64 **EQUUS**

This jaw contained the permanent incisors and the canines. diameter of the face of the incisors was only about 15 mm. Across the narrow part of the symphysis the distance was 32 mm. At the third incisor the width of the jaw was 50 mm.

Murphy, Calaveras County (7)—In his notes on fossil vertebrates found in California, published in J. D. Whitney's work already cited so often, Dr. Joseph Leidy (p. 257) wrote that "another fragment of a large inferior molar, marked 'Murphy's Diggings,' perhaps also belongs to the same," referring to Equus pacificus.

Columbia, Tuolumne County (8)—From this place Leidy examined (Whitney's Auriferous Gravels, p. 256) an isolated upper molar, taken from auriferous gravel, 20 feet below the surface. It had undergone little change and was only slightly stained with iron. He referred it to Equus occidentalis. He had seen also (p. 258) from Columbia, an inferior molar found in "vegetable" debris at a depth of 5 to 6 feet. He referred it to Equus caballus.

From Texas Flat, near Columbia, Leidy reported an upper lateral incisor not differing from that of Equus caballus. It was labeled as found in calcareous tufa overlying auriferous gravel, 15 feet in depth.

Leidy had in his hands a lower molar from Matlock Gulch locality and this he regarded as belonging to Equus occidentalis. Matlock Creek is shown on Whitney's plate D, at Columbia.

Soulsbyville, Tuolumne County (9)—This village is about 6.5 miles east of Sonora. From this place (Whitney, op. cit., p. 258) Leidy had an inferior molar, a first molar ("fourth"), which he labeled as found at Soulsbyville beneath the volcanic rocks, on gravel resting upon granite. The height was 20.8 mm.; the length, 17.6 mm.; thickness, 9.9 mm. In 1871 (Proc. Acad. Nat. Sci. Phila., p. 50), Leidy stated he had 2 equine molars from this locality and that they had been found 350 feet below the surface. Of these at least one, probably both he thought, belonged to Protohippus. It was moderately curved and measured 21 lines (44 mm.) in height, 9 lines (19 mm.) fore and aft on the crown, and 7 lines (14.5 mm.) in width.

Sonora, Tuolumne County (10)—In Whitney's Auriferous Gravels, etc. (p. 256), Leidy mentioned 2 upper molars of a horse which were probably found at Sonora. These he referred to Equus occidentalis.

Kincaid Flat is less than 2 miles east of south of Sonora. locality, Leidy reported 2 upper molars, not fossilized and not differing from those of the recent horse and said to have come from depths varying from 25 From the same locality there was an inferior molar of the same All of these Leidy arranged under Equus caballus, the general character. domestic horse.

J. D. Whitney (Auriforous Gravels, etc., p. 263, foot-note) mentioned a photograph sent him by C. D. Voy, which showed animal remains found at Kincaid Flat. Among these were horse remains; also camel, elephant and 2 teeth of supposed Mastodon obscurus, probably M. shepardi. The horse remains were probably those of Equus caballus, as determined by Leidy.

Doctor Leidy reported (Proc. Acad. Nat. Sci. Phila., 1871, p. 50) that a tooth of a large horse, referred to Equus pacificus, had been found at 16 feet

