clays, sands, and unaltered strata, which, so far as their lithological characters go, might be supposed to be of late Tertiary date, so little have they been changed during the enormous lapse of ages since Lower Palæozoic time. The great plains bounded by the Ural chain on the east, by the uplands of Finland and Scandinavia on the north, and by the rising grounds of Germany on the southwest, have thus from a remote geological antiquity been exempted from the terrestrial corrugations that have affected so much of the rest of Europe. They have been alternately, but gently, depressed as a sea-floor, and elevated into steppes or plains. But along the flanks of the Ural Mountains, the older Palæozoic rocks have been upheaved and placed on end or at a high angle against the central portions of that chain; and, according to the observations of Murchison, Keyserling and De Verneuil, have been partially metamorphosed into chlorite-schists, mica-schists, quartzites and other crystalline rocks. To the northwest also, over a vast region in Scandinavia, they have been subjected to gigantic displacements and great regional metamorphism (p. 1030).

Taking first their unaltered condition, we find them well exposed along the southern shores of the Gulf of Finland, in the Baltic provinces of Russia, where, according to F. Schmidt, they form with the Cambrian groups below them one continuous and conformable series, and are capable of arrangement as in the subjoined table:⁹⁰

⁹⁶ Mem. Ac. Imp. St. Petersb. (7) xxx. 1881, No. 1; Q. J. Geol. S. xxxviii. 1882, p. 514.