citric acid containing sodium chloride than pure aluminium, which forms a highly protective film; in the latter case the attack is localized⁸ and may take the form of pitting, so that purity is not always an advantage.

It should be added, however, that this is not the only reason why impure metals are sometimes corroded more quickly than pure metals. Commercial zinc is attacked more rapidly by acids than pure zinc because the metallic impurities, passing into solution, are reprecipitated to form cathodes of low 'overpotential', on which hydrogen can readily be liberated.

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OBITUARIES

Dr. Harald Blegvad

THE science of marine biology has suffered a great loss by the death on August 22 of the director of the Danish Biological Station, Dr. Harald Blegvad. Blegvad was born on the small Danish island, Samsø, on July 24, 1886. When he had matriculated at the University of Copenhagen in 1904, he took up the study of natural history; he took the degree of M.Sc. in 1910 and in 1921 he obtained a doctorate for a thesis on the biology of some coastal Gammarids and Mysids.

Already as a student he took part in cruises with Danish research vessels in home waters and in the Atlantic. In 1908 he became assistant at the Danish Biological Station, and in 1931 he succeeded A. C. Johansen as director of the Station.

Blegvad's scientific work centred upon the study of the biology of the marketable fishes and of their food organisms. The long series of papers from his hand bear evidence to his keen eye for the essential points of the problems, and further of his clear understanding of what conclusions the material available allowed. His papers show that he possessed that sober self-criticism which is so indispensable to all true scientific work.

Blegvad combined science and practice, and his services to the fishery industry were manifold. He worked on the transplantations of plaice and cod, on the protection of fishes, and, on trips with fishing vessels, he tried new gear and helped the fishermen to find new fishing grounds. Through his personal contact with fishermen and by publishing popular articles and handbooks, he caused a growing understanding of the value of biological science to the fishery industry.

In the work of the International Council for the Exploration of the Sea, Blegvad played a great part; during 1931-45 he was chairman of the Transition Area Committee and since 1945 he had been general secretary to the Council.

As a result of his international reputation as a fishery expert, Blegvad was often called upon by foreign governments which wished to re-organize their fisheries. In 1928 he acted as fishery expert in Lithuania, during 1936-38 he was for two half-years in Persia, and in 1949 he worked for the Government of Ceylon.

By his friends and colleagues Blegvad was much appreciated for his fine, human qualities. He was kind, true and helpful, and his sudden death by heart-failure caused widespread regret.

ERIK M. POULSEN

Dr. E. G. V. Percival

THE death of Dr. E. G. V. Percival at Edinburgh on September 27, at the early age of forty-three, at the height of his powers as a teacher and investigator, is a serious loss to organic chemistry.

Edmund George Vincent Percival was born at Coalville in 1907 and was educated at King Edward VII Grammar School, Coalville, and at the University of Birmingham. After a brilliant undergraduate career he joined Dr. (now Prof.) W. Wardlaw in researches in inorganic chemistry. This experience was followed by a period with Prof. Harold Hibbert at McGill University, Montreal, where he undertook physico-chemical investigations in the field of cellulose chemistry.

With this wide background Percival returned to Birmingham as research fellow in Sir Norman Haworth's laboratories, where he speedily acquired the interest in carbohydrate chemistry which he maintained so vigorously to the end of his life. In 1933 he was appointed lecturer in chemistry in the University of Edinburgh, and was promoted to a readership in 1948. He was a member of the Faculty of Science, a director of studies and in 1951 he was elected a member of the *Senatus Academicus*. In addition to his University work, Percival gave generously of his services to the Royal Institute of Chemistry, the fellowship of which he had gained in 1936, and to the Society of Chemical Industry. He became a fellow of the Royal Society of Edinburgh in 1938. For many years he took an active interest in the work of the Pharmaceutical Society and of the Scottish Seaweed Research Association. In 1948, when the annual meeting of the Society of Chemical Industry was held in Edinburgh, and again in 1951 on the occasion of the meeting of the British Association, he played a notable part in securing the success of the local arrangements. He served with distinction on many committees, and at the time of his death he was a member of Council of the Chemical Society.

His interests were wide, including travel, gardening, tennis and cricket. He was an inspiring teacher and director of research, fertile in ideas and energetic in their development. In all his dealings he was supremely generous, and his kindness, understanding and loyalty endeared him to his many friends and colleagues.

Percival was the author of some seventy papers, dealing with the chemistry of the sugars. Among his achievements special mention may be made of his part in the elucidation of the structure of vitamin C, his work on the ring structure of osazones, on the alkali addition compounds of the sugars, on the molecular structure of plant seed mucilages, seaweed polysaccharides (notably agar, fucoidin and laminarin) and the naturally occurring fructosans. In all these subjects he had become a recognized authority, and

his book (1950) on the "Structural Chemistry of the Carbohydrates" is a model of its kind.

In 1934 he married E. Elizabeth Kempson, herself a chemist who has collaborated in many of these investigations. She and their two children survive him.

E. L. HIRST

WE regret to announce the following deaths:

Prof. R. B. Denison, formerly principal of Natal University College, and president in 1918 of the South African Chemical Institute.

Prof. Allan Ferguson, until 1945 assistant professor of physics in Queen Mary College, University of London, on November 9, aged seventy-one.

Prof. R. Sekiguti, lately director of the Tokyo Observatory, on August 10.

NEWS and VIEWS

Royal Society: Medal Awards for 1951

THE following awards of medals have been made by the president and the Council of the Royal Society:

Copley Medal to Prof. D. Keilin, Quick professor of biology and director of the Molteno Institute, University of Cambridge, for his fundamental researches in the fields of protozoology, entomology and the biochemistry of enzymes.

Davy Medal to Sir Eric Rideal, professor of chemistry in King's College, University of London, for his distinguished contributions to the subject of surface chemistry.

Hughes Medal to Prof. H. A. Kramers, professor of theoretical physics in the Technical University, Delft, for his distinguished work on the quantum theory, particularly its application to the optical and magnetic properties of matter.

Physics at Leeds:

Dr. J. G. Wilson

DR. JOHN GRAHAM WILSON, reader in physics in the University of Manchester, has been appointed to the second professorship of physics at Leeds (rendered vacant by the succession of Prof. E. C. Stoner to the Cavendish chair, also at Leeds, on the retirement of Prof. R. Whiddington), and is to take up his new duties in June 1952. Dr. Wilson was born at West Hartlepool, Durham, in 1911, and was educated at the Grammar School there and at Sidney Sussex College, Cambridge. He carried out research for three years at the Cavendish Laboratory, Cambridge, under the direction of C. T. R. Wilson. He then joined P. M. S. Blackett as research assistant at Birkbeck College, London, and was later appointed assistant lecturer in the University of Manchester (1938). During the Second World War he was with the Air Ministry and the Ministry of Aircraft Production.

Dr. Wilson's first research was concerned with the development of new forms of expansion apparatus, which figured largely in his pre-war work on cosmic ray physics. He developed new methods of temperature control which made possible high-precision measurements of momentum above and below an absorbing plate placed in a cloud chamber, and, with Blackett, he made extensive measurements of the energy loss of cosmic ray particles in such plates. Since the War, his immediate work has mainly been

in the design, construction and application of the momentum spectrograph for cosmic ray particles which has been built in Manchester. In addition to his papers, Dr. Wilson has written a valuable specialist book, "Principles of Cloud Chamber Technique", and an eminently readable general book, "About Cosmic Rays", and he has edited a volume on "Progress in Cosmic Ray Physics" which is to be published shortly. At Leeds, where most of the research is concerned with the solid state, in its atomic and electronic aspects, Dr. Wilson will greatly strengthen the representation of nuclear physics in the Physics Department. At the same time his keen interest in work with undergraduates will do much to ensure the maintenance of a proper balance between teaching and research.

Veterinary Science in the University of Queensland:

Prof. John Francis

IT is announced that Mr. John Francis has been appointed to the newly-established chair of preventive medicine within the Veterinary Faculty of the University of Queensland. This is the second professorship to be filled since the full five-year veterinary course was re-established in 1950, the earlier one being in animal husbandry (see *Nature*, 166, 136; 1950). The designation of the two senior research and teaching posts within the young faculty in this manner serves to emphasize the present trend in veterinary science. The aim of reducing economic loss and animal suffering is being met by an increased application of pathological and bacteriological knowledge to the prevention of disease, while recent advances in animal physiology and genetics are being applied to increase the efficiency of animal production. Queensland, with nearly eight million cattle, eighteen million sheep and more pigs than any other State of the Commonwealth, and with the majority of its stock within the tropics, possesses many important unsolved epizootiological and ecological problems. The shortage of veterinarians is acute in every Australian State; but it is believed that the development of the Veterinary School of the University of Queensland will in time greatly help to overcome this.

Mr. Francis graduated from the Royal Veterinary College in 1938, having concurrently taken the B.Sc. degree of the University of London. He was for a