

no productive and paying well has ever been opened in this formation.

The Niagara limestone has proved locally a similar cause of mistaken ventures. In the neighborhood of Chicago some of the beds of this limestone are eminently bituminous. Chicago has several times made discoveries which were destined to enrich her—if we could believe the newspaper accounts of the amount of fatness in her rocky substratum. Indeed, “the spirits” themselves, in looking down through the rocks which underlie the city, were egregiously humbugged by this rock “of color.” Samples of this Chicago humbug may be examined in the old ivy-mantled and oil-bedraggled walls of the Second Presbyterian Church in that city. The oil fried out of the rock by the summer’s sun has admirably imitated the dusky brush of antiquity, as modern art has learned to imitate the time-scarred products of the pencil of a Rubens or a Raphael.

The Coal-measures, also, from the wide-spread belief that they are the source of native petroleum, have been faithfully explored and expensively bored, with scarcely better success than in the Corniferous limestone. There has hardly been a good well that is known to have been supplied from the Coal-measures.

Crude petroleum is not a product of definite composition. It seems to be a varying mixture of several hydrocarbons, some of which, as naphtha, volatilize with rapidity when exposed to the atmosphere; others, as kerosene, slowly; while others, as bitumen, are nearly fixed. It contains also varying quantities of aluminous matters and other impurities.

It occurs in stratified rocks of all ages, from the Laurentian to the recent. It has even been observed in some rocks of a granitic structure. The mere presence of petro-