botanist and mycologist, while his cousin, Dr. J. Th. Oudemans, was president of the Dutch Entomological Society for many years.

At an early age, Dr. Oudemans was sent from the Dutch East Indies to Holland and received his education at the High School at Arnhem and at the University of Utrecht. Some years later he returned to Arnhem High School as a teacher, and remained there until his retirement at sixty-five.

From the age of twenty-one, when Oudemans published his first paper, until two years before his death, he wrote 584 papers for publication. The greater number of these were comparatively short works of a systematic nature, mainly on the order Acari (mites and ticks) of the class Arachnida, but scarcely a phylum in the animal kingdom escaped his notice, and in his earlier years he published many papers on the vertebrates. His interest in plants was considerable and he wrote about a score of papers of a botanical nature.

Among his best known publications is his book, written in English, on "The Great Sea-Serpent. An Historical and Critical Treatise with the reports of 187 Appearances (including those of the Appendix), the Suppositions and Suggestions of Scientific and Non-scientific Persons, and the Author's Conclusions" (Leyden: Brill; London: Luzac; 1892). This work he very aptly dedicated to "Owners of Ships and Yachts, Sea Captains and Zoologists". His interest in the 'sea-serpent' was maintained all his life, and when the so-called 'Loch Ness Monster' made its erratic appearances in the waters of that northern loch, Dr. Oudemans wrote some further notes on the subject during 1934-35.

He is also remembered by many zoologists for his studies on the dodo which appeared in 1917: "Dodo-Studien, naar aanleiding van de vondst van een geveelsteen, met Dodo-beeld van 1561 te Vere" (*Verh. kon. Akad. v. Wetensch.*, 2e Sect., 19, No. 4).

It sometimes happens when a man's life-work is mainly devoted to a relatively obscure subject that he becomes better known by work done on matters of more popular interest. It was so to a certain extent with A. C. Oudemans; he was widely known as the writer of works on the 'sea-serpent' and the dodo, but not always identified with the magnificent work he did on the Acari, in which field he was supreme. In recent years, however, his fame as 'father of acarology'—as he has been called—has spread more widely, partly through the increasingly obvious importance of the study of acarology both from the economic and medical points of view.

His magnum opus is the "Kritisch Historisch Overzicht der Acarologie". This is an encyclopædia of all recorded observations on the Acari from 850 B.C. until A.D. 1850 compiled with painstaking completeness. This vast work of reference is arranged in three parts. The first part appeared in 1926 as a supplement to vol. 69 of the *Tijdschrift voor Entomologie* 's-Gravenhage and deals with the period 850 B.C. to A.D. 1758 (500 pages with 68 text-figures, among them being reproductions of some very interesting contemporary drawings). Part 2, dealing with the years 1759-1804, was also published as a supplement to a volume (vol. 72, 1929) of the *Tijdschrift* (1097 pages with 267 text-figures). Part 3, dealing with the years 1805-50, was published as a separate work by E. J. Brill (Leyden). This part was divided into six volumes, A-G. Volume A, 1936 (430 pages with 179 text-figures), contains all general references during the specified time to Acari generally and

Holothryoidie and Mesostigmata in particular. Dr. Max Sellnick collaborated with Dr. Oudemans in the section dealing with the Mesostigmata. Volume B, also published in 1936 (367 pages with 170 text-figures), is devoted to Ixodides, with Dr. Paul Schulze collaborating. Volume C (550 pages, with 230 text-figures), published, as were all the subsequent volumes, in 1937, deals with the Tarsonemini, Stomostigmata and Eleutherengona (including Halacaridæ and Tetrápodili); Dr. Oudemans acknowledged help from Dr. Karl Viets in the work done on the Halacaridæ. Volume D (649 pages, with 332 text-figures) is devoted to Parasitengona; volumes E and F, issued together, contain in E all references to the Acaridæ (522 pages with 159 text-figures) and in F, with the help of Carl Willmann, all the references to the Oribatei (215 pages, with 147 text-figures). Volume G (643 pages) is an index to Part 3. In all, the work runs to more than five thousand pages and some fifteen hundred illustrations. The arrangement of each part is under the headings of systematics, external morphology, internal anatomy, histology, physiology, teratology, ecology, embryology, ontogeny, phylogeny, habitat, chronology, distribution, economics, medical zoology, nomenclature and literature. It is thus obvious that all the aspects of the subject came under Dr. Oudemans' notice and were documented in such a manner as to make this "Kritisch Historisch Overzicht der Acarologie" a work of outstanding importance to the acarologist.

In addition to his publications, one of the great services Dr. Oudemans rendered was his interest in and enthusiastic encouragement of younger acarologists throughout the world. In this his natural gift as a teacher was clearly discernible. He was always ready to answer questions promptly and fully, and where it was possible for anyone working on his subject to visit him in Arnhem, his kindness and simplicity made them instantly at home. There he placed at their disposal not only his collection of 7,500 microscopical preparations and his library of more than 10,000 works on Acari and the 65,000 drawings made by him in the course of his own work, but also he gave freely of his most valuable time.

The collections and drawings made by Dr. Oudemans are now safely housed in the Rijksmuseum voor Natuurlijke Historie, Leyden, and will be of the greatest value in the future of the subject that Dr. Oudemans served so faithfully.

SUSAN FINNEGAN.

Major S. S. Flower, O.B.E.

MAJOR STANLEY SMYTH FLOWER, who died at Tring on February 3, was a born naturalist, who from his boyhood took a keen interest in all living beings, and will be remembered especially for his important series of papers on the duration of life in various animals.

Flower was born in the Conservator's House at the Museum of the Royal College of Surgeons, Lincoln's Inn Fields, on August 1, 1871. He was the second son of Sir William Flower, and as a boy often accompanied his father to meetings of the Zoological Society, and met most of the famous naturalists of his time. He was educated at Wellington and King's College, London, entered the army in 1890 and was commissioned into the Northumberland Fusiliers. He was seconded to the Siamese Government as scientific advisor in 1896 and spent two years in Bangkok, also travelling in Siam and Malaya.

In 1898 he became director of the Giza Zoological Gardens and occupied this post until his retirement in 1924. He made several journeys to the Upper Nile and was responsible for drafting the laws of the Game Preservation Department of the Sudan Government. He also took an active part in the protection of fauna, and thanks mainly to his efforts egrets are now once again common in Egypt. By 1912 plumage hunters had reduced them to only two small colonies, but after protective legislation had been introduced they soon multiplied, and I remember the pride it always gave Flower to see these beautiful birds coming in their hundreds at sundown to roost in the trees in the Giza Zoological Gardens.

Flower served during the First World War as commander of the Camel Transport Corps and later in the Frontier Districts Administration; he was awarded the O.B.E., the Order of the Nile, and of the Medjidieh, and mentioned in dispatches.

After his retirement, he took an active interest in the Zoological Society of London, and served on its Council during 1924-36, and was vice-president during 1927-29. He was also chairman of the British Ornithologist's Club (1930-32), and an honorary member of various foreign societies.

Flower's many zoological publications include "The Mammalia of Siam and the Malay Peninsula" (1900); a series of reports on the Giza Zoological Gardens, containing much useful information; mammals and reptiles in "The List of Vertebrated Animals exhibited in the Gardens of the Zoological Society of London" (1927); and his papers on the duration of life in animals (1925 *et seq.*), many of them based on personal observations and breeding experiments which he continued to the end of his life. A note on the duration of life in woodlice, by W. E. Collinge, based on Flower's observations, appeared in *Nature* as recently as December 22, 1945 (p. 755). EDWARD HINDLE.

Prof. Heinrich Rausch v. Trautenberg

It is more than a year ago since I heard of the tragic death of my friend Trautenberg; but only now have I got authentic news about his fate.

Trautenberg was born on March 17, 1880, in Estonia, a descendant of one of the ancient families who ruled those provinces for centuries. These 'Baltic Barons' combined great activity in administration and politics under the Czars with an extremely high level of culture in their private lives. Trautenberg, though free from worldly ambitions, was deeply imbued with that cultural inheritance of his ancestors. He studied at the Universities of Leipzig, Freiburg and Würzburg, where he graduated under W. Wien in 1905 with a thesis on the Hall effect.

In the following years he worked in the laboratories of different electrical engineering firms in Berlin, but returned soon to scientific research in Leipzig, Würzburg and St. Petersburg. In 1910 he went to Göttingen, where I first met him. He was gentle and kind, quiet and modest, a hard worker and keen thinker. As soon as he discovered that I shared his enthusiasm for physics we became friends. In him there burned a genuine fire for all that was great and noble. He loved discussions on philosophy, art, science, religion, and was a splendid opponent in an argument, full of wit and humour. I shall never forget those evenings of friendly controversy backed by a bottle of good Burgundy.

In 1912 Trautenberg became a lecturer (*Privat-Dozent*) at Göttingen. After the death of Prof. E.

Riecke, in 1915, he was deputy director of the laboratory for several years. In 1922 he was called to a chair at the German University in Prague, and in 1931 he succeeded Geiger in Kiel.

Trautenberg's work covers a wide field. During his stay in Göttingen, he determined the ranges of α -particles in liquids and solids, a work much appreciated by Rutherford. Among many papers of his on radioactivity I may mention his measurement of the solubility of radium emanation in water, by which it was shown that Henry's law is valid for these extremely minute amounts of rare gases. Later his interest was concentrated on positive rays. He investigated the Stark effect in rapidly changing and in extremely strong electric fields. Shortly after Rutherford's discovery of the artificial disintegration of nuclei, Trautenberg showed that the lithium nucleus could be split by protons of as little energy as 30,000 eV., and he investigated the penetrating radiation accompanying this process. His last papers, written in extremely difficult circumstances, are mostly concerned with neutrons.

Trautenberg had never yielded to the Nazi creed of race and militarism, and therefore lost his chair at the University of Kiel in 1937. His attempts to leave Germany were not successful. After having overcome a bad nervous breakdown he took up work in an industrial laboratory in Berlin, but returned later to pure research in a little private laboratory, with no other help than that of his wife, on problems of nuclear physics. In 1944 his house was burned down in an air-raid. The Traubenbergs found refuge in Hirschberg, Bohemia, on the estate of Count Karl Waldstein. He was beginning to work again on his beloved experiments when his wife was arrested by the S.S. He collapsed and died a few hours later, on September 19, 1944.

MAX BORN.

Dr. L. Kuščer

MR. R. S. HAWES, University College, Exeter, has learned from Dr. Jovan Hadži, professor of zoology in the University of Ljubljana, that Dr. L. Kuščer, the well-known malacologist, died in 1943, after imprisonment by the Italians. Dr. Kuščer was an authority on the cavicolous snails of Yugoslavia, and, in spite of difficulties which would have defeated a lesser enthusiast—he lived in constant ill-health and in something near to poverty—he had assembled an unrivalled collection of his material. He was an incorrigible idealist and admirer of Britain. British zoologists whose work took them to Slovenia will remember his cheerful, untiring helpfulness and simple, but charming, hospitality.

WE regret to announce the following deaths:

Mr. R. Engelbach, technical adviser to the Antiquities Department, Egyptian Government, since 1942, and author with the late Mr. Somers Clarke of "Ancient Egyptian Masonry", on February 26, aged fifty-seven.

Dr. F. W. Lanchester, F.R.S., consulting engineer, on March 8, aged seventy-seven.

Dr. Max Poser, special technical representative of the Bausch and Lomb Optical Co., who contributed to the design of many eye examination instruments, such as the Ives visual acuity apparatus, the stereo campimeter and the Poser slit lamp, on January 4, aged seventy-five.