

Prof. S. Young, F.R.S.

PROF. SYDNEY YOUNG, after a brief illness, died in a nursing home in Bristol on April 8 at the age of seventy-nine years. He received his training in chemistry at Owens College, Manchester, and the University of Strasbourg, and in 1882 was appointed lecturer under William Ramsay in University College, Bristol. From that date until Ramsay went to London in 1887, he and Young published a series of joint papers dealing with such subjects as evaporation and dissociation, the properties of water and steam, and the thermal properties of many liquids.

It was not, however, until Young was appointed to the chair of chemistry in Bristol in 1887 that the long series of investigations commenced which established his reputation as one of the leading physical chemists of his day. The earlier papers dealt with the generalization of van der Waals, the determination of critical volume and density, the law of Cailletet and Mathias, the thermal properties of iso-pentane, *n*-pentane and *n*-hexane, and the boiling points of different liquids at equal pressures.

The preparation of the substances Young investigated necessitated a new type of still head, and after much experimental work, those he devised and made himself were so remarkably efficient that he was able for the first time to obtain liquids of an exceptional degree of purity, and with them he was able to investigate in a way that had been previously impossible the nature of the lower boiling fractions of American petroleum. The determination of the vapour pressure and boiling points of mixed liquids, such as the lower alcohols and water, and the alcohols, benzene and water, led to the 'azeotropic' method for the preparation of absolute alcohol, which proved of considerable technical importance.

The whole of this fundamental work was characterized by a very high degree of accuracy, and demanded great experimental skill and extraordinary patience. Dr. Young gave an account of this work in "Fractional Distillation", published by Messrs. Macmillan and Co., Ltd., in 1903, and in a second enlarged edition called "Distillation Principles and Processes" in 1922.

It was whilst Young was in Bristol that he was elected to the Royal Society in 1893. In the laboratories there the numbers of students were small, and in consequence both administration and teaching left him ample time for experimental work. Although some of his communications were joint papers with Miss E. C. Fortey, Dr. G. L. Thomas, Dr. F. Francis and Prof. F. R. Barrell, by far the larger number were the result of his own individual work. When he accepted the invitation to the chair of chemistry at Trinity College, Dublin, in 1903, he found the conditions there entirely different, and the large amount of teaching and administration made such heavy demands on his time that his experimental work suffered, although he still made contributions to various societies.

Young was president of Section B (Chemistry) of the British Association at the Cambridge meeting in

1904. "Stoichiometry" was published by Messrs. Longmans, Green and Co., Ltd., in 1908, and a second edition in 1918. In 1917 he was elected one of the vice-presidents of the Chemical Society, and between 1920 and 1925 he served on the Advisory Council of the Department of Scientific and Industrial Research. His work for Trinity College, Dublin, was highly appreciated, and a leading article in the *Irish Times* when he retired stated that "he was a proof that Irish and English mentalities are not among the things which resist combination".

Young's connexion with the Royal Irish Academy, of which he was president in 1921-26, gave him an importance in Ireland's intellectual life, and his tact, kindness and known moderation, together with the able co-operation of his wife, did much to ease a difficult period of transition. On his retirement from Trinity College in 1928, he received a remarkable, and perhaps unique tribute, for on that occasion he was presented with an address containing 210 signatures of old students and eminent men of science from all over the world. They expressed their high appreciation of his work, and wished him many years of leisure. In the last year of his life he was greatly pleased at being elected president of the Manchester University Old Students' Association.

Prof. Young married Grace Martha Kimmins in 1896, and she survives him. They had twin sons, of whom Sydney Vernon was killed in the Great War and Charles Edgar is headmaster of Lincoln School and headmaster designate of Rossall.

Just at a time when preparations are being made to celebrate the hundred and fiftieth anniversary of the birth of the Czech biologist, Jan Evangelista Purkyně (Purkinje) comes the news that his grandson, Prof. Cyril Purkyně, died in Prague on April 5 after a long illness at the age of seventy-four years. Prof. Cyril Purkyně had been professor of geology and mineralogy at Prague Technical University since 1907, after having taught geology and palæontology at Pilsen from 1895 until 1907. Whilst there, he began his work on local geological cartography and this was extended after his appointment as the first director of the Czechoslovak State Geological Institute in 1919.

WE regret to announce the following deaths:

Prof. A. W. Borthwick, O.B.E., first professor of forestry in the University of Aberdeen, and formerly chief research and education officer to the Forestry Commission, on April 19, aged sixty-four years.

Lord Conway, known for his explorations in the Himalayas, Spitsbergen, the Andes, etc., author of many well-known works on exploration and travel, on April 18, aged eighty-one years.

Prof. A. Gravis, emeritus professor of botany in the University of Liège, on January 1.

Sir George Hart, K.B.E., C.I.E., formerly Inspector-General of Forests in India, on April 16, aged seventy-one years.