

— Auguste Brizeux whom the eminent critic of the *Journal des Débats*, Mr. Cuvillier Fleury called the Virgil of Brittany, died at Montpellier on the 2d of May last aged 53 years. He is the author of *Marie, les Bretons, les Ternaves* and several other volumes of poetry, almost all inspired by his native land and the peculiarities of its people. Our readers will find in our French journal several of his poems.

#### SCIENTIFIC INTELLIGENCE.

— Professor Hall, the geologist, who is so well known to our fellow citizens since the last scientific convention in Montreal, has been awarded the Wollaston medal by the Royal Geological Society, the first instance of the award of that honor to an American since 1856, this medal has been struck in palladium in commemoration of the discovery of that metal by Wollaston.

— Dr. Robert Haro who was present and took an active part in the two last sessions of the scientific convention in Albany and in Montreal, where we are sorry to say he was conspicuous for a certain degree of eccentricity, died at his residence, in Philadelphia. He was born in 1781 and for more than a century has been reputed one of the most eminent chemists of the age. He is said to have invented the hydro-oxygen blowpipe, and he has contributed largely to scientific periodicals.

— Gold has been discovered at River Frazer, and at River Thompson; in the British territory on the Pacific. The Californian newspapers and among others the *Echo du Pacifique* contains detailed accounts of the operations of American and French miners, who have left in numbers for River Frazer. This will undoubtedly add to the interest of the present discussion on the Hudson Bay Company's possessions, in our Parliament and by the press. It is also reported that gold has been discovered in small quantities in the state of Iowa. It exists in small quantities in the county of Beauce in Lower Canada; but the mining operations which had been commenced in that part of the country do not seem to have yielded as yet any very profitable returns.

— A very interesting controversy is now going on as to whether it is possible to find in this Canada that which is geologically known as coal. It appears that coal at least workable deposits of coal ought not to be found in or immediately over the Lower Silurian rocks. The fundamental rocks of Canada are below the carboniferous strata, and we are told therefore that the deeper we dig the less probability is there of finding any.

Professor Dawson remarks in an article on the subject in the last number of the *Canadian Naturalist* "the thing that we cannot have, is always that which we most desire, and the more richly we are endowed otherwise, the more earnestly do we long for the one object that may have been withheld. So it would seem to be with the Canadian public in the matter of coal. All the riches of the earth and of the hills and of the deep beneath have been thrown into its lap, except this; and like the child whose toys are all valueless because mamma cannot give it the moon to play with in its own hands, it turns its eyes away from all its other treasures and cries for coal." Now in our humble opinion the comparison does not stand altogether unassailable; it is no childish thing to cry for an article which is much more useful than gold and without which it is so difficult to work out the other treasures; and next, from the learned professor's own showing, it is not such an impossibility after all to find coal in Canada as to catch the moon and play with it in one's own hand. His remarks however are fair enough as a reply to the unjust attacks made on science and savans on that account.

Unfortunately it appears that the first time that the existence of coal in Canada was mentioned, it was a glaring and bungling fraud on the part of the parties interested. We find in the *Transactions of the Literary and Historical Society of Quebec*, 2d vol. p. 91 in the *Additional Notes on the Geognosy of St. Paul's Bay*, by Lieut. Baddeley the following account of this attempt at mystification.

"We arrived about six o'clock at St. Urbains, which is between four and five leagues northward of St. Paul's Bay where passing the night, we made preparations in the morning to visit some deposits of iron which are said to occur in the mountains chain to the northward, and to test the truth of a report which had been brought to Quebec, concerning the occurrence of coal hereabouts. We had many reasons, geological as well as other, to question the accuracy of this latter report; but none of them were of so positive a nature as to render our visit to the spot unnecessary, particularly as if we had not done so, some doubt would always have existed on the subject as it was only from seeing the total discredit with which their story was received by us, after having visited the place, and the utter hopelessness which existed of imposing upon us that we obtained from one of the conspirators the following account. They purchased a bushel of good Newcastle coal, about three weeks before our arrival, and deposited the same in a small stream in rear of St. Paul's Bay. Fortunately there was not a geologist among them and their bituminous coal was deposited in defiance of the beautiful laws of nature, upon the sides and in close contact with primary rocks, with not a vestige of a secondary or transition formation within several miles. To see was therefore to be satisfied or rather dissatisfied and we turned our backs upon the beautiful but meretricious charms of the wanton sparkling with all her jetty blackness at the bottom, of a pellucid stream gurgling over a fine felspathose sand up which we were invited to walk."

In 1853, Count de Rottermund had with the geologists of the Provincial Survey a scientific polemic on a substance which was found in a vein of the rock of Quebec, in Mountain street. Sir William Logan had already alluded in his reports to the indurated bitumen which he said

was found in that locality. Mr. de Rottermund brought with him to France specimens which he, and the Hon. Mr. Drummond, his brother in law, submitted to Messrs. Dorbigny, Valenciennes and de Brongniard, who all stated that the fossils which these specimens contained were *stigmairia* belonging to the regular coal formation. This was disposed of we believe by stating that the place where the specimens were obtained was adjoining to a cellar where coal had been deposited and that there presence on the spot was purely accidental. No further boring took place and the thing was left in *statu quo* up to the recent alleged discovery of a coal seam at Bowmanville, a town of 4000 inhabitants in Upper Canada, 43 miles distant from Toronto. The first specimens that were sent to Professor Chapman were pronounced by him to be *compact bitumen*. Other specimens were sent to Professor Dawson who says: "The bore hole is again appealed to, and now produces actual, veritable coal, not only like coal and burning like coal, but having all the characteristics of true coal-measure, and showing its vegetable structures." But judging from the geological position assigned to the coal of Bowmanville, the learned professor gives it as his opinion, "that we must therefore in the meantime regard this case as beyond the pale of ordinary geological facts and as either a fraud, a mistake, or a singularly exceptional occurrence only to be explained by further exploration of the locality." This further exploration, the government and the geological survey seem bent on leaving altogether in the hands of the parties who have announced the discovery and who best know at all events whether there is a fraud or not. Speaking of Sir William Logan, Professor Dawson says: "All Sir William's early reputation as a geologist was gained in the coal fields, no more competent mining surveyor for coal could be found, and no one could be more rejoiced at the opportunity of reporting on a coal-field in Canada. But for this very reason he is too cautious to hazard any conjecture as to the probability of the occurrence of fossil fuel in a country where facts palpable to the geologist, have inscribed everywhere a negative of its presence. Not having this public responsibility weighing upon us, we may venture to mention certain possibilities as to the occurrence of coal in Canada, which would furnish the only means of accounting for the Bowmanville discovery should it prove a reality. The fundamental rocks of Canada are as we have said below the carboniferous and therefore unlikely to contain workable coal. But Canada may in this respect prove an exception to other countries. There may have been a land flora and an accumulation of coal at an earlier period than we have elsewhere ascertained these phenomena to exist. Unfortunately however no indication of this exists except the discovery by Sir W. E. Logan of a bed of coal one inch thick, in the devonian rocks of Gaspé, associated with a few vegetable fossils. This is in itself a rare and interesting geological fact, and the beds in which it occurs are those which are next below the true carboniferous series. Secondly the coal measures approach Canada so that closely both on the East and the West. In the peninsulas of Canada West and of Gaspé, we have the devonian series, the next below the carboniferous. To these succeed respectively the coal fields of Michigan and New-Brunswick which on the West and East occur just beyond the limits of Canada. In those parts of the Province which thus approach nearest to the carboniferous system, it is barely possible that outliers of the carboniferous districts, as yet unobserved, may extend within our limits. The Bowmanville locality is however too distant from the western coal field to give any likelihood to such a view in this case. Again it sometimes occurs that locally certain members of the geological series are wanting and the coal measures may thus rest directly on beds far older than themselves." Of this very important supposition however and of several others, Professor Dawson disposes in the same manner as above by showing that these exceptional cases give scarcely a shadow of a hope of coal in Canada, and that none of them applies to the Bowmanville case as it stands at present.

Still the specimens exhibited both from Quebec and from Bowmanville are coal specimens of the true coal formation and the only argument against the inference: "That a new fact extending the amount of those available for the construction of the theory of science has been ascertained" is the inscription de faux, that is to say the assertion that a fraud has been committed. This as Professor Dawson properly remarks can only be disposed of "by such inspection as can be made by actually opening the deposits" there being no corroborative evidence obtained from surface indications.

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