there are petroleum springs, and large areas of malsha or mineral tar, has led to the specuof matthe or mineral tar, has led to the specu-lation, even among geologists, that soal oil might be fund in our province. In the east, petroleum is found in the Middle Davonia, or Erian, as it is now beginning to be called. Acordiogly it is impossible that petroleum should be found east of Lake Manitoba. As, should be found rass of Like statistics. Ar, however, Devonian rocks occur, as we have have seen, at Burgenide and as a number of places on Lakes Manitoba and Winnivegoosis, is would seem worth while to search for petroleum in that westers region. Companies have been formed, one especially, of which the writer remembers, to bore for oil in the Lake Dauphic district. Theoretically it is right enough to examine this region thorough ly, but surface indications and the opinion of practical miners should be taken as well.

COAL.

The first determined effort to seek coal in Manitoba was made nearly twenty years ago, when a party of the Geological survey spent a sum mer in the Swau Lake district on the slope of Riding Mountains. Here geology held out hope in the gap between the Devonian and the Cretageons where the Carboniferous rocks of Eastern Canada and the United States are found. The search proved vain. But in 1872 found. The search proved vain. But in 1872 Dr. G. M. Dawson, the geologist accompany-ing the boundary expedition, came upon coal beds upon the Souris river. The writer re-members well a company of Winnipeg gentlemen shortly after taking coal claims at the Souris. The coal was unfortunately classed as poor Lignite, and was rather despised. As the west was opened up it began to dawn up-on explorers that Northwest coal had some value in it. Is was found that the 'Galt mine" at Lethbridge was of Uretaceous age, and indeed of the same horizon as the famous Nanaimo coal on Vancouver Island. The beds of the Pembina Mountains escarpment seem of the same age, but are of deep sea origin. It was noticed that the Laramie beds lying in the n-ighborhood of Blackfoot Cross-ing contained good coal, and the Souris bede proved to be of the same age. The beds on Turble Mountain, which is another deposit of Isramie age, also contain a fair coal Some years ago Mr. Hugh Sutherland brought a soow load of coal down the Souris from the coal regim, and in another season the railway will carry this coal all over Manitobs. The exposure on the Souris river is one of remarkable thickness, and is very ac cessible. No doubt as the seam is pene trated the coal will improve in quality.

NATURAL GAS.

A visit of the writer last year to Indiana gave him an excellent opportunity of seeing the importance and uses of natural gas as a feel and light-producer. Great use is being made of it in some parts of Ohio, and it has been found in large quantities in Oceario rear the Niegara river. It is said to arise from the Trenton beds, and is accounted for by the vast number of fossils found in that formation. Its origin is as mysterious as that of petroleum. At Langevin Station on the C.P.R. 35 miles west of Medicine Hat, the

writer saw a stream of natural gas, rising from a boring, which had been used for several years in the section house for fuel. In this case the gas has its origin in the Oretsceous So far as finding natural gas be-iow Winnipeg is concerned, our underlying rock is Trenton, and it is a perfect mass of animal remain, but there have as yet been no surface indications of there being natural gas in the Red River valley, unless it be the stream struck at Dominion City last summer, and this has not yet been clegnifically inyre and this has not yet been solentifically inves signted.

WATER.

WATER. A very important question for us is that of water supply. Not only comfort and conveni er co, but health also, demand that we face this question. Our city water works supply is from the Assiuboine, which contains a large proportion of chemical salts, and is somewhat trying for new comers who use it freely. Weils in a city after a few years be-come unfit for use. Many well authenticated instances are found of typhoid fever and other diseases coming from the use of water is inted by drainace. A number of our wells. emperbis drainage. A number of our wells, espec-ially those west of Colony creek, are artesian. They are all in the drift and probably gain their water supply from the area exposed by Little Soony Mountain. These can hardly be be relied on for supplying us with a plenty of water. Figure 4 is a suggestive one in this connection. Winnipeg is 764 feet above the level of the sea ; Lake of she Woods is 1,000 feet. There is consequently a difference in our favor of some 300 feet, and abould there be beds of a porcous unsture in the Laurentian, there would be a sufficient amount of pressure to give us a good head of water. There is no way of assuring ourselves of the presence of water or of natural gas except by boring. It way of assuring outselves of the presence of water or of natural gas except by boring. It is by no means certain that we should get either, but, judging from the experience, es pecially of some points in Dakota, it would be worth while trying. As to the other ob jects spoken of, viz., salt, petroleum, coal, and precious or useful metals, the probabilities are entirely against us. The absence of salt, however, is more favorable to our getting an artenian well of end water. artesian well of good water.

SUBSEQUENT DISCUSSION.

When the applause which greeted Dr. Bryce on resuming his seat had subsided, President MacBeth invited an informal discussion which followed in the responses of the Hart, of Manisoba C llege, Prof. Laird, of Wealey College, and Control Taylor.

It was first explained that all the formations of the Red River valley, resting on the Luur-entian development, corresponded with the upper and lower Silurian of the Eng-lish geologiate. Then, looking westward, O meni Taylor expressed his great un-willingness to believe, that the car-boniferous Devonian formation—the sets of bluminous coal in the United States — would be found wanting, or "a fault," between the Red River val-ley and the oretaceous formation clearly recognizable beyond Brandon. He t was first explained that all the formations