

Societies and Academies

Dublin

Royal Dublin Society, June 22.

H. G. WAGER and ELIZABETH M. WAGER: Annual changes in the osmotic value of some arctic and temperate plants. Determinations of the osmotic value of some arctic plants were made at intervals throughout the year in Kangerdlugssuak, East Greenland, during the course of the British East Greenland Expedition, 1935-36. The changes in the osmotic value have been correlated with the climate of the district.

MARGARET MOHAN, J. KEANE and T. J. NOLAN: The chemical constituents of lichens found in Ireland: *Parmelia conspersa*, Ach. While the Japanese and European varieties of the lichen have been found to contain salazic acid, the Irish lichen, collected at Howth, Co. Dublin, has been found to contain stictic acid. All three varieties also contain usnic acid.

J. H. J. POOLE: A synchronous clock time-marker. The movement of a synchronous electric clock forms a cheap and convenient motor for causing a disk with slits to rotate once per minute and thus provide a series of light-flashes at convenient intervals to form a time base on a photographic film recorder.

H. H. POOLE: A convenient form of galvanometer shunt for use with rectifier photo-cells. A constant resistance shunt of the telephone attenuator type, giving ratios 1, 5, 10, 50, 100 and 500, with an external resistance 10 ohms on every range with a 10-ohm galvanometer, is very suitable for daylight measurements. The use of spring keys to bring either of two cells into circuit and then to increase the sensitivity by successively cutting out the shunts saves the sensitive galvanometer from accidental damage. A reversing key doubles the sensitivity for small deflections.

Royal Irish Academy, June 28.

K. JESSEN and A. FARRINGTON: The bogs at Ballybetagh, with remarks on the development of late-glacial deposits in Ireland. An investigation of the well-known deposits near Dublin containing remains of *Cervus giganteus*. A detailed description of the deposits is given with a list of plants identified in the late-glacial and early post-glacial beds. Pollen diagrams from several points are discussed. Comparison is made with deposits found in other basins, for example, at Ralaghan, Co. Cavan, and a general view of late-glacial conditions in Ireland is suggested.

Brussels

Royal Academy (*Bull. Classe Sci.*, 23, No. 5; 1937).

G. CESÀRO and J. MÉLON: The crystalline form of aconite.

P. GÉRARD: The renal elimination of acid colouring matters in *Astacus fluviatilis*.

M. KOURENSKY: The integration of linear partial differential equations of the first order of two and more than two unknown functions.

N. NEBONOFF: Reduction of a plane problem in hydrodynamics to the solution of a system of functional equations (2).

S. AREND: Direct calculation of the relationships used in positional astrology.

F. E. NISOLI and J. GÉRARD: New determination of the vertex of the cluster in Taurus and of the star stream in Scorpius.

M. G. E. COSYNS: Variation of the specific primary ionization of hydrogen as a function of the energy of the incident electrons.

Geneva

Society of Physics and Natural History of Geneva, June 17.

G. BILGER: The potential of polygons and elementary geometry. The author demonstrates the following propositions: (1) All regular homogeneous regular polygons having the same vertices and the same mass create the same logarithmic potential of the simple layer in the connex domain of the point at infinity. (2) All homogeneous semi-regular polygons, inscribable, having the same vertices, in each vertex the same bisector and the same mass, create the same logarithmic potential of the simple layer in the connex domain of the point at infinity.

G. CARRISSON: Rapid counting of a microbial suspension. The author describes a method, based on the absorption of light by the bacteria, for counting bacteria in suspension. The quantity of micro-organism in 1 c.c. can thus be determined in about ten minutes to approximately 1 in 10⁶. The measurement is made with a Lange photo-electric colorimeter.

Moscow

Academy of Sciences, *C.R.*, 15, No. 2; 1937.

V. S. IGNATOVSKIY: The Laplacean transformation (6).

A. P. DIETZMANN: The *p*-groups.

S. G. NATANSON: The use of the photo-relay in the study of lunar micro-relief.

A. D. PETROV and M. A. ČELČOVA: The catalytic isomerization of normal hexene and octene in the presence of zinc chloride and phosphoric acid.

V. A. DEVYATNIN and V. M. IOSIKOVA: The determination of ascorbic acid (vitamin C) in blood and urine.

K. S. MASLOV and I. A. KOROBKOV: Discovery in Juria of Upper Eocene characterized by its fauna.

J. A. PETROKOVIČ: The phosphorite-bearing horizon of the Mangysplak Triassic.

F. V. ČUCHROV: Antlerite of the Krestovozdvizhensk region in Djeskagan.

Y. M. OLENOV, I. S. KHARMAC, K. T. GALKOVSKAYA, N. I. KNIAZEVA, A. D. LEBEDEVA and Z. T. POPOVA: Natural selection in wild populations of *Drosophila melanogaster*.

L. I. DŽAPARIDZE: The anatomical connexion between the acerose leaf and the pitch-carrying system of the wood in *Pinus* sp.

Rome

National Academy of the Lincei (*Atti*, 24, 393-487; 1936).

L. TONELLI: (1) Problem of Plateau (2). (2) Semi-continuity in the problems of Mayer and of Lagrange.

O. M. CORBINO: Method of calibrating the electrostatic microphone based on its behaviour towards an alternating electromotive force.

C. BARBA: Definite polynomials (1). Fundamental problems.

R. CACCIOPOLI: Branched inverted functional correspondences: general theory and applications to some non-linear functional equations and to Plateau's problem (2).

E. LEVI: Characteristic properties of Laplace's transformation.

G. ARRIGHI: Isocarene oscillations about the configurations of general equilibrium (2).

E. GUGINO: Variational problem which assumes prefixed trajectories.

C. JACOB: Bifurcation of a liquid jet due to a circular obstacle.

L. SONA: Translo-circulatory current in presence of an obstacle formed by two crossed laminae.

G. BOAGA: Localization of a spherical body by means of Eötvös measurements.

A. BARONI: Electron diffraction study of the graphitization of some industrial lamp-blacks.

A. IANDELLI and E. BOTTI: Crystal structure of the compounds of the rare earths with the metalloids of the fifth group. Phosphides of lanthanum, cerium and praseodymium (1).

G. NATTA and L. PASSERINI: Dimorphism of white phosphorus.

F. RODOLICO: Granular forms of melilitic rocks.

G. NEGODI: Further contributions to the cariology of the genus *Fumaria*.

W. JABLONSKI: Survival and mitosis of free epithelial cells *in vitro*.

G. LOLLI: Thyroid function and experimental alcoholæmia.

E. SERIANNI: The action of morphine on the curve of experimental alcoholæmia in the normal man.

Sydney

Royal Society of New South Wales, June 2.

ADOLPH BOLLIGER: Compounds of creatinine with alkali hydroxides. In an alcoholic medium, creatinine forms with sodium, potassium and rubidium hydroxide, crystalline compounds which can be readily isolated and which may consist either of one molecule of creatinine, one of alkali hydroxide and one or two of water, or of one atom of alkali and two or three molecules of water.

J. F. K. NAYLOR: A preliminary note on the occurrence of Palæozoic strata near Taralga, N.S.W. Recent investigations near Taralga have shown that Palæozoic sedimentation is represented in that area by Upper Ordovician, Upper Silurian and Upper Devonian strata, their respective ages being determined conclusively by the presence of fossils. The general rock pattern conforms to, and is continuous with, that previously determined in the Goulburn district. An interesting point is the finding of black shale containing *Monograptus bohemicus*, interbedded with highly fossiliferous Upper Silurian limestones. This indicates that the latter are of Lower Ludlow age, and owing to the restricted range of that graptolite, may lead to a more exact correlation of N.S.W. Silurian rocks with British and Victorian occurrences than has hitherto been possible.

A. J. BIRCH: The detection and estimation of α -phellandrene in essential oils. This paper describes an adaptation of the 'diene' synthesis to the detection of α -phellandrene in small quantities, and its estimation in the presence of *p*-cymene, cineol, limonene or α -pinene.

Forthcoming Events

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE (NOTTINGHAM MEETING).

Wednesday, September 1

At 8.30 p.m.—Sir Edward Poulton, F.R.S.: "The History of Evolutionary Thought, as recorded in the Meetings of the British Association" (Presidential Address in the Albert Hall).

Thursday, September 2

At 10 a.m.—Sir William Bragg, O.M., K.B.E., Pres. R.S., Dr. G. Shearer, Dr. J. D. Bernal, F.R.S., J. T. Randall and H. P. Rooksby, Dr. A. J. Bradley, and R. M. Powell and W. A. Wood: "X-Ray Methods and Industry" (Symposium: Section A).

Dr. F. L. Pyman, F.R.S., Prof. H. Horlein, Sir Gilbert Morgan, Dr. W. Kikuth and Prof. R. Robinson, F.R.S.: "Some Aspects of Chemotherapy" (Symposium, including Dr. Pyman's Presidential Address entitled "Researches in Chemotherapy": Section B).

Prof. F. A. E. Crew: "The Sex-Ratio" (Presidential Address: Section D).

H. Wolfe, C.B., C.B.E., H. M. Hallsworth, C.B.E. Dr. O. A. Oeser and A. D. K. Owen: "Labour Transference" (Discussion: Section F).

Dr. E. P. Poulton: "Heat Production, Nutrition and Growth in Man—Some New Views" (Presidential Address: Section I).

Prof. E. J. Salisbury, F.R.S.: "The Modern Study of Plants in Relation to Education" (Presidential Address: Section K).

H. G. Wells: "The Informative Content of Education" (Presidential Address: Section L).

J. M. Caie: "State Intervention in Agriculture" (Presidential Address: Section M).

Sir Alexander Gibb, G.B.E., C.B., F.R.S.: "Research in Engineering" (Presidential Address: Section G).

Prof. D. Burns, A. L. Bacharach, Mrs. C. M. Burns, Dr. G. E. Friend, Prof. E. Atzler, Prof. S. J. Cowell: "Contribution of Physiology to the Health of the Individual and the Community" (Discussion: Section I).

At 2.15 p.m.—Prof. J. Ritchie: "The Outlook of Natural Science" (Presidential Address to the Conference of Delegates of Corresponding Societies).

Friday, September 3

At 10 a.m.—Dr. G. W. C. Kaye, O.B.E.: "Noise and the Nation" (Presidential Address: Section A).

Prof. C. R. Harington, F.R.S., Dr. K. Linderström-Lang, Dr. W. T. Astbury, Dr. D. M. Winch, Dr. A. Neuberger and J. St. L. Philpot: "Protein Chemistry" (Symposium: Section B).

Prof. L. J. Wills: "Pleistocene History of the West Midlands" (Presidential Address: Section C).

Dame Helen Gwynne-Vaughan, G.B.E., Prof. F. A. E. Crew, Prof. R. A. Fisher, F.R.S., Dr. F. W. Sansome, Dr. C. D. Darlington, Dr. P. C. Koller, E. B. Ford and Dr. J. S. Huxley: "Recent Work in Genetics and Cytology" (Joint Symposium: Sections D and K).

Prof. C. B. Fawcett: "The Changing Distribution of Population" (Presidential Address: Section E).

Prof. P. Sargant Florence: "Economic Research and Industrial Policy" (Presidential Address: Section F). Prof. F. G. Baily and A. P. M. Fleming: "Training of University Graduates for the Engineering Industry" (Discussion: Section G).

Prof. J. H. Hutton, C.I.E.: "Assam Origins in Relation to Oceania" (Presidential Address: Section H).