 General Edward Orton, Jr., generously proposed to the board of trustees of the Ohio State University to establish a library of geology in memory of his father, Dr. Edward Orton, the first president and the first professor of geology in the institution. Accordingly the trustees designated two rooms in Orton Hall for that purpose, and under General Orton's direction they were transformed into beautiful quarters, and the library was opened November 1, 1917.

It was thought that the rooms would be adequate for a long time, but in a few years stack room became scarce. General Orton then offered to equip larger quarters in Orton Hall if space could be found. Finally the commodious room with balcony which for years in large part housed the university library was offered. This was thoroughly remodeled and handsomely furnished. The shelves, tables and cases not only meet the best library demands, but they are very pleasing to the eye. Over the shelves hang oil paintings of geological scenes. Among these are a Moran of the Petrified Forest, a Bierstadt of Old Faithful and a Vollweider of the Alps. The new library was ready for use on January 5.

The books number about 11,000 and include many of the largest and most important sets published here and abroad. They include the university collection, the State Geological Survey exchanges, the library of the late Professor Charles S. Prosser and numerous volumes from the library of Dr. Orton. For the past five years General Orton has supplied $500 annually for the purchase of books. Volumes donated are bound by the state without expense to the library.

Under such favorable conditions the collection, of course, is growing rapidly. Stack room for perhaps 25,000 is provided, and by connection with a room below at least 50,000 volumes can be housed. It is a library not only for the Ohio State University, but for all the geologists of Ohio.

HONORARY MEMBERS OF THE ROYAL INSTITUTION

AT the centenary celebration of Faraday's discovery of benzene held at the Royal Institution on June 16, the new honorary members were introduced by the secretary, Sir Arthur Keith, in the following words:

Gabriel Émile Bertrand, professor of biological chemistry at the Sorbonne, Paris, and director of the laboratory of biological chemistry at the Institut Pasteur. Professor Bertrand is distinguished as an inquirer into bacterial activity, particularly in connection with oxidation phenomena, of which he has made a special study. He has also paid great attention to the influence of minute quantities of metals not usually regarded as acting upon the course of vital change.

Ernst Julius Cohen, professor of general chemistry and inorganic chemistry in the University of Utrecht, Holland. Professor Cohen is an acknowledged leader in physical chemistry, the biographer in England of his master, Van't Hoff, and like him, a devoted student of Byron.

Piero Ginori-Conti, senatore, president of the Associazione Italiana de Chimica, Generale ed Applicata, Rome. Prince Ginori-Conti has acquired distinction by capturing natural steam and using it as a source of energy, at the same time extracting from it large quantities of boric acid. He manufactures perborates from this latter by Faraday's method of electrolytic oxidation.

James Flack Norris, professor of organic chemistry in the Massachusetts Institute of Technology, and secretary of the American National Research Council. Professor Norris is president of the American Chemical Society, a constituency of 15,000 chemists. He is professor in the most noted of American technical schools, the Massachusetts Institute of Technology, and himself a well-known original worker.

Joji Sakurai, president of the Japanese National Research Council, emeritus professor of the Imperial University of Tokyo, Japan, and member of the Japanese House of Peers. Professor Sakurai was a student under the late Professor A. Williamson at University College, London, one of the first small band of Japanese students who came to Europe to acquire a knowledge of western science. Working upon foundations laid by the late Professor Divers, he has long been noted as the inspiring mind in Japanese chemistry. A founder of the National Research Council of Japan, he is now actively engaged in promoting the application of science generally in his country.