

tion being nearly 40 per cent. There are, however, in some of the formations in Ontario and Quebec, notably in the Trenton and Utica, certain black bands of highly bituminous shale which, when ignited in a strong flame will burn till the greater part of the contained bitumen is consumed. The same bituminous character is seen in some of the shales of the lower Carboniferous formation of New Brunswick, and some of these are so rich as to yield over 60 gallons of oil to the ton, and slabs of this material placed on a camp fire will burn for a long time when once ignited. These cannot however be called coal deposits, though they contain so large a quantity of carbonaceous matter, and it would almost be as well to style our mines of graphite coal mines since graphite is also a form of carbon. Thus, the mineral found at Sudbury is certainly a carbon and will burn under certain conditions, but if there is too large an amount of ash it cannot compete readily with the better class of coals which are now used ; and besides the uncertain nature of such deposits, as contrasted with the great beds of the true coals, renders the investment of capital a very risky matter.

This question of Ontario coal came before the Geological Survey in the early days of its existence, and a rather good story is related in the life of Sir William Logan bearing upon the early operations in this direction.

Nearly forty years ago boring operations were commenced near Bowmanville with the intention of finding coal there, in spite of the old geologist's advice ; and after some days pieces of the mineral were frequently obtained. This, to many persons, was quite conclusive evidence that a true coal field had been reached. So much were some of these persons impressed with this discovery that one of Sir William's old friends, the sheriff of the district, came down to Montreal, where our offices were then located, and in a great burst of confidence, produced a sample with the request to know if that wasn't coal. Sir William, ever courteous, replied that it was most certainly coal, and a very good sample of Newcastle coal at that. " But," said the sheriff, " I saw it taken out of the hole myself." " Ah, yes,"