

of greenstone, phonolite, trachyte, and ferruginous quartz, of which the soil of the two slopes is composed. From the ridge of Los Robles, which separates the table-land of Almaguer from the basin of Cauca, the western chain forms, first, in the Cerros de Carpinteria, east of the Rio San Juan de Micay, the continuation of the Cordillera of Sindagua, broken by the Rio Patias; then, lowering northward, between Cali and Las Juntas de Dagua, and at the elevation of 800 to 900 toises, it sends out considerable spurs (lat.  $4\frac{1}{4}^{\circ}$  to  $5^{\circ}$ ) towards the source of the Calima, the Tamana, and the Andagueda. The two former of these auriferous rivers are tributary streams of the Rio San Juan del Choco; the second empties its waters into the Atrato. This widening of the western chain forms the mountainous part of Choco: here, between the Tado and Zitara, called also Francisco de Quibdo, lies the isthmus of Raspadura, across which a monk traced a navigable line of communication between the two oceans. The culminant point of this system of mountains appears to be the Peak of Torra, situated south-east of Novita.

The northern extremity of this enlargement of the Cordillera of Choco, which I have just described, corresponds with the junction formed on the east, between the same Cordillera and the central chain, that of Quindiu. The mountains of Antioquia, on which we have the excellent observations of Mr. Restrepo, may be called a knot of mountains, and on the northern limit of the plains of Buga, or the basin of Cauca, they join the central and western chains. The ridge of the eastern Cordillera is at the distance of thirty-five leagues from this knot, so that the contraction of the bed of the Rio Magdalena, between Honda and Ambalema, is caused only by the approximation of the spurs of Mariquita and Guaduas. There is not, therefore, properly speaking, a group of mountains between lat.  $5^{\circ}$  and  $5\frac{1}{4}^{\circ}$ , uniting the three chains at once. In the group of the province of Antioquia, which forms the junction of the central and western Cordilleras, we may distinguish two great masses; one between the Magdalena and the Cauca, and the other between the Cauca and the Atrato. The first of these masses, which is linked most immediately to the snowy summits of Herveo, gives birth on the east to the Rio