

tion of fossil calcareous algæ.—A. Hintringer: The separation of seeds from the placenta and from the pericarp respectively.—E. Biel: Climatography of the former Austrian littoral.—A. Kailan and E. Goitein: Hydrochloride formation in glycerine and glycol and the esterification of the mon-oxy- and of the 2, 5- and 2, 6-di-oxy-benzoic acid as well as of phenyl-acetic acid.—R. Schumann: On vectorial adjustment of closed geodetic figures in the plane in the case of arbitrary weights for distances and directions.—A. Pongratz: Recherches on perylene and its derivatives.—A. Zinke, G. Gorbach, and O. Schimka: Recherches on perylene and its derivatives.—O. Dischendorfer: On *o*-nitro-benzal-di-*β*-naphthol.—A. Birula: Scorpions of the Anglo-Egyptian Sudan.

June 30.—E. Chwalla: The stability of girder struts.—F. Feigl and M. Fürth: The compounds of nickel with *o*-phenylene-diamine and 1, 3, 4-toluylenediamine.—L. Schmid and E. Ludwig: Two stearine-like substances in *Asclepias syriaca* identical with  $\alpha$ - and  $\beta$ -amyrin.—K. Przibram: Further experiments on the coloration of compressed salts. Many salts sold as chemically pure give pressure colours.—A. Kieslinger: Glacial lakes in Eastern Carinthia. The characteristics of such lakes are level terraces mostly of lake sand.—A. Kieslinger: Preliminary report on tectonics of middle Carinthia.—L. Kober: Geology of the Northern Apennines and the adjacent Alps.—A. Winkler: The tertiary basin of south-west Styria in the older Miocene.—O. Richter: Sodium, a necessary nutritive element for a marine micro-aerophil luminous bacterium.

## Official Publications Received.

### BRITISH.

Aeronautical Research Committee: Reports and Memoranda. No. 1053 (E. 23): Torsional Vibration in Engines. Effects of fitting a Damper, a Flywheel, or a Crankshaft-driven Supercharger. By B. C. Carter. (B. 4. Engines 57 and a, b and c.—T. 2227 and a, b and c.) Pp. 21+19 plates. 1s. 9d. net. No. 1082 (Ae. 261): The Pressures round a Cylinder rotating in an Air Current. By Dr. A. Thom. (A.3 f. Autogyros, Helicopters and Rotors, 1.—T. 2347.) Pp. 12+8 plates. 9d. net. (London: H.M. Stationery Office.)

City and Guilds of London Institute. Report of the Council to the Members of the Institute, 1927. Pp. lvi+85. (London: Gresham College.)

### FOREIGN.

Shinsae Yobô Tyôsakwai Hôkoku. (Reports of the Imperial Earthquake Investigation Committee.) No. 100, C1. Pp. 210+253 plates. No. 100, C2. Pp. 211+401+215 plates. No. 100, D. Pp. 8+303+260 plates. (Tokyo: Department of Education.)

Journal of the College of Agriculture, Hokkaido Imperial University, Sapporo, Japan. Vol. 20, Part 1: Über die Entstehung des Corpus luteum beim Kaninchen. Von Shiro Kurashige. Pp. 47+4 Tafeln. (Sapporo.)

### CATALOGUES.

A Catalogue of Rare and Valuable Books (mostly Antiquarian), Pamphlets, Excerpts, Periodicals and Plates on all branches of Natural History, with a large proportion of works on Ornithology. (No. 1, New Series.) Pp. 24. (Eastbourne: The Naturalist's Library (A. J. Bateman).)

Catalogue of Atlases, Maps, Sea Charts, Road Books, Military Plans, Facsimiles of Early Maps, and Books of Geographical Interest. (No. 408.) Pp. 61+6 plates. (London: Francis Edwards.)

## Diary of Societies.

SATURDAY, AUGUST 20.

NORTH OF ENGLAND INSTITUTE OF MINING AND MECHANICAL ENGINEERS, at 2.30.—Annual Meeting.

### CONGRESSES.

AUGUST 22-26.

PATHOLOGICAL AND BACTERIOLOGICAL LABORATORY ASSISTANTS' ASSOCIATION (in University Pathology Department, Cambridge).

August 22.—At 10.30 A.M.—W. A. Mitchell: Cambridge (Lecture).

August 23.—At 9.30 A.M.—A. E. P. Grimmo: The Manufacture of Small-pox Vaccine as carried out in the Laboratories of the Shanghai Municipal Council.

J. J. Ritchie: Antagonism and Symbiosis of Bacteria.

Prof. G. H. F. Nuttall: The Development of Parasitology.

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August 24.—At 9.30 A.M.—S. J. Denyer: Virulence Tests in the Identification of *B. Diphtheroe*.

A. Saunders: Diversions of an Overseas Laboratory Assistant.

J. McLean: Rare Faecal Organisms which simulate Pathogens.

August 25.—At 9.30 A.M.—F. Leeson: The Preparation of Plague Vaccine.

S. Linfoot: Laboratory Work in a Spa Hospital.

E. Steele, J. McLean, and others: Discussion on Laboratory Economics.

E. C. Haddon: The Biuret Reaction.

S. J. Denyer: Difficulties encountered in the Differentiation of Paratyphosus A, B, and C.

H. Gooding: On Mounting Frail Museum Specimens on Wax Plates.

V. C. Norfield: Tissue Cultivation Technique.

August 26.—At 9.30 A.M.—Demonstrations of Exhibits.

### EMPIRE MINING AND METALLURGICAL CONGRESS.

Montreal Meetings, August 22 and 23.—Sir Thomas Holland: Proposed Review of the Mineral Resources of the Empire.—G. M. Carrie and C. S. Pascoe: Magnesia Refractories for Steel Furnaces.—A. Standfield: Smelting Titaniferous Iron Ores.—W. A. Toohey: Portland Cement in Canada.—Mining and Metallurgical Practice in Australia.—Health Safety Problems.

Toronto Meetings, August 25 and 26.—C. Johnson: Winning and Refining of Precious Metals from Sudbury Ores.—R. C. Stanley: Nickel, Past and Present.—A. A. Cole: The Silver Mining Industry of Canada.—J. G. Morrow: The Cascade Method of Pouring Steel.—A. Mavrogordato and H. Prow: Deep Level Mining and High Temperatures.

Winnipeg Meeting, September 2.—G. E. Cole: The Development of Gold Mining in Canada.—W. A. Quince: Methods of Eliminating Barren Rock from Ore at the Sub-Nigel Mine.—G. R. Davis, J. L. Willey, and S. E. T. Ewing: Notes on the Operation of the Reduction Plant at West Springs, Ltd.—E. J. Laschinger: A New Form of Air Meter and the Measurement of Compressed Air.

Vancouver Meeting, September 14.—C. P. Browning: Canadian Copper and its Production.—F. J. Alcock and T. W. Bingay: Lead and Zinc in Canada.—C. J. N. Jourdan: A Brief Review of the Principal Base Metal and Base Mineral Resources of the Union of South Africa.—R. Craib: Dewatering the Lower Levels of the Simmer and Jack Mines, Ltd.—W. S. Robinson: Manufacture of Sulphuric Acid by the Contact Process. From Zinc Blende Roaster Gases.

Edmonton Meeting, September 20.—R. Strachan, W. J. Dick, and R. J. Lee: The Coal Industry in Western Canada.—J. Ness: Petroleum in Canada.—A. Docquier, L. Bataille, and R. Beestlestone: A Combination of the Baum, the Draper, and the Froth Flotation Systems as applied to the Washing of Coal at the Linsi Mine of the Kailan Mining Administration, North China.—A. E. Cameron: Impact Resistance of Steel at Low Temperatures.

Quebec Meetings, September 5 and 26.—J. G. Ross: Asbestos Mining and Milling.—A. W. Nash: Possible Auxiliary Sources of Liquid Fuel.—A. Job: The Sinking and Equipment of the Ventilation Shaft of the Government Gold-Mining Areas.—G. W. Sharp: The Tipping and Guiding of Vertical Skips.—P. M. Newhall and L. Pryce: Improvements in Drilling Efficiency with Jack-Hammers.

Sydney Meetings, September 9 and 10.—F. W. Gray: Mining Coal Under the Sea in Nova Scotia.—Sir Robert Hadfield: The Metal Manganese and its Properties; also, the Production of Ferro-Manganese and its History.—Raw Materials for the Iron and Steel Industry in India.—B. Yanesko: The Manufacture of Steel in India, by the Duplex Process.

AUGUST 27-SEPTEMBER 1.

INTERNATIONAL CONGRESS OF ORIENTALISTS (at Oxford). In following sections: General (including Anthropology, Ethnography, Prehistoric Archaeology, Comparative Mythology, and Folklore), Assyriology and cognate subjects, Egypt and Africa, Central and Northern Asia, the Far East, India and Iran, including the Indo-European Languages of Asia, the Old Testament, the Language, Literature, etc., of Islam, and Oriental Art.

AUGUST 29-SEPTEMBER 3.

INTERNATIONAL COMMISSION FOR THE EXPLORATION OF THE UPPER AIR (at Leipzig).

SEPTEMBER 1-4.

SCHWEIZERISCHE NATURFORSCHENDE GESELLSCHAFT (in 14 Sections).—Presidential Address by Dr. F. Sarasin.—Lectures on, respectively, The Causes and Factors of Morphogenesis, by Prof. A. Brachet; Recent Work and Views in Astronomy, by Prof. L. Courvoisier; The Urals from the Point of View of Geophysics, Geology, and Mining, by Prof. L. Duparc; Paracelsus in Relation to Modern Thought, by Prof. H. E. Sigerist.

SEPTEMBER 8-10.

INTERNATIONAL UNION OF GEODESY AND GEOPHYSICS (at Prague).

SEPTEMBER 4-9.

INTERNATIONAL CONGRESS OF ZOOLOGY (at Budapest).

SEPTEMBER 11-17.

INTERNATIONAL CONGRESS OF PHYSICS IN COMMEMORATION OF THE CENTENARY OF VOLTA (at Como).

SEPTEMBER 11-18.

INTERNATIONAL CONGRESS OF GENETICS (at Berlin). In three sections: General Genetics and Cytology, Heredity in Man and Eugenics, Animal and Plant Breeding.

SEPTEMBER 18-OCTOBER 3.

INTERNATIONAL CONGRESS OF THEORETICAL AND APPLIED LIMNOLOGY (at Rome).