

## Obituary.

LIEUT.-COL. H. H. GODWIN-AUSTEN, F.R.S.

THE death, on December 2, of Lieut.-Col. Henry Haversham Godwin-Austen in his ninetieth year removes the last of the great pioneers in the geography of the Himalaya and a leading authority on Indian Mollusca. Col. Godwin-Austen was born at Teignmouth, July 6, 1834. He was a fellow-student with Lord Roberts at Sandhurst, whence they both went to India at the end of 1851. Godwin-Austen saw service the next year in the second Burmese War. His scientific tastes, which were hereditary—for his father, R. A. C. Godwin-Austen, was a geologist who has left an enduring reputation owing to his exceptional insight—led him in 1857 to join the Indian Survey Department. It was his privilege to survey northern Kashmir, where he discovered the Baltoro, Hispar, and Biafra Glaciers—the greatest group of valley glaciers in the world. They were afterwards traversed and mapped by Sir Martin Conway, who named the tributary glacier to the Baltoro from  $K_2$  the Godwin-Austen glacier. The glaciers were described by Godwin-Austen in a short paper in the Proceedings of the Royal Geographical Society (vol. viii., 1864), the discussion on which is remarkable for Falconer's advocacy of the pre-glacial age of the Alpine lake basins and their preservation by the protective action of glaciers. During this survey Godwin-Austen fixed the position and heights of many of the giant peaks of the Karakorums, including  $K_2$ , which had been previously discovered by Montgomerie. It is often known as Mt. Godwin-Austen, and according to the heights adopted by the Indian Survey Department is the second highest mountain in the world.

While Godwin-Austen was working in this district he made many mountain ascents, of which his highest was on Mata, 20,600 ft., in 1862. In 1863-64 he was engaged in the survey of the eastern parts of the Himalaya around Darjeeling and in Bhutan, and, later still, further east on the Khasia Hills and in Assam. His views on the geographical structure and classification of the Himalaya were stated forty years ago in his presidential address to the Geographical Section of the British Association, which is his most important geographical paper. He contributed to the Geological Society several papers which made important additions to the geology of the Himalaya, including the discovery of the extension into Kashmir of the Spiti series, the most significant horizon in the Himalaya. In 1884 he described the drifts exposed in a new railway cutting near his home at Guildford, and the paper was illustrated by sections, characterised by the same precision and detail as those issued with his Indian papers.

After leaving the Indian Survey, Godwin-Austen's main interest was in the land mollusca. He was described as having "a unique knowledge of Indian molluscs." He contributed to "The Fauna of British India" the volume on the Testacellidæ and Zonitidæ. The value of his work on that group is shown by his election as president of the Malacological Society in 1897-9, and of the Conchological Society in 1908-9. His later years were burdened by financial embarrassment due to an unfortunately worded will. He

inherited the paternal estate of Shalford, which proved a vampire instead of the source of a comfortable income. His interest was subject to fixed charges which, when the value of land fell, used up more than the whole of the income from the property. He bore this trouble with his characteristic courage and cheerfulness. Great sympathy was also recently felt for him, owing to the unfortunate loss of the portfolio of sketches and maps made during his Kashmir service, sixty years ago.

Godwin-Austen was elected F.R.S. in 1880, and received a belated Founders' Medal from the Royal Geographical Society in 1910.

## HERLUF WINGE.

It is with much regret that we record the sudden death, on November 10, at Copenhagen, of Herluf Winge, who for many years, and until his death, was "Viceinspektør" in the Zoological Museum of the University of Copenhagen. As a lad Winge began to study the small mammals of Denmark, and his earliest papers upon this subject were full of promise. A little later, in 1877, while still a student in the University of Copenhagen, he published an account of some of the skull characters in the mole, shrew, and other Insectivora, in which he displayed not only remarkable learning but a most clever technique. In 1882 he gave his views upon the mammalian dentition and his theory of cusp homologies in a paper which will ever be regarded as a classic. In the same year appeared an account of a collection of mammals from Greece; and in preparing this Winge was led so far afield investigating the relationships and special adaptations of the species before him that he himself regarded this piece of work as the foundation of the important publications next to be noticed.

Between 1887 and 1915 Winge published a series of works which ostensibly are descriptions of the fossil bones collected by Lund in the caves of Lagoa Santa, Minas Geraes, Brazil, and of the recent mammalia obtained in the same region by Lund and Reinhardt. Taking these mammals order by order (Rodents, 1887; Chiroptera, 1892; Carnivora, Primates, 1895; Marsupials, including Monotremes, 1897; Ungulates, including Sirenia, 1906; Edentates, 1915), Winge commenced each memoir with a description of the Brazilian material; but, that finished, he proceeded in each case to give a review of the whole order, bringing out his views of the evolution and relationships of the orders and of every fossil and living family and genus in a wonderfully clear and concise style. He seems to have prepared a complete monograph of each genus dealt with; and then to have compressed each monograph into a short paragraph and very often into a single sentence. But in this small space he contrives not only to state all that is essential, but to throw many a brilliant beam across what was previously obscure. Companion reviews of the Insectivora (1917) and the Cetacea (1919), the two orders not represented in the Lagoa Santa material, have since been published by Winge. That dealing with the Cetacea has recently been translated from the Danish by Mr. G. S. Miller



and published in the Smithsonian Miscellaneous Collections.

A collected and revised edition of these reviews, in three volumes, under the title of "Pattedyr-Slægter," is at present passing through the press; and the first volume of this work was received in London on the day before Winge's death. This new and more convenient edition will be welcome, for it is but bare justice to state that the reviews in question constitute together the finest, most comprehensive, and most inspiring technical account of the class Mammalia that has ever been written.

Many other papers dealing with the mammals of Greenland and the fossil mammals and birds of Denmark were published by Winge. In 1908 he contributed the volume on Danish Mammals to the series of handbooks entitled "Danmarks Fauna"; and this little book, illustrated by Winge himself, is at once admirable and inimitable.

Reviewing the whole of Winge's published work, one cannot fail to be struck by an extraordinary fact. It is that in his writings one does not mark the flight of time. He seems to have acquired his full mental power and his own peculiar way of looking at things at an extremely early age; for his early papers of 1877 and 1882 read to-day, exactly like that of 1919, as the work of a great master. M. A. C. H.

WE regret to announce the following deaths:

Prof. F. Clowes, emeritus professor of chemistry and metallurgy and first principal of University College, Nottingham, and the author of well-known text-books on analytical chemistry, on December 18, aged seventy-five.

Canon T. Wood, well known for his natural history studies, on December 13, aged sixty-one.

### Current Topics and Events.

Two octogenarian fellows of the Royal Society celebrated their birthdays this week. Sir Archibald Geikie, O.M., the Nestor of British geology, who was elected to the Royal Society so long ago as 1865, attained the age of eighty-eight on December 28, and another distinguished geologist, Sir W. Boyd Dawkins, elected to the Society in 1867, was eighty-five on December 26. To both of them the congratulations of all scientific workers will be heartily accorded. Sir Archibald Geikie, who figured as a "Scientific Worthy" in NATURE thirty-one years ago (January 5, 1893), has a world-wide reputation. As a geologist, and as the author of the "Text-book of Geology," originally published in 1882, and of other standard works on geology and geography, he is known everywhere. This is in great measure due to the way in which Sir Archibald is able to quicken interest in his subject by the expression of his deep and intense feeling for Nature. No one has done more to link geology with appreciation of the natural beauty of scenery. His work as an original investigator in geology and as a writer of inspiring volumes on this subject and on physical geography won for him the Royal medal of the Royal Society in 1896. From 1908 until 1913 Sir Archibald served as president of the Royal Society, while he was president of the British Association at the Edinburgh meeting in 1892. For the period 1882-1901, he was Director-General of the Geological Survey of the United Kingdom and Director of the Museum of Practical Geology. In spite of his advanced age, Sir Archibald maintains his active interest in both science and literature, and so recently as 1918 he produced a notable volume of *Memoirs of John Michell*, who died in 1793, one of the early workers in geology.

SCIENTIFIC societies and other bodies organising conferences for next year should know that the authorities of the British Empire Exhibition to be held at Wembley have constructed an admirable congress building containing four conference halls, with appropriate committee rooms, etc., capable of seating 2140, 550, 180, and 150 persons respectively.

These halls are being allocated to responsible organising committees free of charge, and early application should be made for the use of any of them, as the dates are being filled up rapidly. The following scientific and technical societies, among others, have already booked one or more of the halls for conferences on different dates: The British Engineers' Association, the British Electrical and Allied Manufacturers' Association, the Institution of Sanitary Engineers, the Textile Institute, the Society of Dyers and Colourists, the North-East Coast Institution of Engineers and Shipbuilders, the Institution of Automobile Engineers, the Museums Association, the Horace Plunkett Foundation, the Health Propaganda Association, the Association of British Chemical Manufacturers, the Institution of Mining and Metallurgy, the Municipal Electrical Association, the Electrical Contractors' Association, and the Gas Association. Applications for use of the halls on dates still open should be sent to the Secretary, Conference Committee, British Empire Exhibition, 16 Grosvenor Gardens, London, S.W.1.

WITH the approaching retirement of Prof. S. Alexander from its chair of philosophy, the University of Manchester loses the services of one of the most original of the elder generation of thinkers. Nearly fifty years ago, he came from Australia to Oxford, where he gained reputation by a rare power of winning first classes. He soon, however, deserted other pursuits for philosophy, and won an assured position before he was thirty by his remarkable book on "Moral Order and Progress." Called in 1893 from a tutorship at Lincoln College to succeed Robert Adamson at Manchester, he has represented philosophy there for more than thirty years. At Oxford he was conspicuous in the reaction against the philosophy of T. H. Green, and was among the first to preach to an unheeding university the importance of modern psychology. But he never lost a bent for metaphysics and for vigorous thinking about fundamentals. His philosophic position was fully revealed in his *Gifford lectures at Glasgow on "Space, Time, and Deity,"* published in 1920. A book so technical defies