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THE ABRASIVES INDUSTRY IN CANADA, 1929.

A report just issued by the Mining, Metallurgical and Chemical Branch of the Dominion Bureau of Statistics at Ottawa contains the following information concerning the abrasives industry.

The abrasives industry in Canada includes two main divisions: (1) The Natural Abrasives Industry, covering the production of natural abrasives such as grindstones, pulpstones and scythestones, corundum, diatomite, volcanic dust, etc.; and (2) The Artificial Abrasives and Abrasive Products Industry, which covers the manufacture of silicon carbide, fused alumina, abrasive wheels, abrasive paper, etc.

(1). NATURAL ABRASIVES.

Corundum.- Corundum is found in an area embracing several townships in Renfrew and Hastings counties in the province of Ontario. The industry made its appearance there in 1900 and production reached a maximum in 1906. In 1921, grain corundum amounting to 403 tons valued at \$55,965 was exported to the United States. Since that date no shipments of corundum have been reported.

Diatomite.- Shipments of diatomite in 1929 were made from deposits at East New Minan, Nova Scotia, and Quesnel, B.C. The total production for the year was 429 tons valued at \$10,330 as compared with 368 tons worth \$8,960 shipped in 1928.

Garnets.- Operations in the garnet industry in Canada during 1929 consisted of development work on deposits in Beaudin, Joly and Trevet townships, Quebec. A small experimental shipment was made from the Joly property during the year.

Grinding Pebbles.- No shipments from Canadian deposits of grinding pebbles have been reported since 1926; during that year 64 tons were produced. This tonnage was shipped from deposits on the shore of Lake Superior, near Jackfish, Ontario.

Grindstones, Pulpstones and Scythestones.- The production of grindstones, pulpstones and scythestones from Canadian quarries during 1929 amounted to 1,947 tons valued at \$16,354; in the preceding year shipments totalled 1,855 tons worth \$100,960. Grindstones were obtained from Nova Scotia and New Brunswick; pulpstones from New Brunswick and British Columbia; and scythestones from New Brunswick.

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Volcanic Dust.— Volcanic dust is used for purposes similar to ground pumice, particularly in the manufacture of cleansers and scouring powders and in some instances as a substitute for fuller's earth in the refining of hard oils and fats. The Canadian market for volcanic dust is not large, nevertheless, only about 2 per cent is supplied by the domestic product.

The extensive beds of volcanic dust that occur near Valdeek, Saskatchewan, were first discovered in 1918. Shipments have been made from these deposits annually for the past six years. In 1929, production amounted to 300 tons valued at \$6,000 as compared with 480 tons at \$9,795 shipped in the preceding year.

The 9 firms operating in the natural abrasives industry in Canada during 1929 reported a capital investment of \$790,791. Salaried employees and wage-earners totalled 154 persons, whose combined earnings were \$152,805. Fuel and electricity costs amounted to \$18,942.

PRODUCTION OF NATURAL ABRASIVES IN CANADA, 1929.

Diatomite	: Grindstones, Pulpstones:			Volcanic Dust	
	Tons	Tons	Tons	Tons	Tons
Nova Scotia.....	254	5,030	6	110	...
New Brunswick....	1,751	105,514	...
Saskatchewan.....	300
British Columbia	175	5,250	210	2,750	...
CALUMA.....	429	10,330	1,947	106,354	300
					6,000

PRINCIPAL STATISTICS OF THE NATURAL ABRASIVES INDUSTRY IN CANADA, 1928 and 1929.

	1928	1929
Number of firms.....	9	9
Capital employed.....	448,618	790,791
Number of employees: On salary.....	11	18
On wages.....	132	136
Total.....	143	154
Salaries and Wages:- Salaries.....	20,716	38,648
Wages.....	75,843	114,157
Total.....	96,558	152,805
Cost of fuel and electricity.....	13,998	18,942
Selling value of products.....	119,715	132,684

(3) THE ARTIFICIAL ABRASIVES AND ABRASIVE PRODUCTS INDUSTRY

Manufactures of artificial abrasives and abrasive products in Canada were valued at \$6,961,951 in 1929. This output was 26 per cent over the corresponding selling value of \$7,122,588 in 1928 which in turn was 16 per cent over the total of \$6,106,794 in 1927. Among the principal products made in this industry were: 53,857 tons of fused alumina at \$4,974,780 and 21,592 tons of silicon carbide at \$2,877,033, abrasive wheels worth \$819,884 and other commodities such as ferrosilicon, abrasive cloth and paper,

firesand, pulpstones and sharpening stones.

For 1929, reports were received from 12 plants of which 11 were in Ontario and 1 in Quebec. Capital employed by these firms amounted to \$6,683,533 distributed as follows: cost of lands, buildings, equipment, etc., \$4,166,186; supplies and stock on hand, \$1,381,556; cash, trading and operating accounts and bills receivable, \$1,135,791. The average number of employees was 828 and salaries and wages for the year totalled \$1,270,898. Materials used in manufacturing cost \$2,905,928 at the works, and the value added by manufacturing processes was \$6,056,025.

PRINCIPAL STATISTICS OF THE ARTIFICIAL ABRASIVES AND ABRASIVE PRODUCTS INDUSTRY
IN CANADA, 1928 and 1929.

	1 9 2 8	1 9 2 9
Number of firms.....	12	12
Capital employed.....	\$ 7,317,105	\$ 6,683,533
Number of employees:- On salary.....	92	101
On wages.....	599	727
Total.....	691	828
Salaried and wages:- Salaries.....	\$ 213,268	\$ 239,725
Wages.....	835,253	1,031,173
Total.....	1,048,521	1,270,898
Cost of fuel and electricity.....	\$ 644,557	\$ 873,068
Cost of materials used.....	\$ 2,169,428	\$ 2,905,928
Selling value of products.....	\$ 7,122,588	\$ 8,961,951

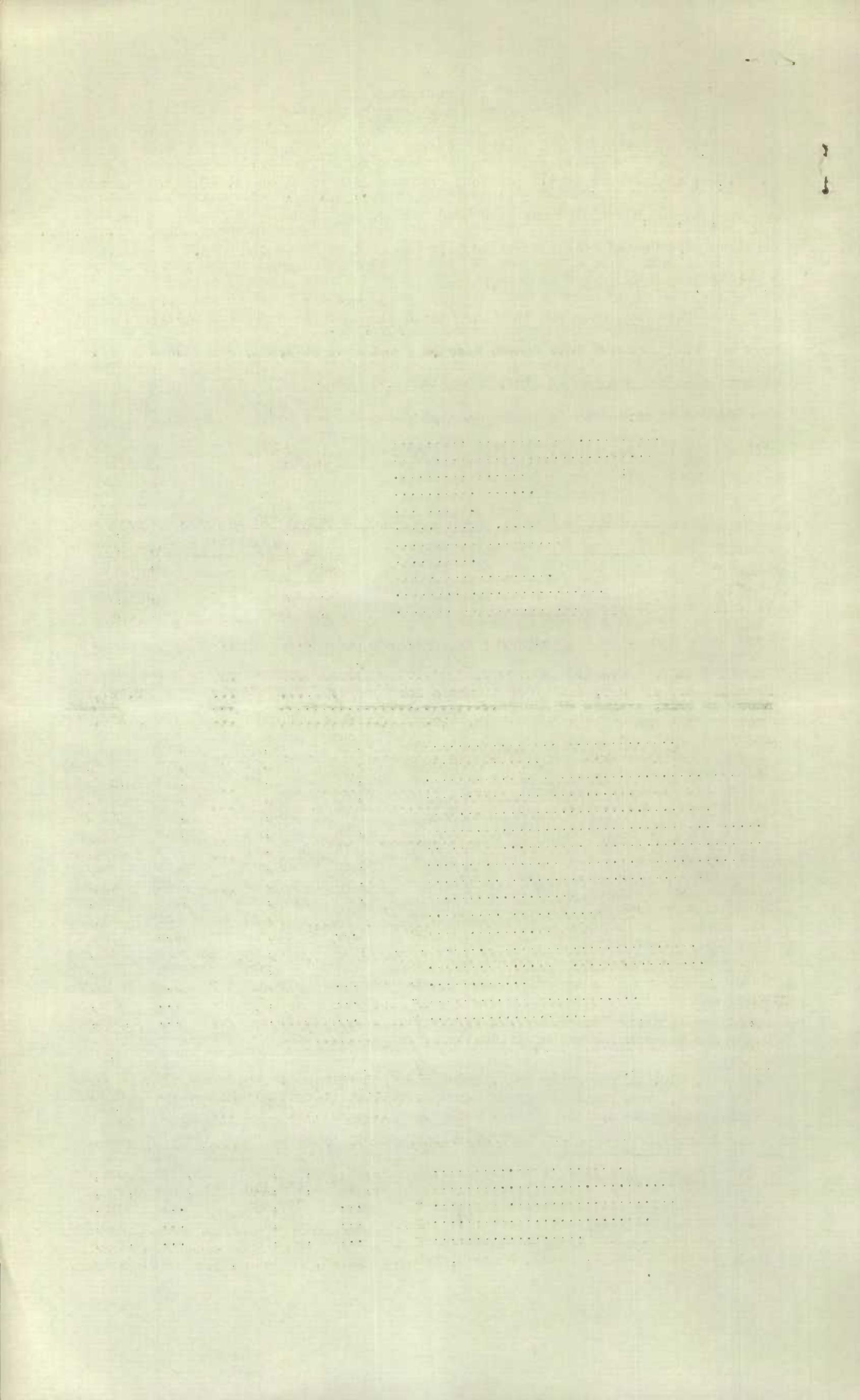
MATERIALS USED IN THE ARTIFICIAL ABRASIVES AND ABRASIVE PRODUCTS INDUSTRY IN CANADA,
1928 and 1929.

Materials	Unit of measure	1 9 2 8		1 9 2 9	
		Quantity	Cost at works	Quantity	Cost at works
Aluminum oxide.....	ton	3,295	\$3,498	5,128	\$206,698
Anthracite coal (not for fuel).....	ton	5,601	36,279	6,310	36,029
Bauxite.....	ton	39,751	812,782	6,540	1,142,831
Coke (not for fuel).....	ton	21,787	295,571	42,238	362,723
Electrodes.....	ton	976	128,234	1,163	158,898
Iron.....	ton	5,505	56,937	9,896	112,366
Salt.....	ton	472	4,048	367	3,061
Sawdust.....	ton	7,432	28,513	7,439	34,017
Silica sand.....	ton	37,152	177,342	43,242	211,196
Artificial abrasive grains.....	ton	2,840	149,967	4,070	190,529
Natural abrasive grains.....	ton	275	15,011	163	15,018
Bonding and bushing materials.....	-	...	41,463	...	37,730
Cotton cloth.....	sq.yd.	167,178	29,209	139,658	20,329
Kraft paper.....	ton	45	5,753	35	4,409
Containers, boxes, packages, etc.....	-	...	17,256	...	12,398
All other materials.....	-	...	193,610	...	331,906
TOTAL.....	-	...	\$ 2,169,428	...	\$ 2,905,928

PRODUCTS OF THE ARTIFICIAL ABRASIVES AND ABRASIVE PRODUCTS INDUSTRY IN CANADA, 1928 and 1929.

Products	Unit of measure	1 9 2 8		1 9 2 9	
		Quantity	Selling value at works	Quantity	Selling value at works
Crude silicon carbide.....	ton	19,009	\$2,098,199	21,592	\$2,577,033
Fused alumina.....	ton	39,413	3,786,113	53,857	4,974,789
Abrasive wheels.....	-	...	847,489	...	819,884
Other products (x).....	-	...	390,787	...	590,345
TOTAL.....	-	...	\$ 7,122,588	...	\$ 8,961,951

(x) Includes ferrosilicon, abrasive cloth, abrasive paper, firesand, sharpening stones, and pulpstones.



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(3) IMPORTS AND EXPORTS OF ABRASIVES

Imports of abrasives and abrasive products into Canada during 1929 were valued at \$4,552,160, an increase of 9.7 per cent over the 1928 total of \$4,148,260. Diamond dust or bort and black diamonds accounted for 59.9 per cent of the total imports of abrasives; the United States supplied 94.1 per cent of these diamonds. Importations of grindstones were valued at \$448,382; these came mainly from the United States although minor shipments were received from the United Kingdom. Sand paper and other abrasive paper or cloth imported into Canada reached a value of \$498,328, an advance of 17.7 per cent over the imports in 1928.

Exports of abrasives in 1929 rose 15.3 per cent to a total of \$3,915,917. Artificial abrasives, crude, including carborundum, made up 97.4 per cent of the total exports.

IMPORTS INTO CANADA AND EXPORTS OF ABRASIVES IN 1929.

	Quantity	Value
IMPORTS -		
Abrasives -		
Artificial abrasives in bulk, crushed or ground, when imported for use in the manufacture of abrasive wheels and polishing composition.....	...	251,704
Carborundum wheels or stones not further manufactured than moulded and burned.....	...	219,475
Diamond dust or bort, and black diamonds for borers.....	...	2,727,285
Emery in bulk, crushed or ground.....	...	54,433
Emery wheels and carborundum wheels, n.o.p.....	...	133,779
Emery or carborundum, manufactures of, including carborundum stones, n.o.p.....	...	99,036
Grindstones, not mounted, and not less than 36 inches in diameter.....	...	424,613
Grindstones, n.c.p.....	...	23,769
Pumice and pumice stone, lava and calcareous tufa, not further manufactured than ground.....	...	35,955
Sand paper, glass, flint and emery paper or emery cloth...	...	498,328
Iron, sand or globules, or iron shot, and dry putty, adapted for polishing glass or granite or for sawing stone	...	41,934
Burrstones in blocks, rough or unmanufactured, not bound up or prepared for binding into millstones.....	No. 30	1,310
Diatomaceous earth or infusorial earth (kieselguhr), ground or unground.....	Cwt. 23,857	40,539
TOTAL.....	...	4,552,160
EXPORTS -		
Grindstones, manufactured.....	...	36,536
Stone for the manufacture of grindstones, rough.....	tons 64	154
Abrasives -		
Natural, n.o.p., in ore or bulk, crushed or ground (x)cwt. 8,287		9,757
Artificial, crude, including carborundum.....	cwt. 1571,816	3,815,804
Artificial, made up into wheels, stones, etc.....	...	53,666
TOTAL.....	...	3,915,917

(x) including infusorial earth, rotten stone, tripoli, etc.

