July 20.—Prof. du Bois Reymond, President, in the chair.—Mr. W. T. Porter, of Boston, spoke on spinal respiratory tracts, and gave an account of the following interesting experiments:—On unilateral section of the cord at the level of the nucleus of the phrenic, the movement of the diaphragm on the same side ceases or becomes very weak, whereas it continues unaltered on the other side. If now the phrenic nerve on the uninjured side be cut through, the diaphragm on this side becomes relaxed, while at the same time, on the other side with the unilateral section, the movements of the diaphragm begin again and are continued quite normally. Prof. Koenig had been able, in conjunction with Miss Koettgen, to investigate the absorption of light by visual-purple from a freshly extirpated human eye. A portion of the solution was examined in an unaltered condition, and the remainder after it had been converted into visual-yellow by the action of green light. The curves of the transmission of light for a solution of visual-purple were found to be identical with the luminosity curves of the totally colour-blind, and of bi- and tri-chromatic eyes where the intensity of light is so small that colours cannot be perceived. The curve for a solution of visual-yellow was the same as the luminosity curve of a red-green colour-blind eye. From the above, Prof. Koenig deduced the probability that visual-purple serves for the perception of undefined colourless grey, while visual-yellow serves for the perception of blue. Since both visual-purple and, hence also, visual-yellow are absent from the fovea centralis, this part of the retina should be colour-blind for blue. The speaker brought forward a series of facts in support of this view, and a discussion followed.

July 27.—Prof. du Bois Reymond, President, in the chair.—Prof. Koenig first spoke about an "experimentum crucis" as to his theory of the significance of visual-purple which had been suggested during the discussion at the end of the last meeting, and declared it to be irrelevant. Dr. Greef described the neuroglia cells of the retina and chiasma of the optic nerve as prepared by Golgi's method, and which were called spider-cells, owing to their small elongated bodies and long slender processes. A comparison of these cells in different classes of vertebrate animals had shown that they are most numerous in man, and possess the longest and slenderest processes, while they are less numerous and have shorter and thicker processes the lower one goes in the vertebrate scale. The function of the cells appears to be to isolate the individual nerve-fibres. Prof. Kossel had further investigated the products of the decomposition of nucleic acid, and obtained a much simpler chemical composition for thymin, based on its elementary analysis, than in his previous researches. He had also discovered a new base, which he called "cytosin," and whose reactions he described in detail. Prof. Kossel further described a new and simpler method for determining urea in urine, consisting in a modification of Bunsen's well-known method, and which had proved itself trustworthy as applied to solutions of urea of known composition. Dr. Krüger had isolated a new base of the xanthin group from human urine, which, while it differed materially in its reactions from the xanthin bodies, but showed much resemblance to guanin, he had named epiguanin. Dr. Lilienfeld gave an account of his further researches on diglycocollamide esters. By combining diglycocollamide with leucic acid, as also with tyrosinic and asparaginic acids, he obtained various substances which all gave proteid reactions. One of the compounds so closely resembled ordinary peptone, both in appearance and in all its reactions, that he had provisionally given it the name of synthetised peptone. He reserves for himself the further investigation of this interesting group of synthetic products.

NEW SOUTH WALES.

Linnean Society, July 25.—Prof. David, President, in the chair.—The following papers were read:—(1) Observations on the femoral gland of *Ornithorhynchus* and its secretions, together with an experimental inquiry concerning its toxic action, by C. J. Martin and F. Tidswell. The gland is a compound racemous variety with large alveoli possessing a wide lumen, and somewhat recalling the appearance of a mammary gland. The alveoli communicate with ducts which eventually join at the hilus of the gland to form the duct leading to the spur. The gland is surrounded by a capsule of fibrous tissue, exterior to which is a thin layer of smooth muscle fibres. A marked difference in the minute structure of the gland was noted in animals killed in June and those in April respectively, the former showing the appearance characteristic of an actively secreting gland, whereas the latter suggested that of a mammary gland when it had undergone retrogressive morphosis. Examination of the poison showed it to consist principally of albuminous bodies, and the introduction of these into rabbits produced very marked poisonous results. When injected under the skin, local swelling, and great general depression and rise of temperature followed, but in three days the animal was well again. When the poison was introduced directly into the vascular system, small quantities (½ grain) caused death in under half an hour. Larger doses so introduced produced almost immediate death, by producing nearly universal clotting of the blood whilst travelling in the blood-vessels. Such clotting naturally soon put an end to all circulation. In summing up, the authors compared the action of Platypus poison with that of the venom of Australian snakes, supposing the latter to be diluted 5000 times.—Notes on Australian "shipworms," by C. Hedley. A large species of "shipworm" or "cobra" from South Australia, perhaps the largest yet discovered, was described and figured under the title of *Teredo edax*. The type of *T. antarctica*, Hutton, from New Zealand was also figured to demonstrate that the supposed recognition of this species from the coast of Queensland was erroneous.—On five interesting shields from Northern Queensland, by R. Etheridge, jun.—Additional notes on the Palæontology of Queensland. Part i. Palæozoic, by the same.

BOOKS and SERIALS RECEIVED.

BOOKS.—The Works of Hertz and some of his Successors: Prof. O. Lodge (*Electrician* Co., Ltd.).—Glasgow and West of Scotland Technical College Calendar, 1894-95 (Glasgow, Anderson).—Catalogue of the Michigan Mining School, 1892-94: Announcements, 1893-96 (Houghton, Michigan).—Trattato di Materia Medica: Prof. P. Giacosa (Torino, Bocca).—Ponds and Rock Pools: H. Scherren (Religious Tract Society).—Heat treated Experimentally: L. Cumming (Longmans).—Theoretical Mechanics; Solids: A Thornton (Longmans).

SERIALS.—Geological Magazine, September (K. Paul).—Publications of the Astronomical Society of the Pacific, Vol 6, No. 35 (San Francisco).—American Meteorological Journal, September (Ginn).—Engineering Magazine, September (Tucker).—Tufts College Studies, No 2 (Tufts College, Massachusetts).—Brain, Part 67 (Macmillan).—Medical Magazine, September (Southwood).—Science Progress, September (Scientific Press).—American Journal of Science, September (New Haven).—Bulletin de l'Académie Impériale des Sciences de St. Petersbourg, nouvelle serie iv., Nos. 1 and 2 (St. Petersbourg).

CONTENTS.