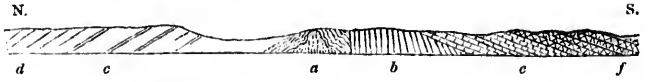
the conglomerate; they contain a few fossil plants. This section on Right's River includes a thickness of probably 8000 feet.

Section V.

Ogden's Lake to South Lake, near Antigonish (4 miles).




*d.* Grey sandstone, and red conglomerate.
*c.* Soft red sandstones and clays; *lignite, calamites*, &c.
*a.* Altered dark sandstones and shales; intruded greenstone.
*b.* Grey and soft red sandstones and shales.
*e.* Limestone.
*f.* Gypsum.

Another section, near the mouth of Antigonish harbour, displays a series somewhat similar. At the north side of the outlet of Ogden's Lake, about eight miles from Antigonish, is a bed of gypsum, probably nearly 200 feet in thickness. Its upper part is composed of white granular gypsum, in thick laminæ, and with disseminated particles of carbonate of lime. Beneath this is a considerable thickness of foliated red gypsum, in its lower part alternating with layers of a grey argillaceous non-crystalline limestone, on which it rests, and which is penetrated by small veins of white fibrous gypsum in its upper portion, while below it becomes brecciated, and then laminated. It is probably 100 feet thick, and appears to contain no fossils. These great beds of gypsum and limestone dip to the S. S. E. at an angle of 25°, and rest unconformably on soft red sandstones and shales, with some grey sandstones and reddish conglomerate, dipping nearly in the same direction, but at an angle of 50°. Following this underlying series in the descending direction, it becomes more highly inclined, and is finally vertical, resting against a mass of altered and contorted dark shales and sandstones, with veins of greenstone containing much epidote. This part of the section is connected with a ridge of igneous rocks running in an east and west direction, and which a few miles farther inland attains a considerable elevation. It consists of a reddish syenite, quartz, compact felspar, and greenstone. After passing these disturbed rocks, there is a break in the section, which is next occupied by thick beds of brownish-red sandstone and clay, supporting a thin bed of conglomerate and some thick beds of grey sandstone, containing *Calamites*, *Sternbergia*, *Endogenites*, *Carpolites*, and pieces of lignite. The relations of these beds to the other parts of the section I could not determine. They dip to the north-east, and probably belong, either to the upper part of the gypsiferous formation, or to some newer member of the coal series.

These sections differ from that of the East River of Pictou, chiefly in the presence of large masses of sandstone and conglomerate beneath the limestones, and in the non-appearance of the thick series of sandstones above the gypsum, so conspicuous in the Pictou sections.