TOPOGRAPHICAL DETAILS.

able part of the natural resources of the County; they are abundant, and may be transported at a low rate. The brown and yellow varieties of this rock should not be employed in architecture, as they will not resist the weather: the compact grey kinds are very durable.

Interstratified with these sandstones, soft shale, and fire clay, sometimes occur at the bases of the cliffs. In all these the fossil plants belonging to the coal period are common. Large trees have been changed into coal, lignite, iron pyrites, and sandstone. These trees are situated parallel to the strata, and sometimes form an irregular layer between them. Most frequently they extend in an east and west direction, and by being more readily acted upon than the sandstone itself, they have been worn out, and deep holes are left in Very often the whole tree has been changed into the cliffs. sandstone, except the bark, which, being converted into coal, encircles the fossil, as it did when both were in a living state. Ferns and coniferous plants are numerous; but none of the cactacea were observed. Wherever these fossils are found, the rock is of a brownish red colour; from the presence of the peroxide of iron.

About five miles below Chatham, there is every indication of the existence of workable beds of coal: a small but perfect stratum of the bituminous mineral appears in the cliff, and on the property of Mr. Willison; fine specimens of coal were found here, and accompany this Report. The abundance of fossils, the presence of shale and fire-clay, always accompanying coal in these Provinces, and every other condition of the rocks, render it almost certain that coal may be obtained here at no great depth from the surface. Near the mouth of the Nepan River, a conglomerate composed of small pebbles was observed reposing upon the saudstone. This conglomerate contains pebbles of the sulphurets of iron and copper. The casts of plants and their leaves are also seen here. The rocks in this quarter are covered with beds of sand, gravel, and sometimes clay, to the depth of ten feet, and erratic boulders are found upon the surface. The strata in general are horizontal; but there are instances where they are singularly contorted. The following is a representation of curved strata on the Miramichi.

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