

facture of synthetic resins, rubbers and fibres have been prepared electrolytically and a new curable liner for container closures. New techniques have been developed for the preparation of vinyl resin coating compositions, and a thorough investigation made of the production, purification and analysis of butadiene and styrene by the multiple industrial fellowship on tar synthetics. Other studies have been concerned with specifications for metals for the construction of butadiene and styrene plant. Fundamental work has also been done on the physical chemistry of the purification of raw materials for synthetic rubber. The polymerization of butadiene, styrene and acrylonitrile are under close scrutiny, and new tests for the adhesive properties and ageing characteristics of paints and for the rheological properties of elastomeric adhesives have been adopted as guides in the development of new adhesives, while several new formulae for 'Cellophane'-tape adhesives have been derived.

Other fellowships have been concerned with protective coatings. Several papers were published on the basic aspects of anti-fouling paint performance. Exhaustive studies of a possible accelerated corrosion effect from accidental or deliberate contact of steel hulls with the anti-fouling paint have indicated that appreciable acceleration can occur under the usual type of anti-fouling compositions containing heavy metals. The production of alkylene polyamines is being delineated precisely for industrial applications, and promising products for the synthesis of motor fuel, for the preparation of chemicals for synthetic rubber and as ingredients for lubricants, paints and insecticides have been developed from investigations on nickel compounds and catalysts. An insecticide which has given a 98 per cent kill of houseflies in the Peet-Grady chamber has been developed. Several new organic iodine compounds have been prepared in a search for improved iodine antiseptics. Work on intermediates for sulpha drugs has kept pace with current advances in this field.

Studies on the toxicity of several new products and of materials the health hazards of which were unknown but all used by the military forces or government contractors, such as dioctyl phthalate, low-temperature and extreme-pressure lubricants, insect repellents and cable-impregnating compounds have been completed.

Special reference is made to the work of the Industrial Hygiene Foundation, a non-profit association of industries for the maintenance and advancement of healthy working conditions, which has its headquarters and a multiple fellowship at the Mellon Institute. This Foundation has continued its investigation of sickness absenteeism commenced in 1941. It has given some attention to the placing of disabled soldiers who are returning to the United States and has conducted some fifty plant hygiene surveys, including exposures to such substances as synthetic resin dust, trichloroethylene, hydrogen fluoride, carbon tetrachloride, and excessive temperatures. The Foundation has continued to support medical investigations at the Saranac, New York, Laboratory under L. U. Gardner, covering disability through silica compounds and the effect of aluminium therapy. A grant was also made by the Foundation during the year for a plant investigation of health problems of women in industry. Publications on health problems of women in industry as well as on putting the disabled soldier back to work have been issued during the year.

FORTHCOMING EVENTS

Tuesday, September 19

INSTITUTE OF PHYSICS (ELECTRONICS GROUP) (at the Royal Institution, 21 Albemarle Street, London, W.1), at 5.30 p.m.—Dr. A. Sommer: "Principles of Photo-Electric Emission and their Application in Photo-Electric Cells".

Wednesday, September 20

INSTITUTE OF METALS (at the James Watt Memorial Institute, Great Charles Street, Birmingham), at 2.15 p.m.—Thirty-sixth Annual Autumn Meeting. Discussion on "Melting and Casting of Bronze".

PHYSICAL SOCIETY (COLOUR GROUP) (at the Lighting Service Bureau, E.L.M.A., 2 Savoy Hill, Strand, London, W.C.2), at 3.30 p.m.—Mr. H. G. W. Harding: "Illuminants for Colorimetry and the Colours of Total Radiators".

Friday, September 22

INSTITUTION OF NAVAL ARCHITECTS (joint meeting with the INSTITUTION OF ENGINEERS AND SHIPBUILDERS IN SCOTLAND) (at 39 Elmbank Crescent, Glasgow), at 2 p.m.—Dr. J. Foster King: "Longitudinal Bending Moments"; Dr. J. Tutin: "Methods of Levying Charges for Services to Shipping"; Mr. B. Alwyn Jay: "Timber in Shipbuilding".

Saturday, September 23

BRITISH PSYCHOLOGICAL SOCIETY (at the London School of Hygiene and Tropical Medicine, Keppel Street, London, W.C.1), at 2.30 p.m.—Prof. J. C. Flugel: "Psychological Aspects of Moral and Social Progress" (Papers in comment by Dr. Karl Mannheim and Dr. R. H. Thouless).

APPOINTMENTS VACANT

APPLICATIONS are invited for the following appointments on or before the dates mentioned:

RESPONSIBLE LECTURER IN PHYSIOLOGY—The Principal, Chelsea Polytechnic, Manresa Road, London, S.W.3 (September 20).

RESEARCH ASSISTANTS (2) IN PHYSICAL CHEMISTRY (Low Temperature Polymerization)—The Registrar, The University, Manchester 13 (September 20).

ASSISTANT LECTURER (temporary) IN MATHEMATICS—The Secretary and Registrar, The University, Bristol (September 20).

RESEARCH ASSISTANT (male, temporary) in the Agricultural Entomology Division of the Ministry of Agriculture of Northern Ireland—The Assistant Secretary (Establishments), Ministry of Finance, Stormont, Belfast (September 21).

BIOCHEMIST (Reference No. F.2841.A), and a PHYSICAL CHEMIST (Reference No. F.2842.A.) at the Cereals Research Station, St. Albans—The Ministry of Labour and National Service, Room 432, Alexandra House, Kingsway, London, W.C.2 (quoting the appropriate Reference No.) (September 23).

TEACHER OF MATHEMATICS in the Newton Heath Technical School—The Director of Education, Education Offices, Deansgate, Manchester 3 (September 25).

QUALIFIED CIVIL OR MECHANICAL ENGINEER to teach Mechanical and Constructional Drawing—The Director of Education, The Polytechnic, Regent Street, London, W.1 (September 25).

CIVIL ENGINEER for the duties of Assistant Divisional Engineer by the Sudan Government Irrigation Department—The Ministry of Labour and National Service, Room 432, Alexandra House, Kingsway, London, W.C.2 (quoting Reference No. E.1114.A) (September 25).

TEACHER (full-time, graduate) OF ENGINEERING for Day and Evening Classes in the Crewe Technical College—The Director of Education, County Education Offices, City Road, Chester (September 26).

ELECTRICAL ENGINEER for the Nigerian Government Public Works Department—The Ministry of Labour and National Service, Room 432, Alexandra House, Kingsway, London, W.C.2 (quoting Reference No. D.926.A) (September 26).

FIRST-CLASS ENGINEER to assist in Steam Turbine Design, Research and Development (location, Midlands)—The Ministry of Labour and National Service, Room 432, Alexandra House, Kingsway, London, W.C.2 (quoting Reference No. C.2166.XA) (September 26).

CHAIR OF MINING—The Acting Registrar, The University, Leeds 2 (September 30).

DIRECTOR OF RESEARCH, Forest Products Research Laboratory, Princes Risborough—The Secretary, Department of Scientific and Industrial Research, Teddington, Middx. (October 9).

ASSISTANT TECHNICAL EXAMINING OFFICERS (temporary) in the Victualling Department of the Admiralty—The Ministry of Labour and National Service, Room 432, Alexandra House, Kingsway, London, W.C.2 (quoting Reference No. F.2911.A) (October 11).

LECTURER IN PHILOSOPHY—The Very Rev. the Dean, Christ Church, Oxford (October 15).

ELDER PROFESSORSHIP OF ANATOMY AND HISTOLOGY in the University of Adelaide—The Secretary, Universities Bureau of the British Empire, c/o University College, Gower Street, London, W.C.1 (October 31).

DIRECTOR OF THE DEPARTMENT OF SOCIAL STUDIES, University of Sydney—The Secretary, Universities Bureau of the British Empire, c/o University College, Gower Street, London, W.C.1 (Sydney, December 1).

READER IN STATISTICS who will also act as Director of the Institute of Statistics—The Registrar, University of Oxford, Old Clarendon Building, Oxford.

ASSISTANT MECHANICAL ENGINEER for the Electrical Branch of the Nigerian Government Public Works Department—The Secretary, Overseas Manpower Committee, Ministry of Labour and National Service, Alexandra House, Kingsway, London, W.C.2 (quoting Reference No. 1391).