ties of the ferro-magnesian minerals and quartz, or mainly of plagioclase and quartz, or largely of magnetite. This structure probably belongs to the time when the rock existed as an erupted material. It resembles in many respects the segregation layers to be found in some sills or bosses of eruptive materials (gabbros, dolerites, etc.) which have cooled and crystallized slowly at some considerable depth from the surface. In the second place, there is abundant evidence of mechanical deformation of the gneiss, especially along planes in certain directions. The rock has been powerfully ruptured and crushed in these lines, and has thereby acquired a granulitized and distinctly foliated structure.

Both in the massive and in the coarsely-banded gneisses abundant pegmatite veins occur, varying in width from a

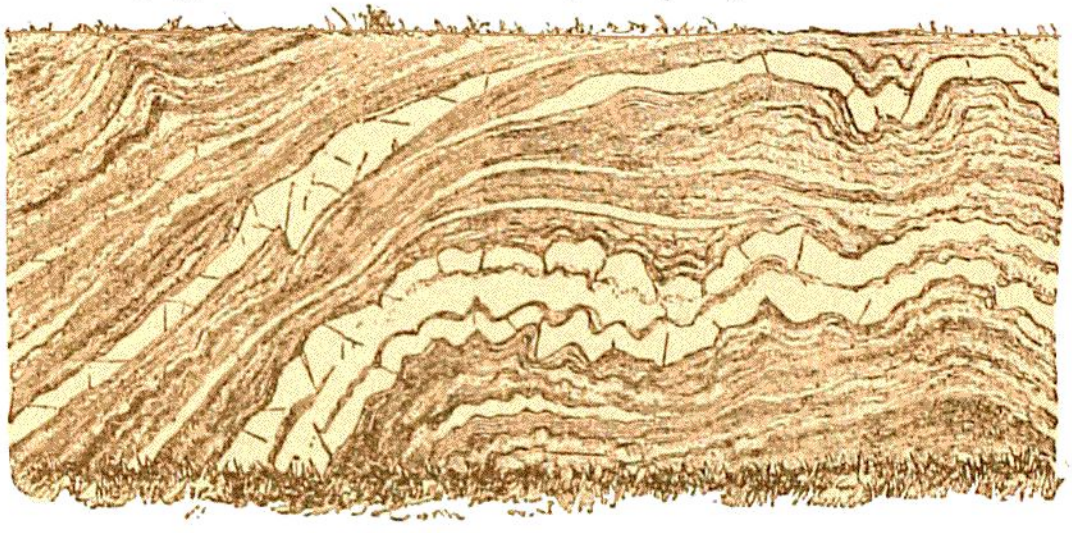

Fig. 327.—Gneiss with deformed pegmatites—Cape Wrath.

few inches to several yards, and consisting mainly of felspar and quartz. These gray veins, sometimes so numerous as to constitute a large proportion of the whole rock, occasionally inclose patches of the dark more basic rock around them, but have no determinate grouping (Fig. 326).

The pegmatites are found to have played an important part in the ultimate constitution of the gneiss. Where still quite traceable, but where they have come within the influence of mechanical deformation, they appear as rudely parallel and puckered bands (Fig. 327). But as we pass into the more thoroughly foliated portions of the gneiss, the original character of the pegmatites is found to be more and more affected, until it becomes no longer recognizable in the acquired schistose structure. The dark basic portions of the original mass pass into rudely foliated basic gneisses, and the gray pegmatites shade into the more quartzose bands asso-