

## Obituary

CARL OLOF LUNDHOLM

CARL OLOF LUNDHOLM who died on May 8, at the ripe age of eighty-four years, was born in Sweden in 1850. His father was Court Quartermaster and had filled this important office, which however is now extinct, to four of Sweden's kings. He was what we would now designate a chemical engineer, though the term was then not known. Through the personal influence of his great fellow countryman, Alfred Nobel, he obtained facilities for studying the manufacture of fulminate of mercury in a French factory on the outskirts of Paris. Largely as the result of this special knowledge he was invited to join the staff of the Nobel Explosives Co., Glasgow, in 1878.

This company, which was brought into being to exploit Nobel's discoveries in the realm of high explosives, had at that time established two factories in Scotland: one at Ardeer, Ayrshire, where nitro-glycerine explosives were made, and another at Polmont, Stirlingshire, where detonators were made. Both of these branches of manufacture were at that time extremely hazardous and accidents were fairly frequent. With both of them Lundholm became intimately associated and on both he left the impress of his strong and courageous personality. He was most assiduous in improving the safety factor while increasing efficiency, and the industry to-day, considered from the world point of view, is a monument to his ingenuity and foresight. This, indeed, is generally recognised, even though the great public never knew very much about him, as he never courted publicity in any shape or form.

Lundholm became manager of the Ardeer factory in 1889 and retired from that position in 1909 to become technical adviser to the Nobel Dynamite Trust, with headquarters in London. On the outbreak of the War this Trust automatically came to an end, as did also Lundholm's thirty-six years' intimate association with the high explosives industry. But even in his retirement he maintained his interest to the very end, and though in later years afflicted by blindness, he kept up a world-wide correspondence with old and new friends associated with the industry. Indeed, until a few days before his death, he was actively engaged on the writing up of his early experiences in the development of high explosives.

Although Lundholm was a member of many societies, he was not a writer of papers, though he inspired many. On the other hand, he did recognise the value of research, and with the encouragement of his board, he inaugurated what was probably the first research laboratory in the British Isles. His name appears fairly frequently, too, on patent specifications.

Lundholm was known to everyone in 'explosives' circles, and during his period of management at Ardeer he must have had thousands of callers from all over the world. By those of them who are

still alive, his loss will be keenly felt, for he was a kindly soul and was always ready to help and encourage young men. He was, however, a stern but just disciplinarian and in times of danger, and these were not infrequent in the early days, he was cool and collected and always master of the situation.

WILLIAM CULLEN.

THE REV. J. H. HOLMES

JOHN HENRY HOLMES, who died on April 19, was born on June 19, 1866. Having been ordained in 1893, he was appointed by the London Missionary Society at first to the Fly River District, Papua, and a year later to the Elema District (Gulf of Papua); he settled at Jokea in November 1894. In 1897 he removed to Orokolo, and in 1910 he finally settled at Uriki in the Purari Delta. He left Papua at the end of 1917 and, having retired from active service, returned to England in 1920. Thus for more than twenty years "Homu" laboured among two of the most interesting of the peoples of the 'Papuan' stock, about whom previously there was but scanty and often erroneous information.

Mr. Holmes had a genuine regard for and sympathy with his people, and he recognised that, in order to understand their point of view, it was first necessary to have a thorough command of their language and then to study their customs and beliefs. He wrote short papers on the initiation and religious ideas of the Elema tribes (*J. Anth. Inst.*, 418-431; 1902), on their distribution and history (*J. Anth. Inst.*, 125-134; 1903), on their totemism and social conditions (*Man*, Nos. 2, 10; 1905), and on their toys and games (*J. Roy. Anth. Inst.*, 280-288; 1908). He also published a preliminary study of the Namau language, Purari Delta (*J. Roy. Anth. Inst.*, 124-142; 1913). It was not until 1924 that he collected his observations in a book on a comparison of the Purari and Gulf natives ("In Primitive New Guinea"). Finally, in 1926, he published "Way Back in Papua", in which he attempted in narrative form to give a picture of the old native ways of looking at things and of the effects of the introduction of Christianity.

Unfortunately, Mr. Holmes had received no scientific training, so there is a lack of precision in many aspects of his work; nevertheless, he has given us very valuable accounts of the ethnography of his two areas, and thus he takes an honourable place among those missionaries who have materially added to our knowledge of backward peoples.

A. C. HADDON.

SIR MAX MUSPRATT, Bt.

THE public career of Sir Max Muspratt, who died on April 20 at the age of sixty-two years, is very well known. He was the third generation of a family of chemical manufacturers. His father,

the late E. K. Muspratt, built the Muspratt Laboratory of Physical Chemistry at the University of Liverpool, and Sir Max was brought up in a scientific atmosphere. He was one of the first of the great modern industrialists to receive a chemical education. He was educated at Clifton College, and from there he went to Zurich, where he received the Swiss Government's diploma in applied chemistry.

I have the most lively recollection of lunching with Sir Max Muspratt and Prof. Donnan twenty-seven years ago, on which occasion Sir Max expressed that extraordinary interest in science, an enthusiasm for research, which never left him.

It is not too much to say that Sir Max Muspratt had a large part in bringing about the growth of the large research establishments in which Great Britain can justly pride itself. In spite of the fact that his latter years were clouded by great personal misfortunes, he was always willing and anxious to discuss any scientific subject, not so much as regards its direct practical bearing, but

in general terms. His death is regretted by a far larger number of people than he would have imagined.

F. A. FREETH.

WE regret to announce the following deaths:

Prof. H. G. Chapman, director of cancer research in the University of Sydney, president of the Linnean Society of New South Wales in 1917-18, on May 25, aged fifty-five years.

Prof. G. C. Comstock, emeritus director of the Washburn Observatory and professor of astronomy in the University of Wisconsin, on May 11, aged seventy-nine years.

Prof. Otto J. Kauffmann, emeritus professor of medicine in the University of Birmingham, on May 15, aged seventy-one years.

Prof. J. Y. Simpson, professor of natural science in New College, Edinburgh, known for his work on the re-interpretation of religion in the light of modern biology, on May 20, aged sixty years.

### News and Views

#### King's Birthday Honours

THE King's birthday honours list includes the names of the following men of science and others associated with scientific work and development. *Baron*: Sir Hugo Hirst, chairman and managing director of the General Electric Company, Ltd. *G.B.E.*: Sir John Reith, Director-General of the British Broadcasting Corporation. *K.B.E.*: Dr. F. G. Banting, Dominion of Canada, discoverer of insulin. *Knights*: Major R. G. Archibald, director of the Wellcome Tropical Research Laboratories, Sudan; Mr. A. W. Flux, honorary vice-president (past president) of the Royal Statistical Society; Mr. Albert Howard, lately agricultural adviser to the States in Central India and Rajputana; Dr. W. H. Moberly, vice-chancellor of the University of Manchester; Dr. C. E. Saunders, lately Dominion cerealist, Dominion of Canada, discoverer of Marquis, Ruby, Reward and Garnet Wheat; Prof. G. Elliot Smith, professor of anatomy in the University of London (University College). *C.B.*: Dr. R. E. Stradling, director of Building and Road Research, Department of Scientific and Industrial Research. *C.M.G.*: Mr. A. C. Bagshawe, secretary of the Department of Agriculture and Lands, Southern Rhodesia; Prof. R. S. Troup, director of the Imperial Forestry Institute and professor of forestry in the University of Oxford, for services to forestry in the Colonies. *C.I.E.*: Mr. F. Canning, chief conservator of forests, United Provinces; Mr. P. E. Aitchison, chief conservator of forests, Bombay Presidency; Mr. W. McRae, director and Imperial mycologist, Imperial Institute of Agricultural Research, Pusa. *C.B.E.*: Dr. W. L. Balls, chief botanist, Egyptian Ministry of Agriculture; Mr. L. St. L. Pendred, editor-in-chief of the *Engineer*; Dr. L. J. Spencer, keeper of minerals, British Museum (Natural History).

*O.B.E.*: Dr. S. G. Barker, for research services to the Empire Marketing Board; Mr. A. D. Cotton, keeper of the Herbarium and Library, Royal Botanic Gardens, Kew; Miss E. H. Ekins, principal of Studley Horticultural and Agricultural College for Women; Miss Annie Lorrain-Smith, for contributions to mycology and lichenology; Dr. C. Raeburn, assistant director of the Geological Survey Department, Nigeria. *M.B.E.*: Mr. F. G. Harcourt, curator of the Botanical Gardens and Agricultural Superintendent, Dominica, Leeward Islands; Mr. J. D. Kennedy, sylviculturist, Nigeria. *I.S.O.*: Mr. G. E. Greig, lately senior warden of mines, Federated Malay States.

#### Johann Bauschinger, 1834-93

AMONG those to whom German industry and engineering owed much in the latter part of last century was Johann Bauschinger, who was born on June 11 a century ago. He began life as a school teacher, but became very widely known for his work on the testing of materials. One of a large family of an artisan, Bauschinger was born in Nuremberg and was educated at the Nuremberg Commercial School, and the Polytechnic. He was enabled to proceed to the University of Munich and, after studying mathematics and physics, at the age of twenty-three years he secured a post as teacher in the Commercial School at Fürth, where he spent nine years. He then taught for a time in the Realgymnasium of Munich, and in 1868 was appointed professor of mechanics and graphic statics in the Technical High School there, which henceforth was the scene of his activities. By 1870, he was in possession of a mechanical laboratory where, said Unwin, "Engineering experiments were carried out with a thoroughness and delicate accuracy never previously equalled".