These include the *Science Record* of Academia Sinica, which has a section on biology. In addition, there are the *Proceedings* of the Chengtu Branch of the Chinese Physiological Society and the *Biochemical Bulletin* of the Tsing Hua University Physiological Laboratory.

The impression created by this article will perhaps be that practical aspects of biological research predominate in present-day China. This is true to a large extent; but there are still a number of centres where a major part of the work is on academic aspects of biology. This is especially true of the Institute of Psychology of Academia Sinica, and to a certain extent of the Tsing Hua University Physiological Laboratory. The trend towards research of practical value is in fact unavoidable. In the first place the need of the country at the present is certainly on the practical side, and in the second place it is extremely difficult to carry out academic research of real importance under present conditions. Added to these reasons is the desire of every biologist to make himself useful to the country in its war effort. It is therefore not surprising to find biochemists, for example, putting their energy into such problems as army nutrition, the industrial possibilities of certain rubber-producing plants, vegetable oils and fermentation; while most of the systematic biologists have either turned their attention to agricultural problems or undertaken biological surveys of hitherto unexplored country.

OBITUARIES

Mr. Emil Hatschek

EMIL HATSCHEK, who died in London on June 4, at the age of seventy-five, carried out pioneer work in many branches of colloid science and did much to direct attention in England to this subject. In spite of the stimulus supplied by the classical researches of Thomas Graham, little was being done in this country on colloids when, in 1911, Hatschek started a systematic course of lectures on colloidal chemistry at the Sir John Cass Institute. This was, I believe, the first regular course on the subject to be given in England, and it continued until 1935, when Hatschek reached the age limit for retirement. From about 1910 until 1932 Hatschek was producing original papers, all marked by elegance and strong individuality, which appeared in various periodicals, including the *Proceedings of the Royal Society*, the *Transactions of the Faraday Society, Chemistry and Industry*, the *Biochemical Journal* and the *Transactions of the Institute of Mining and Metallurgy*, apart from the twenty-six or so that appeared in the *Kolloid-Zeitschrift*. These names do something to indicate the width of interest of his work. His services to colloid science were acknowledged when he was made the guest of honour at the Colloid Symposium at Ottawa in 1932, a distinction much appreciated by him. His contribution at Ottawa was a paper on "The Study of Gels by Physical Methods", a subject to which he had devoted much attention.

Hatschek was a Hungarian by birth, but his family migrated to Vienna when he was a child, and it was in that city that he studied at the famous Polytechnicum. Engineering, however, was his subject in those days, and it was as an engineer that he came to England in 1888, at the age of twenty. He became a naturalized British subject in 1900. He concerned himself professionally with matters of chemical engineering, especially filtration, in both England and America: problems that he met in this work first directed his attention to colloid science. About 1910 he retired from active professional work, although he still acted as consultant to certain undertakings, and, possessing private means, devoted most of his time to original experiment.

Hatschek's fancy took him into unusual fields, and in each he found matters of interest and importance. Two curious contributions of his were, one, on the changes in form of spherical segments of elastic gelatine, which on drying formed a gastrula reminiscent of the behaviour of living embryos, and, the other, on the growth of crystals in gels, which had a marked bearing on the growth of minerals. In particular, he showed that with gold the various forms that can be observed when crystals are formed in silica gel closely resemble the natural appearance of gold in quartz. His work on periodic precipitation bore on the banding observed in some natural minerals. He carried out many other elegant and unusual researches, but his greatest body of connected work was on various aspects of viscosity, especially on the anomalous viscosity of many classes of colloids. For this work his wide chemical knowledge, his clear-cut physical conceptions and his good general mathematical powers fitted him admirably. His co-axial cylinder viscometer for investigating the properties of colloidal solutions has been widely used.

In 1913 Hatschek published his "Introduction to the Physics and Chemistry of Colloids", which went into five editions. His "Laboratory Manual of Colloid Chemistry" also achieved wide popularity. In 1928 he produced his "Viscosity of Liquids", a standard work which was at once translated into German. He edited the "Foundations of Colloid Chemistry", a collection of classical papers, and wrote the articles on "Colloids" and "Viscosity" in the last edition of the "Encyclopaedia Britannica".

Hatschek was a man of very wide learning, with a fund of precise information on most matters. He had an excellent knowledge of botany, especially of field botany; he was well versed in the history and theory of music, and was a good pianist; in philology and general history he could hold his own in most companies; and he had a wide knowledge of the literature of England, France and Germany. He was a familiar figure at the Royal Institution and at the Faraday Society, in the government of which he played a prominent part for many years. In 1930 he became a member of the Savage Club, and was there almost daily to his death, acting in an oracular capacity. He never married and, in fact, all his attachments were intellectual rather than emotional. A powerful and original personality, his passing leaves a gap in British science.

E. N. DA C. ANDRADE.

Dr. Burgess Barnett, M.B.E.

DR. BURGESS BARNETT, superintendent of the Rangoon Zoological Gardens since 1938, died on April 9 at Dooars, Bengal, at the age of fifty-six. He is perhaps best known for his work on the use of snake venom in the treatment of hæmorrhage and epilepsy, mainly carried out while holding the appointment of curator of reptiles of the Zoological Society of London during 1932–37.

He was the son of the late H. F. Barnett of Bescot

Hall, Walsall, and was educated at Marlborough College and St. Bartholomew's Hospital. After the completion of his medical training he took up practice in the Lobitos oilfields of Peru. When the War of 1914–18 broke out he returned to Great Britain and served as a captain R.A.M.C. in France and Macedonia. After the War he returned to Peru, where he continued his study of snakes and supplied many specimens to the London Zoological Society. His appointment as curator of reptiles enabled him to develop his main interest—the study of snake venom and its application in medical practice. His publications relate mostly to this subject, but he also wrote popular articles on natural history and chapters on herpetology.

In 1938 Barnett proceeded to Rangoon, where a new reptile house was being built, so that he could have the opportunity of establishing a snake farm for the collection of venom and making further studies on its medical applications.

During the present War he was awarded the M.B.E. for bravery in Burma, when, as principal medical officer of the Burma-China railway construction unit, he remained behind with refugees during the evacuation through the Chankan Pass, and gave them medical attention on a long march through uninhabited jungle country. E. HINDLE.

WE regret to announce the following deaths:

Mr. E. Bruce Ball, past-president and honorary life member of the Institution of Mechanical Engineers, and an honorary life member of the American Society of Mechanical Engineers, known for his work on hydraulic engineering, on June 17, aged seventy-one.

Prof. A. H. Reginald Buller, F.R.S., emeritus professor of botany in the University of Manitoba, on July 3, aged sixty-nine.

Prof. A. E. Conrady, formerly professor of optical design in the Imperial College of Science and Technology, on June 16, aged seventy-eight.

Dr. J. J. Lonsdale, organizing science master at the Sloane School, Chelsea, during 1914–33, an early worker on ionization by splashing, on June 12, aged seventy-one.

Sir Prafulla Chandra Rây, C.I.E., formerly senior professor of chemistry, University College of Science, Calcutta, on June 16, aged eighty-three.

Mr. George Steiger, formerly chief chemist of the U.S. Geological Survey, on April 18, aged seventy-four; and Dr. Roger C. Wells, who succeeded Mr. G. Steiger as chief chemist of the U.S. Geological Survey, on April 19, aged sixty-six.

NEWS and VIEWS

University of Reading: Chair of Agriculture

Prof. R. Rae

PROF. ROBERT RAE, who has been professor of agriculture in the University of Reading for the past eleven years, has resigned from academic work on his appointment as agricultural attaché to the British Embassy at Washington. During his tenure of office at Reading, Prof. Rae has expended a large amount of time and energy on the expansion of the Department of Agriculture. This work has been highly appreciated by his colleagues and the many students with whom he has come in contact. The acquisition and development of the University Farm at Sonning-on-Thames was entirely due to his efforts. Before his appointment to Reading, Prof. Rae was professor of agriculture in Queen's University, Belfast, and previous to this he had teaching experience at the East Anglian Institute of Agriculture and the Hertfordshire Farm Institute. Many of his friends regret his departure from the sphere of agricultural education. Since the beginning of the War Prof. Rae has served on several agricultural committees connected with greater food production. More than a year ago he went on a lecture tour to the United States, which proved most successful, and where he is recognized as one of the leading authorities on British agriculture.

Prof. H. G. Sanders

The University of Reading has appointed Dr. H. G. Sanders, fellow of St. John's College, Cambridge, as professor of agriculture, from October 1944. Dr. Sanders was educated at Wellingborough School until 1917 and, after serving for two years in the Army, proceeded to St. John's College, Cambridge, qualifying for the degree of B.A. in 1920. After a period of practical farm work, Dr. Sanders became an assistant in the Animal Husbandry Institute, Schoo of Agriculture, Cambridge. In the winter terms of the sessions 1926–29 he gave courses of lectures in the University of Reading on animal physiology. In 1932 he was appointed a University lecturer in agriculture at Cambridge. In 1940 he was appointed deputy executive officer of the Cambridgeshire War Agricultural Executive Committee, and in 1941 executive officer to the Hertfordshire War Agricultural Executive Committee. Dr. Sander's researches and publications cover a wide range of agricultural problems in both crop husbandry and animal husbandry. His best-known work is "An Outline of British Crop Husbandry", published in 1939.

Royal Society of South Africa: Marloth Memorial Medal

THE Council of the Royal Society of South Africal has awarded the Marloth Memorial Medal to Dr. J. L. B. Smith, senior lecturer in chemistry in Rhodes University College, and D. Rivett, for a paper on "The Essential Oils of Agothosma". The Marloth Memorial Fund was initiated by the Cape Chemical and Technological Society, and is devoted to the perpetuation of the memory of Dr. Rudolph Marloth, the famous South African chemist and botanist. In 1939 it was handed over to the Royal Society of South Africa for administration. It is awarded in the form of a small payment towards publication of papers of outstanding merit in either chemistry or botany, and a printed medallion heads the paper. The Medal has never been awarded before, but the present paper is considered as of sufficient merit, both from the botanical and from the chemical points of view, to be the first for which this honour is conferred.