

of a warm temperature, seems to indicate that the climate of Europe during the Tertiary period, was warmer than it is at present.

### *Fossil Palm leaves.*

We have seven known localities of fossil Palm leaves, in the Tertiary strata of France, Switzerland, and the Tyrol; and among them at least three species, of flabelliform leaves, all differing not only from that of the *Chamærops humilis*, the only native palm of the South of Europe, but also from every known living species.\* These leaves are too well preserved to have endured transport by water from a distant region, and must apparently be referred to extinct species, which, in the Tertiary period, were indigenous in Europe.

No pinnated Palm leaf has yet been found in the Tertiary Strata, although the number of these forms among existing palms, is more than double that of the flabelliform leaves.†

\* The leaf represented in Pl. 64. fig. 1. is that of a *flabelliform* Palm (*Palmacites Lamanonis*), from the Gypsum of Aix in Provence; similar leaves have been found in three other parts of France, near Amiens, Mans, and Angers, all in strata of the Tertiary epoch. Another species (*Palmacites Parisiensis*) has been found in the Calcaire Grossier, near Versailles (*Cuvier and Brongniart, Geognosie des Environs de Paris*, Pl. 8, fig. 1. E.) A third species of Palm leaf (*Palmacites flabellatus*) occurs in the Molasse of Switzerland, near Lausanne, and in the Lignite of Hœring, in Tyrol. See Pl. 1. figs. 13. 66.

† The Date, Cocoa-nut Palm, and Areca are familiar examples of Palms having pinnated leaves. See Pl. 1. figs. 67. 68.