

GEOLOGICAL AND NATURAL HISTORY SURVEY OF CANADA.  
ALFRED R. C. SELWYN, C.M.G., LL.D., F.R.S., DIRECTOR.

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REPORT

ON THE

MINING & MINERAL STATISTICS

OF CANADA

FOR THE YEAR 1888;

BY

H. P. BRUMELL.



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OTTAWA, 7th June, 1889.

TO ALFRED R. C. SELWYN, C.M.G., LL.D., F.R.S.

*Director of the Geological and Natural History Survey of Canada.*

SIR,—I beg to submit herewith a statistical report on the mineral production of Canada in 1888.

I wish to acknowledge the kindness of the Inspector of Mines for Nova Scotia and the Minister of Mines of British Columbia in supplying me with necessary information in regard to the mineral production of these two provinces.

Thanks are also due to the producers throughout the Dominion who so kindly forwarded the necessary information as to their production etc.

I am, Sir,

Your obedient servant,

H. P. BRUMELL.

NOTE.—The year used throughout this report is the calendar year,  
and the ton that of 2,000 pounds, unless otherwise stated.  
The fiscal year begins the 1st of July.

SUMMARY OF THE MINERAL PRODUCTION OF CANADA  
IN 1888.

PRODUCT.	QUANTITY.	VALUE.	COMPARED WITH 1887 (a).
Antimony ore . . . . . tons.	345	\$ 3,696	Decrease.
Arsenic . . . . . "	30	1,200	
Asbestos . . . . . "	4,404	255,007	Increase.
Baryta . . . . . "	1,100	3,850	do
*Bricks . . . . . thousands.	-165,818	1,036,746	do
*Building stone . . . . . cub. yds.	411,570	641,712	do
Cement . . . . . bbls.	50,668	35,593	Decrease.
Charcoal . . . . . bush.	1,500,000	87,000	do
Coal . . . . . tons.	2,658,134	5,259,832	Increase.
Coke . . . . . "	45,373	134,181	Decrease.
Copper (fine, cont'd. in ore). lbs.	5,562,864	687,543	Increase.
Fertilizers . . . . . tons.	548	21,600	Decrease.
*Flagstones . . . . . feet.	64,800	6,580	do
*Glass and Glassware . . . . .		375,000	
Gold . . . . . ozs.	61,310	1,098,610	Decrease.
Granite . . . . . tons.	21,352	147,305	Increase.
Graphite . . . . . "	150	1,200	Decrease.
Grindstones . . . . . "	5,764	51,129	do
Gypsum . . . . . "	175,887	179,393	Increase.
*Iron . . . . . "	44,949	1,592,931	do
Iron ore . . . . . "	78,587	152,068	do
Lead (fine, contained in ore) lbs.	674,500	27,472	do
*Lime . . . . . bush.	2,216,764	339,951	Decrease.
Limestone for iron flux . . . . . tons.	16,857	16,533	do
Manganese ore . . . . . "	1,801	47,944	Increase.
Marble and Serpentine . . . . . "	191	3,100	Decrease.
Mica . . . . . "	29,025	30,207	Increase.
Mineral Paints . . . . . "	397	7,900	do
*Mineral Water . . . . . galls.	124,850	11,456	
*Moulding sand . . . . . tons.	169	845	Increase.
Petroleum . . . . . bbls.	733,564	755,571	do
Phosphate . . . . . tons.	22,485	242,285	Decrease.
Pig Iron . . . . . "	21,799	313,235	do
Platinum . . . . . ozs.	1,500	6,000	do
*Pottery ware . . . . .		27,750	
Pyrites . . . . . tons.	63,479	285,656	Increase.
Salt . . . . . "	59,070	185,460	do
Sand and Gravel (exports) . . . . . "	260,929	38,398	do
Sewer pipes and tiles . . . . .		266,320	
Silver . . . . .		395,377	Increase.
Slate . . . . . tons.	5,314	90,689	do
Soapstone . . . . . "	140	280	Decrease.
Steel . . . . . "	9,553	472,611	Increase.
Sulphuric acid . . . . . lbs.	8,727,220	121,515	do
*Terra cotta . . . . .		49,800	
*Tiles . . . . . thousands.	7,518	114,057	Decrease.
Whiting . . . . . tons.	30	240	do
Estimated value of mineral products not returned (principally iron and building materials) . . . . .		897,172	
Total . . . . .		\$16,500,000	Increase.

\* Incomplete.

(a) Comparison of values only.

EXPORTS OF MINERALS AND MINERAL PRODUCTS, MINED OR MANUFACTURED IN CANADA,  
DURING 1888.

PRODUCT.	VALUE.	PRODUCT.	VALUE.
Antimony.....	\$ 6,894	Mica.....	\$ 23,563
Asbestos.....	277,742	Oil, mineral, coal and kerosene.....	74,542
Coal.....	1,974,731	Phosphate.....	298,609
Copper.....	257,287	Plumbago (graphite)....	1,080
Glass and Glassware.....	1,739	Salt.....	3,987
Gold.....	628,158	Sand and gravel.....	38,398
Grindstones.....	28,176	Silver.....	219,008
Gypsum (crude).....	121,389	Slate.....	475
Iron and steel, about.....	350,000	Stone and marble, un- wrought.....	56,005
Iron ore.....	55,177	Stone and marble, wrought	22,114
Lead ore.....	18	Other articles.....	167,630
Lime and cement.....	110,256		
Manganese ore.....	21,832		
		Total.....	\$4,738,810

## EXPORTS OF PRODUCTS OF THE MINE DURING THE FISCAL YEAR 1888.

EXPORTED TO	VALUE.	EXPORTED TO	VALUE.
United States.....	\$3,341,308	Sandwich Islands.....	\$ 7,839
Great Britain.....	478,260	France.....	2,970
Newfoundland.....	146,222	British Guiana.....	2,184
Germany.....	46,053	Spanish West Indies....	1,960
Japan.....	40,180	British do.....	1,897
St. Pierre.....	16,312	Belgium.....	1,432
China.....	12,950	Gibraltar.....	460
Mexico.....	10,570	Spain.....	340
		Total.....	\$4,110,937

## IMPORTS OF MINERALS AND MINERAL PRODUCTS DURING 1888.

PRODUCT.	VALUE.	PRODUCT.	VALUE.
Alum and Aluminous Cakes.....	\$ 22,596	Lead, and mfrs. of.....	\$ 260,364
Antimony.....	15,502	Lime.....	8,355
Arsenic.....	821	do, Chloride of.....	77,968
Asbestos and mfrs. of....	8,910	Litharge.....	31,432
Asphaltum.....	13,640	Lithographic stone.....	6,144
Baryta.....	1,183	Manganese oxide.....	2,424
Borax.....	17,968	Marble.....	105,042
Brass, and mfrs. of.....	528,273	Mercury.....	8,330
Bricks.....	24,194	Mineral waters.....	27,151
do, Bath.....	1,447	Ores of metals.....	7,785
do and Tiles, fire.....	90,311	Ornamental stones.....	58,965
Buhrstones.....	3,746	Paints.....	484,623
Building stone.....	103,792	Paraffine wax.....	5,296
Cement.....	18,068	Petroleum.....	481,770
do, Portland.....	160,883	Plaster of Paris.....	6,228
Chalk.....	5,936	Platinum.....	14,108
Clay, all sorts.....	74,751	Potash salts.....	12,343
Coal.....	8,975,792	Precious stones.....	205,834
Coke.....	103,600	Pumice.....	2,957
Copper, and mfrs. of.....	372,719	Salt.....	270,385
Copperas.....	2,272	Sand and Gravel.....	32,237
Earthenware.....	209,989	"Silex".....	1,549
Emery.....	14,099	Slate.....	38,505
Fertilizers.....	44,818	Soda salts.....	325,168
Flagstones.....	16,343	Spelter.....	40,880
Glass and Glassware.....	1,219,264	Sulphur.....	33,479
Graphite, and mfrs. of.....	39,687	Sulphuric acid.....	4,430
do Pencils.....	57,885	Tiles, sewer, etc.....	99,233
Grindstones.....	23,202	Tin, and mfrs. of.....	1,230,437
Gypsum.....	2,606	Whiting.....	20,847
Iron and Steel, all sorts, about.....	12,000,000	Yellow metal.....	83,783
		Zinc, and mfrs. of..	68,439
		Total.....	\$28,230,788

ABRASIVE MATERIALS.

GRINDSTONES.—The total production of grindstones during the year amounted to 5,764 tons, valued at \$51,129. This shows an increase in quantity over last year of 472 tons, and a decrease in value of \$12,879. The value given for last year is now thought to have been too high this will account for the apparent depreciation in value.

New Brunswick.

The returns received by this office show the production of New Brunswick to have been 3,793 tons, valued at the quarries at \$30,729. This is the output of seven quarries and shows an increase over the previous year of 211 tons while the value is \$8,259 less than that of the same year. The returned value given for the year 1887 was about \$12 per ton, whereas it is now thought \$9.50 is a fair average value.

Nova Scotia.

The returns, according to the report of the Inspector of Mines of this province, show a production in Nova Scotia of 1,971 tons valued at \$20,400. The production is of three quarries and shows, in the quantity quarried an increase of 261 tons, and a decrease in value of \$4,620.

Other abrasive materials.

There were no returns received for other abrasive materials and it is thought that none were produced, though small quantities of tripoli and hone-stones may have been mined and used locally.

The following tables show the exports and imports of grindstones and the imports of buhrstones, emery, pumice stone and "silex":—

EXPORTS OF GRINDSTONES.

Exports and imports.

PROVINCE	1887.	1888.
Ontario.....	\$ 500	\$ 252
Quebec .....	12	.....
Nova Scotia.....	10,425	11,430
New Brunswick.....	17,832	16,494
Totals.....	\$28,769	\$28,176



## IMPORTS OF GRINDSTONES.

PROVINCE.	1887.		1888.	
	Tons.	Value.	Tons.	Value.
Ontario.....	1,255	\$13,718	1,390	\$15,915
Quebec.....	442	4,576	505	6,094
Nova Scotia.....	....	35	....	199
New Brunswick.....	....	....	1	9
Manitoba.....	30	466	56	786
British Columbia.....	9	479	6	199
Totals.....	1,736	\$19,274	1,958	\$23,202

## IMPORTS OF BUHSTONES.

PROVINCE.	1886.	1887.	1888.
Ontario.....	\$1,203	\$1,184	\$ 239
Quebec.....	696	2,325	3,507
British Columbia.....	....	26	....
Totals.....	\$1,899	\$3,535	\$3,746

## IMPORTS OF EMERY AND PUMICE STONE.

PROVINCE.	1887.	1888.	
	Emery and Pumice Stone.	Emery.	Pumice Stone.
Ontario.....	\$10,781	\$10,337	\$1,629
Quebec.....	3,968	1,915	1,255
Nova Scotia.....	360	232	23
New Brunswick.....	1,413	1,603	26
Prince Edward Island.....	2	....	....
Manitoba.....	1	...	5
British Columbia.....	2	12	19
Totals.....	\$16,527	\$14,099	\$2,957

The imports of Emery and Pumice Stone were not kept separate by the Customs Department until this year.

Imports of "Silex or Crystallized Quartz" for 1888 are as follows:—

Ontario.....	5,699 cwts.	\$1,154
Quebec.....	263 "	237
Nova Scotia.....	2 "	11
New Brunswick.....	239 "	147
Totals.....	6,203 cwts.	\$1,549

## ANTIMONY.

The production this year is entirely that of Nova Scotia. The mines of New Brunswick were idle and prospecting was carried on in the province of Quebec to a small extent. Production..

The returns received through the Inspector of Mines for Nova Scotia show a production of 345 tons valued at \$3,696, all the production of the Rawdon mines. The shipments from these mines will, in all probability, be much larger next year as they have on hand a considerable quantity of good milling ore which will be treated on completion of their mill, plans for which have been prepared.

There is a decrease in production this year of 239 tons and \$7,164.

The exports this year amounted to 352½ tons valued at \$6,894 all from Nova Scotia. This value is probably too high. Exports and imports.

The following table shows the imports of Antimony for the last two years.

IMPORTS OF ANTIMONY.

PROVINCE.	1887.		1888.	
	Pounds.	Value.	Pounds.	Value.
Ontario.....	47,880	\$3,551	50,481	\$4,754
Quebec.....	23,343	2,746	96,690	10,127
Nova Scotia.....	112	8	552	162
New Brunswick.....	2,016	174	3,908	417
Manitoba.....	....	....	150	6
British Columbia.....	....	....	264	36
Totals.....	78,351	\$6,479	152,075	\$15,502

## ARSENIC.

## Production.

Refined arsenic (arsenious oxide) was produced at the Deloro mine, Ontario, in the same quantity as last year, namely, 30 tons valued at \$1,200 or \$40 per ton. The work of refining was carried on for only three months of the year.

Large quantities of arsenopyrite are to be had at this mine and it is confidently expected that there will be a much greater production during the coming year.

## Imports.

The imports of arsenic are as follows :—

## IMPORTS OF ARSENIC.

PROVINCE.	1887.		1888.	
	Pounds.	Value.	Pounds.	Value.
Ontario.....	13,136	\$456	3,944	\$125
Quebec.....	26,536	937	17,244	610
Nova Scotia.....	3,837	144	2,272	82
New Brunswick.....	100	4	....	....
Manitoba.....	....	....	35	4
Totals.....	43,609	\$1,541	23,495	\$821

## ASBESTUS.

Returns were received from all the producers in Quebec showing a Production, production during the year of 4,404½ tons of all grades valued at the mines at \$255,007. This shows a large increase over the previous year of 185 tons in quantity and \$34,031 in value.

Returns were received from eleven different mines of which only nine produced.

The above increase is in a great measure due to the Bell's Asbestos Co., which consolidated and operates the property formerly owned by the Boston Asbestos Packing Co., the Hayden property of Coleraine, and the Belmina property in Wolfe Co., Mr. Louis. Wertheim, of Frankfort-on-Main, Germany, has lately purchased and is working a property situate in Coleraine township, and the indications are that there will be a greater increase next year than that shown above. The price of first-class asbestos seems to be firm at an increase over previous years and the quality of the mineral shipped correspondingly higher.

There was no production in Ontario during the year.

The returns show a production by districts as follows :—

Summary.

Thetford Mines.....	3,067 tons.
Coleraine and Black Lake Mines.....	1,337½ "

summarized as follows :—

Black Lake and Coleraine	{	1st class, 337 tons.....	\$25,040
		2nd " 601 " .....	26,495
		3rd " 399 " .....	5,262
Thetford	{	1st " 1,786 " .....	157,040
		2nd " 519 " .....	29,740
		3rd " 762 " .....	11,430
Totals	{	1st " 2,123 " .....	182,080
		2nd " 1,120 " .....	56,235
		3rd " 1,161 " .....	16,692

The exports were as follows :—

1st class, 3,625 tons.....	\$262,552
2nd " 110 " .....	5,306
3rd " 201 " .....	9,884
Total.. 3,936	\$277,742

Exports and imports.

The greater part of the above exportation was to the United States, amounting to 3,612 tons, small quantities going to Great Britain, Germany, France, Belgium and Newfoundland.

The imports of manufactured asbestos were as follows :—

## IMPORTS OF MANUFACTURED ASBESTUS.

PROVINCE.	1887.	1888.
Ontario .....	\$3,485	\$3,557
Quebec .....	3,848	4,302
Nova Scotia.....	312	265
New Brunswick.....	576	591
Manitoba.....	32	46
British Columbia.....	236	149
Totals.....	\$8,489	\$8,910

## COAL.

The production of coal in 1888 amounted to 2,658,134 tons, valued Production. at the pit's mouth at \$5,259,832. This shows a net increase over the previous year of 239,640 tons and \$681,242.

There has been a very marked increase year by year for the last three years, according to returns received, the production being as follows :—

1886.....	2,091,976 tons.
1887.....	2,418,494* "
1888.....	2,658,134 "

The production by Provinces is as follows :—

## PRODUCTION OF COAL IN 1888 BY PROVINCES.

Summary.

PROVINCE.	Tons.	Value.	No. of men employed.	No. of Producers.
Nova Scotia.....	1,989,263	\$3,108,224	4,651	20
British Columbia.....	548,017	1,957,204	2,012	4
North-West Territory....	115,124	183,354	390	9
New Brunswick.....	5,730	11,050	38	7
Totals.....	2,658,134	\$5,259,832	7,091	40

The following tables give the details of the production and sales of Nova Scotia coal in Nova Scotia.

\* This quantity has been corrected since last year when it appeared incorrectly.

## PRODUCTION, SALES AND COLLIERY CONSUMPTION OF COAL IN NOVA SCOTIA DURING THE YEARS 1885, 1886, 1887 AND 1888.

TABLE A.

Period.	Production.	Sales.	Colliery Consumption
1888—First quarter. Tons.....	316,793	188,953	47,491
1888—Second " " .....	515,526	432,860	47,215
1888—Third " " .....	644,121	673,701	33,954
1888—Fourth " " .....	512,223	470,381	47,676
Totals.....	1,989,263	1,765,895	176,336
1887..... " .....	1,871,338	1,702,046	156,550
1886..... " .....	1,682,924	1,538,504	159,512
1885..... " .....	1,514,470	1,405,051	142,939

## DISTRIBUTION OF NOVA SCOTIA COAL SOLD DURING THE YEAR 1888.

TABLE B.

Market.	Tons.
Nova Scotia :—	
Transported by land.....	314,183
"    sea.....	256,910
Total.....	571,093
New Brunswick.....	240,386
Newfoundland.....	93,772
Prince Edward Island.....	63,111
Quebec.....	759,720
West Indies.....	3,484
United States.....	33,822
Other Countries.....	507
Total.....	1,765,895



## COAL TRADE OF NOVA SCOTIA BY COUNTIES DURING THE YEAR 1888.

TABLE C.

Year 1888.	Cumberland.		Pictou.		Cape Breton.		Total.	
	Raised.	Sold.	Raised.	Sold.	Raised.	Sold.	Raised.	Sold.
First quarter.	114,605	102,639	110,954	81,267	91,234	5,047	316,793	188,953
Second "	139,026	122,048	131,534	107,007	244,966	203,805	515,526	432,800
Third "	138,948	122,783	135,921	138,750	369,248	412,168	644,120	673,701
Fourth "	134,749	122,425	151,079	142,136	225,396	205,820	512,824	470,381
Totals..	527,328	469,895	531,091	469,160	930,844	826,840	1,989,263	1,765,895

## PRODUCTION OF COAL IN NOVA SCOTIA BY COLLIERIES DURING 1888.

TABLE D.

Colliery.	Tons.	Colliery.	Tons.
Chignecto .....	16,584	Caledonia.....	126,318
Joggins.....	54,261	Francklyn .....	9,230
Minudie .....	1,544	Glace Bay.....	89,431
Springhill.....	454,939	Gowrie.....	145,018
Acadia.....	325,620	International. ....	114,429
Black Diamond.....	26,884	Ontario.....	5,166
East River.....	879	Reserve .....	135,650
Intercolonial.....	177,708	Sydney .....	170,224
Blockhouse.....	7,625	Victoria.....	100,619
Bridgeport.....	27,134	Total .....	1,989,263

## YEARLY PRODUCTION OF COAL IN NOVA SCOTIA SINCE 1870.

TABLE E.

Year.	Tons.	Year.	Tons.
1870	700,861	1880	1,156,635
1871	754,031	1881	1,259,182
1872	984,664	1882	1,529,708
1873	1,117,643	1883	1,593,259
1874	977,446	1884	1,556,010
1875	874,905	1885	1,514,470
1876	794,803	1886	1,682,924
1877	848,395	1887	1,871,338
1878	863,081	1888	1,989,263
1879	882,863	Total.....	23,013,481

British  
Columbia.

The two following tables are taken from the Annual report of the Minister of Mines of British Columbia. Their titles will sufficiently explain them.

## COAL TRADE OF BRITISH COLUMBIA DURING THE YEAR 1888.

TABLE F.

Name of Colliery.	Coal raised.	Sold for home consumption.	Sold for exportation.	On hand Jan. 1st, 1888.	On hand Jan. 1st, 1889.	Number of men employed.
	Tons.	Tons.	Tons.	Tons.	Tons.	
Nanaimo....	289,875	44,49	241,082	1,443	5,736	945
Wellington..	222,199	78,446	139,607	303	4,145	695
E. Wellington	33,703	6,920	28,910	2,240	112	132
Union.....	2,240	....	....	....	2,240	240
Totals....	548,017	129,865	409,599	3,986	12,233	2,012

## YEARLY PRODUCTION OF COAL IN BRITISH COLUMBIA SINCE 1874.

TABLE G.

Year.	Tons.
1874.....	81,547
1875.....	110,145
1876.....	139,192
1877.....	154,052
1878.....	170,846
1879.....	241,301
1880.....	267,595
1881.....	228,357
1882.....	282,139
1883.....	213,299
1884.....	394,070
1885.....	365,596
1886.....	326,636
1887.....	413,360
1888.....	548,017

Returns were received from nine different producers in the North-West Territories, the net production amounting to 115,124 tons valued at \$183,354. This shows an increase of 41,372 tons over the previous year, and of nearly 70,000 tons over 1886. The production is chiefly that of the Anthracite and Lethbridge mines, small quantities only being mined at Calgary and Edmonton and in their vicinity.

In the Grand Lake district returns were received from seven producing mines and many others that report no production. New-Brunswick.

The amount mined was 5,730 tons having a value of \$11,050. There is a decrease here of 2,630 tons and \$9,197. This is due, in a large measure, to a company having bought up a great many of the partly developed lands with the intention of working them more extensively on the completion of a short line railway from Fredericton.

A line has been surveyed through the most productive part of the coal area. On the completion of any railway through this district there would undoubtedly be a great increase in the coal production. The coal is at present shipped by schooner to Fredericton and St. John, in which latter place it readily sells at an average price of \$4 per ton.

The exports of coal produced in Canada amounted to 588,627 tons, valued at \$1,974,731 as shown below. Exports.

## EXPORTS OF COAL, THE PRODUCE OF CANADA, FOR THE YEARS 1887 AND 1888.

TABLE 1.

Province.	1887.		1888.	
	Tons.	Value.	Tons.	Value.
Ontario .....	.....	.....	25	\$ 107
Quebec.....	14,737	\$ 37,772	17,506	38,281
Nova Scotia. ....	207,941	390,738	165,863	330,115
New Brunswick.....	1,341	4,025	3	15
Prince Edward Island....	274	636	105	214
Manitoba.....	15	60	54	349
British Columbia .....	356,657	1,262,552	405,071	1,605,650
Totals.....	580,965	\$1,695,783	588,627	\$1,974,731

The destinations were as follows :—

	Tons.
Great Britain.....	32,598
United States.....	451,660
Newfoundland.....	71,842
St. Pierre.....	8,571
France.....	1,402
Germany.....	518
Sweden and Norway.....	600
United States of Colombia.....	398
Spanish West Indies.....	2,753
British West Indies.....	1,205
Sandwich Islands.....	5,760
Japan.....	8,300
Mexico.....	3,020
<b>Total.....</b>	<b>588,627</b>

EXPORTS OF COAL, NOT THE PRODUCE OF THE DOMINION, DURING THE YEARS 1887 AND 1888.

TABLE 2.

Province.	1887.		1888.	
	Tons.	Value.	Tons.	Value.
Ontario .....	67,837	\$170,754	70,198	\$165,816
Quebec .....	15,188	23,413	9,864	20,179
Nova Scotia .....	3,803	9,297	4,024	11,180
New Brunswick .....	2,270	7,486	230	409
Totals .....	89,098	\$210,950	84,316	\$197,584

Destinations.	Tons.
Great Britain .....	9,987
United States .....	73,248
Newfoundland .....	213
France .....	440
British West Indies .....	428
Total .....	84,316

## EXPORTS OF COAL FROM NOVA SCOTIA AND BRITISH COLUMBIA FROM 1874 TO 1888 INCLUSIVE (THE PRODUCE OF CANADA.)

TABLE 3.

Year.	Nova Scotia.		British Columbia.	
	Tons.	Value.	Tons.	Value.
1874	252,124	\$647,539	51,001	\$ 278,180
1875	179,626	404,351	65,842	356,018
1876	126,520	263,543	116,910	627,754
1877	173,389	352,453	118,252	590,263
1878	154,114	293,795	165,734	698,870
1879	113,742	203,407	186,094	608,845
1880	199,552	344,148	219,878	775,008
1881	193,081	311,721	187,791	622,965
1882	216,954	390,121	179,552	628,437
1883	192,795	336,088	271,214	946,271
1884	222,709	430,330	245,478	901,440
1885	176,287	349,650	250,191	1,000,764
1886	240,459	441,693	274,466	960,649
1887	207,941	390,738	356,657	1,262,552
1888	165,863	330,115	405,071	1,605,650
Totals..	2,815,156	\$5,489,692	3,094,131	\$11,863,666

## IMPORTS OF ANTHRACITE DURING THE YEARS 1887 AND 1888.

Imports,

TABLE 4.

Province.	1887.		1888.	
	Tons.	Value.	Tons.	Value.
Ontario .....	1,042,077	\$4,456,827	900,776	\$3,746,081
Quebec .....	340,046	1,315,390	348,350	1,401,904
Nova Scotia.....	21,909	79,904	22,923	94,122
New Brunswick.....	33,333	126,449	51,074	195,287
Prince Edward Island....	2,673	9,950	2,518	9,904
Manitoba .....	2	26	523	3,447
British Columbia.....	112	1,737	....	3
Totals .....	1,440,152	\$5,990,283	1,326,164	\$5,450,748

## IMPORTS OF BITUMINOUS COAL DURING THE YEARS 1887 AND 1888.

TABLE 5.

Province.	1887.		1888.	
	Tons.	Value.	Tons.	Value.
Ontario .....	1,138,279	\$3,226,524	1,195,736	\$3,258,113
Quebec.....	73,324	147,890	82,667	175,127
Nova Scotia.....	1,131	7,135	1,423	10,001
New Brunswick.....	3,102	7,607	4,715	13,336
Manitoba .....	1,832	4,345	2,293	7,620
British Columbia.....	665	5,259	355	4,828
Totals.....	1,218,333	\$3,398,760	1,287,189	\$3,469,025

## IMPORTS OF COAL DUST, ALL KINDS, FOR THE YEAR 1888.

TABLE 6.

Province.	Tons.	Value.
Ontario .....	37,195	\$41,027
Quebec .....	10,649	14,170
Nova Scotia.....	82	375
New Brunswick.....	6	170
Manitoba.....	55	267
British Columbia.....	.....	10
Total.....	47,987	\$56,019

There was therefore an importation of Coal during the year as follows:—

Anthracite.....	1,326,164 tons.
Bituminous Coal.....	1,287,189 "
Coal Dust.....	47,987 "
Total Coal imported during year 1888...	<u>2,661,340</u> "
Total Value of above.....	<u>\$8,975,792</u>

Consumption.

The amount of coal of all kinds consumed in Canada last year was approximately 4,500,000 tons as is shown by the following figures:—

Total Imports.....	2,661,340 tons.
" Production.....	<u>2,658,134</u> "
	5,316,474 "
Less.—Exports, Produce....	588,627 tons
" not Produce.	<u>84,316</u> "
	672,943 "
	<u>4,643,531</u> "

Coke.

The production of oven coke during the year 1888, amounted to 45,373 tons valued at \$134,181. The production is altogether that of Nova Scotia, the greater part being manufactured by the Londonderry Iron Company, Limited, of Londonderry, N.S.

The following table gives the imports of coke for the last two years:—



## IMPORTS OF OVEN COKE DURING THE YEARS 1887 AND 1888.

Province.	1887.		1888.	
	Tons.	Value.	Tons.	Value.
Ontario.....	15,981	\$67,797	22,948	\$80,841
Quebec .....	3,696	13,849	5,171	16,068
New Brunswick.....	.....	.....	198	827
Manitoba. ....	43	260	198	816
British Columbia.....	85	429	155	939
Totals.....	19,805	\$82,335	28,670	\$99,491

Returns were not received from two of the most important of the Charcoal. Ontario producers and their production of last year has been taken as representing approximately that of 1888.

The amount of charcoal produced, for reduction purposes, during 1888, was about 1,500,000 bushels having an approximate value of \$87,000. About half of this production is that of the province of Quebec, being produced and used at the Drummondville and Radnor furnaces, the remainder made in Ontario is exported to the United States, principally to the iron works of Michigan.

Small quantities are annually made at the various gold and silver mines in Canada, where it is used for assay and test purposes.

## COPPER.

Production, The amount of copper ore produced and marketed in Canada during the year 1888 was 63,479 tons, having an approximate copper content of 5,562,864 lbs., which, calculated at the average price of twelve cents, gives a value of \$667,543. There is an increase over 1887 of 22,679 tons of ore and of copper content about 2,302,440 lbs., or about 70 per cent. The price is assumed to be higher this than last year, when the value was calculated at ten and a half cents per pound.

The production for 1888 is altogether from the mines of Capelton, sample shipments only being made from other districts where development is still going on. Through the addition of the smelter at Sudbury it may be expected that there will be a much greater production next year than there has been heretofore.

According to the report of the Inspector of Mines, Nova Scotia, there has been increased activity in the copper mining of that province. Prospecting and development was carried on in several districts. The Eastern Development Co. have done a considerable amount of underground exploration on their properties at Coxheath, near Sydney, Cape Breton; during the year 600 tons were raised, and the ore now in stock amounts to 1,500 tons. No shipments were made.

Exports and imports. The exports for 1888 were altogether from the Province of Quebec with the exception of a sample shipment from Nova Scotia of \$25, and one from New Brunswick of \$2. The amount from Quebec was according to Customs Department returns, \$257,260. The exports, however, show a very marked increase over the two preceding years as is shown below:—

Year.	Ontario.	Quebec.	Total.
1885 .....	.....	262,600	262,600
1886 .....	16,404	232,855	249,259
1887 .....	3,416	134,550	137,966
1888 .....	.....	257,260	257,260

Imports are as follows:—

IMPORTS OF COPPER, INCLUDING PIGS, BARS, RODS, INGOTS, SHEATHING, SHEETS, OLD AND SCRAP, ETC., FOR THE YEARS 1887 AND 1888.

TABLE 1.

Province.	1887.		1888.	
	Pounds.	Value.	Pounds.	Value.
Ontario.....	1,121,400	\$120,204	761,600	\$130,730
Quebec.....	794,600	67,855	944,800	88,438
Nova Scotia.....	37,500	3,054	45,200	6,276
New Brunswick.....	54,200	5,153	5,100	1,291
Prince Edward Island....	1,000	119	400	63
Manitoba.....	2,100	242	.....	.....
British Columbia.. ..	16,200	1,900	10,700	2,007
Totals.....	2,027,000	\$198,527	1,767,800	\$228,805

IMPORTS OF COPPER, INCLUDING ALL MANUFACTURES NOT INCLUDED IN ABOVE,  
FOR YEARS 1887 AND 1888.

TABLE 2.

Province.	1887.	1888.
Ontario.....	\$35,768	\$41,748
Quebec.....	56,700	79,763
Nova Scotia.....	11,231	4,710
New Brunswick.....	6,644	10,371
Prince Edward Island....	82	76
Manitoba.....	2,642	2,592
British Columbia.....	4,365	4,654
Totals.....	\$117,432	\$143,914

## GOLD.

Production. The total production of gold in 1888 was 61,310 ozs., valued at \$1,098,610, showing a slight decrease since last year. This decrease is, in a great measure, due to the Yukon district where the season was a very bad and wet one, the estimated production for the year being only \$40,000. The total production for Canada for the year was \$140,027, less than that of the year previous.

The production is divided by provinces as follows:—

Province.	Ozs.	Value.	Number of men employed.
British Columbia.....	36,278	\$616,731	2,007
Nova Scotia.....	22,407	436,939	528
Quebec.....	197	3,740	13
North-West Territory.... (including Yukon)	2,428	41,200	about 257
Totals.....	61,310	\$1,098,610	2,805

British  
Columbia.

The statistics for British Columbia, as shown in the following tables, are taken from the report of the Minister of Mines of that province:—

VALUE OF GOLD EXPORTED BY THE BANKS AT VICTORIA DURING THE YEAR 1888.

TABLE A.

Bank of British Columbia.....	\$286,923
“ “ British North America.....	57,186
Garesche, Green & Co.....	169,834
Total.....	<u>\$513,943</u>

PRODUCTION OF GOLD BY DISTRICTS AS ESTIMATED BY THE GOLD COMMISSIONERS OF  
BRITISH COLUMBIA DURING 1888.

TABLE B.

Districts.	Divisions.	Whites.	Chinese.	Yield of Gold by divisions.	Total yield by Districts.
Cariboo .....	Barkerville.....	88	173	\$75,294	\$232,927
	Lightning Creek.....	29	159	36,536	
	Quesnellemouth .....	....	97	56,547	
	Keithley Creek.....	34	228	64,550	
		151	657		
Cassiar.....	.....	23	85	43,325	43,325
Kootenay ....	Eastern.....	100	20	10,000	47,612
	Western.....	52	67	37,612	
		152	87		
Lillooet.....	.....	60	400	90,160	90,160
Yale.....	Osoyoos.....	103	54	9,000	105,000
	Similkameen.....	65	170	96,000	
		168	224		
	Total Whites.....	554	....		\$519,024
	“ Chinese.....	....	1453		
	Total employed....	2,007			

The following table, taken from the “Mineral Wealth of British Columbia” by Dr. G. M. Dawson, part R Annual Report of the Geological Survey for 1887, shows the amount of gold annually produced by British Columbia since the year 1858:—

## ANNUAL PRODUCTION OF GOLD IN BRITISH COLUMBIA SINCE 1858.

TABLE C.

Year.	Amount actually known to have been exported by banks, &c.	Amount added to represent gold carried away in private hands.	Total.	Number of miners employed.	Average yearly earnings per man.
1858 (partial return.)	\$543,000	.....	\$ 705,000*	3,000	\$ 235
1859	1,211,304	1-3rd \$403,768	1,615,072	4,000	403
1860	1,671,410	" 557,133	2,228,543	4,400	506
1861	1,999,589	" 666,529	2,666,118	4,200	634
1862	1,992,677	" 664,226	2,656,903	4,100	648
1863	2,935,172	" 978,391	3,913,563	4,400	889
1864	2,801,888	" 933,962	3,735,850	4,400	849
1865	2,618,404	" 872,801	3,491,205	4,294	813
1866	1,996,580	" 665,526	2,662,106	2,982	893
1867	1,860,651	" 620,217	2,480,868	3,044	814
1868	1,779,729	" 593,243	2,372,972	2,390	992
1869	1,331,234	" 443,744	1,774,978	2,369	749
1870	1,002,717	" 334,239	1,336,956	2,348	569
1871	1,349,580	" 449,860	1,799,440	2,450	734
1872	1,208,229	" 402,743	1,610,972	2,400	671
1873	979,312	" 326,437	1,305,749	2,300	567
1874	1,383,464	" 461,154	1,844,618	2,868	643
1875	1,856,178	" 618,726	2,474,904	2,024	1,222
1876	1,339,986	" 446,662	1,786,648	2,282	783
1877	1,206,136	" 402,045	1,608,182	1,960	820
1878	1,062,670	1-5th 212,534	1,275,204	1,883	677
1879	1,075,049	" 215,009	1,290,058	2,124	607
1880	844,856	" 168,971	1,013,827	1,955	518
1881	872,281	" 174,456	1,046,737	1,898	551
1882	795,071	" 159,014	954,085	1,738	548
1883	661,877	" 132,375	794,252	1,965	404
1884	613,304	" 122,861	736,165	1,858	396
1885	594,782	" 118,956	713,738	2,902	246
1886	753,043	" 150,608	903,651	3,147	287
1887	578,924	" 115,785	693,709	2,342	296
1888	513,943	" 102,788	616,731	2,007	307
Total known and estimated yield, 1858 to 1888, \$54,108,804.					

\* Waddington's estimate.

Nova Scotia.

The statistics of the production of gold in Nova Scotia are very kindly furnished by the Inspector of Mines of that province. In table D will be found a general statement of 1888 production etc. Tables E and F illustrate the total production by districts and the yearly production since 1862.

## GENERAL STATEMENT OF GOLD PRODUCTION IN NOVA SCOTIA FOR THE YEAR 1888.

TABLE D.

Districts.	Number of mines.	Days' labor.	Mills.		Steam power.		Water power.		Tons of quartz crushed.	Yield per ton.			Maximum yield per ton.			Total yield of gold.		
										oz.	dwt.	gr.	oz.	dwt.	grs.	ozs.	dwt.	grs.
Sherbrooke.....	4	8,980	3	2	1	2,858	0	3	18	0	4	22	535	8	18			
Salmon River.....	1	20,594	1	..	1	9,925	0	6	18	0	10	1	3,354	10	0			
Oldham.....	3	15,570	1	..	1	2,106	0	16	3	1	9	22	1,699	9	19			
Waverley.....	0	4,132	2	..	2	619	0	7	12	0	12	9	1,232	9	10			
Caribou.....	4	22,171	2	1	1	6,313	0	8	16	1	9	9	2,729	10	15			
Uniacke.....	2	8,661	4	4	..	612	1	0	16	4	14	13	632	7	1			
Rawdon.....	..	.....	1	1	..	2,760	0	6	22	0	15	16	952	15	20			
Lake Catcha....	1	14,713	3	3	..	1,611	1	8	2	2	17	21	2,284	17	3			
Whiteburn....	1	9,502	3	3	..	1,292	2	3	8	4	12	3	2,799	4	8			
15 Mile Stream...	1	8,141	1	1	..	2,151	0	8	19	0	10	12	946	8	0			
Stormont.....	1	12,935	1	1	..	1,904	1	3	8	1	13	14	2,222	6	0			
Tangier.....	0	5,966	2	2	..	539	0	9	18	0	16	5	263	1	0			
Renfrew.....	1	6,095	2	..	2	1,145	0	11	6	0	18	5	642	16	10			
Wine Harbor.....	1	5,543	1	1	..	324	0	14	18	1	5	22	239	2	0			
Unproclaimed, &c.	3	21,309	8	8	..	2,019	1	8	11	4	14	14	2,872	17	2			
Totals.....	23	163,772	35	27	8	36,178	0	15	21	4	14	14	22,407	3	10			

GOLD PRODUCTION OF THE DIFFERENT DISTRICTS IN NOVA SCOTIA FROM 1862 TO 1888  
INCLUSIVE.

TABLE E.

Districts.	Tons of quartz crushed.	Total Yields.				Average yield per ton of 2,000 lbs.
		ozs.	dwts.	grs.	Value at \$19.50 per oz.	
Caribou .....	29,960	20,335	10	19	\$396,542	\$13.23
Montague .....	13,828	28,417	0	10	554,133	40.07
Oldham .....	35,634	35,758	11	13	697,293	19.57
Renfrew .....	44,241	30,863	4	23	601,834	13.60
Sherbrooke .....	164,213	119,404	6	9	2,328,384	14.13
Stormont .....	18,259	20,878	12	17	407,132	22.30
Tangier .....	28,695	19,014	11	6	370,782	12.92
Uniacke .....	32,532	18,848	3	6	367,540	11.29
Waverley .....	89,572	53,391	7	14	1,041,131	11.62
Salmon River .....	20,527	6,612	10	0	128,944	6.28
Brookfield .....	1,691	1,418	1	15	27,652	16.31
Whiteburn .....	2,386	5,104	16	21	99,544	41.71
Lake Catcha .....	2,212	5,244	1	3	102,260	46.22
Rawdon .....	8,062	4,460	9	4	86,979	10.79
Wine Harbor .....	39,268	27,526	18	19	536,774	13.67
Darr's Hill .....	39,909	18,715	19	19	364,962	9.14
15 Mile Stream .....	4,068	1,904	19	23	37,148	9.18
Unproclaimed .....	46,190	38,135	7	17	743,641	16.10
<b>Totals .....</b>	<b>621,247</b>	<b>456,034</b>	<b>13</b>	<b>22</b>	<b>\$8,892,675</b>	<b>\$14.31</b>



## YEARLY PRODUCTION OF GOLD IN NOVA SCOTIA SINCE 1862.

TABLE F.

Year.	Tons of quartz crushed.	Total Yields.			Average yield per ton of 2,000 lbs.	
		Quantity.		Value at		
		Ozs.	Dwts.	grs.		\$19.50 per oz.
1862.....	6,473	7,275	8	0	\$141,871	\$21.91
1863.....	17,000	13,971	13	17	272,448	16.02
1864.....	21,431	20,017	18	13	390,349	18.11
1865.....	24,421	25,454	3	22	496,357	20.32
1866.....	32,157	25,204	13	2	491,491	15.28
1867.....	31,384	27,310	18	11	532,563	16.96
1868.....	32,259	20,541	6	10	400,555	12.41
1869.....	35,144	17,868	0	19	348,427	9.91
1870.....	30,824	19,866	5	5	387,392	12.56
1871.....	30,787	19,229	7	4	374,972	12.17
1872.....	17,089	13,094	17	6	255,349	14.81
1873.....	17,708	11,852	7	18	231,122	13.05
1874.....	13,844	9,140	13	10	178,244	12.87
1875.....	14,810	11,211	14	19	218,629	14.89
1876.....	15,490	11,978	13	18	233,585	15.08
1877.....	17,369	16,882	6	1	329,205	19.01
1878.....	17,989	12,577	1	22	245,253	13.63
1879.....	15,936	13,760	8	21	268,328	16.83
1880.....	13,997	13,221	13	22	257,823	18.42
1881.....	16,556	10,756	13	2	209,755	12.66
1882.....	21,081	14,107	3	20	275,090	13.04
1883.....	25,954	15,446	9	23	301,207	11.60
1884.....	25,186	16,079	14	10	313,554	12.44
1885.....	28,890	22,203	12	20	432,971	14.98
1886.....	29,010	23,362	5	15	455,564	15.70
1887.....	32,280	21,211	17	18	413,631	12.81
1888.....	36,178	22,407	3	10	436,939	12.08
Totals.....	621,247	456,034	13	22	\$8,892,675	\$14.31

No production is reported from Ontario, though sample shipments <sup>Ontario.</sup> were made from several locations in the vicinity of Sudbury and it is believed small quantities of gold were extracted from some of the ores of Hastings Co., Ont.

As in previous years a small amount of gold was obtained from the <sup>North-West Territory and Yukon District.</sup> alluvions of the Saskatchewan River near Edmonton.

Mr. R. G. McConnell reports a very poor season for gold washing on the Yukon and neighboring streams, and estimates the total output at \$40,000 as against \$120,000 last year.

NOTE.—The production of the Yukon district is given last year as \$60,000; this has been corrected in this year's report, as the estimate is now considered to have represented only half the total output.

Quebec.

Gold was obtained from the alluvions of Mill River in Beauce County, and in Ditton Township in Compton County, and prospecting was carried on to a large extent on the Des Plantes and Cumberland Rivers.

The following table shows the output of gold from the Chaudière district as reported to the Mining Inspector up to 1886; the last two years being from direct returns received at this office. The table is, however, considered incomplete:—

## PRODUCTION OF GOLD IN THE CHAUDIÈRE DIVISION SINCE THE YEAR 1877.

TABLE G.

Year.	Total output as reported.			Value at \$17.50 per oz.
	ozs.	dwts.	grs.	
1877* .....	688	19	11	\$12,057
1878 .....	1024	19	5	17,937
1879 .....	1884	2	7	32,972
1880 .....	1895	13	4	33,174
1881 .....	3237	15	17½	56,661
1882 .....	976	15	0	17,093
1883 .....	1016	1	21½	17,787
1884 .....	498	9	3	8,720
1885 .....	120	19	19	2,120
1886 .....	227	9	22	3,981
1887 .....	90	18	10	1,604
1888 .....	203	12	16	3,563

\* Second half of 1877 only.

Exports and imports.

The following table shows the exports of gold-bearing quartz, ore, dust, nuggets &c., for the years 1887 and 1888:—

TABLE 1.

Province.	1887.	1888.
Ontario .....	\$ 6,650	.....
Nova Scotia.....	321,379	\$163,412
Manitoba.. .....	.....	50
British Columbia.....	592,300	464,696
Totals.....	\$920,329	\$628,158

The imports of gold in ore or bullion could not be ascertained, as they are not kept separate by the Customs Department, but included in "Coin and Bullion."

Production.

GRAPHITE.

The amount of graphite mined and marketed during the year 1888 was 150 tons, valued at \$1,200, all reported from mines in the vicinity of St. John, New Brunswick. There was a small quantity produced in the township of Buckingham, Ottawa County, Quebec; none of which was shipped. Prospecting was carried on to a small extent near St. John, N.B., and in various parts of Ontario.

Exports and imports.

The exports from New Brunswick for the last three years are given below, and show that the production has materially fallen off since 1886. No graphite has been exported from any of the other provinces during these years:—

1886 .....	8142 cwts. ....	\$3,586
1887 .....	6294 " .....	3,017
1888 .....	2700 " .....	1,080

In the following tables are shown the imports of the various products of plumbago:—

IMPORTS OF RAW AND MANUFACTURED PLUMBAGO FOR THE YEARS 1887 AND 1888.

TABLE 1

Province.	Plumbago.		Manufactures of Plumbago.	
	1887.	1888.	1887.	1888.
Ontario.....	\$1,473	\$1,170	\$5,140	\$6,811
Quebec .....	534	2,859	4,033	8,811
Nova Scotia.....	61	1,066	1,739	4,831
New Brunswick.....	.....	.....	657	3,116
Prince Edward Island....	.....	.....	44	17
Manitoba.....	.....	35	96	517
British Columbia.....	35	118	232	465
Totals.....	\$2,103	\$5,248	\$11,941	\$24,568

YVABLL  
 28 .. 13741 229 747

## IMPORTS OF BLACKLEAD FOR THE YEARS 1887 AND 1888.

Blacklead.

TABLE 2.

Province.	1887.	1888.
Ontario .....	\$7,001	\$3,811
Quebec .....	2,683	3,349
Nova Scotia.....	2,121	.....
New Brunswick.....	3,559	2,254
Prince Edward Island....	745	315
Manitoba .....	165	.....
British Columbia.....	602	142
Totals.....	\$16,876	\$9,871

## IMPORTS OF LEAD PENCILS, IN WOOD OR OTHERWISE, FOR THE YEARS 1887 AND 1888. Pencils.

TABLE 3

Province.	1887.	1888.
Ontario .....	\$33,458	\$29,720
Quebec .....	21,263	20,218
Nova Scotia.....	2,769	2,655
New Brunswick.....	3,028	3,017
Prince Edward Island....	.....	85
Manitoba .....	833	1,180
British Columbia.....	987	1,010
Totals. ....	\$62,338	\$57,885

GYPSUM.

Production.

Owing to inadequate returns having been received from Nova Scotia, the exports from that province, as shown by the Customs Department returns, have been taken as representing the total production; the output of the mines of the other provinces, according to direct returns, was 51,069 tons, valued at \$58,964, this with the Nova Scotia exports gives a total production, during the year, of 175,887 tons valued at \$179,393. This shows an increase over the previous year of 21,879 tons and \$22,116, due, in a great measure, to New Brunswick, where there is an increase of 13,027 tons and \$17,548.

The production by provinces is as follows:—

Province.	Tons.	Value.	Number of producers.	Number of hands.
New Brunswick.....	44,369	\$ 48,764	4	232
Nova Scotia.....	124,818	120,429	?	?
Ontario .....	6,700	10,200	5	45

Plaster of Paris.

The returns show that plaster of paris to the extent of 59,885 bbls. was manufactured in Canada, having a value of \$61,485. This was made principally at the Albert Manufacturing Company's works at Hillsboro', N.B., a small quantity being made in Ontario.

The other products of gypsum are "Alabastine," made at Paris, Ontario, and "Terra Alba" produced by the Albert Manufacturing Company.

Nova Scotia.

The Department of Mines of Nova Scotia reports the shipments from that province as follows:—

Windsor.....	105,815 tons
Cheverie.....	17,125 "
Lennox Passage.....	2,000 "

and a small quantity from Walton and St. Anns Harbor.

New Brunswick.

The production from New Brunswick is altogether from Victoria and Albert Counties, divided as follows:—

Albert Co.....	40,460 tons
Victoria Co.....	3,909 "

The gypsum of Victoria County is principally ground and used as land plaster, and is to a great extent shipped to and used in Maine, U.S. Of that of Albert County, only some 3,000 tons are so used.

Ontario.

There has been a slight decrease in the production in Ontario owing

to the introduction of high grade fertilizers, used in preference to land plaster, into which nearly all Ontario gypsum is manufactured. The producing mines are all situated on the Grand River between Paris and Gypsum Mines, the works being at Paris, Mount Healy, York, Caledonia, and Gypsum Minés.

Tables of exports and imports of crude and manufactured gypsum Exports and imports. are given below :—

EXPORTS OF CRUDE GYPSUM DURING THE YEARS 1887 AND 1888.

TABLE 1.

Province.	1887.		1888.	
	Tons.	Value.	Tons.	Value.
Ontario .....	225	\$337	670	\$910
Nova Scotia .....	112,557	106,910	124,818	120,429
New Brunswick.....	19,942	39,295	20	50
Totals .....	132,724	\$146,542	125,508	\$121,389

The amount credited to Nova Scotia in above table includes probably the amount exported from New Brunswick, as there was the usual quantity shipped from that province to the United States, viz., about 40,000 tons.

IMPORTS OF GROUND GYPSUM DURING THE YEARS 1887 AND 1888.

TABLE 2.

Province.	1887.		1888.	
	Pounds.	Value.	Pounds.	Value.
Ontario .....	5,506	\$ 73	56,502	\$261
Quebec .....	14,476	157	2,400	9
New Brunswick.....	1,900	7	31,500	70
Manitoba .....	.....	.....	300	4
British Columbia.....	15,000	138	.....	.....
Totals .....	36,882	\$375	90,702	\$344

## IMPORTS OF PLASTER OF PARIS DURING THE YEARS 1887 AND 1888.

TABLE 3.

Province.	1887.		1888.	
	Pounds.	Value.	Pounds.	Value.
Ontario.....	243,350	\$1,282	310,407	\$1,749
Quebec .....	2,458	13	400	2
Nova Scotia.....	650	6	2,600	17
New Brunswick.....	52,800	225	40,700	190
Prince Edward Island....	.....	.....	400	3
Manitoba .....	146,300	733	132,900	585
British Columbia.....	363,607	3,363	390,913	3,682
Totals.....	809,165	\$5,623	878,320	\$6,228

There was an importation of crude gypsum into Ontario during the year amounting to 1,184 tons, valued at \$2,262.



## IRON.

Iron ore was produced in Canada during 1888 to the extent of 78,587 tons valued at \$152,068, showing an increase over 1887 of 2,257 tons and \$5,871.

By Provinces the production is as follows :—

Province.	Tons.	Value.	No. of hands employed.	No. of producers.	No. of mines producing.
Nova Scotia....	42,611	\$74,509	176	3	3
Quebec .....	10,710	24,899	(?)	2	2
Ontario .....	16,894	37,710	70	1	4
British Columbia	8,372	14,950	12	1	1
Totals.....	78,587	\$152,068	....	7	10

According to the report of the Department of Mines of Nova Scotia the production is divided as follows :—

Londonderry, East and West mines .....	41,619 tons
East River, Pictou.....	342 "
Brookfield.....	650 "

Prospecting was carried on in various parts of the province.

The following are the total yearly productions of iron in this province since 1876 :—

	Tons.
1876 .....	15,274
1877 .....	16,879
1878 .....	36,600
1879 .....	29,889
1880 .....	51,193
1881 .....	39,843
1882 .....	42,135
1883 .....	52,410
1884 .....	54,885
1885 .....	48,129
1886 .....	44,388
1887 .....	43,532
1888 .....	42,611

The furnaces at Three Rivers and Drummondville consumed during the year 10,710 tons of bog iron ore. Work was carried on at the Bristol mine in Pontiac County, but no shipments were made during the year.

Ontario.

Iron mining in Ontario was confined to the district penetrated by the Kingston and Pembroke Railway, and was carried on by the Kingston and Pembroke Iron Mining Company, who shipped ore from four different mines along the line of railway. This company did a considerable amount of development work at some four or five other properties in their possession. Their production this year shows a small increase over last year, viz., 1,416 tons. There were no other producers in Ontario in 1888.

British Columbia.

Operations were resumed at the Texada Island mine in July, and as a result 8,372 tons were mined and shipped during the last half of the year to Irondale, W.T., where 4,350 tons of pig iron and car wheels were made from this Canadian ore.

The following table shows the exports of iron ore for the last three years:—

EXPORTS OF IRON ORE FROM CANADA DURING THE LAST THREE YEARS.

TABLE 1.

Province.	1886.		1887		1888.	
	Tons.	Value.	Tons.	Value.	Tons.	Value.
Ontario.....	16,032	\$51,175	12,244	\$38,990	13,161	\$36,397
Quebec.....	2	10	38	119	10	380
British Columbia.....	3,130	7,225	1,410	3,525	7,300	18,400
Totals.....	19,164	\$58,410	13,692	\$42,634		\$55,177

Exports and imports.

No iron ore is imported.

Pig Iron.

The following table is a summary of the production of pig iron in Canada during 1888, comparatively with that of 1887:—

## PIG IRON PRODUCTION, AND CONSUMPTION OF ORE, FUEL, ETC., IN 1887 AND 1888.

TABLE A.

Number of Furnaces in blast, 4.

Production and Consumption.	1887.		1888.		
	Quantity.	Value.	Quantity.	Value.	
Pig Iron made..... Tons.	24,827	\$366,192	21,799	\$313,235	
Iron Ore consumed..... "	60,434	130,808	54,956	102,343	
Fuel consumed. {	Charcoal—Bush.	940,400	48,593	804,286	41,800
	Coke, Tons.	30,248	89,123	28,031	82,986
	Coal, "	3,333	5,877	2,197	4,709
Flux consumed..... "	17,171	17,500	16,857	16,533	

Practically no pig iron was exported during the year.

In the table following are given the imports of pig iron for the years 1887 and 1888, with amount of duty paid thereon:—

## IMPORTS OF PIG IRON FOR THE YEARS 1887 AND 1888.

TABLE 2.

Province.	1887.			1888.		
	Tons.	Value.	Duty.	Tons.	Value.	Duty.
Ontario .....	19,450	\$298,083	\$61,291	26,939	\$386,945	\$107,748
Quebec .....	25,317	263,098	77,903	35,177	358,039	140,706
Nova Scotia....	1,197	16,171	3,613	3,310	36,432	13,242
New Brunswick.	5,981	36,771	5,362	2,321	51,587	9,282
British Columbia	557	5,981	1,211	586	7,602	2,348
Totals.....	48,250	\$620,104	\$149,380	68,333	\$840,605	\$273,326

The imports for 1888, as shown in above table, include pig iron, iron kentledge, and cast scrap iron, making comparison with the previous year impossible as the amount of scrap iron included is quite considerable. From information received at this office there has been, however, no falling off in the imports of pig iron during 1888.

Iron and Steel. Direct returns were received from the Nova Scotia Steel and Forge Company, Londonderry Iron Works, and five rolling mills and forges. Returns were not received from five rolling mills that were known to have been working, thus making our returns very incomplete. The following is a summary of returns received, and shows a large increase over last year's production as returned to us; notwithstanding that returns were last year received from a greater number of producers:—

IRON AND STEEL PRODUCTION, AND CONSUMPTION OF SCRAP AND OTHER IRON AND STEEL, ETC., IN 1887 AND 1888.

TABLE B.

No. of reheating furnaces ..... 36  
 No. of trains of rolls ..... 13  
 No. of steam hammers ..... 5

Article made or consumed.	1887.		1888.	
	Tons.	Value.	Tons.	Value.
Iron, all sorts, made .....	31,527	\$1,067,728	44,949	\$1,592,931
Steel, all sorts, made .....	7,326	331,990	9,553	472,611
Puddled iron bars, consumed .....	2,312	58,700	6,256	148,715
Scrap and all other iron, consumed ....	40,274	636,487	42,083	656,448
Scrap and all other steel, consumed ....	8,407	149,177	11,567	260,323
Fuel, consumed. ....	58,112	146,986	64,350	161,566

Number of hands in 1887, about 850; in 1888, 1,155.

Exports and Imports.

The following tables give the exports and imports of iron and steel goods:—

## EXPORTS OF IRON AND STEEL GOODS, MANUFACTURED IN CANADA, DURING 1887 AND 1888

TABLE 3.

Province.	Pig Iron.	Scrap Iron.	Iron Stoves.	Iron Castings.	Iron, all other and hardware.	Steel and manufactures of.	1883.	1887.
							Total.	Total.
Ontario . . . . .	\$10	\$6,958	\$1,145	\$ 7,934	\$13,267	\$ 5,9'2	\$ 35,266	\$95,930
Quebec . . . . .		224	564	13,675	49,665	45,958	110,086	82,191
Nova Scotia . . . . .			1,008	819	14,507	12,349	29,178	61,276
New Brunswick . . . . .				5	6,897		6,912	7,467
Prince Ed. Island . . . . .					462		462	61
Manitoba . . . . .			204		134	967	1,305	1,296
British Columbia . . . . .		115			825	75	1,015	.. . .
Totals . . . . .	\$10	\$7,297	\$3,416	\$22,433	\$85,757	\$65,801	\$184,214	\$251,221

## IMPORTS OF IRON IN SLABS, BLOOMS, LOOPS, PUDDLED BARS, ETC., FOR THE YEARS 1887 AND 1888.

TABLE 4.

Province.	1887.			1888.		
	Cwt.	Value.	Duty.	Cwt.	Value.	Duty.
Ontario . . . . .	11,332	\$8,995	\$899	113	\$488	\$51
Quebec . . . . .	348,557	285,233	50,520	103,176	79,764	46,428
Nova Scotia . . . . .	1,116	8,552	855			
New Brunswick . . . . .	6,548	3,948	395			
Totals . . . . .	367,553	\$306,728	\$52,669	103,289	\$80,252	\$46,479

## IMPORTS OF SCRAP IRON AND SCRAP STEEL FOR THE YEARS 1887 AND 1888.

TABLE 5.

Province.	1887.			1888.		
	Cwt.	Value.	Duty.	Cwt.	Value.	Duty.
Ontario.....	19,775	\$ 81,091	\$11,425	85,904	\$ 52,726	\$ 9,878
Quebec.....	252,042	161,167	13,623	324,428	217,196	32,442
Nova Scotia.....	84,349	43,904	5,275	33,751	18,010	3,300
New Brunswick.....	54,718	40,169	3,331	85,169	49,786	8,516
British Columbia.....	440	262	.....	20	20	2
Totals.....	411,324	\$326,593	\$33,654	529,272	\$337,738	\$54,138

It must be understood that in the imports for 1887, as shown in above table, the duty was collected only in the latter half of the year, and does not show fairly in comparison with the duty collected in 1888.

## IMPORTS OF FERRO-MANGANESE, FERRO-SILICON, SPEIGEL, STEEL BLOOM ENDS AND CROP ENDS OF STEEL RAILS, FOR THE YEARS 1887 AND 1888.

TABLE 6.

Province.	1887.			1888.		
	Tons.	Value.	Duty.	Tons.	Value.	Duty.
Ontario.....	.....	.....	.....	2	\$ 37	\$ 4
Quebec.....	1,121	\$16,772	\$2,242	559	9,239	1,118
Nova Scotia.....	274	3,531	549	2,957	34,506	5,914
New Brunswick.....	277	4,385	553	30	493	60
Totals.....	1,672	\$24,688	\$3,344	3,548	\$44,275	\$7,096

The following tables show the imports of the various manufactures of iron and steel into Canada during the year 1888. There is but slight change in the classification since last year so that the comparisons given are considered quite correct:—

## IMPORTS OF IRON (ARTICLES WHOLLY OR PRINCIPALLY MADE OF IRON) DURING THE YEAR 1888.

TABLE 7.

Article.	Quantity.	Value.	Duty.
Bar iron, rolled or hammered . . . . . cwt.	367,270	\$446,174	\$238,839
Boiler plate and other plate . . . . . cwt.	58,022	82,186	37,758
Tacks, brads and sprigs . . . . .		6,379	1,379
Band and hoop iron . . . . . cwt.	80,157	113,576	39,305
Iron bridges and structural iron work. lbs.	1,900,576	52,181	24,681
Nails, spikes and sheathing nails . . lbs.	96,842	9,168	1,831
Nails and spikes, cut . . . . . lbs.	570,467	20,827	9,157
Nails and spikes . . . . . cwt.	238,294	9,255	2,384
Swedish rolled iron nail rods . . . . . cwt.	18,707	36,171	7,233
Tubing of every description . . . . .		529,164	154,357
Totals . . . . .		\$1,305,081	\$516,924
1887 Totals . . . . .		\$1,584,529	\$438,338

## IMPORTS OF STEEL.

TABLE 8.

Articles.	Quantity.	Value.	Duty.
Wire of spring steel, coppered or tinned...cwt.	4,917	\$ 10,648	\$ 2,127
Steel ingots, blooms, slabs, billets, bars, etc., valued at 4 cts. or less, per lb.....cwt.	213,560	318,387	127,990
Steel, except the above.....cwt.	89,602	77,000	35,840
Steel, of greater value than 4 cts. per lb...cwt.	65,983	235,674	29,461
Axes .....		7,558	2,643
" Chopping .....		6,906	2,351
Saws.....		73,527	22,075
Locomotive tires. ....cwt.	31,035	85,968	Free.
Home spring steel for mattresses..... lbs.	497,282	20,502	"
Steel for files.....cwt.	3,191	15,897	"
" " skates.....cwt.	901	3,514	"
" " saws and straw cutters.....cwt.	11,596	77,826	"
" " mower and reaper knives.....cwt.	2,414	11,897	"
" " knobs, locks and cutlery .....cwt.	3,977	7,056	"
" " corsets, shoes and clock springs..cwt.	2,171	12,003	"
" " spades and shovels.....cwt.	2,192	9,608	"
Totals.....		\$973,971	\$222,487
1887, Totals.....		\$773,821	\$143,381



## IMPORTS OF IRON AND STEEL FOR THE YEAR 1888.

TABLE 9.

Articles.	Quantity.	Value.	Duty.
Axles and springs of iron or steel.....cwt.	7,214	\$23,907	\$13,239
Chains.....cwt.	18,450	44,417	2,013
Iron or steel rivets, bolts, nuts, etc.....lbs.	130,987	6,848	4,327
Plate of iron and steel combined.....cwt.	18,918	15,764	4,726
Rolled iron or steel angles, etc.....lbs.	1,598,074	26,746	10,574
Rolled iron or steel beams, etc.....cwt.	87,536	119,607	15,049
Rolled iron or steel beams for manufacture of bridges.....cwt.	59,089	66,579	10,822
Screws, iron or steel, "wood screws".....lbs.	67,575	12,179	5,437
Sheet iron, including Canada plate.....cwt.	346,600	660,447	82,570
Wire fencing, barbed, iron or steel.....lbs.	120,089	4,626	1,799
Wire fencing, buckthorn, strip etc.....lbs.	27,878	919	315
Wire, iron or steel, 15 gauge and coarser..cwt.	82,526	178,341	44,626
Wire rope, iron or steel, N.E.S.....cwt.	4,520	27,945	6,979
Wrought iron or steel nuts, bolts, etc.....lbs.	1,390,437	73,714	32,443
Rolled round wire rods.....lbs.	169,499	222,916	Free.
Iron or steel beams for composite ships...lbs.	28,052	55,891	"
Wire, iron or steel, galvanized, 16 gauge or smaller ... lbs.	1,302,379	67,743	"
Wire rigging for ships.....lbs.	3,854	16,193	"
Wire, iron or steel for manf. of wire cloth..lbs.	239,472	11,143	"
Manufactures of iron or steel, N.E.S.....lbs.	.....	723,117	217,132
Total.....	.....	\$2,359,042	\$452,051
1887 Total.....	.....	\$1,704,778	\$287,563

## IMPORTS OF CASTINGS AND FORGINGS DURING THE YEAR 1888.

TABLE 10.

Article.	Quantity.	Value.	Duty.
Cast iron vessels, plates, &c.....		\$173,715	\$ 52,851
Cast iron pipe.....cwt.	211,677	260,333	140,375
Forgings of iron or steel.....lbs.	531,789	19,758	8,808
Malleable iron castings.....		65,683	20,063
Stoves.....		18,886	4,953
Anchors.....		11,186	Free.
Totals.....		\$549,561	\$227,050
1887 Totals.....		\$503,318	\$169,279

## IMPORTS OF RAILROAD IRON AND STEEL DURING THE YEAR 1888.

TABLE 11.

Article.	Quantity.	Value.	Duty.
Railway bars..... tons.	1,219	\$ 39,547	\$ 9,322
“ fishplates..... tons.	3,338	79,652	40,005
Steel rails.....cwt.	1,321,239	1,466,804	Free.
Totals.....		\$1,586,003	\$49,327
1887 Totals.....		\$1,580,316	\$30,233

The other manufactures of iron and steel, not enumerated in the foregoing tables, have been extracted from the report of the Customs Department, and are found to amount during the fiscal year of 1888, to about \$3,700,000, the duty on which being about \$1,150,000.

This value is inclusive of all other materials used in their manufacture, and of very highly finished articles of iron and steel, and does not therefore give any index to the amount of raw iron or steel consumed.

If this amount be taken as representing approximately the import during the calendar year, the total imports of iron and steel during the year will be found to be about \$12,000,000 as follows:—

## SUMMARY TABLE OF IMPORTS OF IRON AND STEEL FOR THE YEARS 1887 AND 1888.

TABLE 12.

Article.	1887.		1888.	
	Value.	Duty.	Value.	Duty.
Pig iron.....	\$620,104	\$149,380	\$840,605	\$273,326
Slabs, blooms, etc.....	306,728	52,669	80,252	46,479
Scrap iron and steel.....	326,593	33,694	337,738	54,138
Ferro-manganese, etc....	24,688	3,344	44,275	7,096
"Iron" .. . . . . .	1,584,529	438,338	1,305,081	516,924
"Steel".....	773,821	143,381	973,971	222,487
"Iron and steel".....	1,704,778	287,563	2,359,042	452,051
Castings and forgings.....	503,318	169,279	549,561	227,050
Railroad iron and steel...	1,580,316	30,238	1,586,003	49,327
Highly finished articles about.....	3,400,000	940,000	3,700,000	1,150,000
Totals.....	\$10,824,875	\$2,247,886	\$11,776,528	\$2,998,878

MANGANESE.

**Production.** The production of manganese in 1888 amounted to 1,801 tons, with an approximate value of \$47,944. This shows an increase over the year previous of 556 tons and \$4,286, due altogether to the production in New Brunswick. The output of Nova Scotia shows a decrease of 200 tons, and as only Nova Scotia and New Brunswick produced manganese during the year the increase in the production of New Brunswick is therefore 756 tons.

**Nova Scotia.** According to the report of the Inspector of Mines of Nova Scotia, the production is altogether from Tenny Cape and Onslow, and the reason of the decrease is the low price of the ore which is usually of a very high grade.

The production is as follows :—

Tenny Cape .....	42 tons	\$2,120
Cheverie .....	6 "	240
Walton .....	18 "	1,100
East Mountain.....	40 "	3,000
	106 tons	\$6,460

No. of hands employed about..... 30

**New Brunswick.**

The production is to a large extent that of the Markhamville mines which still continue to ship high grade ore, principally to the United States. Several small operators shipped from various points in King's and St. John counties, and prospecting and development work was carried on in the neighborhood of Sussex, King's County, and St. Martins and Quaco, in St. John County. A trial shipment of bog manganese was made from a deposit near Hillsboro', Albert County. This latter is suitable for the manufacture of steel, and as the deposit covers a very large area, and is adjacent to the Albert Railway, there seems every probability of a large trade in this mineral being developed.

The tables of exports and imports are given below :—

EXPORTS OF MANGANESE ORE DURING 1887 AND 1888.

TABLE 1.

Province.	1887.		1888.	
	Tons.	Value.	Tons.	Value.
Nova Scotia.....	578 (a)	\$14,240	87	\$ 5,759
New Brunswick.....	837	20,562	1,094	16,073
Totals.....	1,415	\$34,802	1,181	\$21,832

(a) A certain quantity from Cornwallis, should more correctly be classed as an ochre.

**Exports and Imports.**

## IMPORTS OF OXIDE OF MANGANESE DURING THE YEARS 1887 AND 1888.

TABLE 2.

Province.	1887.		1888.	
	Lbs.	Value.	Lbs.	Value.
Ontario.....	18,733	\$ 903	18,893	\$ 739
Quebec .....	48,977	2,171	34,091	1,533
Nova Scotia.....	1,173	79	2,144	151
British Columbia.....	1,010	16	10	1
Totals.....	69,893	\$3,169	55,138	\$2,424

## MICA.

**Production.**

Complete returns of the production of mica have not been received. The total amounts approximately to 29,025 lbs., valued at \$30,207. This shows an increase over 1887 of 6,942 lbs. and \$391. The increase is altogether due to the output of Ontario, that of Quebec being about 25 per cent. lower than last year.

The production as reported to this office is for the last three years as follows:—

1886.....	20,361 lbs. ..	\$29,008 ..	Average price \$1.42
1887.....	22,083 " ..	29,816 ..	" " 1.35
1888.....	29,025 " ..	30,207 ..	" " 1.04

The increase in the quantity produced is no doubt due to their being a larger market found for a lower grade of mica; this will also explain the depreciation in the average price.

**Exports.**

The exports of cut mica during the year amounted to 21,851 lbs., valued at \$21,127, all of which went to the United States. There was an exportation of 362,630 lbs of ground mica with a declared value of \$2,436, the greater part of which also went to the United States. This will make a total exportation during the year of \$23,563 of which \$23,313 was shipped to the United States.

## MINERAL PIGMENTS.

The production of mineral pigments in Canada during 1888 was as follows :—

as Baryta,  
Mineral paint  
and Whiting.

Product.	Tons.	Value.	Where Produced.
Baryta.....	1,100	\$3,850	N. S.
Mineral paint.....	397	7,900	Que. and Ont.
Whiting.....	30	240	Ont.

In the above there is an increase in Baryta of 700 tons and \$1,450, and in mineral paint of 297 tons worth \$6,400, while in whiting there is a decrease of 45 tons and in value of \$360.

There were no exports of any of the above minerals. The imports of various pigments and allied substances are given below :—

## IMPORTS OF MANUFACTURED BARYTA DURING THE YEARS 1887 AND 1888.

Imports of  
Baryta.

TABLE 1.

Province.	1887.		1888.	
	Cwt.	Value.	Cwt.	Value.
Ontario.....	2	\$ 24	625	\$427
Quebec.....	....	....	17,810	756
New Brunswick.....	200	252	....	....
Totals.....	202	\$276	18,435	\$1,183

Imports of  
Paints.

## IMPORTS OF PAINTS.

TABLE 2.

Variety.	Lbs.	Value.
Fire-proof paint, dry .....	170,683	\$ 2,437
Paint ground in oil or any other liquid .....		93,349
White and red lead and orange mineral, dry .....	6,539,247	246,419
White lead in pulp, not mixed with oil .....		13,374
Ochres, dry, ground or unground, washed or unwashed, not calcined .....	1,407,006	17,070
Zinc, dry white .....	759,598	24,570
Other paints and colors, N.O.P.F .....		87,404

Imports of  
Whiting.

## IMPORTS OF WHITING.

TABLE 3.

Province.	1887.		1888.	
	Cwt.	Value.	Cwt.	Value.
Ontario .....	8,868	\$ 3,325	7,104	\$ 2,817
Quebec .....	52,949	13,659	64,408	15,886
Nova Scotia .....	2,689	1,027	2,801	958
New Brunswick .....	2,494	1,038	2,477	866
Prince Edward Island....	464	190	485	174
Manitoba .....			1	1
British Columbia .....	274	121	141	145
Totals .....	67,738	\$19,360	77,417	\$20,847



## IMPORTS OF CHALK.

Imports of  
Chalk.

TABLE 4.

Province.	1887.	1888.
Ontario.....	\$2,483	\$2,757
Quebec .....	1,864	2,060
Nova Scotia.....	213	257
New Brunswick.....	441	584
Prince Edward Island....	37	9
Manitoba .....	164	216
British Columbia.....	21	53
Totals.....	\$5,223	\$5,936

## IMPORTS OF LITHARGE.

Imports of  
Litharge.

TABLE 5.

Province.	1887.		1888.	
	Cwt.	Value.	Cwt.	Value.
Ontario .....	6,354	\$21,034	3,793	\$17,459
Quebec .....	2,353	7,440	3,889	13,832
Nova Scotia.....	2	9	.....	.....
New Brunswick.....	11	74	2	9
Manitoba .....	33	122	20	88
British Columbia.....	3	26	?	44
Totals.....	8,756	\$28,705	7,704	\$31,432

## MISCELLANEOUS.

**Production.** The following table gives the production of various minerals and products for the year, comparatively with 1887 :—

Product.	1887.		1888.	
	Quantity.	Value.	Quantity.	Value.
Lead (fine, contained in ore) . . .	204,800 lbs.	\$9,216	674,500 lbs.	\$27,472
Moulding sand . . . . .	160 tons.	800	169 tons.	845
Platinum . . . . .	1,400 ozs.	5,600	1,500 ozs.	6,000
Soapstone . . . . .	100 tons.	800	140 tons.	280
Mineral water . . . . .	.....	....	124,850 galls.	11,456
Glass and Glassware . . . . .	.....	....	.....	375,000

**Lead.**

The lead is altogether the production of British Columbia, and includes principally the results of certain sample shipments from Kootenay and Illecillewaet Districts, and from the Monarch Mine at Field.

Small quantities of lead are believed to be saved from the silver ores of Port Arthur District in Ontario, but of these no return could be had. Development work was carried on to a large extent at Wright's mine on Lake Temiscamingue, Quebec, where a small smelting furnace has been erected and all arrangements made to produce large quantities of matte. At Petrolea, Ontario, Mr. William Wilson has erected a small smelting plant. He purposes reducing the lead contained in the refuse from the oil refiners. The lead is probably a sulphide, having been used in the first place as litharge in the refining of the distillates into illuminating oil. This refuse makes an excellent flux, and Mr. Wilson purposes working Canadian ores in connection with it.

**Moulding Sand.**

The moulding sand shown in foregoing table is altogether the production of Nova Scotia, though large quantities are used from the other provinces, of which no returns were received.

**Platinum.**

The platinum production is that of Granite and adjacent creeks in the Similkameen Division, British Columbia, the only district in Canada where it occurs in sufficient quantities to be considered a commercial article. It occurs with the gold in the placers of the above division, and contains generally a small percentage of iron, osmium and iridium. The production is taken from the report of Mr. Tunstall, Gold Commissioner for Similkameen Division, B.C.

The soapstone is altogether the production of the Asbestos mines of Soapstone, the Eastern Townships or in their vicinity, where it occurs in considerable quantities.

The quantity of mineral water shown, viz:—124,850 gallons includes Mineral Water only that sold and shipped, in bulk or otherwise. Immense quantities are of course annually used at the different sanitariums in Canada, and of which not even an approximation could be obtained.

The amount of glass and glassware shown in foregoing table does not by any means represent the total yearly production which would probably reach \$700,000. Returns were not received from all the works, unfortunately rendering this statement incomplete.

The exports of lead were too small to be of importance.

The exports of glass and glassware amounted to \$1.739 against \$1,030 for the year previous.

The imports of lead, platinum, zinc, tin, mercury, spelter, mineral water, and glass and glassware are given below:—

## IMPORTS OF LEAD.

TABLE 1.

Articles.	1887.		1888.	
	Cwts.	Value.	Cwts.	Value.
Lead, old, scrap and pig.....	69,866	\$182,059	71,911	\$213,077
“ bars, blocks and sheets..	20,048	58,283	10,588	33,737
“ pipe.....	1,783	6,322	1,229	4,905
“ shot.....	1,260	4,204	805	2,809
“ mfrs. of N.O.P.F.....	....	6,772	.....	5,836
Totals.....	....	\$257,640	.....	\$260,364

## IMPORTS OF PLATINUM.

TABLE 2.

Province.	1887.		1888.	
	Ozs.	Value.	Ozs.	Value.
Ontario, wire.....	207	\$1,555	220	\$1,202
Quebec, ".....	4	68	74	636
"    pans, retorts, etc..	....	....	....	12,268
New Brunswick.....	*64	13	....	.....
British Columbia.....	....	....	....	2
Totals.....	275	\$1,636	294	\$14,108

\* Returns for New Brunswick considered incorrect.

## IMPORTS OF ZINC IN BLOCKS, PIGS AND SHEETS.

TABLE 3.

Province.	1887.		1888.	
	Cwts.	Value.	Cwt.	Value.
Ontario.....	5,981	\$25,947	4,428	\$16,357
Quebec.....	10,731	38,081	8,551	35,052
Nova Scotia.....	2,221	6,668	1,049	4,294
New Brunswick.....	2,022	7,890	1,304	5,371
Prince Edward Island....	154	578	46	189
Manitoba.....	825	2,820	....	....
British Columbia.....	67	379	196	933
Totals.....	22,001	\$83,263	15,574	\$62,196

## IMPORTS OF MANUFACTURES OF ZINC.

TABLE 4.

Province.	1888.
Ontario.....	\$3,823
Quebec.....	1,271
Nova Scotia.....	122
New Brunswick.....	371
Manitoba.....	122
British Columbia.....	534
Totals.....	\$6,243

## IMPORTS OF SPELTER IN BLOCKS AND PIGS.

TABLE 5.

Province.	1888.	
	Cwt.	Value.
Ontario.....	628	\$ 2,767
Quebec.....	8,982	35,756
Nova Scotia.....	109	539
New Brunswick.....	371	1,808
British Columbia.....	21	10
Totals.....	10,111	\$40,880

## IMPORTS OF TIN, IN BLOCKS, PIGS AND SHEETS, AND TIN-FOIL.

TABLE 6.

Province.	1887.			1888.		
	Blocks, pigs and bars.	Plates, and sheets.	Tin-foil.	Blocks, pigs and bars.	Plates and sheets.	Tin-foil.
Ontario .....	\$78,908	\$245,100	\$ 8,774	\$ 87,912	\$244,445	\$ 8,535
Quebec .....	83,562	286,670	13,289	147,480	305,742	16,582
Nova Scotia.....	21,260	74,379	832	38,917	86,981	199
New Brunswick.....	12,744	21,076	113	14,524	29,212	222
Prince Edward Island.	4,114	6,731	2	3,674	7,363	.....
Manitoba.....	.....	5,246	119	.....	1,592	62
British Columbia.....	21,092	54,210	16	28,151	119,768	87
Totals.....	\$221,680	\$693,912	\$23,145	\$320,658	\$795,103	\$25,687

## IMPORTS OF TIN CRYSTALS AND TINWARE.

TABLE 7.

Province.	Tinware.	Tin Crystals.
Ontario.....	\$39,991	\$245
Quebec.....	22,821	170
Nova Scotia.....	7,287	....
New Brunswick.....	8,253	536
Prince Edward Island.....	459	....
Manitoba.....	5,019	....
British Columbia.....	4,208	....
Totals.....	\$88,038	\$951

## IMPORTS OF MERCURY.

TABLE 8.

Province.	1887.		1888.	
	Pounds.	Value.	Pounds.	Value.
Ontario . . . . .	25,062	\$12,778	8,088	\$4,702
Quebec . . . . .	2,307	1,210	3,239	1,782
Nova Scotia . . . . .	1,851	1,222	4,992	728
New Brunswick . . . . .	.....	.....	10	6
Manitoba . . . . .	3	2	1	1
British Columbia . . . . .	1,866	1,174	2,161	1,111
Totals . . . . .	31,089	\$16,386	18,491	\$8,330

## IMPORTS OF GLASS AND GLASSWARE.

TABLE 9.

Description.	1887.	1888.
Carboys, demijohns, bottles and decanters, flasks and phials, telegraph and lightning rod insulators, jars and glass balls, and cut, pressed, or moulded table ware .....	\$303,002	\$175,471
Flasks and phials of eight ounces capacity and over, telegraph and lightning rod insulators, jars and glass balls, and cut, pressed, and moulded table ware .....	99,099	185,406
Lamp and gas-light shades, lamps and lamp-chimneys, side-lights, and head-lights, globes for lanterns, lamps, and gas-lights.....	214,691	188,217
Ornamental, figured, and enamelled stained glass.....	4,446	8,311
Stained, tinted, painted, and vitrified glass and stained glass windows, figured enamelled, and obscured white glass.....	13,419	12,306
Common and colorless window glass.....	302,122	351,550
Coloured glass, not figured, painted, enamelled, or engraved .....	3,426	1,958
Photographic dry plates.....	4,221	9,646
Plate glass, not coloured, in panes not over 30 sq. feet.	56,456	75,777
"    "    "    over 30 and not over 70 sq. feet	55,136	48,885
"    "    "    over 70 sq. ft.....	69,703	73,684
Silvered plate glass.....	8,366	7,911
Porcelain shades, imitation.....	12,488	10,216
All other mfrs. of glass, N. O. P. F.....	87,947	69,926
Totals.....	\$1,234,522	\$1,219,264



## IMPORTS OF MINERAL WATER.

TABLE 10

Province.	1888.
Ontario .....	\$ 4,461
Quebec.....	19,240
Nova Scotia.....	427
New Brunswick.....	1,023
Prince Edward Island.....	21
Manitoba .....	42
British Columbia.....	1,937
Total.....	\$27,151

PETROLEUM.

Production and inspection. The amount of Canadian oil (refined petroleum and naphtha) inspected during the year 1888 was as follows :—

217,298 packages at.....	10	cts.	inspection fee
16 " " .....	5	"	"
23,900 " " .....	2½	"	"

Assuming that the packages contain 42, 10, and 5 gallons respectively, there is an approximate inspection of 9,246,176 gallons, this being converted into crude equivalent, at 38 gallons refined for every 100 crude, gives as a result 695,203 bbls. of 35 imp. galls. The average price for the year was \$1.03 per barrel, therefore the value may be considered to be approximately \$716,059.

The statistics of the industry derived from direct returns from refiners are as follows :—

PRODUCTION OF CANADIAN OIL REFINERIES IN 1887 AND 1888.

TABLE A.

Products,	1887.		1888.	
	Quantity.	Value.	Quantity.	Value.
Illuminating oils...galls.	10,387,825	\$991,290	9,833,228	\$1,059,614
Benzine and naphtha. "	344,570	31,447	492,886	29,354
Paraffine oils .....	} 6,793,461	240,851	690,729	82,238
Gas oils..... "			3,107,306	68,477
Lubricating oils and tar..... "			3,284,273	132,601
Paraffine wax.....lbs.	400,036	24,521	585,651	29,175
Totals .....	.....	\$1,288,109	.....	\$1,401,459

## CONSUMPTION OF CANADIAN OIL REFINERIES IN 1887 AND 1888.

TABLE B.

Article.	1887.	1888.
Crude Petroleum...galls.	26,737,668	22,947,369
Sulphuric Acid.....lbs.	3,215,410	4,082,076
Soda..... " "	331,898	317,436
Litharge..... " "	496,163	520,793
Sulphur..... " "	96,816	104,479

The returns of the three tanking companies are as follows :—

Tanking Co's.

Stocks, 1st January, 1888.....	217,793 $\frac{3}{5}$	bbls.
Quantity of oil received.....	464,014 $\frac{3}{5}$	"
" " delivered.....	383,093 $\frac{2}{5}$	"
Stocks, 31st December, 1888.....	298,714 $\frac{6}{5}$	"

It has been found impossible to obtain returns of stocks carried over by the different refiners, but it is supposed that the amounts carried over at the beginning and end of the year are equal.

The amount of crude oil received at the refineries was 22,492,499 gallons or 642,643 barrels, and as the returns of the tanking companies show a net balance of 80,921 barrels at the end of the year, it may be stated that there was a production during 1888 of 733,564 barrels valued at \$755,571.

The following table kindly furnished by Mr. Jas. Kerr, Secretary of the Petroleum Oil Exchange, shows the business and ruling prices of the exchange for the year. It is followed by a list of the average closing prices for the last three years :—

Prices of  
crude oil-

## PETROLEA OIL EXCHANGE.

CRUDE PETROLEUM BUSINESS FOR THE YEAR 1888.

Month.	Opening price.	Highest price.	Lowest price.	Closing price.	Average closing price.	Average price.	Sales (Barrels.)
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.	
January .....	.75½	.75½	.71	.73¼	.73½	.76¾	76,080
February....	.72¾	.75	.71½	.74½	.73¾	.76½	43,866
March .....	.75	1.08	.75	1.08	.89¾	.98½	62,703
April. ....	1.11	1.22	1.11	1.15½	1.17	1.19¼	62,056
May .....	1.14	1.15	1.04½	1.09	1.08	1.15¾	37,730
June .....	1.10	1.13	1.07	1.11¾	1.11¼	1.13¼	48,144
July.. .....	1.07	1.09	1.05¼	1.06½	1.08¼	1.09½	22,989
August .....	1.06	1.06	1.00	1.06	1.04½	1.06½	25,221
September ..	1.07	1.09	.99¾	1.00	1.02¾	1.03¾	13,721
October .....	.98¾	1.14	.98¾	1.12	1.04	1.05	18,529
November...	1.09¾	1.20½	1.09¾	1.20½	1.15	1.19½	51,320
December ...	1.19½	1.23½	1.18	1.23	1.21¾	1.20½	53,648
Year 1888...	.75½	1.23½	.71	1.23	1.02¾	1.03¾	516,007
Puts and calls .....	.....	.....	.....	.....	.....	.....	114,500
				Total Business...			630,507

## AVERAGE CLOSING PRICE OF CRUDE OIL ON PETROLEA OIL EXCHANGE.

Month.	1886.	1887.	1888.
	\$ cts.	\$ cts.	\$ cts.
January.....	.88 $\frac{1}{4}$	.84 $\frac{3}{4}$	.73 $\frac{3}{8}$
February.....	.88 $\frac{1}{4}$	.81 $\frac{3}{4}$	.73 $\frac{3}{8}$
March.....	.89 $\frac{1}{2}$	.76 $\frac{3}{4}$	.89 $\frac{3}{4}$
April.....	.90	.75	1.17
May.....	.90	.69 $\frac{1}{4}$	1.08
June.....	.90	.67 $\frac{1}{4}$	1.11 $\frac{1}{4}$
July.....	.80	.67 $\frac{1}{2}$	1.08 $\frac{1}{2}$
August.....	.75 $\frac{1}{2}$	.71 $\frac{1}{2}$	1.04 $\frac{1}{2}$
September.....	.75	.81	1.02 $\frac{3}{4}$
October.....	.84 $\frac{1}{4}$	.77 $\frac{1}{4}$	1.04
November.....	.93 $\frac{3}{4}$	.72 $\frac{1}{4}$	1.15
December.....	.97	.76 $\frac{1}{4}$	1.21 $\frac{7}{8}$
Year.....	.86 $\frac{3}{4}$	.78	1.02 $\frac{3}{8}$

The exports for the years, from 1873 to 1888 inclusive, and the im-  
 ports for 1887 and 1888 are given below :—

Exports and  
imports.

## EXPORTS OF CANADIAN PETROLEUM FROM 1873 TO 1888.

TABLE 1.

Year.	Gallons.	Value.
1873 .....	5,869,579	\$1,287,576
1874 .....	28,946	2,509
1875 .....	11,836	2,214
1876 .....	2,533,772	583,550
1877 .....	1,431,883	323,013
1878 .....	609,171	85,571
1879 .....	235,171	17,032
1880 .....	3,085	751
1881 .....	501	99
1882 .....	1,119	286
1883 .....	13,283	710
1884 .....	1,098,090	30,168
1885 .....	337,967	10,562
1886 .....	241,716	9,855
1887 .....	473,559	13,831
1888 .....	196,602	74,542
<b>Totals.....</b>	<b>13,086,280</b>	<b>\$2,442,269</b>

## IMPORTS OF CRUDE AND REFINED PETROLEUM DURING THE YEARS 1887 AND 1888.

TABLE 2.

Province.	1887.		1888.	
	Gallons.	Value.	Gallons.	Value.
Ontario .....	1,688,611	\$174,768	1,709,142	\$168,770
Quebec. ....	805,197	69,527	918,760	84,864
Nova Scotia.....	762,346	63,096	763,510	62,375
New Brunswick.....	820,639	61,697	776,920	64,668
Prince Edward Island....	173,852	13,793	215,899	15,761
Manitoba. ....	15,486	1,905	254,976	35,557
British Columbia.....	198,913	44,826	213,359	49,775
Total.....	4,465,044	\$429,612	4,852,566	\$481,770

The following table shows the amount of refined petroleum and naphtha imported and inspected during 1887 and 1888:—

1887.....	1,511,433 gallons
1888.....	1,789,044 "

Subtracting these two amounts from the total imports shown in above table, there will be found to be an importation as follows of other oils, principally crude and lubricating:—

1887.....	2,953,611 gallons
1888.....	3,063,522 "

## PHOSPHATE AND MANUFACTURED FERTILIZERS.

The total amount of phosphate (apatite) mined and marketed during the year was 22,485 tons valued at \$242,285, showing a decrease of 1,205 tons since last year. This decrease is altogether due to Ontario, there being a slight increase in the mines of the province of Quebec.

The production during 1888 is divided as follows:—

	TONS.	NO. OF PRODUCERS.	NO. OF MEN EMPLOYED.
Quebec mines.....	20,396	10	about 550
Ontario " .....	2,089	4	" 50

In regard to the number of men employed it must be understood that they were in many cases employed for only part of the twelve months.

Exports and imports.

The exports of phosphate since 1878 are given in the following table:—

## EXPORTS OF PHOSPHATE SINCE 1878.

TABLE 1.

Year.	Ontario.		Quebec.		Total.	
	Tons.	Value.	Tons.	Value.	Tons.	Value.
1878.	824	\$12,278	9,919	\$195,831	10,743	\$208,109
1879.	1,842	20,565	6,604	101,470	8,446	122,035
1880.	1,387	14,422	11,673	175,664	13,060	190,086
1881.	2,471	36,117	9,497	182,339	11,968	218,456
1882.	568	6,338	16,585	3,2019	17,153	338,357
1883.	50	500	19,666	427,168	19,716	427,668
1884.	763	8,890	20,946	415,350	21,709	424,240
1885.	434	5,962	28,535	490,331	28,969	496,293
1886.	644	5,816	19,796	337,191	20,440	343,007
1887.	705	8,277	22,447	424,940	23,152	433,217
1888.	2,643	30,247	16,133	268,362	18,776	298,609
Total...	12,331	\$149,412	181,801	\$3,350,665	194,132	\$3,500,077

These exports do not of a necessity show the export trade of either province, as a large quantity of Ontario phosphate is cleared from the port of Montreal, and is included in the exports from Quebec.



The destinations of the 1888 exports were as follows:—

Great Britain.....	14,957 tons	\$247,371
United States.....	2,643 "	30,248
Germany.....	1,176 "	20,990

The following table shows the imports of Canadian phosphate into Great Britain, compared with all imports of phosphate into that country. The figures are taken from "The Mining and Mineral Statistics of Great Britain and Ireland":—

IMPORTS INTO GREAT BRITAIN OF CANADIAN PHOSPHATE COMPARED WITH TOTAL IMPORTS INTO THAT COUNTRY.

TABLE 2.

Year.	Canadian Apatite.		Total Phosphates.		Per cent. of Canadian Apatite to total quantity.
	Long Tons.	£ Stg.	Long Tons.	£ Stg.	
1882.	8,187	39,851	193,428	613,198	6·5 per cent.
1883.	16,531	66,714	246,945	813,825	8 2 "
1884.	15,716	52,370	219,225	643,851	8 1 "
1885.	21 484	76,179	238,572	628,027	12·1 "
1886.	18,069	63,490	223,111	526,885	12·0 "
1887.	19,194	65,974	233,415	614,088	10·7 "

Returns were received from three manufacturers of fertilizers, showing a production of 548 tons valued at \$21,600. This shows an increase over last year of 50 tons. The value has however, decreased, being \$4,000 less than that of last year.

The minerals used in the manufacture were, about 175 tons of phosphate (apatite) and small quantities of sulphate of ammonia, muriate of potash, kainite, calcic sulphate, bones and bone dust. A table of the imports of these minerals is given as follows:—

Imports.

IMPORTS OF FERTILIZERS AND RAW MINERALS USED IN THEIR MANUFACTURE,  
DURING 1887 AND 1888.

TABLE 3.

Articles.	1887.		1888.	
	Quantity.	Value.	Quantity.	Value.
Fertilizers . . . . .		\$ 7,749		\$16,621
Ground Gypsum . . . . . lbs.	36,882	375	90,702	344
Bones (crude and dust) . . . . . "	11,760	677	134,000	861
Potash, German mineral . . . . . "	15,313	935	11,627	234
" muriate & bichromate of. "	573,773	31,641	540,307	21,990
Kainite . . . . .	2,700	112	247,080	2,405
Sulphate of Ammonia . . . . .	53,555	1,526	68,156	2,363
Totals . . . . .		\$43,015		\$44,818

## PYRITES AND SULPHURIC ACID.

The amount of pyrites mined and shipped as available for acid <sup>Pyrites.</sup> making in 1888 was 63,479 tons, valued at the average price of \$4.50 per ton at \$285,656, an increase over 1887 of 25,436 tons and \$114,462.

This increase is, in a great measure, due to Messrs. G. H. Nichols & Co., who during the previous year were devoting a great deal of their labor to surface work, during which time their production was below the average.

The pyrites production is as heretofore that of the Capelton mines in Quebec.

There was a small importation of iron pyrites used in acid making from the United States, probably not over 1,000 tons.

The total production of sulphuric acid for 1888 amounted to 8,727, <sup>Sulphuric</sup> 220 <sup>Acid.</sup> pounds valued at \$121,515, showing an increase over 1887 of 3,249,270 pounds and \$50,906.

No returns were received during 1886, but there was an estimated increase in 1887 of 50 per cent over the previous year, there is therefore an increase in 1888 of over 100 per cent over that of 1886. Nearly all of the above acid was made from pyrites, a small quantity being made from imported brimstone, of which some 75 tons were used.

The following table shows the imports of sulphuric acid during the <sup>Imports.</sup> years 1887 and 1888.

There were no exports:—

## IMPORTS OF SULPHURIC ACID DURING THE YEARS 1887 AND 1888.

TABLE 1.

Province.	1887.		1888.	
	Pounds.	Value.	Pounds.	Value.
Ontario .....	1,658,860	\$26,233	105,825	\$1,661
Quebec .....	725,749	8,914	3,699	100
Nova Scotia .....	186,451	1,941	60,334	602
New Brunswick .....	138,264	1,484	107,868	1,125
Manitoba .....	197	4	33,123	392
British Columbia .....	21,402	634	20,709	555
Totals .....	2,730,923	\$39,210	\$331,558	\$4,430

## IMPORTS OF BRIMSTONE OR CRUDE SULPHUR.

TABLE 2.

Province.	1887.		1888.	
	Pounds.	Value.	Pounds.	Value.
Ontario.....	1,097,882	\$13,279	1,139,743	\$17,022
Quebec.....	776,237	11,698	880,660	9,399
Nova Scotia.....	371,625	5,566	413,461	5,443
New Brunswick.....	58,287	936	66,063	1,091
Prince Edward Island....	1,752	36	1,608	35
Manitoba.....	941	27	2,220	55
British Columbia .....	1,818	74	44,125	434
Totals.....	2,308,542	\$31,616	2,547,880	\$33,479

SALT.

The production of salt, according to direct returns for the year 1888, <sup>Production.</sup> was 59,070 tons, valued at \$185,460, a decrease in quantity as compared with 1887 of 1,103 tons. There is, however, an increase in value of \$19,066, which goes to show that the market price for salt was very much higher than during the year previous.

In 1887 the average price was \$2.76 per ton, whereas for this year the average price is \$3.14. As incomplete returns were received from some of the producers, it is impossible to state the exact number of packages used, but it is estimated that about 175,000 barrels, valued at about \$32,000, were used, as well as a large number of sacks of all sizes, aggregating about \$15,000 making the value of packages to be about \$47,000. The value of the salt, as prepared for market in packages, is therefore about \$232,460.

There were in operation during 1888, 18 producers employing about 260 men, this includes one producer in New Brunswick who made only dairy salt.

The production for the last three years is as follows :—

	BARRELS. (280 lbs.)	TONS.	VALUE.	AVERAGE PRICE PER TON.
1886.....	445,421	62,359	\$227,195	\$3.65
1887.....	429,807	60,173	166,394	2.76
1888.....	421,930	59,070	185,460	3.14

The following figures, kindly furnished by the Grand Trunk Rail- <sup>Shipments.</sup> way, show the shipments from the various stations of that railway <sub>by rail.</sub> where salt is manufactured :—

1883.....	35,961 tons
1884.....	34,850 "
1885.....	39,600 "
1886.....	41,577 "
1887.....	36,311 "
1888.....	37,120 "

There were also shipped from Wingham, by the Canadian Pacific <sup>Exports and</sup> Railway in 1888, 4,391 tons: making 41,511 tons shipped by rail during <sub>imports.</sub> 1888.

The following tables show the exports and imports of all kinds of salt for 1888 :—

## EXPORTS OF SALT DURING THE YEARS 1887 AND 1888.

TABLE 1.

Province.	1887.		1888.	
	Bushels.	Value.	Bushels.	Value.
Ontario .....	153,475	\$11,425	14,968	\$3,921
Quebec .....	.....	.....	133	36
New Brunswick.....	570	101	.....	.....
Prince Edward Island....	.....	.....	150	30
Totals.....	154,045	\$11,526	15,251	\$3,987

## IMPORTS OF COARSE SALT PAYING DUTY FOR THE YEARS 1887 AND 1888.

TABLE 2.

Province.	1887.		1888.	
	Pounds.	Value.	Pounds.	Value.
Ontario.....	683,270	\$2,110	937,600	\$3,397
Quebec .....	7,240	32	478,844	1,198
New Brunswick.....	2,260	9	.....	.....
British Columbia.....	72,000	368	190,000	834
Totals.....	764,770	\$2,519	1,606,444	\$5,429

## IMPORTS OF FINE SALT, PAYING DUTY, FOR THE YEARS 1887 AND 1888.

TABLE 3.

Province.	1887.		1888.	
	Pounds.	Value.	Pounds.	Value.
Ontario.....	1,000,842	\$ 3,349	376,713	\$ 1,539
Quebec.....	4,989,918	14,748	5,676,807	15,012
Nova Scotia.....	841,782	1,981	309,608	2,195
New Brunswick.....	1,662,300	5,110	1,366,736	4,283
Prince Edward Island....	27,138	75	17,268	84
Manitoba.....	5,900	33	3,384	25
British Columbia.....	561,100	3,468	1,178,838	5,397
Totals.....	9,088,980	\$28,764	8,929,354	\$28,535

## IMPORTS OF SALT (DUTY FREE) FOR FISHERIES, DURING THE YEARS 1887 AND 1888.

TABLE 4.

Province.	1887.		1888.	
	Pounds.	Value.	Pounds.	Value.
Ontario.....	1,668,942	\$ 2,765	2,092,290	\$ 5,028
Quebec.....	69,118,737	92,194	66,780,742	69,293
Nova Scotia.....	81,982,510	112,031	89,970,848	101,322
New Brunswick.....	28,207,140	42,300	38,859,120	50,379
Prince Edward Island....	4,578,787	2,626	1,062,520	2,614
Manitoba.....	252,100	998	458,200	2,138
British Columbia.....	1,038,452	2,479	3,605,600	5,647
Totals.....	186,846,668	\$255,393	202,829,320	\$236,421

## SILVER.

**Production.** Assuming that the Ontario exports of silver represent the total output of silver in that province, the production in Canada during the year 1888 is approximately \$395,377, an increase over the last year of \$46,047, and over 1886 of \$186,287. This is due to a great extent to the development of the Badger mine and others in the Rabbit Mountain and Silver Mountain districts in Ontario, and to the mines in Kootenay district, British Columbia.

**British Columbia.** In British Columbia, small shipments, aggregating, \$37,925, were made from the various camps in Kootenay and Illecillewaet districts, as well as from Stump Lake and the Monarch mine at Field.

From the report of the Minister of Mines of this province it is reasonable to infer that large shipments of silver and other minerals will be made during the ensuing season, as development and prospecting have been carried on to a considerable extent in various parts of the province, notably in the Kootenay district and Kamloops division.

**Ontario.** Owing to our inability to obtain direct returns from all the produce in the district west of Port Arthur, the exports for the year are taken as representing the total production in Ontario. As all the silver is exported to the United States there is every reason to believe that this estimate is correct. Silver was produced only in the Rabbit, and Silver Mountain districts, west of Port Arthur, principally from the Beaver, Badger, Rabbit and Silver Mountain mines.

The exports amounted to \$208,064.

**Quebec.** The silver from this province is obtained altogether from the copper deposits of Capelton, where it occurs in about the proportion of one ounce of silver to each per cent of copper. The production is estimated at \$149,388.

**Exports.** The exports of silver ore for the last three years are as follows:—

EXPORTS OF SILVER ORE.

Province.	1886.	1887.	1888.
Ontario....	\$16,505	\$184,763	\$208,064
Quebec....	8,000	450	5
Manitoba....	1,452	3,741	.....
British Columbia..	.....	17,331	10,939
Totals.....	\$25,957	\$206,284	\$219,008



## STRUCTURAL MATERIALS.

*Granite*—Granite was produced during 1888 to the extent of 21,352 Granite. tons, valued at \$147,305, showing an increase over last year of 135 tons and \$4,799. The greater part of the above production is used in the manufacture of monuments and other decorative work, the estimated value of which is about \$350,000.

The output is that of twelve producers, who employ about 240 hands. <sup>Marble and Serpentine.</sup>

*Marble and Serpentine.*—The production as reported to this office was 191 tons, valued at \$3,100. This return being considered incomplete no comparison is made with the production of the previous year.

The following tables show the imports of marble and granite into <sup>Exports and Imports.</sup> Canada during the past two years. As the exports of these two stones are not kept separate it has been found impossible to give them :—

## IMPORTS OF MARBLE.

TABLE 1.

Province.	1887.	1888.
Ontario . . . . .	\$39,673	\$51,284
Quebec . . . . .	22,840	26,817
Nova Scotia . . . . .	9,580	11,744
New Brunswick . . . . .	6,682	8,081
Prince Edward Island . . . . .	1,997	3,074
Manitoba . . . . .	110	492
British Columbia . . . . .	2,076	3,550
Totals . . . . .	\$82,958	\$105,042

## IMPORTS OF MANUFACTURES OF STONE OR GRANITE, N. E. S.

TABLE 2.

Province.	1887.	1888.
Ontario.....	\$15,253	\$40,502
Quebec .....	3,286	14,340
Nova Scotia.....	491	1,343
New Brunswick.....	465	1,397
Prince Edward Island...	117	264
Manitoba .....	1,059	397
British Columbia.....	940	722
Totals.....	\$21,611	\$58,965

Slate.

*Slate.*—The production during 1888 amounted to 5,314 tons, valued at \$90,689. This production is altogether that of the province of Quebec. There is a slight decrease in the quantity produced, though there is an increase in value of \$1,689.

Exports and Imports.

The following tables show the exports of slate for the past five years, and the imports for 1887 and 1888 :—

## EXPORTS OF SLATE FOR THE LAST FIVE YEARS.

TABLE 3.

Year.	Tons.	Value.
1884	539	\$6,845
1885	346	5,274
1886	34	495
1887	27	373
1888	22	475

## IMPORTS OF SLATE.

TABLE 4.

Province.	1887.	1888.
Ontario .....	\$17,299	\$30,704
Quebec.....	2,211	2,025
Nova Scotia.....	927	694
New Brunswick.....	3,909	2,379
Prince Edward Island.....	88	172
Manitoba.....	191	149
British Columbia.....	589	2,382
Totals.....	\$25,214	\$38,505

*Flagstones.*—Returns were received showing the production to be <sup>Flagstones.</sup> 64,800 feet, valued at 6,580. This return is very incomplete, and does not at all represent the total output for the year.

It is impossible to show the amount of flagstone exported, if any, as <sup>Building Stone.</sup> it is not kept separate by the Customs Department. The imports during the year amounted to \$16,343, all into the province of Ontario.

*Building Stone.*—Notwithstanding that fewer returns were received than last year, there is an increase in the reported production of building stone of 148,978 cubic yards and \$89,445, proving that there was a great increase in the total production during the year. The total amount of stone quarried in the Dominion is estimated to have been about 600,000 cubic yards, valued at about 750,000.

The production during the year 1888, as returned to this office, is as follows:—

## PRODUCTION OF BUILDING STONE DURING 1888 (AS RETURNED TO THIS OFFICE.)

TABLE 5.

Province.	Number of returns.	Cubic yards.	Value.
Ontario.....	50	165,231	\$310,949
Quebec .....	20	199,778	185,027
Nova Scotia.....	18	42,059	120,245
New Brunswick.....	3	1,953	19,680
Prince Edward Island....	1	300	300
Manitoba.....	1	297	981
North-West Territories...	2	1,952	4,530
Totals.....	About 95	411,570	\$641,712

Exports and Imports.

In the following tables are shown the exports and imports of stone for the last two years:—

## EXPORTS OF STONE AND MARBLE, WROUGHT AND UNWROUGHT.

TABLE 6.

Province.	1887.		1888.	
	Wrought.	Unwrought.	Wrought.	Unwrought.
Ontario .....	\$ 17	\$ 4,490	\$ 1,660	\$23,284
Quebec .....	670	.....	490	90
Nova Scotia.....	425	24,476	505	17,496
New Brunswick.....	12,827	24,925	19,442	15,135
British Columbia.....	70	95	17	.....
Totals.....	\$14,009	\$53,986	\$22,114	\$56,005

## IMPORTS OF DRESSED FREESTONE AND OTHER BUILDING STONES.

TABLE 7.

Province.	1887.	1888.
Ontario.....	\$3,189	\$1,268
Quebec.....	74	8,200
Nova Scotia.....	....	252
Prince Edward Island....	2	....
British Columbia.....	148	....
Totals.....	\$3,413	\$9,720

## IMPORTS OF ROUGH FREESTONE, SANDSTONE AND BUILDING STONE.

TABLE 8.

Province.	1887.	1888.
Ontario.....	\$47,610	\$68,196
Quebec.....	22,014	25,330
New Brunswick.....	254	546
Totals.....	\$69,878	\$94,072

*Lime.*—As in the case of the building stone returns, it has been found impossible to obtain full returns of the amount of lime manufactured throughout the Dominion, but it is estimated that there was 2,500,000 bushels valued at about \$375,000.

Direct returns received at this office give the following result:—

## PRODUCTION OF LIME DURING 1888 (AS RETURNED TO THIS OFFICE.)

TABLE 9.

Province.	Number of returns.	Bushels.	Value.
Ontario .....	59	1,296,343	\$169,194
Quebec .....	7	356,646	61,489
Nova Scotia .....	About 10	29,450	6,480
New Brunswick.....	7	440,225	82,993
Prince Edward Island...	2	20,300	6,075
Manitoba .....	5	57,600	8,940
North-West Territories...	2	3,200	880
British Columbia.....	1	13,000	3,900
Totals.....	93	2,216,764	\$339,951

Cement.

*Cement.*—Direct returns show a production of cement amounting to 50,668 barrels valued at \$35,593, a decrease from the previous year of 19,175 barrels and \$46,316. This is supposed to represent very nearly the total production in the Dominion.

Exports and Imports of Lime and Cement.

In the following tables will be found the exports and imports of lime and cement:

## EXPORTS OF LIME AND CEMENT DURING 1887 AND 1888.

TABLE 10.

Province.	1887.	1888.
Ontario .....	\$4,269	\$12,262
Quebec.....	83	398
Nova Scotia.....	142	278
New Brunswick.....	77,518	97,318
Prince Edward Island.....	4	.....
Manitoba.....	241	.....
British Columbia.....	4	.....
Totals.....	\$82,261	\$110,256

## IMPORTS OF LIME DURING 1887 AND 1888.

TABLE 11.

Province.	1887.		1888.	
	Barrels.	Value.	Barrels.	Value.
Ontario .....	4,379	\$3,487	6,616	\$4,016
Quebec .....	3,441	2,501	3,148	2,223
Nova Scotia.....	450	407	399	366
New Brunswick.....	46	44	104	105
Manitoba .....	904	791	450	394
British Columbia.....	700	860	1,251	1,251
Totals.....	9,920	\$8,090	11,968	\$8,355

## IMPORTS OF HYDRAULIC CEMENT.

- TABLE 12.

Province.	1887.		1888.	
	Barrels.	Value.	Barrels.	Value.
Ontario.....	3,505	\$3,705	3,102	\$3,360
Quebec .....	46	163	1,051	2,038
Nova Scotia .....	31	70	506	785
New Brunswick.....	1,476	2,054	1,208	1,553
British Columbia.....	35	136	22	74
Totals.....	5,093	\$6,128	5,889	\$7,810

## IMPORTS OF CEMENT IN BULK OR IN BAGS.

TABLE 13.

Province.	1887.		1888.	
	Bushels.	Value.	Bushels.	Value.
Ontario .....	6,029	\$1,554	3,220	\$824
Nova Scotia.....	18,666	4,456	27,066	9,434
Totals.....	24,695	\$6,010	30,286	\$10,258

## IMPORTS OF PORTLAND CEMENT.

TABLE 14.

Province.	1887.		1888.	
	Barrels.	Value.	Barrels.	Value.
Ontario .....	5,705	\$ 7,761	10,896	\$15,570
Quebec.....	98,760	139,409	79,045	109,736
Nova Scotia.....	6,911	11,124	12,174	20,104
New Brunswick.....	2,846	4,307	3,899	5,977
Prince Edward Island....	123	186	703	1,249
British Columbia.....	2,515	6,682	4,358	8,247
Totals.....	116,860	\$169,469	111,075	\$160,883

Bricks and  
Tiles.

*Bricks and Tiles.*—There were received direct from the producers 231 returns of bricks made, and 63 of tiles, showing in the case of the brick production an increase in the amount reported to this office of \$50,057, and a decrease in the reported production of tiles of \$116,011. These differences do not necessarily show any increase or decrease in the production of these two articles, though it is supposed that, in view of the great amount of building that was carried on in the cities of Ontario and Quebec, there was a considerable increase over the previous year.

It is estimated that there were about 200,000 of bricks made during the year, valued at about \$1,500,000, and about 10,000 of tiles, valued at about \$150,000.

The production is summarized in the two following tables:—



## PRODUCTION OF BRICKS DURING 1888 (AS REPORTED TO THIS OFFICE.)

TABLE 15.

Province.	Number of returns.	Thousands.	Value.
Ontario.....	179	123,179	\$736,684
Quebec.....	22	24,925	167,591
Nova Scotia.....	14	7,060	46,695
New Brunswick.....	7	5,064	32,294
Prince Edward Island....	4	940	6,900
Manitoba.....	1	200	2,400
North-West Territories...	1	150	1,650
British Columbia.....	3	4,300	42,532
Totals.....	231	165,818	\$1,036,746

## PRODUCTION OF TILES DURING 1888 (AS RETURNED TO THIS OFFICE.)

TABLE 16.

Province,	Number of returns.	Thousands.	Value.
Ontario.....	59	7,330	\$111,117
Quebec.....	1	38	570
Nova Scotia.....	1	30	300
New Brunswick.....	2	120	2,070
Totals.....	63	7,518	\$114,057

Imports.

## IMPORTS OF BUILDING BRICK.

TABLE 17.

Province.	1887.	1888.
Ontario.....	\$1,861	\$1,619
Quebec.....	13,444	22,137
Nova Scotia.....	82	95
New Brunswick.....	64	329
Manitoba.....	18	14
British Columbia.....	33	....
Totals.....	\$15,502	\$24,194

## IMPORTS OF DRAIN TILES AND SEWER PIPES.

TABLE 18.

Province.	1887.	1880.
Ontario.....	\$71,424	\$65,675
Quebec.....	16,041	27,095
Nova Scotia.....	554	252
New Brunswick.....	914	789
Manitoba.....	809	629
British Columbia.....	638	4,793
Totals.....	\$90,380	\$99,233

## IMPORTS OF FIRE BRICKS, TILES, ETC.

TABLE 19.

Province.	1887.	1888.
Ontario .....	\$21,221	\$38,343
Quebec .....	31,240	35,033
Nova Scotia .....	687	11,372
New Brunswick .....	7,778	950
Prince Edward Island .....	263	248
Manitoba .....	178	484
British Columbia .....	962	3,881
Totals .....	\$62,329	\$90,311

## IMPORTS OF FIRE CLAY.

TABLE 20.

Province.	1887.	1888.
Ontario .....	\$ 7,285	\$ 8,797
Quebec .....	17,861	12,884
Nova Scotia .....	1,106	1,144
New Brunswick .....	312	968
Prince Edward Island .....	36	37
Manitoba .....	120	160
British Columbia .....	724	739
Totals .....	\$27,444	\$24,929

## IMPORTS OF CLAYS, ALL OTHER N. E. S.

TABLE 21.

Province.	1887.	1888.
Ontario .....	\$5,502	\$3,224
Quebec.....	473	3,562
Nova Scotia.....	.....	26,051
New Brunswick.....	233	.....
British Columbia.....	3	13
Totals.....	\$6,211	\$32,850

## IMPORTS OF EARTHENWARE.

TABLE 22.

Articles.	1887.	1888.
Brown and colored Earthen and Stoneware and Rockingham ware.....	\$ 29,563	\$ 36,224
Decorated, printed or sponged, and all Earthenware, N. E. S.....	171,836	167,860
Demijohns or jugs, churns and crocks.....	6,448	5,905
Totals.....	\$207,847	\$209,989

Miscellaneous  
Clay Products.

*Miscellaneous Clay Products.*—Returns of the manufacture of miscellaneous clay products to the amount of \$343,870 were received for the year 1888, divided as follows:—

Silver pipes and Tiles.....	\$266,320
Terra-cotta .....	49,800
Pottery ware.....	27,750
	<hr/>
	\$343,870

Sand and  
Gravel.

*Sand and Gravel.*—No returns were received of these two products. The following tables show the exports and imports:—

## EXPORTS OF SAND AND GRAVEL.

TABLE 23.

Province.	1887.		1888.	
	Tons.	Value.	Tons.	Value.
Ontario.....	180,699	\$29,470	260,759	\$38,043
Quebec.....	.....	22	.....	.....
Nova Scotia.....	161	815	170	355
Totals.....	180,860	\$30,307	260,929	\$38,398

## IMPORTS OF SAND AND GRAVEL.

TABLE 24.

Province.	1887.		1888.	
	Tons.	Value.	Tons.	Value.
Ontario.....	10,361	\$16,956	9,194	\$13,536
Quebec.....	6,586	7,931	14,556	12,937
Nova Scotia.....	1,264	4,271	1,459	3,815
New Brunswick.....	1,014	1,300	1,371	1,795
Manitoba.....	15	40	25	81
British Columbia.....	1	10	21	73
Totals.....	19,241	\$30,508	26,626	\$32,237

