

is accelerated by the presence of an oxidising agent. The gold compound produced forms brilliant, colourless, six-sided lozenges, and contains 45.4 per cent. of gold.—The molecular condition in solution of ferrous oxalate, a correction: S. E. Sheppard and C. E. K. Mees.—Acetyl and benzoyl derivatives of phthalimide and phthalamic acid: A. W. Titherley and W. L. Hicks.—The dynamic isomerism of phloroglucinol: E. P. Hedley. The following conclusions were established:—(1) that in neutral solutions phloroglucinol exists in both modifications, the enol being greatly in preponderance over the keto-form; and (2) that this equilibrium is undisturbed by the class of solvent.—Studies in asymmetric synthesis, v., asymmetric syntheses from *l*-bornyl pyruvate: A. McKenzie and H. Wren.—*l*-Methylcyclohexylidene-(4)-acetic acid: W. H. Perkin, jun., and W. J. Pope.—Condensation of benzophenone chloride with α - and β -naphthols: G. W. Clough.—The constitution of coerulignone (cediret), a preliminary note: J. Moir.—A comparative crystallographic study of the perchlorates and permanganates of the alkalis and the ammonium radical: T. V. Barker. On comparing the perchlorates with the permanganates, it is found that the effect of replacing an atom of chlorine by one of manganese is much the same as that induced by the substitution of sulphur by selenium, say, in the sulphates of the same metals. The crystallographic evidence for placing manganese in the seventh group of the periodic classification, so far as such evidence goes, is therefore of the strongest possible kind.—Contribution to the theory of isomorphism based on experiments on the regular growths of crystals of one substance upon those of another: T. V. Barker.—Constitution of salicin. Synthesis of pentamethylsalicin: J. C. Irvine and R. E. Rose. It is shown that salicin (and hence also helicin and populin) contains the same γ -oxidic linking as the methylglucosides and sucrose.—A product of the action of isoamyl nitrite on pyrogallol: A. G. Perkin and A. B. Steven. The main bulk of the product formed in this reaction has the composition $C_8H_8O_2$, and it appears likely that it may consist of hydroxy-*o*-benzoquinone.—A reaction of ellagic and flavellagic acids: A. G. Perkin. Ellagic acid is oxidised by sulphuric acid to a compound having the formula $C_{14}H_{16}O_{10}$. Flavellagic acid yields a similar oxidation product.—Some thio- and dithio-carbamide derivatives of ethylenaniline and the ethylenetoluidines: O. C. M. Davis.

DIARY OF SOCIETIES.

THURSDAY, APRIL 26.

ROYAL INSTITUTION, at 5.—The Digestive Tract in Birds and Mammals: Dr. P. Chalmers Mitchell.
SOCIETY OF ARTS, at 4.30.—Seistan, Past and Present: Colonel A. H. McMahon.
INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—Long Flame Arc Lamps: L. Andrews.
MATHEMATICAL SOCIETY, at 5.30.—Perpetuants and Contraperpetuants: Prof. E. B. Elliott.—(1) A Question in the Theory of Aggregates; (2) The Canonical Forms of the Ternary Sextic and Quaternary Quartic: Prof. A. C. Dixon.—On the Question of the Existence of Transfinite Numbers: P. E. B. Jourdain.—Some Theorems connected with Abel's Theorem on the Continuity of Power Series: G. H. Hardy.—On a Set of Intervals about the Rational Numbers: A. R. Richardson.—On Two Cubics in Triangular Relation: Prof. F. Morley.—On the Accuracy of Interpolation by Finite Differences: W. F. Sheppard.

FRIDAY, APRIL 27.

ROYAL INSTITUTION, at 9.—Ore Deposits and their Distribution in Depth: Prof. J. W. Gregory, F.R.S.
INSTITUTION OF MECHANICAL ENGINEERS, at 8.—Petroleum Fuel in Locomotives on the Tehuantepec National Railroad of Mexico: Louis Greaven.
PHYSICAL SOCIETY, at 5.
AERONAUTICAL SOCIETY, at 8.—The Use of the Balloon in the National Antarctic Expedition: Captain Robert Falcon Scott, R.N.—The Experiments of the Brothers Wright: Sir Hiram S. Maxim.—The Carrying Power of Aeroplanes: M. José Weiss.

MONDAY, APRIL 30.

INSTITUTE OF ACTUARIES, at 5.—Reversionary Securities as Investments: C. R. V. Coutts.

TUESDAY, MAY 1.

SOCIETY OF ARTS, at 4.30.—Social Conditions in Australia: Hon. J. G. Jenkins, Agent-General for South Australia.
ZOOLOGICAL SOCIETY, at 8.30.—Additional Notes on Anthropoid Apes, with Exhibition of Specimens: Hon. Walter Rothschild.—On Mammals collected in South-west Australia by Mr. W. E. Ralston: Oldfield Thomas, F.R.S.—On the Lepidoptera collected during the Recent Expedition to Tibet: H. J. Elwes, F.R.S., and Sir George Hampson, Bart.

WEDNESDAY, MAY 2.

INSTITUTION OF CIVIL ENGINEERS, at 8.—The Fourteenth "James Forrest" Lecture: Unsolved Problems in Metallurgy: R. A. Hadfield.
SOCIETY OF ARTS, at 8.—Submarine Signalling: J. B. Miller.
ENTOMOLOGICAL SOCIETY, at 8.
SOCIETY OF PUBLIC ANALYSTS, at 8.—The Estimation of Fat in Homogenised Milk: H. Droop Richmond.—Milk Analysis: H. Droop Richmond and E. H. Miller.—Note on the Composition of Saffron: A. E. Parkes.—On the Polenske Method for the Detection of Coconut Oil in Butter: Dr. S. Rideal and H. G. Harrison.—On the Presence and Detection of Cyanogen in Java and other Beans: R. R. Tatlock and R. T. Thomson.—On the Examination of Linseed, Olive and Other Oils: R. T. Thomson and H. Dunlop.

THURSDAY, MAY 3.

ROYAL SOCIETY, at 4.—Election of Fellows.—At 4.30.—*Probable Papers*: On a Static Method of Comparing the Densities of Gases: Prof. R. Threlfall, F.R.S.—The Stability of Submarines: Sir William H. White, K.C.B., F.R.S.—The Action on Bacteria of Electrical Discharges of High Potential and Rapid Frequency: A. G. R. Foulerton and A. M. Kellas.—The Action of Pituitary Extracts upon the Kidney: Prof. E. A. Schäfer, F.R.S., and P. T. Herring.
ROYAL INSTITUTION, at 5.—The Digestive Tract in Birds and Mammals: Dr. P. Chalmers Mitchell.
CHEMICAL SOCIETY, at 8.30.—The Relation between Absorption-Spectra and Chemical Constitution, part v.: The *iso*Nitroso-compounds: E. C. C. Baly, E. G. Marsden, and A. W. Stewart.—The Action of Tribromopropane on the Sodium Derivative of Ethyl Malonate, part ii.: W. H. Perkin, jun., and J. L. Simonsen.—Brazilin and Haematoxylin, part vii., Some Derivatives of Brazilin: P. Engels, and W. H. Perkin, jun.—Pipitzaic Acid: J. M. Sanders.—The Constitution of the Hydroxides and Cyanides obtained from Acridine, Methyl-acridine and Phenanthridine Methiodides: C. K. Tinkler.—The Constitution of Ammonium Amalgam: E. M. Rich and M. W. Travers.—Action of Light on Potassium Ferrocyanide: G. W. A. Foster.
LINNEAN SOCIETY, at 8.—Origin of Gymnosperms (*Continuation of Discussion*): Dr. D. H. Scott, F.R.S.
CIVIL AND MECHANICAL ENGINEERS' SOCIETY, at 8.—Some Observations on Bacterial Tank Operations: Dr. W. O. Travis.

CONTENTS.

	PAGE
The New Organic Chemistry. By W. J. P.	601
The System of the Fixed Stars. By W. E. P.	603
A Physiological Study of the British Flora	604
Our Book Shelf:—	
"Rowing and Track Athletics"	605
Huffel: "Economie Forestière"	605
Luciani: "Physiologie des Menschen."—Dr. J. A. Milroy	606
Baccioni: "Seta Artificiale"	606
Classen: "Zwölf Vorlesungen über die Natur des Lichtes"	606
Moye: "A la Poursuite d'une Ombre"	606
Correns: "Ueber Vererbungsgesetze"	606
Letters to the Editor:—	
Diurnal Variation of Ionisation in Closed Vessels.—Dr. O. W. Richardson	607
The New Spot on Jupiter.—W. F. Denning	607
Utilisation of Nitrogen in Air by Plants.—Thos. Jamieson; A. D. H.	607
A Horizontal Rainbow.—W. R. M. Church	608
The San Francisco Earthquake of April 18. By Dr. C. Davison	608
The Life of the Australian Blacks. (<i>Illustrated.</i>) By N. W. T.	610
Boric Acid as a Food Preservative	611
Prof. W. F. R. Weldon, F.R.S.	611
Prof. Pierre Curie. By F. S.	612
Notes	613
Our Astronomical Column:—	
Employment of Selenium Cells during Total Solar Eclipse	617
Catalogue of Pleiades Stars	617
The Total Solar Eclipse of the Sun of January, 1907	617
Observations of Nebulae	617
A Large Photographic Nebula in Scorpio	618
Canadian Tides	618
The Intestinal Tract of Mammals. By E. A. M.	618
Scientific Reports of the Local Government Board. By Prof. R. T. Hewlett	619
Infra-Red Spectra. By W. E. R.	619
Diseases of Vines	620
Earthquake Origins. By R. D. Oldham	620
Currents in the Straits of Messina	621
A Periodical for Palaeontologists. By B. B. W.	621
University and Educational Intelligence	621
Societies and Academies.	622
Diary of Societies	624