the types of these are deposited in the National Collection.

Dr. Schaus was born in New York City on the 11th of January, 1858. His father was the well-known art collector and dealer, William Schaus, Sr., proprietor of the Schaus Galleries, born in Germany and naturalized as an American citizen in 1854. His mother (born Margaret Connover) was from an old American family. Young Schaus was born to affluence and it was intended that he should carry on the business of his father. He received his early education at Exeter Academy and was sent abroad to finish his education in France and Germany. His principal training was in art, music and languages; but as a young man he came under the influence of Henry Edwards and found his real vocation. He decided, despite parental opposition, and at the sacrifice of a promising career as successor in his father's business, to devote his life to the study of Lepidoptera. He made his first collecting trip into Mexico in 1881. Thereafter he made frequent and extended trips with his companion and friend, Jack Barnes, to Mexico, Costa Rica, Guatemala, Panama, Cuba, Jamaica, Dominica, St. Kitts, the Guianas, Colombia and Brazil and collected over 200,000 lepidoptera. From 1901 to 1905 he lived at Twickenham, England. He visited England and the continent again in 1910 and in 1925 he again visited the continent and brought back the Dognin collection of tropical American Lepidoptera, purchased for the National Collection by funds which he had raised and to which he had contributed substantially. From 1919 until his retirement in July, 1938, he was on the staff of the Bureau of Entomology of the U. S. Department of Agriculture, first as specialist in Lepidoptera and later as entomologist. In 1921 he was made honorary assistant curator of insects of the U. S. National Museum. He was an honorary fellow of the Royal Entomological Society of London; fellow of the Zoological Society, London; honorary correspondent of the Société Entomologique de France; honorary member of the Entomological Society of Brazil; fellow of the American Entomological Society; fellow for life of the Metropolitan Museum of Art; member of the American Association for the Advancement of Science, of the Biological Society of Washington, and of the Entomological Society of Washington; corresponding member of the Philadelphia Entomological Society, and correspondent of the Academy of Natural Sciences, Philadelphia. In 1921 he received the honorary degree of master of arts from the University of Wisconsin and in 1925 that of honorary doctor of science from the University of Pittsburgh.

Few lepidopterists, even of his generation, have had such a wide and intimate knowledge of the world fauna as he. While his main interest centered in the American tropics, he worked with and described many Old World Lepidoptera. He was an accomplished linguist, a lover of art and music, a charming host and the most generous of friends. He was granted blessings that come to few of us, a long life in chosen labor, the satisfaction of completing that labor and a peaceful end.

CARL HEINRICH
EDWARD A. CHAPIN
U. S. NATIONAL MUSEUM

RECENT DEATHS

JOSEPH W. GAVETT, JR., professor of mechanical engineering and chairman of the department at the University of Rochester, died on August 28. He was fifty-three years old.

RAYMOND H. DANFORTH, professor of mechanical and hydraulic engineering and head of the department at the Case School of Applied Science, died on August 31. He was sixty-four years old.

DR. CHARLES E. CASPARI, dean and professor of chemistry emeritus of the St. Louis College of Pharmacy, died on June 11 at the age of sixty-seven years.

ELEANOR CATHERINE DOAK, professor emeritus of mathematics and a former chairman of the department at Mount Holyoke College, died on August 27 at the age of seventy-two years.

ARTHUR H. THOMAS, president of the Arthur H. Thomas Company, died on August 31. A correspondent writes: In 1892 he entered the employ of the old Philadelphia firm of James W. Queen & Co., dealers and makers of optical and scientific instruments. On December 8, 1900, Mr. Thomas organized the Arthur H. Thomas Company, dealers in laboratory apparatus and reagents, of which he was president. This company grew rapidly and has become one of the leaders in this field. He was deeply interested in education and at the time of his death was a trustee and director of Bryn Mawr College and a member of the Board of Managers of Haverford College. He was also a member of the Board of the Provident Mutual Life Insurance Company.

SCIENTIFIC EVENTS

THE ZOOLOGICAL SOCIETY OF LONDON AND THE NATURAL HISTORY MUSEUM AT SOUTH KENSINGTON

THE report of the Zoological Society of London for 1941 was presented at the annual meeting of the society on August 19. In an advance notice printed in *The Times*, London, it is stated that both Regent's Park and Whipsnade suffered several times

from air raids during 1940 and 1941. There were 11 incidents in all, eight in London and three at Whipsnade. Fifty-five high explosive bombs, 200 incendiaries and two oil bombs fell in the society's grounds. Although considerable material damage was done, there were no serious casualties among the staff or visitors, and very few among the animals. The number of visitors to Regent's Park in 1941 was 512,966, a decrease of approximately 119,000 compared with 1940, and the lowest figure since 1864. In spite of decreased traveling facilities the number of visitors to Whipsnade in 1941 was 246,139, an increase of approximately 43,000 compared with the previous year. The policy of the council is to keep Regent's Park and Whipsnade open and to preserve the bulk of the collections. Apart from the national service rendered by keeping places of healthy recreation available to fellows, war-workers, members of the armed forces and the general public, the council considers that this is in the best interests of the society in preparing for the speediest possible resumption of full activity after the war.

The Times also reports that the Natural History Museum at South Kensington reopened some of its galleries on August 1. It is stated that the parts of the museum which are reopening are all on the ground floor. They are the Central Hall, North Hall, Bird Gallery, Insect Gallery, Reptile Gallery and Whale Room. Visitors will not find all these filled with the exhibits they knew there in peace-time, since only things which could be replaced have been left on view. Nevertheless, many of the most popular exhibits, such as the great casts and skeletons of whales, the fascinating nesting groups of British birds and the series of domestic animals (dogs, cattle, horses, poultry, etc.) in the North Hall are still to be seen. British butterflies and moths are among the specimens in the Insect Gallery; and the Reptile Gallery now contains a miscellaneous collection, including a series of the British mammals. Another miscellaneous arrangement is that in the Central Hall, where many of the familiar peace-time features, for instance, the elephants and some of the groups showing protective coloring, remain. In addition, there are special exhibits illustrating the animals of the Libyan desert and some of the essential mineral ores. A large map of the world showing the sources of the most important minerals is another topical feature.

THE IMPORTANCE OF RESEARCH IN THE WAR EMERGENCY

THE following resolution concerning the importance of research in the war emergency was adopted by the Council on Research of the Pennsylvania State College on August 24:

In times of great stress such as confront the nation to-day there is a tendency to subject the activities of public institutions to rigid scrutiny and careful evaluation. Colleges and universities are not excepted in this desirable and necessary practice. In fact a periodic self-scrutiny and self-evaluation is helpful. Colleges and universities more than any other public institution must be living things. They, therefore, must not only be nourished, but from time to time, they must be pruned if they are to flourish and give forth bountiful and good fruit.

When the three functions of a great university are considered, there is a tendency in some quarters to look upon research as a luxury, to place it in the category of Sunday driving, pleasant, satisfying but unnecessary. This is unfortunate because the research ability and effort of its people constitute the greatest resource of the nation. The colleges and universities are the chief centers of training for research. As with the nation so with the college there is need for research activity at all times and under all conditions.

Great colleges and universities are measured not in terms of campus and buildings but in terms of human achievement. In the last analysis the accomplishments of the men and women that make up its faculty and students determine the greatness of such institutions. And it is in this respect that the spirit and activity of research are most important, for research is an intellectual vitamin which makes vigorous leaders of faculties. Education, when livened by research, is evocative, and curiosity and zest for discovery pervade the atmosphere of the classroom. Research cultivates a spirit of adventure and a desire in the student to explore the borders of knowledge. It is hard to see how teaching can be great without some contact with exploration of intellectual frontiers. Research and teaching by research constitute the nourishment by which universities are kept at the highest level in the service of the nation.

However, two other considerations are important in the evaluation of the research function of the Pennsylvania State College. One of these relates to the war effort. The war is as much a war of wits as of might, and mobilization of our inventive genius is of utmost importance. Colonel G. F. Jenks, of the Ordnance Department, U. S. Army, as chairman of Committee E-9 on Research, reported on research activities of the American Society for Testing Materials on June 24, 1942. His report reads in part as follows:

"Of course, our national research activities must be directed primarily to the development of implements of war, to improving our situation as to raw materials and transportation and to the development of superior processing methods. . . .

"The quantity of research personnel available is not readily expanded because of the training and aptitude required for successful work. The output of the country's research personnel can be increased through the utilization of agencies equipped to outline without delay logical research programs without unnecessary duplication of work and with a clear understanding of the problem. . . .

"There can be no question as to whether research is fundamental. The fundamental approach may consume