

tion summed up recently in a book he wrote with K. M. Case and F. de Hoffmann. Since the end of the Second World War, his main interest has been in the scattering of neutrons by solids and liquids, which is important both for its contribution to neutron physics (it made possible the interpretation of experiments on neutron-electron interaction) and for its application to the study of solid state.

In each field his work was characterized by a penetrating thoroughness. He would not leave a problem so long as there was an important difficulty unsolved or a major relation not thought out. He always used simple techniques where possible, and usually used symmetry principles and classical laws for results where others might have tried much more elaborate methods.

His standards were high, and he had no patience with slipshod arguments either in his own work or

in that of others. He did not suffer fools gladly, and this is probably why he had no enthusiasm for teaching, and had only a few pupils. But to those, and to others on his own level, discussions with him were always inspiring.

But what will be remembered of Placzek above all was his personal charm, his width of intense interest and his erudition, his understanding of people, and his integrity. He would have no more patience with slackness of moral principles than with sloppy mathematics, and he would not pay attention to the effect his principles would have on his personal convenience.

In his later years he was much troubled with ill-health, and for much of the time he would not have been able to keep his work going but for his iron determination, and for the care, and the vitality, of his wife.  
R. E. PEIERLS

## NEWS and VIEWS

British Cotton Industry Research Association:

Dr. F. C. Toy, C.B.E.

THE Council of the British Cotton Industry Research Association has announced that Dr. F. C. Toy will be retiring from his position as director of research at the end of this year. He was first appointed in 1944, having previously served for thirteen years as deputy director under the late Sir Robert Pickard. During his directorship, the Shirley Institute has expanded considerably to meet the increasing and changing demands of the industry it serves, and it is due largely to his wise and able direction that, by the quality and value of its work, the Institute is now generally recognized in industrial and scientific circles alike as the leading textile research association in the world. Although the main feature of the advances made under his influence has been the wider appreciation and utilization in the Lancashire textile industry of the practical results of research, he has remained true to his conviction that technological advances must ultimately be based on fundamental research, and he has ensured that a steady flow of such work has been maintained. This is reflected in the fact that the scientific standing of the Institute was never higher than it is to-day. Dr. Toy has the gift of stimulating interest and enlisting the support not only of those working under him, but also of those with whom he comes in contact, and it is not surprising, therefore, that he has won the respect of his staff, and of men at all levels in the Lancashire industry. The national importance of his work was recognized by the award of the C.B.E. in 1947.

The heavy responsibilities of his office have not lessened Dr. Toy's interest in his own subject of physics, and throughout his career he has taken an active part in the affairs of the Institute of Physics, culminating in his appointment as president for the period 1948-50. He has also taken a leading part in the activities of the well-known Manchester Statistical Society, of which he was the president during 1951-53. Although Dr. Toy leaves the Institute to the care of a younger man, he himself is undiminished in vigour of mind and body, and while one sympathizes with his desire to relax a little, one hopes that the great services he is yet able to render both science and industry will not be lost to the country.

Dr. D. W. Hill

DR. D. W. HILL, who succeeds Dr. Toy as director of the British Cotton Industry Research Association, joined the staff of the Shirley Institute in 1937 and was appointed deputy director in 1944; and it is a source of pleasure to the industry and to the staff of the Institute that he will be able to continue and extend the work which he has shared with the director for the past twelve years. Dr. Hill was born in Bristol, and is a chemist by training, having graduated from the University of Bristol with first-class honours in chemistry in 1924. After academic work in Liverpool and three years in the research laboratories of Messrs. Boots Pure Drug Co., Nottingham, he spent three years with a Commonwealth Fund Fellowship first at the University of Illinois and then at the Rockefeller Institute. Then came a year in the University of Bonn, followed by two years as special lecturer in chemistry in the Universities of Bristol and Exeter.

With this background of academic and industrial research, Dr. Hill was appointed to an administrative position at the Shirley Institute in 1937; but in 1940 was seconded to the Cotton Control, working in Manchester and London, and also for a time in the United States. He returned to the Shirley Institute in 1944 as deputy director. Dr. Hill's two books, "The Impact and Value of Science" (1944) and "Co-operative Research in Industry" (1946), are well known, and prove his complete faith in the value of co-operative research as it has been developed in Britain. He is fully convinced of the need for the carrying out of fundamental research by a research association serving what is still largely a craft industry, but is also very conscious of the need to apply the results of such research as quickly as possible to the special requirements of that industry. These are difficult times in Lancashire, but it is Dr. Hill's conviction that the greater the difficulties the better the opportunity for proving the value of scientific and technological research.

Thomas Graham (1805-69)

THOMAS GRAHAM, whose discoveries in chemistry and physics had far-reaching effects on modern physiology, was born at Glasgow one hundred and fifty years ago on December 20, 1805. He studied