

British Cotton Industry Research Association

IN replying to a question in the House of Commons on June 24 as to whether he was satisfied that the British Cotton Industry Research Association was adequate to the present needs of the cotton industry, Mr. H. Nicholls, Parliamentary Secretary to the Ministry of Works, representing the Lord President of the Council, said that the Association provided an excellent example of progressive development and had achieved the confidence of the industry and a high international reputation. The Lord President had recently visited the Institute and was confident that the Council and Director of the Institute would continue to direct their programme of research effectively to those problems the solution of which would be of the greatest benefit to the cotton industry. Last year's grant to the Institute exceeded £84,000, and if the industry contributed more, the Government would increase its grant by £50 for every £100 extra from the industry.

Grants for Special Research

IN reply to a question in the House of Commons on June 24, Mr. H. Nicholls, Parliamentary Secretary to the Ministry of Works, representing the Lord President of the Council, said that the Department of Scientific and Industrial Research was advised on grants for special researches by the Research Grants Committee of the Council, though the Committee may seek the advice of outside referees on any application. The chairman of the Committee is Prof. P. M. S. Blackett, and the chairman of the University Grants Committee and the Physical and Biological Secretaries of the Royal Society sit as assessors. Grants for nuclear physics this year amounted to £330,000 compared with £192,000 last year, and grants for other research has grown from £80,000 two years ago to £155,000 last year and to £320,000 this year.

Committee on Awards to Students

ON June 25, the Minister of Education, Mr. Geoffrey Lloyd, in a written answer, announced that he and the Secretary of State for Scotland had decided to set up a Committee "to consider the present system of awards from public funds to students attending first degree courses at universities and comparable courses at other institutions and to make recommendations". The Committee would therefore consider the kind of awards to be made from public funds, the method of selecting students for such awards, and the principle of the hardship test required by the law as it now stands. Sir Colin Anderson has accepted the Government's invitation to act as chairman, and the other members of the Committee are: Mrs. Gladys Buxton, Mrs. Margaret Cooke, Mr. McL. Dewar, Miss J. A. Evans, Mr. W. W. Finlay, Mr. Norman Fisher, Alderman J. W. F. Hill, Mr. H. D. P. Lee, Dr. D. W. Logan, Mr. Ron Smith, Dr. L. S. Sutherland, Prof. Brinley Thomas, Dr. J. Topping, Mr. A. H. Wilson and Prof. E. M. Wright.

Research and Development in India

THE third annual report and statement of accounts of the National Research Development Corporation of India, covering the year ended March 31, 1957 (pp. 17. New Delhi, 1957), records a steady expansion in activity. Seven new licences, including one development licence agreement, were negotiated and

four new development projects involving an expenditure of Rs. 2.21 lakhs were sanctioned. A pilot plant was designed for de-ionization of cane juice, and experiments to determine the most suitable resins were expected to be complete by the end of the 1956-57 sugar season. Encouraging results were obtained in preliminary experiments on the production of copper chlorophyll from spinach leaves, and pilot-plant trials on the production of synthetic pine oil were conducted at the Shri Ram Institute for Industrial Research, Delhi. Encouraging preliminary reports have been received on the experimental infant food produced from buffalo milk at Kaira District Milk Producers' Union, Ltd., Anand, and a pilot-plant project for the production of phthalic anhydride by the fluidized-bed oxidation of coal-tar oil has been approved at an estimated cost of Rs. 2 lakhs.

Historical Documents

THE library of the American Philosophical Society has acquired from time to time a number of interesting documents. Some of these are described in its *Proceedings* (101, No. 6; December 1957). The chapter on some newly obtained botanical papers is largely factual, but an illustrated account of sketches by T. R. Peale (1799-1885) is delightful. Another illustrated chapter deals with Augustin Dupré's sketches for medals, while yet another describes the so-called 'waggon affair' in which Benjamin Franklin took part in 1755. This "Wagon Broadside", the rarest of Franklin publications, was only acquired by the library last year. Another chapter describes a hoax on Dr. Franklin. The volume concludes with an account of Halliday Jackson's journal. Naturally, much of the material in this number is mainly of concern to Americans, but none the less there is much good reading of general interest to everyone.

A Hypothesis of Developmental Selection

FROM a study of lethal and semi-lethal mutants of the cruciferous plant *Arabidopsis thaliana*, J. Langridge has been able to advance a hypothesis of developmental selection (*Australian J. Biol. Sci.*, 11, 58; 1958). Attention is directed to internal factors of selection and to barriers imposed by ontogenetic development as they may affect the degree of survival of newly arisen harmful mutations. The hypothesis states that "the survival of such mutant genes to the stage of germination depends on the diffusibility of the metabolite required by the mutants and the ontogenetic stage at which it is required. As a corollary of the hypothesis, those lethal mutants of flowering plants that appear after germination should, with certain predictable exceptions, have requirements for low molecular weight substances which may be supplied from external sources". In an experimental test of the hypothesis, the requirements for normal growth of eleven lethal or semi-lethal mutants were examined. The author reports that the six 'reparable' mutants require the following: (1) thiamine; (2) choline; (3) coconut milk; (4) sucrose or glucose; (5) a high osmotic pressure; (6) an alternation of temperatures for flowering. Of the five 'irreparable' mutants, (1) has decreased embryo growth; (2) lacks cotyledons; (3) lacks chlorophyll; (4) and (5) lack chloroplasts. The author considers that the behaviour of these mutants is generally in accord with the hypothesis.