

dred and thirty-five toises above the level of the ocean, which is almost the height of Popayan; but the mean temperature of this place is probably only  $17^{\circ}$  or  $18^{\circ}$ . The road over these mountains is much frequented; we met continually long files of mules and oxen; it is the great road leading from the capital to La Victoria, and the valleys of Aragua. This road is cut out of a talcose gneiss\* in a state of decomposition. A clayey soil mixed with spangles of mica covered the rock, to the depth of three feet. Travellers suffer from the dust in winter, while in the rainy season the place is changed into a slough. On descending the table-land of Buenavista, about fifty toises to the south-east, an abundant spring, gushing from the gneiss, forms several cascades surrounded with thick vegetation. The path leading to the spring is so steep that we could touch with our hands the tops of the arborescent ferns, the trunks of which reach a height of more than twenty-five feet. The surrounding rocks are covered with *jungermannias* and hypnoid mosses. The torrent, formed by the spring, and shaded with *heliconias*, uncovers, as it falls, the roots of the *plumerias*,† *cupeys*,‡ *browneas*, and *Ficus gigantea*. This humid spot, though

*casana*, *Inga cinerea*, *I. ligustrina*, *I. sapindioïdes*, *I. fastuosa*, *Schwenkia patens*, *Erythrina mitis*. The most agreeable places for herborizing near Caracas are the ravines of Tacagua, Tipe, Cotecita, Catoche, Anaucó, and Chacaito.

\* The direction of the strata of gneiss varies; it is either hor.  $3\cdot4$ , dipping to the N.W. or hor.  $8\cdot2$ , dipping to the S.E.

† The red jasmine-tree, *frangipanier* of the French West India Islands. The *plumeria*, so common in the gardens of the Indians, has been very seldom found in a wild state. It is mixed here with the *Piper flagellare*, the spadix of which sometimes reaches three feet long. With the new kind of fig-tree (which we have called *Ficus gigantea*, because it frequently attains the height of a hundred feet), we find in the mountains of Buenavista and of Los Teques, the *Ficus nymphæifolia* of the garden of Schönbrunn, introduced into our hot-houses by M. Bredemeyer. I am certain of the identity of the species found in the same places; but I doubt really whether it be really the *F. nymphæifolia* of Linnæus, which is supposed to be a native of the East Indies.

‡ In the experiments I made at Caracas, on the air which circulates in plants, I was struck with the fine appearance presented by the petioles and leaves of the *Clusia rosea*, when cut open under water, and exposed to the rays of the sun. Each trachea gives out a current of gas, purer by  $0\cdot08$  than atmospheric air. The phenomenon ceases the moment the apparatus is placed in the shade. There is only a very slight disengage-