plenary session of the commission held in Geneva in 1924, it is planned that a full session of the commission will be held in the United States next year.

THE FIELD MUSEUM PALEONTOLOGICAL EXPEDITION IN SOUTH AMERICA

PROFESSOR ELMER S. RIGGS, leader of the Second Field Museum—Captain Marshall Field Paleontological Expedition of 1926–1927 to Argentina—states in a report recently received that the expedition finished its first year's work about May 1 and returned to Buenos Aires. The itinerary of the year included seven months collecting in the Province of Catamarca and a somewhat shorter period of similar work in the Province of Buenos Aires.

The object of this expedition was to make collections of fossil mammals from the Pliocene and the Pleistocene formations of Argentina, and so to supplement the work of the First Expedition of 1923–24, which was directed toward the earlier Deseado and Santa Cruzean formations.

The expedition, like the first, was conducted under the leadership of Professor Riggs, associate curator of paleontology of the museum, and its personnel included Robert C. Thorne, of the museum staff; Dr. Rudolph Stahlecker, of Tübingen, Germany, as collector and stratigrapher, and local help employed in the regions worked.

The first base of operation was established at Andalgala, Catamarca. From there the party proceeded by pack-train across the Sierra Aconquija to the Valley of Santa Maria, in the vicinity of the pueblo San Jose. There camp was established and field operations begun in May, 1926. In this mild climate, at an altitude of 6,000 feet, it was possible to carry on the work of collecting throughout the winter months.

On the eastern side of the Valley of Santa Maria and abutting the foot of the Sierra Aconquija was encountered the series of sedimentary rock-strata which has been designated as Catamarcense and referred to the Araucanian Period (Pliocene). The entire series of clays and sandstones here exposed has a thickness of about 6,000 feet. It is highly inclined and complicated by local folding. A part of this series has been known to be fossil-bearing since 1892, when fossil mammals were discovered there by an expedition of the La Plata Museum, under the direction of Professor Adolfo Methfessel. Collections made by these gentlemen and by later Argentine collectors have been studied by Ameghino and others. They form an important part of the recorded Pliocene mammals of South America.

The better-known localities of Entre Rios, Rio Yapis and of Teopunca were gone over by the Field Museum collectors with gratifying success. Specimens of glyptodonts and of invertebrate fossils were discovered in the lowermost strata of the series. Careful sections were made of the entire formation and records kept of the faunas of the several horizons. Search for fossils was then extended over some sixty miles of these exposures in the Santa Maria Valley. Few fossils were found outside the localities explored by the Argentine collectors.

Convinced that Araucanian deposits recorded from widely separated districts of Catamarca belonged to the same period as that of the Santa Maria Valley, and acting upon apparently reliable information derived from local sources, the party pushed southward and westward into the Department of Belen. In the vicinity of Puerto Corral Quemada was found the formation Catamarcense exposed in a magnificent series, having a thickness of 7,000 feet. A fossil fauna similar to that known from the Santa Maria Valley was also recognized. This fauna was further supplemented in the upper series by more modern types of glyptodonts, armadillos and macrauchenids, which indicated a nearer approach to Pleistocene time. Among this strictly indigenous South American fauna there were recognized no immigrants of North American or European type.

At Puerto Corral Quemada a new base of operations was established. Three months of intensive collecting, with accompanying stratigraphic studies and records, brought together a wealth of fossil mammals. The collection from the two localities, while including only a few mountable skeletons, is rich in skulls and in specimens of the dermal armaments of glyptodonts and armadillos. Other groups represented by fine specimens are the typotheres, the protypotheres, the toxodonts, the macrauchenids, the gravigrade sloths, the marsupial carnivores, rodents of great variety, several large birds, a single great tortoise and a batrachian. The number totals 188 specimens, representing more than thirty known genera.

At the close of this collecting, the expedition was visited in the field by a delegation from the Argentine Museums of Buenos Aires, who leniently and courteously applied the Argentine law of embargo on the exportation of such collections.

With the approach of the rainy season in Catamarca, the party proceeded to the southern coast of the Province of Buenos Aires in quest of the great Pleistocene mammals of the pampean formations. This field, long known to be rich in fossil mammals, was found to offer but limited exposures available as collecting grounds. Moreover, the coast-line and the banks of a small number of rivers which have cut through the fertile wheat-belt of Argentina are sys-

tematically gone over year after year by collectors from the Argentine museums.

Such a field could not be expected to yield a rich collection. The Field Museum Expedition was rewarded, however, by finding some good articulated skeletons of the great ground sloths, Scelidodon, Glossotherium and Megatherium, as well as less complete specimens of the great saber-tooth tiger, Smilodon, and the South American Mastodon. All of these specimens of well-known animals were permitted to be exported to North America.

The expedition at latest reports was continuing the search for Pleistocene mammals in other fields.

THE BARTOL FOUNDATION

DR. W. F. G. SWANN returned on September 1 from a summer in England and France to take up his new work as director of the Bartol Foundation.

Eight research fellows will work in the foundation's laboratories, at 127 North 18th Street, Philadelphia, where it will be housed for the coming year, pending completion of the building now to be built for its use on the Swarthmore campus, as was announced recently by Dr. W. C. L. Eglin, president, and Dr. Howard McClenahan, secretary, of the foundation.

Dr. Swann announced the plan of inviting distinguished physicists, men of achievement in research and of international standing, to visit the foundation for a month at a time—not for the mere giving of a lecture, but to spend weeks in the laboratories, in conference with the staff regarding their investigations and regarding the unsolved problems, in general, of physics and of physical chemistry.

There are but few places in the world where research on the fundamental problems of physics, as distinguished from research regarding applications of scientific discovery, are going on under such conditions of undisturbed freedom for uninterrupted investigation as prevail at the Bartol Foundation.

Most closely akin are the Royal Institution, in London; the physical institutes at some of the great German universities, the Institute of Physics at the University of Leiden, in the Netherlands and the laboratory of Dr. Niels Bohr in Copenhagen.

The research fellows now at work at the foundation are Dr. Henry A. Barton, trained at Harvard and recently a fellow of the National Research Council; Dr. Arthur Bramley, from Princeton University; Dr. E. O. Frivold, from the University of Oslo, Norway; Dr. Thomas Hope Johnson, recently a Sterling fellow at Yale University; Dr. Wayne B. Nottingham, from Princeton University; Dr. Cassimiro del Rosario, formerly a Sterling fellow at Yale University; Dr. L. R. Maxwell, a guest at the foundation as holder of a research fellowship of the National Research Council, and Dr. Mildred Allen, who worked in physics at Yale University under Dr. Swann and now is a guest investigator. Andrew Longacre has also come from Yale University as a research assistant.

THE NEW BUREAU OF CHEMISTRY AND SOILS

DR. HENRY G. KNIGHT, dean of the college of agriculture and director of the experiment station of the University of West Virginia, has been appointed chief of the new Bureau of Chemistry and Soils of the United States Department of Agriculture by Secretary W. M. Jardine. Dr. Knight is a man of broad training in chemistry, soils and agronomy, and of extensive experience in directing research in these fields. He will assume his new duties about October 1.

The new Bureau of Chemistry and Soils which Dr. Knight is to direct combines three important research fields in the department—chemistry, soils and fixed nitrogen—formerly represented by the old Bureau of Chemistry, the Bureau of Soils and the Fixed Nitrogen Research Laboratory. The new bureau was provided for by the last Congress at the request of Secretary Jardine, and took form at the beginning of the present fiscal year on July 1.

While each of these three groups maintains its identity in the new organization, they will be associated in such a way as to facilitate the fullest cooperation and coordination of the research work. The fields covered are closely related and vitally important to agricultural development.

The research work in chemistry and chemical technology embraces fifteen divisions, taking in the research units of the old Bureau of Chemistry. This work in chemistry will be headed by Dr. C. A. Browne, who has been chief of the former Bureau of Chemistry, assisted by Dr. W. W. Skinner, who was assistant chief. Dr. Browne will also act as associate chief of the new bureau, but will, at his own request, devote his major energies to research work in chemistry.

Dr. F. G. Cottrell, who has been head of the fixed-nitrogen and fertilizer research group of divisions, continues as head of this work in the new bureau.

Dr. A. G. McCall, formerly professor in geology and soils of the University of Maryland and also formerly connected with the old Bureau of Soils of the United States Department of Agriculture, was recently appointed head of the soils work of the new Bureau of Chemistry and Soils. He was executive secretary of the First International Congress of Soil Science, which was held in Washington, D. C., in June.