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DOMINION BUREAU OF STATISTICS - CANADA Dominion Statistician: R. H. Coats, B.A., F.S.S. (Hon.),

Mining, Metallurgical and Chemical Branch Chief: W. H. Losee, B.Sc.

PROPERTY NEW PROPE

DUMINION

## ASBESTOS, 1932.

The quantity and value of asbestos produced in Canada during 1932 showed decided declines from those for the output of this mineral in 1931, according to finally revised statistics issued by the Mining, Metallurgical and Chemical Branch of the Dominion Bureau of Statistics at Ottawa. Shipments fell to 122,977 tons valued at \$3,039,721 as compared with 164,296 tons worth \$4,812,886 in 1931, a decrease of 37 per cent in value and 25 per cent in volume. Compared with the figures for 1930 the decrease is still sharper, being 49 per cent in tonnage and 64 per cent in value. The average price of the asbestos shipped by the Quebec producers in 1932 was \$24.72 per ton whereas it was \$29.29 in 1931, \$34.65 in 1930 and \$43.04 in 1929. The tonnage of the shipments of asbestos in 1932 was the lowest recorded since 1921 and represents the lowest annual value since 1914. The average price for the year was the lowest in the history of the Quebec asbestos industry. The quantity of rock mined in 1932 totalled 1,145,340 short tons and the tonnage milled amounted to 1,029,709; 709,094 tons of tailings were retreated.

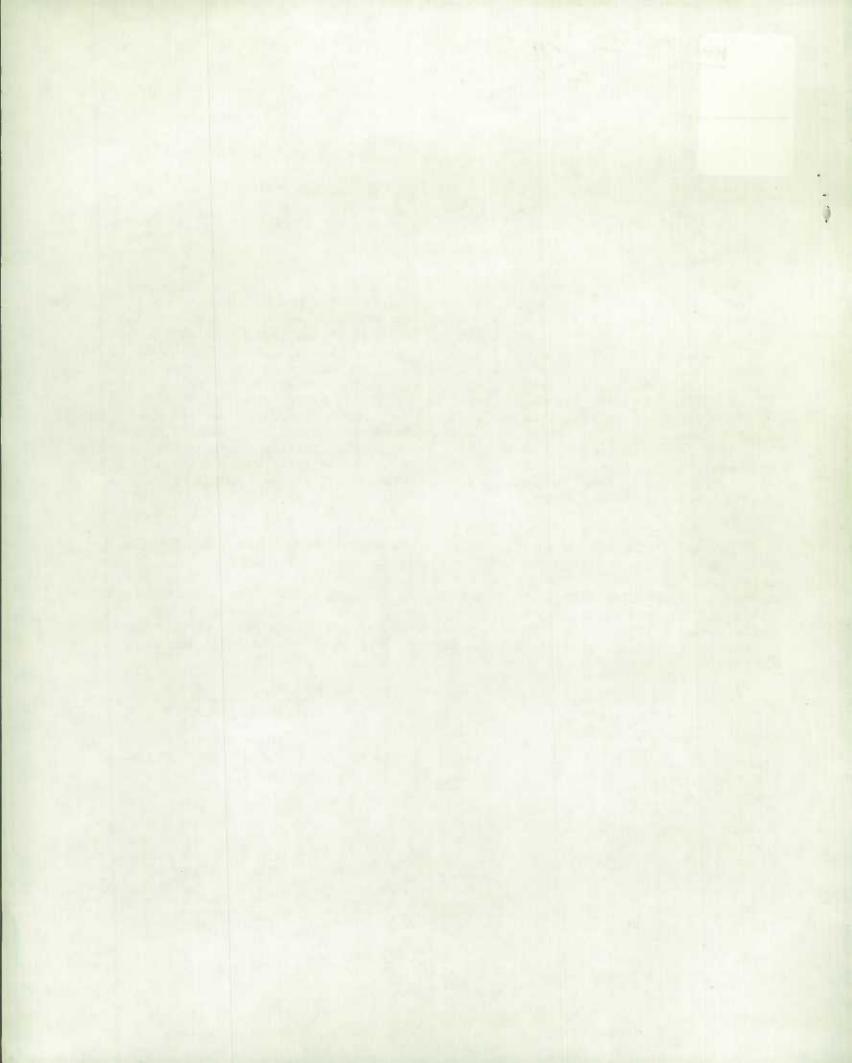
The National Research Laboratories, Ottawa, have, as the results of experimental work, prepared specifications for a standard testing machine for use in grading of milled asbestos fibre. These have now been unanimously approved by the industry. The National Research Laboratories are also, with the co-operation of the asbestos manufacturing firms, making a study of Canadian asbestos in comparison with asbestos from other countries, especially in regard to its suitability for certain manufacturing operations. Patents are reported to have been applied for for making new moulded asbestos compositions and investigations commenced as to an increase in the use of asbestos in asphalt pavements.

Sales and Chipments of Canadian ashestos, 1931 and 1932.

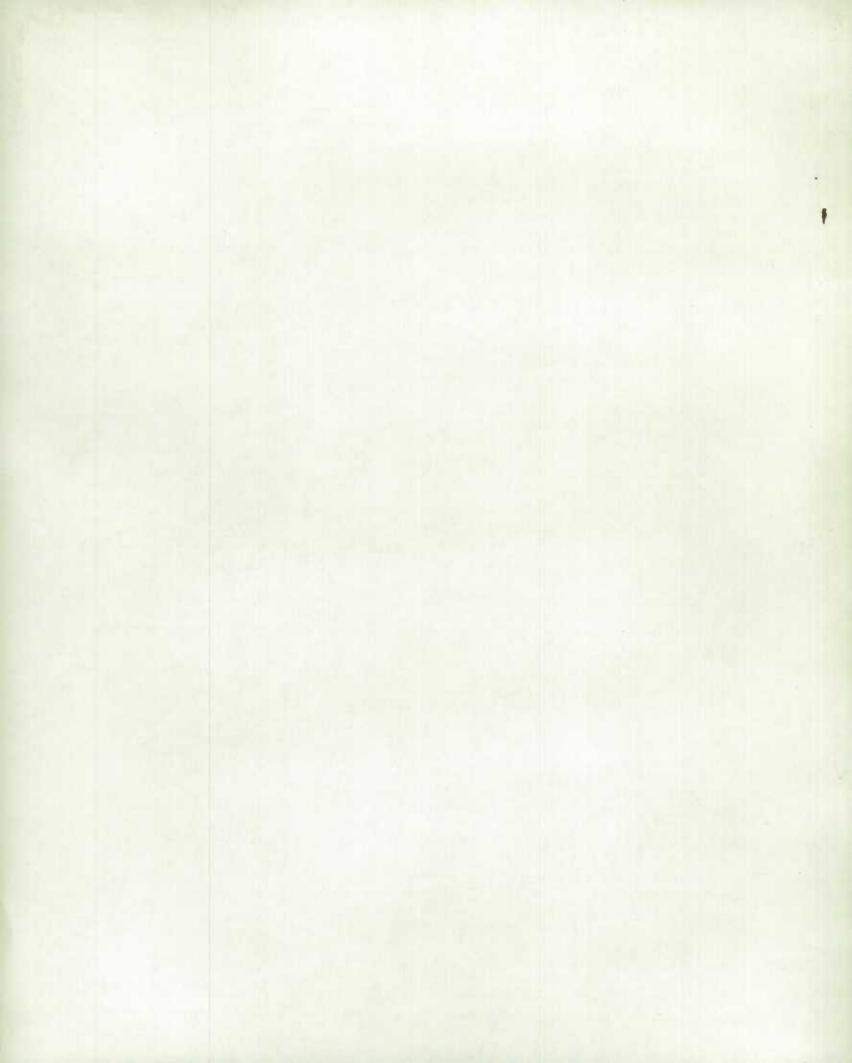
		SALES	OR S	HIPMENTS
	7.1. 9	3 1	_ , .1	9 3 2
	Tons	\$	Tons	\$
rude No. 1	206	88,880	144	57,159
rude No. 2	543	117,478	313	60,230
ther crudes		000	14	1,832
pinning fibre	8,560	917,776	6,004	548,510
hingle fibre	15,988	938,857	6,625	328,895
aper fibre	39,867	1,381,888	32,694	1,008,436
aste stucce or plaster	6,309	159,043	3,984	92,800
lefuse or shorts	92,823	1,208,964	73,199	941,859
TOTAL	164,296	4,812,886	122,977	3,039,721
Sand, gravel and stone (1)	7,209	5,952	3,473	3,369

(x) This production is included under the Sand and Gravel Industry.

Quantity of rock mined ..... 1931 ... 2,274,048 tons ... 1932 ... 1,145,340 tons Quantity of rock milled ..... 1931 ... 2,164,060 tons ... 1932 ... 1,029,709 tons



Imports into Canada and Exports of		1 9	3 1	1 9	3 2
		Quantity	\$	Quantity	\$
7 4700 mg					
IMPORTS -		Pro Education	000 [10	•	104 845
Asbestos brake and clutch lining Asbestos packing	1b.	138,252	241,880 63,455	110,384	194,745
Asbestos in any form other than	10.	2009 200	00,400	110,009	52,733
crude, and all manufactures of,					
n.o.p.			312,484		266,619
TOTAL IMPORTS			617,819	• • •	474,097
EXPONTS -					
Asbestos -					
To United Kingdom	ton	1,801	140,024	1,420	82,567
United States	ton	46,002	2,171,000	27,392	1,274,646
Australia	ton	304	20,010	451	24,800
Belgium	ton	7,831	533,737	1,080	49,707
France	ton	3,327	244,380	2,360	150,911
Germany	ton	4,714	399,584	1,969	117,148
Italy	ton	1,264	116,359 227,803	6,683	48,162
Japan	ton	4,539 977	67,840	421	338,576 17,300
Spain	ton	94	5,080	219	11,323
Other countries	ton	50	4,000		12,000
Total	ton	70,903	3,929,317	42,661	2,115,140
Asbestos sand and waste Asbestos manufactures including	ton	88,535	1,245,326	69,769	986,095
roofing	XXX		111,241		75,517
GRAND TOTAL EXPORTS		•••	5,285,884	* * * *	
GIAND TOTAL LATORIO	XXX	• • •	0,200,004	* * *	3,176,752
Principal Statistics of the Asbest	og Mir	ning Industr	ry in Canada	1931 and 1	932
Thirtyal boads of the Agoba	NI BOOK				
			1931	1 9	3 2
					1 1 100
Number of firms			7	70 003	7
Dapital employed			164,005	30,081	
Number of employees - On salary			172	1	136
On wages			1,503		273
			1.675	7	409
Total			1,675 405,060		409 950
Total Salaries and wages - Salaries		\$	405,060	279	,950
Total Salaries and wages - Salaries Wages		\$ 1,	405,060 431,055	279 876	,950 , <u>365</u>
Total Salaries and wages - Salaries Wages Total		\$ 1, \$ 1,	405,060 431,055 838,115	279 876 1,156	,950 , <u>365</u> , <u>315</u>
Total Salaries and wages - Salaries Wages Total Cost of fuel and electricity		1, 1,	405,060 431,055 835,115 849,047	279 876 1,156 827	,950 , <u>765</u> ,315 ,303
Total Salaries and wages - Salaries Wages Total Cost of fuel and electricity		1, 1,	405,060 431,055 838,115	279 876 1,156	,950 , <u>765</u> ,315 ,303
Total Salaries and wages - Salaries Wages Total Cost of fuel and electricity Selling value of products		\$ 1, \$ 1, \$ 4,	405,060 431,055 835,115 849,047 818,838	279 876 1,156 827 3,043	,950 ,365 ,315 ,303 ,090
Total Salaries and wages - Salaries Wages Total Cost of fuel and electricity Selling value of products		\$ 1, \$ 1, \$ 4, \$ 4,	405,060 431,055 835,115 849,047 818,838 Industry in C	279 876 1,156 827 3,043 anada, 1933	950 365 315 303 090 1 and 1932
Total Salaries and wages - Salaries Wages Total Cost of fuel and electricity Selling value of products		\$ 1, \$ 1, \$ 4, \$ 4,	405,060 431,055 835,115 849,047 818,838	279 876 1,156 827 3,043 anada, 193	350 365 315 303 090 and 1932
Total Salaries and wages - Salaries Wages Total Cost of fuel and electricity Selling value of products Fuel and Electricity Used in the A	Asbesto	\$ 1, \$ 1, \$ 4, \$ 4, \$ Quantit	405,060 431,055 8835,115 849,047 818,838 Industry in C 3 1 y Value(\$)	279 876 1,156 827 3,043 anada, 193 Quanti	950 ,365 ,315 ,303 ,090 Land 1932 9 3 2 ty Value(\$
Total Salaries and wages - Salaries Wages Total Cost of fuel and electricity Selling value of products Fuel and Electricity Used in the A Bityminous coal - Canadian shor	asbest of ton	\$ 1, \$ 1, \$ 4, os Mining I 1 9 Quantit	405,060 431,055 835,115 849,047 818,838 Industry in C 3 1 y Value(\$) 44 152.012 37 2.341	279 876 1,156 827 3,043 anada, 1933	950 ,365 ,315 ,303 ,090 Land 1932 9 3 2 ty Value(\$
Total Salaries and wages - Salaries Wages Total Cost of fuel and electricity Selling value of products Fuel and Electricity Used in the A Bituminous coal - Canadian shor - Foreign shor Lignite coal - Canadian shor	sbest(	\$ 1, \$ 1, \$ 4, os Mining I 1 9 Quantit	405,060 431,055 835,115 849,047 818,838 Industry in C 3 1 y Value(\$) 44 152.012 37 2,341 9,672	279 876 1,156 827 3,043 anada, 1933 1 3 Quanti	,950 , <u>365</u> ,303 ,090 Land 1932 D 3 2 ty Value(\$ 53 125,443 09 12,915
Total Salaries and wages - Salaries Wages Total Cost of fuel and electricity Selling value of products Fuel and Electricity Used in the A Bituminous coal - Canadian shor Lignite coal - Canadian shor Anthracite coal	sbest(	\$ 1, \$ 1, \$ 4, os Mining I 1 9 Quantit	405,060 431,055 835,115 849,047 818,838 Industry in C 3 1 y Value(\$) 44 152.012 37 2,341 9,672	279 876 1,156 827 3,043 anada, 1933 1 3 Quantit 19,78	,950 ,365 ,315 ,303 ,090 Land 1932 3 2 ty Value(\$
Total Salaries and wages - Salaries Wages Total Cost of fuel and electricity Selling value of products Fuel and Electricity Used in the A Bituminous coal - Canadian . shor - Foreign shor coal - Canadian . shor shore coal shore coal shore coal in electricity of motor	sbest	\$ 1, \$ 1, \$ 4, 0s Mining I 1 9 Quantity 23,6 1,4 5,4	405,060 431,055 835,115 849,047 818,838 Industry in C 3 1 y Value(\$) 44 152.012 37 2,341 12 9,672 77 39,638 83 5,385 29 8.942	279 876 1,156 827 3,043 anada, 193 1 3 Quanti 19,78 1,70	950 ,365 ,315 ,303 ,090 1 and 1932 3 2 ty Value(\$ 3 125,443 09 12,915 36 35,179 7,500
Total Salaries and wages - Salaries Wages Total Cost of fuel and electricity Selling value of products Fuel and Electricity Used in the A Bituminous coal - Canadian . shor - Foreign . shor Short - Foreign . sh	sbestont ton t ton gal. gal.	\$ 1, \$ 1, \$ 4, 0s Mining I 1 9 Quantity 23,6 1,4 5,4	405,060 431,055 835,115 849,047 818,838 Industry in C 3 1 y Value(\$) 44 152.012 37 2,341 12 9,672 77 39,638 83 5,385 29 8.942	279 876 1,156 827 3,043 anada, 193 1 3 Quanti 19,78 1,70	950 ,365 ,315 ,303 ,090 1 and 1932 3 2 ty Value(\$ 3 125,443 09 12,915 36 35,179 7,500
Total Salaries and wages - Salaries Wages Total Cost of fuel and electricity Selling value of products  Fuel and Electricity Used in the A  Situminous coal - Canadian . shor - Foreign shor Lignite coal - Canadian . shor Anthracite coal shor Coasoline (exclusive of motor vehicles) Kerosene Imp.	sbest	\$ 1, \$ 1, \$ 4, 0s Mining I 1 9 Quantity 23,6 1,4 5,4	405,060 431,055 825,115 849,047 818,838 Industry in C 3 1 y Value(\$) 44 152.012 37 2,341 12 9,672 77 39,638 83 5,385	279 876 1,156 827 3,043 anada, 1933 1 3 Quantit 19,78	,950 ,365 ,315 ,303 ,090 Land 1932 by Value(\$ 3 125,442 12,915 36 35,179 7,500



## Directory of Firms in Canadian Asbestos Mining Industry, 1932.

Name of Company	Head Office Address	Location of Plant
Asbestos Corporation Ltd.	Canada Cement Bldg., Montreal, P.Q.	Thetford Mines, P.Q. East Broughton, P.Q. Elack Lake, P.Q. Coleraine, P.Q.
Canadian Johns-Manville Co. Ltd. Johnson's Company	Montreal, P.Q. Thetford Mines West, P.Q.	Asbestos, P.Q. Thetford Mines, P.Q. Black Lake, P.Q.
Keasbey & Mattison Co. Nicolet Asbestos Mines Ltd.	Ambler, Pa., U.S.A. c-o Greenshields & Greenshields,	Thetford Mines, P.Q. Tingwick Tp., P.Q.
Northern Asbestos Co. Ltd. Quebec Asbestos Corp. Ltd.	Transportation Bldg., Montreal, P.Q. Thetford Mines, P.Q. East Broughton Station, P.Q.	Wotton Tp., P.Q. Thetford Mines, P.Q. East Broughton, P.Q.

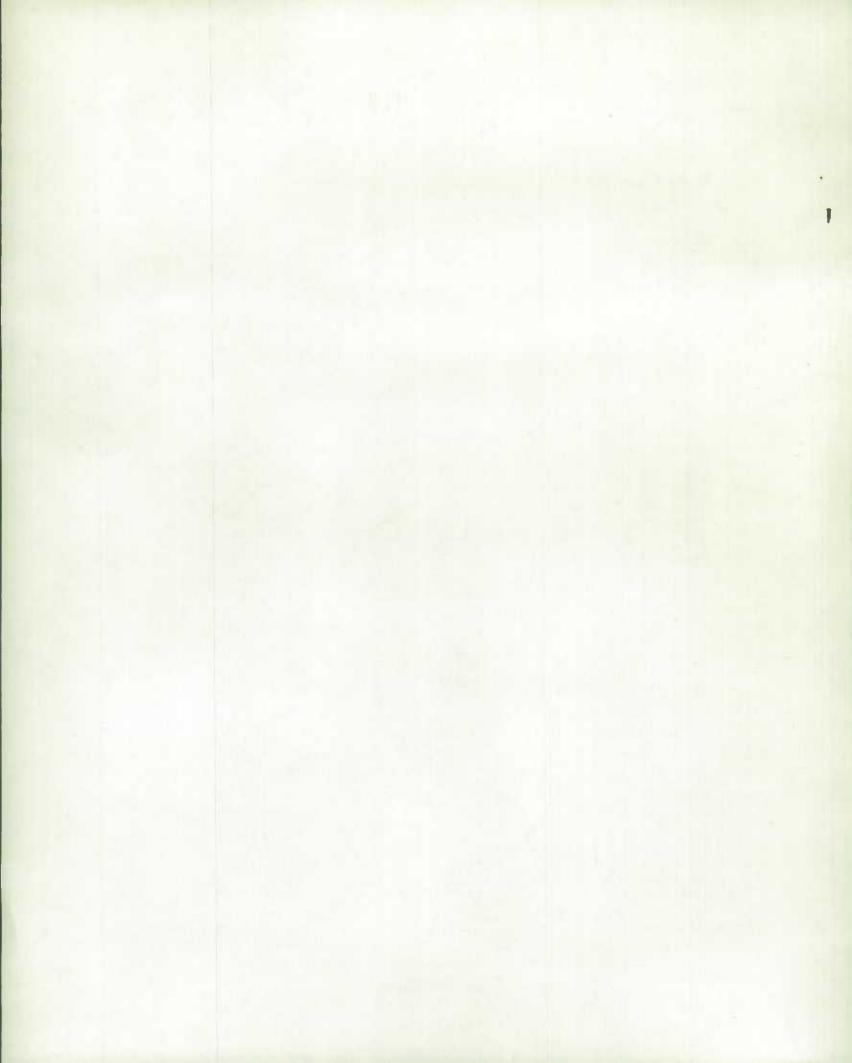
## INTERNATIONAL REVIEW

The Department of Mines for Southern Rhodesia states that the Rhodesian asbestos industry was severely handicapped in 1932 owing to other countries landing asbestos at European ports at very low prices. The following figures will illustrate the pronounced drop in Rhodesian asbestos production since 1930:- 1930 - 37,766 tons; 1931 - 24,042 tons; and 1932 - 15,766 tons. The 1932 production of 15,766 tons produced in Victoria and Bulawayo was valued at 197,091 pounds, 15 shillings.

Crude asbestos exported from Southern Rhodesia during 1932 totalled 13,871 tons valued at 248,513 pounds.

Exports of Crude Asbestos from the Union of South Africa during 1931 and 1932 were

	1 9 3	3 2	1 9	3 1
	Quantity	Value	Quantity	Value
	Pounds	+	Pounds	玉
United Kingdom	13,013,790	80,918	10,658,358	81,737
Australia	10,150	59	790,450	4,301
Belgium	1,068,300	7,735	3,378,610	25,858
Belgian Congo	0.00		30,041	271
Denmark		• • 0	9,251	78
France	2,012,624	12,786	2,325,952	20,554
Germany	1,633,400	13,247	2,330,715	23,027
Holland	.733,150	5,346	468,535	4,344
Italy	1,199,604	11,359	3,659,223	34,618
Portuguese East Africa	9 7 0	0.00	359,820	5,392
Spain	1,898,946	9,409	3,353,200	23,603
Japan	1,137,724	4,376	1,275,285	7,017
United States	286,208	3,057	1,657,810	21,003
POTAL	23,043,836	148,292	30,297,250	251,803



Exports of asbestos from Cyprus in 1932 totalled 1,600 tons valued at 27,214 pounds; these were made as follows: United Kingdom, 1,519 tons valued at 26,204 pounds; Egypt, 12 tons at 62 pounds; Germany, 56 tons at 814 pounds; and Italy, 13 tons at 134 pounds.

Asbestos exported from Russia during 1932 amounted to 15,915 metric tons with a value of 2,299,000 rubles as against 13,239 tons worth 2,485,000 rubles in 1931.

It was reported that one of the largest rubber factories in the world was being constructed in 1932 at Yaroslavl, in the Ivanovo-Voznesensk industrial region, Russia. This factory will be part of a rubber-asbestos combine which is planned to have an annual output of 1,000 million rubles. It is said that the asbestos mill will produce 35 different parts for tractors and motor cars.

The British Standards Institution has issued a British standard specification (No. 486-1933) for asbestos cement pressure pipes. The specification covers four classes of pipes, but without defining the use to which each class should be put. Pipes are provided for in diameters ranging from 2 inches to 40 inches. Copies of this specification are obtainable from the British Standards Institution, 28 Victoria St., London, S.W. 1. 2s. 2d. post free.

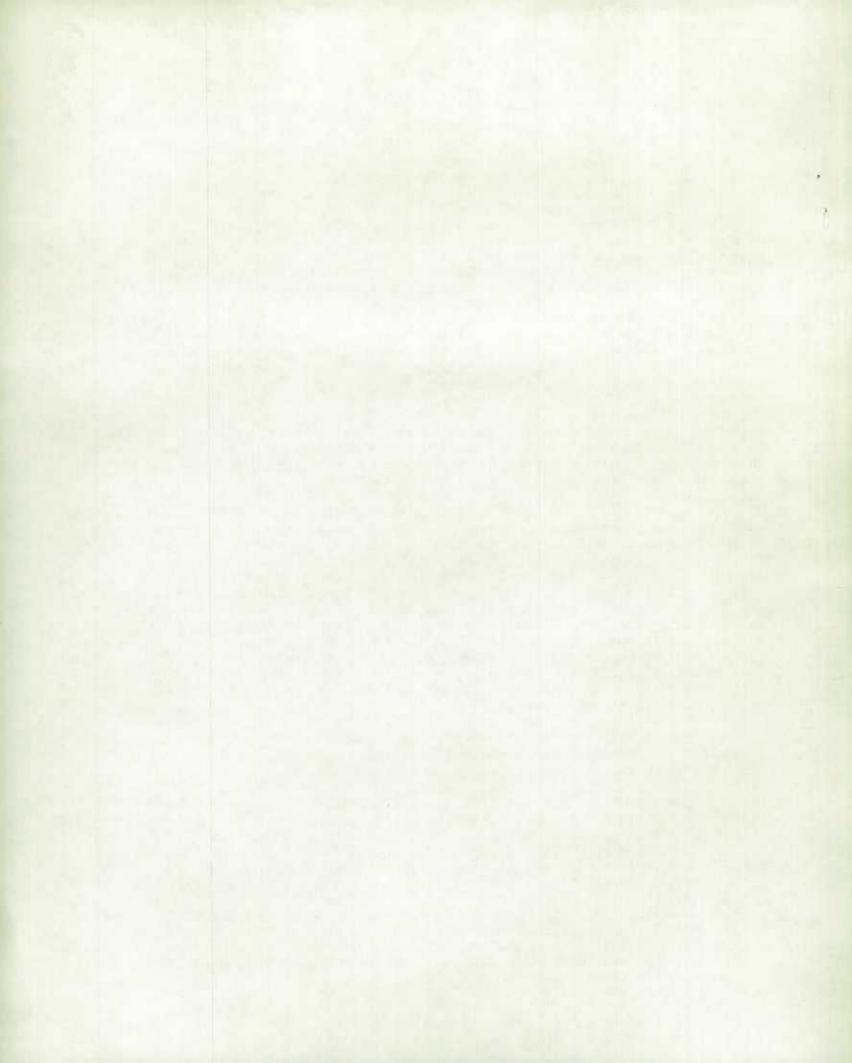
An interesting application of asbestos was announced in 1932 by the Lead Industries Association. Lead and asbestos manufactured in the form of pads are used to check vibration in rubber mills; the pads can sustain high unit loads and are practically imperishable.

The "India Rubber Journal" states that the treatment of asbestos fibres with acid gases has become more popular. Bleaching by means of the gaseous process requires the laying down of acid distillation retorts, gas chambers for performing the actual bleaching operation and a condensation system for recovery of spent acid gas ... the process generally furnishes a very pure white product and it is an unusual experience to find any tint of colour remaining. During 1932 arrangements were made for the manufacture of resin-asbestos equipment in the United States. The resin material is available in several varieties to meet the specific requirements of the application; in some instances the filler is varied, either asbestos or graphite. The material has been used for handling sulphuric acid up to a strength of 50 per cent, concentrated hydrochloric, phosphoric, acetic, lactic, oxalic, citric, and tartaric acids; the material may be used up to 130 degrees C. and is easily machined and may be cut, drilled, planed or turned.

It is stated in "Asbestos" that the Tasmanian Asbestos Company of Beaconfield, Tasmania, is reported to have commenced crushing and screening asbestos rock and is finding a ready market for the fibre in Melbourne and Sydney.

At the United States tariff commission hearings in connection with its investigation into alleged unfair methods of competition in the sale of Russian asbestos, it was testified that there exists (estimated) in Arizona millions of tons of asbestos ore ranging from 5 per cent to 25 per cent asbestos content and opinion was expressed that these deposits together with deposits in Vermont would be sufficient to supply domestic requirements.

During 1932 a new asbestos cloth in a complete line of plain colours and stripes was introduced to the awning makers of the United States. Another new application of asbestos is in the construction of steel factory built houses and it is reported that some of the largest producing companies are devoting a part of their energies to this industry.



Imports of Unmanufactured Asbestos into the United States, 1932.

	CRUDE		MILL FIBRE		STUCCO	AND OTHER	
	Tons	\$	Tons	\$	Tons	\$	
From							
Germany,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0 0 0	30	007	0 0 0		900	
Italy		8,365	60	1,262	562	7,719	
United Kingdom	1	399	0 0 0	0 0 0	38	1,108	
Canada	272	60,298	27,463	1,225,501	56,791	827,744	
Union of South Africa	189	23,890	0 0 1				
Other British South							
Africa	995	93,884	9 9 0	9 9 5			

## WORLD PRODUCTION OF ASBESTOS, 1929, 1930 and 1931. (By Imperial Institute) (Long tons)

roducing Country	1929	1930	1931
BRITISH EMPIRE			
Southern Rhodesia	38,066	33,720	21,466
Inion of South Africa (b)	28,717	23,083	11,480
anada -	20,111	25,085	11,400
Chrysotile	294,804	251,019	141,470
Crude	4,286	3,546	2,202
Spinning stocks	17,514	12,886	10,115
Shingle stocks	30,391	20,170	9,782
Millboard and paper stocks	82,046	71,544	33,260
Fillers, floats and other short fibres	143,624	106,508	79,674
Sand, gravel and crushed rock	16,943	36,365	6,437
Actinolite	27	30	31
prus	14,110	7,256	1,138
India	318	33	6
Australia	256	82	128
Total	376,000	315,000	176,000
FOREIGN COUNTALES			
inland (Amphibole)	1,600	1,061	(a)
rance consistent of the contract of the contra	740	(a)	(a)
			2
Pale	2,586	710	(a)
taly income income endounce of the			
ussia	38,425	53,228	66,000
Journmbique	<b>3 ≥ 3</b>	16	(a)
Amphibole	1,046	526	331
Carysotile	1,771	3,262	2,551
1110	273	310	260
Inpan (estimated)	1,000	1,000	1,000
Turker			1,000
Total,	47,000	61,000	72,000
WORLD'S TOTAL	423,000	376,000	248,000

(b) Production is not available by kinds, but sales were as follows:-

	1929	1930	<u>1931</u>	
Amosite	8,268 long t	tons 2,930 lor	ig tons 1,863 long to	ns
Blue	5,384 long t	tons 4,894 lor	g tons 3,259 long to	ns
Chrysotile	15,845 long t	tons 9,392 los	g tons 8,873 long to	ns

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