

been the strain to which solid limestones and other rocks have been subjected that even their finer layers have been intensely puckered. Some of these minor crumplings are



Fig. 253.—Piece of Alpine limestone, showing fine puckering produced by great lateral compression (real size).

readily visible to the eye in hand-specimens (Figs. 36, 253, 254). But in many foliated, crumpled rocks the puckering is so minute as to be best seen with the microscope (Fig. 37). Frequently the puckerings have been ruptured and a fine



Fig. 254.—Crumpled Triassic rock, Todi group, Switzerland (real size).

cleavage or jointing has been produced (*Ausweichungsschivage*, strain-slip cleavage).

It may often be observed that in strata which have been intensely crumpled, the same bed is reduced to the smallest thickness in the arms of the folds, but swells out at the bends as if squeezed laterally into these loops. This ap-