Sir Joseph Barcroft, C.B.E., F.R.S.

On March 21 Sir Joseph Barcroft died suddenly at Cambridge from a heart attack. He had been hurrying to catch the bus which took him home from the Physiological Laboratory; he was seventy-four, and arthritis had begun to make cycling difficult, but this was the only sign that he was no longer as vigorous as ever. His occasional lectures were no less stimulating, he was an inspiring chairman of the newly formed Nutrition Society, an active member of countless committees, and after fifty years of research he could still open up unexplored fields and arouse the enthusiasm of the students who crowded his laboratory. He had just finished his yearly researches on the embryo sheep and had seen the publication of his new volume on fœtal physiology, "Researches on Pre-Natal Life" (see review by Dr. F. H. A. Marshall in *Nature* of March 22). He would have faced retirement philosophically; but his friends may be glad that he had no need to become inactive.

Barcroft was born on July 26, 1872, son of the late Henry Barcroft, of Newry, Co. Down. His family were Quakers, settled in Ireland since the seventeenth century, and their way of life must have been partly responsible for his calm but unrelenting pursuit of knowledge. He went to Bootham School, York, and then to the Leys School, Cambridge, entering King's College, Cambridge, in 1894. After a first class in both parts of the Natural Sciences Tripos he became demonstrator in physiology to Prof. Langley. In 1915 and again in 1939 he left academic physiology to work on the problems of gas warfare, but the rest of his life was spent in Cambridge, as professor of physiology from 1925 until 1937, and as director of the Agricultural Research Council Research Unit in Animal Physiology from 1941 onwards.

His work in physiology was always that of a pioneer; he had a genius for finding uncharted territory even in the most familiar regions, and for solving well-worn problems by an approach at a new angle. There are three major fields in which his work is classical: the physical chemistry of oxyhæmoglobin, the distribution of the blood between the storage depots and the circulation, and the physiology of fœtal life. In all three he set the fashion in current physiological research, but though many workers came to him for inspiration at each stage in his scientific career, he refused to become the specialist, and moved on as soon as he was satisfied that the main outlines were settled. He settled them by simple methods and simple ideas, leaving the complexities to be cleared up by those who understood them, but very rarely misjudging the main issues. He had, in fact, a wide range of scientific knowledge at his disposal and was at home with physical and chemical as well as biological ideas; but he knew the plain speech of the Quakers and wrote and spoke as a plain man with no claim to superior learning. He used to quote with delight the tribute of a foreign physiologist who said: "I like your book, Barcroft. It is so clearly wrotten!"

Besides their clarity, Barcroft's books are written with an engaging friendliness. They speak of yachting, travel and companions as accessories to physiological research, and no one who reads them will wonder at the constant stream of young men who came to him for training and encouragement. He was never at a loss for problems suited to the beginner or to the senior colleague; he knew where to go for help when some new technique was needed, whether its home was in Cambridge or abroad, and he could always attract a small army of collaborators when one of his major investigations was afoot.

Many honours came to Barcroft, including the Copley Medal of the Royal Society. Though he worked very hard, he was never too busy to help those who came to him for advice, and many did so. He could be relied on to introduce a speaker or propose a toast with a charming blend of humour and good sense, and in a private gathering he was the best of company. His sturdy figure will be greatly missed at the forthcoming International Congress of Physiology, for he had become one of the elder statesmen of the science, although he was never out of touch with the rank and file. There must be laboratories in all parts of the world where Barcroft will be remembered with esteem and affection for his personal qualities even more than for his great achievement as a physiologist. E. D. Adrian

---

We regret to announce the following deaths:

Mr. W. J. Bean, C.V.O., formerly curator of the Royal Botanic Gardens, Kew, on April 19, aged eighty-three.

Dr. J. D. Falconer, formerly director of the Geological Survey of Nigeria, on April 16, aged seventy.

NEWS and VIEWS

Reports on Penicillin

The Medical Research Council, acting on the advice of its Committee for Penicillin Synthesis, is making available for consultation by interested persons a number of reports on penicillin. In October 1943, when many of the structural features of the penicillin molecule were becoming clear through the work carried out in Great Britain, the problem of the synthesis became a pressing one, and to handle this aspect, the Medical Research Council set up a Committee for Penicillin Synthesis "to initiate, co-ordinate and make investigations on the synthesis of penicillin and analogues". At the same time the Committee for Medical Research of the Office of Scientific Research and Development in Washington, which had already undertaken the co-ordination of chemical work on penicillin in the United States, came to an agreement with the Medical Research Council for an exchange of information on anything which had a bearing on the problem of the synthesis of penicillin. The confidential reports which were issued and exchanged are known in Great Britain as the C.P.S. reports. A number of reports known as the Pen. reports and sponsored by the Therapeutic Research Corporation of Great Britain contain much information of historical value on the earlier work carried out on the structure of penicillin.

All these reports, together with others sponsored by Imperial Chemical (Pharmaceuticals) Ltd., Merck and Co. Inc., and the Squibb Institute for Medical Research, are now available for consultation in certain libraries in Great Britain. In the London

area the reports may be consulted in the libraries of the Royal Society; National Institute for Medical Research; British Drug Houses, Ltd.; Glaxo Laboratories, Ltd.; Wellcome Chemical Research Laboratories, Beckenham; May and Baker, Ltd., Dagenham; and in the provinces in the libraries of the Universities of Birmingham, Bristol, Cambridge, Glasgow, Manchester and Oxford. In the Nottingham area the reports may be consulted in the library of Boots Pure Drug Co., Ltd. The information contained in these reports cannot be made the subject of any publication before the Penicillin Monograph appears later in the year.

Biochemistry at Guy's Hospital Medical School: Prof. R. H. S. Thompson

THE appointment of Dr. R. H. S. Thompson to the new University chair of chemical pathology at Guy's Hospital Medical School, London, is no surprise to those acquainted with his work. During the course of a distinguished career, he has been concerned in some twenty-nine publications covering several aspects of biochemistry. As a Millard scholar of Trinity College, Oxford, he early showed promise and became senior demy of Magdalen College in 1933. At this time he worked with Prof. R. A. Peters upon the role of vitamin B_1 in the metabolism of pyruvic acid in brain; extending the work (with R. E. Johnson) to the important observation, now applied clinically, of increased pyruvic acid in blood in the terminal conditions of this deficiency. Following this, as a scholar at Guy's Hospital, he was awarded the Laidlaw Prize in 1937 and published research with Prof. G. Payling Wright on the chemistry of Gaucher's disease. As the Adrian Stokes travelling fellow, working with Dr. Dubos at the Rockefeller Institute in New York (1937–38), he published work upon the important enzyme ribonuclease, and upon the production of experimental osteomyelitis. Upon his return to Oxford in 1938, he became University demonstrator in biochemistry and fellow and tutor of University College. Since 1946, he has acted as dean of the Medical School. At the outbreak of the War he joined the team working upon antidotes to the war gases under the direction of Prof. Peters and took a prominent part with Dr. L. A. Stocken in the discovery and development of British anti-lewisite (2-3 dimercaptopropenol). He has also been much concerned with the clinical developments of this substance and is now acting as secretary of the Medical Research Council Conference on *B.A.L.* During the War he also co-operated with Netley Hospital in the nutritional treatment of post-arsphenamine jaundice, and in 1944–46 was attached to the Australian Army as Major, R.A.M.C. He was awarded in 1943 the Radcliffe Prize for medical research, Oxford.

University College, Nottingham: School of Agriculture

THE Midland Agricultural College at Sutton Bonington has become the University College of Nottingham School of Agriculture. The Midland Agricultural College has had a long and distinguished association with agricultural and dairying education. The agricultural section started as the agricultural department of University College, Nottingham, in 1892. In 1895 the Midland Dairy Institute was established at Kingston-on-Soar, and in 1900 the agricultural department was moved out into the country to link up with the dairy side. The subsequent development of the Midland Agricultural College was due very largely to the four local county councils of Derbyshire, Leicestershire, Lindsey and Nottinghamshire. In 1942 the governing body made recommendations to the associated county councils that the immediate needs of agricultural education could be served by the development of farm institutes in the counties and that the College should be reserved for higher agricultural education and research; in 1943 the University College of Nottingham instituted a Faculty of Agriculture and Horticulture, and the principal of the Midland Agricultural College was appointed to the staff of the University College as the professor of agriculture. University College, Nottingham, has bought out the county council interests in the Midland College, and the money will be used by the councils in the development of county farm institutes.

The entire staff of the Midland Agricultural College is being transferred to the staff of the University College of Nottingham. Prof. H. G. Robinson, who has been at Sutton Bonington for twenty-two years and for the last twelve years as principal, becomes the first director of the new School of Agriculture. The present student population in the Faculty of Agriculture and Horticulture numbers 240. Developments envisaged at Sutton Bonington in the near future provide for a considerable extension of the facilities in the Horticultural Department. A scheme costing £15,000 has been approved in this connexion and is being assisted by the Ministry of Agriculture. As a result of this development, Nottingham will have a centre of higher agricultural education that will fit into the general scheme of agricultural education that is now being planned for the country as a whole. So far as horticulture is concerned, Nottingham will have to cater for the educational needs of the northern half of England.

Birds of Heligoland

MINOR discharges were used to arouse the sea-birds of Heligoland so as to avoid their destruction in the greater explosions which marked the destruction of the fortifications of the island. The island is to revert to its pre-war use as an ornithological centre for migration studies. The nesting birds of Heligoland are comparatively few: its importance in the North Sea off the Elbe estuary lies in the facilities it has offered for the study of bird migration during spring and autumn. The Heligoland design of bird recovery trap, originally adapted for bird-ringing pursuits off South Wales, is being utilized in the formation of a chain of independent bird-study stations around the British Isles at Fair Island, the Spurn, Lundy Island, Milford Haven and elsewhere. As many as 9,000 starlings were caught, marked and released on Heligoland during one pre-war migration in the studies organised by the German State Biological Bureau under the direction of Dr. Rudolf Drost and Dr. Shildmacher. In nine days on one occasion 1,130 birds were ringed: these included 271 blackbirds, 220 song thrushes, 105 redbreasts and 144 skylarks. The German Ministry of Agriculture helped to finance these studies.

German Scientific and other Periodicals

THE Association of Special Libraries and Information Bureaux has prepared a classified list of German periodicals, excluding newspapers, official gazettes, local organs of political parties, trade unions and churches, devotional literature and popular periodicals