PLIOCENE PERIOD.

THIS last period of the Tertiary epoch was marked, in some parts of Europe, by great movements of the terrestrial crust, always due to the same cause—namely, the continual and gradual cooling of the globe. This leads us to recall what we have repeatedly stated, that this cooling, during which the outer zone of the fluid mass passed to the solid state, produced irregularities and inequalities in the external surface, sometimes accompanied by fractures through which the semi-fluid or pasty matter poured itself; leading afterwards to the upheaval of mountain ranges through these gaping chasms. Thus, during the Pliocene period, many mountains and mountain-chains were formed in Europe by basaltic and volcanic eruptions. These upheavals were preceded by sudden and irregular movements of the elastic mass of the crust—by earthquakes, in short—phenomena which have been already sufficiently explained.

In order to understand the nature of the vegetation of the period, as compared with that with which we are familiar, let us listen to M. Lecoq: "Arrived, finally," says that author, "at the last period which preceded our own epoch—the epoch in which the temperate zones were still embellished by tropical forms of vegetation, which were, however, slowly declining, driven out as it were by a cooling climate and by the invasion of more vigorous species—great terrestrial commotions took place: mountains are covered with eternal snow; continents now take their present forms; but many great lakes, now dried up, still existed; great rivers flowed majestically through smiling countries, whose surface man had not yet come to modify.

"Two hundred and twelve species compose this rich flora, in which the Ferns of the earlier ages of the world are scarcely indicated, where the Palms seem to have quite disappeared, and we see forms much more like those which are constantly under our observation. The *Culmites arundinaceus* (Unger) abounds near the