SCIENTIFIC EVENTS

DANISH EXHIBIT AT THE CHICAGO MUSEUM OF SCIENCE AND INDUSTRY

WORD has been received from Dr. Max Henius, of Chicago, that the Ways and Means Committee of the Danish government has approved the expenditure of fifty thousand kroner for exhibits for the Museum of Science and Industry in Chicago. These exhibits are to portray the contributions of Danish scientists to world progress. Dr. Henius, who has been director of the Wahl-Henius Institute in Chicago for many years, has already secured a large operating model of a brewery for the museum. He has also been very active in the establishment of the Dan-American Archives, which are a gift of the American people to the people of Denmark.

The exhibits from Denmark will consist of originals and replicas of the apparatus used by Denmark's great scientists and engineers from Tycho Brahe in the sixteenth century to Knudsen, Poulsen and Bohr—Denmark's leaders in modern science. Tycho Brahe was one of the first great observers of the motions of the sun, moon, stars and planets. The observatories which he built and the instruments which he devised form one of the most precious heritages of modern astronomy. A model of his great observatory at Uraniborg as well as models of his instruments will form part of this exhibit.

It is also fitting that Chicago, the home for so long of Dr. Albert A. Michelson, whose measurements of light won him the Nobel prize, should receive from Denmark examples of the work of Ole Römer. Römer invented the transit circle and by his measurements of the light from Jupiter he was able to pronounce for the first time that light traveled at a definite speed and not at an infinite speed as had been supposed. Römer in 1676 estimated the speed of light at 192,000 miles a second and Michelson in 1926 corrected this to approximately 186,000.

In the field of electricity Hans Christian Oersted ranks with Michael Faraday. His discovery of electromagnetism forms, together with Faraday's discovery of electromagnetic induction, the foundation of the age of electric power. During his great career Oersted founded both the Danish Society for the Propagation of Science and the Polytechnic Institute. Replicas of his original apparatus, of his electromagnet, and a copy of his essay on his great discovery will form part of the Danish gift to the Museum of Science and Industry. A bronze tablet commemorating the centenary of Oersted's discovery of electromagnetism has already been given to the museum by Dr. Neils C. Oatved, of Detroit, Michigan.

Among these exhibits will also be included an early model and a modern telegraphone, the invention of the Danish scientist Waldemar Poulsen. The telegraphone, which has recently come into use again in Europe for recording telephone messages when the party called is absent, is a device which records sound on an iron wire. Poulsen's principal contribution to scientific progress which will be shown among this group of exhibits was his production in 1903 of an oscillator which made continuous radio waves possible.

No exhibition of the work of Danish scientists would be complete without that of Niels Bohr. Although the atomic theory has changed since Bohr received the Nobel Prize for his work, the rise of atomic physics dates back to him and every new discovery in the field serves to emphasize the task that Bohr performed in directing the thinking of scientists all over the world along these lines. Hence the Museum of Science and Industry has asked that the Danish government include the work of Bohr in this gift of exhibits.

The exhibits from Denmark will be housed temporarily in the Hall of Science of A Century of Progress. Although the Museum of Science and Industry will be opened to the public in May, 1933, the decision has been made to loan the Danish exhibits to A Century of Progress for six months before placing them permanently in the museum.

CORRESPONDENT

THE HERBARIUM OF W. W. ASHE

THE University of North Carolina has secured the W. W. Ashe Herbarium, a collection very valuable for its large number of type specimens from the southeastern states. William Willard Ashe (1872–1932), a graduate of the University of North Carolina and Cornell University, was the first forester employed by the state of North Carolina. After eighteen years in forestry service for North Carolina he spent twenty-three years in the U. S. Forest Service. He was a keen observer and the qualities that carried him far in his vocation of forestry also made him an important systematic botanist. He is credited with 179 scientific papers, about one third of them in systematic botany. In these he published 510 new botanical names (including species, varieties and forms).

The acquisition of the Ashe Herbarium by the University of North Carolina was made possible through the generosity of Mr. George Watts Hill, of Durham, N. C. Most of it is unmounted; but Mr. Hill's gift made possible not only the purchase of the plants, but the cost of mounting them and the purchase of suitable herbarium cases. To assist in assembling and mounting the herbarium, the university has secured

the services of Mr. T. G. Harbison, of Highlands, N. C. He was for years a collector for the Biltmore Herbarium, a collector for Sargent for over a quarter of a century, is the author of a number of papers on systematic botany, and as a friend and fellow collector of Mr. Ashe he is familiar with Mr. Ashe's signs and symbols. With Mr. Harbison's assistance the herbarium should be ready for the use of visiting botanists by summer.

Through the generosity of Mrs. W. W. Ashe the university is also the recipient of a large number of Mr. Ashe's reprints of botanical and forestry interest and a number of botanical journals and books.

H. R. TOTTEN

HECKSCHER GRANTS AT CORNELL UNIVERSITY

THE Heckscher Research Council of Cornell University has announced that supplementary grants amounting to about $11,000 have been made for the continuance of eighteen scientific researches.

The allocation of grants followed a gift of $10,000 from the Carnegie Corporation made last autumn. A special gift of $1,000 made by Mrs. Harry Snyder, of Minneapolis, for the promotion of research in biochemistry and allied fields at Cornell was also allocated at this time to the continuance of researches assisted by an earlier gift from Mrs. Snyder.

The Heckscher Foundation for the promotion of research at Cornell was established by Mr. August Heckscher, a trustee of the university, in 1920 by a gift of $500,000. During the twelve years it has been in existence the fund has provided an income of $445,000 for the support of 200 separate projects.

The following supplementary grants were made for the academic year, ending June 30, 1933:

Professor Wilder D. Bancroft: For researches in photochemistry.

Professor Samuel L. Boothroyd, '04–5, G: To continue work on meteors.

Professor T. Roland Briggs, '09, and Carleton C. Murdock, '12: For a study of the size and shape of colloidal particles with special reference to catalytic agents.

Professor L. M. Dennis: For investigation of rare elements.

Professor R. Clifton Gibbs, '07: For a study of line spectra in the extreme ultra-violet.

Professor Edwin F. Hopkins, '15: For a study of the physiological effect of iron and certain other elements in the ionized state.

Professor Earle H. Kennard, '13, Ph.D.: For research in theoretical physics.

Professor Robert Matheson, 06–7: For a study of culicid ecology.

George Maughan: To continue study of the effects of ultra-violet light on animal physiology.

Professor Leonard A. Maynard, '15, Ph.D., and C. M. McCay: To continue investigations on physiological effects of purified diets in herbivora, and to continue investigations on biochemical changes that accompany aging in the animal body.

Professor Ernest Merritt, '86: For study of the influence of the conditions of the upper atmosphere on the transmission of electric waves.

Professor Murdock: For work in x-rays.

Professors Edward L. Nichols and Ernest Merritt: For studies in luminescence.

Professor Jacob Papish, '21, Ph.D.: For a study of the occurrence, distribution and association of the rarer chemical elements.

Professor Otto Rahn: For studies of radiation from living matter.

Professor Hugh D. Reed, '99, Alan C. Fraser, '13, and George C. Embody, '10: For the purpose of undertaking genetical studies and related problems in fishes.

Professor Floyd K. Richtmyer, '04: For investigations in the laws of absorption of x-rays.

THE AMERICAN JOURNAL OF SCIENCE

DR. RICHARD S. LULL, Sterling professor of paleontology and director of the Peabody Museum of Natural History at Yale University, has been appointed editor of *The American Journal of Science,* succeeding Dr. Ernest Howe, who died in December.

The American Journal of Science and Arts was established by Benjamin Silliman in 1818, and is an integral part of the educational activities of Yale University. This was the first serial scientific periodical in this country as Silliman was the first professor of science. At that time the scientist had only the irregular publications of a few scientific societies or academies in which to bring out with some promptness the results of his work.

As planned by Silliman *The American Journal* was to embrace all branches of science, "more especially mineralogy and geology"; including also "the ornamental as well as the useful arts." Papers on these last subjects appeared occasionally in early volumes, but more and more infrequently and finally, in 1880, "the Arts" was dropped from the title. The wide range of subjects was gradually somewhat restricted and after the 1890's articles outside of the geological field were more and more infrequent. The other subjects (as chemistry, physics, botany, etc.) still find a place in the abstracts of papers published elsewhere, or in the reviews of books in all lines of science.

The elder Silliman carried all the work of the *Journal* for some twenty years till his son, Benjamin Silliman, Jr., came in to assist him in 1838. A little later (1846), his son-in-law, James Dwight Dana, was also included in the editorial board. The last soon took upon himself the entire work and carried this on until within a few years of his death in 1895. For years previous to this he had had the assistance of his