

Serpentine occurs in many places in this country, from the far west to the extreme east, associated with strata of different ages, and one would be surprised at the area it occupies on our maps although a great extent of the Dominion is still geologically unknown.

Our serpentine may be divided into four groups :—

1st. The Archæan group, or group No. 1, consisting of the Laurentian, Huronian and Pre-Cambrian serpentines ;

2nd. The Palæozoic group, or group No. 2, consisting of the Cambrian and Carboniferous serpentines ;

3rd. The Cenozoic group, or group No. 3, consisting of the Tertiary serpentines.

4th. Group No. 4, consisting of those of doubtful age.

#### LAURENTIAN SERPENTINES.

This serpentine is found associated with limestone and dolomite, but is most abundant in the limestone. It is frequently disseminated in grains varying in size, occasionally in scattered masses, and sometimes in interstratified beds. Its color varies from light green, greenish-yellow, pale-yellowish or greyish-green. It sometimes presents masses of yellowish-green spotted with crimson or blood-red patches from disseminated peroxyd of iron. It has a lower specific gravity, contains less oxyd of iron and more water than ordinary serpentines. It is very widely spread all over the country, and is found in nearly all the provinces.

Near Pisarinco Cove, New Brunswick, are reported crystalline limestones, grey and beautifully white, alternating with quartzites and diorites, and with occasional bluish argillites. Along with these limestones there are also some thinner beds of yellowish and purplish colours which contain serpentine. At another point apple-green and pinkish limestone is enclosed in a bed of diorite, both rocks being traversed by veins of serpentine holding chrysotile. Again, on the west side of the Narrows of the St. John River, in this same Province, can be seen pale grey and white crystalline limestone with a conglomerate of limestone pebbles in a serpentine paste. What is worthy of mentioning of the St. John River serpentinous limestone is that it contains the *Eozoon Canadense*.