November 13. Dr. Fleece graduated from Centre College, Kentucky, in 1910 and received his doctorate from Princeton University in 1926. He taught at Princeton for sixteen years before accepting the chair of chemistry at Central College.

A CORRESPONDENT writes: "I have just had word from Leningrad that Dr. Vs. T. Pavlov, eldest son of Professor I. P. Pavlov, died on the 29th of October from an inoperable carcinoma of the pancreas. Dr. Pavlov for many years has travelled with his father during his attendance at congresses, and all those who were members of the fifteenth International Physiological Congress in the U. S. S. R. last summer will remember how much Pavlov did for their comfort and pleasure. He entertained various members of the congress almost every night and with his extraordinary linguistic powers no one could have been a more gracious or more interesting host."

SCIENTIFIC EVENTS

THE SIMPLIFICATION OF INTERNATIONAL WEATHER REPORTS

W. R. GREGG, chief of the U. S. Weather Bureau, who has returned to Washington after attending the eighth meeting of the International Meteorological Organization in Warsaw, reports that representatives of forty-two countries adopted a program for further unification of the codes, symbols and units employed in the international exchange of weather reports. Although great progress along these lines has been made in the last fifteen years, many loose ends are said to remain.

Confusion from differences in speech is avoided in international weather codes by using figures, rather than words. These figure codes are now very generally used by ships reporting from sea. Land stations, however, have lagged behind in substituting new for old codes. Now the maps on which daily weather forecasts are based will look alike the world over as soon as the international symbols adopted by the conference are universally accepted. A black dot will mean light rain or drizzle, a star will mean light snow, and a plain circle will mean clear, cloudless skies.

Mr. Gregg points out that differences in national systems of weights and measures make complete uniformity in the units for weather reports very difficult. For example, before reports can go out over the Arlington wireless towers near Washington, D. C., inches, used to measure atmospheric pressure in this country, must be converted into millibars; miles per hour, used to express wind velocity here, must be converted into the Beaufort scale of wind force, and so on. All European countries, except Great Britain, translate into degrees Centigrade the temperature reports received in degrees Fahrenheit from the United States.

European meteorologists are working on many of the problems that are not receiving special attention in America—notably, how to record conditions in the upper air more accurately. Russian meteorologists have perfected an instrument that is proving very effective. Carried aloft by a balloon, this instrument, by means of a radio attachment, sends back signals that give observers on the ground a true record of temperatures, pressures and wind velocities at the different levels of the atmosphere up to several thousand feet.

European forecasters, like American forecasters, are developing air mass analysis as a valuable supplement to observations taken at the earth's surface, but not as a substitute for them.

EXPEDITION TO MAUNA KEA OF THE HAWAIIAN ACADEMY OF SCIENCE

THE Hawaiian Academy of Science has completed a successful two-weeks expedition to the summit of Mauna Kea, 13,784 feet, and the highest peak on any Pacific island. The summit camp was established at Lake Waiau, in the bowl of a cinder cone, at 13,007 feet, where water is available and which is partially sheltered from the wind. The chief purpose was to permit geologists, botanists, entomologists and various other naturalists to work from a semi-permanent camp and study the features of the zone above 10,000 feet which has heretofore been studied only in the most casual way during hurried one-day trips to the summit and return. There is no forage for animals and no wood within 3,500 feet of the summit.

Successful establishment of the summit camp was largely due to the cordial and full cooperation of the U. S. Army, Hawaiian Department, from which nine enlisted men, in charge of Lieut. H. A. Meyer, were detailed to take charge of transport and maintenance operations. Pack mules and packers were furnished by the courtesy of the local C.C.C. unit and various facilities and housing were made available at the base camp Humuula, at 6,700 feet in the saddle between Mauna Kea and Mauna Loa, by Alfred Carter, trustee of the Parker ranch. The advance party was transported to the island of Hawaii from Honolulu on the Coast Guard cutter *Itasca,* through the courtesy of Commander W. N. Derby.

At the summit all recorded air temperatures were below 60 degrees, and minimum temperatures aver-

aged about 26 degrees with 19 degrees recorded one night. Water froze every night and the rarified air offered difficulties to a party coming up abruptly from sea level. Many interesting features were encountered, including especially abundant evidences of Pleistocene glaciation, previously known but not before studied at all in detail. There were also evidences of severe modern frost action and rock fragments and soils displayed chiefly the light gray colors characteristic of cold climate weathering.

The time of the fourteen scientific members of the party was divided variously between the base and summit camps according to features studied.

PROPOSED NEW BUILDINGS FOR THE NATIONAL ZOOLOGICAL PARK

THE National Zoological Park at Washington, under a $680,000 PWA grant, according to *The Museum News,* is planning to erect a series of new structures from plans prepared under the direction of Edwin H. Clarke, supervising architect. Bids have been asked for the building of a new wing for the bird house, and plans for three other buildings have been completed.

In the new bird house wing a new interior treatment is to be used. The cages will have glass fronts and direct lighting from above. A movable skylight will make it possible for the birds to have fresh air and sunlight during warm weather. At either end there will be a panorama cage—one a tropical aviary and the other an artificially chilled air-conditioned room for birds of the colder climates. This new wing will complete the bird house.

A new exhibition building will contain quarters for all the great apes and for a large number of small mammals. American and exotic rodents will be exhibited in a special room under more or less natural conditions and in full view of the public.

A modern building will be erected to house elephants, rhinoceri, hippopotami and tapirs, with a large cage at one end for giraffe. Moats will be used for the outside inclosures instead of bars.

A power plant, machine shop and carpenter shop will be erected in place of the present inadequate quarters. In addition to functioning as power plant and central heating plant, these structures will house the mechanical departments and equipment for maintenance of the park and of Rock Creek Park.

ADVISORY COUNCIL ON APPLIED PHYSICS OF THE INSTITUTE OF PHYSICS

THE Advisory Council on Applied Physics of the institute met at the University Club, Pittsburgh, Pa., on November 16. This was the inaugural meeting of this council, whose purpose is to stimulate the application of physics by recommending suitable actions and policies to the institute and the founder societies. According to a statement sent us by Dr. Henry A. Barton, secretary of the institute, Dr. Paul D. Foote, executive vice-president of the Gulf Research and Development Corporation, presided during the morning session and Dr. Lyman J. Briggs, director of the Bureau of Standards, during the afternoon. The meeting was devoted, for the most part, to informal discussion. This was started by Professor G. B. Pegram, of Columbia University, who described briefly the events leading up to formation of the council, including the inauguration of the institute with such aims partially in view and a preliminary conference called last December by the institute jointly with the National Research Council.

Discussion followed on the university education and training of men whose careers are to lie in industrial research. This discussion was opened with reports by Dr. Saul Dushman (presented by Dr. A. W. Hull), of the General Electric Company, and Professor George R. Harrison, of the Massachusetts Institute of Technology.

Further discussion was devoted to the services which are rendered by the founder societies and the institute to physicists employed in industrial laboratories. Reports on this topic were presented by Dr. L. O. Grondahl, director of research, Union Switch and Signal Company, and Professor John T. Tate, University of Minnesota. In this connection the council passed a resolution encouraging formations by such physicists of a division on applied physics of the Physical Society. It was strongly felt that, while the Optical Society, the Acoustical Society and the Society of Rheology furnish facilities for meetings and publications in their fields, other general applications of physics were neglected. The opinion of the council was opposed to the formation of new specialized societies since only through close integration with the Physical Society could the community of interest and interchange of ideas between the general applications and the basic fundamentals of physics be conserved.

SCIENTIFIC NOTES AND NEWS

DR. G. A. YOUNG, chief geologist of the Canadian Geological Survey, has been elected president of the Royal Society of Canada. The presidency has been vacant since the death last summer in an airplane crash of Dr. Reginald W. Brock, dean of the University of British Columbia.

THE Harrison Memorial Medal of the Pharmaceutical Society of Great Britain was presented to Pro-