Sir Richard Gregory, Bart, F.R.S.

WHEN it was decided in 1932 to produce for India a general scientific journal which would command the interest and support of the leading men of science of the country, it was natural that the originators of the project should turn to editors of journals of similar character outside India for advice and help. As a result, Sir Richard Gregory, of *Nature*, Dr. Arnold Berliner of *Die Naturwissenschaften*, and Dr. J. McKeen Cattell of *Science*, agreed to become corresponding editors of *Current Science*. The interest that Sir Richard Gregory then showed in the new Indian journal has continued in the years that have followed; and his retirement at the end of last year from the editorship of *Nature* is an appropriate occasion on which to review his services to science, in India and elsewhere. As his successors on *Nature*, we welcome the invitation of the editor of *Current Science* to attempt such a survey.

To a large extent, the story of Sir Richard Gregory's work for science is bound up with the history of *Nature* during the past forty-five years. He joined the journal in 1893 as sub-editor to Sir Norman Lockyer; but before that he had been a contributor of occasional notes, while he was working at the Royal College of Science as a research assistant to Sir Norman Lockyer. In those early days, as he himself has said, his interests were divided roughly in the ratio of three parts astronomy and one part general science. He was associated at the Royal College of Science with men like T. H. Holland, better known as Sir Thomas Holland, formerly Director of the Geological Survey of India and at present Principal and Vice-Chancellor of the University of Edinburgh, and H. G. Wells, whose reputation as a writer of scientific romances—many of which have proved almost prophetic—and of sociological works, is world-wide. Early efforts at scientific journalism took the form of notes of scientific progress contributed to weekly and monthly magazines. With Sir Richard's appointment to *Nature*, however, his activities began to extend to wider fields. Astronomy began slowly to give way before his growing interest in scientific progress in general. Nevertheless, Sir Richard has always retained his special interest in astronomy, though he would be the first to admit that it no longer holds its early place in his affections.

Sir Richard joined *Nature* at a time when a new era was opening up in science. Lord Rayleigh had recently completed his work on the density of nitrogen, and in association with Sir William Ramsay, traced the discrepancies he observed to the presence in the atmosphere of a hitherto unknown gas, argon. This discovery led to the examination of other sources of nitrogen, with the result that Sir William Ramsay, by means of the spectroscope, found in the mineral cléveite a gas which proved to be identical with an element discovered by Sir Norman Lockyer in the sun twenty-six years earlier and named by him "helium". In 1896, came the discovery of X-rays, by Röntgen, radium was discovered by Pierre and Mme. Curie in 1898, and shortly afterwards the work of Sir J. J. Thomson on the cathode rays, which showed that they consisted of a stream of swiftly moving units of negative charge which were christened "electrons".

The twentieth century began with the tide of discovery in the new sub-microscopic and sub-atomic physics running strongly. Developments during the years that followed have led to complete revision of our views on the structure of matter and on the fundamentals of physics and chemistry and also of biology. *Nature*, under Sir Richard's guiding mind, has played a notable part in this progress, many of the steps of which were first announced in its pages. The well-known section headed "Letters to the Editor" now occupies four times the space it did in the nineties of last century, and it is a recognized place for recording the progress of scientific investigations. The growth of this part of *Nature* has been due in no small degree to Sir Richard's own wide knowledge of science and friendship with its disciples. Keen and critical himself, he has always been willing to give a sympathetic ear to a scientific worker who has honestly attempted a piece of research, and, so far as considerations of space permitted, he has given him the opportunity of describing his results for the information and attention of others. Destructive and discouraging criticism have always received a swift repulse.

This same kindly yet fearlessly judicial mode of approach has characterized the whole of Sir Richard's conduct of *Nature*. In leading articles, controversial issues have been brought forward and lines of action suggested, but always with the object of

advancing science and its application to human affairs. In reviewing books and other publications, he enlisted the aid of leading workers in the subjects under discussion. By these means, he has enhanced the prestige of *Nature*, and indeed of science itself, wherever progressive and enlightened views are acceptable. His reward came in 1933, when he was recovering from a serious illness, with the announcement that he had been made a Fellow of the Royal Society, under a special Rule of the Society, which provides for the election of persons who "either have rendered conspicuous service to the cause of science, or are such that their election would be of signal benefit to the Society".

Scientific workers in India owe a particular debt of gratitude to Sir Richard Gregory. Their work has always been given careful, if critical, consideration, as indexes of *Nature* will quickly show. In this connection it is worth while recalling that the effect now known by Sir C. V. Raman's name was first announced to the scientific world in a communication from him and Prof. K. S. Krishnan which appeared in the columns of *Nature* in 1928, while the original researches of Prof. M. N. Saha and the Allahabad school have also received due notice. For many years, too, the late Sir J. C. Bose used the columns of *Nature* in bringing his many investigations, first in electro-physics and later in plant physiology, to the notice of his scientific colleagues. Support has also been given to such projects as broadcasting in India and to proposals which led to the inauguration of the National Institute of Sciences, while the activities of the Indian Science Congress Association have been followed sympathetically. Sir Richard's personal interest in Indian affairs was much enhanced by his brief but intensive tour of the country in 1933. The knowledge that he thus obtained at first hand of Indian conditions has made a deep and lasting impression on him.

So much, inadequate as it is, for Sir Richard Gregory's work for science through *Nature*. There is another side of his activities which, though equally important, has not received so much attention. His early experiences as a teacher convinced him of the important part played by suitable science text-books in schools. He set to work, therefore, to prepare text-books in which scientific methods of direct observation and experiment were given essential importance, and alone and in association with others, he has written numerous books of this kind and edited many others, all of which are marked by accuracy of statement and practical outlook. Many of these books, which have been published by Messrs. Macmillan & Co., Ltd., will be well known to students and men of science in India. As one of the founders of the *School World*, and joint editor of the *Journal of Education* with which it became incorporated, Sir Richard's influence upon educational progress is appreciated also in fields outside those of natural science.

From his early days Sir Richard has been convinced of the importance of science to the progress of civilization, and he has lost no opportunity in *Nature*, in the lay Press, and on the public platform of pointing out the contribution it can make to the welfare of mankind. For many years he played a leading part in the activities of the British Science Guild, now absorbed in the British Association for the Advancement of Science, and his latest distinction is his election as Chairman of the newly founded Division for the Social and International Relations of Science of the Association. Here he has the difficult task of steering the new Division on its maiden voyages, restraining the eagerness of the over-enthusiastic and stimulating the fearful who seek to draw back whenever science touches on political affairs. There can be little doubt that, in his experienced hands, the Division will be quickly recognised as a forum for the objective discussion of the innumerable borderland topics provided by the impact of progressive science on society.

Sir Richard Gregory, who was within a few weeks of his seventy-fifth birthday when he retired from the editorship of *Nature*, has laid the world under a debt of gratitude for his persistent advocacy of the importance to mankind of the unfettered prosecution of scientific research and its application to everyday affairs. Happily he is still vigorous in body and spirit, and his release from routine duties will enable him to devote yet more attention than in past years to the subject nearest his heart—the gospel of science.

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