would be called upon to sustain a much greater pressure than others, while some parts might escape almost wholly. With the breaking of the rock under the influence of strain there would be more or less pulverization of the minerals along the sides of the crack. This would favor the chemical action of percolating waters. With the recrystallization of the constituents taken into solution the crack would become healed. This may be conceived as taking place (1) by partial solution of the powder, with a secondary enlargement of the remaining portions; or (2) by complete solution and recrystallization of the pulverized material. In either case the filling would be fine grained, since even if wholly recrystallized the process would probably go on synchronously with the movement of the rock. Evidence that this process has taken place at a later date is sometimes seen in the presence of healed cracks cutting across the banding.

With increasing pressure the rock may be reduced to a coarsely fragmental condition, and if the process were stopped at this stage the result would probably be a mass of irregular fragments, cemented together by fine grained interstitial material. The pyroxene within reach of the percolating waters would be dissolved to a greater or less extent, and on subsequent recrystallization would appear in grains marking the spaces occupied by the solutions. The relative solubility of pyroxene and feldspar under the conditions here postulated is unknown. The relative effects of weathering, however, are well shown by the manner in which the pyroxene decays on exposed surfaces of the ellipsoidal rock, leaving sharp trenches surrounding the feldspathic portions. Since basic minerals melt at somewhat lower temperature than the acidic, it may be supposed that the temperature of the rock became sufficiently great to melt the pyroxene, but not the feldspar.* While the convoluted forms assumed by the ellipsoids are suggestive of plasticity, it is scarcely probable that the heat has ever reached the point indicated. This is inferred (1) from the occurrence occasionally of crystals of augite, which are apparently original, inclosed in grains of microcline in the ellipsoidal areas; and (2) from the consideration that if the heat is due to the shearing movement of the rock, as generally conceived, it must be generated slowly, and hence would probably be dissipated nearly, if not quite, as rapidly as it is produced.

As the ellipsoids became more and more flattened the interstitial pyroxene bands would assume a parallel arrangement, as in the case of other similar gneissoid structures.†

In support of the hypothesis of dynamic origin we note:

* J. G. Goodchild: Geol. Mag., new series, Dec. IV, vol. I, no. 1, Jan., 1894, p. 23.
† F. Zirkel: Lehrbuch der Petrographie, band iii, p. 205.