One of the most popular exhibits in the hall is a very realistic ship's bridge carrying the wheelhouse and chartroom of a cargo liner. Practically all the navigating instruments found on such a vessel, including the gyro-compass, the echo depth-sounder and the wireless direction-finder are arranged so far as possible to simulate working conditions. The visitor is able to handle these instruments and to have their principles explained to him by the 'captain', the 'chief officer' or the 'quartermaster'. Elsewhere in the hall the principles underlying some of these instruments are demonstrated in other ways. In this section also there is a fascinating display illustrating a cathode ray direction-finder which gives the bearings of a distant station instantaneously. Another exhibit which is proving very popular is the wireless office of a British destroyer manned by naval ratings.

The large mural, 1,500 ft. square, over the exit of the hall is a striking example of the industrial co-operation which has made the exhibits possible. On this mural are displayed silhouettes of every vessel of more than 100 tons gross launched from British yards last year; they include liners, tanker vessels and smaller craft, besides warships of every description. Some four hundred ships, of capital value £46,000,000, are represented according to the town in which they were built. Every shipbuilding firm in the country has contributed to this remarkable feature by supplying silhouettes of the ships built in its yards.

Obituary Notices

Colonel Marcuswell Maxwell

COLONEL MARCUSWELL MAXWELL, who died suddenly in a Nairobi nursing home on April 21, was one of the most successful photographers of wild life in East Africa, his photographs of lions, elephants, giraffes, rhinoceroses and other big game being some of the best ever taken, while his photographic studies of the eastern gorilla have never been surpassed. He shared with his namesake, Marius Maxwell, the distinction of being not only a photographer but also a photographic artist in that nearly every exposure he made was a picture.

Maxwell's photographs of East African big game have from time to time appeared in the pages of *The Times* and were published in book form, in two volumes, by *The Times* in 1930. One of these volumes, entitled "Elephants and Other Big Game Studies", contains eleven magnificent photographs of the African elephant, the majority of which were taken at close quarters. These are followed by photographs of black rhinoceros, waterbuck, hunting dogs, hyaenas, impala, eland, zebra, giraffe, wildebeest and vultures. The other volume, entitled "Big Game Photographs", commences with a series of photographs of the well-known Serengeti lions, among them some of the most amazing close-ups of these large carnivora that have ever been secured. There is also an interesting study of a lion climbing a tree, showing that these animals do occasionally exhibit arboreal habits. In this volume, there are also photographs of a rhinoceros accompanied by tick-birds, giraffes in the open, a wonderful study of buffaloes in cover, two wart-hogs at home and a general view of waterbuck at a water-hole.

It is a sad coincidence that death should have overtaken both Marcuswell and Marius Maxwell, two of our most prominent animals photographers. They were not related, but their names and photographic work being so similar frequently led to confusion between the two. This was accentuated by the fact that, in addition to both photographing wild life in Kenya Colony, they both visited the Birunga range of volcanoes in the eastern Belgian Congo in the hopes of photographing the eastern gorilla. Here Marcuswell was more successful than Marius, the latter encountering abnormally bad climatic conditions even for these equatorial forests. Some of Marcuswell Maxwell's photographs of gorillas will never be bettered; he had the good fortune to come up close to an old male gorilla and his family, and without very much interference from the ground vegetation was able to take some excellent pictures.

Zoological science, naturalists and sportsmen have lost a very ardent worker in the death of Marcuswell Maxwell, and he leaves a blank which will be very difficult to fill.

GUY DOLLMAN.

Prof. J. E. Johansson

PROF. J. E. JOHANSSON, of Stockholm, died on March 31, at seventy-six years of age. Johansson was professor of physiology at the Caroline Institute in Stockholm from 1901 until 1927. His first degree was in physics and mathematics. He then studied physiology with Holmgren in Uppsala, and in 1889 he worked with Ludwig in Leipzig. In 1890 he was awarded his M.D. degree for a thesis on the splanchnic nerves and was appointed reader in Tigerstedt's laboratory at Stockholm. From 1890 until 1908, he carried out his well-known researches on metabolism, particularly in connexion with muscular exercise. From 1908 onwards, however, his spare time was chiefly occupied with various activities on behalf of the Swedish Government. He was chairman also (until 1926) of the Medical Nobel Committee, and the high standard which he maintained gave him an enormous amount of work in studying the claims of persons proposed for the Nobel Prize in physiology and medicine.

Johansson's works on social medicine are numerous. He revised and reformed the medical statistics of Sweden. As a member of a Government committee he worked very hard for the abolition of regulated prostitution in Stockholm and published a book on the subject "Sur la réglementation à Stockholm" 1912. The majority did not take his view and he had to fight alone, which he did with great vigour. In 1920 the Swedish Parliament passed a law which abolished it.

For many years, Johansson was a member, and later president, of the board for the Royal Gymnastic Central Institute, where he worked hard for the reorganization of the old institute and for the erection of a laboratory for the physiology of muscular exercise. It is hoped that the Swedish Government will provide for this shortly. He was chief adviser to the Board of Nutrition during the Great War.

Johansson was greatly beloved by his students and colleagues, and was a popular and well-known figure at international gatherings. He was president of the International Congress of Physiology at Stockholm in 1926 and chairman for many years of the Permanent International Committee of the Congresses. He attended the Harvey celebrations in London in 1928. He was an honorary member of the Physiological Society. For many years until his death he was chairman of "Idun", the well-known society of men of science, letters and art in Stockholm. He was an honorary member of the Medical Society of Sweden, honorary senator of the Polytechnical High-school of Dresden, and a commander of the order of the Belgian Crown. He received the degree of LL.D. from the University of Edinburgh in 1923.

Johansson's brothers were gifted men. The eldest is a mining engineer, the second became the youngest judge in Sweden, the third was a clergyman and the fourth, Harold, a well-known geologist. His sister was the wife of the famous Swedish chemist Arrhenius. Johansson never went to school, but was educated by his elder brothers and entered the University at the age of fourteen. Although a bachelor, his home was always full of young people, nieces and nephews, who nearly all of them spent years there when studying in Stockholm.

Johansson's scientific papers are published in various physiological journals, particularly the *Skandinavisches Archiv für Physiologie*, and in the text-books of Abderhalden, Zuntz and Loewy, and Hammarsten.

A. V. H.

Dr. Hermann Augener

DR. HERMANN AUGENER, of the Hamburg Museum, died on April 5 in his sixty-sixth year. The son of a merchant, he was born in Hamburg on October 2, 1872, and after doing his schooling in his native city went to Göttingen and afterwards to Munich to continue his scientific studies. Of independent means, he might have done anything he chose, but he decided to devote his life to marine zoology. He spent some time at the Zoological Station at Naples, and from there went as an assistant to the Zoological Institute of the University of Göttingen, where he remained for several years. His next and final move was back to his native Hamburg, where he became an unpaid, voluntary worker at the Hamburg Museum.

Augener was a specialist on the marine annelids or Polychæta and became a leading authority on the group. Most of his work was of a faunistic nature, and he did much not only to extend our knowledge of the group, but also to impose order upon its classification. He had great learning and an extraordinary capacity for accurate detail. He published about forty papers, many of great length, and among these the more notable are his work on the West Indian Polychætes, his volume on the Polychæta in the "Meeresfauna West-Afrikas", his contributions to Michaelsen and Hartmeyer's "Fauna Südwest-Australiens" and his papers on the Polychæta of New Zealand. At the time of his death, he was engaged on the Polychæta of the Dutch *Siboga* Expedition.

After the Great War, Augener had a severe struggle against poverty and ill-health. Married and with a family, he was left almost destitute by the collapse of the mark, but happily the Hamburg Museum came to his rescue with a small grant which enabled him and his family to live. In middle life he developed grave defects of hearing and eyesight. In fact, for about the last twenty years he was more than half-blind, and how, his eyesight being what it was, he carried on with his fine microscopic work, was known only to himself. That he did so may justly be described as heroic. He ploughed a narrow furrow to the end, and was without the reward of any public appreciation of his work, which was recognized only by his co-specialists.

Augener's is a gallant story. C. C. A. M.

WE regret to announce the following deaths:

Prof. Max Neissen, professor of bacteriology and hygiene in the University of Frankfort-on-Main from 1914 until 1933.

Prof. P. A. Ross, professor of physics in Stanford University, who carried out work on X-ray spectroscopy, on March 20, aged fifty-four years.

Prof. L. W. Stern, professor of psychology in Duke University, formerly director of the Psychological Institute in the University of Hamburg, known for his contributions to child psychology, on March 27, aged sixty-six years.

Prof. W. T. Taggart, emeritus professor of chemistry in the University of Pennsylvania, on April 11, aged sixty-six years.

Prof. J. Thienemann, founder of the well-known ornithological station at Rossitten, who inaugurated the system of bird ringing, aged seventy-four years.

Prof. R. Verneau, honorary professor in the Muséum d'Histoire naturelle, professor of prehistoric anthropology in the Institut de Paléontologie humaine, on January 7, aged eighty-six years.