

distances, is seen from the earth at an angle of one-millionth of a second of arc.—M. Painlevé: Remarks on the two preceding communications.—P. Fatou: The movement of a planet in a resisting medium.—G. Guillaumin: The equilibrium of a talus in coherent earth.—P. Dienes: The connection of the tensorial field.—M. St. Procopiu: An electro- and magneto-optical effect in liquids holding metallic powders in suspension. All liquids containing fine metallic powders in suspension show negative double refraction both in a magnetic and in an electric field. Thus double refraction does not disappear at once when the field is suppressed; there is a lag of about three minutes, except in the case of mercury, in which the double refraction disappears almost instantaneously.—E. E. Blaise and Mlle. Montagne: The action of thionyl chloride on the  $\alpha$ -acid alcohols. Thionyl chloride and glycolic acid give two main products: chloroacetyl-glycolic chloride,  $\text{CH}_2\text{Cl} \cdot \text{CO} \cdot \text{O} \cdot \text{CH}_2 \cdot \text{COCl}$ , and the chlorosulphite,  $\text{Cl} \cdot \text{SO} \cdot \text{O} \cdot \text{CH}_2 \cdot \text{COCl}$ . The latter decomposes readily on heating into sulphur dioxide and chloroacetyl chloride.—E. Grandmougin: The quindolines.—C. Deguide and P. Baud: A new method for the industrial manufacture of baryta for the treatment of sugar molasses. Barium carbonate and silica, both in a very fine state of division, are heated together at a temperature of  $1300^\circ\text{C}$ . Subsequent lixiviation with water gave from 78 to 81 per cent. of barium hydrate,  $\text{Ba}(\text{OH})_2 \cdot 8\text{H}_2\text{O}$ .—L. Semichon: The composition of wine lees.—L. Royer: The inversion of the rotatory power in anisotropic liquids.—H. Joly: The presence of transported scales or fragments in the Celtiberic chain. (Provinces of Saragossa, Logrono, and Soria, Spain).—P. Russo: The geological constitution of the territory of the Hauts Plateaux and of Figuig (eastern Morocco).—H. Lagotala: The chronology of the Quaternary and the Cotencher excavations.—C. Corroy: The Neocomian and Albian reptiles of the Paris basin.—P. Bugnon: The bifurcated ramification in the cotyledons.—R. Souèges: The embryogeny of the Rosaceae. The last stages of the development of the embryo in *Geum urbanum*.—A. Labbé: The rôle of the alkalinity of sea water in heterogeneous impregnations.—W. R. Thompson: Theory of the action of insect-destroying parasites. The mathematical formulæ of cyclic parasitism.—L. Mercier and R. Poisson: *Haplosporidium Caulleryi*, a parasite of *Nereilepas fucata*.

## BRUSSELS.

Royal Academy of Sciences, May 2.—M. A. Lameere in the chair.—Cl. Servais: The geometry of the tetrahedron (V).—Th. De Donder: On the theorem of Nernst.—L. Godeaux: On the rational correspondences between two surfaces of one kind.—G. Fournier and P. Pruvost: Discovery of a new fish in the black marble of Denée.—D. Tits: The exciting factors for germination in a fungus, *Phycomyces nitens*.

## Official Publications Received.

Catalogue of 1068 "Intermediate" Stars situated between  $51^\circ$  and  $65^\circ$  South Declination for the Equinox 1900: From Observations made at the Sydney Observatory, New South Wales, Australia, during the Years 1918-1919. By Prof. W. E. Cooke. Pp. vii+29. (Sydney: W. A. Gullick.)

Stonyhurst College Observatory. Results of Geophysical and Solar Observations, 1921: With Reports and Notes of the Director, Rev. A. L. Cortie. Pp. xv+45. (Blackburn.)

Carnegie Institution of Washington. Annual Report of the Director of the Department of Botanical Research. (Extracted from Year Book No. 20 for the Year 1921.) Pp. 43-75. (Washington.)

Colony and Protectorate of Kenya. Annual Report of the Forest Department, 1920-21. Pp. 15. (Nairobi.) 50 cents.

Ministry of Public Works, Egypt. Zoological Service (Publication No. 35). Report on the Zoological Service for the Year 1921, in which is included the 23rd Annual Report of the Giza Zoological Gardens. By Major S. S. Flower. Pp. ii-18. (Cairo: Government Publications Office.) P.T. 5; 1s.

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## Diary of Societies.

## FRIDAY, MAY 26.

- ROYAL SOCIETY OF ARTS (Indian Section), at 4.30.—Sir Thomas W. Arnold: Indian Painting and Muhammadan Culture (Sir George Birdwood Memorial Lecture).
- PHYSICAL SOCIETY OF LONDON (at Imperial College of Science and Technology), at 5.—Dr. F. W. Aston: Atomic Weights and Isotopes (Lecture).
- ROYAL SOCIETY OF MEDICINE (Study of Disease in Children Section) (Annual General Meeting), at 5.
- JUNIOR INSTITUTION OF ENGINEERS, at 8.—J. C. Rennie: Engineering Appointments and how to get them.
- ROYAL SOCIETY OF MEDICINE (Epidemiology and State Medicine Section), at 8.—Dr. R. Dudfield: Reforms needed in the Notification of Tuberculosis.
- ROYAL INSTITUTION OF GREAT BRITAIN, at 9.—Prof. W. E. Dalby: The Internal Combustion Engine: Its Influence and its Problems.

## SATURDAY, MAY 27.

- ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—Sir Hugh Allen: Early Keyboard Music (1).

## MONDAY, MAY 29.

- ROYAL GEOGRAPHICAL SOCIETY (Anniversary Meeting) (at Æolian Hall), at 5.30.—Presentation of Royal Medals and other awards; Presidential Address; Annual Report; Election of Officers and Council.
- ROYAL INSTITUTE OF BRITISH ARCHITECTS, at 8.—W. Harvey: Colour in Architecture.
- SOCIETY OF CHEMICAL INDUSTRY (London Section) (at Institution of Mechanical Engineers), at 8.—Sir George Beilby: Structure of Coke: Its Origin and Development.

## TUESDAY, MAY 30.

- ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—Sir Percy Sykes: Twenty-five Years' Travel in Persia.
- ROYAL PHOTOGRAPHIC SOCIETY (Lantern Meeting), at 7.—E. J. Bedford: Wild Flowers.
- FELLOWSHIP OF MEDICINE (at Royal Society of Medicine), at 5.—Sir W. Arbuthnot Lane, Bart.: Fractures.

## WEDNESDAY, MAY 31.

- ROYAL SOCIETY OF ARTS, at 3.—L. Haward: The Manchester Art Gallery and the Problem of Provincial Collections.

## THURSDAY, JUNE 1.

- ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—Very Rev. Dean Inge: Theocracy (2). The Mediæval Idea.
- ROYAL SOCIETY, at 4.30.—Prof. T. H. Morgan: The Mechanism of Heredity (Croonian Lecture).
- LINNEAN SOCIETY OF LONDON, at 5.—Prof. A. C. Seward: Hooker Lecture.
- JUNIOR INSTITUTION OF ENGINEERS (at Institution of Electrical Engineers), at 7.30.—Sir Eric Geddes: Fourth Canet Lecture
- CHEMICAL SOCIETY, at 8.—J. S. Buck and I. M. Heilbron: The Reactivity of Doubly-conjugated Unsaturated Ketones. Part III. Unsymmetrical Hydroxy- and Methoxy-derivatives.—J. S. Buck and I. M. Heilbron: Phanoptyryllium Salts of Distyryl Ketones. Part I.

## FRIDAY, JUNE 2.

- DIESEL ENGINE USERS' ASSOCIATION (at Institution of Electrical Engineers).—H. F. P. Purday: Marine Diesel Engines.

## SATURDAY, JUNE 3.

- ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—Sir Hugh Allen: Early Keyboard Music (2).

## PUBLIC LECTURES.

(A number in brackets indicates the number of a lecture in a series.)

## FRIDAY, MAY 26.

- BIRKBECK COLLEGE, at 6.—Dr. E. J. Russell: Recent Work with regard to the Influence of Soil Conditions on Agriculture (3).

## MONDAY, MAY 29.

- UNIVERSITY COLLEGE, at 5.—A. T. Walmisley: Groynes and Sea Defence Works.

## TUESDAY, MAY 30.

- KING'S COLLEGE, at 5.30.—C. E. M. Joad: Vitalism Restated (1). The Reduction of Ethics to Psychology.—Dr. D. Subotić: Influence of Geography on the Economic Conditions of Jugo-Slavia (1).

## WEDNESDAY, MAY 31.

- KING'S COLLEGE, at 5.—Dr. A. Harker: Tertiary Igneous Action in Britain (3).
- ROYAL SOCIETY OF MEDICINE, at 5.—Prof. J. Babinski: Des Reflexes de Défense. (In French.)
- SCHOOL OF ORIENTAL STUDIES, at 5.—Dr. R. A. Nicholson: The Idea of Personality in Sufism (3).
- UNIVERSITY COLLEGE, at 5.15.—Dr. D. H. Scott: The Early History of the Land Flora (6); at 6.30.—Miss Mildred Swannell: Individual Work and Dr. Montessori.

## THURSDAY, JUNE 1.

- ST. MARY'S HOSPITAL (Institute of Pathology and Research), at 5.—Sir A. Cruickshank Houston: The Purification of Water.