methods in public affairs (and incorporated in 1936 into the British Association), owed much to his untiring activities. At the close of the First World War, the Guild promoted a very successful British Scientific Products Exhibition, as a result of which Gregory was awarded the honour of knighthood.

A list of scientific societies which honoured him by electing him president ranges from the Science Masters' Association (1927), through the Royal Meteorological Society (1928 and 1929), to the Conference of Educational Associations (1931). Finally, just before the ill-fated Dundee meeting of the British Association was abandoned in 1939, he was elected president for the ensuing year and held office throughout the Second World War. During this difficult period he was ever mindful of the Association's affairs and even succeeded in organizing limited meetings at Reading, Manchester and London. Each body with which he became associated from time to time had his enthusiastic attention and support, and profited from his wide knowledge of men and affairs.

In 1931 he was created a baronet. Honorary degrees were conferred on him by the Universities of Leeds, Bristol and St. Andrews; but the scientific honour which he probably prized most was his election as a Fellow of the Royal Society under the rule which empowers the Council to recommend election "for conspicuous service to the cause of science". This was in 1933, when he was recovering from a long illness which had kept him—albeit very unwillingly—from the editorial chair for two to three months. This indeed was the first time since his appointment to Nature that he had been compelled to lay aside his duties and self-imposed tasks for so long a period. Yet even during that time he arranged to see one or the other of his assistant editors to discuss the journal.

It is probably no exaggeration to say that, by correspondence and personal contact, Sir Richard had a wider acquaintance with scientific men throughout the world than any other individual during the first two or three decades of this century. These friendships, many of which were warmly confirmed when visitors from overseas came to Great Britain, were strengthened and extended by three visits, to South Africa (with the British Association), to India and to the United States, where he delivered the Elihu Root Lecture in the Carnegie Institution of Washington in 1938.

Since Sir Richard was within two or three weeks of his seventy-fifth birthday when he retired from the editorship of Nature and took up permanent residence in the charming old Manor House at Middleton-on-Sea, it might have been thought that he would be content to rest from his labours. But as has been said, he sealed his long connexion with the British Association—he had attended practically every meeting for more than fifty years—by accepting the presidency and, as it transpired that this was for a long period (1940-46), he still worked for it while he was supposed to be living in retirement. This was not his only activity. He maintained correspondence with his many friends, and any appeal which seemed to offer a chance of promoting the cause of science or its appreciation was sure of his sympathy and advice. For example, during this period he was largely instrumental in securing the transfer of the Norman Lockyer Observatory at Sidmouth, of which he had been chairman of the governing body for many years, to the University College of the South-West, Exeter, thus ensuring its future. One concluding word: we have tried to give an impression of the intense activity which filled Sir Richard Gregory's life. But he was no mere automaton, for he showed a very human enjoyment of his manifold interests, and we who worked with him always found him a very sympathetic, understanding and kindly man.

Sir Richard was twice married. In 1888 he married Kate Florence Dugan (née Pearn), who died in 1926 after a long and distressing illness; his son and daughter by this marriage both predeceased him. Secondly, in 1931, he married Dorothy Mary, daughter of the late Dr. William Page, general editor of the "Victoria County History", who survives him. Lady Gregory was his constant companion and helper throughout their married life, and her care and attention were a source of much happiness during his declining years.

There are very many of us who held Richard Gregory in close affection-scientists most of us, of all ages, but many with other activities and interests; and we are all feeling very deeply the gap which his going has left in our circle. We could not wish him to linger in his final illness; but, as members of an even much wider community of all who work in science, or are concerned in any way to promote the recognition of its present and future importance in the world, we are feeling sadly bereft of his genial presence, his tireless enthusiasm and his doughty championship. We seem to be looking at the end of a great chapter, with the closing of a long life so completely devoted to science and to all who serve it, during the period in which he watched its amazing development. When we heard his telegram of apology read at Belfast, it was heartening to feel that our gallant old friend still kept so much of his buoyant humour and that the flag of his courage was still flying, in face of the end which he must have known to be near.

A full tribute is being paid elsewhere to his central and most direct service to the progress of science, as the Editor of Nature, and to his other work for scientific education at all levels. We who knew him, however, in the intimacy of friendship, are thinking most now of his cheerful, generous, lovable personality, of his memory filled to overflowing with so rich a variety of knowledge and anecdote, of the racy, inconsequent, garrulous flow of his reminiscences. What a life-story he could have written !- from the days of his early, heroic climbing of the educational ladder—there were no escalators then—until, for well over half a century, he made friendly contacts with Britain's scientists, from the greatest to the least, and with many from other countries. Few, indeed, have been so widely known and trusted. Our deepest sympathy, in her bereavement, is with the brave and gentle comrade who brought him such happiness, and cared for him with such loving devotion in his later years.

H. H. DALE

MAY I be allowed among many others to pay my tribute to the work of Sir Richard Gregory in raising science to its present position in our national life, and particularly in insisting on the need for giving it a higher place in our educational system than it had had before. He early recognized the importance of developing agricultural science in Great Britain, even in the days before it was accepted at the universities as suitable for inclusion in their syllabuses, and he

NATURE

always insisted that agricultural education, widely admitted as necessary at least for countrymen, must be based on sound scientific research.

It will not easily be forgotten at Rothamsted how he helped the appeal for funds that had to be made in 1934 when the Lawes family, owners of the estate which included the experimental fields and the laboratories, found they could retain it no longer but must part with it. The fields were then, in the language of the time, 'ripe for development', and builders were already assessing the possibilities for villa residences; no Treasury grants were available for the purchase; the money had all to be raised privately and quickly, and times were hard. Sir Richard gave the appeal whole-hearted support: he and H. G. Wells jointly wrote a letter to The Times in which with his accustomed lucidity he expressed his views on agricultural science: "whatever may be said of other branches of science", he wrote, "the results of research in agriculture cannot be used for purposes of destruction but only to give mankind knowledge by which the factors that determine the production of food may be effectively guided and controlled for the comfort of all. No higher motive of research than this can be conceived"

This was no mere passing expression of opinion: it was his consistent attitude to the subject and it inspired his friendly attitude to the workers. Critics had sometimes asserted that they should devote themselves mainly to the solution of specific farm problems; he always supported the Rothamsted view that their proper function was to build up a systematic science which should relate the facts and seek the underlying causes; it would then be possible to make better use of the facts than when they were only imperfectly known and understood. He had the personal link with Rothamsted that his only son Edgar, after retiring early from the Indian Army, joined the staff as guide demonstrator and thus became one of the pioneers in the art of presenting agricultural science to two completely different audiences: the countryman who already knows many of the facts, and the townsman who is often completely ignorant of them but who depends for his daily bread on their proper understanding by the right people. I always hoped that father and son might collaborate in producing a simple book setting forth the material in easily understandable language, but Edgar's untimely death and Sir Richard's many other activities prevented this. But his services to agricultural science, though quiet and unobtrusive, remain in the memories of those who E. JOHN RUSSELL knew him.

SIR RICHARD GREGORY was president or chairman of many societies and congresses, including the Royal Meteorological Society, the Geographical Association, and also the British Science Guild until that was merged, at his instance, with the British Association in 1936. His kindly spirit set store by the social contacts of conferences only less strongly than did his eagerness to further the progress of science. It is therefore probably true to say that his first and last love among the societies to which he belonged was for the British Association. Of this he became an annual member in 1896 and a life member in 1901. There was no more regular attendant at its annual meetings than he, and the last of these at which he was seen was that at Edinburgh in 1951. This his poor health compelled him to leave before its finish, and at the recent meeting in Belfast his telegram of greeting to the Council was welcomed with inevitable

Gregory's early activities in the Association were concerned with the establishment of the Section of Educational Science in 1901, and with work on various committees appointed at the instigation of that Section. He acted in due course as a secretary and as recorder of the Section. But his first recorded contribution of a paper was not to the educational but to the Section of Geography in 1908, when he presented geography as "one of the most valuable subjects in a school curriculum", as providing not only intellectual discipline but also the human interest of "the most inspiring literature". theme recurred incidentally in his finely phrased presidential address to the Education Section in 1922.

His presidency of the Association came in 1940, and was unique in having lasted for six years. During the War there were no annual meetings of the Association on the usual scale, but Gregory eagerly supported the conferences arranged in London by the Association's Division for the Social and International Relations of Science, of which at least one, that on "Science and World Order", which brought together not only British speakers but also foreigners of eminence who had found refuge in Britain, attracted attention far outside the meeting-hall, and indeed beyond the confines of science itself. presidential address, too, was given in unique circumstances, the sole public pronouncement at a one-day meeting in 1946 held in the hall of the British Medical Association, since there had not been time to arrange an annual meeting on the full scale immediately after the end of the War. Whatever disappointment Gregory felt at not presiding over such a meeting was concealed in his readiness to serve the Association to the best advantage as judged by those who worked with him, by one of whom this tribute to his memory is gratefully contributed. O. J. R. HOWARTH

## MEMORIAL SERVICE

A memorial service for Sir Richard Gregory will be held in St. Martin-in-the-Fields Church, London, on Friday, October 3, at 12 noon.

## NEWS and VIEWS

Henri Moissan (1852-1907)

BORN in Paris a century ago, on September 28, 1852, Henri Moissan was appointed demonstrator at the École de Pharmacie, Paris, at the age of twentyseven. After obtaining his doctorate in science in 1885, he became professor of toxicology in the following year, and professor of mineral chemistry in 1889. In 1900 he was called to the chair of chemistry at the Sorbonne. He is best known for having isolated and liquefied fluorine, for which he received the La Caze Prize of the Paris Academy of Sciences in 1887, and for his development of the electric furnace, which made possible the reduction of very refractory metals. His preparation in 1893 of minute artificial diamonds by extremely rapid cooling of a solution of carbon in molten iron created a great sensation at the time. He also simplified the production of acetylene. Moissan shared the Hofmann Medal of the German Chemical Society with Sir William Ramsay in 1903 and was awarded the Nobel Prize for Chemistry in 1906. His most important