

at the Bureau until very recently. During this period, he published important papers on such diverse subjects as negative pressures in liquid and the dynamics of a curving baseball. He also served as chairman of the research committee of the National Geographic Society.

Dr. Briggs was born near Battle Creek, Michigan, and received a bachelor degree from Michigan State College at the age of nineteen. He was awarded a master of science degree in physics from the University of Michigan

and a Ph.D. from Johns Hopkins University. For many years, Dr. Briggs was a member of the National Advisory Committee for Aeronautics (the predecessor of National Aeronautics and Space Administration) and vice-chairman in 1942. He was a director of the American Standards Association and a member of the American Physical Society, Washington Academy of Sciences, Philosophical Society of Washington, American Philosophical Society, and the U.S. National Academy of Sciences.

## NEWS and VIEWS

### Central Electricity Generating Board:

Dr. T. E. Allibone, C.B.E., F.R.S.

DR. T. E. ALLIBONE has been appointed chief scientist of the Central Electricity Generating Board, as from October 1. Dr. Allibone was educated in the University of Sheffield and Gonville and Caius College, Cambridge. During 1926-30 he was the 1851 Exhibition Senior Student, Cavendish Laboratory, Cambridge. He joined the Metropolitan-Vickers Electrical Co., Manchester, where he was in charge of the High Voltage Laboratory until 1946. From 1944 until 1945 he was also a member of the British Mission on Atomic Energy, Berkeley, California, and Oakridge, Tennessee. Until recently, he was director of the Research Laboratory of Associated Electrical Industries, Ltd., at Aldermaston Court, Berkshire, and is a director of A.E.I. (Woolwich), Ltd.

### Chemistry at St. Andrews : Prof. J. I. G. Cadogan

DR. J. I. G. CADOGAN, at present lecturer in chemistry at King's College, London, has been appointed to the Purdie chair of chemistry in St. Salvator's College, St. Andrews, in succession to the late Prof. J. Read (see *Nature*, 198, 336; 1963) from October 1, 1963. Dr. Cadogan, who is thirty-three, obtained first class honours in chemistry at King's College, London, in 1951, and obtained a Ph.D. degree at the same College in 1954. Between 1954 and 1956, Dr. Cadogan held junior and senior Civil Service Commission Research Fellowships at the Chemical Defence Experimental Establishment, Porton, Wiltshire. Since 1956, Dr. Cadogan has been lecturer in chemistry at King's College, London. In 1959 he was Meldola medallist of the Royal Institute of Chemistry and the Society of Maccabees. In 1961 he was appointed to the War Office Advisory Council on Scientific Research and Technical Development and was also elected to the fellowship of the Royal Institute of Chemistry.

### Veterinary Biology at Massey University College :

Dr. D. A. Titchen

DR. D. A. TITCHEN, at present a university lecturer in veterinary physiology at the Physiological Laboratory, Cambridge, has been appointed to the new chair of veterinary biology at the Massey University College, Palmerston North, New Zealand. After qualifying in veterinary science at Sydney, Dr. Titchen went to Emmanuel College, Cambridge, in 1948, to read for the Part 2 Course in Physiology, and then proceeded to a Ph.D. in 1954. In the same year he was elected to a research fellowship of his College, and in 1958 to an official fellowship. Dr. Titchen's research has been primarily concerned with the elucidation of the causes of the movements of the complex stomach of the ruminant. His early work on decerebrate preparations largely defined the various afferent stimuli which arise in the stomach and lead to reflex excitation or inhibition of the movements of the different compartments. Latterly he has been able to demonstrate by a series of ingenious experiments the sequence of contractions in the conscious

animal in much greater detail than has hitherto been possible. His work has always characteristically shown an ingenious and clear approach and he has always been careful to show its relation to classical physiology. Dr. Titchen, with his experience in teaching physiology to all types of natural scientists at different levels, is well qualified to occupy this new chair and to start a course in which a fresh and interesting approach is to be made to the study of pre-clinical subjects by the veterinary student.

### U.S. Federal Funds for Science

THE eleventh report in the annual *Federal Funds for Science* series covers the fiscal years 1961, 1962 and 1963 (Pp. ix+161. Washington, D.C. Government Printing Office, 1963. 1 dollar). It reflects an unprecedented increase in Government funds for science and technology, which at 14,400 million dollars for research and development and 12,300 million dollars for plant for that purpose in 1963 was expected to triple the outlay by the Government during the five years of the Second World War. The major increase in 1963, 368 million dollars, is for the Department of Defence. Besides a further 24 million dollars for the Department of Commerce, chiefly for research and development plant facilities, there were significant increases in research and development funds for the Atomic Energy Commission and the Department of Health, Education and Welfare. The total increase on 1962 is 3,500 million dollars. Four agencies account for 95 per cent of the total Federal estimate for research and development in 1963. About two-thirds of the national funds for research and development came from the Federal Government in 1960-61, when in terms of funds industry was responsible for 75 per cent of research and development in the United States: Federal agencies contributed 15 per cent for intra-mural work and 10 per cent for work by colleges and universities and non-profit institutions. In 1959-60 some 70 per cent of research and development funds went for development, about 20 per cent for applied research and 9 per cent for basic research. Almost 60 per cent of funds for basic research in 1960-61 were from the Federal Government, industry providing about 25 per cent. Academic institutions were responsible for about 46 per cent of the basic research effort in 1960-61, industry for 31 per cent and Federal institutions for 15 per cent. Of the 1963 estimates for research and development, 65 per cent is for industry, 12 per cent for colleges and universities, 19 per cent for Federal laboratories, facilities and administration, and 4 per cent for non-profit institutions, etc.

### U.S. Center for Educational Apparatus

PROF. F. E. CHRISTENSEN, of St. Olaf College in Northfield, Minnesota, has been appointed head of the new Center for Educational Apparatus in Physics, which will begin operations early this summer. The Center is a joint project of the American Association of Physics Teachers and the American Institute of Physics and is supported by a grant from the National Science Foundation. It