

GEOLOGICAL FORMATIONS AT ROCKLAND, CO. RUSSELL, ONTARIO.

System.	Formations.	Thickness in Feet.	Fossil Remains.
I. Post-Tertiary....	1. Fluvatile.....	Various	None observed.
	2. Leda clay.....	Rep. to 25 feet....	
	3. Glacial clay, etc.	Various	

HERE AN UNCONFORMITY OCCURS.

II. Ordovician.....	4. Trenton.....	About 50 ft.....	Abundant.
	5. Black River....	" 75 ft.....	Not rare.
	6. Chazy.....	" 60 ft.....	Abundant.
	7. Calclferous	" 50 ft.....	None observed.
	8. Potsdam.....	" 75 ft.....	ScolithusCanadensis.

HERE THE SECOND UNCONFORMITY OCCURS.

III. Archean.	9. Laurentian.....	Several thousand ft.	None observed.
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THE LAURENTIAN OUTCROP.

The basal beds of the Potsdam formation are seen to lie unconformably over the denuded and rounded, or irregular surface of the Archæan or Laurentian rocks. These consist of rather coarsely crystalline gneisses and mica schists, along with hornblendic rocks, whose petrographical relations and characters deserve special study. They furnished the material which helped in the building up of the subsequent formations, the quartz of the Potsdam sandstones having been derived from the granitoid gneisses of this vicinity.

THE POTSDAM.

The Potsdam formation at Rockland Mills forms a more or less irregular zone of heavy bedded, light greyish blue or white colored sandstones, which at times become glassy in appearance and give the formation a truly quartzite character. Nevertheless, the grains of quartz may be easily detected, and are cemented together for the most part by silica.