But in the reaction of the region from compression, tension faulting took place on a large scale, and its eastern portion was sliced by the series of meridional faults which cross it. Since these uniformly downthrow to the east, they produced a step-like topography of eastward facing fault scarps, with intervening terrace platforms. In the Champlain region the faults were numerous, and often of large throw, their combined effect being to cause a rapid drop in altitude eastward, and to produce a depression along the Champlain meridian. But at the same time the region still further east was uplifted, mainly by folding and thrust faulting, thus outlining the Champlain valley as a great structural depression, or trough, closely coinciding in position

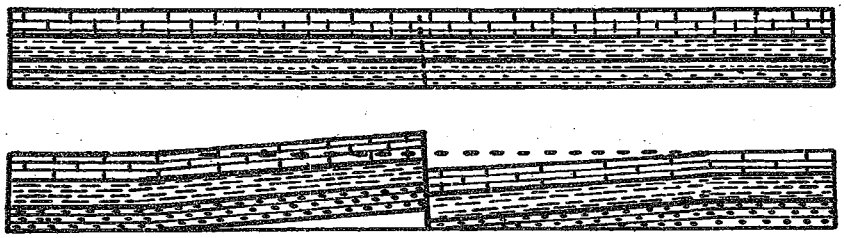

Fig. 7 Diagram of a single normal fault to illustrate the local character of the surface derangement. The rock layers on the upthrow side are given a dip away from, and those on the downthrow side a dip toward the fault plane, but at the ends of the figure the rocks remain as before the faulting.

with the previous depression of the Chazy basin. The region directly to the west of this depressed strip was given considerable altitude by the general elevation, and it seems likely that it formed then, as now, the most elevated portion, with a rapid step-like drop to the east, and a gentle and more even slope toward the west. Passing westward, the faults become much fewer in number, and, while they interrupted the prevailing westerly slope with their scarps, the interruption was but local [fig. 7]. This is well illustrated by the Mohawk valley faults, in whose vicinity a strong increase in the westerly component of the dip is always observable, which flattens back to the normal amount with increasing distance from the fault.

In some few cases trough faulting was brought about by a pair of faults throwing in opposite directions, and depressing the block between. Between the Little Falls and Dolgeville