

Sauvageau.—On some Devonian bacteria, by M. B. Renault. Two species of micrococcus are described, found on fossil vegetation of the Devonian age. These are the earliest known bacteria.—On the photography of the retina, by M.Th. Guilloz.—Influence of the liver on the anti-coagulating action of peptone, by MM. E. Gley and V. Pachon.

BERLIN.

Meteorological Society, May 5.—Prof. Börnstein, President, in the chair.—Dr. Carl Müller spoke on the adaptation of plants to climate and weather, and discussed the mechanisms by which they take up water and carbon dioxide from the air, as also the various configurations of the earth's surface which either assist, limit or regulate transpiration in dependence upon climate and weather. He further gave a sketch of the means by which radiation is limited during the night, and by which the access of light to the assimilative chlorophyll corpuscles is facilitated and regulated, as also of the multitudinous arrangements for the avoidance of the deleterious action of heavy rain and violent winds.

Physiological Society, May 8.—Prof. du Bois Reymond, President, in the chair.—Dr. Cohnstein discussed certain recent papers dealing with the theory of lymph formation which oppose Heidenhain's view that it is the result of a secretory process, and tend to prove that diffusion and osmosis suffice entirely to explain the passage of the constituents of lymph through the walls of the capillaries.—Prof. I. Munk spoke on muscular work and proteid metabolism, and combated Chauveau's most recent views that the necessary energy is supplied by the oxidation of carbohydrate rather than of proteid material.

Physical Society, May 15.—Prof. du Bois Reymond, President, in the chair.—Prof. Warburg spoke on the action of light on sparking discharge, and demonstrated Hertz's earliest experiments on the influence of ultra-violet rays on the striking distance of the sparks, and on the discharge of negatively electrified bodies. He next showed Hallwach's experiments dealing with spark discharge in light, and finally his own, by which he proved that the action of ultra-violet rays consists in doing away with the retardation which, according to Jaumann's researches, exists at each discharge. This retardation, which is a forerunner of the discharge, and during which some as yet unknown events take place in the path of the spark, is lessened or even completely done away with by the action of light. He conjectured that gases, unlike electrolytes and metals whose conductivity is independent of strength of current, only become conductors when the current has reached a certain intensity. Hence possibly during the retardation the gas is becoming a conductor, and if so the action of light consists in the removal of some obstruction to the establishment of conduction.—Prof. Paalzow gave an obituary notice of the recently deceased member of the Society, Dr. Haensch.

PHILADELPHIA.

Academy of Natural Sciences, May 5.—Dr. F. P. Henry made a communication on *Filaria sanguinis hominis nocturna*, specimens of which had been obtained from the blood of a patient suffering from chyluria due to clogging of the lymphatics by the ova of the parasite. The various forms of the worm, with their life-history, as given by Dr. Patrick Manson, were dwelt on.

May 12.—Dr. Charles S. Dolley described a centrifugal apparatus, which he called a Planktonokrit, for the quantitative determination of the food supply of oysters and other aquatic animals. By means of its use he is enabled to make a large number of plankton estimates in a day, and thus judge of the characters of given areas of water in connection with fish and oyster culture at different times of the day, states of the tide, varying depths, &c. The method employed is that of the centrifuge, an apparatus which consists of a series of geared wheels driven by hand or belt, and so arranged as to cause an upright shaft to revolve up to a speed of 8000 revolutions per minute, corresponding to fifty revolutions per minute of the crank or pulley-wheel. To this upright shaft is fastened an attachment by means of which two funnel-shaped receptacles of one litre capacity each may be secured and made to revolve with the shaft. The main portion of each of these receptacles is constructed of spun copper, tinned. When caused to revolve

for one or two minutes the entire contents of suspended matter in the contained water is thrown to the bottom of tubes properly placed, from which the amount may be read off by means of a graduated scale.

BOOKS, PAMPHLET, and SERIALS RECEIVED.

BOOKS.—Cosmic Ethics; or, the Mathematical Theory of Evolution; by W. C. Thomas (Smith, Elder).—Modern Optical Instruments; H. Orford (Whittaker).—Engineer Draughtsmen's Work (Whittaker).—Azimuth Tables for the Higher Declinations; H. B. Goodwin (Longmans).—Latitude and Longitude; W. J. Millar (Griffin).—Sporozoenkunde; Dr. von Wasielewski (Jena, Fischer).—Elementarcurs der Zoologie in Fünfzehn Vorlesungen; Dr. B. Hatschek and C. J. Cori (Jena, Fischer).—Apollonius of Perga, Treatise on Conic Sections: edited in Modern Notation by T. L. Heath (Cambridge University Press).—An Introductory Treatise on the Lunar Theory; Prof. E. W. Brown (Cambridge University Press).

PAMPHLET.—Staten Island Names; W. T. Davis (New Brighton, New York).

SERIALS.—L'Anthropologie, tome 7, No. 2 (Paris, Masson).—Botanische Jahrbücher, &c., Einundzwanzigster Band, v. Heft (Leipzig, Engelmann).—Sitzungsberichte der K. B. Gesellschaft der Wissenschaften Math. Naturw. Classe, 1895, i. and ii. (Prag).—Century Illustrated Magazine, June (Macmillan).—History of Mankind; F. Ratzel, translated, Part 9 (Macmillan).—Bulletin from the Laboratories of Natural History of the State University of Iowa, Vol. 3, No. 4 (Iowa).—Brain, Part 73 (Macmillan).—Humanitarian, June (Hutchinson).—National Review, June (Arnold).—Contemporary Review, June (Isbister).—Scribner's Magazine, June (Low).—Journal of the Anthropological Institute, May (K. Paul).—Bachelor of Arts, May (New York).—Zeitschrift für Physikalische Chemie, xx. Band, 1 Heft (Leipzig, Engelmann).

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