

made of the important body of work which he carried out, mainly in conjunction with Ramsauer, on the ionization produced by ultra-violet light, which is not known as widely as it might be.

Lenard was personally a difficult man, whose character contained many contradictions. An intimate friend of mine who knew him well once wrote to me: "Was Lenard betrifft, so ist er so klug und so dumm wie immer". He was profoundly disappointed not to have discovered the Röntgen rays, which he had almost under his hand and would have in all probability found within a year or so of the actual date if Röntgen had not anticipated him. He never used Röntgen's name in referring to the rays. He took as a personal affront any inadequate acknowledgment of his work and was incapable of any generosity or even justice towards anyone who, in his opinion, had failed to appreciate any part of his services to science. Although he owed much of his success to Jews, for example, Hertz and Königsberger, and at one time freely acknowledged the debt, he became a bitter anti-Semite and even treated Einstein as not far from an impostor. He refused to fly the Institute flag at half-mast when Rathenau was murdered and was with difficulty saved from popular indignation. He became a whole-hearted supporter of the Nazi regime and of the 'German physics' movement: in fact, he wrote a book called "Deutsche Physik". Yet he had a kindly side to his nature and was often a pathetic rather than a menacing figure. He possibly felt a deep personal need of friendship which he was unable to win or, if he could win it, to retain. His lack of trust in others, his failure to awaken the self-reliance or sympathy of those working under him were the cause that he did not found a great school of physics. It has been suggested, probably correctly, that the clue to his character was that he

was a weak personality that sought to protect itself by a hard shell.

As an experimental physicist, Lenard was certainly one of the greatest figures of his time. His work on the physics of the electron was distinguished by a masterly experimental technique and his discoveries had a profound influence on the course of physics, in particular his work on the release of electrons by electron impact and by light. Yet he seemed fated never to achieve supreme greatness. He missed the discovery of Röntgen rays; he came near to the discovery of the true structure of the atom, but just went astray, and his work on light emission was the first to indicate the important part which the release and return of the electron played, but left to Bohr the great advance. He was a whole-hearted enthusiast for experimental physics, whose appreciation of the great men of science of the past times was generous and informed, as can be seen from his book "Grosse Naturforscher" (translated into English under the title "Great Men of Science"). He was a dark genius clouded by strong personal fears, doubts and envies, but undoubtedly a genius and one who has left an abiding impression in physics.

E. N. DA C. ANDRADE

WE regret to announce the following deaths:

Dr. C. C. Hurst, of Cambridge, known for his pioneer work in genetics, on December 17, aged seventy-seven.

Sir Bernard Spilsbury, honorary pathologist since 1934 to the Home Office, on December 17, aged seventy.

Mr. Benjamin Talbot, Bessemer medallist in 1908 and president in 1928 of the Iron and Steel Institute, on December 16, aged eighty-three.

NEWS and VIEWS

Committee on Industrial Productivity

IN answer to questions in the House of Commons on plans for further development of scientific research to assist industrial production, Mr. H. Morrison, Lord President of the Council, stated on December 18 that he is advised that, while a major contribution to industrial productivity cannot be expected in the short run from current research in the natural sciences, there are considerable possibilities of increased returns, first from the more widespread application of research already carried out in the natural sciences and technology, and, secondly, from current research in the social science field. He had, therefore, decided, in consultation with the Chancellor of the Exchequer, to supplement the work of the Advisory Council on Scientific Policy by setting up a new Committee on Industrial Productivity. The terms of reference of the Committee are: "To advise the Lord President of the Council and the Chancellor of the Exchequer on the form and scale of research effort in the natural and social sciences which will best assist an early increase in industrial productivity, and further to advise on the manner in which the results of such research can best be applied". The main work of the Committee, of which Sir Henry Tizard will be chairman, will be conducted through a number of panels constituted from time to time to investigate and report on various aspects of the problem. In

the first instance panels are being set up to deal with technology and operational research under the chairmanship of Sir William Stanier; import substitution, under Prof. S. Zuckerman; the human factors affecting industrial productivity, under the chairmanship of Sir George Schuster; and technical information services, under the chairmanship of Dr. Alexander King. The remaining members of the Committee will include one or more employers (chosen in consultation with the F.B.I. and the B.E.C.); one or more trades union members (chosen in consultation with the T.U.C.); Sir Edward Appleton; Sir Claude Gibb; Mr. Hugh Weeks; Mr. Robert Hall; Mr. E. M. Nicholson; Mr. G. B. Blaker; secretary, Mr. E. D. T. Jourdain.

'Flying Wing' Aircraft

INFORMATION has just been released that an aircraft of the 'flying wing' type has completed its trial flights at Bitteswell Aerodrome, near Rugby. It is known as the *A.W.52*, built by Messrs. Armstrong Whitworth to the designs of Mr. J. Lloyd, their chief designer. The aircraft embodies two fundamental principles that have developed out of the general progress of aerodynamic research. The abolition of the tail has long been an ideal to some schools of thought. It sets up considerable drag and does not contribute to the performance of the machine, but is necessary for