false ceiling, thus combining flat and concave effects. An effective system of ventilation has been added. The habitat groups now appear as openings in the walls of the gallery instead of as individual protruding boxes. The effect is a pleasing continuity. Reflections on the glass are eliminated by interior case lighting. Labels by Curator O. E. Jennings contain explanatory transparencies in color photography that enable the visitor to identify individual plants and the occasional animal forms introduced into the settings. Full-sized groups installed are the Florida group, the Pennsylvania bog, the spring flora of Pennsylvania, Mount Rainier and Arizona. Three additional full-sized groups are proposed, and the space left for these is now occupied by miniature dioramas showing Arctic tundra, the slope of Pennsylvania Laurel Ridge Mountain and Presque Isle Peninsula on Lake Erie. Other exhibits in the room include enlarged models of flowers and maps showing vegetational regions. An octagonal block of benches occupies the center. Plans are ready for two gallery floors and await only the necessary funds for work to begin. Frank A. Linder developed the plans and supervised construction of the Botanical Hall, which was a WPA project. Roy B. Ambrose, of the building staff, helped in the technical problems. Ottmar F. von Fuehrer, staff artist, created the exhibits with the help of Mrs. Fuehrer and Carl Beato, under the general direction of Mr. Jennings. For the Arizona group alone Mrs. von Fuehrer and Mr. Beato fashioned some 12,600 separate pieces.

THE HALL OF NORTH AMERICAN MAMMALS OF THE AMERICAN MUSEUM OF NATURAL HISTORY

AFTER six years of construction and preparation, the new hall of North American mammals in the American Museum of Natural History will be opened to the public on April 9. The first completed habitat groups (ten in number) of what is eventually expected to be the world's finest representation of North American animals housed in one exhibition hall, will be dedicated by officials of New York City and trustees of the museum on April 8.

The new hall is a panorama of wildlife throughout the entire continent, extending from Ellesmere Land, near the North Pole, to Mexico; and from New York State to the west coast of Alaska. As in the Akeley African Hall on the floor above, the animals are mounted in realistic life settings of their native plains, forests, swamps, mountains and deserts.

More than eighteen years ago, Dr. Harold E. Anthony, curator of the department of mammals, outlined plans for a new and modern hall of North American mammals to replace the old interpretation and "stuffed animal" appearance of exhibitions shown in the old mammal hall, built in 1890.

Realizing also that in many instances America's wildlife is still continuing to disappear before the advance of civilization as well as through changing climatic conditions governing the native habitats of these animals, F. Trubee Davison, president of the museum, since the summer of 1935 has directed its expedition program principally to the North American continent for extensive collections of our existing animals.

In 1937 Mr. Davison enlisted the active support of officials of New York City and those who wished to see American mammals preserved in life-like settings for future generations that may not have the opportunity of knowing the living animals.

Without funds contributed by the City of New York for the construction of cases, obtained through the efforts of Mayor Fiorello LaGuardia, Commissioner Joseph T. McGoldrick and Commissioner Robert Moses, the new hall could not have been built. Under the leadership of the Trustees' Committee of North American Mammals eighteen expeditions have collected for the ten habitat groups now completed and eight to be opened in the near future.

The designs, preparation and presentation of the groups were carried out by Dr. James L. Clark, head of the Department of Arts and Preparation, assisted by Albert E. Butler and under the scientific direction of Dr. Harold E. Anthony. Engineering and construction were in charge of Rex Johnson, general superintendent, assisted by Victor Ronfeldt, mechanical superintendent, and Wilson L. Todd, power plant engineer.

The animals were mounted by sculptor-taxidermists, Robert H. Rockwell, Gardell D. Christensen, George Adams and Waddy McFall. Artists who painted the background scenes, in most cases made from their own expedition field-paintings, were Belmore Browne, Charles S. Chapman, Carl Rungius, James Perry Wilson, Francis Lee Jaques, Joseph M. Guerry and Frederick Scherer.

Those who participated in the making of flora and foreground accessories were: Albert E. Butler, George E. Petersen, Raymond H. De Lucia, G. Frederick Mason, Ralph Mendez, Robert Scherer, Charles Tornell, Robert Sewell, Bernard Chapman, Rudolph Freund and James Carmel.

THE NATIONAL RESEARCH COUNCIL'S COMMITTEE ON THE APPLICATIONS OF THE ELECTRON MICROSCOPE

THE electron microscope has opened up for investigation a new order of submicroscope dimensions. Within this range are minute structures of interest in most, if not all, fields of natural science. Interpretation of electron micrographs involves new problems; these arise primarily from the complexities of

the instrument itself and secondarily from the unfamiliar nature of the minute structures under study.

The National Research Council's Committee on Applications of the Electron Microscope, in order to help clarify these problems, hereby offers the services of its members as referees on articles on electron microscopy. The members of the committee are:

Stuart Mudd, *chairman,* department of bacteriology, University of Pennsylvania.

R. B. Barnes, American Cyanamid Company, Stamford, Connecticut.

M. Demerec, Station for Experimental Evolution, Carnegie Institution of Washington, Cold Spring Harbor, Long Island, N. Y.

Henry Eyring, department of physical chemistry, Princeton University.

Robert F. Griggs, department of botany, George Washington University.

Caryl P. Haskins, Haskins Laboratories, 480 Lexington Avenue, New York, N. Y.

Michael Heidelberger, department of biochemistry, Columbia University.

Loyd Jones, Eastman Kodak Company, Rochester, N. Y.

C. W. Metz, department of zoology, University of Pennsylvania.

Katherine Polevitsky, Dental School, University of Pennsylvania.

Thomas M. Rivers, Rockefeller Institute for Medical Research, New York, N. Y.

Gordon H. Scott, School of Medicine, Washington University.

W. M. Stanley, Rockefeller Institute for Medical Research, Princeton, N. J.

Francis O. Schmitt, department of biophysics, Massachusetts Institute of Technology.

V. K. Zworykin, Research Laboratories, RCA Manufacturing Company, Incorporated, Camden, N. J.

T. F. Anderson, *secretary,* Research Laboratories, RCA Manufacturing Company, Incorporated, Camden, N. J.

Editors who care to avail themselves of this offer may send manuscripts to the secretary of the committee, Dr. T. F. Anderson, for reference to an appropriate referee from among the committee's membership.

THE UTAH CHAPTER OF THE SOCIETY OF SIGMA XI

THE Utah State Chapter of the Society of the Sigma Xi, the eighty-second chapter to be established in the society, was installed at the Utah State Agricultural College at Logan on March 14 by Dean Edward Ellery, member of the executive council of the society. The new chapter has fifty-five charter members who are alumni of eighteen other chapters.

At a convocation held in the morning in the college auditorium, Dr. Elmer George Peterson, president of the college, addressed the delegates and members on the subject, "The Place of Research on the Utah State Agricultural College Campus," and Dean Ellery spoke on "Sigma Xi, its Past in Peace, its Present in War."

After the formal installation exercises in the afternoon, a reception honoring the members of the new chapter was given by the faculty association in the reception room of the Commons building. A formal dinner in the evening, presided over by Dr. Sherwin Maeser, president of the new chapter, was followed by the club and chapter's fourth annual Sigma Xi lecture, "The Structure of Liquids," by Dr. John J. Kirkwood, of Cornell University.

Other new officers in the club are: Dr. R. J. Evans, *Vice-president;* Dr. J. Stewart Williams, *Secretary;* Dr. Dean F. McAlister, *Treasurer,* and Dr. Marion T. Bird, *Member of the Council.*

THE SOUTHWESTERN DIVISION

THE twenty-second annual meeting of the Southwestern Division of the American Association for the Advancement of Science will be held under the presidency of Dr. W. M. Craig, of Texas Technological College at Lubbock, at the New Mexico State College of Agriculture and Mechanic Arts at Las Cruces from April 27 to 30. Dr. H. P. Mera, of the Laboratory of Anthropology, Santa Fe, is vice-president of the division and Dr. Frank E. E. Germann, of the University of Colorado, is secretary.

The division meets in four sections—the Biological Sciences, Mathematics, the Physical Sciences and the Social Sciences. Meeting in association with the division will be: The Clearing House for Southwestern Museums, *chairman,* F. H. Douglas, Denver; the Mathematical Association of America, *chairman,* Roy MacKay, State College; the American Association of University Professors, *chairman,* G. L. Guthrie, State College; the State College Biological Society, *chairman,* P. J. Radosevich.

According to the tentative program, in addition to the section meetings on April 28 and 29 there will be on Monday, April 27, a reception for members and guests by Dean and Mrs. J. W. Brannon, and the dinner of the American Association of University Professors in the evening. The following evening will be devoted to the thirteenth John Wesley Powell Lecture. The annual banquet of the division will be given on the evening of the 29th when Dr. Craig will deliver his address as retiring president. He will speak on "The Rôle of Spectrography in National Défense."

Field trips will be arranged to meet the interests of members. Old Mesilla and the ruins of Forts Selden and Fillmore are places of historical interest. The Sunken Mesas, Lava Flows and the White Sands National Monument are features of concern to both