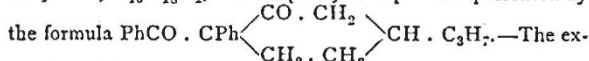


PARIS.

Academy of Sciences, August 20.—M. Lœwy in the chair.—Electricity considered as a vortical movement, by M. Ch. V. Zenger. The author shows that an electrical discharge produces a whirling movement in the gas through which it is discharged, which may be said to be a cyclone on a small scale, so completely are the phenomena of cyclones reproduced. The particles appear to describe a trajectory which may be represented by a screw of variable pitch traced on a conical surface.—New experiments permitting the comparison of the delivery of liquids, gases, and vapour from the same orifices, by M. H. Parenty. (1) The coefficients of delivery of gases are precisely equivalent to those of the submerged delivery of liquids. (2) These coefficients are not sensibly varied when the pressure and the back-pressure are modified in various ways; they are independent of the temperature and the atmospheric pressure. (3) There exists, for liquids, no analogous phenomena to the regularity of delivery of gases. The delivery of liquids is exactly and always the ordinate of a parabola, of which the loss of charge is the abscissa.—On the periodicity of the absorption rays of isotropic substances, by M. G. Moreau. The author concludes a mathematical investigation of this question as follows: In an isotropic absorbent, there should be two possible kinds of waves of propagation. The one gives bands by anomalous dispersion (they may be reduced to very fine and black rays by regular dispersion), the other gives less intense rays, but they are periodic and more numerous. They would form a kind of double refraction which observation does not seem to have indicated.—On the action of the halogen hydracids on formaldehyde in presence of alcohols, by M. Louis Henry. A claim for priority as against M. C. Fabre.—Action of camphoric anhydride on benzene in presence of aluminic chloride, by MM. E. Burcker and C. Stabil. Two substances besides the principal product, phenylcamphoric acid, have been isolated, namely, phenylcamphoric anhydride,  $C_{16}H_{18}O_2$ , and a diphenyl compound represented by



traction of free acids from beeswax, by M. T. Maire.—Influence of lesions of tissues on their aptitude for fixing dissolved substances, by MM. A. Charrin and P. Carnot. It is shown that dissolved substances tend to accumulate in unhealthy or injured tissues.—On some antitoxic properties of the blood of the terrestrial salamander (*Salamandra maculosa*) against curare, by MM. C. Phisalix and Ch. Contejean. The salamander requires eighty times as much curare as the frog for poisoning to take place. The immunity of the salamander may be due to the presence in its blood of some substance which neutralises the effect of this poison. In support of this hypothesis, it is found that a mixture of salamander-blood and curare in proper proportions does not act on the frog. This substance has a physiological action conferring immunity against curare, and not a direct chemical action on the latter, for the inoculation of frogs with salamander-blood twenty-four hours before the injection of curare enables the frogs to withstand a much larger dose than when the salamander-blood has been mixed with curare previous to injection.—On the budding of Diplosomidae and Didemnidæ, by M. Maurice Caullery.—Researches on the respiration and assimilation of the Muscinæ, by M. B. Jönsson. There are great differences among the Muscinæ in regard to the intensity of respiration and chlorophyllian assimilation. For example, the different species disengage in the dark very different quantities of carbon dioxide per gramme of dry weight. The proportion of water present in the plants is an important cause of variation, the greater this proportion the more intense are the gaseous exchanges. Specimens taken from a very damp place give off more gas than specimens of the same species taken from a dry location. The reddish coloration of many mosses, very marked when the plants have been developed in the light, diminishes considerably the intensity of respiration and assimilation.—On the perithecae of the "Rot blanc" of the vine (*Charrinia diploidiella*), by MM. P. Viala and L. Ravaz.—On the chemical constitution of the atmosphere, by M. T. L. Phipson.

NEW SOUTH WALES.

Linnean Society, June 27.—Prof. David, President, in the chair.—Description of five new fishes from the Australasian region, by J. Douglas Ogilby. Of the species described, *Gil-*

*lichthys mirabilis* and *Clinus whiteleggi* were from the coast of New South Wales, *Ophioclinus de visii* from Queensland, *Petrosaurus icelii* from Lord Howe Island, and *Eleotris huttoni* from New Zealand.—The land molluscan fauna of British New Guinea, by C. Hedley. Two new species, *Sitala anthropogonum* and *Otofoma macgregoria*, were described and figured. It was considered that Mousson's genus *Trochonanina* should be merged into *Sitala*. Anatomical details of several species not before dissected were added.—Studies in Australian entomology. No. vii. New genera and species of *Carabida*, by Thomas G. Sloane. Three genera—*Notolestus* (type, *Abax sulcipennis*, MacL.), *Setalinomorpha* (Feronini), and *Lestianthus* (Helluonini)—and thirty-six species were described as new.—Wood moths: with some account of their life-histories, chiefly compiled from the notes of Mr. R. Thornton of Newcastle, by W. W. Froggatt. This paper gave a general account of the habits and food-plants of several species of *Eudoxyla* and *Charagia*, and of *Leto Stacyi*.—Botanical notes from the Technological Museum, Part ii., by J. H. Maiden and R. T. Baker. The notes included (1) a list of additional localities of New South Wales plants, (2) new varieties of New South Wales plants, (3) Queensland species new for New South Wales, (4) remarks on naturalised species in the colony, and (5) descriptions of unrecorded fruits.—Notes on plants collected on a trip to the Don Dorrigo Forest Reserve, by J. H. Maiden. The author traced the southern extension of plants hitherto recorded from the Clarence River and further north, and the northern extension of plants hitherto not recorded further north than the Macleay River, Blue Mountains, &c. He also described a number of well-marked varieties of certain species, and added notes on imperfectly described or little-known plants.

BOOKS, PAMPHLET, and SERIALS RECEIVED

BOOKS.—Peregrinazioni Psicologiche: Dr. T. Vignoli (Milano, Hoepli).—The Sportsman's Handbook: R. Ward, 7th edition (R. Ward).—Controversen in der Ethnologie: A. Bastian, i. ii. iii. (Berlin, Weidmann).—Celestial Objects for Common Telescopes: Rev. T. W. Webb, vol. 2, 5th edition (Longmans).—A Journey in other Worlds: J. J. Astor (Longmans).—Précis de Métérologie Endogène: F. Cann (Paris, Gauthier-Villars).—Evolution and Ethics: T. H. Huxley (Macmillan).  
PAMPHLET.—The Molecular Tactics of a Crystal: Lord Kelvin (Oxford, Clarendon Press).  
SERIALS.—American Naturalist, August (Philadelphia).—Bulletin de L'Académie Royale des Sciences de Belgique, 1894, No. 7 (Bruxelles).—English Illustrated Magazine, September (193 Strand).—Good Words, September (Isbister).—Sunday Magazine, September (Isbister).—Longman's Magazine, September (Longmans).—Chambers's Journal, September (Chambers).—Geographical Journal, September (Stanford).—Natural Science, September (Macmillan).—Humanitarian, September (Hutchinson).—Century Illustrated Magazine, September (Unwin).

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