

and later; Marsh, in *Am. Jour. Sc.*, since 1875; Cope in publications of Acad. Nat. Sc. Philad., Amer. Phil. Soc. and *Amer. Naturalist*, since 1864.

On Fossil Fishes, John H. Redfield, *Ann. N. Y. Lyc. N. Hist.*, 1836; William C. Redfield, *Am. Jour. Sc.*, 1838 to 1843; Newberry, *U. S. G. S.*, 4to, 1888, with figures of the species.

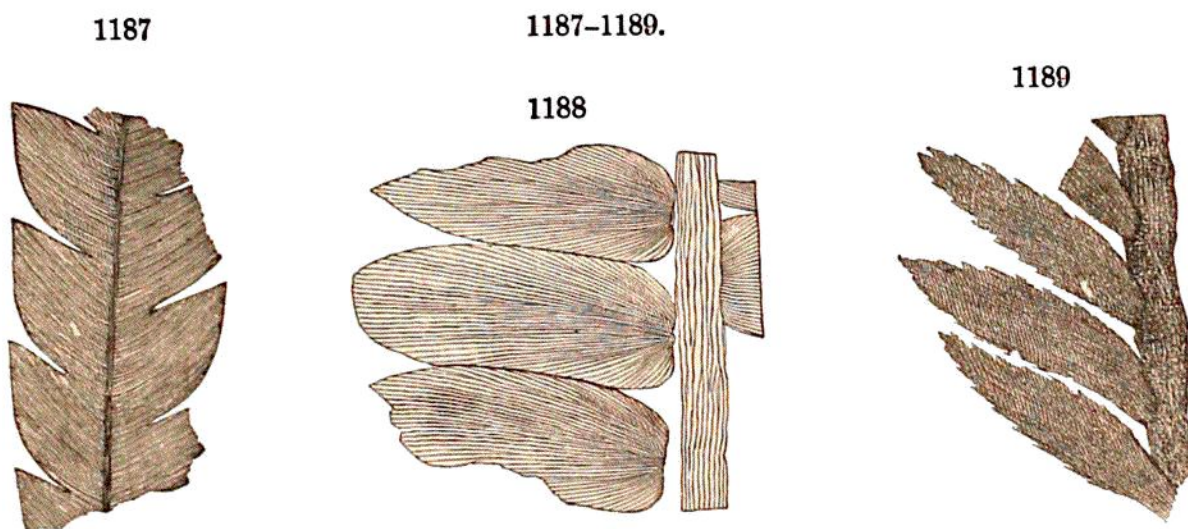
On the Mammals, E. Emmons, *loc. cit.*; H. F. Osborn, Acad. Nat. Sc. Philad., 4to, 1888, and also in later papers; R. Owen, Pal. Soc. London, 1871.

2. Triassic and Jurassic of the Western Interior and Pacific Border Regions.

Triassic Formation.

The Trias of the Western Interior and Pacific border regions, although of great thickness, has afforded few organic relics of any kind.

PLANTS. — The following are figures of three species of Cycads from the Upper Triassic (Rhætic) of Honduras, described by Newberry (1888). At the Abiquiu Copper Mines, New Mexico, Newberry obtained (San Juan Rep.) the new species *Otozamites Macombii* (also from Sonora), and *Zamites*



CYCADS. — Fig. 1187, *Anomozamites elegans*; 1188, *Otozamites linguiformis*; 1189, *Encephalartos* (?) *denticulatus*. Newberry.

occidentalis. Sonora, Mexico, has afforded Newberry species of *Pecopteris* (*Oligocarpia*), *Alethopteris*, *Camptopteris*, *Teniopteris*, including the Virginia species *Teniopteris magnifolia* (*T. latior* Stur), and also a *Jeanpaulia*, *J. radiata*, Nby., near *J. Münsteriana* of the Richmond basin.

ANIMALS. — The marine species of Invertebrates include Brachiopods of the genera *Rhynchonella*, *Spiriferina*, and *Terebratula*; Lamellibranch Mollusks of the genera *Pecten*, *Lima*, *Avicula*, *Monotis*, *Halobia*, *Daonella*, *Posidonomya*, *Corbula*, *Myophoria*, and others; and Cephalopods of the old genus *Orthoceras*, and under the Ammonite group, of the genera *Sageceras* (Figs. 1190, a), *Trachyceras* (Figs. 1191, a), *Arcestes*, *Tropites*, which are characteristic, and also many others.

A few Insects have been described by Scudder from Fairplay, Col., which are supposed to be Triassic. All but one, a Hemipter, are of the