

In addition to these greater, meridional faults, differential slipping in the fault strips has resulted in the production of a multitude of cross faults, trending away from the greater ones at all angles, downthrowing now to one side and now to the other, and thus dividing the strips into a number, often a large number, of blocks of varying size and shape, producing great confusion in the stratigraphy and tending to disguise the larger features of the region. These are mostly a feature of the Champlain region and have not the persistence westward of the meridional breaks.<sup>1</sup> As a general rule, they have a somewhat east and west trend but with wide variation in direction. They downthrow now to the north and now to the south, with frequent production of small sunken blocks, downthrown on both the bordering faults. They are in general dip faults, shifting the rocks along the strike, while the large strike faults are apt to cause disappearance of a considerable part of the rock section of the district on the two sides of the fault [fig. 3, 4]. Thus along the great Tracy brook fault, in Chazy township, the entire Beekmantown formation is faulted out, bringing the Chazy and Potsdam together on opposite sides of the fault. A small portion of the course of this fault is shown on the accompanying map [pl. 12]. Just within the map limits its course is more nearly northeasterly than is usual with the great faults and more nearly so than is the case with most of the course of this special fault. About 1 mile to the southeast a parallel fault is seen, and the strip which intervenes between the two is intricately cut up by a number of cross faults, much more so than is true of the district adjoining the strip on either side. Along this pair of faults the entire Beekmantown formation, at least 1500 and likely 1800 feet in thickness, is faulted out, together with an unknown thickness of the Potsdam, from 100 feet to 300 feet at least, and a portion of the Chazy, so that the throw of the fault is 2000 feet or more. It is not a true strike fault, since the dips hereabout are swerving from an easterly, to a northeasterly or northerly direction, but they are so low that the general effect of disappearance of a certain thickness of strata from the

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<sup>1</sup>The Mohawk valley faults and some of the larger Champlain faults are well shown on the large geologic maps of the State. The two large scale maps of portions of Clinton county [pl. 12, 13] better illustrate the general character of the faulting in the Champlain district.