logical Study of the Plankton of Shawnee Cave," and his view-point in all his succeeding scientific work remained primarily that of an ecologist. The late Dean Eigenmann influenced his early biological training, but Dr. Scott also developed independently a very broad outlook on problems of fresh-water biology. Much of his research in later years was devoted to various aspects of lake and river morphometry and sedimentation, as well as more strictly biological phenomena. He was especially interested in the problems which were concerned with the productivity in fresh water, and he accumulated in the course of his studies extensive physical, chemical and biological data on nearly one hundred Indiana lakes. In cooperation with his students he also surveyed and collected similar data on the Tippecanoe and White Rivers. Since he was interested in the practical application of his findings as well as in pure science, he was able, from time to time, to cooperate with the Indiana State Department of Conservation on problems of a practical nature.

At the time of his death he was making a study of the scales of game fish in order to determine the relation between age, feeding habits and reproduction. This meant that extensive contacts had to be made with sportsmen throughout the state and their help enlisted in the collection of material. The very excellent response which followed his request for material was evidence of the very high esteem in which he was held and also indicated his ability to interest laymen in scientific problems.

Dr. Scott was quite informal in his teaching and endeavored to reach the superior student rather than the average undergraduate, and the advanced student found in his classroom the stimulus of delightful personal contact. Dr. Scott drew his lecture material from his personal experience as well as from a wide knowledge of diverse fields, and the conservative way in which he presented his information remains as an ideal scientific attitude to challenge his colleagues. Will Scott exerted a profound influence upon the development not only of his own students, but also on all those who came to know him during their formative years as graduate students. A kindness which dulled the sharp edge of criticism and a willingness to help at any time were characteristic of the man, and he leaves behind many who feel keenly the loss of a personal friend.

W. R. BRENEMAN

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RECENT DEATHS

DR. JACOB JOSEPH TAUBENHAUS, chief of the division of plant pathology and physiology of the Texas Agricultural Experiment Station at College Station, died on December 13 at the age of fifty-three years.

HAROLD T. EDWARDS, research associate in the Fatigue Laboratory at Harvard University, died on December 14 at the age of forty years. His interests were mainly in the physiology of muscular exercise and in the effects of high altitude.

DR. GEORGE HENRY FALKINER NUTTALL, emeritus professor of biology at the University of Cambridge and lately director of the Molteno Institute for Research in Parasitology, died on December 16 at the age of seventy-five years.

PROFESSOR C. GRAVIER, professor of zoology in the Muséum national d'Histoire naturelle, Paris, died on November 14 at the age of seventy-two years.

DR. HANS MOLISCH died on December 8 at the age of eighty-one years. He had been a professor of botany in the Universities of Vienna, Praha and of Sendai, Japan, and had done research work in the United States, India and Java.

DR. GUSTAF DALEN, head of the Swedish Gas Accumulator Company, inventor and industrialist, to whom was awarded the Nobel Prize in physics in 1912, died on December 9. Dr. Dalen invented the system of acetylene lighting used in lighthouses throughout the world. The sun valve he perfected permits the light beam to be turned on and off automatically at unmanned lighthouses. He was blinded by an explosion the year he received the Nobel award, but continued his work.

SCIENTIFIC EVENTS

GEOLOGICAL EXPEDITION TO LAKE MEAD OF THE CARNEGIE INSTITUTION

THE Carnegie Institution of Washington-California Institute of Technology geological expedition, which left Lee's Ferry, Arizona, early in October for a traverse of the Grand Canyon of the Colorado, has just completed a successful trip to Lake Mead. The party consisted of three boats and eight men: Drs. Ian Campbell and John H. Maxson, of the California Institute of Technology; Dr. J. T. Stark, of Northwestern University; E. D. McKee, park naturalist of Grand Canyon National Park; R. P. Sharp, formerly of the California Institute and now Woodworth traveling fellow at Harvard University, and three experienced boatmen, Frank B. Dodge, Owen Clark and M. F. Spencer.

The expedition was planned primarily to continue studies of the Archean formations which had been

carried on for several seasons by Drs. Campbell and Maxson under the auspices of the Carnegie Institution. A river trip was necessary in order to visit sections inaccessible by pack train from the rim. Work in the Granite Gorges was greatly facilitated by the excellent topographic maps of Matthes, Evans and Birdseye and by the careful geological reconnaissances of Noble and Moore.

The final results of the present trip must wait for laboratory examination of rock specimens under the microscope, which may to some extent modify the interpretations of field observations. Among the latter, however, may be tentatively listed:

1. The recognition of many primary structures in the Archean (Vishnu) schists, establishing definitely their origin as dominantly sedimentary.
2. The tracing of isoclinal folds across regional schistosity of the recrystallized sediments by means of bedding outlined by biotite concentrations along lines of fracture cleavage and by the presence of pegmatite and quartz stringers following lines of drag folds in the schists.
3. The close folding, repeating many times the Vishnu series in the Canyon, instead of a single, large, open fold involving an extremely thick series of the old schists, as formerly thought.
4. The presence of a large amount of amphibolite schists, which are so intimately intercalated with the sedimentary schists, that a water-lain, tuffaceous origin is suggested; and a lesser amount of cross-cutting amphibolite, assumed to represent old basic intrusions.
5. The record of two magmatic invasions, possibly separated in time but probably emanating from the same batholithic chamber underlying the Canyon section. The larger magmatic invasion was migmatitic in character, while a smaller granitic mass was somewhat more mafic, due to stoping and assimilation of amphibolitic country rock. A later series of pegmatite and aplite dikes cut the granites and schists, and represent the last event of Archean history in the Canyon sections.

Besides the detailed work in the Archean sections there was opportunity also for some observations on the continuity and changes in the lower Paleozoic formations; for some data on late inter-canyon lava flows; and for structural studies including the mapping of new faults and the recognition of repeated movement along many of the old fault zones.

Much credit is given to the boatmen for their skillful work, which left the geologists of the party free for scientific observations the greater part of the time.

THE SECTION OF GEOLOGY OF THE TENNESSEE ACADEMY OF SCIENCE

THE first meeting of the Section of Geology of the Tenessee Academy of Science was held on Friday afternoon, November 26, 1937, at the time of other section meetings of the forty-first meeting of the Tennessee Academy of Science at George Peabody College for Teachers in Nashville. Professor L. C. Glenn, of Vanderbilt University, a charter member of the academy, presided. Thirty-seven members and visitors attended the meeting.

On Saturday afternoon and Sunday (November 27–28) the section, under the leadership of C. W. Wilson, Jr., of Vanderbilt University, and Kendall E. Born, of the Tennessee Division of Geology, sponsored a geologic field trip into the Wells Creek Basin, a typical cryptovolcanic structure in southeastern Stewart County. The Wells Creek Basin, the largest of the American cryptovolcanic structures, consists of an intensely disturbed area of approximately 9 miles square. At the center of the disturbance the Knox dolomite of Cambro-Ordovician age is brought up through the St. Louis (Mississippian) limestone, a vertical displacement of more than 1,000 feet. Formations of Cambro-Ordovician, Ordovician, Silurian, Devonian and Mississippian ages are involved, many of which are not exposed elsewhere in Middle Tennessee. Sunday was spent in the examination of some of the more complex structural and stratigraphic aspects of this unique area.

On Saturday afternoon, *en route* to Wells Creek Basin, the following points of geologic interest were visited: Block faulting in North Nashville; Silurian, Devonian and lower Mississippian sections on the western flank of the Nashville dome; and a typical Tuscaloosa (Upper Cretaceous) outlier on the western Highland Rim.

Twenty-one members and visitors from six states were present on this field trip.

THE ANNUAL MEETING OF THE NEW YORK ACADEMY OF SCIENCES

A. CRESSY MORRISON, industrial chemist, chairman of the advisory committee of the Hayden Planetarium at the American Museum of Natural History, was elected president of the New York Academy of Sciences, the oldest scientific society in New York City, at the one hundred and nineteenth annual dinner of the academy held on November 15.

Twenty-nine members were elected fellows of the academy and honorary members were elected as follows: Dr. Orpen Bower, botanist of the University of Glasgow; the Rev. Pierre Teilhard de Chardin, S.J., paleontologist, of the Cenozoic Research Laboratory, China; Dr. D. Obrutschew, geologist, of the Soviet Academy of Sciences, Leningrad; Dr. Charles Palache, mineralogist of Harvard University; Dr. H. Spemann, embryologist, of the University of Freiburg, and Dr. Franz Weidenreich, director of the Cenozoic Research Laboratory.

In an address made after the elections, Dr. Barnum Brown, curator of fossil reptiles at the American Museum of Natural History, described his research last