

On a dark chamber for three-colour photography, by M. Prieur. The problem to be solved was to devise a mechanism which, on closing the shutter, would remove the exposed plate and at the same time replace it by the succeeding plate, placing the latter accurately in the focus of the objective. This problem has been satisfactorily solved.—On bipolar electrodes with a soluble anode, by MM. André Brochet and C. L. Barillet. In an electrolytic cell containing a solution of copper sulphate, the interposition of an insulated copper plate gives results very similar to those previously described with a platinum plate. It was not found possible to predict the phenomenon in any given case.—On thallic chloride, by M. V. Thomas. The chloride $TlCl_3 \cdot 4H_2O$ can be dehydrated in a vacuum without any loss of chlorine. The properties of the anhydrous chloride are given.—On Gmelin's violet manganese metaphosphate, by M. Ph. Barbier.—Addition derivatives from cyclohexene, by M. L. Brunel.—On a dichlorhydrate and dibromhydrate of cadinene and on a dextrorotatory regenerated cadinene, by M. Emilien Grimal.—On the essence of vetiver, by MM. P. Genvresse and G. Langlois. This essence contains a sesquiterpene, a sesquiterpene alcohol, and an ester to which the odour is due.—On the excretion and variation of the kidney in carnivorous fowls of the second generation, by M. Frédéric Houssay.—The formation of chlorophyll in rarefied air and in rarefied oxygen, by M. Jean Friedel. In air expanded to one-sixth of the atmospheric pressure, the leaves of *Phaseolus* are almost entirely etiolated; in oxygen at the same pressure, the leaves are coloured as in ordinary air. It would thus appear that the relative pressure of the oxygen is the predominating factor, the total pressure having no sensible influence.—On some new fossil infusoria, by M. B. Renault.—On the immunisation of the lettuce against the fungus *Bremia Lactucae*, by M. E. Marchal. By treatment with solutions of copper sulphate of certain strength, it was found possible to prevent the growth of the parasite from interfering with the growth of the plant. The narrow margin, however, between the immunising dose of copper sulphate and that capable of acting injuriously on the lettuce plant renders the practical application of these results difficult.—Some mineralogical observations made on the products from the burning of St. Pierre, Martinique, by M. A. Lacroix.—On the Palaeozoic earths of Oued Saoura and Gourara, by M. E. F. Gautier.—On economic appreciation and improvements due to cultivation, by M. E. Rabaté.—On the application of chemical manures to the cultivation of the vine in the calcareous earths of Charentes, by MM. J. M. Guillon and G. Gouirand.—On some exotic Gramineae employed in food, by M. Balland.—On some brilliant red sunsets observed at Athens during the months of October and November, 1902, by M. D. Eginitis.

NEW SOUTH WALES.

Linnean Society, October 29.—Mr. J. H. Maiden, president, in the chair.—On two remarkable Sporocysts occurring in *Mytilus latus*, on the coast of New Zealand, by Prof. W. A. Haswell, F.R.S.—(1) On *Eucalyptus polyanthemus*, Schauer; (2) on *E. bicolor*, A. Cunn, by Mr. J. H. Maiden. The author quotes the original descriptions of the species, cites their synonyms, discusses their affinities and gives an account of their range.—Contributions to a knowledge of the Australian flora, part iv., by Mr. R. T. Baker. A number of new localities for species are recorded, thus extending their known geographical range.—Notes on the botany of the interior of New South Wales, part vii., by Mr. R. H. Cambage. The conspicuous vegetation of the country between Forbes and Bathurst is described.—On the mammalian and reptilian vomerine bones, by Dr. R. Broom. The author shows that in the early stages of development the nasal capsules of the lizard and marsupial are essentially similar in structure and that in both a well-developed paraseptal cartilage runs by the base of the septum from the nasal floor cartilage in front to the hinder part of the capsule. He also shows that the so-called "vomer" in the lizard develops in connection with this cartilage; and as the dumbbell-shaped bone in *Ornithorhynchus* and the median bone of *Miniopterus* also develop as splints to the paraseptal cartilages (specialised as cartilages of Jacobson), he concludes that these mammalian bones are homologous with the so-called "vomeres" of the lizard and are therefore really *prevomeres*.

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DIARY OF SOCIETIES.

THURSDAY, DECEMBER 18.

LINNEAN SOCIETY, at 8.—Notes on Copepoda from the Faeroe Channel: Thos. Scott.—Amphipoda of the *Southern Cross* Antarctic Expedition; Alfred O. Walker.—The Deep-Sea Isopod *Anurus branchiatus*, Bedd.: Dr. H. J. Hansen.

INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—Notes of Recent Electrical Designs: W. B. Esson.

FRIDAY, DECEMBER 19.

INSTITUTION OF CIVIL ENGINEERS, at 8.—Electricity Supply from Double Current-Generators: P. R. Wray.

INSTITUTION OF MECHANICAL ENGINEERS, at 8.—Recent Practice in the Design, Construction and Operation of Raw Cane Sugar Factories in the Hawaiian Islands: J. N. S. Williams.

TUESDAY, DECEMBER 23.

INSTITUTION OF CIVIL ENGINEERS, at 8.—*Paper to be further discussed*:—The Rupnarayan Bridge, Bengal-Nagpur Railway: S. Martin-Leake.—*Paper to be read*:—Electric Automobiles: H. F. Joel.

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