

cognized there as in Rossland and the other parts where it had been taken up with enthusiasm. The closing of a number of mines has to some extent interrupted progress, yet sufficient advancement has been made to ensure that when conditions are again normal and men employed in the mines in as large numbers as before the European war caused suspension of operations in some of the mining camps, classes will be resumed and more men be instructed in first aid work.

The Chief Inspector of Mines, Mr. Thomas Graham, of Victoria, is much gratified with the generally good results that have followed the formation of first aid classes at metalliferous mines. The work was undertaken by the Provincial Department of Mines on his strong recommendation, and it having been successful in large degree, there is little doubt that the Hon. the Minister of Mines will readily sanction its continuance next year, and extension to all operating metal mines in British Columbia wherever it shall be found practicable.

THE CAVING SYSTEM IN THE LAKE SUPERIOR DISTRICT

J. Parke Channing, the well known consulting mining engineer, in his paper prepared for the present meeting of the Lake Superior Mining Institute, discusses the introduction of the caving system on the Marquette range, and where the credit for the innovation should go. It follows:

"The recent statement by me that the late Mr. Joseph Sellwood was responsible for the introduction of the caving system of mining in the Lake Superior mines, has called forth criticism as to the accuracy of my statement, and it is claimed that this method was first used at the Cleveland Hematite mine, which was a soft ore property lying about half way between Ishpeming and Negaunee.

"In 1886, when I went to the Gogebic Range for the first time, the Brotherton mine, near the village of Wakefield, was being operated by Mr. Joseph Sellwood. He had for the superintendent the late Mr. John Pengilly, who had as his two foremen Mr. John Harris and Mr. Thomas R. Hocking. The mine was wrought on the sub-level system of caving, which I fully described with illustrations in an article entitled Lake Superior Iron Ore, published in volume III. of the Mining Industry, being for the year 1894. Later on when Mr. Sellwood took charge of the Chandler mine on the Vermilion range he transferred Mr. Pengilly to that property, and this mine was wrought on a similar system.

"In 1890 I left the Gogebic Range and went to Ishpeming, Michigan, to take charge of the East New York mine, and took with me for mine foreman Mr. Hocking, who had, up to that time, continued as one of the foremen at the Brotherton mine. We changed the method of mining at the East New York from square sets to caving, and at the same time Mr. Thomas F. Cole, who was in charge of the Queen group of mines at Negaunee, introduced this system at his mines with great success and economy. After coming to reside in Ishpeming I visited all the mines in the district, among them the Cleveland Hematite, and I am quite sure that the caving system was not in use at that time.

"I have been told that Mr. George R. Wallace, afterward manager of the Fayal mine on the Mesaba range, introduced the caving system at the Cleveland Hematite at the suggestion of two north of England miners, who had been accustomed to its use at home. If this is so, evidently the experiment was not considered a success,

or else at the time of my residence in Ishpeming it would have been in use at the Cleveland Hematite.

"It is a well known psychological fact that similar problems are often solved in an identical manner by men who have had no communication with each other. It is said that Wallace was at work on the Origin of Species at the same time as Darwin, and it is interesting to note that Mr. Guy R. Johnson introduced a sub-drift of mining at Longdale, Va., at the Longdale mine, which was almost identical to that of the Brotherton. This method he described in a paper on page 96, volume xx. of the Transactions of the American Institute of Mining Engineers for the year 1891, under the title of 'Methods of Working and Surveying the Mines of the Longdale Iron Company, Virginia.' Mr. Johnson, himself, told me many years ago that he had never heard of the Brotherton use of this system, and, if my memory serves me right, he also said that he had not known of it as the North of England system of mining, but that he and his staff worked it out as the best solution of the problem presented them.

"Time is passing and a new generation of mining men are coming in. The Lake Superior Mining Institute is becoming a record of the history of Lake Superior, and I, as one of its charter members, would welcome any information on this interesting question. Most new inventions and discoveries are 95 per cent. past experience of others and 5 per cent. novelty. He who adds but a little to the world's efficiency deserves credit, and I would be the last one to hold it from him."

MCGILL GRADUATES AND THE WAR SITUATION

The following letter has been sent to every McGill graduate:

At a time like the present, when the destiny of the Empire is at stake, McGill University and its graduates should come forward and do everything in their power to help the common cause. The individual graduate probably does not fully realize the influence the graduates as a whole have in Canadian affairs. Over 5,000 educated men, holding important positions all over the Dominion and elsewhere, are a tremendous power and influence, particularly if their efforts are concentrated on certain fixed objects.

It was felt by the Executive of the Graduates' Society and by the committee in charge of the reunion, which it had been proposed to hold in the fall of 1915, that in the present crisis in the Empire, something should be done; and it was decided to write a letter to every graduate asking him to use all his influence towards patriotic ends.

In order to make our influence felt in a definite way, it was thought that a fund should be started to which every graduate of the University would contribute. The contribution of each individual would be for the nominal amount of one dollar, which would represent his patriotic vote and the signification of his intention to do everything possible to assist Canada in the responsibility and duty created by the war.

The vote of the McGill graduates will be deposited in cash form to the credit of the Canadian National Patriotic Fund.

You are therefore invited to fill in and return the accompanying check form, which will be cashed at par, or to enclose one dollar in some other form.