America, and among the Chatham Islands, east of New Zealand, various phanerogamous plants form on the surface a thick stratum of peat.

A succession can sometimes be detected in the vegetation out of which the peat has been formed. Thus in Europe, among the bottom layers traces of rush (*Juncus*), sedge (*Iris*), and fescue-grass (*Festuca*) may be observed, while not infrequently an underlying layer of fresh-water marl, full of mouldering shells of *Limnea*, *Planorbis*, and other lacustrine mollusks, shows that the area was originally a lake which has been filled up with vegetation. The next and chief layer of the peat will usually be found to consist mainly of

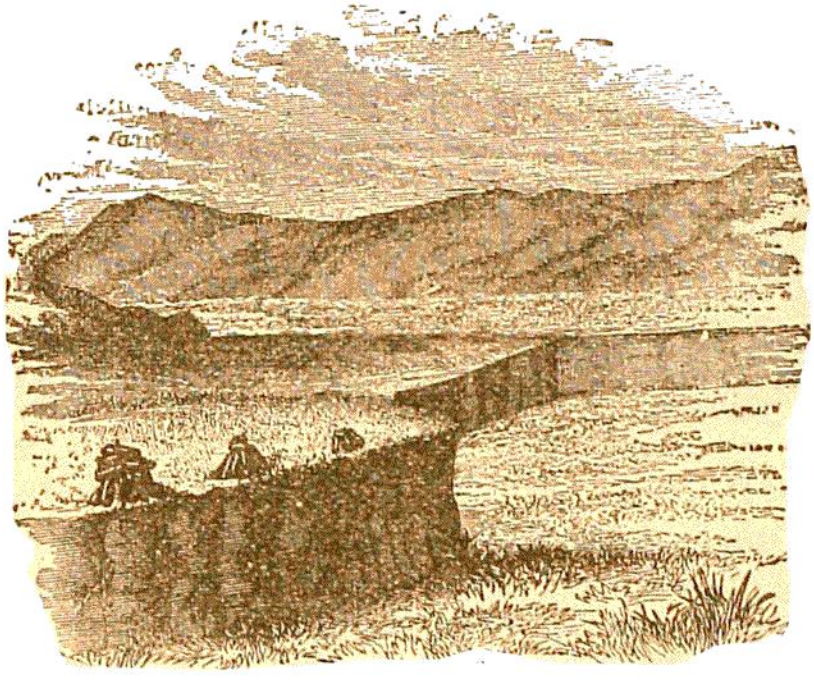

Fig. 179.—View of Scottish Peat-moss opened for digging fuel.

matted fibres of different mosses, particularly *Sphagnum*, *Polytrichum*, and *Bryum*, mingled with roots of coarse grasses and aquatic plants. The higher layers frequently abound in the remains of heaths. Every stage in the formation of peat may be observed where mosses are cut for fuel; the portions at the bottom are more or less compact, dark brown or black, with comparatively little external appearance of vegetable structure, while those at the top are loose, spongy, and fibrous, where the living and dead parts of the mosses commingle (Fig. 179).

It frequently happens that remains of trees occur in peat-mosses. Sometimes the roots are imbedded in soil underly-