

played a much more important part in the history of the principle of the conservation of energy than has been generally assumed till to-day. It begins in the middle of the 18th century and continues uninterrupted till the middle of the 19th. The physiologists were for half a century the keepers of the idea of the identity of heat and work. Julius Robert Mayer and Helmholtz transplanted it into physics to which it naturally belongs. There lay a further interval between the approximate knowledge of the physicians about the

generation of heat by work and the formulation of their equivalence. Julius Robert Mayer lost the credit of the discovery because he could not give any strict proof for the correctness of his ideas, and that in an age which through the failure of Schelling's *Natural Philosophy* was set quite against all speculations without clinching proofs. Helmholtz was of greater consequence, but Joule's work had, in the meanwhile, built for the principle of the conservation of energy a basis resting on experience.

ARNOLD BERLINER.

Professor The Right Honourable Lord Rutherford of Nelson,
O.M., D.Sc., LL.D., Ph.D., F.R.S.

THE news of the sad demise of Lord Rutherford, Cavendish Professor of Experimental Physics and Director, Cavendish Laboratory, since 1919, President elect of the Jubilee Session of the Indian Science Congress, Calcutta, 1938, reached us as we were going to the press. It is with feelings of deep sorrow that we record the obituary of this eminent investigator whose contributions to the scientific thought during the past four decades have been both varied and remarkable, and formed an outstanding feature of the present era. Ernest Rutherford, first Baron of Nelson, Kt., O.M., F.R.S., Nobel Prizeman, was born at Nelson, New Zealand, on 30th August 1871. He was educated at Nelson College, and Canterbury College of the New Zealand University. He then proceeded to the United Kingdom for higher studies and passed the M.A. Degree Examination of the Cambridge University with 1st class honours in Mathematics and Physics in 1893. His record has been all through, one of untarnished brilliance. He was awarded the 1851 Exhibition Scholarship in 1894. He entered the King's College and prosecuted research at the Cavendish Laboratory. His

brilliant researches have brought him "crowded" recognition. Several Universities of Europe and America vied with each other in conferring on him their highest academic distinctions. He was awarded the Rumford Medal (1905), Copley Medal (1924), Albert Medal (1928), Faraday Medal (1930), and he received the Bressa Prize from the Turin Academy of Sciences in 1908. He was President of the Royal Society 1925-30; President, British Association for the Advancement of Science, 1923, Macdonald Professor of Physics, McGill University, Montreal, 1898-1907, Langworthy Professor and Director, Physical Laboratory, University of Manchester, 1907-19 and Fellow of the Trinity College since 1919. He is the author of numerous technical contributions on the Conduction of Electricity through Gases and Radioactivity which adorn the pages of the *Transactions of the Royal Society*, *Philosophical Magazine* and other scientific Journals. Among his other publications mention should be made of: *Radioactivity* (1904), *Radioactive Transformations* (1906), *Radioactive substances and their Radiations* (1912) and *Radiations from Radioactive substances* (1930).



E Rutherford