

CHESTER

Society of Natural Science, October 25.—President, Rev. Canon Kingsley; treasurer, Mr. Kinsman; hon. secretary, Mr. Manning. The society is divided into three sections: (1) botany, (2) geology, (3) zoology; and numbers nearly 200 members. Mr. Alfred O. Walker read a paper on "Objects and Organisation of Local Natural History Societies."

GLASGOW

Geological Society, October 19.—Mr. Edward A. Wünsch, vice-president, in the chair. The Annual Report and abstract of the accounts for past year showed the society to be in a flourishing condition.—Mr. James Thomson, F.G.S., read a paper "On the Plagiostomous Fishes of the Coal Measures," particularly *Orthacanthus Dechenii* Goldfuss. He observed that Prof. Agassiz, in his "Poisons Fossiles" published in 1837, described the genus *Diplodus* (sp. *gibbosus* and *minutus*) from specimens, chiefly of dissociated teeth, found in the English coal-fields. Subsequently, a well-preserved fish was discovered in Bohemia, and described in 1847 by Goldfuss, who named it *Orthacanthus Dechenii*. In 1848, Prof. Beyrich, of Berlin, described the same fish, and named it *Xenacanthus Dechenii*, founding on the fact that the spine had a greater similarity to *Pleuracanthus* than to *Orthacanthus*. At the meeting of the British Association in Glasgow in 1855, Sir Philip Egerton, from discoveries that had been made in the interval, pointed out that the spines of *Pleuracanthus* and the teeth of *Diplodus* belonged in fact to the same fish. The specimens from which Sir Philip proved this to the Association were obtained from Carlisle and Edinburgh. In 1867 Prof. Kner went carefully over the remains of such fishes in the museums of Dresden, Berlin, Breslau, and Vienna. Although none of the specimens found in these museums were complete, yet in some of them he found the teeth of *Diplodus minutus* of Agassiz in position, and from the external aspect of the fossils he accepted Goldfuss's generic name, *Orthacanthus Dechenii*. The specimen which Mr. Thomson now exhibited had been for many years in his collection, and had been provisionally named *Pleuracanthus minutus*. After a careful examination, however, of the microscopic structure both of the teeth and the shagreen, he could find no relation between the structure of *Pleuracanthus* and that now exhibited. In the meantime he accepted Prof. Kner's identification, but thought it possible that the discovery of better-preserved specimens would show that the difference of structural character might be due to difference of sex, as he had found to be the case in the recent rays' jaws of *Raja clavata*, both male and female, with the teeth in position, exhibited in support of this view.

PARIS

Academy of Sciences, October 30.—M. P. A. Favre read a continuation of his researches upon the thermal phenomena of electrolysis, containing an account of his investigations upon alkaline bases and sulphates; M. Wurtz presented the continuation of a paper, by M. G. Salet, on the spectra of phosphorus and of the compounds of silicium; and M. Le Verrier communicated a note by M. Diamilla-Müller, on a series of simultaneous magnetic observations which it is proposed to make in various parts of the surface of the globe, on the 15th of October, 1872. This note is accompanied by a table of the absolute magnetic declinations calculated for the above date, at a great number of places in all parts of the eastern hemisphere.—M. M. Dumas and Chevreul and General Morin discussed the right of Daguerre to be regarded as the inventor of photography, and asserted the prior claims of Niepce de Saint-Victor.—M. Faye read the conclusion of his memoir on the history and present state of the theory of comets.—M. Delaunay presented a note by M. G. Leveau, giving the elements of the planet Hera (103).—A note was read by M. Barbe, on the uses of dynamite.—M. E. M. Raoult read a note on the transformation of dissolved cane-sugar into glucose, under the influence of light. The exposure lasted from May 12 to October 20.—M. Berthelot communicated the third part of his investigations of the ammoniacal salts, in which he discussed the reciprocal actions of the salts of ammonia and of the other alkalis.—A note was read by M. A. Scheurer-Kestner and C. Meunier, on the composition and heat of combustion of two Welsh coals (from Bwlff and Powel).—M. Daubrèe communicated a paper on the deposit in which phosphate of lime has lately been discovered in the departments of Tarn-et-Garonne and the Lot.—M. A. Damour presented a note on an idocrase from Arendal, in Norway, con-

taining an analysis of the mineral, and also an analysis of a garnet from Mexico.—M. E. Blanchard communicated a note by M. S. Jourdain, on the reproduction of *Helix aspersa*, in which the author described the arrangement of the reproductive organs and the mode in which their products are brought together.

BOOKS RECEIVED

ENGLISH.—The Letters of J. B. Jukes: Edited by his Sister (Chapman and Hall).—A Handbook of the Mineralogy of Cornwall and Devon: J. H. Collins (Longmans).—A Manual of Anthropology, or Science of Man: C. Bray (Longmans).—Note-book of Practical and Solid Geometry: J. H. Edgar (Macmillan).—The Admiralty Manual of Scientific Inquiry, 4th edition: Rev. R. Main (J. Murray).—Proceedings of the South Wales Institute of Engineers; Vol. vii, Nos. 2-4.—Insects at Home, being a popular account of British Insects: Rev. J. G. Wood (Longmans).

AMERICAN.—Three and Four place Tables of Logarithmic and Trigonometric Functions: J. M. Peirce (Boston, Ginn Brothers).—Seaside Studies in Natural History; Marine Animals of Massachusetts Bay, Radiates: Elizabeth C. Agassiz and Alexander Agassiz (Boston, J. R. Osgood and Co.).

FOREIGN.—(Through Williams and Norgate).—Lehrbuch der anorganischen Chemie: Dr. Th. Ph. Büchner; 1^{te} Abtheilung.—Wöhler's Grundriss der organischen Chemie: Dr. R. Fittig; 8^{te} Auflage.—Die Ziehpunkte der physikalischen Wissenschaft: E. Hagenbach.—Astronomische Tafeln u. Formeln: Dr. C. F. W. Peters.

DIARY

THURSDAY, NOVEMBER 9.

LONDON MATHEMATICAL SOCIETY, at 8.—On the Partition of an Even Number into two Primes: J. J. Sylvester, F.R.S.—General Meeting; Election of Council and Officers.

SUNDAY, NOVEMBER 12.

SUNDAY LECTURE SOCIETY, at 4.—Education in India: Jiram Row.

MONDAY, NOVEMBER 13.

ROYAL GEOGRAPHICAL SOCIETY, at 8.30.

LONDON INSTITUTION, at 4.—On Elementary Physiology (III.): Prof. Huxley, F.R.S.—Nervous Matter; its Structure and Properties: Prof. Huxley, F.R.S.

THURSDAY, NOVEMBER 16.

LONDON INSTITUTION, at 7.30.—The Influence of Geological Phenomena on the Social Life of the People: Harry G. Seeley, F.G.S.

ROYAL SOCIETY, at 8.30.

LINNEAN SOCIETY, at 8.—On the Floral Structure of *Impatiens fulva*, &c.: A. W. Bennett, F.L.S.—Remarks on *Dolichos uniflorus*: N. A. Dalzell.—*Flora Hongkongensis* Supplementum: H. F. Hance, Ph. D.

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