

W. B. Rogers, are referred, by that eminent American geologist, to the older tertiary (*eocene*, or *miocene*) formations. They occupy considerable districts, spreading out into sterile tracts, along the flanks of the hills, their siliceous character rendering them unfavourable to vegetation. The investigations of Dr. Bailey have shown that the siliceous skeletons, so abundant in this earth, consist of several species of *Navicula* (*Lign.* 48, fig. 1, 1 a.), *Gaillonella* (*Lign.* 48, fig. 3, 3 a.), *Actinocyclus* (*Lign.* 48, figs. 4, 5.), &c.

The most remarkable forms are saucer-shaped shells or discs, having their surfaces elaborately ornamented with hexagonal spots disposed in curves, presenting some resemblance to the engine-turned case of a watch. *Lign.* 48, fig. 2, is a small segment of a disc, very highly magnified. These discs vary in size from $\frac{1}{100}$ to $\frac{1}{1000}$ of an inch in diameter: they are named *Coscinodiscus* (*sieve-like disc*), and there are several species: one less richly sculptured, *C. patina*, is figured *Lign.* 48, fig. 6.

Circular bodies, with five or six lines radiating from the centre to the circumference, like the spokes of a wheel, hence named *Actinocyclus*, (*Lign.* 48, figs. 4, 5.), are also abundant; and spicula of sponges, *Alcyonia*, and probably of *Actiniæ*.

When a few grains of this marl are prepared, and mounted on a glass, almost all these varieties will be manifest, so largely is this earth composed of the skeletons of animalcules; in fact, very few