officer had held forth in great detail. "Sir," said the Iron Duke, "your information is too great for your understanding"—a cogent comment.

One word in closing: Martin brought to us the concept of biology, and the idea of special laboratories for physiology. The event has had far-reaching effects. It led to the founding of the Physiological Society and is the reason why, to-day, we are a Federation of Societies for Experimental Biology—ever expanding.

SCIENTIFIC EVENTS

THE SEVENTY-FIFTH ANNIVERSARY OF THE OLD SOUTH KENSINGTON MUSEUM

THIS year is the seventy-fifth anniversary of the opening of the old South Kensington Museum, and arrangements are being made, according to the London *Times*, in the Science Museum, which contains many of the original objects assembled in 1857, for a comparative exhibition illustrating the development which has since taken place in inventions. The original South Kensington Museum (in which the nucleus of the present Victoria and Albert Museum was also included) was founded as a result of the second report of the Royal Commissioners of the Exhibition of 1851.

The entrance hall of the present Science Museum and Gallery I, which adjoins it, were being cleared during the week-end in preparation for the anniversary exhibition, which will be open to the public on July 2. The exhibition will select the terminal points in a few branches of science which were at a primitive stage during the fifties and sixties. A model of an omnibus of the 1850's and locomotive models of the next decade will be placed beside models of a modern London omnibus and of one of the latest L. M. S. locomotives.

In many of the galleries upstairs parts of the permanent exhibition will be rearranged and relabeled for the anniversary, and a space has already been cleared in the Chemistry Gallery for illustrating the range of colors and fabrics now available to the artificial dye industry. Some of the largest British firms of chemists and textile manufacturers are lending exhibits for this portion of the exhibition. It is also intended to illustrate the part taken by the 1851 commissioners in founding the museum and fostering it since that time. The Great Exhibition in Hyde Park, and the development of the site south of the Park into the Museum and College area of South Kensington will be seen in a series of water-colors and plans.

The experimental apparatus used at University College, Gower-street, by the late Sir William Ramsay, has been transferred on indefinite loan from the college to the Science Museum, where it is now partly arranged for view. The exhibits now to be seen include the blow-pipe with which Ramsay himself made most of the apparatus connected with his discoveries of rare gases.

Some new additions have also been made to the ship-model collection in the museum. A model of a Handley Page "Hannibal" type air liner has been presented by Imperial Airways, while the Sudan Government have given a primitive smith's forge of the type used at the present time by the natives of the Jur tribe, and used with some variations in Ancient Egypt some 35 centuries ago.

The museum workshops have reconstructed a Roman pertica, or 10 ft. measuring rod. A series of the metal caps and ends of such surveyors' rods were discovered at Pompeii in 1912 by Cav. M. Della Corte, and replicas of these have been used in the museum.

SMITHSONIAN EXPEDITIONS

TWENTY-FIVE scientific expeditions were sent out by the Smithsonian Institution during the past year. They are described in detail in the annual Smithsonian exploration reports recently issued for distribution.

A. F. Moore, of the staff of the Smithsonian Astrophysical Observatory, spent months on barren peaks of African mountains in futile search for a satisfactory Old World site for a solar radiation station. He sought a high desert altitude with, so far as possible, a cloudless, dustless atmosphere. For more than a month he made daily observations on a high peak on Fogo Island in the Cape Verde group. Although generally cloudless, this mountain proved to be surmounted nearly all the time by a high, thick blanket of haze which seems to rise from the Sahara desert.

Disappointed here, Mr. Moore went on to Southwest Africa where, sometimes for weeks at a time, he conducted observations on four mountain peaks and made an unsuccessful effort to scale a fifth. None proved entirely satisfactory.

More than 600 specimens of fossil animals, mostly fragmentary, were collected under the direction of Dr. Charles W. Gilmore in Montana and Wyoming. It is anticipated that many new forms of animal life will be revealed when a systematic study is made. Material of interest included a partial skeleton of a large, flesh-eating mammal, the pachyaena; three partial skeletons of the coryphodon, a rhinoceros-like animal, and six more or less complete skulls of ancient crocodiles. More than 2,500 fossil specimens were se-

cured in Devonian-age deposits in eastern New York by G. Arthur Cooper, of the Smithsonian division of invertebrate paleontology. Most of these were recovered from the numerous ravines and quarries around Cazenovia, Morrisville, and Hamilton, N. Y. The majority of the entombed animals are invertebrates, including nearly 150 species of ancient clams.

Dr. Alexander Wetmore, assistant secretary of the institution, hunted rare birds in dense rain forest and on high mountains in Haiti. Following an airplane reconnaissance of the little known La Hotte Mountains, which required little more than three hours, Dr. Wetmore and his party set out to reach this region with a pack train. At the end of six days of almost constant rain, over trails whose steepness and badness beggars description, they reached a point where the pack animals could go no further and they were obliged to proceed with a train of porters. The party pitched camp at an elevation of 4,200 feet and, drenched with incessant rain, climbed to the highest peak of the La Hotte range. They found a very abundant bird life and made a large collection for the United States National Museum. The party then proceeded to the Dominican Republic. Among the birds collected on the island of Beata off the Dominican coast was a hitherto unknown variety of wood warbler.

Dr. William M. Mann, director of the National Zoological Park, collected wild animals in British Guiana. Dr. Mann was seeking especially for reptiles. Among his captives was a small, brilliant red and black burrowing snake related to the boas which probably was the first of its kind to come alive into any collection. Another curious captive was a "jumping johnnie," a small snake with the under side of its tail colored a brilliant red. When picked up it goes through the motions of stinging with this tail, hitting the hand that holds it again and again with the brilliant red tip. It is harmless. Dr. Mann collected in all 350 live specimens, some representing varieties seldom seen in captivity. There were 128 birds, 21 mammals and 189 reptiles.

Dr. Paul Bartsch, curator of mollusks, continued his biological explorations in the Tortugas. He reports one interesting observation on the ability of birds to adjust themselves to a change in environment. On one "key" he found that all the trees, bushes and shrubs had been swept away by hurricanes. Great numbers of noddy terns used to build their nests in the vegetation. He found that now all have changed to a ground dwelling habit. Still retaining the desire to make nests they gather bits of dead twigs and shape them into semblances of nests on the ground. The birds, Dr. Bartsch said, seem to have a decided "lingo-tactic sense," for old boards seem to satisfy their desire for wooden homes. Birds were found incubating their eggs upon bare boards.

GEOLOGY, PHYSIOGRAPHY AND ECOLOGY AT THE PULLMAN MEETING OF THE PACIFIC DIVISION OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

FOR those interested in the geology, physiography or special problems of ecology of the "Inland Empire" of the Pacific Northwest, a rare feast is spread for the Pacific Division of the American Association for the Advancement of Science, meeting in Pullman, Washington, from June 15 to 18. On the general program, Dr. J Harlen Bretz, of Chicago University, will speak on his investigations of the scablands of the Columbia Plateau and will conduct a party to the field to study at first hand this unique problem of Pleistocene erosion. The Palouse Hills in which Pullman is situated, in themselves, present an inviting study as to their genesis, and will be a revelation to all comers who have not seen approaching harvest in the wheat fields which cover them. The farm and laboratory of the new U. S. Station for Erosion Control will be suggestive of what the immediate future may have in store in moisture control for agriculture. Several short local excursions are planned and two more extended ones, in addition to that with Dr. Bretz, will attract to more distant points of interest. One of these will be a boat excursion up the canyon of the Snake River from Lewiston, Idaho, to a point where the depth of the gorge, approximately 6,000 feet, rivals that of the Grand Canyon of the Colorado. Those who have made this boat trip describe it as unforgettable. Perhaps most delightful of all, because less hurried and inviting leisurely travel and prolonged stay, will be the excursion to the almost wholly unknown Wallowa Mountains of northeastern Oregon, and the new Eagle Cap Primitive Area in these highlands. A hasty survey[1] of this region in the summer of 1931, together with Professor Warren D. Smith's very readable account,[2] have given the writer the impression of a dome-like uplift of late Miocene time which carried Columbia basalts almost to its crest at an original elevation of between ten and twelve thousand feet. At the northeastern side this dome gave way in a great down fault of about thirty miles' length with a scarp of about 4,000 feet above the plain (Wallowa Valley). A Pleistocene ice-cap formed about Eagle Cap Mountain and no less than five glaciers carved deep gorges down to the

[1] Observations here recorded were made possible by a grant for research in this region by the Research Committee of the National Society of Sigma Xi.

[2] Warren D. Smith, "Wallowa Mountains and County," Commonwealth Review of University of Oregon, January, 1928.