

teresting historic sketch of mining enterprise in Eastern Canada.

"We meet to-day," said Mr. Smith, "on historic ground. This very spot, the site of this magnificent hotel, was for many generations the seat of Government of New France, and here was founded her colonial Empire. Immediately below the far-famed Terrace surrounding us on every side we can look down upon the narrow strip of land hemmed in between the river and the rock, and here it was that Champlain's builders erected the first European edifice in New France. The first Canadian sappers and miners a few years later began their work upon almost the identical spot whereon the miners of to-day are assembled to discuss the progress and the prospects of Canada's mineral development.

"Here was laid the foundation of that French sovereignty which, from the old Chateau St. Louis, was exercised over the enormous territory extending from the mouth of the Mississippi River to the Great Canadian Lakes, and thence along their shores and those of the St. Lawrence River and Gulf to where the waves of the Atlantic lap the eastern shore of the western world.

"Assembled, as we are, under the very shadow of the splendid monument erected to the memory of the first Canadian Governor and founder of Quebec, within the walls of a modern chateau, where we can still hear the ghostly echoes of that bold defiance that the haughty old Count Frontenac hurled at his country's foes, it would be strange, indeed, if our thoughts did not run back at times to the very beginning of things in the history of this rapidly developing Canada of ours. We are even tempted by the well-known peculiarities of stratification in the rocks of the famous "Quebec Group" to seek to penetrate the veil which separates the earliest chroniclers of the country from prehistoric times and to hark back to the glacial period of our planet's existence. Even when the fiat went forth which first shed created light upon a world of chaos, the Laurentian hills, those rocks upon which Quebec is built, lifted aloft their hoary heads, white with the snow of a thousand years.

"Not many generations passed away after Champlain's founding of Quebec before successful efforts were made by the pioneers of New France to wrest from the vitals of the earth the hidden wealth underlying, so contemptuously referred to at a later date by some of the attaches of the French court.

"The distinguished French statesman, Colbert, who, like his royal master, Louis XV., was deeply interested in the progress and prosperity of New France, recognized not only the vast importance of retaining the fur trade of America in the hands of the French, but realized still more the desirability of the proper cultivation of the soil and the operation of mines. Less than threescore years after the founding of Quebec M. de la Tessiere, a French engineer, who had been instructed by Colbert to explore the north bank of the lower St. Lawrence, discovered in 1666 the iron deposits of Baie St. Paul. The Intendant Talon was instructed by the Minister to carry on similar explorations in other parts of the country. It was under his auspices that the mineral wealth of the St. Maurice country, in the district where the Radnors forges were subsequently erected, was first brought to light.

"The French engineer, M. de la Potardiere, who was sent to Canada to inspect and report on these mines, failed to justly estimate the value and importance of the deposits in question, and of which we find early mention in the diary of the Ursulines of Three Rivers, and so their development was for some time delayed. Frontenac, however, in 1672, refers to them as of considerable importance. In this view he was corroborated by DeDenonville in 1681.

"The first company to develop these mines was formed in 1733, though it was not until some time later that they were placed in really successful operation.

"The St. Maurice forges were, nevertheless, the first of their kind in America, and in 1739 they were described as an honor to Canada. The famous Swedish naturalist, Paul Kalm, who visited this country in 1749, spoke of them as quite as well equipped as those of his own country, and they found plenty of employment in smelting the ore and casting the product into stoves to heat the dwellings of the early Canadian settlers."

Mr. Smith went on to speak of the mighty strides made in mining development up to the present era, and said there was no doubt that the Dominion had entered upon a period of remarkable discoveries as well as of wonderful mining development. The Cobalt deposits and those of the Lake Chibogamoo District are among the latest to claim public attention. It was hardly necessary to speak of the present and continuing development of asbestos and chrome iron industries, as these would be described in detail in papers which will be read before the convention. The enormous development in transportation facilities in districts up to now inaccessible which will result from the construction of the Grand Trunk Pacific and other contemplated roads must necessarily lead to further commercially valuable dis-

coveries. There is also a constant and increasing demand for mining locations, and he thought he was well within the mark in saying that the revenue of the Mining Department of the Province of Quebec would show for the current year an increase over that of last year of more than 500 per cent. The energetic efforts of the present Minister of Mines for this Province, the Hon. John Prevost, to assist as much as possible in the development of the Province are well known.

Mr. Smith expressed regret at the absence through illness of the Secretary of the Institute and spoke in appreciation of the manner in which Dr. Porter had come to its assistance by taking up the arduous duties. He thanked the members of the Institute for their continued kindness to himself in again electing him by acclamation, and trusted nothing would occur to make them feel that their confidence had been misplaced. Mr. Smith received quite an ovation upon the conclusion of his remarks.

The council then remained in business until one o'clock.

#### Afternoon Session.

At the afternoon session of the Institute a number of papers were read and discussed. Before proceeding with the reading of papers, however, Mr. E. D. Ingall, Ottawa, was called upon for a review of the mineral situation in the Dominion since the last meeting, which that gentleman gave in an interesting manner. The grand total of mineral production during the past year amounted to over \$68,500,000, showing an increase of over \$8,500,000 for last year. There had been increases in every department, except in gold in the Yukon, which had decreased by about \$2,000,000. The Yukon was in a state of transition. Surface mining had almost been worked out, and a change in conditions would be necessary. The iron ore industry was in a promising state. The Cobalt silver production was also referred to. The coal fields of Canada also showed steady investigation, and this is one of the important and constantly growing industries of the country.

Prof. W. G. Miller, speaking for Ontario, said the output of that Province during the past year had been the largest ever reported, amounting in refined state to \$23,000,000.

Mr. J. B. Tyrell said that little could be added in regard to the Yukon as a gold mining camp. It had its extreme boom days. The gravel of that country was extremely rich, he having heard of as much as \$625 being panned out from one shovel. While much of the surface gravel has been worked out, there is still much gold in the country. Conditions will have to change. The transportation problem was serious. The supply of water was also a problem. While the output fell off it was in part due to the scarcity of water almost as much as to working out of the surface mining. Systematic development has not yet been undertaken. That country will yet produce a vast amount of gold, but most of it may have to lie fallow for some years until conditions change and cost of living and transportation become cheaper.

Mr. E. Coste, Toronto, spoke of needed ameliorations in the iron ore industry. There were enormous iron ore ranges in Canada, and a united effort should be made in the development of our own industry. The Institute might consider the question of bounties on Canadian ores.

Mr. J. Obalski reported for Quebec. There had been a great increase in mineral production in this Province last year. Asbestos had been the main increase, amounting to about \$2,000,000. Mica production amounted to \$1,000,000, the total being \$4,000,000. The cement industry was also being developed satisfactorily.

The chairman, in commenting on the reports made, said he thought that the Dominion should be congratulated on the very encouraging condition of affairs.

Papers were then read by Mr. Hiram M. Hixon on "The ore deposits and geology of the Sudbury district." A deliverance of a highly polemical character, in which the theory of the igneous magmatic origin of the Sudbury ores championed by the Canadian Geological Survey was unsparingly denounced, as being worthy to rank with the witch-hazel and the divining rod. His own view was, that the ores were