

The rapid tides of the Bay of Fundy continually undermine and sweep away the fallen detritus at the base of these cliffs, otherwise the section would soon be obscured, so rapid is the disintegration of the soft red marls, with which the gypsum and fossiliferous limestones are interstratified. The general strike of the beds on the Shubenacadie, as at Windsor, is nearly east and west, the strata seeming to have been first folded into numerous parallel wrinkles, running east and west, and then part of these folds tilted at considerable angles, sometimes towards the east, and sometimes to the west, while the rocks were fissured in the direction of their strike, and shifted vertically. By such complicated movements the strata have been thrown into the greatest confusion. At the Big Rock, a mass of gypsum or alabaster of a pure white colour and no less than 300 yards thick, is exposed and forms a conspicuous object in the vertical cliff, and has been followed continuously east and west for 12 miles through the country. Below it are alternations of anhydrous gypsum with yellow shale and bituminous limestone. Among the dislocated strata which alternate with the gypsiferous series, are three masses consisting of coal-grit, shale with lepidodendra, and red sandstone, which I refer to the same formation. In five cases where Mr. Dawson and I traced the junction of these sandstones with the gypsiferous beds, visible only at low water, we found a line of fault at the point of contact, and one wall of the fault was in every case formed of gypsum: yet I do not believe that the gypsum has filled rents, for it has all the appearance of having been an original and integral part of the stratified series, formed