

Societies and Academies

LONDON

Royal Meteorological Society, April 20.—J. N. L. Baker: The climate of England in the seventeenth century. Descriptive writings provide evidence of a somewhat inconclusive character, and this can be supplemented by the reports of the Venetian Ambassadors, published in the Calendars of Domestic State Papers (Venetian) and elsewhere. The Calendars of Domestic State Papers furnish many scattered references, both to short periods and to long spells of weather, and from these a continuous account can sometimes be constructed. They also include important tables of winds covering the periods 1667–72 and 1675–78. The MS. diaries preserved in the Bodleian Library are also of value. That of Dr. Napier covers the period 1598–1635 but is very fragmentary: that of Elias Ashmole only extends from 1677 to 1685 but is unusually full. Most of this evidence has not previously been used, and an attempt has been made to correlate it with the accepted rainfall figures of Townley and Derham and other records, such as the diaries of Evelyn and Pepys. In a number of cases the older evidence is unreliable; at the same time, all the evidence is of an unscientific nature, and strict comparison with reliable evidence of modern times is apt to lead to erroneous conclusions.—C. W. G. Daking: The meteorology of Kamaran Island (Red Sea). The upper winds of this region would have played a big part in the journeys of the air-ship *R 101* to India and back, and it was probably because this information would have been so valuable that observations were commenced at Kamaran Island. In most respects, the climate experienced is typically tropical, but it is noteworthy that, for so small an island, the conditions are as trying as those experienced inland on the continents of Africa and Asia.—David Brunt: Notes on radiation in the atmosphere (1). The absorption spectra of water vapour and liquid water are applied to consider the justification for regarding cloud sheets and fog as black body radiators. Long wave radiation from the atmosphere fits very closely a formula only involving the absolute temperature and the vapour pressure. The fall of temperature after sunset on clear nights is closely proportional to the square root of the time from sunset. The tendency to instability is greatest for clouds of medium height.

Geological Society, March 9.—W. G. Tidmarsh: The Permian lavas of Devon. With the exception of certain members in the south of the area, these are intermediate rocks, ranging from types resembling basalts to normal and olivine minettes. Details of various lavas and analyses of fourteen rocks and three minerals are presented.—B. Jones: The geology of the Fairbourne-Llwyngwril district, Merioneth. The area is occupied by a westward extension of the Upper Cambrian and of the Ordovician rocks of the Arthog-Dolgelley and Cader Idris districts, and the sequence is, in general, similar to that in those districts, with, however, certain noteworthy differences. An unexpected discovery was that of a wide expanse of Bala beds extending along the Dysynni valley and north of the Tallyllyn (Bala) fault.

PARIS

Academy of Sciences, March 21.—H. Deslandres: Simple relations between the molecular spectrum and the structure of the molecule. From a study of the infra-red spectra of binary molecules the author has deduced the formula $\nu = 1062.5 q'/r's'$, where ν is the frequency, s' the number of external electrons excited

in one of the atoms, q' and r' being integers. The possible meaning of this formula is discussed and some further applications given.—M. de Broglie, F. Dupré la Tour, L. Leprince-Ringuet, and J. Thibaud: The effects of ionisation observed in the presence of the beryllium rays under the excitation of the α -rays from a bulb containing radium emanation.—C. Matignon, Kling, and Florentin: The transformation of saturated acyclic hydrocarbons into ethylenic hydrocarbons. Details of the products obtained by the action of catalysts upon ethane, propane, and butane at temperatures ranging from 500° to 650° C. The catalysts used were copper and nickel, both on pumice.—André Blondel: The cyclic impedances of an earthed poly-phase cable.—C. Camichel, L. Escande, and G. Sabathe: The similitude of vortices.—Émile Guyénot, Mlles. K. Ponse and J. Wietrzykowska: The luteinisation of the ovary and masculinisation in the guinea-pig.—Jean J. Placinteanu: The deduction of Maxwell's equations with the aid of Eddington's wave tensor.—C. E. Winn: The oscillation of the means of Hölder and of Cesàro.—Georges Bouligand: Some points of the theory of ensembles.—Louis de Broglie: The densities of mean values in Dirac's theory.—Nicolas Kryloff and Nicolas Bogoliuboff: The phenomenon of the establishment of the silent zone (*entraînement*) in radio technique.—J. F. Cellerier: The phonic test for the measurement of the mechanical intensities of sounds.—François Boissier: A new iodine accumulator. This battery is based on the reversible reaction $ZnI_2 = Zn + 2I$. Its e.m.f. is 1.2 volts and efficiency about 80 per cent.—Pierre Jolibois and Georges Foutetier: The photographic registration of pH during reactions in solution. The apparatus described in a previous note for recording the electrical conductivity of an electrolyte as a function of the quantity of reagent added has been modified to give a record of the pH of a solution. A reproduction of the curve obtained by the neutralisation of orthophosphoric acid by soda is given.—H. Colin and Mlle. A. Chaudun: The action of neutral salts on the inversion of sugar by acids.—René Dubrisay: A phenomenon of capillary chemistry. A solution containing a mixture of sodium laurate and oleate is made to foam by passing a current of air or nitrogen. Analysis of the froth and residual liquid confirmed the theoretical view that the ratio oleic acid to lauric acid was higher in the froth than in the residual solution.—Ed. Chauvenet and J. Tonnet: The anhydrous combinations of thoryl chloride with the alkaline chlorides.—L. Bert and E. Andor: The bromination of $C_6H_5 \cdot O \cdot CH_2 \cdot CH : CHCl$.—R. Cornubert and P. Robinet: The phenomena of isomerism in the tetrahydropyrones.—M. Grunfeld: The relation between the ultra-violet absorption spectra and the reaction velocities for certain classes of amines.—Marius Badoche: Researches on the coloured hydrocarbons: a blue hydrocarbon.—L. Royer: The orientation of crystals of the epsomite series by mica.—Mlle. Lucienne George: The origin of the Gnetalea.—D. Montet: The effect of radioactivity on the germination of bulbs.—H. Hérissé and J. Laforest: A heteroside extracted from the Portuguese laurel, *Cerasus lusitanica*.—Philippe Fabre: The utilisation of electromotive forces of induction for the registration of the variations of velocity of conducting liquids: a new hemodromograph without a paddle in the blood. The apparatus is based on the e.m.f. due to induction developed in any moving conductor in rapid motion in an intense magnetic field.—H. Simonnet and G. Tanret: Some physiological properties of nerine and other proximate principles of the oleander. The glucosides of the oleander are cardiac glucosides.—A. Machebœuf and G. Sandor: Study of the extraction of the lipides of blood serum by ether in presence of

alcohol. The ratio of ether to alcohol for maximum extraction must fall between narrow limits: the time of contact is also important.—**Jean Roche**: The action of oxygenation on certain physico-chemical properties of the hæmocyane of the snail.—**C. Mathis and C. Durieux**: The identity, at Dakar, of *Spirochaeta Duttoni* var. *crociduræ* and the spirochaete naturally infecting *Ornithodoros erraticus*.

VIENNA

Academy of Sciences, Jan. 14.—**Leopold Schmid and Walther Rumpel**: Constitution of the colouring matter in toad-flax flowers (*Linaria vulgaris*). It was found earlier that this colouring matter contains a molecule $C_{17}H_{14}O_6$ united to form a glucoside with one molecule of a hexose and one of a methylpentose. It is now shown that the coloured constituent is the 4:6-dimethyl ether of scutellarein. The flowers contain also entricontane and mannitol.—**Julius Donau**: A new micro-gravimetric analytical process. A combined precipitating and filtering dish with a platinum-foil cover and with platinum black as filtering layer, is described. Dissolution, precipitation, washing, and drying are carried out in the same vessel and losses of precipitate thus entirely avoided. Accurate results have been obtained in the determination of chlorine, iron, sulphate, and potassium chloride.—**Robert Janoschek**: Geology of the Brenner Hills.—**Karl Linsbauer**: Nuclei, nucleoli, and movements of the plasma in the vesicular cells of *Mesembryanthemum cristallinum*.—**Gustav Jantsch and Ernst Wiesenberg**: Higher valency compounds of the rare earths. (1) Lanthanum oxide.—**Martin Gusinde and Viktor Lebzelter**: Somatology of the Indians of Tierra del Fuego. Sixty years ago the three different aboriginal races of Tierra del Fuego numbered together about 12,000 members, but it is estimated that less than 300 of pure descent now remain. The region peopled by each of these races is sharply defined and little mixing occurs. Their modes of life vary, the Yamana and Halakwalup being water-nomads and the Selk'nam hunter-nomads. The results of anthropological measurements of a number of individuals of each tribe are given.—**Otto Sickenberg**: A new antelope, *Parurmiatherium rugosifrons*, nov. gen. nov. spec., from the Lower Pliocene of Samos.

Jan. 21.—Contributions to the knowledge of the climate of towns: (1) **Hanns Tollner**: Distribution of temperature in Vienna in the summer of 1931.—(2) **Friedrich Lauscher and Ferdinand Steinhauser**: Radiation in Vienna and its neighbourhood.—**Fritz Wesely and Editha Nadler**: Substances contained in the root of *Pimpinella saxifraga* (2). In addition to pimpinellin and isopimpinellin, previously described, this root contains also a third compound of the same class, namely, isobergaptene, to the molecule of which a three-ringed structure is ascribed.—**Fritz Wesely and Ferdinand Kallab**: A re-arrangement in the flavone series.—**Leopold Schmid and Anton Seebald**: The colouring matter of the yellow dahlia. This colouring matter comprises, besides apigenin, also a deep yellow compound, $C_{15}H_{10}O_5$, which melts at 324° and contains three hydroxyl groups and a *p*-hydroxybenzoic acid residue in its molecule.—**Karl Morsch**: Action of ammonia and amines on esters of unsaturated acids. (1) Action of ammonia, methylamine, and diethylamine on ethyl crotonate.—**Franz Fuhrmann**: Biochemistry of the luminous bacteria. (1) Influence of sodium and potassium chlorides and bromides.—**Karl Strubecker**: Rhombic nets of straight lines and circles.—**Alfred Tarski**: Concept of truth in the language of the deductive sciences.

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Forthcoming Events

FRIDAY, MAY 6

- IRON AND STEEL INSTITUTE (at Institution of Civil Engineers), at 10 A.M.—Annual Meeting.
 ROYAL SOCIETY OF MEDICINE (Otolaryngology Section) (Annual General Meeting), at 10.30 A.M.—Discussion on Labyrinthitis.
 CAMBRIDGE UNIVERSITY (in Senate House), at noon.—Prof. A. Einstein: Die Theorie der Elektrizität im Rahmen der allgemeinen Relativitätstheorie (Rouse Ball Lecture).
 INSTITUTION OF MECHANICAL ENGINEERS (London Spring Meeting), at 2.30.—A. Binns: Recent Developments in the Mechanical Equipment of the Port of London Authority.—At 7.30.—J. H. Boyd: The Building of a Modern Motor-car Manufacturing Plant.
 ROYAL SOCIETY OF ARTS (Indian Meeting), at 4.30.—Miss B. M. le P. Power: Indian Labour Conditions.
 ROYAL SOCIETY OF MEDICINE (Laryngology Section), at 5.—Annual General Meeting.
 PHYSICAL SOCIETY (in Physiological Laboratory, University College), at 5.—Prof. A. V. Hill: The Measurement and Analysis of the Heat Production of Nerve (Lecture).
 UNIVERSITY COLLEGE, at 5.30.—Sir Bernard Pares: Russia and the West (Lecture).
 GOLDSMITHS' COLLEGE (New Cross), at 5.45.—Prof. J. F. Unstead: Recent Developments of the Regional Method—as applied to Teaching.
 ROYAL INSTITUTION OF GREAT BRITAIN, at 8.30.—Conversazione.
 ROYAL SOCIETY OF MEDICINE (Anæsthetics Section), at 8.30.—Annual General Meeting.
 CAMBRIDGE UNIVERSITY (in Anatomy Lecture Room, New Museum).—Prof. J. J. R. Macleod: Linaere Lecture.

SATURDAY, MAY 7

- GOLDSMITHS' COLLEGE (New Cross), at 3.30.—Prof. H. J. Fleure: Social and National Ideals in their Geographical Settings—A Study of Some European Problems.

MONDAY, MAY 9

- UNIVERSITY COLLEGE, at 2.—Dr. W. W. Greg: The Descent of Manuscripts (Lecture).
 ROYAL INSTITUTION OF GREAT BRITAIN, at 5.—General Meeting.
 INSTITUTION OF ELECTRICAL ENGINEERS (London Students' Section), at 6.15.—Annual General Meeting.
 BRITISH ASSOCIATION OF CHEMISTS (Notts and Derby Section) (Annual Meeting) (at King's Café, Derby), at 7.15.—A. W. Knapp and others: Discussion on the Organisation of the Profession.
 MEDICAL SOCIETY OF LONDON (Annual General Meeting) (at 11 Chandos Street, W.1), at 8.—At 8.30.—Sir James Berry: Fallen Idols (Annual Oration).

TUESDAY, MAY 10

- ROYAL HORTICULTURAL SOCIETY (Greycoat Street, S.W.1), at 3.30.—Sir Frederick Keeble: Garden Fertility (Masters Memorial Lectures) (1).
 ROYAL SOCIETY OF MEDICINE (Therapeutics and Pharmacology Section) (Annual General Meeting), at 5.—Discussion on Some Problems concerning the Prevention and Treatment of Acute Rheumatic Infection.
 INSTITUTION OF CIVIL ENGINEERS, at 6.—Annual General Meeting.
 BRITISH ASSOCIATION OF CHEMISTS (Birmingham Section) (at Chamber of Commerce, Birmingham), at 7.30.—Annual Meeting.
 (NEW) INTERNATIONAL ASSOCIATION FOR TESTING MATERIALS (British Branch) (at Institution of Mechanical Engineers), at 7.30.—Dr. W. Rosenhain: The Work and Objects of the Association.
 ROYAL SOCIETY OF MEDICINE (Psychiatry Section), at 8.30.—Annual General Meeting.
 ROYAL INSTITUTE OF PUBLIC HEALTH (at Belfast) (continued on May 11 to 15).