Deep River Valley (or Deep Creek) and other valleys of the vicinity. The beds are hard cream-colored clays, overlaid by loose beds of coarse and fine material of the Loup Fork horizon. Cope's *Ticholeptus beds* of Cottonwood Creek, in Oregon, according to Scott, are probably of the Loup Fork horizon; but those of western Nebraska he refers to the White River group.

The *Pah-Ute* Lake of King, named from a mountain ridge in Nevada, was described by him as extending from the Columbia River, through Oregon and Nevada, into California — an improbable range for one lake. He named its beds the Truckee Miocene. They include, in Nevada, sands, grits, volcanic tufa, and infusorial deposits, the last 250′ to 300′ thick.

Diller reports the Upper Sacramento Valley as the area of a great Miocene lake, covering part of the northern end of the Sierra Nevada.

III. Pliocene. — The *Blanco beds* of Cummins and Cope, on the Staked Plains of western Texas, consist at Blanco Cañon of beds of clays and sands, in all 150′ to 200′ thick. The underlying beds are referred to the Triassic. The beds extend northward beyond Red River.

LIFE.

Plants. — 1. **Protophytes.** — About 100 species of Diatoms have been described by Ehrenberg and Bailey, from the Infusorial stratum of Richmond, besides a few Polycystines and many sponge-spicules. Fig. 1469 represents a portion of the Richmond earth, as it appeared in the field view of Ehrenberg's microscope. This is an example of one of the many Infusorial earths of the era.

2. **Angiosperms, Conifers, Palms.** — The lignitic beds in the lower part

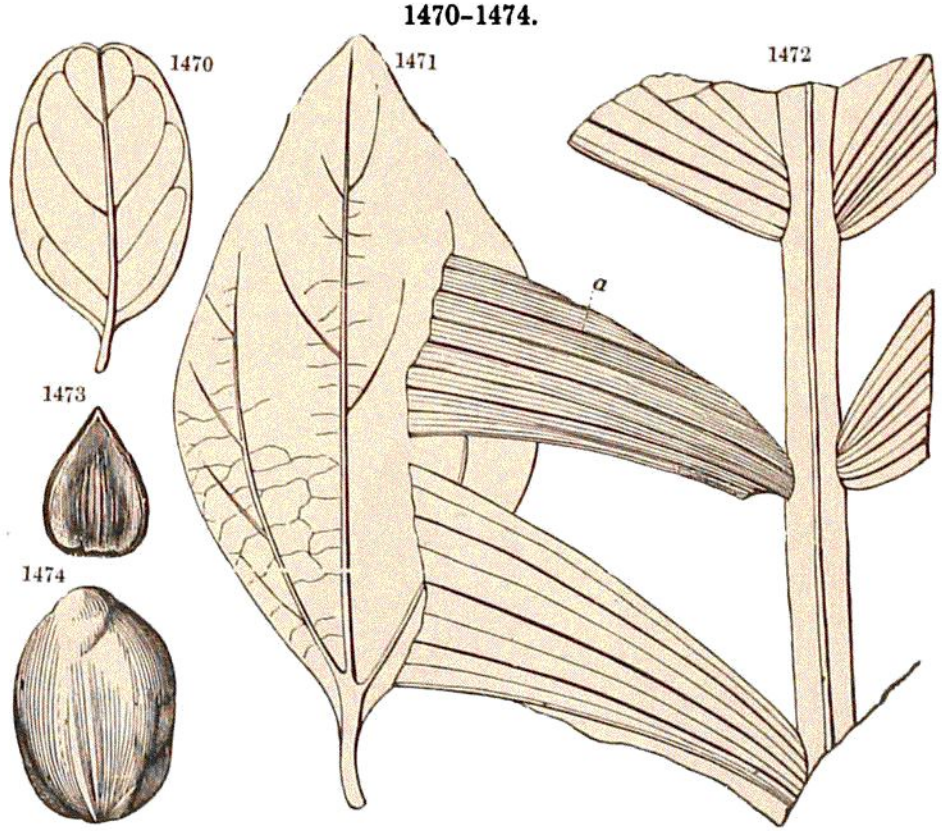

Fig. 1470, Quercus myrtifolia (?); 1471, Cinnamomum Mississippiense; 1472, Calamopsis Danæ; 1473, Fagus ferruginea (?); 1474, Carpolithes irregularis.