high transverse, tensile, and compressive strengths, these values frequently being as much as three times as high as the corresponding values for electrical porcelains. They also possess resistance to cold flow, ability to withstand high temperatures, resistance to all common chemical agents except hydrofluoric acid, and low porosities.

Steatites have replaced porcelains for some uses solely because of their greater mechanical strength but more frequently on account of their improved dielectric properties. The useful range of dielectric constant for steatite ceramics varies only from five to eight. Loss of electrical energy in these insulators depends more on the power factor than on the dielectric constant.

Another interesting and important property of these steatite ceramics is that those which have good insulating properties for direct current may not be as satisfactory for alternating current. For example, ceramic bodies with the same direct current resistances were prepared for which the values of tan δ at 100 kc. varied by a factor of more than twenty-five. Thus, where a.c. and d.c. voltages are superimposed the dielectric properties for both have to be considered in comparing different materials.

FORTHCOMING EVENTS

(Meetings marked with an asterisk are open to the public)

Saturday, October 16

INSTITUTE OF PHYSICS (X-RAY ANALYSIS GROUP) (joint meeting with the MANCHESTER AND DISTRICT BRANCH) (in the Physics Department, The University, Oxford Road, Manchester), at 2.30 p.m.—Sir Lawrence Bragg, F.R.S.: "The Physical Optics of X-Ray Analysis"; Short Papers and Exhibition of Apparatus, etc., relating to Industrial Problems.

ASSOCIATION OF SCIENTIFIC WORKERS (NORTH-WEST AREA) (in the College of Technology, Sackville Street, Manchester).—Sir Robert Watson Watt, F.R.S.: "The Freedoms of Science".

Sunday, October 17

ASSOCIATION OF SCIENTIFIC WORKERS (NORTH-WEST AREA) (in the University, Liverpool)—Sir Robert Watson Watt, F.R.S.: "The Freedoms of Science".

Monday, October 18

ROYAL GEOGRAPHICAL SOCIETY (at Kensington Gore, London, S.W.7), at 5 p.m.—Dr. E. C. Willatts: "Physical Names for the Map of Great Britain".

Tuesday, October 19

SOCIETY OF CHEMICAL INDUSTRY (AGRICULTURE GROUP) (at the London School of Hygiene and Tropical Medicine, Keppel Street, Gower Street, London, W.C.1), at 2.30 p.m.—Mr. W. Morley Davies: "Lime in Agriculture".

INSTITUTION OF PROFESSIONAL CIVIL SERVANTS (at the Institution of Mechanical Engineers, Storey's Gate, St. James's Park, London, S.W.1), at 5.30 p.m.—The Rt. Hon. Sir Stafford Cripps, P.C.: "Radio and International Relations".

ROYAL PHOTOGRAPHIC SOCIETY (SCIENTIFIC AND TECHNICAL GROUP) (at 16 Princes Gate, South Kensington, London, S.W.7), at 6 p.m.—Dr. G. W. W. Stevens and Mr. P. C. Smethurst: "High-Resolution Microphotography—Graticules".

Friday, October 22

INSTITUTION OF MECHANICAL ENGINEERS (at Storey's Gate, St. James's Park, London, S.W.1), at 5.30 p.m.—Prof. F. C. Lea: Presidential Address.

Friday, October 22—Saturday, October 23

TOWN AND COUNTRY PLANNING ASSOCIATION (at the Royal Empire Society, Northumberland Avenue, London, W.C.2).—Conference on "Country Towns in a National Planning Policy"

Friday, October 22—Sunday, October 24

INSTITUTE OF INDUSTRIAL ADMINISTRATION (at the Waldorf Hotel, Aldwych, London, W.C.2).—Conference on "Management in Action".

Saturday, October 23

SHEFFIELD METALLURGICAL ASSOCIATION at 2.30 p.m.—Discussion on "The Education and Training of Metallurgists" (to be opened by Dr. Edwin Gregory).

APPOINTMENTS VACANT

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

TEACHER OF MATHEMATICS AND GENERAL SCIENCE for Technical Day School and College—The Chief Education Officer, Education Offices, Park Road, West Hartlepool (October 20).

EDUCATIONAL PSYCHOLOGIST (full-time)—The County Medical Officer, Public Health Department, Shire Hall, Nottingham (October 20).

ASSISTANT AGRICULTURAL CHEMIST—The Principal, Agricultural Institute and Experimental Station, Kirton, Boston, Lincs. (October 21).

TEACHER OF PHYSICS—The Principal, Acton Technical College, High Street, Acton, London, W.3 (October 22).

LECTURER (full-time) IN PHYSICAL AND INORGANIC CHEMISTRY, and a LECTURER (full-time) IN ZOOLOGY, WITH BOTANY OR PHYSIOLOGY—The Clerk to the Governors, South-East Essex Technical College and School of Art, Longbridge Road, Dagenham, Essex (October 22).

LECTURER IN MINING—The Clerk to the Governors, Technical College, Infirmary Road, Chesterfield (October 23).

LECTURER IN GENERAL SCIENCE for the Junior Technical College—The Principal, Derby Technical College, Normanton Road, Derby (October 23).

LECTURER IN MATHEMATICS, and an ASSISTANT MASTER to teach SCIENCE and subsidiary MATHEMATICS—The Principal, Kingston Technical College, Kingston, Surrey (October 25).

TEACHER OF ENGINEERING SUBJECTS, and a TEACHER OF GEOGRAPHY—The Principal, West Ham Municipal College, Romford Road, Stratford, London, E.15 (October 25).

ASSISTANT TO THE ADVISORY MYCOLOGIST—The Advisory Mycologist, School of Agriculture, Cambridge (October 30).

ENGINEERING GRADUATE (or equivalent qualifications) to teach chiefly Mechanical Subjects—The Principal, County Technical College, Dartford, Kent.

ASSISTANT ENGINEER for the British Guiana Public Works Department—The Ministry of Labour and National Service, Central (Technical and Scientific) Register, Alexandra House, Kingsway, London, W.C.2 (quoting Reference No. E.767).

REPORTS and other PUBLICATIONS

(not included in the monthly Books Supplement)

Great Britain and Ireland

Institute of Statistics, Oxford. Supplement No. 5, Bulletin Vol. 5, New Plans for International Trade. Pp. 40. (Oxford: Basil Blackwell.) 1*s.* 6*d.* net. [219

Royal Institute of Chemistry of Great Britain and Ireland. Lecture on Leather. By Dr. Dorothy Jordan-Lloyd. Pp. 31. (London: Royal Institute of Chemistry.) [219

Hannah Dairy Research Institute. Report for the Two Years ending 31st March 1943. Pp. 20+4 plates. (Kirkhill: Hannah Dairy Research Institute.) [219

Geological Survey of Great Britain. Wartime Pamphlet No. 35: Determination of Tin, with Special Reference to Tin Ores. By C. O. Harvey. Pp. 13. (London: Geological Survey and Museum.) 9*d.* [219

Imperial Agricultural Bureaux. Report on the Imperial Agricultural Bureaux by a Committee under the Chairmanship of the Rt. Hon. Lord Hankey. Pp. 38. (London: H.M. Stationery Office.) 1*s.* net. [229

Other Countries

Indian Forest Bulletin. Utilisation (New Series), No. 118: Studies in Fire Resistance, Part 1: The Fire Resistance of some Indian Timbers (a) The Rate of Burning. By D. Narayanamurti and R. Gopalachari. Pp. 17. (Dehra Dun: Forest Research Institute.) 6 annas; 9*d.* [248.

Indian Forest Leaflet. Utilization, No. 39: Bamboo Pill or Ointment Boxes. By Sultan Mohammed. Pp. 6+1 plate. (Dehra Dun: Forest Research Institute.) 6 annas; 9*d.* [248

Indian Forest Records (New Series). Silviculture, Vol. 5, No. 2: Teak Plantation Technique. By A. L. Griffith. Pp. 123–220+19 plates. (Delhi: Manager of Publications.) 4·2 rupees; 6*s.* 6*d.* [248

Indian Forest Leaflet. Timber Development Branch, No. 36: River Training Works. By J. L. Harrison. Pp. 11+5 plates. 6 annas; 9*d.* Silviculture, No. 38: Land-Use and Erosion. By Jagdamba Prasad. Pp. iii+9. 4 annas; 6*d.* (Dehra Dun: Forest Research Institute.) [308

Determinacao quantitativa do aluminio; sua precipatacao por meio da fenilhidrazina. Pelo Wolfrando Carvalho de Moraes Bastos. Pp. 54. (Rio de Janeiro: Instituto Nacional de Tecnologia.) [69

New Zealand. Seventeenth Annual Report of the Department of Scientific and Industrial Research. Pp. 44. (Wellington: Government Printer.) 1*s.* [69

Parliament of the Commonwealth of Australia. Sixteenth Annual Report of the Council for Scientific and Industrial Research, for the Year ended 30th June 1942. Pp. 74. (Canberra: Government Printer.) 3*s.* 3*d.* [79

New Zealand: State Forest Service. Annual Report of the Director of Forestry for the Year ended 31st March 1943. Pp. 24. (Wellington: Government Printer.) 9*d.* [79

American Museum of Natural History. Seventy-fourth Annual Report for the Year 1942. Pp. ii+65+8 plates. (New York: American Museum of Natural History.) [89

Five Editorials reprinted from Natural History Magazine. By Albert E. Parr. Pp. 20. (New York: American Museum of Natural History.) [89