

handling of the crop by a seed-renewal system of pure lines, under spinning control, was adding to Egypt's wealth by more than fifteen million pounds yearly, but cracks were visible to us at Giza. Two pure-line varieties showed deterioration impending, which pure lines should not do. We knew our definition of 'purity' to be pragmatic, and no visible characters were at fault; nevertheless those yarns were getting weaker. Hancock used everything he possessed of physical and mental equipment in a complete demonstration and abolition of the trouble, laying down a simple 'nucleus-seed' control system which—if the Egyptians continue to use it—has eliminated its recurrence. He first applied the spinning-test to all seed-lots of the high-quality cottons, arresting further decay; then he excavated through cubic metres of the plant-breeders' files from 1924 onward, until he could present the exact pedigree of every family; this showed that an occasional use of open-fertilized seed (against all orders) had introduced the unwanted genes. The strength of yarn was shown to integrate the effect of hundreds of genes, and the only available indicator of genic change was yarn-strength—which is the spinners' only requirement.

Hancock's last printed publication, towards the end of the War, was a trilogy of papers on the practical

aspects of this theme. He had to re-write them completely, because the publishers disliked the style he had chosen to catch the spinners' interest. This, after five Egyptian war-time summers, was tiresome, for besides his proper work he had been helpful in many details of the war in the Middle East, and had directed a systematic examination of captured enemy textiles. A possibility of leave in 1945 had to be forgone, and by the winter he was involved in organising 'cotton missions' abroad, out of an exaggerated sense of loyalty to his Minister, himself taking the United States mission.

Meanwhile, he was offered the Bombay Technological Laboratory post, at threefold his pay in Egypt, and arranged to leave Giza after his American trip. Before he returned to Giza (his plane having been struck by lightning on the way) the Indian appointment had failed of confirmation, for political reasons, and he had to re-cast his plans. India's offer was renewed later, but by then he was on sick-leave in England, with confidence lost, no longer able to cope with conditions. His keen interest in world affairs increased the depression induced by the frustrations of Egypt and India, so that the end was such tragedy as Hardy wrote.

W. LAWRENCE BALLS

## NEWS and VIEWS

### Agricultural Research Council: A New Institute of Animal Physiology

THE Agricultural Research Council, with the support of the Ministry of Agriculture and Fisheries and the Department of Agriculture for Scotland, has decided that in many directions progress towards the improvement of animal health and production is restricted by lack of knowledge of the fundamental physiology, normal and abnormal, of farm animals, and that to fill in some of the gaps in our knowledge a new Institute of Animal Physiology is needed. It has been decided that the Council should establish such an Institute, since the work which must be done needs the provision of buildings, land and large animals on a scale which would not be appropriate to a university department. Prof. I. de Burgh Daly, professor of physiology in the University of Edinburgh, has been appointed director, and will take office early in 1948. It is intended to appoint as Prof. Daly's senior colleagues a biochemist and a pathologist, so that the full range of problems bearing on the physiology of farm animals may be studied, including practical problems arising in the course of the handling and care of animals on the farm. A site for the new Institute has not yet been chosen, but preference will be given to one sufficiently near to a university to facilitate close contact between scientific workers in the Institute and those in University departments.

#### Prof. I. de Burgh Daly, F.R.S.

PROF. DALY has held the chair of physiology in the University of Edinburgh since 1933. He was educated at Rossall School, at the University of Cambridge, where he took first-class honours in Part I of the Natural Science Tripos and was Thurston Medallist of Caius College, and at St. Bartholomew's Hospital. In the First World War Prof. Daly was a fighter pilot in the Royal Naval Air Service. He was a member

of the staff of the Department of Physiology, University College, London, during 1919–23, a Beit Memorial Fellow, and lecturer in experimental physiology in the University of Wales, Cardiff, in 1923, before being appointed professor of physiology in the University of Birmingham in 1927, where he worked until he was appointed to Edinburgh in 1933. During the Second World War, Prof. Daly carried out research on the physiology of high-altitude flying and on poison gases in Edinburgh during 1939–43. From 1943 until 1945 he was director of the Physiological Laboratory of the Medical Research Council at Lulworth, which was responsible for the investigation of the physiological factors determining the fighting efficiency of the crews in armoured fighting vehicles.

### Agriculture at the University of Reading

THE autumn term at the University of Reading will witness two important changes in the professorial staff of the Faculty of Agriculture. The first is that Prof. H. A. D. Neville, who has occupied the chair of agricultural chemistry since 1919, and has been dean of the Faculty for almost as long a time, retires at the end of September. He is succeeded, as regards the chair, by Dr. Cyril Tyler, who has been lecturer in agricultural chemistry in the University. Prof. H. G. Sanders, professor of agriculture, will take over the duties of Dean of the Faculty.

Prof. Neville went to Reading with a training—undergraduate and post-graduate—under the late Prof. T. B. Wood in Cambridge and after service with the Forces in the First World War. At that time the University of Reading had not received its charter, the Faculty of Agriculture was scarcely on its feet, and the study of agricultural chemistry had barely begun. Prof. Neville's knowledge, administrative wisdom and drive as dean of the Faculty have been largely responsible for the unfaltering progress and development of the study of agriculture and its associated sciences, first in the University College and

later in the University, which have led to the outstanding position in agricultural science now held by Reading. His able and tireless work as dean was no small contribution to the sum of achievements which, under the leadership of Dr. W. M. Childs, made possible the granting of the charter to the University in 1926. The orbit of Prof. Neville's influence on agricultural education and the advancement of agricultural science has extended beyond Great Britain. Former students of his are to be found in many of the faculties of agriculture, and in most agricultural departments of state, in the British Commonwealth. It is fortunate that even after his retirement, his long experience and wise counsel are still to remain available for wider service to university progress and development in Britain. Prof. Neville's successor in the chair of agricultural chemistry, Dr. C. Tyler, is, at the age of thirty-six, already well known for his researches on poultry nutrition and metabolism. A graduate of Leeds, he was lecturer and head of the department of agricultural chemistry at the Royal Agricultural College, Cirencester, before he went to Reading in 1939.

The other change in the Reading faculty is the appointment of Mr. E. L. Crossley to the chair of dairying. The former occupant of this chair, Mr. E. Capstick, resigned in 1946 on his appointment to an important post in the dairy industry. Mr. Capstick, who was the first university professor of dairying in Great Britain, took to Reading an almost unique combination of academic knowledge of the science underlying the dairy industry and intimate experience of modern methods of large-scale manufacture, but he had scarcely taken charge of his department when war broke out. He was shortly afterwards seconded, at the request of the Ministry of Food, for service with that Ministry in connexion with the control of dairy products. He continued with the Ministry until 1946. His successor, Mr. Crossley, has for some years been recognized as one of the ablest of industrial bacteriologists. Since 1929 he has been technical adviser to the well-known dairy manufacturing firm of Aplin and Barrett, Ltd.

#### Department of Scientific and Industrial Research : Scottish Office

THE Department of Scientific and Industrial Research has opened a Scottish Office at 18 Melville Street, Edinburgh, to facilitate closer contact with Scotland. The office will have a dual function—to encourage the prosecution of research by industry itself and to increase the effectiveness of the contributions which existing Government research establishments make to Scottish industry. The new office will co-operate with the Departments of the Secretary of State for Scotland, with the organisations in Scotland of other Government departments, and with voluntary bodies such as the Scottish Council (Development and Industry). It will also study the Scottish industrial position with the view of assisting in the formulation of problems suitable for research. The office will apply existing research facilities as effectively as possible to Scottish needs. Dr. H. Buckley will be in charge of the new office. A graduate of the University of Manchester, Dr. Buckley was for a time on the staff of the University of Toronto. He returned to Britain and entered the National Physical Laboratory, where he served for twenty-five years, his special field of research being photometry and illumination. During the Second World War he was for a time a liaison officer in the British

Commonwealth Scientific Office in Washington and, during the last three years, he has been a member of the Intelligence Division at the headquarters office of the Department of Scientific and Industrial Research.

#### Atomic Energy Train Exhibition

THE Atomic Scientists' Association, with full co-operation of the Ministry of Supply, is organising a travelling train Exhibition on Atomic Energy which will start at the beginning of November, touring twenty-six towns in England, Scotland and Wales. The aim of the exhibition will be to give the public the basic facts of atomic energy and explain its implications; its destructive and constructive purposes. The exhibition will be fitted in two coaches. The first half of the exhibition will deal with the basic principles of atomic energy. These will be illustrated by means of charts, photographs and working models. But in addition to these there will be several experiments showing the instruments used in laboratories for the detection of radioactivity, and the process of splitting uranium atoms. There will also be an experiment showing the production of artificial radioactivity. In the second part, the application of atomic energy will be shown with models illustrating the chain reaction in uranium, the principles of separation of isotopes and atomic energy piles. The applications of atomic energy to medicine and biological sciences will also be illustrated. The instruments used in the tracer technique in medicine will be shown. Scientific men will be in attendance to give additional explanations. It is planned to organise at the same time Atomic Energy Weeks in each town visited, when lectures and film shows will take place. There will be, in collaboration with various local organisations, public meetings, 'brains trusts' and conducted parties for schools, etc. The choice of towns to be visited was dictated largely by train requirements and existing facilities at the various stations. These facts have eliminated a number of towns which were intended to be fitted into the itinerary. The official opening will take place at Liverpool, but the first showing to the public will be at Chester on November 10. Inquiries should be addressed to the Press Office, Ministry of Supply, Shell-Mex House, Strand, London, W.C.2.

#### Jubilee of the Discovery of the Electron

THE Institute of Physics and the Physical Society, in collaboration with the Institution of Electrical Engineers, will celebrate, on September 25 and 26, the jubilee of the discovery of the electron by J. J. Thomson. Special lectures and meetings are also being arranged at various centres in the Dominions. In London, a lecture addressed to the non-scientific public by Sir Clifford Paterson will be given at the Central Hall, Westminster, at 7.30 p.m. on September 25 entitled "The Electron Liberated". The lecture will be illustrated by experiments and demonstrations. Admission is by ticket only, which may be obtained free of charge from the Institute of Physics, 47 Belgrave Square, S.W.1; requests should be accompanied by an addressed envelope. Industrial organisations and universities have collaborated with the authorities at the Science Museum, South Kensington, in arranging a special exhibition, to be opened on September 26, which will remain open for about three months. The exhibition is designed to show the principles underlying the applications of the many