

is the discovery and study of natural facts and principles without regard to the social implications of the knowledge gained, can no longer be maintained. It is being widely realised that science cannot be divorced from ethics or rightly absolve itself from the human responsibilities in the application of its discoveries to destructive purposes in war or economic disturbances in times of peace. Men of science can no longer stand aside from the social and political questions involved in the structure which has been built up from the materials provided by them, and which their discoveries may be used to destroy. It is their duty to assist in the establishment of a rational and harmonious social order out of the welter of human conflict into which the world has been thrown through the release of uncontrolled sources of industrial production and of lethal weapons.

In the consideration of the social aspects of science, scientific workers must be capable of appreciating the non-technical problems involved, as well as the scientific and technical issues, if they are to make an effective contribution to the scientific control of civili-

sation. They must, first of all, promote the extension of the application of scientific method to the consideration of social, economic and political questions, so that accurate knowledge may be obtained upon which sound conclusions may be based and progressive policies or programmes established. The task of securing action upon the facts is scarcely one for scientific workers as such; though it is their responsibility as individual private citizens to do all in their power to secure the appropriate action. They have, however, a further public duty which they cannot lightly evade; and that is the task of awakening public opinion to the grave danger incurred in the neglect to take action along the lines indicated by the results of impartial and scientific inquiry. The British Association is assisting to this end at its meetings by the discussions and papers bearing upon the relation between the advance of science and the life of the community.

RICHARD A. GREGORY.

Address given at a luncheon of Nottingham City Business Club on Friday, September 3rd, 1937, in connection with the Annual Meeting of the British Association.

Henry Edward Armstrong.

H. E. ARMSTRONG, a striking personality in chemistry, striking alike for independent-mindedness as for the relentless fervour with which he expounded the results of his labours, passed away on July 13, at the age of ninety (*b.* May 6, 1848). His was a vigorous and active life, and even a week before his death, he is reported to have corrected the proof of a scientific contribution "Ammonolathy—The Life Element", appearing in *Nature* (July 24, 1937), representing "the final expression of the frank and critical views which he held upon the training of chemists and subjects of research". As a critic he was unsparing and provocative, and this he perhaps owed to his illustrious professor, Kolbe. Voluminous and versatile were his contributions to chemistry, which included the studies on structure of naphthalenes, structure of camphor and mechanism of chemical changes. His work on the nature and mode of action of enzymes, in which among others his son E. F. Armstrong collaborated, is to be found recorded in the 23 papers appearing in the *Proceedings of the Royal Society*. He was associated with numerous educational and agricultural bodies.

His favourite hobby was field geology and he was fond of open country and frequent travel. Among his associates, mention may be made of Kipping, Lowry and Forster. He was essentially an individualist and was "somewhat arrogant and extreme perhaps in his denunciations", but was a kind hearted gentleman whose "devotion to chemistry was the master passion of his life". In the connection, *Chemistry and Industry* (July 17, 1937) observes "We venture to think that for a long time, whenever old or middle-aged chemists meet they will think of him with affectionate remembrance and regret that there is no one left who can do so much to give life and vigour to chemical discussion, instruct and to divert chemists and enliven their minds. . . . Other men will make notable advances in the science of chemistry and invent processes of value to industry; others will advocate the proper place for chemistry in our national life. We doubt whether a chemist with so sure a judgement on many chemical matters will again invent a new waist coat of many colours, invent a familiar nick-name for a scientific journal and do so much to brighten our chemical outlook."