

casting authorities, with research organizations and with industry. Finally, great importance is attached to the publication of the results of research work; and the staff are encouraged to prepare papers for reading before scientific societies, or for publication in scientific and technical journals and in the *BBC Quarterly*.

NUFFIELD FOUNDATION ANNUAL REPORT

THE outstanding feature of the sixth report of the Nuffield Foundation*, covering the year ended March 31, 1951, is the passage in which is considered the prospect of some curtailment of scientific research through rising costs, and whether the resources of such charitable trusts as the Nuffield Foundation should be used for sustaining academic activities thus endangered or for encouraging novel projects which may find it even more difficult to secure support. The present report indicates that, for the remaining three years of its present programme, the Foundation will continue to give preferential support to fundamental biological and social studies. This policy is succeeding, but its other main preference for the period—the encouragement of specialists in various fields to apply their knowledge and techniques to the study and solution of practical contemporary problems—has not attracted the same support. In addition, the Foundation continues to assist research of exceptional merit in any branch of science, and its schemes of training fellowships and travel grants are being expanded, and from the year's income of more than £550,000, some £55,250 was allocated for new or continuing schemes of this type, with a further £88,000 to be met from succeeding years. Of new grants totalling £336,194, £20,950 was used from the Oliver Bird Fund and other resources for research in rheumatism, £46,640 for fundamental biological and £111,000 for sociological research in the United Kingdom and £71,500 for research overseas within the Commonwealth. The original contribution of £500,000 to the National Corporation for the Care of Old People is not yet exhausted, and medical research on ageing is still similarly financed from an earlier allocation; no new grants have been necessary. As provision for a new headquarters when the Foundation is required to vacate its present premises, £135,000 has been set aside this year.

In continuation of its past programme the Foundation has increased by £3,650 the grant to the University of Bristol for Dr. C. R. Burch's work on the development of the reflecting microscope. Patents covering the present processes of manufacture offered to the Foundation are being put before the National Research Development Corporation for development in the national interest. In the medical sciences, the Foundation has made a grant of £750 for an additional full-time worker for epidemiological and bacteriological studies in the 'thousand-family' investigation being conducted by the Department of Child Health, University of Durham. In the social sciences, the Foundation is continuing its aid to Political and Economic Planning on the diminishing scale of £4,500 over the years 1951-53, while an additional grant of £1,000 has been made to the Caldecott Community to enable the children's reception centre to follow up

the children who have passed through the centre or been 'placed' on its advice.

A gift of 1 kgm. of cortisone was made by Merck and Co., Inc., jointly to the Medical Research Council and the Foundation, and a new joint committee was set up to examine projects of clinical trial and research and allocate supplies both of cortisone and adrenotropic hormone. A three-year grant totalling £5,000 has been made to the Department of Human Ecology at the University of Cambridge for a medico-social survey of the Fen district of East Anglia covering the types and prevalence of rheumatic disease. A grant of £4,000 has been made to the Department of Chemistry, University of Birmingham, for the study of tendons, cartilage and tissue components and their structural chemistry, and £1,000 to the Medical School, University of Leeds, for special equipment for chromatographic techniques in the study of pathological collagen, while a grant of £1,050 a year for two years has been made for the appointment of a senior and a junior research fellow to work under Dr. D. M. R. Barton at Birkbeck College, London, on the synthesis of cortisone by the ergosterol route. The grant to the rheumatic unit at the Department of Medicine, University of Edinburgh, has been increased to £2,364, and that to Mr. A. Law, of the Orthopaedic and Accident Department, London Hospital, for perfecting techniques of reconstructive surgery in chronic arthritis of the hips and spines, was renewed, as well as that to the South-West and Oxford Regional Research Unit, Bath.

New grants for fundamental research include £5,340 over five years, for a research assistant and technician under Prof. F. G. Young at the School of Biochemistry, University of Cambridge, for the perfection and running of the mass-spectrograph, and £1,000 a year for five years to the Physiological Laboratory at the same University for equipment and materials for workers under Prof. E. D. Adrian. A five-year grant totalling £20,000 has been made to Prof. C. Rimington, of the Department of Chemical Pathology, University College Hospital Medical School, London, for a small unit to continue and develop his investigations on the chemistry and biochemistry of haem and other pyrrole pigments, and a grant of £500 for equipment and £400 a year for two years for a technical assistant has been made to Dr. E. Wangermann to enable her to continue at University College, Leicester, the work initiated under Prof. E. Ashby at Manchester on growth-rates of populations of common duckweed (*Lemna minor*) under controlled conditions. A further grant of £1,000 a year for five years has been made for an additional research worker to collaborate with Dr. C. Causey in work on certain aspects of nerve-cell body and axon as part of the work under Prof. J. Z. Young on the physiology of learning at the Department of Anatomy, University College, London, in which Mr. F. Roberts has now devised and built a 'flying-spot' microscope which has novel possibilities both for magnification and for counting and measuring particles of living tissues. A grant of £10,000 over the next five years has been made to the Department of Zoology and Comparative Anatomy, University of Oxford, for research under Dr. E. B. Ford on the evolutionary genetics of wild populations.

In the sociological field, the Foundation has offered a grant of £2,000 to the University of Birmingham to complete, under Prof. Charles Madge, the survey of a Midland market-town commenced in the Department of Social Science, and one of £4,000 to

* Nuffield Foundation. Report for the Year ending 31 March 1951. Pp. 113. (London: Nuffield Foundation, 1951.)

the Department of Social Studies, University of Leeds, for a two-year project to examine the changing relationships between the family and the community in an industrial village within easy reach of Leeds. The Foundation is also providing £3,750 for a survey by the Department of Social Science, University of Liverpool, of social relations in the dock-working community; under the general direction of Prof. T. S. Simey, this survey is intended to cover the relations between individuals and social groups which develop informally and spontaneously at work-level; between the subordinate and his immediate superior; and between individuals and social groups and officials and institutions with which they are brought into contact. An additional grant of £1,250 has been made to the London School of Economics and Political Science for the establishment of a Division of Research Techniques, and £100,000 over ten years for two additional fellowships, to be called Nuffield readerships, at Nuffield College.

New grants for research overseas include £900 a year for two years for a research fellowship for Dr. F. Douglas Stephens at the Children's Hospital, Melbourne, for research on problems of child surgery; up to £3,500 to the University of Melbourne, for appointment of a medical biochemist for two or three years in the Department of Biochemistry; £1,500 for special equipment for neuro-anatomical research in the Department of Anatomy, Histology and Embryology at the Christian Medical College, Vellore, and £300 a year for two years for a programme of meteor research at the Department of Physics, Canterbury University College, New Zealand.

The Foundation is also providing up to £12,000 for a review, jointly sponsored with the Secretary of State, of the policy and practice of education in the Colonial territories in Africa. The group investigating methods of work measurement used by industry in Great Britain is beginning inquiries as to why progressive managements continue to use time-study practitioners; what it is that management values, and why, in the existing methods; and what information industry would like to get from such techniques that existing methods do not supply. Fundamental scientific research into the measurement of human performance on skilled operations is also being initiated.

New fellowship and scholarship schemes during the year include a small number of biological scholarships and bursaries for graduates of the United Kingdom normally resident there, and sociological scholarships and bursaries for special training in sociological subjects, and a visiting studentship for a South African physiologist. Four United Kingdom medical fellowships were awarded; but there was even less response than in 1949 to the Foundation's offer of dental fellowships and scholarships. A final award of six fellowships, four postgraduate scholarships and ten vacation scholarships brought the total awards under the scheme for the advancement of extraction metallurgy to 23 fellowships, 21 postgraduate and 49 vacation scholarships. The scheme for travelling scholarships for young farmers is now extended to the whole United Kingdom. Only one travelling fellowship for the Home Civil Service was awarded in 1951; but India, Pakistan and Ceylon have now accepted the Foundation's offer of five, three and one fellowships respectively for study in Great Britain. Two further travelling scholarships were awarded to farmers of Southern Rhodesia for 1951.

For research into ageing, the Foundation has made a grant of £1,000 a year for two years to Dr. Alex. Comfort to work in the Department of Zoology, University of Birmingham, with a capital grant of £650 for apparatus and recurrent grants of £200 to the University for the costs of research. A grant of £2,600 over two years has been accepted by the University of Oxford for an examination, in the Nuffield Department of Surgery, of the changes in the blood-vessels of the brain as a result of ageing. An offer of £1,250 a year for a three-year trial period has been accepted by the Australian Committee of Vice-Chancellors for a full-time secretariat. A grant of £1,300 a year for three years has been made to the Scientific Department of the National Gallery to assist an examination, by the reaction to low-voltage soft X-rays, of the characteristics of organic materials, particularly synthetic resins, with the aim of discovering what can be learnt about condition and about picture structure as such, and also an examination of the swelling and solvent action of organic solvents on natural and synthetic varnishes and pigmented linocyn films. A grant of £4,000 has been made to the Royal Institution towards the cost of reconstructing and re-equipping a modern workshop in the Davy Faraday Research Laboratory.

CHILDREN'S LEISURE

THE findings of a survey, carried out by the Social Survey Division of the Central Office of Information, into the out-of-school interests and activities of school children has recently been published*.

Information was obtained from the parents—chiefly mothers—of about 1,600 children, forming a representative sample of school-age children of England and Wales, and also from 840 older children themselves by means of a questionnaire which they filled in at school.

The survey was undertaken to assist the Central Advisory Council for Education (England), which, in 1947, was asked by the Ministry of Education to investigate the natural interests and pursuits of children out of school hours, the provision made for them, and the extent to which school work could help to develop these interests.

Thinking chiefly in terms of children's play, one in every two mothers (51 per cent) said that there was not enough for children to do in their districts. 36 per cent of the mothers were quite satisfied with existing facilities and 13 per cent gave qualified answers. Fewer mothers in rural districts (26 per cent) were satisfied than in urban districts (38 per cent).

The main cause of dissatisfaction was that the children had to play in the street; 47 per cent of the mothers said that their children usually played in the street. 46 per cent of the mothers said that there was no park available within easy reach of the children and 52 per cent said that there was no playground. As many as 52 per cent of the children in the sample did not go to any parks and 68 per cent did not go to a playground. Play-centres were almost unknown; only 2 per cent of the younger children (up to the age of ten) and 4 per cent of the older ones ever went to one.

The majority of the children lived within twelve minutes journey from school, so that, allowing for the usual school closing times, children appear to

* "Children out of School", by Joy C. Ward. 10s. net.