4. CLAIBORNE EPOCH. Upper part of *Claiborne* of Conrad, occurring along the Alabama and Tombigbee rivers (Langdon), and in Arkansas.

3. LOWER CLAIBORNE EPOCH. Part of the *Claiborne* of Conrad, separated here by Harris; occurs in Alabama, Georgia, and South Carolina, and includes the *Buhrstone* of Tuomey and Lyell, and the *Siliceous* and *Calcareous Claiborne* of Mississippi.

2. LIGNITIC EPOCH. Represented by the Lignitic beds, in part, of Conrad and Hilgard, including the beds between the Buhrstone and the Matthews Landing clays, as restricted by Harris; La Grange group, in part, of Safford; Eolignitic, in part, of Heilprin.

1. MIDWAY EPOCH. Part of the *Lignitic* of Conrad, and of Smith and Johnson; represented by the Calcareous beds near Midway, and the Matthews Landing clays, on the Alabama River.

### b. MARINE TERTIARY OF THE PACIFIC BORDER.

### 3. Pliocene period.

Represented by local deposits in California, Oregon, and Washington.

## 2. Miocene period.

Represented by deposits in the coast region of California, which partly constitute the Coast Range at Astoria, Oregon, on the Columbia River, and also in Washington, to the north.

# 1. Eocene period.

Represented by the *Tejon group* of J. D. Whitney (1869), named from the locality near Fort Tejon, Kern County, Cal.; beds occur especially along the east side of the Coast Range, near Astoria, Oregon.

#### c. LACUSTRINE TERTIARY.

## 3. Pliocene period.

2. Blanco group of Cummins and Cope (1892), occurring at Blanco Cañon, Crosby County, Tex., and extending northward along the Staked Plains beyond Red River.

1. Palo Duro beds of Scott; Good-night beds of Cummins; observed near the Cañon of Palo Duro in Texas, and also in northern Kansas.

### 2. Miocene period.

3. UPPER MIOCENE. Loup Fork group of Meek and Hayden.

2. Loup Fork beds: On Loup Fork of Platte River in central Nebraska, but extending southward interruptedly to Mexico, and occurring in New Mexico on the Rio Grande, Gila, and San Francisco rivers. *Pliocene* and *Pliohippus beds* of Marsh.