

or simply AOB, equivalent to (OA, OB). The complete angle congruence, expressed as  $(l_1, l_2) \equiv (l'_1, l'_2)$ , or  $AOB \equiv A'O'B'$ , is shown to be the characteristic angle relation of elementary geometry; its use gives greater simplicity and generality to geometrical theory.

### Books Received.

Seventh Scientific Report on the Investigations of the Imperial Cancer Research Fund. Pp. viii+91+22 plates. (London: Taylor and Francis.) 15s.

Report of the Canadian Arctic Expedition, 1913-1918. Vol. 5: Botany. Part A: Vascular Plants. By J. M. Macoun and T. Holm. Pp. 25+13 plates. (Ottawa: F. A. Acland.)

Berichte des Ohara Instituts für Landwirtschaftliche Forschungen in Kurashiki, Provinz Okayama, Japan. By M. Kondō, Nōgaku-Kakuschi. Band 1, Heft 5. Pp. 519-628+plates 8-11. (Kurashiki: Ohara Schönōkai.) 2.80 yen.

Modern Methods of Welding as Applied to Workshop Practice. By J. H. Davies. Pp. xviii+263. (London: Constable and Co., Ltd.) 21s.

Laboratory Exercises in Applied Chemistry for Students in Technical Schools and Universities. By Dr. W. Moldenhauer. Authorised translation by Dr. L. Bradshaw. Pp. xii+236. (London: Constable and Co., Ltd.) 12s. 6d.

A History of the Association Psychology. By Prof. H. C. Warren. Pp. x+328. (London: Constable and Co., Ltd.) 16s.

Hydraulics of Pipe Lines. By Prof. W. F. Durand. (Glasgow Text-books of Civil Engineering.) Pp. xvi+271. (London: Constable and Co., Ltd.) 18s.

Fuel and Lubricating Oils for Diesel Engines. By W. Schenker. Pp. xii+114. (London: Constable and Co., Ltd.) 10s.

Principles and Practice of Business. By G. Mairet. (Life and Work Series.) Pp. xii+301. (London: Macmillan and Co., Ltd.) 5s

A First Book of Applied Electricity. By S. R. Roget. (First Books of Science Series.) Pp. viii+143. (London: Macmillan and Co., Ltd.) 2s. 6d.

The Autonomic Nervous System. By Prof. J. N. Langley. Part 1. Pp. viii+80. (Cambridge: W. Heffer and Sons, Ltd.) 5s. net.

A Concise Guide to the Town and University of Cambridge: In an Introduction and Four Walks. Originally written by Dr. J. W. Clark. Seventh edition, entirely revised. Pp. xx+199+map. (Cambridge: Bowes and Bowes.) 1s. 0d. net.

Oils, Fats, and Fuels. By Thomas Hull. Pp. viii+143. (London: Blackie and Son, Ltd.) 3s. 6d. net.

Agricultural Progress in Western India. By G. Keatinge. Pp. xii+253. (London: Longmans, Green and Co.) 6s. net.

Les Sciences et le Pluralisme. By J.-H. Rosny, aîné. (Nouvelle Collection scientifique.) Pp. iv+210. (Paris: F. Alcan.) 8 francs net.

Oil Shales. By Dr. H. B. Cronshaw. (Imperial Institute Monographs on Mineral Resources, with Special Reference to the British Empire.) Pp. x+80. (London: J. Murray.) 5s. net.

The Prevention of Malaria in the Federated Malay States: A Record of Twenty Years' Progress. By Dr. M. Watson and others. Second edition, revised and enlarged. Pp. xxviii+381. (London: J. Murray.) 36s. net.

### Diary of Societies.

#### THURSDAY, DECEMBER 8.

- ROYAL SOCIETY, at 4.30.—Lord Rayleigh: A Study of the Glow of Phosphorus, Periodic Luminosity, and Action of Inhibiting Substances (with experimental Demonstration).—Lord Rayleigh: The Aurora Line in the Spectrum of the Night Sky.—E. F. Armstrong and T. P. Hilditch: A Study of Catalytic Actions at Solid Surfaces. VII, The Influence of Pressure on the Rate of Hydrogenation of Liquids in Presence of Nickel.—W. D. Womersley: The Energy in Air, Steam, and Carbon Dioxide from 100° C. to 2000° C.—Lt.-Col. J. W. Gifford: Atmospheric Pressure and Refractive Indices, with a Corresponding Table of Indices of Optical Glass.—H. P. Waran: A New Form of Interferometer.—H. Harle: The Viscosities of the Hydrogen Halides.
- ROYAL COLLEGE OF SURGEONS OF ENGLAND, at 5.—Sir Charles Ballance: A Glimpse into the History of the Surgery of the Brain (Thomas Vicary Lecture).
- ROYAL SOCIETY OF MEDICINE (Balneology and Climatology Section), at 5.30.—Dr. A. G. S. Mahomed: The Relation of Atmospheric Electrical Variations to the Incidence of Epileptic Fits.—Discussion on the Organisation of the Section.
- OPTICAL SOCIETY (at Imperial College of Science and Technology), at 7.30.—L. C. Martin: The Physical Meaning of Spherical Aberration.—Dr. F. Lloyd Hopwood: An Auto-stroboscope and an Incandescent Colour Top.—Lt.-Col. Gifford: Achromatic One Radius Doublet Eyepieces.
- CHEMICAL SOCIETY (at Institution of Mechanical Engineers), at 8.—Prof. J. W. Gregory: The Genesis of Ores.
- INSTITUTE OF METALS (London Section) (at 85 The Minories), at 8.—S. A. E. Wells: Casting in Metal Moulds.
- ROYAL SOCIETY OF MEDICINE (Neurology Section) (at Hospital for Paralysis, Maida Vale), at 8.—Clinical Meeting.
- CAMERA CLUB, at 8.15.—Capt. H. Lambart: The Intricacies of the Silent Drama and its Making.
- HARVEIAN SOCIETY (at Medical Society of London), at 8.30.—Sir John Charlton Briscoe, Bart., Sir Sidney Russell Wells, Dr. G. H. Hunt, and Sir William Willox: Discussion: Is the Anginal Syndrome only of Cardiac Origin?
- SOCIETY OF ANTIQUARIES, at 8.30.

#### FRIDAY, DECEMBER 9

- INSTITUTION OF WATER ENGINEERS (at Geological Society), at 10 a.m.—L. H. Lewis: The Manchester Water Works.—J. Don: Adsorption in Sand Filters.—C. F. Newton: Indicating and Recording Instruments.—P. B. Crosthwaite: The Louth Flood of 1920.—D. H. Thompson: Hydrological Conditions in the Chalk at Compton, West Sussex.—Discussion: The Final Report of the Water Power Resources Committee.
- ASSOCIATION OF ECONOMIC BIOLOGISTS (in Botanical Lecture Theatre, Imperial College of Science and Technology), at 2.30.—Prof. J. H. Priestley and others: Discussion: The Resistance of the Normal and Injured Plant Surface to the Entry of Pathogenic Organisms.
- JAPAN SOCIETY, at 5.—W. L. Schwartz: The Potters and Pottery of Satsuma.
- PHYSICAL SOCIETY OF LONDON (at Imperial College of Science and Technology), at 5.—G. A. Sutherland and L. Clark: The Average Range of  $\beta$ -rays in Different Metals.—Prof. E. Wilson: The Sensitivity of Ballistic Galvanometers.—Prof. R. L. Jones: The Determination of the Damping Decrement of a Tuning Fork.—Dr. E. A. Owen: The Estimation of the Radium Content of Radio-active Luminous Compounds.
- ROYAL ASTRONOMICAL SOCIETY, at 5.—W. M. H. Greaves: Certain Periodic Orbits in the restricted Problem of Three Bodies.—W. M. H. Greaves: Long-period Inequalities in the Movements of Asteroids of which the Mean Motions are nearly half that of Mars.—J. van der Bilt: Observations of Comets made with the 16-inch refractor of the University Observatory, Utrecht, Holland.—A. A. Nijland: Observations of Comet 1921a (Reid) made with the 10-inch refractor of the University Observatory, Utrecht, Holland.—Rev. T. G. R. Phillips: The Third Satellite of Jupiter.—Royal Observatory Greenwich: Mean Areas and Heliographic Latitudes of Sunspots in the year 1917.
- ROYAL SOCIETY OF MEDICINE (Clinical Section), at 5.30.
- INSTITUTION OF MECHANICAL ENGINEERS (Informal Meeting), at 7.—Continuation of Discussion on Ball and Roller Bearings: Some Recent Types and Criticisms.
- JUNIOR INSTITUTION OF ENGINEERS (at Royal United Service Institution), at 7.30.—C. H. Worthingham: Presidential address.
- ROYAL SOCIETY OF MEDICINE (Electro-therapeutics Section), at 8.30.—Dr. Carelli: Demonstration of a Method of Radioscopic Examination with the Help of Gas Injections.—Dr. Riddell: Demonstration of a Simple Apparatus for Making Serial Radiographs of Pyloric Region in the Horizontal and Upright Positions.
- ROYAL SOCIETY OF MEDICINE (Ophthalmology Section), at 8.30.—Clinical Evening.

#### SATURDAY, DECEMBER 10.

- INSTITUTION OF WATER ENGINEERS (at Geological Society), at 10 a.m.—L. H. Lewis: The Manchester Water Works.—J. Don: Adsorption in Sand Filters.—C. F. Newton: Indicating and Recording Instruments.—P. B. Crosthwaite: The Louth Flood of 1920.—D. H. Thompson: Hydrological Conditions in the Chalk at Compton, West Sussex.—Discussion: The Final Report of the Water Power Resources Committee.
- GILBERT WHITE FELLOWSHIP (at Lowther Lodge, Kensington Gore, S.W.7), at 2.30.

#### MONDAY, DECEMBER 12.

- ROYAL BOTANIC SOCIETY OF LONDON, at 3.—Prof. A. W. Bickerton: Gardening (3): Artistic Gardening.