

minute and frail fossils, which are wholly invisible on the freshly broken stone. This difference arises from the crystalline calcite of the organic remains being less soluble than the more granular calcite in which these are imbedded. Limestones frequently assume a remarkable channelled rugose surface, with projecting knobs, ridges, and pinnacles especially developed in high bare tracts of ground (Karrenfelder).<sup>59</sup>

Rocks liable to little chemical change are best fitted to resist weathering, provided their particles have sufficient

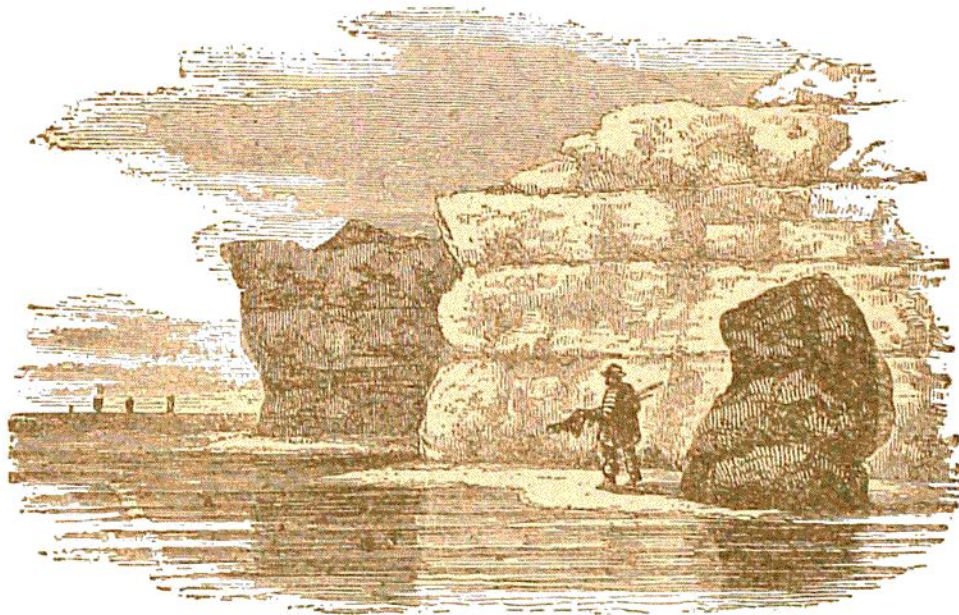


Fig. 92.—Weathered sandstone cliffs showing irregular honeycombing and weathering along planes of stratification (B.).

cohesion to withstand the mechanical processes of disintegration.<sup>60</sup> Siliceous sandstones offer excellent examples of this permanence. Consisting mainly of the durable mineral quartz, they are sometimes able so to withstand decay that buildings made of them still retain, after the lapse of centuries, the chisel-marks of the builders. Many sand-

<sup>59</sup> Heim, Jahrb. Schweiz. Alpenclubs, xiii. (1878).

<sup>60</sup> On weathering of building-stones, see Proc. Roy. Soc. Edin. 1879-80, p. 518. Julien, Trans. New York Acad. Sci. Jan. 1883. W. Wallace, Proc. Phil. Soc. Glas. xiv. (1882-83), p. 22.