

CHAPTER II.

THE LIMIT OF PERPETUAL SNOW :— AVALANCHES.



THE *isothermal*, *isotheral*, and *isocheimal* lines have taught us to comprehend the influence of geographical latitude upon terrestrial climates ; but we have already seen that climate also depends, to a very important extent, on the elevation of any particular locality above the level of the sea. In proportion as we ascend in the atmosphere, the temperature decreases with rapidity, but this decrease varies according to the latitude, and even according to the season. It may, however, be put forward as a general rule, that the temperature sinks in the same ratio that we rise above the sea-level. In the Andes, M. Boussingault has found a mean diminution to obtain of 1° temperature to every 550 feet of elevation—a figure which does but slightly differ from the result secured in the region of the Alps.

The decrease of temperature with the elevation of places has an interesting consequence : namely, that as we gradually ascend a lofty mountain, we meet with the organic productions of every country arranged upon different levels or terraces, and we pass in succession from one climate to another still more rigorous. If we stand upon the heights of Switzerland, we embrace at a single glance the panorama of the Alps ; and, as in an open page of the book of Nature, we may read in the picture before us the rules and the laws which science has established concerning the distribution of living beings at different latitudes. We perceive, with sufficient distinctness, six zones or belts raised one above another, and clearly distinguished in their outlines by the difference of vegetation and the appearance of the soil. Lowest of all extends the fertile plain, intersected by lakes, great highways, rivers, and forests, besprinkled with farms and vil-