

their prey *in situ*.—H. M. **Edelsten**: Specimens of *Sesia andraeniformis*, bred from pupæ taken in Bedfordshire and Kent, and ovæ of *Nonagria carinae*, giving an account of its remarkable methods of oviposition.—A. **Harrison** and H. **Main**: Four broods from females of *Pieris napi*, var. *bryoniae*, captured on the Kleine Scheidegg Pass, Switzerland, in July, 1906, showing a wide range of variation.—Prof. T. Hudson **Beare**: A specimen of the rare bug *Lygaeus equestris*, Linn., from St. Margaret's Bay, also specimens of *Hypera tigrina*, Boh., taken in some numbers on the wild carrot at the same locality, and *Apibn semi-vittatum*, Gyll., off plants of *Mercurialis annua*, all taken during the same period at St. Margaret's Bay.—**Papers**.—The species of Hesperidæ from the Indo-Malayan and African regions, described by Herr Plotz, with some new species: Colonel Charles **Swinhoe**.—The butterflies of Mauritius and Bourbon: Lieut.-Colonel Neville **Manders**.—The hibernating habit of the lepidopterous genus *Marasmarcha*: Dr. T. A. **Chapman**.

PARIS.

Academy of Sciences, October 14.—M. A. Chauveau in the chair.—The transits of Mercury across the sun, and, in particular, on that of November 14 next: G. **Bigourdan**. A review of the various phenomena regarding which further information is desirable, including the visibility of the planet outside the sun, the external and internal contact, the appearance of the horns and the measurement of their distance.—The summation of Laurent's series: A. **Buhl**.—The invariants of differential systems: Etienne **Delassus**.—A theorem on integral equations: Tommaso **Boggio**.—The analysis of mixtures of air and gas or combustible vapours: Jean **Meunier**.—A new improvement allowing of the rapid detection and estimation of methane: Nestor **Gréhant**.—The reactions in the nickel-plating bath: A. **Brochet**. The causes of the favourable effect of the addition of boric acid to the bath are discussed, and also some peculiarities of the way the anode is attacked.—A vinyl alcohol of the type ArR:C:CH.OH: MM. **Tiffeneau** and **Daufresne**. The substance described in a previous note as anisylcyclopropanol has been found to be methylanisylethenol, (CH<sub>3</sub>)<sub>2</sub>O.C<sub>6</sub>H<sub>4</sub>—C(CH<sub>3</sub>):CH.OH, the first alcohol of this type to be isolated.—A caoutchouc tree at Tonkin: MM. **Dubard** and **Eberhardt**. The principal characters of the tree are given in detail, and prove that it is a new species of the genus *Bleekrodea*, and is named *Bleekrodea tonkinensis*. This tree is of great economic interest, as it is the first caoutchouc-bearing tree found in Indo-China. It is abundant, and the rubber produced from it is of the highest quality.—The reception of the light stimulus in the compound eyes of insects, particularly the Muscidæ: P. **Vigier**.—The evolution of the carbon, water, and ash as a function of the age in plants: J. **Tribot**.—The psychophysical law; applications to energetics and photometry: Charles **Henry**.

GÖTTINGEN.

Royal Society of Sciences.—The *Nachrichten* (physico-mathematical section), contains the following memoirs communicated to the society:—

March 9.—Determination of absolute values of magnetisation numbers, especially for crystals: W. **Voigt** and S. **Kinooshita**.—Determination of the elastic constants of aragonite: W. **Voigt**.—Approximation by means of exponential functions: **H. Burkhardt**.—Some properties of the radium atom: **Riecke**.

May 11.—Peculiar cases of vibrating membranes: W. **Voigt**.—The influence of internal reflexions on the interference phenomena in doubly refracting crystal plates: H. **Joachim**.

June 8.—The most general concept of the plane continuous curve (second paper): A. **Schoenflies**.—Vibrations of non-uniformly stretched membranes: W. **Voigt**.

July 20.—The so called general energy equations of the technical theory of rigidity: J. **Weingarten**.

July 27.—Four new letters of Gauss: P. **Stäckel**.

The business communications, part I. for 1907, of the same society include reports on the progress of the publication of Gauss's works and on the Samoa Observatory, together with a memorial discourse on Ludwig Boltzmann, by W. **Voigt**.

DIARY OF SOCIETIES.

THURSDAY OCTOBER 24.

CHEMICAL SOCIETY, at 8.30.—The Constitution of Phenol and Quinol-phthalain Salts: a Contribution to the Quinonoid Theory of Colour: A. G. Green and P. E. King.—Polyketides: J. N. Collie.—Production of Orcinol Compounds by the Action of Heat on the Sodium Salt of Ethylacetoacetate: J. N. Collie and E. R. Chrystall.—A Simple Gas Generator for Analytical Operations: J. M. Sanders.—Some Double Ferrocyanides of Calcium, Potassium and Ammonium: J. Campbell Brown.—Halogen Determination in Organic Substances: J. Moir.—Racemisation of Alkali as applied to the Resolution of  $\gamma$ -Mandelic Acid into its Optical Active Isomerides: A. McKenzie and H. A. Müller.—The Optical Activity of Cyclic Ammonium Compounds: F. Buckley and H. O. Jones.—Keten. A New Anhydride of Acetic Acid: N. T. M. Wilmore.—The Action of Phosphorus Pentachloride on Hydroxy-trimethyl Succinic Ester. 1:2-Dimethyl Trimethylene 1:2-Dicarboxylic Acid: H. Henstock and B. E. Woolley.

FRIDAY, OCTOBER 25.

PHYSICAL SOCIETY, at 5.—On the use of Variable Mutual Inductances: A. Campbell.—On Magnetic Oscillators as Radiators in Wireless Telegraphy: Dr. J. A. Fleming.

TUESDAY, OCTOBER 26.

FARADAY SOCIETY, at 8.—On the Electrolysis of Salt Solutions in Liquefied Sulphur Dioxide at Low Temperatures: Dr. B. D. Steele.—Note on the Action of Aluminium Powder on Silica and Boric Anhydride: F. E. Weston and H. R. Ellis.—Reduction of Metallic Oxides by Means of Calcium Hydride: Dr. F. Mollwo Perkin and Lionel Pratt.—A Series-Parallel Lamp Resistance Useful for Electrochemical Work: N. T. M. Wilmore.

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