

shore. The western Cretaceous beds contain many strata of coal; and this is other evidence of water so shallow as to become frequently dry land. The fine coals of Wyoming and of the Cascade Mountains in Washington Territory are Cretaceous.

These strata are the burial places of gigantic reptiles—dwellers in the sea and dwellers on the land. Some of their forms were amazingly elongate. Some attained a length of fifty to one hundred feet. I must give you the name of one of these—*Ca-mar''-o-sau'-rus*. The bones were found by Cope in Colorado. He says: "One of the vertebræ of the neck was twenty inches long and twelve inches in transverse diameter. The shoulder-blade was $5\frac{1}{2}$ feet long, and the thigh-bone five. The total length of the reptile must have been 72 feet." *Amphi-cœl'-i-as* had a thigh bone six feet in length and a body over a hundred feet long. Marsh has discovered, also, enormous reptilian bones in Kansas, and some of them are remarkably peculiar. I can not enter into details at this place; but by and by we will take a general view of the wonderful empire of reptiles.

Another system, the Jurassic, underlies the Cretaceous, and we find its shales and limestones widely distributed in the far west. It was a closed record before the activities of Cretaceous life began. It incloses the memorials of huge and numerous Dinosaurian reptiles, and it was in fact from these repositories that Marsh derived the material to give interest and romance to his reptilian memoirs. Lower still lie the sandstones of the Triassic, and these are the solid tombs of the hoar forerunners of the swarming dynasty of reptiles. The Triassic is represented in the eastern states by the red and brown sandstones of North Carolina, northern New Jersey and the valley of the Connecticut. From the quarries along the Connecticut are obtained the materials for the fine brownstone fronts of New York. But these stones are rich in interest for the geologist as well as the builder. They contain the records of a daily life which opens vistas into a wonderful past where Nature is seen in one of her stages of transi-