Miocene and Pliocene beds have been identified in Alaska, and descriptions and a map showing their distribution, by W. H. Dall, are contained in his Bulletin 84 of the *U. S. G. S.*, 1892.

2. *Lacustrine Deposits of the Continental Interior and Pacific Slope.*

I. Eocene. — The lacustrine Eocene areas are confined mostly to the summit region of the Rocky Mountains and its broad slopes, and are noted for the abundance of fossil vertebrates. The oldest, according to present knowledge, that of the *Puerco* basin, covers a large area in northwestern New Mexico, and extends northward into Colorado. The beds rest on the upturned Laramie, and are overlaid conformably by the Wasatch beds.

The *Wasatch* basin (W on the map, Fig. 1468), also Lower Eocene, lies to the north of the Uinta Mountains, and east of the Wasatch range. Its original breadth was probably nearly 300 miles, and the extreme length from north to south perhaps 500 miles. The thickness of the beds near the Wasatch range is about 4000′. The Wasatch also occupies a basin extending from New Mexico northward, to the Uinta Mountains and the Big Horn basin in Wyoming. The beds also of the Cuchara basin of R. C. Hills are referred to the Wasatch Eocene.

Two other basins, the *Green River* and *Wind River*, are situated to the north of the Uinta Mountains, and are intermediate in age between the Wasatch and Bridger. The Green River basin is situated mostly within Wyoming, and has an area of more than 5000 square miles. The beds consist of impure limestone below, and thin fissile calcareous shales above, in all 3000′ to 4000′, and are especially noted for their fossil Fishes and Insects. Fine views of the bluffs and of the "Bad Lands" of the Wasatch are given in King's 40th Parallel Report, on plates 13, 14, 15; and general views of the Green River basin, in Hayden's Report for 1872. The *Manti beds* of Cope (1880), occurring in Sevier and San Pete counties, Utah, are similar in character and fossils to those of the Green River basin.

The *Bridger* basin of the Middle Eocene is situated between the meridians of 109½° W. and 110½° W., and for the most part north of the parallel of 41°. *Washakie* basin of King (1878), which lies 60 miles farther east, and the *Huerfano* group of R. C. Hills (1888–1891), are of the same age. The latter lies to the east of the Front Range in Huerfano and Las Animas counties, southern Colorado.

The *Uinta* lake basin (U, Fig. 1468), of the Upper Eocene, lies wholly to the south of the Uinta Mountains, and has now a level of about 10,000′ above the sea. Its width from east to west is over 140 miles.

The Amyzon beds, referred to the later part of the Eocene, occur in northeastern Nevada, in South Park, Col., and in central Oregon. They are probably intermediate between the Uinta and White River beds.

The small Florissant basin is situated 8000′ up in the mountains of southern Colorado. Its beds are largely made of volcanic earth, or tufa, and have become famous for their great numbers of fossil Insects and Spiders, and also for their Fishes, and for feathers and other remains of Birds, besides plant remains.

II. Miocene. — In the Miocene period the Eocene lakes of the Rocky Mountain region had mostly been drained through an increase in the elevation of the land or changes in its surface level; but the mountain area still remained so low that even greater lakes then existed over what are now the eastern slopes of the mountains. They were situated in the region of the upper Missouri, and covered most of the state of Nebraska and a portion of Wyoming and Colorado, and extended from Nebraska southward. The area is over 350 miles in its maximum breadth, and has a height at the present time, through subsequent elevation, of about 6000′ to the west and 3000′ to the east.

The Earlier Miocene is that of the White River group. Its oldest deposits, the *Titanotherium beds* of Hayden, consist mainly of variegated clays, together with sandstones and conglomerates, and have a thickness of 180′ (J. B. Hatcher); above are the