allowed to grow into vertical walls. On the contrary, they are rotted by rain, splintered by frosts, loosened by springs, and wasted by wind and sun, so that they crumble down, and the rubbish that descends from them is swept away by the stream below. They become sloping declivities, steeper or gentler according to the structure of the rocks and the vigour of the sub-aërial denudation. Hence in such a climate as that of Britain, valleys with gently-sloping sides ought to be, as in fact they are, the general rule; and narrow precipitous ravines, where the activity of the streams has been much greater than that of the other atmospheric agents, ought to be exceptional. Such ravines, where they occur, are probably always to be explained by some local peculiarity of structure in the rocks, or some specially favourable form of surface over which the streams began to flow when the land last emerged from the sea or from its cover of snow and ice.

A remarkable feature in river scenery is the frequent occurrence of a gorge immediately below a wide expansion of the valley. This association is well illustrated in Scotland, and will be further described in Chapter VIII.

SPRINGS.

That portion of rain which, instead of flowing off at once in brooks and rivers, sinks under ground, and after a subterranean journey of greater or less length reappears at the surface in springs, is employed by nature as a characteristic implement in fashioning the contours of the land. Its effects are twofold: on the one hand, the water acts chemically, and dissolves the rocks through which it flows; on the other hand, it acts mechanically, saturating rock-masses, lubricating the surfaces of their internal joints and fissures,

35