

Canadian phosphate, Dr. Selwyn, during his visit to the Colonial and Indian Exhibition, in his capacity as Director of the Geological Survey, made the following statement:—"I can see no limit to the depth of the phosphat deposits of Canada. Of course there is a limit to the depth at which profitable working can be carried out, but practically there is no limit to the supply; it extends over an enormous area horizontally, as well as to great depth, and it must take centuries to exhaust it."

Practically then, the demand for the product of Canadian phosphate mines is unlimited, and the mines of the Perth and Kingston districts, and of Ottawa county, are inexhaustible. The annual production is rapidly increasing, and phosphate mining gives bright promise of becoming one of the most important industries of the Dominion.

**Phosphate Quotations.**

Prices for mineral phosphate have not varied much since our last report, except when the price of *Canadian* dropped to 11d. for 80, with one-fifth of a penny rise. It has since rallied, and now stands at 11½d for 80, with a more hopeful outlook for a revival of the market later in the season. No marked improvement is anticipated this year, but a firmer feeling is apparent and better prices are expected all round next year, especially for the higher grades, which are becoming scarce. In the English and Continental markets Canadian phosphate has gained much favor of late, and will always be in demand.

**Phosphate Shipments from Montreal to August 26th, 1886.**

Date.	Vessel.	Destinat'n.	Shippers or Agents.	Tons
May 12	S.S. Kehlweider	Hamburg	W. M. Knowles	152
25	S.S. Oxenholme	Liverpool	Wilson & Green	287
27	S.S. Oxenholme	..	Lomer, Rohr & Co	290
June 4	S.S. Ashton	Sharpness	Wilson & Green	293
11	S.S. Blaine	London	Wilson & Green	259
10	S.S. Dictator	..	Wilson & Green	139
11	S.S. Lake Lemna	..	Lomer, Rohr & Co	311
12	S.S. Ferbin	Liverpool	Lomer, Rohr & Co	100
13	S.S. Mat. Bed.	..	..	..
14	S.S. ..	London	Lomer, Rohr & Co	159
20	S.S. Moss Rose	..	Lomer, Rohr & Co	28
21	S.S. Carmona	..	Lomer, Rohr & Co	491
21	S.S. Benbrack	Liverpool	Wilson & Green	416
July 1	S.S. Cairo	London	Lomer, Rohr & Co	57
1	S.S. Oxenholme	Liverpool	Lomer, Rohr & Co	76
13	S.S. M. E. Seal	..	Wilson & Green	523
17	S.S. M. Mitchell	..	Wilson & Green	180
18	S.S. Benzon	..	Lomer, Rohr & Co	290
21	S.S. El King	London	Lomer, Rohr & Co	339
21	S.S. Dracona	Avonm'th	Wilson & Green	422
21	S.S. Acton	London	Lomer, Rohr & Co	535
Aug. 1	S.S. River Indus	Liverpool	Wilson & Green	297
1	S.S. River Indus	..	W. M. Knowles	189
10	S.S. Juliet	London	Wilson & Green	179
10	S.S. Kehlweider	Hamburg	Wilson & Green	290
11	S.S. Benmere	Barrow	Lomer, Rohr & Co	225
11	S.S. Benmore	Liverpool	W. M. Knowles	276
13	S.S. Carmona	London	Lomer, Rohr & Co	150
14	S.S. Crete	..	Lomer, Rohr & Co	322
19	S.S. Primus	Liverpool	Lomer, Rohr & Co	310
20	S.S. Ferguson	London	Lomer, Rohr & Co	352
20	S.S. Canonbury	..	Wilson & Green	229
20	S.S. Canonbury	..	Lomer, Rohr & Co	279
21	S.S. Oxenholme	Liverpool	Lomer, Rohr & Co	631
22	S.S. Westey	London	Lomer, Rohr & Co	440
25	S.S. Benbrack	Liverpool	Lomer, Rohr & Co	435
				11256

Total.....11256 tons crude, 1562 bags ground.

A new gold field in the northern part of Western Australia has been discovered, which is estimated to extend over an area of nearly 4,000 square miles. Already there is a rush of diggers toward the place.

**PHOSPHATE MILLING.**

Amongst recent additions to the mining industries of the Ottawa district may be mentioned those of the Du Lièvre Phosphate Mining and Milling Company. This company bids fair to do an extensive business, as its undertaking is a most timely one, and of such a nature as is likely to prove of practical economy to the producer as well as to the consumer.

Not long since a correspondent of the Review had the privilege of going through the new mills and witnessing the "Blake" crusher and other machinery in operation, for which, and for the explanations given, we are under obligation to Mr. Geo. H. Bacon, the Managing-Director of the company.

After the phosphate has been broken into fragments of the size of a walnut, it is made to pass through a long inclined cylinder, heated to a high degree in order to rid the mineral of moisture, which feeds it into a crusher to be pulverized. It is then brought in small tin buckets on a belt, as is the case with flour in an ordinary grist mill, and gathered in bags for shipment. There are several grades of ground or pulverized phosphate, depending upon the pulverizer or crusher used. In one instance the ore when dried is made to fall into a revolving chamber, where, through friction and rapidity of motion, it becomes reduced to a minute or impalpable powder. This is the best and highest grade. Its fineness is exceedingly great, and it may be used as a fertilizer in its raw state to great advantage.

Many shipments of ground phosphate have already been made by the Du Lièvre Company, notably to St. Catharines, Ontario, to be used in grape culture, &c., and to the United States. It is not unlikely that agriculturists in the northern and western United States and the Province of Ontario will become large consumers of our ground phosphate in the near future, and a large demand may be looked for in Great Britain and Europe.

A number of buildings have been erected on the west side of the Rivière du Lièvre, in proximity to the crossing of the Canadian Pacific Railway, consisting of the cylinder and boiler-room, the mill proper and a store-room, all of which are admirably fitted up for the purposes for which they are required.

Under proper management this will no doubt prove a successful and profitable enterprise, and we hope its promoters will receive a large share of patronage from the agriculturists of the Dominion.

The annual production of gold in the world has been on the decrease for a number of years. California's production reached its height in 1853, and that of Australia in 1856.

**NATIVE COPPER IN IRON PYRITES.**—A curious mineral association is reported as occurring in the *Champion* copper mines in New Zealand. The copper ore occurs in the fissures of the alumina-magnesia silicate, known there as serpentine, and native copper is found filling all the fissures in the white iron pyrites, making it almost impossible to break such pieces with a hammer. These pyrites themselves contain only from 3 to 4 or 5 per cent. of copper. There are also good copper pyrites in the vein; but the native copper is rarely found in them, but is confined almost exclusively to the poor white pyrites.

**MICA MINING IN CANADA**

A GROWING INDUSTRY.

**The British and Canadian Mica and Mining Company**

OWNERS OF

**THE BEST MINE IN AMERICA.**

This industry has been engaged in in a desultory fashion more or less during the past ten years, and until within a recent date has been confined to deposits in Central Ontario. Throughout the Perth and Kingston districts, especially in the Townships of North Burgess and Loughborough, deposits of amber mica of various shades occur, and from these there has been a limited annual production, which, for the most part, has been used to replace the better quality in stoves which have been for some time in use, or, in other words, for the purpose of repair. One deposit, however, in North Burgess, known as Pike Lake Mine, has yielded a very large quantity of excellent mica with so pale a tinge as to appear almost white when split to the required thickness for stove use. An almost unlimited supply can be obtained from

**THE PIKE LAKE MINE,**

and the product is far superior to any which has been extracted from the other deposits in the districts referred to. A fairly profitable trade was carried on by the owners of these mines until within the past two years, when the price of the higher grades of mica (*Muscovite*) were reduced on account of the discovery of extensive deposits in the United States and in other localities in Canada. Of these recent discoveries none have been recorded to compare with the deposit in the Township of Villeneuve, Ottawa County, which is now being worked by

**THE BRITISH AND CANADIAN MICA AND MINING COMPANY.**

This company own and operate what is known as the *Villeneuve Mine*, situated five miles east of the Rivière du Lièvre, and about twenty miles north of the village of Buckingham. The mine was acquired by its present owners in March last, previous to which it had been exploited only to a limited extent, but sufficiently to prove the existence of a vast body of feldspar and quartz intersected by micaceous veins carrying well formed crystals of mica in great quantity, capable of producing plates of various sizes from the ordinary dimensions required for stove purposes up to 10 x 12 inches.

**THE QUALITY OF VILLENEUVE MICA**

is not excelled in any part of the world; and this has been attested to by experts who saw the samples exhibited at the Antwerp Exhibition last year, and by those who have seen the samples now on exhibition in London at the C. & I. E.

In April last the British and Canadian Mica and Mining Company began active operations, and proceeded at once to develop their mine in order that they might be prepared to supply consumers with their requirements for the present season. No difficulty was experienced in convincing dealers, and others, of the superior quality of the mica, and as soon as they were satisfied of the capabilities of the mine, as regards quantity, the demand became so brisk as to tax the company's facilities for producing it to their utmost extent.