Just as we have a great diversity of formations about Ottawa, so also have we a great diversity of substances in the materials which make up the rock of the Post-Tertiary deposits, (and let it be borne in mind, that in using the word "rock" it is used in its true geological sense, so that a handful of sand, a lump of clay, a mass of pebbles, cemented or not by finer detritus, are all as much "rock" as a pillar of freestone, a block of limestone or a column of granite). Most of the materials which are found in these newer deposits were derived from the older formations of the district, whilst erratic blocks, and the like, may have come from great distances. To go into details regarding all the kinds of rocks met with, would necessitate a protracted study of a great quantity of material which years of labour could not exhaust, and which would form the constituent elements of all the formations from the Laurentian to the Hudson River as they are developed in the "Ottawa Basin;" from the gneissoid, granitic and hornblendic rocks of the former, to the shaly magnesian and arenaceous measures of the latter. There would be the gneisses, pegmeties, crystalline limestones, serpentines, dolomites and diorites of the *Lower Laurentian*, occurring at Chelsea in the Laurentide Hills, there would also be included portions of the conglomerates and quartzites and calc-bearing sandrock materials peculiar to the unconformably overlying *Potsdam* and *Calciferous* formations, whilst the sandstones, shales and limestones of the *Chazy*, followed upwards without a break by the impure calcareous strata of the *Black River* and *Trenton* formations would all be mixed together with the likewise conformably overlying bituminous schists of the *Utica*.

The materials which compose the series of formations just mentioned and newer than the Laurentian were themselves derived from the Laurentian System, for this latter contains all the elements necessary for the formation of the sandstones, shales and limestones of the newer overlying Cambro-Silurian or Ordovician strata.

Having ascertained the series of strata whence the material was obtained which constitutes the various beds in the Post Tertiary deposits, let us consider the condition of affairs previous to and at the coming in of the Glacial Epoch.