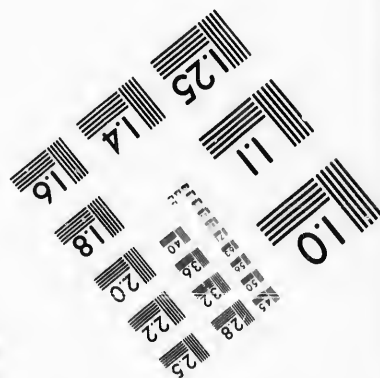
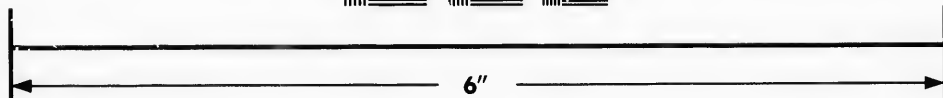
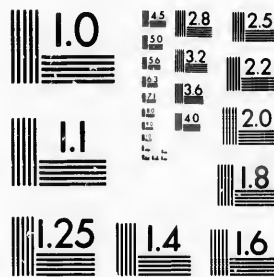


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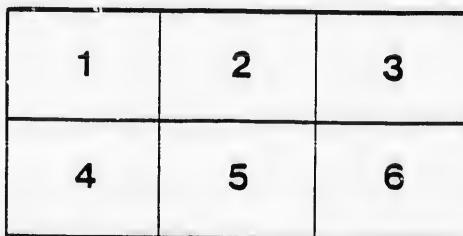
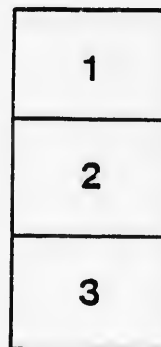
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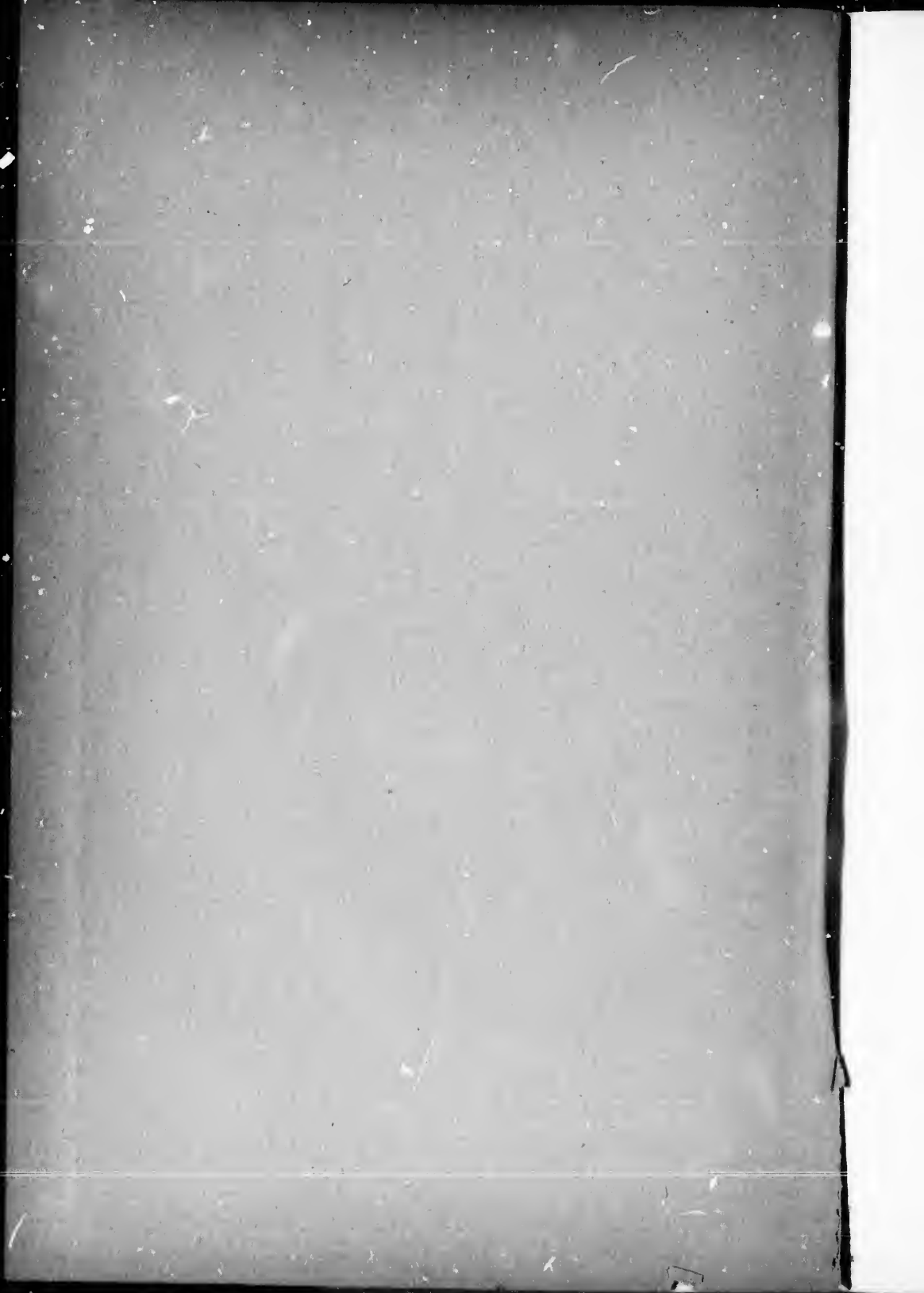
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1897

MINERAL PRODUCTION OF CANADA

To Dr. G. M. DAWSON, C.M.G., F.R.S., Etc.,
Director of the Geological Survey.

SIR,—I have the honour herewith to submit the annual preliminary statistical statement of the mineral production of Canada for the calendar year 1897.

The necessity of waiting for several important returns has held back this statement a few days later than the date at which it was found possible to complete it last year.

Whilst for many of the products it is not found possible, at this time, to obtain final figures, yet we are enabled, in most cases, to fill in the places of missing returns by close estimates, based on a general knowledge of the progress made in the various industries.

The complete report will follow later, and besides containing a revise of this general table of production, will include other details relating to exploration, development, exports, imports, etc. As much of this information is not available till several months after the close of the year, and the compilation and printing necessarily occupy some time, it cannot, in the nature of things, be issued until well on in the year following the one covered.

I am, sir,

Your obedient servant,

ELFR E DREW INGALL.

Geological Survey of Canada,
Section of Mineral Statistics and Mines,
23rd February, 1898.

GEOLOGICAL SURVEY OF CANADA
G. M. DAWSON, C.M.G., LL.D., F.R.S., DIRECTOR.

SECTION OF
MINERAL STATISTICS AND MINES

SUMMARY

OF THE

MINERAL PRODUCTION OF CANADA

FOR 1897

ELFRIC DREW INGALL, M.E.,

*Associate of the Royal School of Mines, Mining Engineer
to the Geological Survey of Canada.*

ASSISTANT

J. McLEISH, B.A.



PUBLISHED BY AUTHORITY OF PARLIAMENT.

No. 640.

GEOLOGICAL SURVEY OF CANADA.

SUMMARY OF THE MINERAL PRODUCTION OF CANADA IN 1897.

(Subject to Revision.)

PRODUCT.	Quantity. (a)	Value. (a)
METALLIC.		
		\$
Copper (fine, in ore, &c.) (b)	Lbs. 13,300,802	1,501,660
Gold		6,190,000
Iron ore	Tons. 71,451	178,716
Lead (fine, in ore, &c.) (c)	Lbs. 39,018,219	1,396,853
Mercury	" 688	324
Nickel (fine, in ore, &c.) (d)	" 3,197,647	1,399,176
Platinum		6,600
Silver (fine, in ore, &c.) (e)	Ozs. 5,558,416	3,323,905
Total metallic		13,996,234
NON-METALLIC.		
Asbestos and asbestie	Tons. 25,262	324,700
Chromite	" 2,637	32,474
Coal	" 3,876,201	7,286,257
Coke (f)	" 78,811	209,920
Felspar	" 1,275	3,506
Fire clay	" 1,923	5,759
*Grindstones	"	40,000
Gypsum	" 239,691	244,531
*Limestone for flux	"	40,000
*Mica	"	75,000
Mineral pigments—		
Baryta	Tons. 571	3,060
Ochres	" 3,905	23,560
*Mineral water	Galls.	140,000
Moulding sand	Tons. 5,485	10,931
Natural gas (g)		325,873
Petroleum (h)	Bbls. 709,857	1,011,546
Phosphate (apatite)	Tons. 908	3,984
Pyrites	" 38,910	116,730
*Salt	"	190,000
Sundry minerals, partly estimated, including actinolite, graphite, manganese, soapstone and tripolite		10,000

* Partly estimated.

(a) Quantity or value of product marketed. The ton used is that of 2,000 lbs.

(b) Copper contents of ore, matte, etc., at 11.29 cents per lb.

(c) Lead contents of ores, etc., at 3.58 cents per lb.

(d) Nickel contents of ore, matte, etc., at 35 cents per lb.

(e) Silver contents of ore at 59.79 cents per oz.

(f) Oven coke, all the production of Nova Scotia and British Columbia.

(g) Gross return from sale of gas.

(h) Calculated from inspection returns at 100 galls. crude to 42 refined oil, and computed at \$1.124 per bbl. of 35 imp. galls. The barrel of refined oil is assumed to contain 42 imp. galls.

SUMMARY OF THE MINERAL PRODUCTION OF CANADA
IN 1897—*Concluded.*

(Subject to Revision.)

PRODUCT.	Quantity. (a)	Value. (a)
STRUCTURAL MATERIALS AND CLAY PRODUCTS.		
Cement, natural..... Bbls.	85,450	65,893
“ Portland..... “	119,763	209,380
Flagstones.....		7,190
*Granite.....		75,000
*Pottery.....		125,000
Sewer pipe.....		164,250
Slate.....		42,800
Terra-cotta.....		155,595
Building material, including bricks, building stone, lime, sands and gravels and tiles (estimated as for previous year).....		3,600,000
Total structural materials and clay products.....		4,445,108
All other non-metallic.....		10,097,831
Total non-metallic.....		14,542,939
Total metallic.....		13,996,234
Estimated value of mineral products not returned.....		250,000
1897, Total.....		28,789,173
1896 “.....		22,609,825
1895 “.....		20,715,319
1894 “.....		19,933,857
1893 “.....		20,035,082
1892 “.....		16,628,417
1891 “.....		18,976,616
1890 “.....		16,763,353
1889 “.....		14,013,913
1888 “.....		12,479,550
1887 “.....		11,365,705
1886 “.....		10,221,255

* Partly estimated.

(a) Quantity or value of product marketed. The ton used is that of 2,000 lbs.

REMARKS.

The figures given in the preceding general table bring out in a marked degree the gratifying results of the greatly increased activity in the mining industry during 1897.

The following table shows the principal changes in production and values for the calendar year 1897, as compared with the figures given in the revised summary for 1896.

PRODUCT.	QUANTITY.		VALUE.	
	Increase.	Decrease.	Increase.	Decrease.
	p. c.	p. c.	p. c.	p. c.
<i>Metallic:—</i>				
Copper	41.6		46.9	
Gold			122.6	
Iron Ore		22.3		6.7
Lead	61.2		93.7	
Nickel	17.7		17.7	
Silver	73.4		54.6	
<i>Non-Metallic:—</i>				
Asbestos and Asbestic	106.2			24.5
Coal	3.5		0.8	
Gypsum	15.8		37.3	
Natural Gas			17.9	
Petroleum		2.3		12.5
Cement	37.6		36.5	

The increase in the items silver and lead is practically all to be credited to British Columbia, to which province is also largely due the increase in the production of copper. The largest increase in this latter metal is, however, due to the increased shipments of nickel-copper mattes from the Sudbury mines in Ontario. The third copper producing province, Quebec, also contributed a fair amount to the increase shown. The silver, copper and lead increases as far as British Columbia is concerned, represent the largely extended activities in the South Kootenay districts of Slocan, Nelson and Trail Creek.

The most significant item, however, is to be found in the increase of nearly 123 per cent in the gold. All the gold producing districts of the Dominion show gratifying increases, although by far the largest part is due to the discoveries of rich placer mines in the Yukon country, and to the increased output of Trail Creek and other districts in British Columbia. The former increase amounted to about 2½ millions and the latter to nearly \$1,000,000.

The remaining metal of importance is nickel which is seen to have shown an increase of nearly 18 per cent. As in the past this is all from the Sudbury district.

Thus the aggregate result of the increases in the metallic products is nearly \$6,000,000, or a proportion of about 74 per cent.

An interesting result of the mining developments and discovery of 1897 is shown in the increase in the proportion of the value of the total mineral production to be credited to the metals. In 1896 these constituted about 36 per cent, whilst in 1897 this proportion was increased to nearly 49 per cent.

Turning to the non-metallic products, we find that as far as the data at present available permit of a conclusion being arrived at, the total value shows under 2 per cent of an increase over that of the previous year. The only considerable change to be noted is that given under the heading asbestos, where the quantity has more than doubled, whilst the value has fallen off almost 25 per cent. This is due to the fact that the output of the new by-product asbestic, is included. This constitutes over half the weight of the whole, but being a low priced article brings down the price per unit very much. The returns, however, show also a falling off in the prices of the usual grades of the mineral apart from the above influence.

In the important mineral coal the variation is but little. The falling off in the production of the higher priced mineral of British Columbia and the increase in that of Nova Scotia at a lower price, causing a fall in the total value. In gypsum the increase in the value is larger than that shown in the quantity. This is due to the larger proportion of the higher priced product, Plaster of Paris, included in the returns for 1897. The lower average price ruling during that year for petroleum caused the decrease in the value of this article to be much greater than that in the quantity.

The following table gives the proportional values of the different minerals in the grand total. It is interesting to note the changes in their relative position in 1897 as compared with 1896 :—

1896.		1897.	
PRODUCT.	Per cent of Total Production.	PRODUCT.	Per cent of Total Production.
Coal	31.94	Coal	25.31
Building material..	15.72	Gold	21.50
Gold	12.30	Building material..	12.50
Silver	9.50	Silver	11.54
Nickel	5.25	Copper	5.21
Petroleum	5.11	Nickel	4.86
Copper	4.52	Lead	4.85
Lead	3.20	Petroleum	3.51
Asbestos	1.90	Natural Gas	1.13
Natural Gas	1.22	Asbestos	1.13
Cement .....	.89	Cement .....	.95
Iron .....	.85	Gypsum .....	.84
Gypsum .....	.79	Coke .....	.73
Salt .....	.75	Salt .....	.66

