tinuous, forming a great anastomosing mesh-work, the general strike being always concave to the Laurentian areas which they encircle.

Sometimes, however, where denudation has exposed their deeper portions along anticlinal or synclinal arcs, as in parts of the Lake of the Woods and Rainy lake regions, and better in Hunter's island, the formations in contact with the Laurentian granite-gneiss are found to be excessively shattered, and countless numbers of fragments are strewn throughout the mass of the irruptive rocks. The country is well bared, and what is stated is clearly visible on well-exposed continuous rock surfaces. These included detached fragments of the formations overlying the granite-gneiss range in size from pieces a few inches across to immense masses. Their longest diameters are, as would be expected, in the plane of schistosity. Where the enclosing rock is gneissic, the inclusions have usually a constant orientation parallel to the foliation of the gneiss, which also coincides, as a rule, with the nearest edge of the belt through which it breaks, where not too remote from the edge. Other inclusions in the Laurentian have been observed whose derivation from the Ontarian rocks cannot be established. Suggestions as to their origin have been thrown out by the writer in his report on the Rainy lake region.

Along the edges of the belts of the Ontarian rocks, there may frequently be observed, running out from the main belt and in continuous strike with it, tongues of schist which taper more or less gradually and eventually end in points. These also are seen to be immersed and congealed in the granite-gneiss; and many of the larger detached inclusions are doubtless portions of such tongues which have been separated from the main belt by the lowering of the plane of surface truncation by denudation, rather than by actual detachment at the time of disturbance. This would in a large measure account for the fact that the common orientation of the larger fragments, and their parallelism with the edge of the belt, holds for the dip as well as the strike.

Numerous long, attenuated, parallel tongues are also formed at the edges of the schist belts by the injection along the planes of schistosity of portions of the granite-gneiss magma, forming an evenly ribboned alternation which simulates bedding. Its formation by injection is, however, sufficiently apparent. Similar ribboned alternations are described and figured by Barrois* as occurring at the edge of the Cambrian schists of Brittany, where pierced by irruptive granites. The detached inclusions are, also, not infrequently ribboned, parallel to the schist planes, with apophyses from the main area of the enclosing granite-gneiss.

If, at the base of the Ontarian system, we had bedded rocks which on metamorphism gave rise to crystalline limestones, quartzites, etc., we would

* Bull. Soc. Géol. de France, 3me Serie, t. XIV, 1886, p. 833.