

specting the true age and position of the last-mentioned or gypsiferous formation, which has been generally presumed to be newer than the coal,—by some referred to the New Red sandstone, and even thought to overlie the coal-measures unconformably. Immediately after my return to England, I communicated to the Geological Society my opinion; 1st, that the gypsiferous formation, with its accompanying fossiliferous limestones, is a true member of the Carboniferous group; 2dly, that its position is below the productive coal measures.*

I shall now give some account of these middle or productive coal measures, which contain valuable seams of bituminous coal, at various places, especially near Pictou. I was particularly desirous, before I left England, of examining the numerous fossil trees alluded to by Dr. Gesner as imbedded in an upright posture at many different levels in the cliffs of the South Joggins, near Minudie. The cliffs belong to the Cumberland coal-field, on the southern shores of a branch of the Bay of Fundy, called the Chignecto Channel, which divides part of New Brunswick from Nova Scotia. The first allusion to the trees which I have met with, is that published in 1829 by Mr. Richard Brown, in Halyburton's Nova Scotia, and he attributed their fossilisation to the inundation of the ground on which the forests stood. I felt convinced that, if I could verify the accounts of which I had read, of the superposition of so many different tiers of trees, each representing forests which grew in succession on the same area, one above the other;

* See Proceedings of Geol. Soc., vol. iv., p. 184. 1843.