

to physico-chemical investigations on the flotation of sulphide and non-sulphide ores, and to foundry sands; and an investigation on ethylene as a starting material for the synthesis of commercially valuable organic chemicals has been initiated, including the manufacture of ethylene chlorohydrin. Investigations in the field of synthetic resins have also been commenced, and the building up of a research organization for dealing with friction, lubrication, bearing and wear problems has been continued under which investigations on the theory of metallic friction and the role of shearing and ploughing and on the friction of thin metallic films have been carried out. Other investigations in this field have been concerned with the testing of bearing metals and bearings, the mechanism of lubrication, extreme pressure lubricants, cutting fluids, and the development of lubricants for drawing and pressing, as well as the lubrication and wear of piston rings and cylinders, and the wear and oil-contamination of producer-gas vehicles.

## FORTHCOMING EVENTS

(Meeting marked with an asterisk \* is open to the public)

### Saturday, December 18

**INSTITUTE OF PHYSICS (ELECTRONICS GROUP)** (at the Royal Society, Burlington House, Piccadilly, London, W.1), at 2.30 p.m.—Dr. L. Jánossy: "Cosmic Rays".

**ROYAL PHOTOGRAPHIC SOCIETY (SCIENTIFIC AND TECHNICAL GROUP)** (Joint meeting with the ASSOCIATION FOR SCIENTIFIC PHOTOGRAPHY) (at 16 Prince's Gate, South Kensington, London, S.W.7), at 2.30 p.m.—Exhibition of Scientific Photographic Apparatus.

### Monday, December 20

**ROYAL GEOGRAPHICAL SOCIETY** (at Kensington Gore, London, S.W.7), at 5 p.m.—Mr. Evert Barter: "Some Problems of Central Asian Exploration" (Tenth Asia Lecture).

**NORTH-EAST COAST INSTITUTION OF ENGINEERS AND SHIPBUILDERS** (at the Mining Institute, Newcastle-upon-Tyne), at 6 p.m.—Mr. W. Muckle: "Some Considerations in the Application of Light Alloys to Ship Construction".

### Tuesday, December 21

**UNION DES INGENIEURS ET TECHNICIENS DE LA FRANCE COMBATTANTE** (at the Institution of Mechanical Engineers, Storey's Gate, St. James's Park, London, S.W.1), at 4.30 p.m.—Colonel P. Baranger: "La Reconstruction et l'Education technique".\*

**ROYAL ANTHROPOLOGICAL INSTITUTE** (at 21 Bedford Square, London, W.C.1), at 1.30 p.m.—Dr. Otto Friedmann: "Some Czechoslovak Folkways".

## APPOINTMENTS VACANT

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

**SCIENCE TEACHER** at the Flint Day Continuation School—The Director of Education, County Education Offices, Mold, Flintshire (December 24).

**LECTURER IN SCIENCE** at the F. L. Calder College of Domestic Science (to be responsible for the teaching of Science applied to Domestic Subjects and of Hygiene)—The Director of Education, Education Offices, 14 Sir Thomas Street, Liverpool 1 (December 27).

**ASSISTANT TEACHER OF MATHEMATICS** at the Selby Art School and Technical Institute—The Secretary to the Managers, Education Offices, Garforth, near Leeds (December 31).

**SPECIALIST TEACHER OF STAMMERING**—The Director of Education, Education Offices, Burnley (December 31).

**LECTURER IN HIGH VOLTAGE ENGINEERING**, and an **ASSISTANT LECTURER IN MECHANICAL ENGINEERING**—The Registrar, College of Technology, Manchester 1 (December 31).

**TEACHER IN ENGINEERING SUBJECTS** (possessing Graduate or equivalent qualifications in Mechanical Engineering and Industrial experience) at the Melton Mowbray and District County Technical College—The Director of Education, County Education Office, Grey Friars, Leicester (January 6).

**GRADUATE (temporary) FOR MECHANICAL OR CIVIL ENGINEERING SUBJECTS**, together with **MATHEMATICS**, at the Denbighshire Technical College, Wrexham—The Director of Education, Education Offices, Ruthin, Denbighshire (January 8).

**Acting full-time DEMONSTRATOR OF ANATOMY**—The Dean, Medical College, St. Bartholomew's Hospital, London, E.C.1 (January 11).

**ENTOMOLOGIST** in the Department of Agriculture, Salisbury, Southern Rhodesia—The Official Secretary, Office of the High Commissioner for Southern Rhodesia, 42B Strand, London, W.C.2 (January 31).

**LECTURER ON PHYSICS**—The School Secretary, St. Mary's Hospital Medical School, London, W.2 (February 1).

**ASSISTANT ENGINEERS (CIVIL)** for the Government Railways in West Africa—The Ministry of Labour and National Service, Central (Technical and Scientific) Register, Advertising Section, Alexandra House, Kingsway, London, W.C.2 (quoting Reference No. E.778A).

**DOCKYARD MANAGER** for the Sudan Railways (candidates should be fully trained Marine Engineers holding University Engineering Degree or A.M.I.Mech.E. or A.M.I.N.A.)—The Ministry of Labour and National Service, Central (Technical and Scientific) Register, Advertising Section, Alexandra House, Kingsway, London, W.C.2 (quoting Reference No. C.1966a).

**ASSISTANT MASTER or MISTRESS** to teach GEOGRAPHY, and an **ASSISTANT MASTER FOR ENGINEERING**, in the Burton-upon-Trent Technical Institute and Junior Technical School—The Secretary and Director of Education, Education Offices, Guild Street, Burton-upon-Trent.

**CHIEF TECHNICAL OFFICER**—The Secretary, Warwickshire War Agricultural Executive Committee, 6 Guy's Cliffe Avenue, Leamington Spa.

**TEACHER (temporary) OF MATHEMATICS** to junior engineering students—The Principal, County Technical College and School of Art, Newark, Notts.

**GRADUATE ASSISTANT** to teach PHYSICS (Industrial and teaching experience desirable), and a **GRADUATE ASSISTANT** for subjects up to Higher National Certificate standard in MECHANICAL ENGINEERING (candidates must have had practical experience in Engineering and be able to teach ELECTRICAL ENGINEERING to the Ordinary National Certificate standard), at the West Hartlepool Technical College and Technical Day School for Boys—The Chief Education Officer, Education Offices, Park Road, West Hartlepool.

**SPEECH THERAPIST** in School Clinics for the Remedial Treatment of Stammering and other Speech Defects—The Director of Education, Education Offices, Todmorden, Yorks.

**GRADUATE ASSISTANT MASTER FOR ENGINEERING SUBJECTS WITH MATHEMATICS** in Day Technical School and Evening Institute—The Principal, Technical Institute, 28 Beckenham Road, Beckenham, Kent.

## REPORTS and other PUBLICATIONS

(not included in the monthly Books Supplement)

### Great Britain and Ireland

**British Rubber Producers' Research Association.** Publication No. 37: Rubber, Polyisoprenes and Allied Compounds, Part 4: The Relative Tendencies towards Substitutive and Additive Reaction during Chlorination. By G. F. Bloomfield. Pp. 8. Publication No. 38: The Course of Autoxidation Reactions in Polyisoprenes and Allied Compounds, Part 3: The Oxidation of Rubber in the Presence of Acetic Acid or Acetic Anhydride. By G. F. Bloomfield. Pp. 6. (London: British Rubber Producers' Research Association.) [81]

**Transactions of the Royal Society of Edinburgh.** Vol. 61, Part 1, No. 2: The Archaean Rocks of the Rodil District, South Harris, Outer Hebrides. By Dr. Charles F. Davidson. Pp. 71-112+3 plates. (Edinburgh and London: Oliver and Boyd, Ltd.) 6s. 3d. [81]

**Board of Education.** Educational Pamphlet No. 119: Sex Education in Schools and Youth Organisations. Pp. ii+22. (London H.M. Stationery Office.) 6d. net. [81]

**Recruitment and Supply of Teachers: a Short Term Policy for an Emergency.** Pp. 12. (London: National Union of Teachers.) [81]

### Other Countries

**Smithsonian Institution.** War Background Studies, No. 15: Iceland and Greenland. By Austin H. Clark. (Publication 3735.) Pp. iv+104+21 plates. (Washington, D.C.: Smithsonian Institution.) [410]

**Proceedings of the American Philosophical Society.** Vol. 87, No. 2 (August 16, 1943): Symposium on Post-War Problems: Papers read before the American Philosophical Society, Midwinter Meeting, February 19-20, 1943. Pp. iii+121-198. (Philadelphia: American Philosophical Society.) [410]

**British Honduras.** Abridged Report of the Forest Department for the Year ended 31st December 1942. Pp. 8. (Belize: Government Printer.) [510]

**Trinidad and Tobago:** Forests Department. Administration Report of the Conservator of Forests for the Year 1942. Pp. 6. (Trinidad: Government Printer.) 6 cents. [1110]

**Government of India:** Department of Labour. Triennial Review of Irrigation in India, 1936-1939. Pp. 62. (Delhi: Manager of Publications.) 2.6 rupees; 4s. [1110]

**Bericht über das Geobotanische Forschungsinstitut Rübel in Zürich für das Jahr 1942.** Von E. Rübel und W. Lüdi. Pp. 88+7 plates. (Zürich: Geobotanische Forschungsinstitut Rübel.) [1210]

**Government of Travancore.** Administration Report of the Government Museum for 1117 M.E. Pp. ii+6. (Trivandrum: Government Press.) [1310]

**U.S. National Museum.** Bulletin 100, Vol. 14, Part 2: Contributions to the Biology of the Philippine Archipelago and adjacent Regions—Descriptions and Figures of New Fishes obtained in Philippine Seas and adjacent Waters by the United States Bureau of Fisheries Steamer *Albatross*. By Henry W. Fowler. Pp. iii+63-92. (Washington, D.C.: Government Printing Office.) 10 cents. [1310]

**Proceedings of the United States National Museum.** Vol. 93, No. 3167: New Species of Buprestid Beetles of the Genus *Agilus* from Trinidad. By W. S. Fisher. Pp. 375-380. Vol. 93, No. 3168: Some Fungus Beetles of the Family Endomychidae in the United States National Museum, mostly from Latin America and the Philippine Islands. By H. F. Strohecker. Pp. 381-392. (Washington, D.C.: Government Printing Office.) [1310]

**Academy of Natural Sciences of Philadelphia.** Monograph No. 4: The Scrophulariaceae of the Western Himalayas. By Francis W. Pennell. Pp. viii+164+25 plates. (Philadelphia: Academy of Natural Sciences.) [1310]