

OBITUARIES

13/6
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

10/2
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