

ing a B.S. in chemistry in 1934 and a Ph.D. in organic chemistry in 1938. He joined the Bureau in 1937 and became leader of the group engaged in synthesis of hydrocarbons. During the Second World War he pursued research aimed at improving aviation petrol. Following the War he turned his attention to the study of jet fuel and the phenomena of combustion. He was appointed acting chief of the Engine Fuels Section in 1949, and during that same year was the recipient of the Commerce Department's Silver Medal for Meritorious Service. In

1951 he was appointed chief of the Engine Fuels Section, and remained in that post until 1960, when he was appointed chief of the Pure Substances Section.

Dr. Howard's special fields of interest covered synthesis and purification of organic compounds, petroleum and fuel technology, combustion of fuels, distillation, and automotive antifreezes. He was author and co-author of many technical publications.

Dr. Howard is survived by his wife, two daughters and three sons.

NEWS and VIEWS

Shell's Thornton Research Centre:

Dr. T. M. Sugden, F.R.S.

DR. T. M. SUGDEN has been appointed research director, Thornton Research Centre, Chester. Dr. C. B. Davies will continue to be director, Thornton Research Centre. The Thornton Laboratories are the largest of the five research laboratories operated by "Shell" Research, Ltd., in the United Kingdom. The work of the Thornton Laboratories is concerned with basic and applied research related to oil products. Dr. Sugden has been a reader in physical chemistry in the University of Cambridge. In this capacity he has been responsible for a major contribution to high-temperature chemistry by the development of flame photometric techniques for studying controlled traces of metallic elements and their compounds in flame gases. These techniques proved to be extraordinarily powerful, allowing the development of methods of measuring the stability of many simple compounds of metallic elements at high temperatures, of investigating new types of chemiluminescent reactions, and of determining rate constants for the reactions by which free radicals recombine after their production by chain-type processes.

Some five years ago, Dr. Sugden and his collaborators developed a mass spectrometer capable of sampling ions directly from flame gases. Many interesting species, some positively and some negatively charged, were shown to be associated with the flames of hydrogen and hydrocarbons, with and without metallic additives. Apart from being of great interest to students of chemical kinetics, these results have a practical importance in rocket and magnetohydrodynamics technology. All Dr. Sugden's work has been characterized by determining the essential chemical features of complicated reacting systems and submitting them to quantitative examination by new methods.

The Prix Jecker :

Dr. Léo Marion, F.R.S.

DR. LÉO MARION, vice-president (scientific) of the National Research Council, Canada, has been awarded the Prix Jecker by the Academy of Sciences, Paris, for his work on the structure of alkaloids. Dr. Marion was born in Ottawa. He gained an honours B.Sc. in 1926 and an M.Sc. in 1927 from Queen's University and a Ph.D. degree from McGill University in 1929. The same year he began his career with the National Research Council of Canada, continuing in the field of organic chemistry, principally alkaloids, on which he carried out his post-doctorate work at the University of Vienna in 1934-35. Since 1947, Dr. Marion has served as editor-in-chief of the *Canadian Journals of Research* and, from 1952 until 1963, as editor of the *Canadian Journal of Chemistry*. He also serves on the editorial board of other scientific journals. He became head of the organic chemistry section of the Division of Chemistry in 1943, director of the Division of Pure Chemistry in 1952, senior director in 1960, and vice-president (scientific) of the National Research Council in 1963. Dr. Marion has many honours

to his name, including fellowships of the Royal Society of London, the Royal Society of Canada, the Chemical Institute of Canada (of which he is a past-president), l'Association Canadienne-Française pour l'Avancement des Sciences, and the Chemical Society of Great Britain, and membership of the American Chemical Society. Other honours for his contributions to the field of alkaloid chemistry include the Médaille Léo Pariseau of l'Association Canadienne-Française pour l'Avancement des Sciences, the Palladium Medal of the Chemical Institute of Canada, and the Gold Medal of the Professional Institute of the Public Service of Canada.

Founded in 1851, the Prix Jecker has been awarded, since 1857, to the author of the most useful work on organic chemistry, or to the chemist whose collective works have contributed most to the progress of organic chemistry. The recipient receives a monetary award of 6,500 French francs (1,300 dollars).

Geography in the School of Oriental Studies (University of London):

Prof. C. A. Fisher

PROF. C. A. FISHER, head of the Department of Geography in the University of Sheffield since October 1959, has been appointed to the newly created chair of geography in the School of Oriental Studies in the University of London. A graduate of the University of Cambridge, he first developed special interests in the geography of south-east Asia and far-eastern regions during the Second World War, when he was on active service in Malaya and, later, from 1942 until 1945, a prisoner of war in Japanese-controlled Thailand. These regional interests he has since developed; he has published numerous papers in various journals on aspects of the regional and political geography of eastern Asia and was a joint editor of the text, "Geographical Essays on British Tropical Lands". More recently, in a volume of some eight hundred pages, he has contributed a major work on the social and political geography of south-east Asia, scheduled for publication in January 1964. In 1962 he led the British delegation of geographers attending the regional conference on south-east Asia, organized by the International Geographical Union at Kuala Lumpur. In 1961 he visited Japan in an extended tour, at the invitation of the Japanese Foreign Office, and in 1962 he was appointed as the first director of the Centre of Japanese Studies now attached to the University of Sheffield.

The Defence (Transfer of Functions) Bill

THE Defence (Transfer of Functions) Bill, which received its second reading in the House of Commons on November 21, is intended to implement the proposals of the White Paper published in July to establish a unified Ministry of Defence. Although in moving the second reading Mr. P. Thorneycroft, the Minister of Defence, emphasized the importance he attached in the new organization to having scientists built in the adminis-