

Societies and Academies

Paris

Academy of Sciences, June 8 (*C.R.*, 202, 1881-1952).

ANDRÉ BLONDEL: A radioelectric method for the calculation of transient régimes.

GEORGES CLAUDE: The presence of gold in sea-water. An application of the method suggested by Glazunov to 168 cubic metres of sea-water taken off the coast of California. The gold was too small to be determined, and was less than 0.1 mgm. per cubic metre.

DEMITRI RIABOUCHINSKY: The paradox of d'Alembert at supersonic velocities.

EDGAR BATTLE: The problem of collisions.

SALVATORE CHERUBINO: Holomorph functions of a matrix.

LÉON POMEY: The general harmonic properties of unicursal involutions of order n .

RENÉ LAGRANGE: An inequality of Hobson.

ALEXANDRE WEINSTEIN: The equations of the vibrations of a fixed-in plate.

Mlle. NINA BARY: The Diophantic nature of the unicity problem of the trigonometrical development.

JEAN HELY: The application of a synthetic theory of relativity to the orbits of the planets.

CHARLES PLATRIER: The problem of Barré de Saint-Venant in perfectly flexible homogeneous media.

IMAI-ISAQ: The stability of the double row of vortices in a rectilinear canal.

A. TOUSSAINT and S. PIVKO: The influence of the limitations of the fluid sheet on the aerodynamic characteristics of supporting wings. Experimental verifications.

BERNARD KWAL: Dirac's equation and the theory of the electromagnetism field.

MARCEL PAUTHENIER and MME. MARGUERITE MOREAU-HANOT: An ionic generator giving a million volts. Details of the practical realization of an apparatus based on a theory previously described.

JEAN GRANIER: An important cause of error in the measurement of capacities by the ballistic method. In measuring condensers of high capacity, either the variations of period must be taken into account or less sensitive galvanometers, heavily shunted and with a high moment of inertia, must be used.

JEAN LECOMTE: Infra-red absorption spectra and the modes of vibration of organic compounds. From the study of compounds of the types $X.CH_2CH_2.Y$ and $X.CH_2.CH_2.CH_2.Y$, the numerous absorption bands found in nearly all the spectra for frequencies lower than $1,100\text{ cm}^{-1}$, can be explained only if the existence of several molecular forms is admitted.

JEAN REBOUL: The action exerted by ordinary metals on the photographic plate and on the electrometer. The study of the ionization of the atmosphere surrounding ordinary metals, suggests that there is an emission by these metals of an X-radiation of small quantum. The action on the photographic plate is not parallel to the ionization, and Russell's suggestion of the formation of hydrogen peroxide may apply in some cases.

PIERRE AUGER and ALBERT ROSENBERG: The properties of the cosmic corpuscles of the penetrating group.

HORMISDAS: A new colorimeter for determinations in series.

HORIA HULUBEI: Researches relating to element No. 87. The results of experiments given are consistent with the presence of element 87 in extremely small quantity in pollucite.

CLÉMENT COURTY: The diamagnetism of thiocyanates and of the ion Cu^+ .

MARC TIFFENEAU and Mlle. B. TCHOUBAR: The differences of behaviour of the *cis* and *trans* cyclohexanediols during their dehydration.

ALBERT KIRRMANN and PIERRE RENN: The mechanism of the allyl transposition.

FRANÇOIS DUPRÉ LA TOUR: Inversion of polymorphism in the series of normal saturated diacids.

GEORGES REMPP: A differential frigorimeter. A simple instrument for measuring the mean velocity of the air, possessing a greater thermal inertia than the hot wire anemometer.

ETIENNE FØEX and MAURICE LANSADÉ: The pathogenic action of a bacterium isolated from potato tubers. The characters of this organism agree with those of *Bacterium xanthochlorum*. Studies have been made of its pathogenic action on potato tubers and buds, leaves of Solanaceæ and Leguminosæ and on seeds of Solanaceæ.

PAUL RIOU and JOACHIM DELORME: The lead values in maple and cane sugars. From a determination of the lead values of cane sugars from various sources, it is concluded that this value can give no indication of the adulteration of maple sugar with raw cane sugar.

ALBERT RAYNAUD: The heterochromosomes of mulot.

ROBERT BRUNET and ANTOINE JULLIEN: The architectural characteristics of the heart in two marine lamellibranchs, *Ostrea edulis* and *Venus gallina*.

Mlle. MARIE LOUISE ROCCO: The presence of allantoinase in insects. The aerial arthropods, like the aquatic arthropods, contain the enzyme allantoinase.

FRANCIS RATHERY, ANDRÉ CHOAY and PIERRE DE TRAVERSE: Isolation from the mucous membrane of the jejunum of a principle reducing glycaemia.

MAURICE DOLADILHE and Mlle. MARGUERITE MICHEL: Contribution to the study of the alexic properties of protein C.

Official Publications Received

Great Britain and Ireland

Fifty Years a Borough, 1886-1936: The Story of West Ham. Edited and compiled by Donald McDougall. Pp. 298. (West Ham Central Library.) 3s. 6d. [296]

The North of Scotland College of Agriculture. Guide to Experiments and Demonstration Plots at Craibstone, 1936. Pp. xii+72. (Aberdeen: North of Scotland College of Agriculture.) [37]

Other Countries

Commonwealth of Australia: Council for Scientific and Industrial Research. Bulletin No. 97: Studies on Contagious Pleuro-Pneumonia of Cattle. By A. D. Campbell, Dr. A. W. Turner, Dr. H. R. Seddon and Dr. H. E. Albiston. Pp. 88. Bulletin No. 98: Cercospora Leaf-Spot (Frogeye) of Tobacco in Queensland. By A. V. Hill. Pp. 46+7 plates. Pamphlet No. 62: The Chemistry of Australian Timbers. Part 5: A Study of the Lignin Determination, 3. By Dr. W. E. Cohen. (Division of Forest Products: Technical Paper No. 20.) Pp. 30. Pamphlet No. 63: Studies of Five Introduced Grasses. By Dr. A. McTaggart, W. Hartley, T. B. Paltridge and H. K. C. Mair. Pp. 32+2 plates. (Melbourne: Government Printer.) [226]

Peabody Museum of Natural History. Bulletin 4: Miocene Marine Mammals from the Bakersfield Region, California. By Leslie E. Wilson. Pp. 143. (New Haven, Conn.: Yale University.) 1.25 dollars. [246]

Proceedings of the United States National Museum. Vol. 83, No. 2986: A New Genus and Species of Trematode from the Little Brown Rat and a Key to the Genera of Pleurogenetinae. By Ralph W. Macy. Pp. 321-324. (Washington, D.C.: Government Printing Office.) [246]