

monoxide by weight : Ph. A. **Guye** and **St. Bogdan**. The ratio of nitrogen monoxide to the oxygen it contains, determined gravimetrically, gives a value 14.007 for the atomic weight of nitrogen.—On the decomposition of a mixture of calcium carbonate and an alkaline carbonate under the action of heat in a vacuum : P. **Lebeau**. The decomposition by heat in a vacuum of mixtures of calcium carbonate and the carbonates of caesium, rubidium, potassium, and sodium was complete. The amount of carbon dioxide obtained corresponded exactly to the amount of carbonates taken, and in all cases pure calcium oxide was left behind.—On some cuprous salts : A. **Joannis**. Details are given of the preparation of cuprous formate and benzoate.—On a basic ferric phosphite : E. **Berger**.—On the alloys of magnesium with bismuth and magnesium : Hector **Pécheux**.—Iodine compounds obtained with metantraniline : P. **Brenans**.—On a spontaneous alteration product of oxalacetic ester : L. J. **Simon**. A sample of oxalacetic ester which has been kept for some time gives a violet colour reaction when placed in contact with an alkaline solution. This is not given by the freshly prepared substance, and is probably due to a dioxyquinone, formed by the elimination of one molecule of water between two molecules of oxalacetic ester.—Polyacid salts of rosanilines : Jules **Schmidlin**.—On the variations shown in the composition of seeds during their maturation : G. **André**.—The distribution of some organic substances in orange flowers : Eug. **Charabot** and G. **Laloue**. The petals contain the greater part of the essential oil.—On zymase and alcoholic fermentation : P. **Mazé**.—On *Mitsukurina Owstoni* : Léon **Vaillant**. This only differs from the elasmobranchs, with which it has been compared, by characters of the second order, and the author regards it as belonging to the family of Lamnidae. This is not in accord with the views of Jordan, who regards it as a distinct type.—On a transformation of the tentacular apparatus on certain species of Madrepora : Armand **Krempf**.—Some polytaxic characters in species in the wild state : G. **Coutagne**.—Chains of force : M. **Hartog**. A description of a model reproducing certain phenomena of cell formation by the motion of magnetisable particles placed in a magnetic field in a viscous medium.—On the morphology of the root of plants with mutilated embryo : P. **Ledoux**.—The discovery of fossil-bearing layers in Djoua, to the east of Timassanine, Sahara : F. **Fourreau**.—On the fauna of the Cretaceous Ceratodus layers of Djoua, near Timassanine, Sahara : Emile **Haug**.—On the fauna of the Lydian of the Vosges sandstones : C. **Nöel**.—The survival of a negroid type in the modern populations of Europe : Eugène **Pittard**. The examination of skulls from the Rhone Valley, dating from the thirteenth century up to the commencement of the nineteenth century, shows evidences of a well marked negroid type, which may be a simple survival or a case of atavism.—The structure of the muscular fibres of the heart in molluscs : Pierre **Vigier**.—On the muscular fibres of the heart in *Nassa reticulata* : M. **Mader**.—The effect of the chromatism of the eye in colour vision : A. **Polack**.—A new example of physical adaptation between a natural stimulus, a sound vibration, and a central perceptive organ : Augustin **Charpentier**. By the use of phosphorescent screens a third example is given of an influence exercised directly by a natural agent upon the corresponding nervous centre.—The action of the *n*-rays upon an isolated nerve trunk : Paul L. **Mercanton** and Casimir **Radzikowski**. The sciatic nerve of the frog is not excitable by exposure to the *n*-rays.—Researches on the physiological effects of radium : C. J. **Salmonson** and G. **Dreyer**.—The relations between intraorganic combustions and the proportion of oxygen contained in the arterial blood : J. **Tissot**. Intraorganic combustions, measured by the values of the respiratory exchanges, are independent of the proportion of oxygen contained in the arterial blood.—Researches on the blood of Selachians. The toxic action of the blood of *Torpedo marmorata* : E. **Gley**.—The use of calcium sulphide against dodder and other injurious parasites : F. **Garrigou**.

NEW SOUTH WALES.

Linnean Society, April 27.—Mr. Thomas Steel in the chair.—Descriptions of new species of Australian Coleoptera, part vii. : A. M. **Lea**. Thirty species are described as new. Three previously unnoticed blind species from Tasmania

are recorded—*Annomatus 12-striatus*, Müll., introduced from England, probably with pot plants; *Phycochus graniceps*, Broun, found also in New Zealand; and *P. sulcipennis*, n.sp. The number of blind species known from Australia and Tasmania is thus brought up to a total of eight.—Contributions to a knowledge of Australian Entozoa. No. iii. On some species of Holostomidae from Australian birds : S. J. **Johnston**. Five species, all parasites of Australian birds, are described as new.—Australian fungi, new or unrecorded. Decades vii.–viii. : D. **McAlpine**. Of the twenty species recorded, seventeen, referable to thirteen genera, are described as new. Myriangium, formerly classed with the lichens, is represented by two species, and a new genus, Amphichaeta, allied to Monochaeta, Sacc., is proposed. The favourable condition of the specimens examined has made it possible to give a description of the spores of a species of Hexagonia—apparently the first to be recorded.

DIARY OF SOCIETIES.

FRIDAY, JUNE 24.

PHYSICAL SOCIETY, at 5.—Chemical Dissociation and Electrical Conductivity : A. E. Garrett and Dr. R. S. Willows.—The Magnetisation of Iron in Bulk : Dr. W. M. Thornton.

MONDAY, JUNE 27.

ROYAL GEOGRAPHICAL SOCIETY, at 8.30.—The Anglo-French Boundary Commission in Nigeria : Colonel G. S. McD. Elliot, R.E.

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