PROFESSOR FERNANDO NEVERMANN, since 1909 professor of entomology at the National Agricultural School at San Jose, Costa Rica, was recently accidentally killed while searching for ants that had been damaging banana plants.

DR. CHARLES EDOUARD GUILLAUME, since 1915 director of the International Bureau of Weights and Measures in Paris, has died.

THE death is announced of Dr. Hugo Hergesell, professor of geophysics and meteorology; of Dr. Walther Vogel, professor of historical geology, and of Dr. Konrad Theodor Preuss, director of the Museum of Folk Lore, all of Berlin.

SCIENTIFIC EVENTS

THE POULTRY RESEARCH LABORATORY AT EAST LANSING, MICHIGAN

CONSTRUCTION of the regional poultry research laboratory at East Lansing, Mich., is expected to be under way by August 1, according to a report issued by Dr. J. R. Mohler, chief of the Bureau of Animal Industry, of the U. S. Department of Agriculture.

The contract calls for the construction of a central laboratory building, two large brooder houses and two smaller buildings for special disease studies. The buildings should be completed by January 1, 1939. The unit will be located on a site of 50 acres recently deeded to the government by Michigan State College for this purpose. The site is one mile south of the college.

Twenty-five north central and northeastern states will cooperate with the department in the laboratory work. The states are Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Oklahoma, South Dakota, Wisconsin, Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont and West Virginia.

Selection of a director and other staff members will be made through a regularly announced Civil Service examination. As soon as the buildings are completed, work will begin on the development of effective control methods for fowl paralysis, a disease that is prevalent on both commercial poultry farms and diversified farms. It is estimated that losses from poultry diseases cost producers nearly a hundred million dollars annually in the states cooperating in the research. Approximately half this amount, it is estimated, is due to fowl paralysis.

Dr. Mohler points out that there is no adequate knowledge concerning fowl paralysis, and no effective means are known for its control. Laboratory workers will concentrate on a search for the causative agent and will attempt to determine to what extent breeding for resistance to the disease can be successful. Related projects dealing with the effects of parasitism nutrition practices and different management practices on the spread of disease will be undertaken as rapidly as possible.

THE AVERY EXPEDITIONS OF THE FIELD MUSEUM

THROUGH the generosity of Sewell Avery, a trustee of Field Museum, funds have been provided for sending four expeditions into the field during 1938.

The first of these left Chicago on June 18 to collect specimens for use in physical geology exhibits. Work is under way in northern Colorado, and later activities will be transferred to New York, Connecticut, Massachusetts, Rhode Island and possibly other eastern states. This expedition is being conducted by Sharat K. Roy, curator of geology, and is a continuance of the field work of this type in which he was engaged last year.

On July 15, John R. Millar, curator of the N. W. Harris Public School Extension, left for Nova Scotia, where he will make studies and collect material for the department of botany (of whose staff he was formerly a member). The prime object is material for an exhibit representing the submerged vegetation of the northern Atlantic waters. Owing to the extreme tidal conditions prevailing in the Bay of Fundy, where the difference between high and low water levels reaches as much as fifty feet, it is expected that this will prove to be an exceptionally favorable locality for collecting kelps and other marine plants.

Early in September, Emmet R. Blake, assistant curator of birds, will sail for British Guiana. At Georgetown he will charter an airplane to take him and two native assistants 600 miles inland to the headwaters of the Corentyne River, on the southernmost boundary of the country, close to the frontiers of Dutch Guiana and northern Brazil. This region, entirely uninhabited by human beings, is almost totally inaccessible except by air. At certain seasons it may be reached by river travel with special boats manned by large crews. The water trip, however, requires about five weeks, whereas by airplane it may be made in four hours. The area has never been worked before from a biological standpoint, and Mr. Blake will seek a representative collection of its vertebrates, including birds, mammals, reptiles and fishes. The airplane will return to its coastal base leaving Mr. Blake entirely out of contact with the outside world for about four

months, except for one or two return flights to deliver supplies.

A botanical expedition to Guatemala will be conducted by Paul C. Standley, curator of the herbarium, who will leave Chicago about the beginning of November. It is planned to spend approximately five months in the field, gathering herbarium material, for use in preparation of a flora of Guatemala, similar to that of Costa Rica, which is now in course of publication. Guatemala's vegetation is more varied in type than that of any other Central American country, although not so rich in species as that of Costa Rica.

THE WARSAW CONFERENCE ON MODERN PHYSICS

A CONFERENCE on the new theories in modern physics was held in Warsaw from May 29 to June 2 on the proposal of Professor Bialobrzeski, of the University J. Pilsudski, member of the International Committee of Intellectual Cooperation. It was organized by the International Institute with the help of the Polish Government and the Polish Committee of Intellectual Cooperation. Scientific men from various parts of the world attended the meeting and several reports were discussed which will be shortly published by the institute.

The complete list of participants follows: C. Bialobrzeski, the University J. Pilsudski; E. Bauer, the Collège de France; Niels Bohr, the University of Copenhagen; L. Brillouin, Collège de France; L. de Bröglie, the University of Paris; C. Darwin, the University of Cambridge; Sir Arthur Eddington, the University of Cambridge; R. H. Fowler, the University of Cambridge; G. Gamow, the George Washington University; S. Goudsmit, Princeton University; E. Hylleraas, University of Oslo; O. Klein, University of Stockholm; H. A. Kramers, the University of Leyden; L. de Kronig, University of Groningen; P. Langevin, Collège de France; Ch. Moeller, the University of Copenhagen; J. von Neumann, Princeton University; F. Perrin, the University of Paris, L. Rosenfeld, the University of Liége; W. Rubinowicz, the Jean Casimir University at Lwow; S. Szczeniowski, the Etienne Batory University at Wilno; J. Weissenhof, the Jagellonne University at Krakow; L. Wertenstein, the Free University of Warsaw; E. P. Wigner, Princeton University; F. J. Wisniewski, the Polytechnic School of Warsaw.

The following reports were presented and discussed:

(1) The necessity of the indeterminist interpretation of the formal structure of the quantic mechanics; value of the proof of indeterminism, J. v. Neumann; objections against the complete character of the theory of quanta; process of measurement as a *sui generis* phenomenon having an indeterminist character, Professor Niels Bohr.

(2) Questions concerning the relations between the quantic mechanics and the theory of relativity, Professor L. de Bröglie.

(3) Limits of the applicability of the present system of theoretical physics (nature of the elementary particles, action of the particles of great energy). Difficulties in what concerns the quantic theory of the electromagnetic field, Professor Kramers.

(4) Problem of the individuality of elementary particles and its relation to quantic statistics and the postulate of Pauli, Professor L. Brillouin.

(5) Cosmological applications of the theory of quanta, Professor Sir Arthur Eddington.

(6) The positivist and realist currents in the philosophy in physics, Professor Langevin.

Apart from the scientific work of the conference, a number of excursions were organized to Krakow and Zakopane.

THE ASHEVILLE MEETING OF THE FISHERIES AND CONSERVATION SOCIETIES

REPRESENTATIVES of forty-six states attended the combined meetings of the International Association of Game, Fish and Conservation Commissioners, the American Fisheries Society and the National Planning Council of Commercial and Game Fish Commissioners held at Asheville, N. C., during the week of June 20. June 20 and 21 were devoted to the convention of the International Association, June 22 to the annual meeting of the National Planning Council, and June 23 and 24 to the sessions of the American Fisheries Society. Saturday was reserved for a field trip to the Pisgah National Game Preserve to inspect the cooperative trout rearing station maintained by the United States Bureau of Fisheries, and Forest Service demonstrations of stream improvement work, fish cultural and fawn rearing activities.

Arthur L. Clarke, superintendent of fisheries of the Missouri Fish and Game Department, was elected president of the International Association to succeed Frank B. O'Connell. Other officers of the association include J. D. Chalk and Seth Gordon as first and second vice-presidents; R. P. Holland, secretary-treasurer, and Talbott Denmead, general counsel.

The morning session of the meeting of the National Planning Council of Commercial and Game Fish Commissioners was devoted to problems of interest to the Biological Survey, which has been included in the membership of the council since April, 1937.

Some thirty papers made up the varied program which was arranged for the members of the American Fisheries Society. The papers were grouped under the general subjects of fish management, fish culture, research studies and miscellaneous topics. Nine papers on various technical problems of fishery research were read.