for Marlow, who remained editor until 1946. But above all, they increased in quality until to-day they stand unrivalled in their own field. Marlow worked his referees hard, and they responded.

By nature, Marlow was ever ready to do people or causes a good turn, and this led to his being much in request just perhaps upon the periphery of his normal avocations. He served the Royal Institution as secretary of the Visitors' Committee, and was a manager at the time of his death. His magnanimous but firm reaction to the abortive proposal of that body to revise its by-laws somewhat drastically was characteristic. He was prepared for change, where change was necessary, but not for ruthless pruning of those noble, rounded phrases of which we shall never see the like again. He delighted in them, and all for which they stood.

In recent years, Marlow took much interest in the Society for Visiting Scientists, and would often be found at its headquarters, lending a friendly hand with whatever was afoot. But in all this, the Faraday Society was Marlow, and Marlow was the Faraday Society; wholly impossible was it to think of one without the other. And that, alas, is what in practice we are obliged to do now. Nobody is irreplaceable, but Marlow's life-line had been approaching the asymptote of indispensability for a number of years, and with its end the margin of contact is seen to be exceptionally narrow

ERIC K. RIDEAL
F. I. G. RAWLINS

Prof. Selig Hecht

THE death of Prof. Selig Hecht in New York on September 18, 1947, at the age of fifty-five, deprives the physiology of vision of one of its most outstanding workers. Hecht was born in Austria and was brought to the United States as a child. He studied and worked in the United States, in England, Germany and Italy. After a broad biological training, he devoted his life to the study of the mechanisms of vision, considered as a branch of general physiology. He became professor of biophysics at Columbia University and made his laboratory an international centre of visual research.

Hecht's main work was concerned with the investigation of the many visual functions in man, such as dark-adaptation, intensity discrimination, acuity and colour vision. He had begun, however, by studying the reaction to light of simple organisms, such as the clam *Mya arenaria*, and he carried out some remarkable experiments on the vision of insects. He also worked on the photochemistry of visual purple. All these researches were inter-connected comparative studies trying to reach the principles of visual response. Hecht's method was quantitative and his experimental standards exacting. The introduction to his lucidly written papers was often a concise but critical synthesis of a mass of literature on the subject, including the early classical work, of which he had an exhaustive knowledge. His aim, he said, was not to add to, but rather to subtract from, the literature on vision.

The leading idea of Hecht's research was that the very first reactions which take place between light and the photo-receptors are bound to determine to a large extent the characteristics of the visual response. He therefore concentrated his attention on these reactions, because they were easier to study than more central processes, especially those in the brain. One result of his work was to establish beyond doubt the duplex nature of the mechanisms of the human retina, corresponding to the division of its photo-receptors into rods and cones. He clarified the relation between the rod visibility curve and the absorption of visual purple, and he devoted much attention to the photo-chemistry and kinetics of the reactions initiated by light in the receptors, introducing the notion of the 'stationary state' of excitation.

Just before the War, Hecht took up with characteristic thoroughness the problem of the minimum energy necessary for vision. He found that a man can see a source of light which delivers to his retina only six quanta or so, absorbed by the visual purple of the rods. Stimuli consisting of such small quantities of light have unique properties; for example, they undergo from one trial to the next uncontrollable variations, which are related to the uncertainty of seeing observed in the measurements.

Hecht worked strenuously on visual research for the American Forces during the War. As he was preparing to return to the study of quantum problems, he died suddenly of a coronary thrombosis.

A painter and a man of discriminating taste, Hecht had many interests. A well-done piece of scientific work would fill him with delight. It was both as a scientific man and as an artist that, for example, he admired Schultze's pioneer work and his drawings of the retina. He was a brilliant lecturer and expositor —he wrote a book entitled "Explaining the Atom". The lack of synthesis discernible in present-day knowledge and teaching perturbed him, and he took an active interest in all the human implications of science. He dealt with persons and ideas on the basis of their intrinsic worth and was always ready to give genuine help, so that he won the affection of all those working with him. Selig Hecht will be mourned by many friends and colleagues throughout the world, and his death is a great loss to science.

M. H. PIRENNE

Prof. M. C. Potter

PROF. N. S. ALEXANDER, Physics Department, Raffles College, Singapore, writes: An interesting link with Victorian science ends with the death at the age of nearly ninety of Prof. M. C. Potter [see *Nature*, April 17, p. 590]. Some time ago, Prof. Potter presented me with a copy of "A Treatise on Hydrostatics and Hydrodynamics" written by his uncle, Dr. Richard Potter, formerly professor of natural philosophy in University College, London. Part 2 of this work was completed in 1880, the author being then eighty-one years of age, and was published by M. C. Potter in 1887. These two lives between them span nearly 150 years.

Richard Potter's book takes one back into the 'caloric' controversy, and his views are sufficiently shown by the following quotations: (*a*) referring among others to Rumford's experiments, "The whole three cases are mills for grinding atmospheric air under pressure with the production of heat from its condensation"; (*b*) "In Mr. Joule's experiments which were performed in air, the effect rising from its presence is entirely neglected, and the phenomena of heat being attributed to the mechanical force applied alone . . . the conclusions drawn from them are erroneous"; (*c*) "c/c' (the ratio of the principal specific heats of a gas) = 1 nearly for small values of δ (the condensation), and the *instantaneous* change