

sioner of agriculture. The index is prepared by William Baynes-Reed, and consists of a serial and a classified list of illustrations, and a general index to the text. It appears to be prepared and printed carefully.

—The death of the famous M'tesa, King of Uganda and baïter of missionaries, is announced.

—The following papers were prepared during the past year by members of the Lawrence scientific school, Harvard university, under the supervision of Dr. E. L. Mark in the embryological laboratory at the Museum of comparative zoölogy:—

On the development of *Oecanthus*, and its parasite *Teleas*, by Howard Ayers of Fort Smith, Ark.; on the development of the posterior fissure of the spinal cord, and the reduction of the central canal, in the big, by William Barnes of Decatur, Ill.; notes on the development of *Phryganidae*, by William Patten of Watertown, Mass.; the relation of the external meatus, tympanum, and eustachian tube, to the first visceral cleft, by Albert H. Tuttle of Dorchester, Mass.

The papers, by Mr. Ayers and Mr. Patten have been awarded respectively the first and one of the second Walker prizes by the Boston society of natural history, as already stated in these columns. All are to be published in the course of a few weeks.

—The eighth annual report of the Buffalo microscopical club shows a membership of forty-six,—a gain of fifteen during the year. The average attendance at the monthly meetings is stated to have been about twenty-five,—certainly a very large percentage.

—Prof. D. P. Penhallow, having resigned his connection with the experiment department of Houghton farm as botanist and chemist, has accepted the lectureship of botany at McGill university.

—Messrs. Allen, Coues, and Brewster sign a call for a convention of American ornithologists, to be held in New-York City, beginning on Sept. 26, 1883, for the purpose of founding an American ornithologists' union, upon a basis similar to that of the 'British ornithologists' union.' The object of the union will be the promotion of social and scientific intercourse between American ornithologists, and their co-operation in whatever may tend to the advancement of ornithology in North America. A special object, which it is expected will at once engage the attention of the union, will be the revision of the current lists of North-American birds, to the end of adopting a uniform system of classification and nomenclature, based on the views of a majority of the union, and carrying the authority of the union.

It is proposed to hold meetings at least annually, at such times and places as may be hereafter determined, for the reading of papers, and the discussion of such matters as may be brought before the union. Those who attend the first meeting will be considered *ipso facto* founders. Active and corresponding members may be elected in due course after organization of the union, under such rules as may be established for increase of membership. Details of organization will be considered at the first meeting.

—'The books of science' is the title of a work announced by Leypoldt as in preparation by William C. Lane of Harvard college library. It is to be an annotated catalogue of the most trustworthy works for the study chiefly of the physical and mathematical sciences. From what we know of the compiler and of the manuscript, a portion of which we have examined, we may confidently predict a very useful work.

—In his address before the American forestry congress last year at Cincinnati, recently printed in the *American journal of forestry*, Prof. F. L. Harvey gives a catalogue of the forest-trees of Arkansas, of which he enumerates a hundred and twenty-nine indigenous species. According to his summary, Arkansas is remarkable for its extensive belts of pine, for the area of hard-wood growth, and for the number of species usually classed as shrubs, which here attain the dimensions of trees. More than half the species belong to the six orders Magnoliaceae, Rosaceae, Urticaceae, Oleaceae, Juglandaceae, and Cupuliferae. Professor Harvey believes that physical conditions, rather than geological horizon, affect the specific character of the vegetation in Arkansas, where the north-western part of the state is upland and paleozoic, and the remainder lowland and of more recent date.

RECENT BOOKS AND PAMPHLETS.

Paluzie, F. La historia natural explicada á los niños, según las clasificaciones de Cuvier. Madrid, *Perdiguero*, 1883. 160 p. 8°.

Registro general de la industria española, con una sección extranjera, en que figuran las fábricas y establecimientos industriales más importantes de los diversos países de Europa y América, y agenda del industrial, continuación del Almanaque publicado desde 1875, por la *Gaceta industrial*. Año primero (1881-82). Madrid, *Tello*, 1882. 238 p. 4°.

Ritsema Bos, J. Insekten-schade op bouwen Weiland. Handleiding voor de kennis van de kleine vijanden van akker-en weidebouw. Groningen, 1883. 216 p. 8°.

Roiti, A. Elementi di fisica. Firenze, 1883. 12+356 p. 16°.

Roura, J. Tratado sobre los vinos, su destilación y aceites. Madrid, *Perdiguero*, 1883. 113 p. 8°.

Sack, J. Die Verkehrs-telegraphie der gegenwart. Wien, 1883 (Elektro-techn. bibl., v.). 272 p., illustr. 8°.

Sieiro y Gonzalez, J. Principios de psicología ó anthropológia psíquica, lógica y ética. (Oreuse), *impr. Ramos*, 1882. 319 p. 8°.

Smith, Ch. Conic sections. London, 1883. 8°.

Smith, J. M. The Hades of Ardenne, a visit to the caves of Har. Described and illustrated by the T. T. Club. London, 1883. illustr. 8°.

Sonklar v. Innstaedten, C. Von den ueberschwemmungen, enthaltend die ueberschwemmungen im allgemeinen, chronik der ueberschwemmungen und mittel der abwehr. Wien, 1883. 151 p. 8°.

Sundman, G., and Reuter, O. M. The fishes of Finland (and Sweden). pt. i. Helsingfors, 1883. 9 p., 3 col. pl. f°. Will contain about 30 parts.

Tobler, A. Die elektrischen uhren und die feuerwehr-telegraphie. Wien, 1883 (Elektro-techn. bibl., xiii.). 240 p., illustr. 8°.

Ungarn. Geologische special karte von. Herausgegeben von der k. ungarischer geologischen reichsanstalt. Budapest, 1883.

Walras, L. Théorie mathématique de la richesse sociale. Leipzig, 1883. 256 p., 6 pl. 8°.

Wittstein, G. C. Handwörterbuch der pharmakognosie des pflanzenreichs. Breslau, 1883. 994 p. gr. 8°.

Zacharias, J. Die elektrischen leitungen und ihre anlage. Wien, 1883. (Elektro-techn. bibl., xvi.). 272 p., illustr. 8°.