OBITUARIES

Dr. H. J. van der Bijl, F.R.S.

Dr. Hendrik Johannes van der Bijl, whose death occurred on December 2, was born in 1887. From early childhood he showed that he was of stern stuff and would be different from others. A successful stay at the University of Stellenbosch concluded with a B.Sc. honours degree. He proceeded to Germany, where, at the University of Halle, he obtained the degree of M.A., to be followed later on by the Ph.D. of the University of Leipzig. It was while he was instructor in physics at the Royal School of Technology at Dresden that he came in contact with Prof. R. A. Millikan, who had gone to Germany to deliver a lecture on an aspect of physics with which van der Bijl was also dealing at the time; this meeting laid the foundation for van der Bijl's meteoric career. So impressed was Prof. Millikan that on his return to the United States he advised the Western Electric Company, New York, to employ the serious young South African to pursue research on the triode, which had recently been invented by Lee de Forest, and was just being applied in the fast-developing art of radio.

Van der Bijl's success was remarkable; it came as the result of an indomitable will to accomplish and an uncanny insight into the workings of thermionics, which he had made his special study in Germany. His promotion was deservedly rapid, and he would undoubtedly have left an even greater mark in the United States had he not lent an ear to the cry of his native land in the person of General J. C. Smuts.

So he became technical adviser on industrial development to the Department of Mines and Industries of the Union of South Africa. Apart from a new Weights and Measures Act, he busied himself in the preparation of the proposed Electricity Supply Act of 1922. Like the slumbering industrial giant in the United States which was first awakened by the First World War, so the Union of South Africa was activated from her slow farming and easy gold-mining economy into the first gropings for an industrial economy. Fortunate indeed was it for the Union that it had van der Bijl, with his great natural gifts and unique technical training, his insight into the future, his willingness to dare, his determination to succeed and his genius for planning.

The establishment and success of the South African Iron and Steel Corporation followed in 1928, and by 1947 he had sponsored and developed numerous other projects.

Van der Bijl's early scholastic attainments have already been mentioned; in addition he held the honorary degrees of D.Sc. of the University of Stellenbosch and LL.D. of the University of Cape Town. He was a member of the American Institute of Electrical Engineers, fellow of the Institute of Radio Engineers, fellow of the Royal Society of South Africa, honorary member of the Koninklyk Instituut van Ingenieurs (Holland), foreign associate of the U.S. National Academy of Science, and fellow of the Royal Society. He was also chancellor of the University of Pretoria. He was the author of a large number of scientific and technical works in German and English published in Germany, America and South Africa. His book, "The Thermionic Vacuum Tube, and its Applications", published in 1920, was at the time the best of its kind in the English language.

His industrial career includes a long list of successful chairmanships and directorships. At the time of his death he was chairman of the Electricity Supply Commission, of the South African Iron and Steel Corporation, chairman and managing director of the African Metals Corporation, Ltd., and of many other bodies. As director-general of war supplies and, later, director-general of supplies during the Second World War, he continued and nursed on the road to completion the industrial development of his homeland, which as technical adviser he helped to initiate in 1920. It is worth recording that the British Government consulted him on its proposed bill for the nationalization of the steel industry in Britain.

The confidence South Africa had in his integrity and ability was remarkable, and he inspired all with whom he came in contact with his ebullient optimism and dynamic activity. In the endeavours for the success of his undertakings it was a fight to glorious victory—or destruction. His end came on December 2, at the peak of his career; he was utterly exhausted by a full and exacting life and by a merciless illness.

J. Theo. Hattingh

Rev. J. P. Rowland, S.J.

We regret to record the death of Father James Peter Rowland, until recently director of Stonyhurst Observatory. Father Rowland was a native of Blackburn, born on June 29, 1875; he was educated at Mount St. Mary's College, near Sheffield, and joined the Society of Jesus in September 1894. In October 1919 he was appointed assistant at Stonyhurst Observatory, and became its director in 1932. He was a member of several learned scientific societies, including the Royal Astronomical and Royal Meteorological Societies.

To the general public, especially in East Lancashire, Father Rowland was known chiefly for his weather forecasts, which were published in the local evening papers, and gained a high reputation for accuracy. To the scientific world, however, his work in seismology was of more importance. Considering, indeed, the limitation imposed by a single Milne–Shaw instrument and the difficulties of the situation, Father Rowland's work was remarkable for its accuracy, and won for him a position among the seismologists of Great Britain. He had two notable successes, in the location of the epicentres of the North Sea earthquake of 1931, and the Wensleydale earthquake of 1933, on the latter of which he read a paper before the British Association.

His other work at the Observatory included the routine magnetic observations, the routine solar observations and occasional astronomical work. All these were remarkable for their accuracy, attained in many instances in spite of the difficulties in the accurate use of old-fashioned instruments. It is to be regretted that there is so little published matter connected with his name. In 1933 he published in the *Monthly Notices of the Royal Astronomical Society* the results of his observations of the period of rotation of the planet Saturn, which probably give the value of this as definitively as is at present possible. There are two papers in his name in the *Monthly Notices* on solar and magnetic work, and during his directorship of the Stonyhurst Observatory he was responsible for the Observatory's Annual Report; but apart from these, his publications are no more than brief notes. Nevertheless, in the course of years of routine

observation, especially on sunspots and terrestrial magnetism, he amassed a quantity of material which it is hoped will one day be subjected to profitable analysis.

As a man, Father Rowland had great charm of manner and made many friends, and there was a whimsical mournfulness about him which never failed to amuse those who knew him intimately. He took endless pains to answer the queries of those who wrote to him for information, and in his priestly work was a zealous and sympathetic helper of souls. Towards the end of his life he became rather prematurely aged and enfeebled, and, at the close of 1947, had to retire from all active work. The end came sooner than was expected. He collapsed and was taken to hospital on December 19, and died rather suddenly on the morning of December 26.

We regret to announce the following deaths:

Prof. C. O. Bergstrand, formerly professor of astronomy in the University of Uppsala, on September 27, aged seventy-five.

Prof. Torsten Carleman, professor of mathematics in the University of Stockholm, on January 11, aged fifty-six.

Prof. Walter Garstang, emeritus professor of zoology in the University of Leeds, on February 23, aged eighty-one.

Prof. Douglas Hay, chief mining engineer (management) of the National Coal Board and president of the Institution of Mining Engineers, on February 24, aged sixty.

Prof. Richard C. Tolman, of the California Institute of Technology, vice-chairman of the U.S. National Defense Committee, on August 14, aged sixty-seven.

NEWS and VIEWS

The Crisis in Soviet Science

Last August scientific workers all over the world heard with deep disappointment that the Soviet Union had officially adopted an isolationist attitude on certain branches of biology. For the first time in the U.S.S.R. there was established a 'party line' in one of the natural sciences. Since then there has been speculation as to whether this attitude might extend to other natural sciences, and a recent broadcast from Moscow gives point to these speculations. On January 26, 1949, the philosopher Alexander Alexandrovitch Maximov, who is a corresponding member of the Academy of Sciences, and who belongs to the staff of its Institute of Philosophy, gave a broadcast on the Moscow Radio Home Service. The theme of his talk was the correct Bolshevik attitude to natural science. He attacks those foreign physicists who "regard as synonymous the philosophical definition of matter and the objective idea of reality", and who are responsible for other "idealistic misinterpretations" in relativity and quantum theory. He indicts by name Einstein, Niels Bohr and Heisenberg. He warns his listeners against the "Kantian acrobatics of modern bourgeois atomic physicists". He contrasts the ideology of these "social traitors" in capitalist countries with the scholars in capitalist countries who "raise their voice in support of genuine science, of a scientific materialist outlook"; and he cites with approval Langevin, Joliot-Curie, Blackett, Haldane and Levy. The purpose of the broadcast was twofold: (*a*) to emphasize the importance of a correct philosophical approach to physics, based on Lenin's famous "Materialism and Empiriocriticism", and (*b*) to encourage an attitude of "militant intransigence towards bourgeois idealistic philosophy and sociology".

Botany at Bangor: Prof. D. Thoday, F.R.S.

Prof. D. Thoday retires from the chair of botany at the University College of North Wales, Bangor, on September 30. After graduating at Cambridge, he carried out researches on photosynthesis under the late Dr. F. F. Blackman before going to the University of Manchester as lecturer. Thence he became professor of botany at Cape Town in 1918 and returned to Bangor in 1923. Prof. Thoday has successfully combined arduous teaching duties with active research, in which he has made notable contributions in several fields—the water-relations of plants, plant development and differentiation, and the physiology of succulents. In South Africa he was much interested in the native plants, and several of his investigations concern them; in this connexion he revised the genus *Passerina*. He was president of Section K of the British Association meeting at Dundee in 1939, when he gave a stimulating address on the interpretation of plant structure.

During his tenure at Bangor, Prof. Thoday has seen great developments in his Department, for which he has been chiefly responsible. New laboratories were built in 1926; but these were already congested by 1939 when, owing to the War, accommodation had also to be found for the botany students and staff of University College, London. The latter are grateful for his assistance at a critical time. Plans are now under way for a new building to house the Departments of Botany and Forestry. At Bangor there is intimate contact between these Departments and also that of Agricultural Botany, which Prof. Thoday has greatly fostered, especially as regards instruction in plant physiology and ecology. His staff have made important contributions to the ecology of North Wales and to the algal floras of the area. He has warmly supported Prof. Brambell's plea for a marine biological station on the Menai Straits, now happily being brought to fruition. Both as dean of the College faculty of science and in other ways, Prof. Thoday has taken an active part in College and University administration. On retirement, Prof. Thoday hopes to publish his researches on the developmental physiology and morphology of the mistletoe (*Viscum album*), on which he has been engaged for some years, and to carry out further investigations on other members of the Loranthaceæ in South Africa and elsewhere.

Prof. P. W. Richards

Dr. P. W. Richards, university lecturer and former fellow of Trinity College, Cambridge, has been appointed to succeed Prof. Thoday in the chair of botany at Bangor. His chief interests are in plant ecology and the Bryophyta, and he will have abundant opportunity for their pursuit in one of the richest regions of Great Britain for such studies. Dr. Richards has been a valuable member of the staff of the Cambridge Botany School since 1937, where he has been responsible for the organisation of the practical classes for first- and second-year students and has