

and, while admitting the presence of modern types of mollusks, considered that the cephalopods were stronger evidence of their Cretaceous age. He also stated that he had obtained a collection of fossils from Nanaimo, Vancouver island, that proved the Cretaceous age of the coal beds at that place. These fossils were placed in the hands of Professor F. B. Meek,* who soon afterward described them. Although at that time he thought that the entire collection came from Nanaimo, he believed that two distinct horizons were represented. Many years afterward, when republishing the descriptions with figures,† he stated that only those species which he believed to be the older came from Nanaimo, while the others were from Comox, northwest of Nanaimo, and from Sueia island. Those from the last two localities were thought to indicate about the horizon of the Fort Pierre shales, or number 4 of Meek and Hayden's upper Missouri section.‡

In 1858 Dr B. F. Shumard§ described three species of Cretaceous fossils from Nanaimo, and in 1861 Dr James Hector|| published an account of the Nanaimo coal field, giving the evidence of its Cretaceous age.

Views of W. M. Gabb.—Up to this time both the geologic and the paleontologic work had been mainly preliminary, the latter based on very small collections brought in by explorers; and it was not until 1864, when the first volume of the Paleontology of California was published, that any serious attempt was made to classify the Cretaceous formations of the Pacific coast or to present their paleontology in a systematic manner. In that volume Mr W. M. Gabb described about 260 species of fossils which he referred to the Cretaceous. In the introduction some general statements concerning the classification and correlation of the California Cretaceous were given by Professor J. D. Whitney,¶ the state geologist, on the authority of Mr Gabb. All the Cretaceous beds on the Pacific coast were assigned to two divisions (*A* and *B*), which were together supposed to represent the Upper Chalk or White Chalk of Europe and the Fort Pierre and Fox Hills groups of the upper Missouri, although the Cretaceous of the latter region seemed to have no species in common with the California strata.

The Tejon Controversy.—The publication of this volume precipitated a discussion between Messrs Gabb, Conrad and others as to the age of

*Trans. Albany Institute, vol. iv, 1858-'61, pp. 36-49.

†Bull. U. S. Geol. Surv. Terr., vol. ii, 1876, pp. 351-374.

‡The same opinion is expressed in Professor Meek's last work, U. S. Geol. Surv. Terr., vol. ix, Invert. Paleontology, p. xxv.

§Trans. St. Louis Acad. Sci., vol. i, 1858, pp. 123-125.

||Quart. Jour. Geol. Soc. Lond., vol. xvii, 1861, pp. 428-436.

¶Paleontology of Cal., vol. i, 1864, p. xix.

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