on this point, under the head of the Calciferous Formation, towards the commencement of the present Part of our Essay). They are also highly inclined, and consist chiefly of black and other coloured graptolitic shales, with associated beds of dolomite, limestone, &c. At a certain distance south of the St. Lawrence, and more especially in the counties of Bagot, Drummond, Shefford, Orford, Brome, Stanstead, Sherbrooke, Megantic, Beauce, &c., these beds are much altered by metamorphic action: being changed into gneiss-rocks, talcose and chloritic schists, serpentines, variously coloured marbles, and other rocks of a similar metamorphic character; whilst their fossils become gradually obliterated. They are associated also in many of these localities, with vast irregular masses of copper and iron ores; and are traversed by veins containing galena, and here and there by auriferous quartz-veins. These metallic deposits, with the marbles, slates, and other economic substances of the region, are enumerated more fully under the Calciferous Formation, on a former page. The alluvial matters derived from the disintegration of the metamorphic rocks of this Eastern Basin, contain grains and occasionally small nodules of native gold—as explained at the same place, and also under the description of that metal in PART II. The Notre Dame and Shickshock Mountains, an extension of the Alleghanian chain, belong to the north-eastern part of this area. These mountains, which rise in places to a height of 4,000 feet above the sea, consist of metamorphic strata of the Quebec group, including vast beds of serpentine and intermixed chromic iron ore. The eruptive granites of the Megantic Mountains, and those which occur in Winslow, Hereford, Stanstead, Barton, Weedon, and other neighbouring townships, lie also within the limits of this metamorphic zone.

ON THE ANNUAL AND DIURNAL DISTRIBUTION OF THE DIFFERENT WINDS AT TORONTO.

BY G. T. KINGSTON, M.A.
DIRECTOR OF THE PROVINCIAL MAGNETIC OBSERVATORY, TORONTO.

The accompanying tables were derived from hourly records of the wind with Robinson's anemometer in the years 1853 to 1859 inclusive, during which period, with very few and short interruptions, the instrument was in continuous operation.