

Warner, and his daughter, Miss Helen Blakemore Warner. The telescope, the gift of Mrs. Edward Parker Burrell, is to be a memorial to her husband, who was for many years director of engineering for the Warner and Swasey Company. Others have provided additional gifts.

Construction of the addition will begin as soon as working plans are completed. The present observatory, situated at Taylor and Brunswick Roads, East Cleveland, was a gift to Case School in 1920 from Mr. Warner and Mr. Swasey, who were both trustees of the college. The present observatory contains the 10-inch equatorial telescope which was originally in the private observatory maintained by the donors.

The new telescope will be an instrument of such power that it will be possible to photograph objects many million light years away. It will be mounted in a 28-foot dome and will have a 36-inch mirror and a 24-inch lens. The optics of the instrument are of recent design, which utilizes the best properties of the reflecting and of the refracting type of telescope.

Below the dome in which the telescope will be mounted will be an exhibition hall for the display of models, globes, transparencies and other visual exhibits. Adjoining the hall will be the auditorium, which will be of the amphitheater type and which will seat 120 persons. On the same level will be two faculty offices. On a lower level, naturally lighted because of the contour of the land, will be a computation and recitation room, two research laboratories, a shop and living quarters for an observer. The addition, constructed of steel and concrete, will be faced with pressed brick with a stone trim to conform to the present building. Plans are being prepared by Walker and Weeks, of Cleveland. These have been developed from earlier drawings and models by O. M. Stone, assistant professor of engineering drawing at Case School.

EXPEDITIONS OF THE FIELD MUSEUM, CHICAGO

DR. CLIFFORD C. GREGG, director of the Field Museum, has issued a statement reviewing the activities of the museum during 1939. Among the expeditions of the year were the Magellanic Expedition of the Field Museum (which continues work in 1940), collecting zoological specimens in Peru, Bolivia, Chile, the shore of the Straits of Magellan and the island of Tierra del Fuego at South America's extreme tip. This expedition is sponsored by Stanley Field, president of the museum, and led by Dr. Wilfred H. Osgood, chief curator of zoology. Other members are Colin C. Sanborn, curator of mammals; Karl P. Schmidt, curator of amphibians and reptiles, and John Schmidt. A prime objective is the assembling of data to supple-

ment the work of Charles Darwin, who explored the more remote parts of this area.

The Field Museum Archeological Expedition to the Southwest, also sponsored by President Field, was led by Dr. Paul S. Martin, chief curator of anthropology, who was assisted by several other archeologists, and a party of excavators. Ruins of early Mogollon culture were investigated, and a large collection of artifacts obtained. Dr. Martin discovered traces of cultural developments that took place during a 1,500-year period which had previously been a blind gap to archeologists.

Comprehensive collections of the flora of Guatemala were made by two botanical expeditions, one sponsored by Sewell Avery and led by Paul C. Standley, curator of the herbarium; the other sponsored by President Field and led by Dr. Julian A. Steyermark, assistant curator of the herbarium. An important collection of fossil mammals, including a genus hitherto unknown to science, was made by an expedition in western Colorado, led by Bryan Patterson, assistant curator of paleontology. Dr. Fritz Haas, curator of lower invertebrates, and Staff Taxidermist Leon L. Walters, conducted an expedition in Florida which collected marine animals and made studies of invertebrate life. An expedition to South Dakota and Nebraska, led by Paul O. McGraw, of the division of paleontology, collected skeletal material representing various species of extinct mammals. Dr. Francis Drouet, curator of cryptogamic botany, is leader of an expedition collecting plants in Mexico and the southwestern United States. The Sewell Avery Zoological Expedition to British Guiana, which had begun operations in 1938, completed its work and returned to Chicago early in 1939. Emmet R. Blake, assistant curator of birds, was the leader.

THE NEW YORK MEETING OF THE AMERICAN PHYSICAL SOCIETY

THE two hundred and thirty-third regular meeting of the American Physical Society will be held in New York City on Friday and Saturday, February 23 and 24, as a joint meeting with the Optical Society of America and the Inter-Society Color Council. Simultaneous sessions for the reading of contributed papers of the American Physical Society and the Optical Society of America will be held on Friday and Saturday, February 22 and 23, at Columbia University. A special symposium of invited papers on "Optical Methods for the Study of Molecular Structure" will be presented at a joint session on the morning of February 23, in the Pupin Physics Laboratories. The following papers will be presented: "The X-Ray Diffraction Method," by Dr. E. B. Warren, of the Massachusetts Institute of Technol-

ogy; "The Electronic Diffraction Method," by Dr. Louis R. Maxwell, of the Department of Agricultural Chemistry and Engineering of the U. S. Department of Agriculture; "The Band Structure Method," by Dr. R. Bowling Barnes, of the American Cyanamid Company, and "The Raman Spectra Method," by Dr. George M. Murphy, of Yale University.

The sessions of the Optical Society for the reading of papers will open on Wednesday, February 21.

The sessions of the Inter-Society Color Council will be held on Wednesday and Thursday, in the Hendrick Hudson Room of the Roosevelt Hotel and in the auditorium of the Electrical and Gas Association, 480 Lexington Avenue. On Wednesday there will be an afternoon technical session on "Spectrophotometry in the Pulp and Paper Industry" sponsored jointly by the Technical Association of the Pulp and Paper Industry, and an evening popular session, a Parade of Color, to consist of recent or interesting color developments in the fields covered by the various member bodies of the council. On Thursday there will be a morning discussion session for which topics will be announced, and an afternoon business session.

A joint dinner of the three organizations has been planned for Friday evening. A *Bulletin* of the American Physical Society containing a program of the meeting, including abstracts of contributed papers and details of the session, will be mailed to members about February 2.

AWARDS OF THE GEOLOGICAL SOCIETY, LONDON

THE council of the Geological Society, London, has made the following awards:

The Wollaston Medal.—Henry Woods, formerly university lecturer in paleontology in the University of Cambridge, in recognition of the value of his researches into the mineral structure of the earth, especially his studies of fossil Mollusca and Cretacea from the Cretaceous formations of Great Britain, Africa and New Zealand.

The Murchison Medal.—Dr. Arthur Holmes, professor of geology in the University of Durham, in recognition of the value of his petrological researches and of his stimulating studies concerning the composition and physical state of the earth's interior.

The Lyell Medal.—Dr. H. L. Hawkins, professor of geology in the University of Reading, for his eminence in paleontology, particularly in his studies of the Echinoidea, and for his researches in Eocene stratigraphy.

The Wollaston Fund.—Miss Dorothea M. A. Bate, for her investigations of Pleistocene mammalian faunas in Palestine and the Mediterranean.

The Murchison Fund.—Archibald Gordon Macgregor, for his petrological researches into Scottish rocks and his work on the geology of Monserrat.

A moiety of the Lyell Fund.—Miss Dorothy Hill, for her researches on Paleozoic corals.

A second moiety of the Lyell Fund.—L. H. Tonks, for his work on the Carboniferous rocks of Lancashire and Northumberland.

SCIENTIFIC NOTES AND NEWS

THE seventy-fifth birthday of Dr. George H. Parker, professor emeritus of zoology at Harvard University, which occurred on December 23, was celebrated by presenting to him a volume of letters from students, associates and friends. He was further honored by a reception on January 8, held at the Harvard Faculty Club, at which time his portrait, the work of Charles Hopkinson and a gift from students and colleagues, was presented to the university. The portrait will be hung in the Biological Laboratories. Professor Parker graduated from Harvard College in 1887. He joined the faculty in 1888 and became professor emeritus in 1935.

At the luncheon of the American Science Teachers Association, held in Columbus on December 31, a volume of letters was presented from associates, friends and former students to Dr. Otis W. Caldwell, professor emeritus of Teachers College, Columbia University, formerly professor of botany at the University of Chicago, now general secretary of the American Association for the Advancement of Science. The address at the luncheon was made by Dr. Walter B.

Cannon, professor of physiology at Harvard University, president of the association.

MATTHEW W. STIRLING, chief of the Bureau of American Ethnology of the Smithsonian Institution, and Bradford Washburn, director of the New England Museum of Natural History, Boston, have been awarded Franklin L. Burr Prizes of \$1,000 each by the National Geographic Society. The prize to Mr. Stirling was in recognition of his discovery in 1939, in the State of Vera Cruz, Mexico, of a monument bearing the earliest recorded date yet discovered in the New World—a date in Maya symbols corresponding to 291 B.C. of the Christian calendar, and the uncovering of other carvings and artifacts shedding light on early civilization in Mexico. The prize to Mr. Washburn was for his exploration by air and for his aerial photography during the last three years of glaciers and parts of glacier systems not previously known to exist in Alaska near Mount St. Elias.

GEORGE JACKSON MEAD, vice-president and director of the United Aircraft Corporation, vice-chairman of the National Advisory Committee for Aeronautics,