SAMUEL BOARDMAN BROWN

PRACTICALLY on the eve of the new school year, Professor Samuel Boardman Brown, head of the department of geology and mineralogy, West Virginia University, was stricken with cerebral hemorrhage the afternoon of September 18, 1926.

Professor Brown was possibly the best known instructor at West Virginia University. Graduating from this school in 1883 with the A.B. degree, and in 1886 with the M.A. degree, he became connected with his alma mater as assistant in geology in 1890, he was promoted to professor in charge in 1892, and served continuously for thirty-four years and to the time of his death in this capacity. Thousands of his former students are to be found over the state and country. Several geologists of high rank are included in the number.

Born on March 5, 1860, in Preston County, W. Va., a son of Granville and Elizabeth (Watson) Brown, he received his preparatory education in the local schools. Following his graduation at West Virginia University, he was in charge of a private school at Martinsburg, West Virginia, for two years. In 1885 he was elected principal of the Glenville (W. Va.) State Normal School, a position held until his return to his mother college in 1890.

Much of the geological equipment at West Virginia University was collected or bought privately by Professor Brown. This material, together with a set of mounted animals and birds prepared or purchased by him, has been given to the university by him or by his family, and will serve as a continual memorial to his interest in science. The mounted specimens will be placed in the museum of the zoological department.

Professor Brown was one of the committee on the organization of the West Virginia University Scientific Association, and the second president of this association, 1915–16, a member of the Monongalia Historical Society and other organizations. He refused at least one distinction usually much desired. For many years and to the time of his death he was a member of the American Association for the Advancement of Science.

Few of his colleagues realized his contribution to scientific work. He was an early and vigorous advocate of a West Virginia Geological Survey against strong opposition. This opposition later disappeared, and a survey was built up which has published a set of reports ranking with the best in the country. Professor Brown prepared Bulletin No. 1 for the survey (published 1901). This is a combined bibliography and cartography for the state. Among other publications may be mentioned: "The Soils formed upon our Different Geological Formations," West Virginia *Argus* (Kingwood), May 25, 1893; "Sheep on Red Permian Soil," *Farm Reporter,* January, 1895; "The Topography of Soils of West Virginia, 1907" (published in "The Agricultural Possibilities of West Virginia" for the Jamestown Exposition); "The Geography of West Virginia, 1912" (published as a supplement to "Frye's Geography"); "The Saltsburg Sandstone as a Building Stone," SCIENCE, May, 1918; "Mineral Springs of West Virginia," *West Virginia School Journal and Educator,* February, 1922.

EARL R. SCHEFFEL
WEST VIRGINIA UNIVERSITY

SCIENTIFIC EVENTS

THE VOLCANIC ERUPTION ON THE ISLAND OF BALI

THE following account of a recent volcanic eruption on the Island of Bali, in the Indian Ocean, forwarded by Edward M. Groth, American Consul at Soerabaya, Java, under date of September 4, 1926, has been received at the Smithsonian Institution from the Department of State:

I have the honor to report that during the night of August 2, 1926, an eruption took place on the slopes of the Goenoeng Batoer, which is one of the most famous volcanic peaks on the neighboring island of Bali.

Reports which appeared in the local press and tales of returning travellers indicated that the eruption was a most impressive sight. A great column of flame and smoke was visible many miles out at sea, and the thunderings of the eruption itself were clearly heard in the town of Boeleleng on the other side of the island.

A large cleft appeared on the western slope of the mountain and from this an enormous quantity of lava flowed down the mountain side, completely destroying a native village. Great quantities of rock were thrown out, to the accompaniment of mighty explosive thunderings. During the first days of the eruption the lava flowed at a speed of approximately two kilometers per twenty-four hours, the flow being more than a kilometer wide and about thirty feet thick.

The government vulcanologists, who rushed to the scene of the eruption and remained there for some weeks, at the time of their departure, estimated that the total flow of lava during the first fortnight was more than one hundred million cubic meters.

Due to prompt and active measures taken by the governmental officials on the island of Bali, no lives were lost as a result of the eruption and the subsequent destruction of the village of Batoer.

The eruption has continued with more or less activity during the entire month since the first outbreak, but the lava flow is somewhat less than it was a fortnight ago.

It is of interest to note that practically all of the volcanoes of Java when in eruption emit ashes, rocks or

hot mud, and not lava as has been the case in the Goenoeng Batoer eruption.

(Signed) EDWARD M. GROTH,
American Consul

RESULTS OF THE SMITHSONIAN-CHRYSLER EXPEDITION TO AFRICA

THE National Zoological Park, under the Smithsonian Institution, doubled its animal population of approximately 1,600 with the recent arrival of the Smithsonian-Chrysler live game collecting expedition from British East Africa. This accession gives the park one of the best representations of African material in the country. From the standpoint of the scientist and the student of natural history, it is particularly valuable because of the many smaller and rarer creatures which can ordinarily not be brought to this country due to the difficulties attendant on importation.

Besides the two giraffes which were the prime objective of the expedition, it brought back many animals which it is believed have never been seen in this country before. These include five purple-faced monkeys from Ceylon; the elephant shrew, about the size of a house rat; the water mongoose; blue monkeys; five varieties of parrots, and many soft-shelled tortoises. The prize bird is the shoebill stork —a large grayish blue bird with an enormous bill like the top of a shoe. This bird came from the Sudan government, and only one other specimen is believed to have come to this country. Its habitat is the White Nile Country, west of Abyssinia.

Specimens of the antelope family include a blue duiker and a dikdik, which is about the size of a small rabbit though with perfectly developed horns, and a greater kudu.

Among the 1,600 specimens there are, of course, many duplicates. In accordance with the policy of the Smithsonian Institution, these will be distributed to other zoological gardens throughout the country. Providing accommodations for all these animals is proving a problem of great difficulty, especially before the completion of the new buildings ordered for the zoological park. It will be many months before all the specimens can be put on exhibition.

The care of the animals during the forty-five days spent on the high seas proved difficult. Many of the tropical animals are very sensitive and require much individual attention. The expedition brought back two Tanganyika natives, who are adepts in the care of the captured animals. They will be returned to Tanganyika after a short time in Washington. With their aid the expedition was successful on the trip across, losing few animals during the voyage.

THE GREENLAND EXPEDITION OF THE AMERICAN MUSEUM OF NATURAL HISTORY

THE American Museum of Natural History Greenland Expedition, directed by George Palmer Putnam, the publisher, returned early in October from three and a half months in the North.

Captain Bartlett's schooner, the *Morrissey,* covered in all some 8,500 miles, some 3,600 north of the Arctic Circle. The furthest north was Whale Sound in latitude 78° 30′.

The primary purpose of the expedition was to secure specimens for the American Museum of Natural History, chiefly for its new hall of ocean life.

Most important among the captures is a group of narwhal, that somewhat fabulous "unicorn of the sea" which hitherto it is said has been unrepresented in any museum except by isolated skeletons. The narwhal collection includes an adult male and female specimen, complete with skeletons, skulls, flippers, plaster casts, samples of skin for color and texture photographs and measurements. Everything is there with which, for exhibition purposes, to reproduce the animals exactly. In addition to other narwhal skeletons and skulls the collection includes a small narwhal, embalmed whole, and two other complete specimens, one of a mature foetus and the other of an embryo. All these came from the Whale Sound territory and seem to represent the narwhal about as thoroughly as could be desired.

The further list of specimens brought back under the direction of H. C. Raven, zoologist of the museum, includes an excellent group of walrus; a large male and female complete with skeletons, hides and ivory, two other skins and skulls and a small walrus captured alive and subsequently chloroformed and embalmed. Then there are sharks and seals and lesser mammals, a collection of fish and bones and birds and a unique assortment of oceanographic specimens dredged from the ocean floor by Captain Bartlett. The total quantity was necessarily held down by the limited working storage facilities available on a hundred-foot schooner accommodating a total personnel of twenty, and even further by the fact that because of the condition of the vessel, after it had been aground in Northumberland Island, it was wisdom to leave the far north perhaps a fortnight earlier than might otherwise have been done.

The personnel of the party included George Palmer Putnam, the director; Captain Robert A. Bartlett, the skipper; Knud Rasmussen, Danish scientist and explorer; H. C. Raven, of the American Museum of Natural History, zoologist; Daniel W. Streeter, of Buffalo, big game hunter; Dr. Peter Heinbecker, of the Presbyterian Hospital, New York City; Art