

been in the field of mechanical vibration and his published work has been concerned mainly with the vibration of cylindrical shells and plates, and the propagation of ground vibration from machines to structures. The former work has been used in the determination of natural frequencies of aircraft, missiles and submarines.

#### Liverpool Observatory and Tidal Institute:

Dr. A. T. Doodson, C.B.E., F.R.S.

DR. A. T. DOODSON has recently retired from the directorship of the Liverpool Observatory and Tidal Institute. After graduating from the University of Liverpool in 1912, Doodson spent a short time in the electrical industry. During the First World War, he worked with Prof. Karl Pearson on problems which included the trajectories of anti-aircraft missiles. The Tidal Institute was formed in 1919 on the initiative of Prof. J. Proudman, who became the director, with Doodson as secretary. When the Institute was combined with the Liverpool Observatory in 1929, Dr. Doodson became associate director of the joint institution, and later, in 1946, its director. A paper published by Doodson in 1921, giving a complete revision of G. H. Darwin's schedule of the harmonic constituents of the tides, provided the foundation for much of his later work on tidal analysis and prediction. In collaboration with Proudman, Doodson developed methods for the construction of co-tidal charts based on observed tidal elevations and currents. They also published a series of papers on the theory of tides in oceans bounded by meridians. Another line of research, started by Doodson in 1923, on the meteorological effects on tides, has led to important advances in methods of forecasting storm surges. At the same time as he was carrying out research, Doodson greatly extended the routine prediction work, and to-day the Tidal Institute provides tidal predictions for nearly all the countries of the Commonwealth. Dr. Doodson was elected a Fellow of the Royal Society in 1933, honorary Fellow of the Royal Society of Edinburgh in 1953, and in 1955 was made C.B.E. In addition to serving on several national committees, he has taken a prominent part in the activities of the International Association of Physical Oceanography and the International Union of Geodesy and Geophysics.

#### British Economic Growth

A RECENT broadsheet issued by Political and Economic Planning, entitled "The Growing Economy—Britain, Western Germany and France", discusses the main factors influencing the development of industrial production and is adapted from the findings of a group which over the past three years has been working on problems of adaptation and change in British industry (26, No. 445; 17th October, 1960. Pp. 281–308. London: Political and Economic Planning, 1960. 3s. 6d.). These findings are to be published in a forthcoming report which, assuming that economic growth is a proper object of policy, considers the conditions for achieving a rate of growth comparable with that of other Western industrial nations. After comparing levels of industrial activity and growth in the principal West European countries and the United States, the broadsheet examines the role of capital in economic growth and then considers the structure and achievement of the economies of Western Germany and France, respectively. In contrast to British policy, French and German

economic policies have had marked success in stimulating economic growth, and the main conclusion of the broadsheet is that, in view of Britain's record since the War, priority must be given to the task of increasing the rate of growth. Specific suggestions include giving a high priority to measures which will encourage the release of workers from some industries and their rapid absorption by industries which need more labour. This involves stimulating industrial research into labour-saving methods, expanding educational facilities for scientists and technologists and participating in the organization of schemes to provide compensation for loss of employment, and to overcome obstacles to movement between jobs, such as housing difficulties, removal costs and re-training problems. It is urged that the trade union movement in Britain needs to be much more closely associated with the other organs of government and power in the attainment of the national economic objectives, above all, of economic growth. Publication of a more consistent series of plans governing the public sector would, it is suggested, go a long way towards providing private firms with the kind of assurance they need about the future growth of the economy, and it is probable that the economy would benefit if the Government exercised a more, rather than a less, positive influence over the investment planning of the private sector.

#### British Conference on Automation and Computation

THE rapid growth of automation in Britain led to a decision in 1957 (see *Nature*, 179, 948; 1957) by some twenty bodies having interests in this field to set up a central organization to provide more effective liaison between the interested bodies, to be known as the British Conference on Automation and Computation. The Conference was divided into three autonomous Groups, as follows: (1) the British Group for the Engineering Applications of Automation; (2) the British Group for Computation and Automatic Control; (3) the British Group for the Sociological and Economic Aspects of Automation Techniques. At meetings of the three Groups held on October 10, it was agreed that they should merge in a reconstituted organization. Sir Walter Puckey was elected chairman of the new Conference, with Messrs. L. T. Blakeman, J. F. Coales and H. G. Conway as vice-chairmen. Mr. S. M. Rix was elected honorary treasurer and Mr. W. K. Brasher (secretary of the Institution of Electrical Engineers, Savoy Place, London, W.C.2) as honorary secretary. The following representatives were elected to serve with the honorary officers as the Executive Committee: Dr. E. H. Bateman (Institution of Structural Engineers), W. J. Carron (Trades Union Congress), E. C. Clear Hill (British Computer Society, Ltd.), W. C. F. Hessenberg (Iron and Steel Institute), Prof. G. D. S. MacLellan (Institution of Mechanical Engineers), Prof. P. B. Morice (Institution of Civil Engineers), Sir Charles Norris (British Productivity Council), Prof. E. J. Richards (Royal Aeronautical Society), E. S. Sellers (Institution of Chemical Engineers).

#### The Wildfowl Trust

ALTHOUGH there were no major developments in 1958–59, the eleventh annual report of the Wildfowl Trust, by Hugh Boyd and Peter Scott, is once more a chronicle of satisfactory progress and development (Pp. 167+32 plates. (Slimbridge, Gloucestershire :