## MICA, 1931.

Mica production in Canada during 1931 amounted to 1,339 tons valued at \$54,066 as compared with 1,170 tons valued at \$96,004 in 1930, according to finally revised statistics just issued by the Mining, Metallurgical and Chemical Branch of the Dominion Bureau of Statistics at Ottawa. The total Canadian production in 1931 came from deposits in Quebec and Ontario. The decrease in value from the previous year was due largely to the marketing of lower priced grades of thumb-trimmed mica. There were also decreases in the price per pound of scrap and splittings.

Muscovite and phlogopite are two commercially important variaties of mica found in Ganada. Muscovite occupies a minor position in mica product on as compared with phlogopite. Important phlogop te deposits are located in the provinces of Ontario and Quebec. Quebec deposits occur principally in the areas of Hull and Papineau counties adjacent to the Lievre and Gatineau rivers. In Ontario the more important occurrences are in Frontenac, Lanark and Leeds counties.

Sales of Canadian mica are generally made direct by the firms producing and grading the material. During recent years Canadian mica has encountered considerable competition from that of Madagascar, the only other commercially important phlogopite producer in the world.

While mica is used for a number of other purposes, its three principal uses are for electrical insulation, glazing and decoration. The most important of these at present is, however, as an insulator in the electrical industry. The specifications for high grade electrical commutator material are broadly as follows: clear ruby, colourless or greenish; must split easily into smooth plates, one one-thousandth inch thick; must be free from eracle, holes, stains and spots, wrinkles, rulings or knots in any form; the film should be capable of withstanding 20,00° volue; magneto condensers require considerably lower electrical resistance. Mica sheet, of greatly diversified shapes as washers, tubes, etc., are used extensively as an insulator in various electrical appliances. Canadian amber mica or phlogopite is considered to be one of the finest produced in the world for requirements in the electrical inductry.

The invention of built up mica boards has brought the use of the small sizes of mica within economic limits and for this purpose such material is converted into splittings.

Mica is now ground in the province of Quebec; the mills for the production of mica powder in the United States employ both wet and dry grinding. In wet grinding the scrap is passed through rolls, screened, and washed to remove clay, sand, and other foreign matter; the batch in the form of paste is ground by rotating wooden rollers, after final washing and drying the material is passed through a disintegrator and then bolted through silk cloth. The standard size of the finished product is between 140 and 150 mesh.

In the "dry grinding" a high speed pulverizer is used. The material is drawn out by a suction fan, passed through a cyclone collector and is finally screened to three grades between 20 and 100 mesh in wire cloth and trommels. The future development of mica deposits depends to some degree upon the extent to which substitutes may enter into competition with existing uses for the mineral.

Quotations for United States mica at the end of 1931 were as follows:- New Mexico white scrap, f.o.b. per ton, \$21.00; off color, \$18.00; punch white for discs, per pound, 10 cents; for washers, 8 cents. New Hampshire roofing mica, \$23.00 per ton f.o.b.; snow, \$34.00; 40 mesh white, \$40.00; 60 mesh, \$48.00; 100 mesh, \$60.00; 200 mesh, \$75.00; clean dry mixed bench and mine scrap, \$13.00. North Carolina punch, 3 to 5 cents per pound, f.o.b.;  $l_2$  x 2 inch, 20 to 30 cents; 2 x 2, 30 to 50 cents; 2 x 3, 60 to 90 cents; 3 x 3, \$1.00 to \$1.40; 3 x 4, \$1.40 to \$1.80; 3 x 5, \$1.50 to \$2.00; 4 x 6, \$2.25 to \$3.00; 6 x 8, \$2.50 to \$3.75; 8 x 10, \$5.00 to \$7.50. Black stained mica takes a discount of 10 to 25 per cent from this schedule. White North Carolina mica, 70 mesh, \$60 to \$80. Biotite or black mica, \$15.00 a ton unground.

<u>Note</u>1- Prices taken from "Engineering and Mining Journal"; information regarding United States production from United States Bureau of Mines bulletin.

PRODUCTION OF MICA IN CAN	ADA, BY GRADES,	1931.	
	Pounds	Value,f.o.b shipping point \$	Price per pound
Rough cobbed			*
Thumb-trimmed	49,835	5,717	0.11
Splittings	37,475	14,398 33,951	0.38 0.01
TOTAL	2,677,228	54,066	0.02

PRODUCTION IN CANADA, IMPORTS AND EXPORTS OF MICA, 1931.			
	Tons	Value \$	
PRODUCTION			
Quebec Ontario TOTAL	290 <u>1,049</u> <u>1,339</u>	30,601 23,465 54,066	
IMPORTS -			
Mica and manufactures of, n.o.p		92,294	
EXPORTS -			
Rough cobbed and thumb-trimmed Splittings Scrap and waste Plate and manufactures (micanite)	24 19 1,232	3,428 14,672 32,600 797	
TOTAL		51,497	

PRINCIPAL STATISTICS OF THE MICA INDUSTRY IN CANADA, 1930 and 1931.				
PRINCIPAL STATISTICS OF THE MICH INDUSTRIE IN CAL	MDA, 1990 and 19	OL.		
	1330	1931		
Number of firms	12	11		
Capital employed\$	441,744	276,356		
Number of employees:- On salary	4	3		
On wages	<u> </u>	<u> </u>		
Salaries and wages: Salaries\$	6,938	5,770		
Wages\$	56,378	16,786		
Total\$	63,316	22,556		
Cost of fuel and electricity\$	1,102	444		
Selling value of products\$	96 <sub>2</sub> 004	54,066		
WORLD PRODUCTION OF MICA, 1929 and 1930. (Supplied by Imperial Institute) (Long tons)				
Country and Description	1929	1930		
BRITISH EMPIRE		arishingalapman		
Kenya	2			
Northern Rhodesia	3	4		
Southern Rhodesia	169	162		
South West Africa (waste)	31 29	0.1		
Tanganyika Territory Union of South Africa (b)	1,525	21 878		
Canada ~	2,000	010		
Rough cobbed	0 = 0	20		
Thumb-trimmed	43	4		
Splittings	10 3,566	34 98 <b>7</b>		
Ceylon (exports)	(12 cwt.)	6 8 0 20 1		
British India (exports) -				
Sheet	890	741		
Splittings	4,914	3,404		
Australia	27	26		
Norway (exports) - Sheet		1		
Scrap	58	, 51		
Russia (years ended Sept. 30)	(a) 65	(a) 72		
Sweden	(c) 28 (c) 372	(c) 18 (c) 372		
United States (sales) - Sheets (uncut)	909	654		
Scrap socososooooo	5,583 117	6,011 98		
Argentina anono ano ano ano ana ana ana ana ana	44	51		
KoreaGuatemala	22 2	(a) <sup>28</sup>		
(a) Information not available. (b) Nearly all scrap.	(c) Exports.			
The following amounts of lithium mica wer	e produced:			
South West Africa	<u>1930</u> 250 long	tone		
France, (a)	250 long tons (a)			
Germany Fortugal	(269 long	tons		
Complete data for 1931 not yet available.				

