nexion, and was in part responsible for the biological assays which finally fixed the activity of the international standard preparations. As the result of his work on the standardization of insulin, Marks became interested in statistical analysis in relation to biological assay, and made some important contributions to this aspect of the subject. He was also a microchemist of some standing and had visited Graz in 1925 to attend the special course in this subject which was held there.

Personally Marks was rather shy and was not so well known among his scientific colleagues as might otherwise have been the case. But those who came into contact with him at Hampstead and elsewhere were always attracted by his charm of manner, and it is no exaggeration to say that he never failed to be on good terms with all his many colleagues. The early death of 'H. P.' will leave a gap which will be difficult to fill.

WE regret to announce the following deaths:

Dr. Alexis Carrel, known for his medical researches chiefly at the Rockefeller Institute of Medical Research, New York, aged seventy-one.

Prof. J. H. Priestley, professor of botany in the University of Leeds, on October 31, aged sixty-one.

Dr. D. S. Raitt, naturalist at the Marine Laboratory (Aberdeen) of the Scottish Home Department, on October 4.

NEWS and VIEWS

Royal Society: Medal Awards

THE following awards of Royal Society Medals for 1944 are announced:

Copley Medal to Sir Geoffrey Taylor, Yarrow research professor of the Royal Society, in recognition of his many contributions to aerodynamics, hydrodynamics, and the structure of metals, which have had a profound influence on the advance of physical science and its applications.

Rumford Medal to Dr. H. R. Ricardo, in recognition of his important contributions to research on the internal combustion engine, which have greatly influenced the development of the various types.

Davy Medal to Sir Robert Robertson, lately Government Chemist, in recognition of his researches on explosives, analytical methods, the internal structure of the diamond, and infra-red absorption spectra.

Darwin Medal to Prof. J. Stanley Gardiner, lately professor of zoology and comparative zoology in the University of Cambridge, in recognition of his work on coral reefs and on the organisms associated with such habitats.

Hughes Medal to Prof. G. I. Finch, professor of applied physical chemistry at the Imperial College of Science and Technology, in recognition of his fundamental contributions to the study of the structure and properties of surfaces, and for his important work on the electrical ignition of gases.

Nobel Prize for Physiology and Medicine for 1943: Profs. H. Dam and E. A. Doisy

IT is announced that the Nobel Prize in Medicine for 1943 has been awarded jointly to Prof. Henrik Dam and Prof. E. A. Doisy for work on vitamin K. Looking back, we may recall that it is now fifteen years since the first Nobel Prize given for research on vitamins was shared by Sir Frederick Gowland Hopkins and Prof. C. Eijkman, as a tribute to their pioneer observations in this field of science. Prof. Eijkman had been concerned specifically with one vitamin factor, namely, vitamin B_1; and since then other Nobel Prizes have been awarded at various times for researches on vitamins A, C and certain components of the B complex. It is fitting that the latest prize should mark the completion of an important chapter in nutritional knowledge, namely, that concerned with vitamin K, for it is one of the vitamins, still relatively few, which have so far been proved to have important clinical uses.

It was in 1929 that Dam, working at Copenhagen, recorded haemorrhages which occurred in chicks raised on synthetic diets poor in certain fat-soluble vitamins. In 1934 Dam and Schønheyder concluded that this disorder was due to deficiency of some new vitamin which they not inappropriately called vitamin K ("Koagulations Vitamin"). Soon afterwards they published their fundamental finding regarding the mode of action of vitamin K, namely, that it is concerned in maintaining the normal value of the prothrombin in the blood. In the course of the next year or so, several groups of workers, including Dam, demonstrated the clinical usefulness of vitamin K. It finds its application in two main directions, namely, in preventing the haemorrhagic disease of new-born babies, and in controlling haemorrhages after the surgical treatment of obstructive jaundice, a condition which had often proved fatal in the past. The routine method commonly used for assessing the effectiveness of vitamin K therapy, or detecting the presence of a deficiency, is based on Dam's work, namely, a determination of the level of prothrombin in the blood. Dam, who published his earlier investigations from Copenhagen, has been living in the United States of America since 1940.

The two most important forms of vitamin K occurring naturally are those known as vitamins K_1 and K_2. Like all vitamin-K active substances, they are both naphthoquinone derivatives, and both have been synthesized in recent years. Numerous active synthetic analogues are also known, and now largely replace natural K_1 or K_2 in treatment. The isolation of pure vitamin K_1 was reported in 1939 by Dam in collaboration with Prof. Karrer and their several co-workers; and almost simultaneously Doisy and his colleagues of the University of St. Louis isolated K_2. In the very same year three laboratories independently achieved the synthesis of vitamin K_1, namely those of Doisy, of Almquist and of Fieser. The demonstration of the vitamin activity of the relatively simple compound, 2-methyi-1,4-naphthoquinone, which can be regarded as the prototype of the K vitamins, was due to Ansbacher and Fernholz. In the following year Doisy with his collaborators crowned their chemical studies of the K group by elucidating the structure of vitamin K_2.