

dersized species of *Platygonus*, and the front end of the sternum of an undetermined species of a swan, *Cygnus*. These fossils are a part of a collection made for Professor O. C. Marsh.

Fossil Lake, Lake County (9)—In 1889 (*Amer. Nat.*, vol. XXIII, Feb., p. 161; Nov., p. 980), Professor Cope presented a list of the vertebrate fossils which he had collected at what he at that time and others afterward called Silver Lake. A careful reading of Cope's articles cited show, however, that his collections were made at Fossil Lake, near Christmas Lake, and about 25 miles east of north of Silver Lake. On pages 242, 243 are Cope's lists and revisions of these lists. Cope reported that his collection showed the presence of three species of horses, *Equus major* (= *E. complicatus*), *E. occidentalis* and *E. excelsus*. Matthew, in his revision of Cope's list (*Bull. Amer. Mus. Nat. Hist.*, vol. XVI, p. 320), found in the collection only *E. pacificus*.

In 1901 (*Bull. Amer. Mus. Nat. Hist.*, vol. XIX, pp. 116-118, fig. 11), Gidley figured as *E. pacificus* 3 of the teeth collected by Cope, and he distinguished them from *E. occidentalis*. The teeth are larger than those of the just mentioned species, they have a broader protocone, and the enamel of the fossettes is more complicated.

In the National Museum there are a good many bones of large horses that were collected in 1882, near Button's ranch, Christmas Lake, by Dr. I. C. Russell. There are, however, no good teeth in the collection and identification of the species is not easy. The probability is that they belong to *Equus pacificus*.

In 1893 (*Rep. on Vert. Paleont. Llano Estacado, Texas*, p. 81, pl. xx, figs. 4, 5), Cope described and figured some lower teeth from Fossil Lake which he referred to *E. occidentalis*. Their size indicates that they belong to *E. pacificus*.

In the U. S. National Museum (Cat. No. 3815) is a symphysis of the lower jaw of a horse from this locality. Leidy (*Proc. Acad. Nat. Sci., Phila.*, 1870, p. 67) reported that he had seen the tibia of a horse which had been sent to the Smithsonian Institution by Thomas Condon. It had been found on Alkali Flat, Christmas Lake. Many horse bones from Fossil Lake are owned by the University of Oregon.

Umatilla, Umatilla County (10)—On June 18, 1907, S. M. Strohecker, M. D. of Hermiston, Oregon, wrote to the Smithsonian Institution saying that he had secured a skull which had been found near Umatilla River, west of Hermiston. He enclosed two small photographs which show plainly that the skull was that of some horse-like animal. It was buried under several feet of sand and gravel. From a tape line stretched along the skull in the photograph it is seen that the distance from the front of the large front premolar tooth (pm²) to the rear of the occipital condyle is very close to 13.5 inches. The part in front of the premolars is broken off. The animal had not reached its maturity, for the hindmost molars were not yet through the bone. The protocone appears to be shorter than in *Equus*. The enamel of the fossettes seems to have had considerable complication. The animal is probably a *Pliohippus*. It may be that at that place there is some late Tertiary deposit; but farther east, at Cold Spring Reservoir and at A-C-E Drop, 3 miles east of