

course and to arrive at a higher standard in the Final Examination. Prof. Weiss also expressed the hope that the conditions of the science teachers in schools might be so ameliorated that many of them might engage in original investigations, which would vivify their teaching and enable them to instil a really scientific attitude of mind in their pupils. The meeting passed a resolution that a consultative council of university and school teachers should be appointed to discuss the scope and method of the higher work in schools and its relation to the work of universities.

A SUCCESSFUL conference on the report of the Government Committee on Modern Languages was held at the County Hall of the L.C.C. on Wednesday, January 22. The proceedings were opened by Sir Cyril Cobb, M.P., who said the report had made the question of modern languages a popular one. Mr. Stanley Leathes, chairman of the Government Committee, followed. He dwelt on our ignorance of and indifference to the subject in the past, and insisted on English being the most important language of all, French being next in importance. The position of German would be decided by the importance of Germany. The esteem of the public could alone give modern languages their rightful place in education. Languages should be learnt, not for themselves, but for what they contained. It was not worth while to learn a language badly. Better to learn one language well than two badly. Mr. Gooch dilated on the existing provision for modern languages in London. Lord Crewe, who was responsible for the creation of the committee, insisted on the need for studying the history and institutions of the foreign country as well as the language and literature. Sir Hubert Hamling spoke all too briefly on the value of well-trained linguists to the commerce and banking of to-day. Principal Burrows, of King's College, told of the intensive courses in modern languages recently started by the college. Miss Tuke spoke of the women's interest in the matter. Sir Lulham Pound described the work of the City of London College. Miss Purdie, headmistress of Maida Vale High School, pointed out numerous deficiencies in the existing system. Mr. Fuller dwelt on the gap between the school and the university, which should be bridged by scholarships. Mr. Hedges spoke of the work of the evening institutes, and after a short discussion the proceedings closed with a vote of thanks to the chairman, the question of the future continuance of the debate being left open.

### SOCIETIES AND ACADEMIES.

#### LONDON.

**Geological Society**, January 8.—Mr. G. W. Lamplugh, president, in the chair.—Prof. P. F. Kendall: "Wash-outs" in coal-seams and the effects of contemporary earthquakes. Two types of interruptions are differentiated in coal-seams which have been confused under the general terms of "wash-outs," "wants," "nips," or "dumb-faults." One type may be due to erosion by contemporary streams which coursed through the alluvial area where the coal material was accumulating. A number of examples of this type in the Midland coalfield are described. Split seams of the type in which the seam rejoins are kindred phenomena, but in these cases the erosion was always contemporary. Great diversity in the phenomena of splits and wash-outs arises from the differences in the ratios of shrinkage during consolidation of the various constituents. Cannel acts as a substance of little compressibility. Other disturbances of the coal-seams, mis-called "wash-outs," are referred to earthquakes. Some of the effects of earthquakes in Coal Measure times

might be expected to be of a magnitude greater than the effects of recent earthquakes. An abnormality in coal-seams consists in the intrusion into the coal of sedimentary material or the encroachment of masses of amorphous sandstone as "rock-rolls," probably due to the invasion of sands rendered mobile by excess of water, and perhaps of gas, and moving under the impulse of waves of elastic compression produced by earthquakes. In the roofs of many coal-seams and projecting slightly into the coal are curious conical masses of sandstone, familiar to the miners as "drops." They are wrinkled on the surface, and often have a flange on two sides, showing that they were produced on the site of a crack. They are ranged in long rows. These are interpreted as casts of the funnel-shaped orifices through which the sands surcharged with water have been expelled. Fissures filled with sand or other materials, the "sandstone dykes" of American writers, are not so common in the Midland coalfield as in some other coalfields. They show contortion where passing through the seam, proving that the coal substance had not undergone its full compression at the time when the fissure was produced. A large number of examples of each type of phenomenon, drawn from the examination of more than thirty mines in the coalfield, are discussed.—Dr. A. Gilligan: Sandstone dykes or rock-riders in the Cumberland coalfield. These sandstone dykes have been encountered in pits distributed all over the coalfield, but those examined were met with in the workings of the Bannock Band and Main Band seams at Ladysmith Pit. The dykes pass through the Bannock Band and Main Band seams and the intervening measures. They run parallel one to the other in a direction N.N.W. and S.S.E. The inclination of the same dyke is not constant, but the greatest deviation from the vertical was 10° south-westwards. The average width of the dykes was from 2 in. to 4 in., but sometimes they increase to 10 in. or dwindle down to mere films. Splitting of the dykes was seen. The contact of the coal and dyke substance was sharply defined, the coal preserving all its normal features even when adhering to the sandstone. The probable conditions which obtained at the time of the formation of the fissures and their infilling were as follows:—The coal seams through which the dykes pass had been compressed to their present thickness, while they and the associated measures were sufficiently consolidated to take a more or less clean fracture. The sea in which the deltaic material of the Whitehaven sandstone was accumulating covered the area. Fractures were produced by earthquake disturbances set up by movement along one of the N.N.W. and S.S.E. faults, and the sediment on the sea-floor ran in and sealed them up.

#### PARIS.

**Academy of Sciences**, January 6.—M. I. Guignard in the chair.—G. Bigourdan: A project for the reform of the present civil calendar (Julian, Gregorian). Five principal faults of the Gregorian calendar are enumerated, the last of which, that the dates of the month have no single concordance with the corresponding days of the week, is regarded as the most inconvenient. Statistics made on a weekly basis, such as those of railways, are not easily adjusted to the months or the year. It is proposed to form each quarter of a first month of thirty-one days, followed by two months of thirty days; in the last quarter of the year the last month would always have thirty-one days, in leap years the extra day would be added by making the last month of the third quarter have thirty-one days. The three first quarters would thus have exactly thirteen weeks, so

that in each quarter the same days of the week would fall on the same dates of the corresponding months. A tabular comparison of the present and proposed calendar is given, and possible objections are met.—L. E. **Bertin**: The possible creation of a means of Franco-Belgian maritime communication between Antwerp and Marseilles.—Y. **Delage**: Suggestion on the nature and causes of segregative heredity (Mendelian characters) and of aggregative heredity (non-Mendelian characters). Commenting on the Mendelian theory as at present developed, the author points out that to reconcile the principles of the theory with observed facts a constant stream of fresh subsidiary hypotheses is needed. As an alternative to the Mendelian theory the following is proposed: The hereditary mode is a function of the degree of heterogeneity of the parental chromatines.—C. **Guichard**: A series of surfaces of constant total curvature such that their lines of curvature form a network of the type  $pA'$ ,  $-(p+1)B'$ .—G. A. **Boulenger**: Is evolution reversible? Considerations on certain fishes. The law of Dollo, that there is no known case demonstrating in an irrefutable manner the return of a modified organ to its primitive condition, is called in question. After reference to the work of W. D. Matthew and of L. Errera, examples are given in which there is an undoubted return to a primitive form of teeth. These occur in some African fishes belonging to the family of Cichlides (sometimes called Chromides).—H. **Dupont**: Partial differential equations.—J. **Drach**: Determination of the cases of reduction of the differential equation  $d^2y/dx^2 = [\phi(x) + h]y$ .—C. **Rabut**: A new canonical form of reinforced massifs.—Ch. **Frémont**: The premature rupture of pieces of steel submitted to repeated stresses.—R. **Dubrissay**, **Tripier**, and **Toquet**: A physico-chemical method of estimating alkaline carbonates in the presence of free alkaline bases. Application to the analysis of flue-gas. The method is based on the fact that whilst the hydroxides of the alkali metals increase the coefficient of reciprocal miscibility of water and phenol, the alkaline carbonates act in the opposite sense.—F. **Bourion** and A. **Sénéchal**: The evolution and oxidation of chromic hydrate in alkaline solution.—P. **Bugnon**: A new method of selective coloration of lignified plant membranes. The dye suggested is Lichtgrün F.S. (the sodium salt of diethylidibenzylidiamidotriphenylcarbinol trisulphonic acid), details of the technique being given. Important advantages are claimed for this stain.—M. **Denis**: Some thalla of *Aneura* deprived of chlorophyll.—J. **Amar**: The origin and consequences of feminine emotivity.—G. **Sanarelli**: The pathogeny of cholera. The natural defence of the peritoneum against the cholera vibriations.

January 13.—M. Léon Guignard in the chair.—G. **Lippmann**: The properties of electric circuits deprived of resistance. The researches of H. K. Onnes have shown that at the temperature of boiling helium the resistance suddenly diminishes practically to zero. Some mathematical consequences are worked out and applied to explain the results of some of the experiments of H. K. Onnes.—G. A. **Boulenger**: A case of ontogenic evolution in an African lizard, *Eremias lugubris*.—J. **Chazy**: Remark on the problems of two and three bodies.—H. **Bourget**: The algebraical development of the principal part of the perturbation function following the method of Cauchy.—R. **Baillaud**: A modification of the prism astrolabe designed to measure variations of latitude.—M. **Swyngedaew**: The influence of the sheath on the effective resistance and reactance of an armoured cable for the 3 harmonics. The effective line resistance and reactance for the harmonic 3 must be determined on the cable in use.—F. **Bourion** and A. **Sénéchal**: The evolution and magnetic properties of

chromium hydrate in alkaline solution.—F. **Grandjean**: Calculation of the extraordinary rays for certain structures of anisotropic liquids.—P. **Pruvost**: The existence of Coal Measures at great depth at Merville (Nord). At a depth of 247 metres a black, bituminous schist was encountered, containing 32 per cent. of volatile matter. The boring passes through 31 metres of the lower Coal Measures.—S. **Stefanescu**: The phylogeny of *Elephas africanus*. From a study of the teeth the conclusion is drawn that the ancestors of *E. africanus* have come directly from the bunolophodont mastodons.—H. **Hubert**: The superposition of the air currents above the peninsula of Cape Vert (Senegal).—E. **Mesnard**: The origin and the grouping of meteorological phenomena.—E. **Mathias**: Rain in France: the parasite phenomenon.—C. **Somigliana**: The theory of seismic waves. A development and discussion of Rayleigh's theory of waves.—L. **Eblé**: Vibrations of the soil caused by explosions.—Ch. **Dufour**: Values of the magnetic elements at the Observatory of Val-Joyeux on January 1 last.—J. **Pavillard**: The female flower of *Ruscus*.—L. **Daniel**: Experimental cultures by the sea-shore.—L. **Lapicque** and E. **Barbé**: The chlorine index as a comparative measure of the richness of soils in humus. Soils remove active chlorine from sodium hypochlorite solutions in amounts which vary probably in the order of the richness of the soil in humus.—D. **Berthelot** and R. **Trannoy**: The absorbing power of dry or moist earth for gaseous chlorine. These experiments had their origin in an attempt to utilise earth as a protection against poisonous gases in the field. Details are given of the results obtained with six soils, both dry and moist.—R. **Dollfus**: Continuity of the line of germinal cells in the Trematods *Digenea*.—J. **Pantel**: Calcium in the normal physiology of the Phasmides.—M. **Baudouin**: The flattening of the upper part of the body of the humerus in children of the Polished Stone period.

## CAPE TOWN.

Royal Society of South Africa, October 30, 1918.—Dr J. D. F. Gilchrist, president, in the chair.—T. J. **Mackie**: Hæmolysis by serum in combination with certain benzol bodies. It has been shown that while serum-complement acts as hæmolysin in the presence of a specific immune body, and also along with colloidal silicic acid, serum is also capable of producing lysis of red-blood corpuscles which have been treated with certain benzol bodies. The paper records the result of experiments carried out with brilliant green.—J. R. **Sutton**: A possible lunar influence upon the velocity of the wind at Kimberley. The object of this paper is to discuss the question whether there is a lunar term in the velocity of the wind at Kimberley. The results of hourly observations made during 180 lunations reveal only one definite maximum and minimum of velocity in the lunar curve, the former falling about three hours before lunar midnight, the latter just before lunar noon, the range being 0.20 mile an hour. When the moon is in south declination the maximum of velocity is near lunar noon and the minimum near lunar midnight, the opposite being the case when the moon is north, the respective ranges of velocity being 0.32 and 0.55 mile an hour, which are greater than one would have expected to find.—Miss Ethel M. **Doidge**: South African Perisporiaceæ. V.: Notes on an interesting collection from Natal. A number of leaf-fungi are described from Natal, chiefly belonging to the genus *Meliola*, and including hitherto undescribed species.—A. **Young**: Fusion of Karroo grits in contact with dolerite intrusions. Certain unusual contact alterations occurring in the Heilbron district were described.

Dolerite intrusions have apparently fused the Karroo sandstone or grit to a dark glass resembling pitchstone. The contacts are sharply defined, and the vitrification extends to a distance of several yards from the actual contact plane. The results of a detailed petrological examination of the dolerite, the glass, and the sandstone were described. The dolerite presents no abnormal features. The sandstone contains much soda felspar. The glass on analysis yields about 7 per cent. of soda and about 5 per cent. of combined water. The glass might thus be called a pitchstone. Microscopic examination of the glass shows the presence of microlites of cordierite, magnetite, and also a fibrous mineral with physical properties suggestive of an amphibole. These microlites seem to be practically identical with those described by Harker and Clough as occurring under somewhat similar circumstances in the island of Soay, near Skye.—J. S. v. d. **Lingen** and A. R. E. **Walker**: (1) Hyalite. The points of resemblance between hyalite and liquid spherulites are noted. The truth of the statement that liquid spherulites and, under certain conditions, hyalite give uniaxial figures when examined in convergent polarised light is questioned. (2) Anatase. The authors exhibited a Laue radiograph of anatase, which shows that, according to the usual interpretation of such a photograph, the mineral possesses full tetragonal symmetry. Herbert Smith and W. von Bonde have, independently, suggested that possibly it did not possess the full degree of symmetry usually assigned to it; in both cases this suggestion was based on a study of the external crystal form of the mineral.—A. R. E. **Walker**: (1) Radio-active and other minerals associated with fossil wood from the Beaufort series. A description is given of torbernite and a mineral allied to uranocircite occurring, associated with calcite and barytes, encrusting and impregnating fossil wood from beds of Lower Beaufort age on the farm Quaggasfontein. (2) Tantalite crystals from Namaqualand. A description is given of a number of crystals obtained from a tantalite prospect at Jakals Water, Namaqualand. The collection represents specimens which, solely because they possessed crystal faces, were set aside during the sorting of tantalite from *débris* obtained by blasting. Apparently two distinct varieties of tantalite are represented, which, whilst exhibiting a general similarity of crystal form, consistently differ from each other in certain crystallographic details, in specific gravity and other physical characters, and, presumably, in chemical composition.—J. **Moir**: Colour and chemical constitution. Part v.: The yellowness of certain phtaleins when acid. Phenol-sulphonephthalein, on account of its high ionisation, does not form a colourless ring-lactone like phenolphthalein, but remains yellow when acidified; it is really the orthosulphonic acid of benzaurine (which shows similar colour changes). Benzaurine parasulphonic acid and benzaurine-carboxylic methyl-ester ("phenolphthalein methyl-ester") have now been made and found to possess the same property of yellowness in acid solution, lactone-formation being excluded in both cases. The latter substance is coloured pink by bicarbonates, and not bleached by excess alkali. Part vi.: The ultra-violet spectra of the phtaleins. A discussion of Howe and Gibson's discovery of violet and ultra-violet absorption-bands in alkaline phtaleins. These have frequencies which are  $1\frac{1}{2}$  times and twice those of the visible band. It follows that the fundamental vibration of alkaline phenolphthalein is still unobserved, being in the infra-red at  $\lambda$  11,090 (frequency 9.02) on the usual scale. The visible band in the green is its first harmonic, and the other two are its second and third. Part vii.: Inorganic phenomena in connection with cobalt, nickel, manganese, and

uranium. Part viii.: Fluorescence and its laws. On comparison of the spectra of dissolved (ionised) salts of these metals with those of the salts in the solid state, "loading" effects are observed similar to those shown by the phtaleins. The formation of blue cobalt compounds is ascribed to considerable increase of molecular weight due to combination with environing molecules. In the case of cobalt halides the wave-lengths appear to be proportional to the eighth root of the molecular weight, and in uranyl compounds they are proportional to the sixth root. The coincidence of these numbers with the periodic place of the element is noted.

## CALCUTTA.

Asiatic Society of Bengal, December 4, 1918.—

J. **Hornell**: The origin and ethnological significance of Indian boat designs. The principal types of existing small craft comprise:—(1) The catamaran or raft form; (2) the basket-boat or coracle; (3) the dug-out canoe; (4) the outrigger design in two forms, either with (a) the float boomed out or (b) a transversely placed balance-board amidships; (5) lateen-rigged boats, with grab bows; (6) high-sterned river craft with quarter rudder-paddles or with balanced rudders; and (7) square-rigged river boats with double masts of A-form. The catamaran appears to be of indigenous origin, as nowhere else does it show such elaboration as in India; its most primitive form is seen in reed rafts and in plantain stems skewered together. The Indian basket-boat is identical with that used in Mesopotamia, while river craft using quarter steering oars (Ganges) and those with mast triangles (Burma) are distinctively Egyptian in origin. Lateen-rigged craft with overhanging bows are found only on the West Coast of India; they appear to be of Arab origin, representing probably the evolution of the boat form used by the Sabaeans of S.W. Arabia in the earliest stage of traffic between Arabia and India. The outrigger design is much more widely spread on Indian coasts than is commonly known. The main conclusions are as follows:—(a) That the pre-Dravidian population of, at least, coastal India was largely of Polynesian stock, these fisherfolk using, like the peoples of Malaysia and Polynesia of the present day, outrigger canoes and balance-board proas. (b) That the true Dravidians, who appear to be a branch of the Mediterranean race, learned or invented the use of the circular coracle while living in Mesopotamia, and on arrival in India, *via* Baluchistan, introduced the boat forms of the Nile and the Tigris, the former on the great perennial rivers, the latter on those that carry little water in the dry season. Cranial measurements of the various castes in the extreme south of India reveal an unexpectedly strong brachycephalic element in the lower caste population. Various other facts are enumerated pointing to the validity of the author's main hypothesis of a strong Polynesian element in the Indian coastal population.—E. **Vredenburg**: (1) The occurrence of *Cypraea piriformis*, Gray, in the Mergui Archipelago. Amongst the mollusca from the Mergui Archipelago collected by Dr. J. Anderson this shell was referred by von Martens in 1888 to the Australian species *C. xanthodon*. On cleaning the shell it was found to be a perfect specimen of the extremely rare species *C. piriformis*, hitherto only known from Ceylon and North Australia. (2) Two albino varieties of *Cypraea erosa*, Linnæus. The specimens described are from the zoological collections in the Indian Museum. The variety which it is proposed to name *kavlinica*, from New Britain, is almost all white, and a second variety named *purissima*, probably from Queensland, is entirely of a pure snow-white, closely simulating the appearance of *C. eburnea*, Barnes, the only other known instance

of an entirely white shell amongst the *Cypræidæ*. (3) The specific identity of the West Indian *Cypræa henikeri*, Sowerby, and of the East Indian *C. murisimilis*, Martin, with the description of a new species or variety, *C. blandiana*, and remarks on some related forms. A collection of Lower Miocene fossils from San Domingo, presented to the Geological Survey of India by Prof. Gabb in 1874, contains a fine specimen of *C. henikeri*, Sowerby, the study of which has established its specific identity with *C. murisimilis*, Martin, from the Lower Miocene and Vindobonian of Java. This shell is usually characterised by dorsal protuberances similar to those observed in the closely related living species, *C. mus*, Linn. Associated with *C. henikeri* at San Domingo is a hitherto unrecorded fossil, here described under the name of *C. blandiana* as a variety of *C. henikeri* or as a closely related species.

BOOKS RECEIVED.

Pharmacy, Theoretical and Practical, including Arithmetic of Pharmacy. By Prof. E. A. Ruddiman. Pp. vi+267. (New York: J. Wiley and Sons, Inc.; London: Chapman and Hall, Ltd.) 8s. 6d. net.

The Examination of Milk for Public Health Purposes. By J. Race. Pp. vi+224. (New York: J. Wiley and Sons, Inc.; London: Chapman and Hall, Ltd.) 8s. 6d. net.

L'Insidia Sottomarina e Come fu Debollata con Notizie sul Recupero delle Navi Affondate. By E. Bravetta. Pp. vii+461. (Milano: U. Hoepli.)

Faith in Fetters. By the Rev. T. R. R. Stebbing. Pp. 223. (London: T. Fisher Unwin, Ltd.) 6s. net.

Rudiments of Handicraft. By W. A. S. Benson. Pp. 40. (London: J. Murray.) 1s. net.

Solid Geometry, including the Mensuration of Surfaces and Solids. By Prof. R. S. Heath. Fourth edition. Pp. 123. (London: Rivingtons.) 4s.

A Star Atlas and Telescopic Handbook (Epoch 1920) for Students and Amateurs. By A. P. Norton. Pp. 25+maps 16. (London and Edinburgh: Gall and Inglis.)

Anuario del Observatorio de Madrid para 1919. Pp. 741. (Madrid: Imprenta de la Casa Editorial Bailly-Baillière, 1918.)

The Earth's Axes and Triangulation. By J. de Graaff Hunter. (Survey of India. Professional Paper No. 16.) Pp. viii+219+charts vi. (Dehra Dun: Office of the Trigonometrical Survey, 1918.) 5s. 4d.

Scientific Reports of the Agricultural Research Institute, Pusa. (Including the Report of the Imperial Cotton Specialist, 1917-18.) Pp. iv+144+xx plates. (Calcutta: Superintendent Government Printing, India, 1918.) 2s.

DIARY OF SOCIETIES.

THURSDAY, JANUARY 30.

ROYAL INSTITUTION, at 3.—Prof. J. N. Collie: Chemical Studies of Oriental Porcelain.

ROYAL SOCIETY, at 4.30.—Prof. J. C. McLennan and R. J. Lang: An Investigation of Extreme Ultra-violet Spectra with a Vacuum Grating Spectrograph.—Prof. J. C. McLennan and J. P. T. Young: The Absorption Spectra and the Ionisation Potentials of Calcium, Strontium, and Barium.—Prof. J. C. McLennan, D. S. Ainslie, and D. S. Fuller: Vacuum Arc Spectra of various Elements in the Extreme Ultra-violet.—R. C. Dearle: Emission and Absorption in the Infra-red Spectra of Mercury, Zinc, and Cadmium.—E. Wilson: The Measurement of Magnetic Susceptibilities of Low Order.—Dr. F. Horton and Ann C. Davies: An Experimental Determination of the Ionisation Potential for Electrons in Helium.

FRIDAY, JANUARY 31.

ROYAL INSTITUTION, at 5.30.—Prof. H. H. Turner: Giant Suns.

MONDAY, FEBRUARY 3.

VICTORIA INSTITUTE, at 4.30.—Rev. H. J. R. Marston: The Philosophy of Bishop Butler.

SOCIETY OF ENGINEERS, at 5.30.—W. N. Twelvetrees: Presidential Address: Review of the Development of British Concrete Shipbuilding.

ARISTOTELIAN SOCIETY, at 8.—Prof. Wildon Carr: Philosophy as Monadology.

TUESDAY, FEBRUARY 4.

ROYAL INSTITUTION at 3.—Prof. J. T. MacGregor-Morris: Study of Electric Arcs and their Applications.

ZOOLOGICAL SOCIETY, at 5.30.—Sir Douglas Mawson: Australasian, Antarctic, and Subantarctic Life.—R. I. Pocock: The External Characters of the Existing Chevrotains.

RÖNTGEN SOCIETY, at 8.15.—Dr. F. Hernaman-Johnson: Protection in Diagnostic Work; a Consideration of the Effects of Scattered Rays and Secondary Rays.—Dr. W. Makower: A Langmuir Exhaust Pump.

WEDNESDAY, FEBRUARY 5.

ROYAL SOCIETY OF ARTS, at 4.30.—Ed. C. de Segundo: The Removal of the Residual Fibres from Cotton-seed and their Value for Non-textile Purposes.

GEOLOGICAL SOCIETY, at 5.30.—Dr. A. L. Du Toit: The Geology of the Marble Delta, Natal.

SOCIETY OF PUBLIC ANALYSTS, at 8.—Annual General Meeting.—D. Pullman: Recovery of Nessler Reagent.—John Allan: Technique of Iodine Determinations: with a Note on a New Machine for Subdividing Oleaginous Seeds.

THURSDAY, FEBRUARY 6.

ROYAL INSTITUTION, at 3.—Dr. W. Wilson: The Movements of the Sun, Earth, and Moon.

ROYAL SOCIETY, at 4.30.—Probable Papers: A. Mallock: The Elasticity of Metals as Affected by Temperature.—W. L. Cowley and H. Levy: Vibration and Strength of Struts and Continuous Beams under End Thrusts.—A. Dey: A New Method for the Absolute Determination of Frequency (with a prefatory note by C. V. Raman).

LINNEAN SOCIETY, at 5.—N. E. Brown: (1) Old and New Species of Mesembryanthemum, with Critical Remarks. (2) A New Species of Lobostemon in the Linnean Herbarium.—Dr. J. R. Leeson: Exhibition of Mycetozoa from Epping Forest.

CHEMICAL SOCIETY, at 8.—G. N. White: A Note on the Action of Chloroform on certain Aryl Mercaptans in Presence of Caustic Soda.—J. T. Hewitt and W. J. Jones: (1) The Estimation of the Methoxyl Group. (2) The Estimation of Methyl Alcohol in Wood Distillates and their Concentrates.—P. F. Frankland, F. Challenger, and N. A. Nicholls: The Preparation of Monomethylamine from Chloropicrin.—W. C. McC. Lewis: Studies in Catalysis, Part x. Preliminary Note upon the Applicability of the Radiation Hypothesis to Heterogeneous Reactions.

FRIDAY, FEBRUARY 7.

ROYAL INSTITUTION, at 5.30.—Prof. J. G. Adami: Medical Research in its Relationship to the War.

CONTENTS.

	PAGE
Science in Parliament	421
Physics: Ancient and Modern. By N. R. C.	422
Applied Anatomy. By Prof. G. Elliot Smith, F.R.S.	423
Fruit Culture	424
Our Bookshelf	424
Letters to the Editor:—	
Cyclones.—W. H. Dines, F.R.S.; Dr. John Aitken, F.R.S.	425
End-products of Thorium.—J. R. Cotter	425
Commercial Aviation and the Large Aeroplane. By E. F. R.	425
The Times Weather Reports	427
Pitchblende Ore in Devon	427
Notes	428
Our Astronomical Column:—	
Schorr's Comet	432
A Curious Feature on Jupiter	432
The Paris-Washington Longitude	432
The Electrolytic Dissociation Theory. By G. S.	432
The Inheritance of Milk and Fat Production in Cattle	433
Some Developments in Industry during the War. By F. G. Kellaway, M.P.	434
University and Educational Intelligence	436
Societies and Academies	437
Books Received	440
Diary of Societies	440

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