

VOLCANIC ORIGIN OF NATURAL GAS AND PETROLEUM

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Three years ago, at the 1900 annual meeting of this Institute, I had the honor to present a paper entitled "Natural Gas in Ontario" (1) in which it was set forth how my strong belief in the volcanic origin of natural gas and petroleum, had induced me to undertake boring operations in new districts of that province, which resulted in the discovery of the two natural gas fields in the counties of Essex and Welland. In this paper a few facts and arguments in support of the volcanic origin of these products were advanced, but I really then only introduced the subject before this Institute, and I propose now to refer again to this interesting question a little more fully. The importance of the matter scientifically and economically, and the very opposite views to those I champion, generally held by most Canadian, American, German and English geologists, will I trust be held by you a sufficient apology for my taking up your time again with this controverted subject evidently in need of much more light. The necessity of much more discussion on this matter was lately forcibly brought to my notice by a paragraph in a recent paper (2) of Mr. Robert T. Hill of the United States Geological Survey, in which Mr. Hill said: "In endeavoring to interpret the geological occurrence of oil the geologist is confronted by the fact that science has not yet solved the problem of its origin, which lies at the root of the subject. Among the theories in this field are those of inorganic chemical origin resulting from reaction of one mineral upon another, the generation of oil in leaving microscopic organism such as diatoms and the generation of oil from the decomposition and deterioration of dead organic matter, animal or

(1) *Journal Can. Min. Inst.*, Vol. III, pp. 68-89.

(2) The Beaumont and other oil fields of Texas. *Trans. Am. Inst. Min. Eng.*, Vol. XXXIII, pp. 363-405.