

sun, made at the Observatory of Lyons during the third quarter of 1908: J. **Guillaume**. Observations were taken on sixty-seven days, and the results are summarised in three tables giving the number of spots, their distribution in latitude, and the distribution of the faculae in latitude.—The cyclid of Lie: A. **Demoulin**.—The singularities of analytical functions: Paul **Dienes**.—Multiform integrals of differential equations of the first order: Pierre **Boutroux**.—The condition that seven right lines should be situated on a surface of the fourth degree: E. **Traynard**.—The Thomson formula,  $T=2\pi\sqrt{CL}$ , relating to the discharge of a condenser: André **Léauté**. In the case of coils carrying several layers of wire, the capacity is no longer negligible, and the Thomson formula requires modification. The theory of this case is developed in the present paper, and it is shown that the current due to the discharge of a condenser through a coil with two layers may be considered as formed by the superposition of an infinite number of sinusoidal currents, the amplitude of which tends towards zero with the period. This theory explains the presence of striae in induction sparks.—The radiation and temperature of the flame of the Bunsen burner: E. **Bauer**. The temperature of the Bunsen flame found by these measurements is  $1760^{\circ}\pm 50$ , and is near the  $1870^{\circ}$  found by M. Féry, on the assumption that the emission of the D line is a purely thermal phenomenon.—Super-tension and viscosity: Ch. **Marie**.—The synthesis of ammonia by means of peat: H. **Woltereck**.—The inconveniences of potassium bichromate when used as a preservative for milk samples intended for analysis: A. **Monvoisin**. The addition of 0.1 per cent. of potassium bichromate to milk samples intended for analysis is at present compulsory in France. This addition prevents the detection of added formaldehyde or hydrogen peroxide, and also renders it impossible to state whether the milk has been heated or not.—Contribution to the study of the humic matter in peat wool: L. **Roger** and E. **Vulquin**.—The reciprocal influence of respiratory phenomena and the behaviour in certain Actinia: Henri **Piéron**.—The development and affinities of *Sorosphaera Veronicæ*: R. **Maire** and A. **Tison**.—Carpocypsis: the normal anatomy and pathology of the lower radio-cubital articulation: R. **Robinson**.—The discovery of a human skeleton at Chapelle-aux-Saints (Corrèze): A. and J. **Bouyssonie** and L. **Bardon**. Details of the discovery and removal of this fossil skeleton, described by M. Boule in the *Comptes rendus* of last week. Both above and around the skeleton were many broken bones, as well as tools of flint and quartz. The animal remains included the reindeer, horse, and a large ruminant.—The anatomy of the appendicular organs of the female reproductive apparatus of *Periplaneta orientalis*: L. **Bordas**.—Experimental researches on the evolutive mutations of certain crustaceans: Edmond **Bordage**.—The upper limit of the proportion of the encephalus with respect to the weight of the body in birds: Louis **Lapicque**.—*Syllis vivipara* and the problem of its sexuality: Aug. **Michel**.—Filtration of the X-rays by aluminium: H. **Guillemot**.—Geological structure in the Salzkammergut in the neighbourhood of Ischl and Aussee: Emile **Haug**.—The hydrography and climate of Algeria since the Oligocene epoch: J. **Savornin**.—The substratum of the *nappe du charriage* in the Peloponnesus: Ph. **Négris**.—The supposed submarine spring of the Port-Miou (Bouches-du-Rhône): E. A. **Martel**. This spring, the existence of which has been described in various works for the last 200 years, does not appear to exist.—The variations of climate: Henryk **Arctowski**.—The seismic disturbances of December 12 and 18, 1908: Alfred **Angot**.—The traces of a positive movement along the western coast of Corsica, and its function in the morphology and evolution of the coast-line: Paul **Castelnau**.—The telluric currents between stations of different altitude: Bernard **Brunhes**.

## NEW SOUTH WALES.

Royal Society, November 4.—Mr. W. M. Hamlet, president, in the chair.—Note on pucherite from West Australia: E. **Griffiths**. The physical properties and composition of the mineral agree with those recorded in Dana's "System of Mineralogy" for the mineral pucherite. This is believed to be the first recorded occurrence of pucherite in Australia.

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## DIARY OF SOCIETIES.

MONDAY, JANUARY 4.

SOCIETY OF CHEMICAL INDUSTRY, at 8.—Cinchonamine and Certain Other Rare Alkaloids: B. F. Howard and O. Chick.—Reactions between Dyes and Fibres; W. P. Dreaper and A. Wilson.—A Physico-chemical Method for Comparing the Antiseptic Value of Disinfectants: Drs. S. B. Schryver and R. Lessing.

VICTORIA INSTITUTE, at 4.30.—Life in a Country Town of Lycaonia—(Conditions of Christian Life under the Eastern Empire): Sir W. M. Ramsay.

THURSDAY, JANUARY 7.

RÖNTGEN SOCIETY, at 8.15.—A Description of Three Sub-standards of Radio-activity recently prepared for the Röntgen Society: C. E. S. Phillips.—A New Localising Apparatus designed by Staff-Surgeon Dr. Gillett: H. C. Head.

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