electrode was immersed in the water, and a telephone inserted into the connection. When the current from the accumulators on the bank was broken, this produced an effect on the telephone audible at a distance of 4·5 kilometres. Small islands lying between the shore and the boats had no influence on the transmission of the signals.

Meteorological Society, November 6.—Prof. Hellmann, President, in the chair.—Dr. Meinardus spoke on sheet-lightning and the various theories in explanation of this phenomenon. He sided with the view that it is due to a thunderstorm of which the lightning is visible, whereas the thunder does not reach the observer owing to total reflection brought about by refraction in the several superimposed layers of air.—Prof. von Danckelman spoke on the climate of Jalu, on the basis of observations made by Dr. Steinbach since the beginning of 1893 with accurate self-registering instruments. Among the peculiarities of the climate, which is continuously and uniformly warm and moist, it is more especially remarkable that thunderstorms and heavy rainstorms occur most usually between 9 and 10 o'clock in the morning. This phenomenon has not as yet been observed anywhere else.

Physiological Society, November 9.—Prof. du Bois Reymond, President, in the chair.—Dr. Levy-Dorn spoke on the effect of various temperatures on the secretion of sweat, and communicated the results of his own experiments on cats, dealing with the secretion of sweat at low temperatures. The sweat glands themselves were kept at the temperature (19°–30° C.) most favourable for the secretion, while the animal's body was cooled by water at 6° C., and secretion was obtained as a result of dyspnœa, notwithstanding the cooling of the body. The same speaker further gave an account of experiments made with a view to testing Prof. Grützner's assertion that heat acts only on centripetal and vasomotor nerves, but does not affect motor or centrifugal nerves. Carefully observing all the experimental conditions described by Grützner, he had found that the action of heat on the sciatic nerve leads to a copious secretion of sweat on the cat's paws, that is to say, stimulates centrifugal nerves.—Prof. Zuntz criticised the objections raised by Bohr and Henriquez against his experiments on the measurement of the work done by the heart, and showed up the errors which had crept into their observations. He next demonstrated the apparatus he had employed for measuring the amount of blood forced out by the heart.

New South Wales.

Linnean Society, October 31.—Prof. Haswell, Vice-President, in the chair.—Notes of a visit to the island of Erromanga, New Hebrides, in May 1894, by Sutherland Sinclair.—Preliminary communications on the cerebral commissures of the mammalia, with special reference to Monotremata and Marsupialia, by G. Elliott Smith. From an examination of the brain in platypus, *Echidna*, *Perameles*, kangaroo, wallaby, kangaroo rat, *Dasyurus* and phalangista, the superior commissure of the cerebrum was shown by the author to be homologous with the psalterium of Placentalia, and not with the corpus callosum. There appears to be no true corpus callosum (as distinct from a psalterium) in any monotreme or marsupial. The hook-like appearance of the hippocampal commissure in sagittal section in marsupials, which led Flower to regard it as corpus callosum, was said to correspond to the shape of the hippocampus, which is co-extensive with the lateral ventricle. In platypus only the dorsal limb of the hook is present, because there is only a rudimentary descending horn of the ventricle and hippocampus. In Eutheria only the ventral limb persists, because the upper and anterior part of the hippocampus disappears to allow a corpus callosum to appear in the situation occupied by the dorsal limb of the hippocampal commissure in Metatheria, *i.e.* ventral to the arcus marginalis. The fascia dentata, as a consequence of this, is essentially *supracollosal*. A doubt was expressed as to the presence of any structure in the submammalia strictly homologous to the Eutherian corpus callosum. The hypothesis was advanced that the latter structure appears (just as the hippocampal commissure does somewhat earlier) to supply the demand for a shorter connecting path for the great pallial development—essentially a mammalian feature.—Descriptions of some new species of Australian Coleoptera, by A. M. Lea. Descriptions were given of forty-nine species from New South Wales, mostly belonging to the *Anthicidæ*. A remarkable *Protopalus* from the Tweed River was described, and a species of *Lagria* living in ants' nests.—Description of a new *Isopogon* from New South Wales, by R. T. Baker. The *Isopogon* described was obtained on the Murrumbo Ranges, Goulburn River. It differs from the N.S.W. *I. anemonifolius* in having deeply-divided leaves on long petioles and a silky hairy perianth; from the West Australian *I. longifolius* in its longer and pinnately divided leaves, smaller cones and longer perianth.—Synonymy of some Australian and Tasmanian mollusca, by John Brazier. The synonymy of twelve species were given with references and habitats.—Further observations upon the anatomy of the integumentary structures in the muzzle of *Ornithorhynchus*, by Prof. J. T. Wilson and C. J. Martin. The authors specially dealt with the details of structure of the "push-rods" in the skin of the snout of the platypus, and offered further confirmation of their views in opposition to a recent criticism of some of these by Prof. E. B. Poulton.—Description of the external characters of a very young specimen of *Ornithorhynchus*, by Prof. J. T. Wilson.

BOOKS, PAMPHLETS, and SERIALS RECEIVED.

BOOKS.—University Tutorial Series, Vol. 1; A Text-book of Sound: E. Catchpool (Clive).—Manual of Practical Morbid Anatomy: Drs. Rolleston and Kanthack (Cambridge University Press).—The Book of the Rose: Rev. A. Foster-Melliar (Macmillan).—An Elementary Treatise on Theoretical Mechanics, Part 3: Kinetics: Prof. A. Ziwet (Macmillan).—Natural Rights: Prof. D. G. Ritchie (Sonnenschein).—Elementary Qualitative Chemical Analysis: Dr. F. Clowes and J. B. Coleman (Churchill).—Pubblicazioni della Specola Vaticana, Vol. iv. (Torino, Artigianelli).—A Few Chapters in Astronomy: C. Kennedy (Taylor and Francis).

PAMPHLETS.—On the Natural Immunity against Cholera, &c.: C. G. Gümpel (Williams and Norgate).—Elliptical Orbits: H. Larkin (Unwin).—Royal Gardens, Kew, Hand-list of Trees and Shrubs grown in Arboretum, Part 1: Polypetalæ (Eyre and Spottiswoode).

SERIALS.—Engineering Magazine, December (Tucker).—American Journal of Science, December (New Haven).—Strand Magazine, December (Newnes).—Natural History Transactions of Northumberland, &c., Vol. xi. Part 2 (Williams and Norgate).—Verhandlungen des Naturhistorischen Vereins der Preussischen Rheinlande, &c., Einundfünfzigster Jahrgang, Sechste Folge. L. Jahrgang. Erste Hälfte (Bonn, Cohen).—Medical Magazine, December (Strand).—Le Monde Moderne, January (Paris).—American Naturalist, December (Wesley).—Strand Musical Magazine, No. 1 (Newnes).—Royal Natural History, Part 14 (Warne).

CONTENTS.