fine quartz; I saw no fragments of porphyry or limestone. Those immense beds of sandstone that cover the Llanos of the Lower Orinoco and the Amazon, well deserve the attention of travellers. In appearance they approximate to the pudding-stones of the molassus stratum, in which calcareous vestiges are also often wanting, as at Schottwyl and Diesbach in Switzerland; but they appeared to me by their position to have more relation to red sandstone. Nowhere can they be confounded with the grauwackes (fragmentary transition-rocks) which MM. Boussingault and Rivero found along the Cordilleras of New Grenada, bordering the steppes on the west. Does the want of fragments of granite, gneiss, and porphyry, and the frequency of petrified wood,* sometimes dicotyledonous, indicate that those sandstones belong to the more recent formations which fill the plains between the Cordillera of the Parime and the coast Cordillera, as the molassus of Switzerland fills the space between the Jura and the Alps? It is not easy, when several formations are not perfectly developed, to determine the age of arenaceous rocks. The most able geologists do not concur in opinion respecting the sandstone of the Black Forest, and of the whole country south-west of the Thuringer Waldgebirge. M. Boussingault, who passed through a part of the steppes of Venezuela long after me, is of opinion that the sandstone of the Llanos of San Carlos, that of the valley of San Antonio de Cucuta, and the table-lands of Barquisimeto, Tocuyo, Merida, and Truxillo, belong to a formation of old red sandstone, or coal. There is in fact real coal near Carache, south-west of the Paramo de las Rosas.

Before a part of the immense plains of America was geologically examined, it might have been supposed that

* The people of the country attribute those woods to the *Alcornoco*, Bowdichia virgilioïdes (See Nova Gen. et Spec. Plant. vol. iii, p. 377), and to the *Chaparro bovo*, Rhopala complicata. It is believed, in Venezuela as in Egypt, that petrified wood is formed in our times. I found this dicotyledonous petrified wood only at the surface of the soil, and not inclosed in the sandstone of the Llanos. M. Caillaud made the same observation on going to the Oasis of Siwa. The trunks of trees, ninety feet long, inclosed in the red sandstone of Kifhauser (in Saxony), are, according to the recent researches of Von Buch, divided into joints, and are certainly monocotyledonous.