

with magnesium-methyl iodide, gives a propenyl anisol and a polymer. The composition of the ketone formed from this on hydrolysis leads to the conclusion that anethol possesses a propylenic chain.—On the phenylhydrazones of glucose and their multirotaion, by MM. L. J. Simon and II. Bénard.—A general method for the synthesis of the naphthenes, by MM. Paul Sabatier and J. H. Senderens. At 170° to 200° all the hydrocarbons tried were readily hydrogenised by reduced nickel. Details are given of the preparation of the hexahydro-compounds of toluene, orthoxylene and its meta- and para-isomers, ethyl benzene, mesitylene, pseudocumene and propylbenzene.—The specific and latent heat of fusion of ethylene glycol, by M. de Forcrand.—On the constitution of gentianose, by MM. Ed. Bourquelot and II. Hérissé.—The treatment by oxygen at atmospheric pressure of persons poisoned by carbon monoxide, by M. N. Gréhaut. The elimination and disappearance of the poison is considerably accelerated by the use of oxygen, which thus becomes essential in the treatment of cases of carbon monoxide poisoning.—The analogies between the diastatic actions of colloidal platinum and those of organic diastases, by M. G. Bredig.—The coagulating properties of mucus and its origin and consequences, by MM. Charrin and Moussu.—On a differential histochemical reaction of leucocytes and on the experimental production and the nature of the chromatophile granulations of its cells, by M. Henri Stassano.—New observations on the organisation of the Gasteropods, *Pl. Quoyana* and *Pl. Beyrichi*, by MM. E. L. Bouvier and H. Fischer.—On the different cells of the ovary which intervene in the formation of the egg in insects, by M. A. Lécaillon.—On the mechanism of the propulsion of the tongue in amphibians, by M. Marcus Hartog.—On the geotropism of the roots of the vine, M. J. M. Guillon.—On the discovery of a glossopterian flora and of the reptiles *Pariasaurus* and *Dicynodon* in the upper Permian deposits of the north of Russia, by M. V. Amalitzky.—The tertiary and quaternary deposits of the valley of Bellegarde, by M. H. Douxami.

## DIARY OF SOCIETIES.

### THURSDAY, MARCH 14.

ROYAL SOCIETY, at 4.30.—The Action of Magnetised Electrodes upon Electrical Discharge Phenomena in Rarefied Gases: C. E. S. Phillips.—The Chemistry of Nerve-degeneration: Dr. Mott, F.R.S., and Prof. Halliburton, F.R.S.—On the Ionisation of Atmospheric Air: C. T. R. Wilson, F.R.S.—On the Preparation of Large Quantities of Tellurium: E. Matthey.

ROYAL INSTITUTION, at 3.—Greek and Roman Portrait Sculpture: Prof. Percy Gardner.

MATHEMATICAL SOCIETY, at 5.30.—On the Composition of Group-Characteristics: Prof. Burnside, F.R.S.—On the Use of Cauchy's Principal Values in the Double Limit Problems of the Integral Calculus: G. H. Hardy.—Some Algebraical Identities of Simple Arithmetical Application: Prof. Elliott, F.R.S.

SOCIETY OF ARTS (Indian Section), at 4.30.—The Growth and Trend of Indian Trade—a Forty Years' Survey: H. J. Tozer.

INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—Some Notes on Poly-phase Substation Machinery: A. C. Eborall.

### FRIDAY, MARCH 15.

ROYAL INSTITUTION, at 9.

INSTITUTION OF MECHANICAL ENGINEERS, at 8.—Combined Trolley and Conduit Tramway Systems: A. N. Connert.

EPIDEMIOLOGICAL SOCIETY, at 8.30.—The Enteric Fever Mortality in Copenhagen from 1828-1898: Dr. N. P. Schierbeck.—The Effect of Sewerage and Water Supply upon the Behaviour of Enteric Fever in Buenos Ayres: Dr. J. T. R. Davison.

### SATURDAY, MARCH 16.

ROYAL INSTITUTION, at 3.—Sound and Vibrations: Lord Rayleigh, F.R.S.

### MONDAY, MARCH 18.

SOCIETY OF ARTS, at 8.—Electric Railways: Major P. Cardew.

ROYAL GEOGRAPHICAL SOCIETY, at 4.30.—The Topography of South Victoria Land: L. C. Bernacchi.

VICTORIA INSTITUTE, at 4.30.—Religion and Art: Rev. T. Hunter Boyd.

CAMERA CLUB, at 8.15.—Discussion on Panoramic Photography.

### TUESDAY, MARCH 19.

ROYAL INSTITUTION, at 3.—The Cell as the Unit of Life: Dr. A. Macfadyen.

ZOOLOGICAL SOCIETY, at 8.30.—On New or Imperfectly-known Ostracoda, chiefly from a Collection in the Zoological Museum, Copenhagen: Dr. G. S. Brady, F.R.S.—On *Lemur mongoz* and *L. rubriventer*: Dr. C. I. Forsyth Major.—On the Hymenoptera collected in New Britain by Dr. Arthur Willey: P. Cameron.

INSTITUTION OF CIVIL ENGINEERS, at 8.—The Aesthetic Treatment of Bridge Structures: J. Husband.

MINERALOGICAL SOCIETY, at 8.—Notes on an Occurrence of Minerals at Haddam Neck, Connecticut, U.S.A.: H. L. Bowman.—On Calaverite from the Cripple Creek District, Colorado, U.S.A.: G. F. Herbert Smith.—On the Arrangement of the Chemical Atoms in Boracite and Cassiterite: W. Barlow.

ROYAL STATISTICAL SOCIETY, at 5.—Results of State, Municipal, and Organised Private Action on the Housing of the Working Classes in London and in other Large Cities in the United Kingdom: Dr. John F. J. Sykes.

ROYAL PHOTOGRAPHIC SOCIETY, at 8.—Photographing Stained Glass by the Three-colour Process: Chas. B. Howdill.

### WEDNESDAY, MARCH 20.

SOCIETY OF ARTS, at 8.—Evolution of Form in English Silver Plate: Percy T. Macquoid.

GEOLOGICAL SOCIETY, at 8.—On a Remarkable Volcanic Vent of Tertiary Age in the Island of Arran, enclosing Mesozoic Fossiliferous Rocks: B. N. Peach, F.R.S., W. Gunn, and E. T. Newton, F.R.S.—On the Character of the Upper Coal Measures of North Staffordshire; their Comparison with those of Denbighshire, South Staffordshire, and Nottinghamshire; and their Relation to the Productive Series: Wilcot Gibson.

ANTHROPOLOGICAL INSTITUTE (Albemarle Street), at 8.—Joint Meeting with the Folklore Society.—Sand Ropes and other Futile Tasks: G. M. Godden.

ROYAL METEOROLOGICAL SOCIETY, at 7.30.—Climate, and the Effects of Climate: Dr. Hugh Robert Mill.

ROYAL MICROSCOPICAL SOCIETY, at 8.—The Metallography of Iron and Steel: Wm. H. Merrett.

INSTITUTION OF MINING AND METALLURGY, at 8.—Annual General Meeting.—Followed by: The Electric Power Station at the Pierrefite Mine: E. Henry Davies.—(1) Note on Smelting Lead-Copper Ore; (2) Note on Lead Assaying: P. R. Robert.

### THURSDAY, MARCH 21.

ROYAL SOCIETY, at 4.30.—Studies in Visual Sensation (Croonian Lecture): Prof. C. Lloyd Morgan, F.R.S.

LINNEAN SOCIETY, at 8.—On the Intestinal Tract of Birds, and the Valuation and Nomenclature of Zoological Characters: P. Chalmers Mitchell.

CHEMICAL SOCIETY, at 8.—Researches on Morphine. Part II.: S. B. Schryver and F. H. Lees.—The Constitution of Pilocarpine, Part II.: H. A. D. Jowett.—Note on the Latent Heats of Evaporation of Liquids: Holland Crompton.—(1) Action of Dry Silver Oxide and Ethyl Iodide on Benzoylacetate Ester, Desoxybenzoin, and Benzyl Cyanide; (2) Alkylation of Acylarylamines: G. D. Lander.

CAMERA CLUB, at 8.15.—Yorkshire Caves and Waterfalls: T. C. Hepworth.

### FRIDAY, MARCH 22.

ROYAL INSTITUTION, at 9.—Some Recent Work on Diffusion: Dr. Horace Brown, F.R.S.

PHYSICAL SOCIETY (University College, Gower Street), at 5.—On the Expansion of Silica: Prof. Callendar, F.R.S.—The Spectroscopic Apparatus at University College: Dr. E. C. C. Baly.

INSTITUTION OF CIVIL ENGINEERS, at 8.—The Hunslet Railway and Bridge over the River Aire: O. L. McDermott.

### SATURDAY, MARCH 23.

ROYAL INSTITUTION, at 3.—Sound and Vibrations: Lord Rayleigh, F.R.S.

## CONTENTS.

	PAGE
A Manual of Medicine . . . . .	461
A New Classification of the Reptiles. By G. A. B. . . . .	462
Our Book Shelf:—	
Weathers: "A Practical Guide to Garden Plants" . . . . .	463
Classen: "Ausgewählte Methoden der Analytischen Chemie."—J. B. C. . . . .	463
Dufet: "Recueil de Données numériques Optique" . . . . .	464
Letters to the Editor.—	
Apatite in Ceylon.—Prof. A. H. Church, F.R.S. . . . .	464
Maps in Theory and Practice.—Prof. J. D. Everett, F.R.S. . . . .	464
Early Observations of Volcanic Phenomena in Auvergne and Ireland.—Prof. Grenville A. J. Cole . . . . .	464
Probability—James Bernoulli's Theorem.—Prof. J. Cook Wilson . . . . .	465
A Tree Torn by Lightning. (Illustrated.)—Percy E. Spielmann . . . . .	466
Adaptation of Instinct in a Trap-door Spider.—R. I. Pocock . . . . .	466
Protective Markings in Cats.—Frank E. Beddard, F.R.S. . . . .	466
Further Observations on Nova Persei. (With Diagram.) By Sir Norman Lockyer, K.C.B., F.R.S. . . . .	467
Mr. Borchgrevink's Antarctic Expedition. (Illustrated.) . . . .	468
The Total Eclipse of the Sun, May 18, 1901. (With Map.) By A. Fowler . . . . .	470
Red Rain . . . . .	471
Dr. G. M. Dawson, C.M.G., F.R.S. . . . .	472
Notes . . . . .	473
Our Astronomical Column:—	
Nova Persei . . . . .	477
Co-operation in Observing Variable Stars . . . . .	477
Dimensions of the Saturnian System . . . . .	477
Hydrogen in Air. By A. S. . . . .	478
Scientific Agriculture in the United States . . . . .	479
University and Educational Intelligence . . . . .	480
Scientific Serials . . . . .	481
Societies and Academies . . . . .	481
Diary of Societies . . . . .	484