

the granite of Glen Tilt ; and in each case its slaty structure is parallel to the crystalline faces of the prisms of hornblende. Some of this rock is almost pure crystallised hornblende ; in other parts hornblende and felspar appear ; but in Cumberland at least, and, judging from specimens, we think also in Cornwall, it is not quite correct to call another metamorphic rock gneiss. There appears to be produced, in connection with the granite of the Caldew, a combination (in small quantity) of crystallised mica and uncrystallised quartz, which has been called mica slate. The main fact to be attended to with regard to these phenomena of contact is, whether the parts of the altered rocks called gneiss, hornblende schist, mica schist, &c., are really *crystals*, and in *crystalline aggregation*,—circumstances often erroneously admitted with regard to primary strata, in consequence of the very inaccurate use of these important and characteristic terms.

In professor Sedgwick's account of the succession of the strata above the granite of the Caldew, given below, he seems to refer all the interpolated crystals of the upper part of the series to chistolite. Some of the rocks appear, however, to be genuine hornblende slate crystallised, and one of our specimens is traversed by a granite vein.

Skiddaw slate.—Generally a fine glossy clay slate, much penetrated by quartz veins.

Crystalline slaty rocks : —.

1. Skiddaw slate, with interspersed crystals of chistolite, alternating with and passing into the preceding group.
2. A similar slate, with numerous crystals of chistolite, passing in the descending order into a crystalline slate, sometimes almost composed of matted crystals of chistolite.
3. Mica slate spotted with chistolite.
4. Quartzose and micaceous slates, sometimes passing into the character of gneiss.

Granite. — (White felspar, grey quartz, and black mica.)