

sterone by a tissue incubation technique invented at the Middlesex Hospital Medical School; a three-year programme of research and development on the selective removal of gold from cyanide liquors with ion exchange metals; hydrogen-oxygen fuel cells, including the construction of prototypes and the development of high-pressure electrolyzers; the development of improved types of exchange membranes and electro-dialysis cells for the purification of salt and brackish liquors and other uses in the chemical, food and antibiotic industries and the treatment of effluents; the development of a groundnut harvester designed by the National Institute of Agricultural Engineering; and the design and construction of a prototype rolling mill to enable thin strip to be rolled in a few passes to thicknesses down to 0.0001 in. Work at the National Institute for Research in Dairying and at the Courtauld Institute of Biochemistry on the structure of mirecstro

and at the University of Cambridge on the stability of towed flexible oil barges and methods of preventing their tendency to 'snake' is also being supported.

Of the 631 inventions communicated to the Corporation during the year, 240 were from Government departments and research councils, 100 from universities, 54 from Commonwealth official organizations, 16 from industrial research associations, and 213 from private firms and individuals, of whom 192 were within the United Kingdom and 17 others within the Commonwealth. Of patent rights assigned during the year, 105 were from Government departments and research councils and 26 from universities, while at the end of the year the Corporation held 701 United Kingdom granted patents and 373 patent applications, on which 335 licence agreements were in force, as well as 942 overseas patents and 1,054 patent applications.

THE GRASSLAND RESEARCH INSTITUTE*

THE removal of the Grassland Institute from Drayton to Hurley was completed in September 1955 and the staff has been able to settle down to its programme of research designed to secure a basis for the future progress of pastoral farming in Britain. Research is being carried out by five departments and three units, which together constitute a team working on problems centred on the grass/legume sward involving four main aspects concerned with its development, potential characteristics, level of productivity and its utilization at all times of the year.

The object of the Herbage Agronomy Department is to study ways and means of extending the season during which pasture can be offered to stock. It is also concerned with the influence of management on grass production. Experiments in animal agronomy are concerned with all phases of beef-cattle production from rearing trials to carcass quality studies. Grazing experiments with sheep and pigs and the effect of poultry management on the white clover content of grass/clover swards are also included in the programme. The influence of the botanical composition on soil fertility, the utilization management

and the use of nitrogenous fertilizers is being studied by the Ley Agronomy Department. Development of methods for estimating pasture intake by grazing animals, and investigations of the composition of nitrogenous and carbohydrate constituents of herbage plants at different stages of growth are the concern of the Department of Biochemistry and Animal Nutrition. The study of grassland necessitates a sound basic knowledge of the growth and development of different grass species and it is the aim of the Plant Physiology Department to provide this information.

The Unit of Microbiology has so far studied the fungal population of decomposing tissues of ryegrass, but doubtless there will be many other problems that will repay investigation. A station of this kind would not be complete without adequate facilities for statistical consultation and advice, which is provided by the Statistical Unit. Besides its advisory function, the Unit is investigating the particular requirements of experiments carried out at the Station. The Extra-Mural Unit carries out experiments at a considerable number of centres, particularly on the production of winter grass and early bite. The long-term effect of different fertilizer-levels on productivity of leys is being studied.

* Grassland Research Institute. Experiments in Progress No. 9: Annual Report for 1956. Pp. viii+61. (Hurley, near Maidenhead: Grassland Research Institute, 1957.) 5s.

LABORATORY ANIMALS

IT is essential that laboratory animals should be bred under stringent conditions, with due regard for their genetic and other characteristics, their freedom from disease and for other factors which may influence the experimental results obtained. The International Committee on Laboratory Animals, founded in December 1956 as an independent body supported by Unesco (*Nature*, 179, 240; 1957), issues a *Bulletin* on the subject in March and September of each year, the second issue of which (March 1958) has recently been published.

At its meeting last December the Committee recognized the importance of primary type-colonies of breeding stock of known genetic and other controlled characteristics and undertook to help in their selec-

tion and establishment. It also recommended the production, translation and distribution of technical manuals on the care of laboratory animals, the preparation and distribution of films and the establishment of a specimen programme of courses for laboratory technicians. It was recommended that scholarships and fellowships should be awarded in the field of animal care, production, genetics, nutrition and disease and the Committee undertook to help both applicants for such awards and those who might make applications.

Surveys have been completed of the production and use of laboratory animals in the Benelux countries, India, Italy, Japan, Scandinavia, Switzerland and the United Kingdom, and a critical analytical