

Rapkin found that the fertilization of sea-urchin eggs was connected with changes in sulphhydryl groups. Multiplication of cells depended on their presence. He was thus led to the study of enzymes. He found that the oxidation of sulphhydryl groups was much more rapid when the enzymes were separated from their co-enzymes. He supposed that this was because the co-enzyme was attached to the enzyme in the region of sulphhydryl groups, disturbing the access of oxidizing molecules.

The late Sir Frederick Gowland Hopkins had arrived at similar results in part of the sulphhydryl work. When he heard of Rapkin's work, he withdrew, so that the younger man should be assured of priority.

By 1939, after a hard struggle, Rapkin was scientifically established. He was thirty-five years old, and had arrived at about the same stage as Hopkins at a similar age. There were resemblances between them in unorthodoxy of career and quality of mind. He became a French citizen just before the Second World War. At the outbreak he was mobilized and sent to London to the office of the French coal-importing organisation, where he compiled statistics.

When France was invaded in 1940, Rapkin set himself to save French scientific workers from the enemy. He compiled a list of fifty-seven, whom he endeavoured to rescue. Without any authority other than his own character, he secured the support of the highest scientific and political personalities in London and Washington. He organised the escape of about forty leading scientific workers from France to the United States. He obtained posts for them, and even got their hospital bills paid.

In 1943 Rapkin negotiated an agreement with the British authorities for the establishment of a French Scientific Mission. He brought the group of French scientific workers in the United States to London to be its staff. This enabled France to receive during and after the liberation much new scientific knowledge and experience. As a consequence, a permanent secretary for Franco-British scientific exchanges was attached to the French Embassy in London. In recognition of this work, he was appointed a Chevalier of the Legion of Honour. Rapkin's last act as an administrator was to negotiate a donation of 350,000 dollars from the Rockefeller Foundation for the assistance of research in France.

Rapkin had revealed unique powers of leadership. Nevertheless, he hurried back to personal research. The Pasteur Institute created a Department of Cell Chemistry for him, and he threw himself passionately into its development. He aimed at the solution of the mechanism of enzyme action. He believed that a single enzyme might be capable not only of one specification, but of many. He was organising a co-ordinated attack on this problem.

Rapkin's premature death, on December 13, is a disaster not only to his relatives and friends, but also to science, and to France. He had an extraordinary combination of moral strength, personal charm and intelligence, kindness, generosity and selflessness, besides practical and scientific ability. Many of those who knew him well regarded him as the finest man of his generation. His wife, who assisted him in his scientific work, and his daughter survive him.

J. G. CROWTHER

NEWS and VIEWS

Recent Medal Awards: Geological Society of London

THE Council of the Geological Society has announced the following awards: Wollaston Medal, to Dr. Robert Broom, in recognition of his researches in the field of vertebrate palaeontology, especially in the study of the evolution of the reptiles and of the anthropoid apes and man; Murchison Medal, to Dr. E. M. Anderson, in recognition of his investigations of the igneous, metamorphic and stratigraphical geology of Scotland, and of his many original contributions in the field of geophysics; Lyell Medal, to Dr. W. J. Arkell, for his geological researches, especially on the stratigraphy, structure and palaeontology of the Jurassic rocks of Great Britain; Bigsby Medal, to Prof. W. Q. Kennedy, in recognition of his petrological researches and for his outstanding contributions in the field of tectonic geology; Wollaston Fund, to Mr. E. C. Martin, for his work on the Chalk Tertiary and Pleistocene succession in Sussex, and his valuable contribution to geological science as treasurer of the Geologists' Association for thirteen years, including the war years; Murchison Fund, to Dr. S. O. Agrell, for his work on the adinoles of Dinas Head, Cornwall, and his mineralogical observations on some basic open-hearth slags; a moiety of the Lyell Fund, to Dr. W. D. Evans, for his work on the Ordovician rocks of north Pembrokeshire, on air-borne dusts in collieries and on the

Midland iron-ore of coalfields; another moiety of the Lyell Fund, to Dr. P. E. Kent, for his geological investigations in East Africa and in the United Kingdom.

Royal Astronomical Society

THE Council of the Royal Astronomical Society has made the following awards: Gold Medal to Prof. Sydney Chapman, Sedleian professor of natural philosophy in the University of Oxford, for his contributions to geophysics and solar physics, and particularly to the theory of geomagnetic phenomena; Jackson-Gwilt Medal and Gift to Mr. Algernon Montague Newbegin, for his observations of solar prominences and sunspots during the past forty years.

Institution of Mechanical Engineers

THE James Watt International Medal of the Institution of Mechanical Engineers has been awarded to Dr. Fredrik Ljungström, of Sweden, for his outstanding contributions to the development of mechanical engineering, the most notable of which are the air preheater which bears his name and the steam turbine developed jointly with his brother, the late Birger Ljungström. The Medal is awarded every two years to an engineer who has achieved world-wide eminence in some branch of mechanical engineering.