establishment. The Polson Iron Works not only build the hull, but a so the main pump, triple expansion engines, propelling engines, auxillary engines, and water tube boilers, and in fact the complete dredge, set up and delivered under steam at its destination, ready for work.

The construction of this dredge marks a new era in the method of carrying on our public works in which dredging is required. The modern demands of increased capacity and economy have developed high powered dredges capable of doing from six to ten times the work of the old fashioned machines of a few years ago, and at a fraction of the cost.

Mr. Robinson has also designed a still larger dredge for the St. Lawrence Ship-channel. This dredge is also being built by the Polson Iron works, and will be one of the most powerful in the world. The hull is entirely of steel 160 feet long, 42 feet beam and 12 feet 6 inches deep.

It has a 36 inches floating discharge pipe 2,000 feet long, carried by cylindrical pontoons wholly of steel, which will weigh 400 tons.

Mr. Robinson has been commissioned to examine the seaport channels of Nova Scotia and New Brunswick, with a view to designing a large self-propelling dredge, which will be suitable to the conditions there existing.

Mr. Robinson has designed and built over one hundred dredges of all kinds, and his experience has enabled him to bring them to a high state of perfection. Mr. Robinson is now engaged as consulting engineer on a contract for deepening the Ship-channel of New York harbor, and has just completed a dredge for that work having a capacity of 40,000 cubic yards per day.

## MINING IN QUEBEC.

The mill of the North American Graphite Company, near Buckingham, will make an experimental run on a tonnage of graphite shipped from the mine of the Ontario Graphite Company, near Perth, Ontario. The agreement with the Cameron Syndicate having terminated the North American Graphite Company will resume work on its mines.

Mr. Obalski, Inspector of mines estimates the production of Asbestos in Quebec during the year ended 1st January, 1901 to have been:—

1st class crude 2nd class crude Fibre	3,490	**	worth\$210,250 " 182,640 " 326,526
Total Asbestos  " Asbestic			\$719,416 15,948

Commenting upon the industry he says :-

"During the past year, this industry assumed a development which equalled that of the best periods of its history and prices rose proportionately high. First class crude, which was selling last year at \$100 to \$100 reached \$180 to \$200; the second class \$80 to \$100; the fibre \$30 to \$40 and the other qualities in proportion. The demand also greatly increased and necessitated the taking on of a larger number of hands, night work in some cases, and an increase of the capacity of the mills, etc. In addition, mines that had been unworked for some years were re-opened. This prosperity applies to the districts of Thetford, Black Lake and Danville and the best illustration that can be given of it is supplied by the fact that the mining companies voluntarily raised their rate of wages 25 per cent.

The Capelton copper mines were regularly worked and yielded 33,742 long tous of low grade ore worth \$150,152 at the mine, about one half of which was shipped to the United States and the remainder utilized on the spot. The Eastis and Nichols mines were worked during the whole year, employing 270 men, 185 of them underground and the others on the surface, the wages paid footing up to about \$70,000. The Nichols Chemical Company has built a wing to its works for the manufacture of muriatic acid. It also prospected the old Sherbrooke mine, located on lot VII, 12 of Ascot, where ten men have been employed since July. A shaft, dipping 45° to the South East, has been sunk on a 6 feet vein running North East. About 175 tons of ore had been taken out at the time of my visit in October. A small 10 inch vein has also been noted to the South East of the first.

Important deposits of manganese are being opened on the Madelaine Coup of Islands, Gulf of St. Lawrence. The development of these deposits is being carried on by Mr. W. G. Tait, of Picton, N.S., who owns the mining rights.

Of the Mica industry Mr. Obalski says:-

The reports received from the companies working in this province give the following summary:

1"/3"	thumb	-trimme	d	338,200	lbs.	worth.		\$31,860
2"/3"	**	**		92,359	41	44		18,534
2" 4"	61	"		71,332	"	**		24,953
3"/5"	11	1.4		25,637	41	** .		15,706
4"/6"	"	44		11,762	41	" .		11,451
5"/8"	11	6.6		1,995	* 1	"		2,696
			-				-	
71'	otal .			E41 285				CIOR 200

Say 2701/2 tons.

To this figure must be added a certain quantity of mica prepared but not sold, still remaining in the hands of the producers and representing 64½ tons of thumb-trimmed mica of various dimensions but generally large-sized, worth \$33,400 at the average market prices of the year, making a grand total of 335 tons, worth \$138,600, besides about 150 tons of rough culled mica estimated to be worth \$25,000. The prices of thumb-trimmed mica sold by the barrel have varied very much from the beginning to the end of the year, having fluctuated between the following limits:—

	cts.	cts.
1"/3"	7 to	15
2" 3" · · · · · · · · · · · · · · · · · ·	18 to	35
2"/4"	30 to	40
3"/5"		60
Δ''/6''		
5"/8" and over from \$1.25 upwards.	70	

It will be observed that during the year the demand for small sized mica was greater than that for the large sized.

Mr. John J. Penhale, for many years Superintendent for the United Asbestos Company, at Black Lake, and who for the past year or two has been gold mining in Oregon, has returned to the Eastern townships. It is reported that the United Asbestos Company has leased its property to an American Syndicate, the Manhattan Asbestos Mining Company, and that Mr. Penhale will be the manager of the new company.

Important additions are being made to the mining and milling plant at the Union Mines, Black Lake, formerly worked by the Wertheims.

A new company to be known as the Standard Asbestos Company, is being organized to acquire and work the property formerly operated by the Anglo-Canadian Asbestos Company. The Canadian Asbestos Company operates the mines and plant of the Glasgow & Montreal Asbestos Company, under the management of Mr. J. F. Phair, formerly mine manager for the Asbestos and Asbestic Company, at Danville.

At the fourteenth annual meeting of the Asbestos Club held on 25th ultimo, the following officers were elected for the ensuing year: President, R. T. Hopper; first vice-president, R. Stather; second vice-president, R. D. Whitney; secretary-treasurer, D. Wilson; assistant-secretary, W. A. Clearihue.

Great activity in asbestos production goes on at Thetford Mines where the Bell's Asbestos Company, under the energetic management of Mr. George R. Smith, M.L.A., King Bros., under Mr. B. Bennet, and the Johnson's Company are all working on an extensive scale. Large as the value of the output was last year, 1901 promises to be the banner year in the production of Canadian Asbestos.

## LAKE OF THE WOODS.

Sultana Muc.—A recent run of ten days at the Sultana produced a brick of 180 oz. worth about 3,000. Connections have been made at the fourth level between the old workings and the new workings on the Crown Reef. Some very high grade ore was encountered during this development. Assays as high as \$160 per ton were obtained but it is expected that the ore will mill about \$10 on the plates. The mill is still working 3/2 time but will shortly be running night and day.

Mikado.—This mine is producing its regular quota of gold bricks monthly. The incline is now over 900 feet down. Work is proceeding satisfactorily on No. 2 vein and a large amount of payable ore is being blocked out. The manager N. McMillan has gone to England on business connected with the company.

Homestake.—A large body of ore has been encountered in the north crosscut. At this writing the ore body has been penetrated for ten feet. The ore is a well mineralized dark blueish quartz and looks promising. A hoist and pump have been ordered and will shortly be installed when sinking will be proceeded with.

Regina.—The new manager of the Regina Mine, Mr. Peterson, is expected next week. A large amount of capital has been secured and active development will be proceeded with at once. It is to be hoped that the new management will develop the water power at Whitefish Rapids which is distant only four miles from the mine. There could be developed a constant power of at least 500 horse at a very moderate expense by the erection of a dam 20 feet high at this point. This dam would at the same time be a boon to the properties on Whitefish and Sturgeon Lakes as it would drown out Dogpaw Rapids and afford uninterrupted steamboat communication from Whitefish to the upper end of Sturgeon Lake.