it out of recognition. It was this same gift for simplifying without distortion which he used in his essays, and in his weekly articles in the *Daily Worker*.

In *The Causes of Evolution*, Haldane wrote: "Intense selection favours a variable response to the environment. . . . Were this not so, the world would be much duller than is actually the case". For his friends and colleagues, the world has been a duller place since last December.

JOHN MAYNARD SMITH

Mr. R. E. Garrod

RALPH EDDOWES GARROD, who died on September 25, 1964, was the second son of H. B. Garrod, barrister-at-law of Hampstead, and grandson of Sir Alfred Garrod. He was born on March 29, 1889, and was educated at Oundle and at Clare College, Cambridge. A schoolboy contemporary at Oundle was E. K. Rideal (later Sir Eric Rideal, professor of colloid science, Cambridge). At Cambridge Garrod was a running Blue, and it is of interest to recall that one of his duties in this capacity was to award colours to A. W. Tedder (now Marshal of the Royal Air Force, Lord Tedder). After taking a double first in science, he carried out chemical research on aldol bases under the direction of H. O. Jones. The work was described in two papers contributed to the *Transactions of the Chemical Society* (101, 1376, 1389; 1912).

Garrod then entered industry as a chemist in the fur dressing and dyeing factory of Messrs. C. W. Martin and Sons, Ltd., London, the leading company in this business whose activities dated from 1823. With the chief chemist, J. P. Millington (a former scholar of Christ's College, Cambridge), he carried out investigations on the application of the oxidation type of dyestuff recently introduced by Erdmann in Germany. These dyestuffs, based on *p*-phenylene diamine and aminophenols, were replacing the mordant-wood colours which had been used from the Middle Ages. Millington and Garrod must have been two of the earliest chemists to enter this craft industry whose activities on the fur dressing side stretch back into the mists of pre-history.

During the First World War he combined work at Martins (largely concerned with processing of goat skins for the troops) with censorship duties at the War Office. In 1928, "R. E. G.", as he was known to his colleagues, took over sole responsibility for the technical side of factory operations and was to continue in charge, as chief chemist and later as technical director, until his retirement in 1955.

His work carried the unmistakable imprint of a keen intellect finely disciplined by scientific method. His personal integrity, his wide knowledge of men and affairs, and his shrewd judgments won him the respect and affection of all his associates. He played an outstanding role in the technical successes of his firm, and his influence is still to be felt in the standards he set which continue to guide his successors.

Although he retired as an executive director in 1955, at the request of his co-directors he remained a member of the board and continued in this capacity until his death. He was a member of numerous scientific and technical societies. For many years he was a member of the London Section Committee of the Society of Dyers and Colourists, and also served on the Publications Committee of the Society.

He was a very modest man, and many of his non-professional colleagues and associates were unaware that he represented the third generation of outstanding scientific ability in his family. His grandfather, Sir Alfred Garrod, was a distinguished clinician and pioneer in the application of chemistry to medicine. It was he who first demonstrated the increased concentration of uric acid in the blood of patients with gout. His uncle, Sir Archibald Garrod, a physician at St. Bartholomew's Hospital and later Regius professor of physics, University of Oxford, was the undoubted pioneer of human biochemical genetics. In his famous work, *Inborn Errors of Metabolism*, published early in the century, he developed a series of new concepts about the character of inherited deviations in human biochemistry which are now accepted as part of everyday thought on these matters. His younger brother, whom he predeceased by only a few months, was Air Chief Marshal Sir Guy Garrod.

Ralph Garrod possessed in fine measure the enquiring and analytical mind which characterized the earlier scientific members of his family. He not only applied it in his professional capacity, but also after his retirement it found scope in his interest in local government affairs. He took up residence in Winchelsea, became a Freeman and Jurat of this Cinque Port, and at the time of his death occupied the office of Mayor. At his memorial service high tribute was paid to the invaluable service he had rendered on committees and in his work for the town.

He is survived by his widow, and by the six children of his first marriage. The family scientific and medical tradition is continued by his elder son, who is a consultant physician.

J. L. STOVES

NEWS and VIEWS

Chief Scientific Officer in the Cabinet Office:

Mr. F. H. Allen

MR. F. H. ALLEN, until recently director of the Hydraulics Research Station of the Department of Scientific and Industrial Research, has been appointed Chief Scientific Officer in the Cabinet Office. He will act as principal assistant to Sir Zolly Zuckerman, whose appointment as Scientific Advisor to the Cabinet Office, in addition to his duties as Chief Scientific Adviser in the Ministry of Defence, was announced in October 1964. Mr. Allen graduated with first-class honours in engineering from Trinity College, Dublin, in 1943 and then joined a consortium of consulting engineers in London engaged on the construction of units of Mulberry Harbour for the invasion of Normandy. After the Second World War he was assistant engineer to a firm of civil engineering consultants, Sir Cyril Kirkpatrick and Partners; and early in 1949 he was appointed by the Port of London Authority to take charge of research into siltation in the

Thames estuary—under the general supervision of the newly-formed Hydraulics Research Organization of the Department of Scientific and Industrial Research. Mr. Allen joined the Hydraulics Research Station at Wallingford as assistant director in 1952, and was concerned in particular with research into problems in tidal hydraulics. He was appointed director in 1958. As part of his duties, he travelled extensively in connexion with overseas problems in civil engineering hydraulics, and in 1961 he was elected vice-president of the International Association for Hydraulic Research. Mr. Allen is a member of Council of the Institution of Civil Engineers, and was awarded the Institution's Telford Gold Medal in 1957. He took up his new duties in the Cabinet Office on January 18.

University of Bristol:

Prof. J. E. Harris, C.B.E., F.R.S.

PROF. J. E. HARRIS, professor of zoology in the University of Bristol, has been appointed Vice-Chancellor