purchase, carefully and judiciously made, may be safely calculated upon as likely to yield, under proper and economical management, profits that will compare very favorably with some of the best known gold districts. It is not improbable that even a few very rich claims will be found, but the legitimate claims of the region are based upon the free-milling character of the ore, the large quantities of ore in sight, the true fissure veins, the economy with which the ore can be worked, owing to the abundance of fuel, the splendid shipping facilities afforded by the navigable streams and lakes, and the abundance of good water-power.

One great drawback, however, to the mining development of Western Ontario is the fact that so many of Ontario's investors are land speculators, rather than mining developers. They are willing to lease or purchase large tracts of mining land at $1 or $2 per acre, with the hope of selling it at a fabulous price, without spending one single dollar in development work, and thus the barter and sale of mining lands go on. Many of the small investors in the poorer claims will never reap a dollar in return, and there are hundreds of worthless claims in this district. I fear that in the course of only a few years, at the mouth of the shaft of many of these partly developed claims could be erected a slab, and on it the inscription written, "Died for want of sufficient capital to develop."

This new district is a province within itself with a future, possessed as it is of great natural advantages as a mining country, and peopled with an industrious race, her progress cannot be checked, as her resources are becoming better known, her towns and villages are becoming more populous, while sturdy farmers from the East are filling her agricultural areas, and on every hand can be seen abundant evidence of prosperity and advancement.

THE VALEDICTORIAN AT McGILL.

G. R. McLEOD.

G. R. McLeod, the valedictorian, said among other good things that they should be pleased that in their day a common interest actuated all the faculties, and made the success of class day and such like university undertakings a great success. One and all were coming to understand the unity of learning, a principle so ably upheld by the Principal and professors. Mr. McLeod then turned to his own faculty, that of Applied Science. During the four years the number of professors had been doubled, and the laboratories enlarged and filled with costly instruments. This was due to McGill's great benefactor, who will ever live in the memories of the Science men. With reference to the appointment of professors, Mr. McLeod continued, while not disregarding for a moment the ability of professors from other lands, yet he thought McGill graduates should be given a chance. Already those who had been appointed had filled their positions with distinction and success, and there ought to be more of them. At a time such as this there was a feeling of regret at saying farewell to University life. While a student was enriching his mind at the shrine of knowledge, he was not lessening the store, but adding to it. In this it differs from other pursuits, and in this lies its great chance. Mr. McLeod closed with a few well chosen words of farewell to the Dean and professors, speaking also of the regrets felt by all the class in breaking, for the time, at least, friendship which had sprung up during the year, and which had been of so much help in the student life.

METAL IMPORTS FROM GREAT BRITAIN.

The following are the sterling values of the metal imports from Great Britain to Canada for March, 1896 and 1897, and the three months ending March, 1896 and 1897:

	Month of March,		Three months ending March,	
	1896.	1897.	1896.	1897.
Hardware and cutlery	£6,228	£4,955	£16,322	£12,018
Iron, etc.—				
Pig iron.....	748	20	3,781	455
Bar, etc.....	645	830	3,067	3,031
Railroad	1,111	3,295	1,963	3,847
Hoops, sheets, etc.....	877	2,700	3,249	6,311
Galvanized sheets	1,312	2,615	5,333	5,841
Tin plates	8,165	23,141	31,134	61,542
Cast, wrought, etc., iron ..	3,642	2,252	9,566	7,004
Old (for re-manufacture) ..	....	96	. ..	572
Steel	5,469	5,302	17,554	10,235
Lead	702	791	2,870	2,070
Tin, unwrought	1,584	947	3,671	5,444

NEW ACETYLENE GAS LAMP.

A representative of THE CANADIAN ENGINEER has had an opportunity of inspecting a portable acetylene gas lamp, manufactured by the R. Mitchell Co., of Montreal, and invented by Dr. Casgrain, Quebec. It is now generally known that acetylene gas is produced by bringing calcium carbide in contact with water, and that this gas yields a light far more brilliant than that from coal gas and so pure that it is now used for photographic purposes. The upper part of the lamp contains a receptacle for water which is filled in the same way as an ordinary oil lamp. This is inserted into the cylinder containing the carbide, and the whole apparatus into a metal case, which may be plain or highly artistic, according to purse and taste. The water is allowed to run slowly from its receptacle on to the carbide, and the gas, which is instantly generated, begins to rise through an ordinary gas nipple. The quantity of gas generated is regulated by the stream of water and the water by a cock exactly as in a gas burner. The lamp is constructed on a plan which renders anything like explosion impossible, and produces an unmistakable warning when the gas is generated too fast. Water is easily enough obtainable and the carbide can be obtained at the rate of $80 per ton. One pound of the carbide is enough to produce an exceedingly brilliant light for 6 or 8 hours, at a cost of 1 cent per hour.

MINERAL PRODUCTION OF BRITISH COLUMBIA.*

AMOUNT AND VALUE OF MATERIALS PRODUCED 1895 AND 1896.

Customary Measures.	1895 Quantity.	1895 Value.	1896 Quantity.	1896 Value.
Gold, Placer....Oz.	24,084	$481,683	27,201	$544,026
" Quartz ...Oz.	39,264	785,271	62,259	1,244,180
Silver.....Oz.	1,496,522	977,229	3,135,343	2,100,689
Copper .....Lbs.	952,840	47,642	3,818,556	190,926
Lead ... .Lbs.	16,475,464	532,255	24,199,977	721,384
Coal .....Tons	939,654	2,818,962	846,235	2,327,145
Coke .....Tons	452	2,260	615	3,075
Other materials.....	.....	10,000	.....	15,000
		$5,655,302		$7,146,425

CANADIAN SOCIETY OF CIVIL ENGINEERS.

At the meeting held on the 8th ult., Henry Irwin read a paper on the "Fraser Valley Reclamation," by R. E Palmer, A.M., Can. Soc. C.E., the discussion upon which was postponed to next meeting. At the meeting held on the 22nd, under the presidency of P. A. Peterson, some members wished to discuss the paper read at the previous meeting on the "Fraser Valley Reclamation," but it was thought advisable to defer this until word could be received from the author. The discussion on Mr. Atkinson's paper on "A New Method for Dressing Car Wheels, Axles," etc., was then opened. A letter on the subject from Herbert Wallis was read by Secretary McLeod. He had tested wheels, both old and new, by the process referred to, and the experiments did not seem to warrant a change of methods. He expressed himself as quite in accord with the opinions of the author. Prof. Nicholson said he had seen a similar device at the Dominion Bridge Company's works, and wished to ask Mr. Atkinson how does the co-efficient of friction vary with speed? The co-efficient of friction diminishes so much at high speed that it pays to increase heat by electricity. What makes the grinding of chilled wheels harder than the chilling does? What is Mr. Atkinson's theory of what happens? Mr Atkinson, in reply both to the letter previously read and to Prof. Nicholson, said that Mr. Wallace had taken for his experiments what are considered as condemned wheels. No wheel remains perfect long after being put into use. The cost of hauling a train is largely increased by the imperfections of wheels Wheels could be dressed by the new process at a cost of 25 cents each. With regard to the question of abrasion, it is due to the friction of surfaces. The working disc will be more abraded at a lower speed than at a high one. He did not see how temperature could enter into the question. The particles from steel wheels are red hot. Not so with cast iron. The temperature in the latter case cannot be more than 70° to 80°, and that of steel-tired wheels is so little more that they can be handled, and, therefore, cannot be much higher than blood-heat. Heat is applied only to soften the surface of steel wheels and so reduce the horse-power required to turn them.

The President, P. A. Peterson, said that when the machine was first brought to Canada he took great interest in its working. It was at first badly put up, but its merits were even then evident.

* From the official report of the B.C. Minister of Mines.