

from those found on the eastern side; *Epidendrum cochleatum* and *E. radiatum* are perhaps the only epiphytal species common to both mountain chains. The moist ravines of Arumbaro shelter *Cypripedium irapeanum*, which here grows larger than in the vicinity of Jalapa. Other orchids of this region are: *Bletia coccinea*, *B. secunda*, *B. campanulata*, *Spiranthes aurantiaca*, *Habenaria lactiflora*, *Oncidium suttoni*, *O. galeottianum*, *Epidendrum viscidum*, *Malaxis myurus*, *Maxillaria cucullata*, *M. variabilis*, *Physosiphon carinatus*, and *Isochilus linearis*. In the State of Jalisco, *Bletia reflexa*, *Schomburgkia galeottiana*, and *Habenaria lactiflora* occur. *Lælia grandiflora*, which belongs to the cold region, occasionally descends into this, for instance in the vicinity of Morelia.

The beautiful forests and gneissic rocks of Juquila, Zacaltepec, &c., in the State of Oaxaca, furnished a large number of new or interesting orchids; among others, *Epidendrum pulchellum*, *E. ramosum*, *E. ledifolium*, *E. oppositifolium*, *Gongora galeottiana*, *Lælia peduncularis*, *Bletia purpurata*, various species of *Stanhopea*, *Malaxis galeottiana*, *Spiranthes pubens*, *S. orchioides*, *Habenaria adenantha*, and *Platanthera propinqua*.

3. *The Temperate Cactiferous Regions*.—The plains of some of the Mexican plateaus, and all the slopes descending into the central plains, are covered with a totally different vegetation from the humid sides of the cordilleras. The geological nature of the soil, the great rarefaction of the air, the little forest, the enormous radiation from the immense surface, the scarcity of rain and consequent absence of streams, combined, account for the almost universal barrenness of these plains and the very marked differences in the vegetation. Orchids are extremely rare, yet various species of *Lælia* and *Spiranthes* are scattered here and there. Cactaceæ, on the contrary, abound, and are remarkable alike for their singular shapes and their brilliantly coloured flowers. *Prosopis dulcis* and sundry other spiny Mimoseæ cover large areas in the plains of Baxia, Guadalajara, Tepic, Tehuacan, and Oaxaca, while prickly Bromeliaceæ and formidably armed Agaves constitute nearly the whole of the vegetation of the calcareous and schistose soil of Zimapan, Izmiquilpan, and Mextitlan.

4. *The Cold Regions*.—The cold Alpine regions commence at elevations of about 7200 to 7500 feet, where there is an intermingling of temperate and alpine forms, but at elevations of from 8850 to 9200 feet the vegetation is more characterized. Various species of *Pinus*, *Quercus*, *Arbutus*, *Arctostaphylos*, *Pyrola*, and Rosaceæ give the scene quite a special character.

The cold regions of the cordillera may be divided into three subregions, namely: a lower, from 7550 to 8850; a middle, from 8850 to 10,800, or even to 11,500; and an upper, extending from the latter to the upper limits of phanerogamic vegetation.

*The Lower Cold Region*.—The following plants ascend more or less into this region: *Choisya ternata*, *Clethra mexicana*, *Elaterium floribundum*, *Lobelia hartwegi*, *L. persicifolia*, *Siegesbeckia jorullensis*, *Cerasus capollin*, *Cotoneaster denticulata*, *Cratægus pubescens*, *Spiranthes chloreæformis*, *S. pubens*, *Lælia furfuracea*, *L. albida*, *Poly-*