

functions with real variables.—Ph. Glangeaud: The earthquake of October 12, 1922, in the Creuse and the Limousin, and some earthquakes in the north-west of the Central Massif. A map of the district over which the shocks were felt is given, showing also the lines of the faults in the geological strata. These earthquakes in the Central Massif are due to slipping along the old lines of the faults.—M. Gabriel Bertrand was elected a member of the section of chemistry in the place of the late H. Georges Lemoine.—Georges Darmois: The local integration of the equations of Einstein.—F. Defourneaux: A category of polynomials analogous with electrospherical polynomials.—N. Abramesco: The auto-generation of curves.—Henri Milloux: The growth of integral functions of finite order and their exceptional values in the angles.—Kyrille Popoff: The pendulum of variable length.—J. Haag: The interior problem of Schwarzschild, in the case of a heterogeneous sphere.—B. Salomon: The gyscopscopic analogies of synchronous and asynchronous electrical machines and the transposition into mechanics of certain diagrams of electrotechnics.—MM. Huguenard, Magnan, and A. Planiol: An apparatus giving the instantaneous direction of the wind. This is a modified compensated hot-wire anemometer. By using this and the compensated hot-wire instrument for measuring wind velocity, both the instantaneous direction and velocity of the wind can be recorded on the same chart. Examples of such records are reproduced, and their bearing on problems of flight without motors indicated.—Jean Chazy: A correction derived from the theory of relativity to the Newtonian time of revolution of the planets.—J. Ph. Lagrula: Test of the rapidity realisable in equatorial measurements of small planets with a telescope provided with a photo-visual comparator and some additional accessories.—J. Guillaume: Observations of the sun made at the Lyons Observatory during the fourth quarter of 1922. The results of the observations taken on 61 days during this quarter are summarised in three tables showing the number of spots, their distribution in latitude, and the distribution of the faculae in latitude.—Henri Béghin and Paul Monfraix: A new gyrostatic compass. This instrument, composed of a system of three gyrostats, has been specially designed to neutralise the deviations produced by the motion of the ship.—F. W. Klingstedt: The ultra-violet absorption spectra of the cresols.—A. Dauvillier: The high frequency spectrum of calcium. Reply to a criticism by D. Coster and G. Hevesy.—André Charriou: The removal of acids from solution by precipitates of alumina. A study of the removal of chromic acid by aluminium hydroxide, and of the means of purifying the precipitate by washing with suitable reagents.—R. Locquin and Sung Wouseng: The preparation of various pinacones by the action of alkyl magnesium compounds on some α -hydroxy-methyl ketones. Details of a generally applicable method for preparing bitertiary α -glycols of the type $RR'C(OH)-C(OH)R''(CH_3)_2$.—Pauline Ramart: A molecular transposition in the pseudo-butyl-diphenylcarbinol series. A study of the compounds produced by the action of acetic anhydride and acetyl chloride upon the alcohol $(C_6H_5)_2C(OH) \cdot C(CH_3)_3$.—Emile André: The separation of methyl oleate and methyl linoleate by fractional distillation. The separation is difficult, owing to the tendency of the linoleate to form polymers.—A. Mailhe: The decomposition of the aryl formamides. A new method of preparation of substituted ureas. The vapours of formanilide passed over finely divided nickel at 400° - 410° C. give some aniline and diphenylurea. The formotoluides behave similarly.

—Henri Longchambon: The study of the spectrum of the triboluminescence of some substances. Crystals of tartaric acid when broken give a band spectrum of nitrogen similar to that obtained from sugar. Crystals of cadmium sulphate, uranium nitrate, and fluor spar also show nitrogen bands. The light from the uranium salt, which has a colour differing from the other, shows the four green fluorescence bands of uranium nitrate.—E. Schnæbelé: The granites of the Champ du Feu (Vosges).—Léon Bertrand and Antonin Lanquine: The co-ordination and origin of the Pyrenees-Provençal structural units in the south-west of the Maritime Alps.—Pierre Bonnet: The tectonic relations of the gneiss and coal measures in the northern Morvan.—Henry Joly: The constitution of the Jurassic at Torrelapaja and Bordejo (Celtiberic chain, provinces of Saragossa and Soria, Spain).—E. Bénévent: The mistral on the coast of Nice. The freedom of Nice from the mistral is not due to its sheltered position, but to its situation with respect to the trajectories of the barometric minima.—Joseph Lévine: Triatomic hydrogen and meteorological depressions.—J. Beauverie: Influence of the rainfall during the "critical period" of wheat on the yield. Provided the rainfall during the "critical period" is below a certain amount, the yield of wheat is roughly proportional to the rainfall.—A. A. Mendes-Corrêa: The proportions of the limbs in Portuguese. The Portuguese, from the point of view of the proportions of their limbs, are of a clearly European type.—Henri Piéron: The propagation of luminous stimulation of the retina to the cerebral outer layers.—Marc Romieu: The histological study of the testicle of *Orthogoriscus mola*.—R. Hovasse and G. Teissier: Peridinians and Zooxanthelles.—C. Levaditi and S. Nicolau: The filtration of neurotropic ultravirus through collodion membranes. The virus of rabies, encephalitis, herpes, and neurovaccine can be filtered under pressure through collodion membranes. The filtrates vary in toxic power; not only from one membrane to another, but also according to the nature of the virus.

Official Publications Received.

Report of the Commissioner of Education for the Year ended June 30, 1922. Pp. iii+32. (Washington: Government Printing Office.)

Report of the Marlborough College Natural History Society (founded April 9th, 1864) for the Year ending Christmas, 1922. (No. 71.) Pp. 72+8 plates. (Marlborough.)

Forest Bulletin No. 51: An Investigation of certain Factors concerning the Resin-tapping Industry in *Pinus longifolia*. By H. G. Champion. Pp. 20. (Calcutta: Government Printing Office.) 8 annas.

Carnegie Institution of Washington. Annual Report of the Director of the Department of Terrestrial Magnetism. (Extracted from Year Book No. 21 for the Year 1922.) Pp. 266-309. (Washington.)

Diary of Societies.

WEDNESDAY, APRIL 4.

SOCIETY OF PUBLIC ANALYSTS AND OTHER ANALYTICAL CHEMISTS (at Chemical Society), at 8.—Dr. S. White: Physiological Standardisation.—

B. S. Evans: An Investigation into the Chemistry of the Reinsch Test for Arsenic and Antimony, and its Extension to Bismuth.—Dr. G. W. Monier-Williams: The Estimation of Boric Acid in "Liquid Eggs" and other Foodstuffs.

ENTOMOLOGICAL SOCIETY OF LONDON, at 8.

FRIDAY, APRIL 6.

ROYAL SOCIETY OF ARTS (Indian Section), at 4.—G. R. Clarke: Postal and Telegraph Work in India.

PHILOLOGICAL SOCIETY (at University College), at 5.30.—Prof. W. A. Craigie: Dictionary Prospects.

INSTITUTE OF MARINE ENGINEERS, INC., at 6.—Annual Meeting.

SATURDAY, APRIL 7.

GILBERT WHITE FELLOWSHIP (Annual General Meeting) (at 6 Queen Square, W.C.1), at 2.—Sir David Prain: Presidential Address.