

tain-range. In the heart of Europe, the Bernese Oberland, the Pennine, Lepontine, Rhaetic, and other ranges form one great Alpine chain or system.

In a great mountain-chain, such as the Alps, Himalayas, or Andes, there is one general persistent trend for the successive ridges. Here and there, lateral offshoots may diverge, but the dominant direction of the axis of the main chain is generally observed by its component ridges until they disappear. Yet while the general parallelism is preserved, no single range may be traceable for more than a comparatively short distance; it may be found to pass insensibly into another, while a third may be seen to begin on a slightly different line, and to continue with the same dominant trend until it in turn becomes confluent. The various ranges are thus apt to assume an arrangement *en échelon*.

The ranges are separated by *longitudinal* valleys, that is, depressions coincident with the general direction of the chain. These, though sometimes of great length, are relatively of narrow width. The valley of the Rhône, from the source of the river down to Martigny, offers an excellent example. By a second series of valleys the ranges are trenched, often to a great depth, and in a direction transverse to the general trend. The Rhône furnishes also an example of one of these *transverse* valleys, in its course from Martigny to the Lake of Geneva. In most mountain regions, the heads of two adjacent transverse valleys are often connected by a depression or *pass* (*col*, *joch*).

A large block of mountain ground, rising into one or more dominant summits, and more or less distinctly defined by longitudinal and traverse valleys, is termed in French a *massif*—a word for which there is no good English equiva-