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series, resting upon the Fundamental Gneiss. In this no trace of sedimentation is now apparent; while in the Grenville series the originally clastic character is clearly recognized in several of its members. The rocks of the Grenville series have been worked out along their westward development and have been found in this direction to include the series named by Vennor, the Hastings, which is apparently the same as the Grenville, under different conditions as regards alteration and local development; the limestones of the Hastings series being frequently less altered, and associated with micaceous and other schists, along with beds of slate and true conglomerates.

## East of the St. Lawrence.

The great problems as to the structure of the Quebec Series or Group which have been prominent for nearly fifty vears have also been settled, at least to the satisfaction of those most familiar with all the aspects of the question. The crystalline series of the Sutton Mountain, at one time regarded as the newest member of the Group has been separated and placed in the pre-Cambrian division, and are presumably of Huronian age, since it has been found that these rocks underlie the lowest fossiliferous Cambrian sediments. Above these crystalline rocks there is a very considerable thickness of strata which represent the Cambrian and which have been locally assigned to the lower Sillery formation, for the sake of description ; and these rocks contain, at many points, organic remains such as trilobites, graptolites, etc., which have a marked Cambrian aspect. The fossiliferous beds of the upper Sillery and Levis have been carefully searched and studied, stratigraphically, and it has been conclusively shewn that the Levis is the upper member and overlies the upper Sillery; and, that in fact the Sillery is the downward prolongation of the Levis without manifest break, except that the fossil contents become less abundant in the upper Sillery, as in the case of the passage of the Calciferous of the Ottawa Basin downward into the Potsdam sandstone, where there is also no marked line of separation, except in the change of character in the composition of the strata. There is however a marked break between the slates and sandstones of the upper Sillery and the limestones and slates of the lower Sillery; since in connection with heavy faults between the two series there are thick beds of limestone conglomerate at the base of the upper Sillery, abounding in pebbles of limestone which contain numerous specimens of Olenellus Thompsoni, and