

Some of the bands carry iron pyrites, and weather rusty-coloured. The clear and white, or light coloured bands appear to be fit for glass making. The outcrop of this formation near the Ottawa River front, at the Rockland Mills, belongs to the lower portion of the Potsdam. The higher beds of the formation in the Ottawa Valley are finer grained, and have the grains of quartz in the sandstone less coherent, and the beds themselves are less massive and reduced in thickness, often presenting the well known tracks of *Protichnites* as at Montebello, Papineauville and above that again,* eight miles below the mouth of the South Indian River.

THE CALCIFEROUS AND CHAZY.

These two formations occupy their regular and respective positions, one below the other, both as regards their geological and geographical relations at Rockland. The zone of farming or pasture land, between the escarpment at the quarries and the town, is occupied by these two formations, whilst the soil is made up to a great extent of the debris of the Chazy, which is the softest and most easily denuded and disintegrated formation in the district.

None of the characteristic fossils of the Calciferous formation were found on this occasion, but at the turn of the road on the hillside about $1\frac{1}{2}$ miles south of Rockland the typical shales of the Chazy formation crop out and are fossiliferous. These overlie the fine-grained and compact limestones, on which Mr. Edwards' celebrated stock and breeding stables are built.

These limestones are characterized by the presence of concretions or inclusions of irregular masses of pink calcite varying in size and intensity of colour. There are two or three bands of these limestones, which, both in Nepean and elsewhere, have been utilized or described as "cement-rock." This is the same band of limestone which crops out at the Hull cement quarries, Skead's mill, Ont., also at Hog's Back, and again on a lot the property of Mr. T. M. Clark, of New Edinburgh close to Hemlock Lake.

The following species of fossils have been recognized by the writer in the dark and chocolate coloured and purple, calcareo-argillaceous

*Geology of Canada, 1863, p. 94.