

esting feature of the Nantucket flora is the existence of three species of heath under circumstances that lead to the belief that they are indigenous. Mr. Redfield has not seen the locality of *Colluna vulgaris*, but had seen that of *Erica cinerea*. The latter has been known and watched for ten or twelve years and is evidently long established. It grows in the open common, far away from the town, and there is nothing about its surroundings to indicate human introduction. It covers only a space of eight inches by ten. Since Mr. Redfield's visit he had learned that another and possibly a third locality of heath had been discovered widely distant from the first, and that in one case the species proved to be *Erica tetralix*. He held that the discovery of so many species, and these the same as are found associated in England, pointed strongly to an indigenous origin. Mr. Meehan in continuation described the associated growth of the three species of heath on the Isle of Wight.

Calendar of Societies.

Philosophical society, Washington.

Oct. 10.—Drs. J. S. Billings and Washington Matthews, Exhibition of anthropometric and reaction time apparatus.

Society of arts, Boston.

Oct. 22.—Mr. W. W. Jacques, Recent progress in underground wires.

Boston society of natural history.

Oct. 21.—Dr. S. Kneeland, Two memorial grave-stones of the iron age, from central Sweden, bearing Runic inscriptions and other symbols.

Natural history society, Agricultural college, Mich.

October meeting.—Election of officers: G. W. Park, president; F. C. Davis, vice-president; H. L. Chapin, secretary; L. G. Carpenter, treasurer; W. H. Clemons, curator. Chairmen of sections: Agriculture, Prof. S. Johnson; astronomy, L. G. Carpenter; botany, Dr. W. J. Beal; chemistry, F. S. Kedzie; scientific method, Prof. L. McLouth; zoölogy, Prof. A. J. Cook.

Oct. 11.—J. B. Cotton, Parasites of *Pieris rapae*; W. G. Everhart, Contents of a drop of water; W. K. Clute, Unconscious bias in walking; A. B. Sudworth, A talk about mosses.

Publications received at Editor's Office, Oct. 12-17.

Balling, C. A. M. Die metalhüttenkunde. Berlin, *Springer*, 1885. 22+627 p., illustr. 8°. (New York, Stechert, \$5.70.)

Barus, C. and Strouhal, V. The electrical and magnetic properties of the iron-carburets. Washington, *Government*, 1885. (Bull. U. S. geol. surv. 14.) 238 p., illustr. 8°.

Beckert, T. Leitfaden zur eisenhüttenkunde. Berlin, *Springer*, 1885. 8+116 p., 3 pl., illustr. 8°. (New York, Stechert, \$3.30.)

Benoit, M. J. R. Construction des étalons prototypes de résistance électrique du ministère de postes et des télégraphes. Paris, *Gauthier-Villars*, 1885. 80 p. 4°. (New York, Christern, \$1.50.)

Bichat, M. E. et Blondlot, M. R. Instruction à l'étude de l'électricité statique. Paris, *Gauthier-Villars*, 1885. 10+141 p., illustr. 8°. (New York, Christern, \$1.35.)

Bohn, C. Die landmessung. Heft I. Berlin, *Springer*, 1886 (1885). 436 p., illustr. 8°. (New York, Stechert, \$4.40.)

Brongniart, C. Les insectes fossiles des terrains primaires. Rouen, *impr. Lecerf*, 1885. [24 p.], 5 pl. 8°.

Chevallier, A.-F. et Muentz, A. Problèmes de physique avec

leurs solutions développées. 2d ed. Paris, *Gauthier-Villars*, 1885. 8+205 p., illustr. 8°. (New York, Christern, \$2.)

Congres géologique international, 3ième session, Berlin, 1885. Membres présents. Berlin, *Sitztenfeld, Jr.*, 1885. 9 p. 8°.

Curtius, G. Zur kritik der neuesten sprachforschung. Leipzig, *Hirzel*, 1885. 161 p. 8°. (New York, Stechert, \$1.)

Delbrueck, E. Die neueste sprachforschung. Betrachtungen über Georg Curtius schrift zur kritik der neuesten sprachforschung. Leipzig, *Breitkopf & Härtel*, 1885. 49 p. 8°. (New York, Stechert, 40 cents.)

Doolittle, C. L. A treatise on practical astronomy, as applied to geodesy and navigation. New York, *Wiley*, 1885. 10+642 p., illustr. 8°. \$4.

Faye, H. Sur l'origine du monde. Théories cosmogoniques des anciens et des modernes. 2d ed. *Gauthier-Villars*, 1885. 12+309 p., illustr. 8°. (New York, Christern, \$2.)

Foré, F. A. La formule des seiches. Geneve, *Arch. sc., Phys. nat.*, 1885. 12 p. 8°.

Gieseler, E. A. On tidal theory and tidal predictions. Philadelphia, *Frankl. inst.*, 1885. 61 p. 8°.

Gretschel, H. and Bornemann, G. Jahrbuch der erfindungen. Leipzig, *Quandt & Hindel*, 1885. 6+405 p., illustr. 12°. (New York, Stechert, \$2.20.)

Halsted, G. B. The elements of geometry. New York, *Wiley*, 1885. 16+366 p., illustr. 8°. \$1.75.

Hermite, M. C. Sur quelques applications des fonctions elliptiques, Fasc. I. Paris, *Gauthier-Villars*, 1885. 146 p. 4°. (New York, Christern, \$2.50.)

Holder, C. F. Marvels of animal life. New York, *Scribner's Sons*, 1885. 10+240 p., illustr. 8°. \$2.

Homan, G. ed. A sanitary survey of St. Louis, being a series of short papers on leading public health topics contributed by city officials and local sanitarians. Concord, N. H., *Repub. pr. ass.*, 1885. 77 p., 3 maps. 8°.

Huyghens. Traité de la lumière. Edited by W. Burchard. Lipsiae, *Gressner & Schramm*. 4+134 p., illustr. 8°. (New York, Stechert, \$2.20.)

Jordan, W. Grundzüge der astronomischen zeit- und ortbestimmung. Berlin, *Springer*, 1885. 8+364+26 p., illustr. 8°. (New York, Stechert, \$3.70.)

Justus Perthes in Gotha, 1785-1885. [Gotha, 1885.] 108 p., portr. 4°.

Karlowa, O. Römische rechtsgeschichte. Band I: Staatsrecht und rechtsquellen. Leipzig, *Von Veit*, 1885. 8+1031 p. 8°. (New York, Christern, \$9.55.)

Krenkel, M. Klassische bühnendichtungen der Spanier. II. Calderon, Der wundertätige zauberer. Leipzig, *Barth*, 1885. 20+349 p. 8°. (New York, Stechert, \$2.)

Laughlin, J. L. The study of political economy. New York, *Appleton*, 1885. 153 p. 12°.

Le Conte, L. J. Are not dynamite catastrophes intimately associated with electric phenomena? (*Tech. soc. Pacif. coast.*-2) 1885. 8°.

Leray, Le P. A. Essai sur la synthèse des forces physiques. Paris, *Gauthier-Villars*, 1885. 10+180 p., illustr. 8°. (New York, Christern, \$1.65.)

Lipsius, R. A. Philosophie und religion. Neue beiträge zur wissenschaftlichen grundlegung der dogmatik. Leipzig, *Barth*, 1885. 319 p. 8°. (New York, Stechert, \$1.90.)

Mascart, E. und Joubert, J. Lehrbuch der elektricität und des magnetismus. Autorisierte deutsche übersetzung von Dr. L. Levy. Band I. Berlin, *Springer*, 1886 (1885). 20+592 p., illustr. 8°. (New York, Stechert, \$5.20.)

Meyer, A. M. On a method of precisely measuring the vibration periods of tuning forks, and the determinations of the laws of the vibrations of forks; with special reference of these facts and laws to the action of a simple chronoscope. (*Mem. Nat. acad. sc.* 3.) 17 p., 4 pl. 4°.

Moore, E. H., jr. Extensions of certain theorems of Clifford and of Cayley in the geometry of n dimensions. New Haven, Conn., *Acad. sc.*, 1885. 18 p. 8°.

Newbery, J. C. The examination of waters. Melbourne, *Mason, Firth & M'Cutcheon, Jr.*, 1885. 9 p. 16°.

Normand, J. A. Etude sur les torpilleurs. Paris, *Gauthier-Villars*, 1885. 88 p. 4°. (New York, Christern, 70 cents.)

Packard, A. S. On the structure of the brain of the sessile eyed Crustacea. (*Mem. Nat. acad. sc.* 3.) 14 p., 5 pl. 4°.

Scudder, S. H. Descriptions of an articulate of doubtful relationship from the tertiary beds of Florissant, Col. (*Mem. Nat. acad. sc.* 3.) 6 p. 4°.

Van Rysseberghe, M. F. Téléphonie et télégraphie simultanées. Précédé de notions préliminaires sur l'induction électrique, le téléphone et le microphone par E. Buels. Bruxelles, *Hayez, Jr.*, 1885. 12+226 p., 7 pl. 12°. (New York, Christern, \$1.65.)

Weygoldt, G. P. Die Platonische philosophie nach ihrem wesen und ihren schicksalen für höhergebildete aller stände. Leipzig, *Schulze*, 1885. 6+256 p. 12°. (New York, Stechert, \$1.10.)

Wuelker, R. Grundriss zur geschichte der Angelsächsischen litteratur, mit einer übersicht der Angelsächsischen sprachwissenschaft. Leipzig, *Von Veit*, 1885. 12+532 p. 8°. (New York, Christern, \$3.70.)