

doza and Santiago de Chile. The road leading from one of those towns to the other, rises gradually from 700 to 1987 toises; and after passing the Col des Andes (La Cumbre, between the houses of refuge called Las Calaveras and Las Cuevas), it descends continually as far as the temperate valley of Santiago de Chile, of which the bottom is only 409 toises above the level of the sea. The same survey has made known the minimum of height at Chile of the lower limit of snow, in  $33^{\circ}$  south latitude. The limit does not lower in summer to 2000 toises.\* I think we may conclude according to the analogy of the Snowy Mountains of Mexico and southern Europe, and considering the difference of the summer temperature of the two hemispheres, that the real Nevadas at Chile, in the parallel of Valdivia (lat.  $40^{\circ}$ ), cannot be below 1300 toises; in Valparaiso (lat.  $33^{\circ}$ ) not lower than 2000 toises, and in that of Copiapo (lat.  $27^{\circ}$ ) not below 2200 toises of height. These are the limit-numbers, the minimum of elevation, which the ridge of the Andes of Chile must attain in different degrees of latitude, to enable their summits to rise above the line of perpetual snow. The numerical results which I have just marked, and which are founded on the laws of distribution of heat, have still the same importance which they possessed at the time of my travels in America; for there does not exist in the immense extent of the Andes, from  $8^{\circ}$  south latitude to the Straits of Magellan, one Nevada of which the height above the sea-level has been determined, either by a simple geometric measure, or by the combined means of barometric and geodesic measurements.

Between  $33^{\circ}$  and  $18^{\circ}$  south latitude, between the parallels of Valparaiso and Arica, the Andes present towards the east three remarkable spurs, the Sierra de Cordova, the Sierra de Salta, and the Nevados de Cochabamba. Travellers partly cross, and partly go along the side of the Sierra de Cordova (between  $33^{\circ}$  and  $31^{\circ}$  of latitude), in their way from Buenos Ayres to Mendoza; it may be said to be the most southern promontory which advances, in the Pampas, towards the meridian of  $65^{\circ}$ ; it gives birth to the great river known by the name of Desaguadero de Mendoza, and extends

\* On the southern declivity of the Himalayas snow begins ( $3^{\circ}$  nearer the equator) at 1970 toises.