

however bluff his comments might be.

Shortly after arriving in New Zealand in 1915, Marsden was commissioned in the New Zealand Engineers. He was seconded to the 1st NZ Expeditionary Force, and embarked for Europe in 1916. He served with distinction in the development and operation of sound-ranging, being twice mentioned in dispatches, and was awarded the Military Cross.

After demobilization in 1919 he returned to his chair. He taught the varied collection of Wellington students with a natural enthusiasm and love of his subject, and persuaded the authorities to build a handsome new laboratory.

Almost as soon as he had launched these developments in physics his human as well as his scientific qualities attracted the attention of the Government. In 1922 he was appointed Deputy Director of Education in New Zealand. He became involved especially in matters connected with science. The need for the systematic organization of scientific and industrial research had become patent, so, in 1926, the New Zealand Department of Scientific and Industrial Research was set up, with Marsden as its first Secretary. He organized the first industrial research associations, promoting research over a wide range of sciences including physics, chemistry, geology, and food and agriculture problems. He inspired the harnessing of thermal energy from the ground, as well as the investigation of the causes of cracks in cheese, poor spreadability in butter, the control of weeds, poor baking quality in wheat, deterioration in frozen meat and chilled fruit cargoes to Britain. During the depression of 1933-39 he stimulated the application of geophysics to the development of New Zealand mineral resources, and new possibilities for the utilization of plant and animal products. Among the successful subjects of re-

search were the treatment of bush sickness, the quality of wheats, and the transport of beef.

In the Second World War Marsden had the leading part in adapting and developing New Zealand's scientific resources to meet the situation. He expanded the Dominion Physical Laboratory, and promoted research in submarine detection. The Radar Development Laboratory which he established supplied US forces in the Pacific with 110 radar sets before these could be provided from home American sources. He originated the Defence Science Corps.

Marsden naturally became the chief representative of New Zealand science on the national and international scene. He became a familiar and much respected figure as Scientific Liaison Officer in London, both in military and civil matters. In 1947 he was appointed New Zealand Government Scientific Adviser in London. As such, he became the chief New Zealand representative in the post-war United Nations scientific developments.

Marsden retired in 1954, but continued an active scientific life up to his seventy-seventh year. He became particularly interested in bioradiation and cancer research. He believed that radioactivity inhaled from tobacco smoke was a cause of lung cancer, the radioactivity being derived from the soil in which the tobacco had been grown.

Marsden was elected a Fellow of the Royal Society in 1946, and President of the Royal Society of New Zealand in 1947. He was knighted in 1958. He received many scientific awards and distinctions, but one which he very specially valued was his presidency of the Rutherford Jubilee International Conference at Manchester in 1961, in celebration of the fiftieth anniversary of the demonstration of the nuclear theory of the atom.

In 1913 Marsden married Margaret Sutcliffe. They had a son and a daughter, both of whom are in New Zealand. He married Joyce Winifred Chote in 1958. He died on December 14, 1970.

Errata

The review in last week's *Nature* by Lancelot Law Whyte "Science and Synthesis" (*Nature*, 234, 159; 1971) was unfortunately published under the wrong bibliography. This should have been as follows: *Science and Synthesis*. (An International Colloquium organized by Unesco on the Tenth Anniversary of the Death of Albert Einstein and Teilhard de Chardin.) Pp. vii+206. (Springer: Berlin and New York, 1971.) 38.50 DM; \$10.50.

In the article by E. A. Barnard, J. Wiekowski and T. H. Chiu on page 207 of this issue, the manuscript was received on June 23 and was not revised as stated.

International Meetings

December 7, **The Determination of Non Metals by Atomic Spectroscopy**, London (Society for Analytical Chemistry, 9-10 Savile Row, London W1X 1AF).

December 14, **Financial Control of R and D**, London (Science Policy Foundation, Benjamin Franklin House, 36 Craven Street, London WC2N 5NG).

December 15, **Public Participation in Highway Planning**, London (Institute of Civil Engineers, Great George Street, London SW1).

December 17, **Applications of Vibrational Spectroscopy to High Polymers**, London (Dr W. O. George, School of Chemical Science and Technology, Kingston Polytechnic, Penrhyn Road, Kingston upon Thames, Surrey).

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