

and Prof. A. G. Shenstone; spectroscopy and atomic structure, Prof. G. R. Harrison, Prof. D. R. Hartree and Prof. J. C. Slater. Only the mornings are to be occupied with these topics, the afternoons being left free for informal discussions, the inspection of laboratories, etc. The Conference, it should be noted, is merely the central feature of a summer research gathering of spectroscopists which it is hoped will become an annual feature of the Institute's programme. Already this year a number of investigators have stated their intention of spending some time investigating specific problems with the very complete spectroscopic equipment now available at the Institute.

The British Electrical and Allied Manufacturers' Association ('Beama')

THE 'Beama' (Kingsway, London, W.C.2) has recently published a book entitled "Twenty-One Years" which gives an interesting review of the work done by the British Electrical and Allied Manufacturers' Association since it was founded in 1911. The founders thought that voluntary co-operative action would go far to meet the economic difficulties which at that time were proving a severe handicap to the development of the electrical industry in Great Britain. Practically all the electrical manufacturers in the country are members of this Association. It has done excellent work in introducing order into the commercial relations between its members and its customers. Its opinion has carried great weight when legislation affecting the industry has been proposed. It has promoted far-reaching policies of research and standardisation benefiting engineering in general. The principle behind the Association's activities has been co-operation without the sacrifice of individual initiative. It has succeeded in linking together the manufacturing interests with the leading professional engineering institutions. Mr. D. N. Dunlop has been the director of the Beama since its start and much of its success is due to him. It has done excellent work in providing for the education in Great Britain of students from all countries, particularly from the Dominions. In 1920 it founded a research association which has done excellent work. During the past few years electrical manufacturers have begun to increase their exports to Europe, a sign of competitive efficiency. The Association took a leading part in encouraging the World Power Conference and also in encouraging the National Grid Scheme, the largest electrical achievement in the world.

The National Physical Laboratory

THE report of the National Physical Laboratory for the year 1932 is an illustrated volume of 277 pages which gives a short account of the activities of each department of the Laboratory. Owing to the trade depression, the number of investigations carried out for industry and the number of routine tests have fallen off, and the resulting diminution of income has necessitated reduction of expenditure on materials and equipment, and leaving vacancies on the staff caused by resignations unfilled. The new tank for

ship tests has been completed, the acoustics building is nearly ready and the new wind tunnel for high speed tests is well in hand. The erection of the photometry building has been postponed. A gift of £5,000 has been received from Sir James Lithgow for a propeller water tunnel in the Froude Laboratory. In addition to eighty reports and memoranda on aerodynamical subjects, ninety-one official and twenty unofficial papers on other branches of the work of the Laboratory have been published in scientific and technical journals during the year, and they afford ample evidence that the Laboratory is taking a prominent part in the advance of science and industry.

Physics in American Industry

IN connexion with an editorial note in the April issue of the *Review of Scientific Instruments*, American manufacturers are urged to keep in touch with the fundamental science of physics in all industries which deal with the mechanical and electrical properties of materials, the flow of heat, the use of colour and the reproduction of sound; and some useful information is given as to the means at present available for securing this contact. The *Review*, which is published monthly, goes free to every member of five scientific societies and at a reduced subscription to any person who already subscribes to one of the seven other journals dealing with physics, which are published in the United States. A large proportion of the five to six thousand copies of the *Review* goes into the hands of people associated in one way or other with manufacturers, but the editors consider that in the interest of industry many more copies should be utilised in this way. It is hoped that the association of local physical societies with the recently formed American Institute of Physics will help to link physics and industry more closely throughout the United States.

Science and Education in Poland

THE two outstanding contributions in vol. 16 of *Nauka Polska*, an annual publication devoted to studies in science and letters in Poland, are "The New Trends in Scientific Thought" by Prof. C. Białobrzewski and "The Promotion of Education in the Provinces of Podolia, Volhynia and the Ukraine before the Partition of Poland" by Prof. A. Knot. Prof. Białobrzewski is concerned mainly with the philosophical outlook and with recent developments in psychology, but he also remarks upon the progress now taking place in various branches of physics. He asserts that one epoch in the history of science has just closed and that another, more definitely creative, is beginning. Prof. Knot's account of the early educational facilities in south-east Poland is a well-documented article. The author has traced the development of educational institutions in these remote districts from the fourteenth century to the close of the eighteenth, when the kingdom of Poland was completely partitioned between Russia, Prussia and Austria. Mention is also made in this number of *Nauka Polska* of the celebrations held at Warsaw last year, commemorating the fifty years' existence of the Mianowski Institute. Among the notes from