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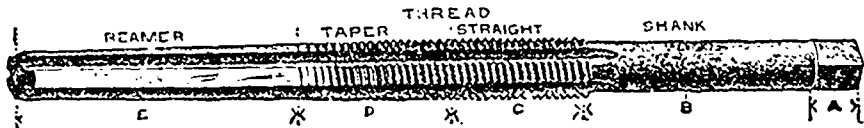
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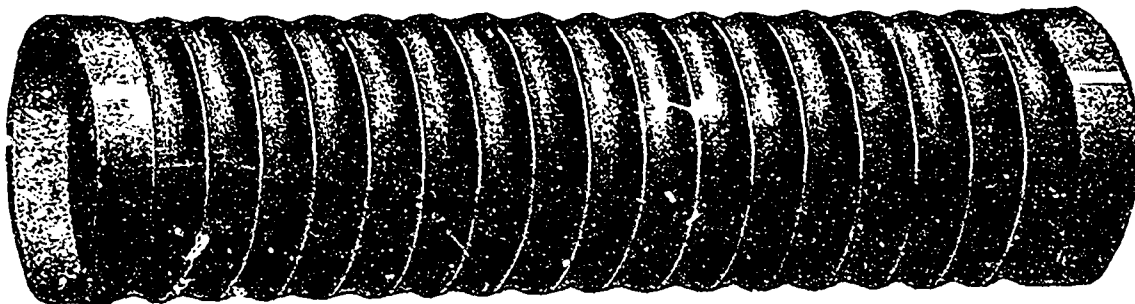
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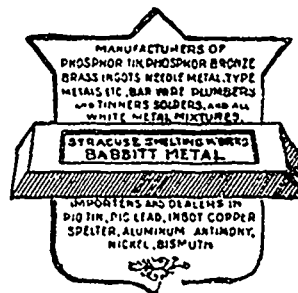
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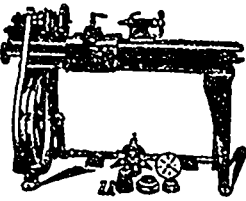
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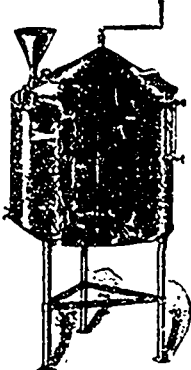


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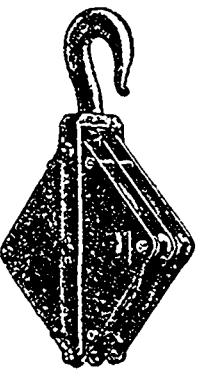
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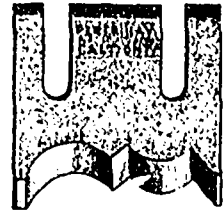
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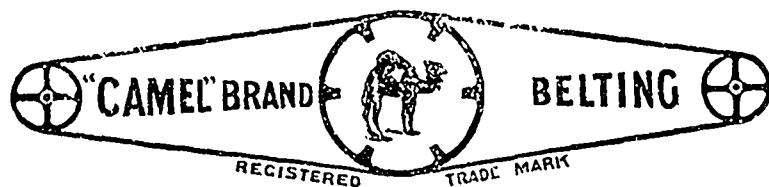
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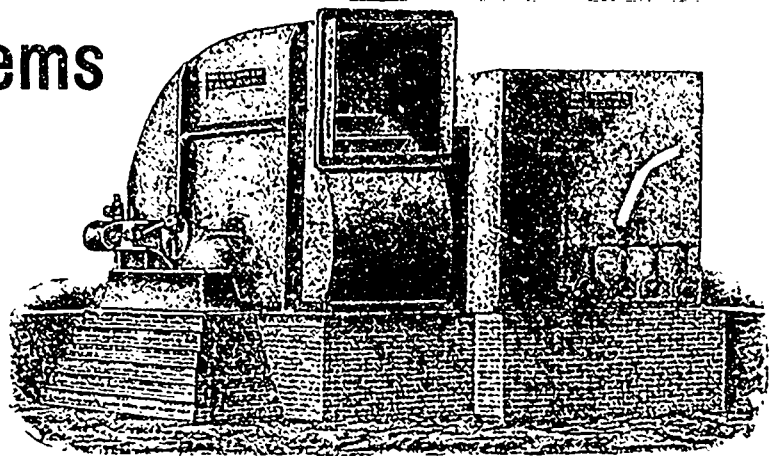
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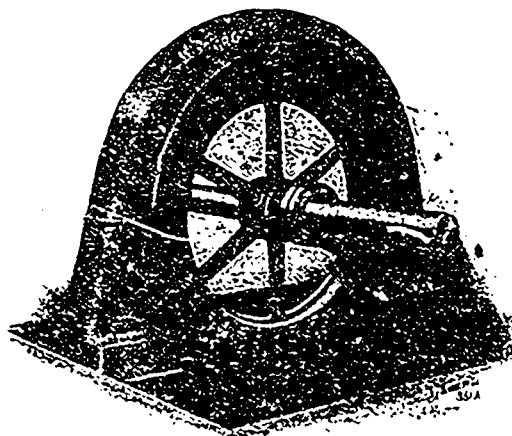
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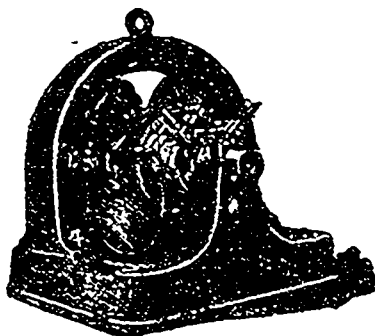
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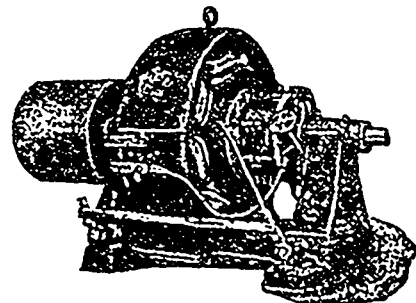
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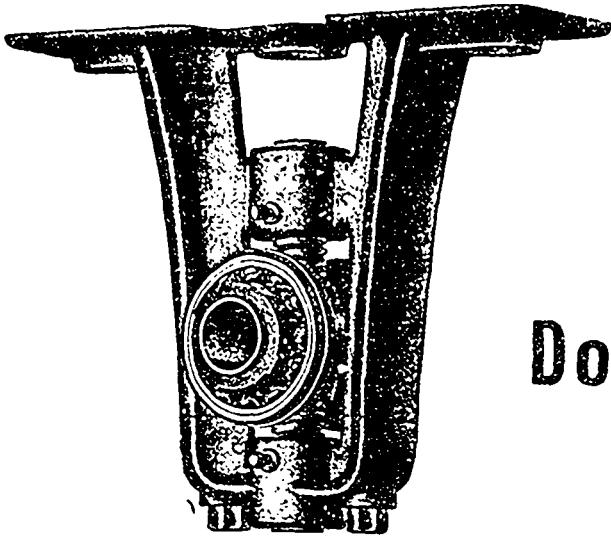
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I. J. CASSIDY, Editor and Manager

Classified Index Page 45

Index to Advertisers Page 53

CANADIAN FORESTRY CONVENTION.

The announcement of a Canadian Forestry Convention which has been called by Sir Wilfrid Laurier to meet in Ottawa on the 10th 11th and 12th January, 1906, is a matter of great interest to the whole Dominion, as the forests of Canada are of such great extent, and their products are so large a factor in business and manufacturing interests.

The Convention is supported by a strong organization. His excellency Earl Grey, the Governor-General, has consented to accept the office of honorary president, Sir Wilfrid Laurier will act as president, and the vice-presidents will be Sir Henri Jolly de Lotbiniere and Mr. R. L. Borden. On the executive committee are representatives of the Provincial Governments, of the Lumber Associations throughout Canada, including Mr. J. B. Miller, president of the Ontario Lumbermen's Association, and of other allied interests. The agricultural interests are in the hands of Hon. Sydney Fisher and Hon. Nelson Monteith. The railway companies are represented by Messrs. Chas. M. Hays and D. McNicoll, General Managers of the Grand Trunk and Canadian Pacific Railways. The Convention will be held under the auspices of the Canadian Forestry Association, and the arrangements have been placed in charge of the Association.

In the circular letter calling the Convention the Premier draws attention to Canada's leading position as a timber producer, and to the great extent of her forests, as well as to their influence on water supplies for the development of power and for irrigation, and their beneficial influence on agriculture. As stated in this circular, denudation has certainly been carried too far in the older provinces, and the whole subject of management of the forests is one of such great national importance that it fully justifies the action of the Premier in calling such a Convention.

The Convention will consist of Members of the Dominion Parliament and the local Legislatures, members of the Canadian Forestry Association, representatives of

Another Tariff Edition.

As soon as the proposed revision of the tariff has been made and adopted by the Dominion Parliament, thus becoming the law of the land, a full and absolutely correct reproduction of it copied from the official document, will be published in the Canadian Manufacturer. It is impossible at this time to say just when that event will occur, probably about the latter part of next year. In the same special edition will be published in full, as heretofore, the tariff of the United States, both under the one cover, a convenience which will be fully recognized by our readers.

Lumbermen's Associations, Boards of Trades, Universities, Agricultural Colleges, Farmers' Institutes, Fish and Game Associations, the Society of Civil Engineers, the Canadian Mining Institute and other organizations or individuals who may be interested in forestry.

The questions to be considered will be discussed under the headings of (1) The Nation and the Forest; (2) The Forest and the Lumber and Pulp Industries; (3) Forestry in Relation to Agriculture; (4) The Relation of the Forests to our other Industries, such as Railways, Mining, Water Powers, Building Trades and Wood Working Manufactures; (5) Forestry Education and Scientific Forestry. It is proposed to cover as well as the time will permit the whole subject of the forests in their relation to the governments and the business interests of the country. The topics will be presented by persons specially qualified to deal with them from their practical knowledge of them. The practical side will be kept prominent, but the scientific problems involved in forest management will be given due consideration. The report of the proceedings will give an authoritative and comprehensive survey of the forest interests of Canada at the present time, and of the possibilities of development in the methods of management and in the productivity and wealth of the vast extent of woodland throughout the Dominion.

An order-in-Council has been passed abolishing the royalty on gold produced from any quartz in the Yukon on which \$25,000 has been expended up to June, 1910. The royalty of 2½ per cent. on gold produced in placer mining still remains. It has also been decided to abolish the royalty on copper produced in the Yukon from any claim or group of claims on which \$50,000 are expended within the next ten years.

The bounty paid on coal oil production in Canada during the year ending June 30 last amounted to \$350,000. The rate is a cent and a half a gallon, so that the production was rather more than 23,000,000 gallons.

SELECTED LIST

— OF —

Canadian Imports of Manufactures, Etc.

FROM GREAT BRITAIN, UNITED STATES, AND ALL COUNTRIES

IN 1904 AND 1905

Following are tabulated classified statements showing in detail the values of 250 different manufactures of dutiable merchandise imported into Canada during the fiscal years ending June 30, 1904 and 1905, and the duties imposed thereon by the general tariff, a rebate of 33 1/3 per cent. being allowed upon goods made in Great Britain. It should be borne in mind that 1898 was the first full fiscal year in which the British preferential tariff was in effect. Statements also show in detail the values of 104 different non-dutiable semi-manufactured and raw products of similar character imported in the same years indicating the sources of origin of what, to Canadian manufacturers, are their raw materials.

For convenience in the study of the statements the dutiable articles are classified as follows :

- | | |
|--|----------------------------------|
| 1. Iron and Steel and manufactures of. | 9. Paints, Pigments and Colors. |
| 2. Brass and Copper and manufactures of. | 10. Agricultural Implements. |
| 3. Hardware. | 11. Vehicles. |
| 4. Metals and manufactures of. | 12. Musical Instruments. |
| 5. Electrical Machinery and appliances. | 13. Paper and manufactures of. |
| 6. Fuels. | 14. Leather and manufactures of. |
| 7. Clays, etc., and manufactures of. | 15. Miscellaneous. |
| 8. Minerals. | |

No reference is made in these statements to textile goods.

I. IRON AND STEEL AND MANUFACTURES OF 57 Items.

ARTICLES.	General Tariff.	Great Britain under Preferential Tariff		United States under General Tariff.		All Countries	
		1904.	1905.	1904.	1905.	1904.	1905.
Springs, axles, etc., n.e.s.	35 p.c.	\$30,515	\$13,142	\$34,653	\$49,505	\$69,110	\$63,080
Bar iron or steel, n.o.p.	\$7 per ton	328,405	267,567	634,302	565,571	1,024,256	875,067
Castings, rough, n.e.s.	25 p.c.	12,880	9,830	209,843	280,293	223,362	291,214
Cast iron pipe	\$8 per ton	137,233	194,558	79,406	185,946	217,054	393,684
Chain, 5-16 m. dia	5 p.c.	57,790	49,931	98,584	97,340	162,927	148,285
Chain, malleable, sprocket	20 p.c.	None	None	30,313	26,229	30,313	26,229
Chain, n.e.s.	30 p.c.	14,592	17,660	67,335	60,384	88,499	83,155
Locomotives, n.e.s.	35 p.c.	584,720	1,889	1,568,365	672,205	2,431,220	674,694
Fire engines	25 p.c.	None	None	8,235	8,958	8,235	8,958
Fire extinguishers	35 p.c.	None	623	49,596	46,182	49,596	46,805
Gasoline engines	35 p.c.	1,113	403	126,353	193,547	127,851	194,074
Steam engines and boilers	25 p.c.	43,939	78,871	406,156	356,880	466,919	437,432
Pipe fittings	30 p.c.	1,324	7,781	351,245	357,652	352,699	366,099
Forgings, shafting, etc	30 p.c.	5,982	9,045	128,181	138,749	139,286	150,422
Iron or steel ingots	\$2 per ton	39,901	90,944	105,342	191,578	216,571	319,665
Bridges and parts of	35 p.c.	373	2,021	146,996	717,165	147,369	719,284
Ore crushers	25 p.c.	2,186	2,228	62,228	132,007	65,259	135,076
Portable engines	25 p.c.	None	None	485,598	420,543	485,598	420,543
Portable saw mills	25 p.c.	None	None	12,522	15,991	12,522	15,991
Portable machines, n.e.s.	25 p.c.	2,180	179	2,272	36,706	46,278	37,462
Portable machines, parts of	25 p.c.	None	None	169,602	165,771	169,602	165,771
Sewing machines and parts	30 p.c.	11,918	13,733	323,931	246,176	336,921	259,974
Slot machines	25 p.c.	None	None	12,233	25,194	12,233	25,224
Typewriting machines	25 p.c.	None	None	167,143	186,981	167,299	187,452
Machinery n.o.p.	25 p.c.	268,399	272,505	4,795,439	4,017,737	5,191,194	4,467,397
Malleable castings	25 p.c.	81	39	16,349	15,131	16,430	15,179
Mould boards	5 p.c.	22	102	164,391	174,912	168,815	175,155
Pumps, n.e.s.	25 p.c.	615	3,397	199,770	199,812	202,792	207,290
Railway bars, n.e.s.	30 p.c.	62,148	141,570	137,148	233,073	263,284	421,084
Railway fish plates	\$8 per ton	29,403	11,511	71,982	151,823	208,246	176,002
Rolled angles, beams, etc., n.e.s.	10 p.c.	202,206	128,206	418,567	959,390	946,728	1,380,841
Rolled hoop, band, etc. 18 gauge, n.e.s.	\$7 per ton	17,621	24,939	57,968	70,574	82,295	98,889

IRON AND STEEL AND MANUFACTURES OF -Continued.

ARTICLES.	General Tariff	Great Britain under Preferential Tariff		United States under General Tariff		All Countries	
		1904	1905	1904	1905	1904	1905
Rolled hoop, band, etc., less than 18 gauge, n.e.s.	5 p.c.	\$16,005	\$21,787	\$49,246	\$56,668	\$71,807	\$81,645
Rolled angles, beams, etc., n.o.p., less than 35 lbs. per yard	\$7 per ton	80,277	81,968	206,030	281,940	329,895	385,997
Rolled plates and sheets, n.e.s.	\$7 per ton	110,128	81,743	143,946	175,582	305,670	287,239
Rolled plates and sheets, n.o.p.	10 p.c.	291,169	89,887	246,596	536,662	575,932	640,776
Rolled plates and sheets, 17 gauge, n.o.p.	5 p.c.	296,082	361,473	178,831	249,680	509,904	641,276
Rolls, chilled iron	30 p.c.	7	1,272	11,201	16,347	11,658	17,619
Safe and vault doors	30 p.c.	None	142	92,865	98,887	92,890	99,077
Sheets, corrugated, galvanized	25 p.c.	19,446	8,044	2,529	216	21,975	8,713
Skelp, iron and steel	5 p.c.	134,841	11,992	326,194	852,639	557,944	864,631
Switches, frogs and crossings	30 p.c.	None	None	24,516	41,713	24,616	41,833
Tubes, boiler	5 p.c.	55,676	79,618	288,308	291,604	375,575	408,814
Tubes, 1 1/2 in. dia.	10 p.c.	205	None	4,213	2,551	4,418	2,551
Tubes, bicycle	10 p.c.	1,888	73	10,530	5,999	12,418	6,154
Tubes, 2 in. dia., n.e.s.	15 p.c.	25,093	28,731	169,162	468,996	495,887	497,727
Tubes, 2 in. or less, n.e.s.	35 p.c.	33,694	21,572	82,297	69,289	115,991	90,861
Tubes, other, n.o.p.	30 p.c.	1,406	4,208	44,005	140,011	45,461	145,686
Sheets, galvanized, mfrs of	25 p.c.	8,823	4,187	12,180	22,065	21,101	26,255
Wire rope, n.e.s.	25 p.c.	105,397	79,163	62,391	67,857	173,567	148,236
Steel, chrome	15 p.c.	None	None	18,796	13,543	18,796	13,543
Steel bridge plates	10 p.c.	9,635	2,186	141,269	402,576	220,692	407,380
Steel bars of value greater than 2 1/2 c. lb.	5 p.c.	174,338	199,111	454,955	468,668	650,318	684,725
Machine tools, all kinds, n.o.p.	30 p.c.	40,580	41,913	777,267	770,931	875,080	\$59,908
Unenumerated	30 p.c.	120,488	218,442	2,051,900	2,232,948	2,243,020	2,524,182
Lithographic presses	10 p.c.	213	None	16,122	19,673	16,365	19,735
Printing presses	10 p.c.	11,303	37,420	460,743	280,963	491,379	340,674
Total		\$3,391,670	\$2,717,949	\$17,318,240	\$18,568,016	\$22,393,122	\$22,231,466

2. BRASS AND COPPER AND MANUFACTURES OF 8 Items.

Brass nails, tacks, etc.	30 p.c.	\$612	\$259	\$6,245	\$3,232	\$8,620	\$4,726
Brass pumps	30 p.c.	179	76	9,906	11,569	20,259	14,865
Brass wire, plain	10 p.c.	2,011	3,256	14,057	13,704	16,217	17,305
Brass wire, cloth, n.e.s.	25 p.c.	32,789	36,234	11,048	7,612	46,166	49,490
Brass manufactures of, n.o.p.	30 p.c.	42,096	48,115	545,049	551,034	616,220	636,173
Copper nails, tacks, etc.	30 p.c.	451	798	3,428	2,245	3,879	3,043
Copper wire, plain	15 p.c.	5	1,799	25,258	22,622	25,263	24,766
Copper, all other manufactures of, n.o.p.	30 p.c.	1,444	7,700	63,554	69,464	67,252	79,247
Total....		\$79,587	\$98,237	\$688,545	\$684,482	\$803,876	\$829,615

3. HARDWARE 36 Items.

Emery and manufactures of	25 p.c.	\$598	\$498	\$28,533	\$32,597	\$29,273	\$33,250
Anvils and vises	30 p.c.	16,378	15,446	35,970	29,961	53,263	47,056
Butts and hinges	30 p.c.	1,039	1,262	57,002	59,016	58,059	60,369
Tacks, shoe	35 p.c.	149	103	5,297	2,428	5,446	2,531
Tacks, cut	35 p.c.	9	94	8,173	4,282	8,182	4,478
Hardware, builders'	30 p.c.	89,747	65,643	663,175	587,081	758,741	658,338
Horseshoes	30 p.c.	None	None	6,810	11,613	6,810	11,616
Locks, all kinds	30 p.c.	6,081	4,511	188,075	211,862	195,744	217,614
Nails and spikes, etc., wrought, n.e.s.	30 p.c.	2,528	2,109	14,023	23,113	16,636	25,544
Nails and spikes, cut	1/2 c. per lb	1,662	530	94,931	113,378	97,221	115,513
Nails, wire, n.o.p.	3/4 c. per lb	17	19	30,982	23,371	31,133	23,400
Smoothing irons	25 p.c.	285	802	9,179	8,175	9,464	9,022
Screws, wood, n.e.s.	35 p.c.	1,090	4,233	19,109	20,189	20,199	26,877
Scales, balances, etc.	30 p.c.	2,638	3,194	110,250	89,337	114,585	94,255
Skates....	35 p.c.	12	None	5,643	13,919	27,191	49,579
Stoves and parts, n.e.s.	25 p.c.	3,610	3,909	359,865	402,224	365,997	410,672
Ware, agate	35 p.c.	1,122	6,390	22,942	28,246	62,774	90,851
Ware, enameled, n.e.s.	30 p.c.	8,635	7,124	123,290	168,537	132,702	181,185
Wire bale ties	30 p.c.	None	None	2,262	2,261	2,262	2,261
Wire cloth, iron and steel	30 p.c.	45,276	30,607	10,972	13,401	56,366	45,809
Wire door screens	30 p.c.	3,035	2,113	11,531	8,953	14,581	11,066
Wire fencing, n.e.s.	15 p.c.	941	685	18,228	40,879	19,169	41,564
Wire, covered, n.e.s.	30 p.c.	18,297	31,529	170,992	320,895	193,940	354,272
Wire, n.o.p.	20 p.c.	17,773	20,632	158,531	179,368	202,153	214,599
Nuts, washers and rivets, n.e.s.	3/4 c. per lb	6,300	7,217	139,175	116,084	147,719	124,545
Table cutlery, n.o.p.	30 p.c.	219,728	215,110	31,686	28,153	265,651	268,482
Cutlery, all others, n.e.s.	30 p.c.	65,067	69,880	62,590	73,388	199,997	240,261
Guns, rifles, etc.	30 p.c.	35,059	38,710	299,099	290,281	459,878	457,706

HARDWARE—Continued.

ARTICLES.	General Tariff.	Great Britain under Preferential Tariff.		United States under General Tariff.		All Countries.	
		1904.	1905.	1904.	1905.	1904.	1905.
Bayonets, foils, etc.	30 p.c.	\$67	\$364	\$1,253	\$1,116	\$1,971	\$3,231
Adzes, hatchets, etc.	30 p.c.	3,741	3,246	50,165	56,266	54,277	62,218
Axes...	25 p.c.	None	49	38,844	21,668	38,844	24,717
Saws.	30 p.c.	2,915	3,938	182,090	168,783	189,587	176,943
Files and rasps, n.e.s.	30 p.c.	8,180	7,382	61,414	63,734	80,255	78,012
Screw, metal, n.o.p.	35 p.c.	137	116	12,014	7,340	12,495	7,456
Sand paper	25 p.c.	1,253	2,450	84,512	84,145	85,791	85,046
Tinware, n.e.s.	25 p.c.	16,812	25,428	123,808	121,576	150,978	152,262
Total		\$583,181	\$575,433	\$3,242,415	\$3,430,916	\$4,169,331	\$4,112,605

1. METALS AND MANUFACTURES OF—19 Items.

Bells and gongs	30 p.c.	\$833	\$1,047	\$33,243	\$36,993	\$36,020	\$39,551
Buttons, metal pantaloons	25 p.c.	950	2,665	24,015	24,996	29,356	33,373
Buttons metal, n.o.p.	35 p.c.	27,203	27,925	125,250	129,829	299,456	291,802
Lead bars and sheets	25 p.c.	32,295	43,260	6,208	7,741	39,644	51,972
Lead pipe	35 p.c.	4,346	3,053	1,622	3,739	5,968	7,273
Lead, mfrs. of, n.o.p.	30 p.c.	7,475	5,506	24,406	24,023	61,856	61,023
Rabbit metal.	10 p.c.	4,048	393	47,708	29,876	51,785	33,961
Britannia metal, mfrs. of	25 p.c.	2,240	3,667	20,839	18,199	25,551	23,656
Metal buckles, (not jewelery)	30 p.c.	6,924	3,400	29,720	31,076	52,163	49,877
Furniture springs.	30 p.c.	187	None	15,798	9,567	15,985	9,567
Phosphor tin.	10 p.c.	2,173	636	9,402	10,370	12,443	11,471
German silver goods.	25 p.c.	8,330	3,962	26,565	28,400	36,622	33,130
Lamps and lanterns	30 p.c.	4,407	8,387	350,252	288,276	379,931	328,219
Nickel plated ware, n.e.s.	30 p.c.	4,725	7,560	69,229	96,215	77,671	107,858
Nickel anodes	10 p.c.	None	None	13,360	15,351	13,360	15,351
Patterns, me.al.	30 p.c.	None	338	32,636	8,224	32,636	8,562
Pins, n.o.p.	30 p.c.	44,343	49,934	40,012	28,584	100,249	93,581
Wire, all kinds, n.o.p.	20 p.c.	111	303	11,139	11,546	11,338	12,491
Zinc, mfrs. of, n.o.p.	25 p.c.	1,174	530	12,193	10,028	14,092	11,912
Total		\$151,765	\$162,566	\$893,597	\$813,033	\$1,296,226	\$1,227,333

5. ELECTRICAL MACHINERY AND APPLIANCES—7 Items.

Electric light carbons, n.e.s.	35 p.c.	\$144	\$667	\$22,036	\$25,817	\$25,985	\$31,795
Carbon, 6 inch	15 p.c.	None	None	62,794	32,061	62,794	32,315
Electric apparatus, n.e.s.	25 p.c.	23,283	10,649	1,792,835	1,841,248	1,829,189	1,911,225
Motors and Dynamos	25 p.c.	19,488	1,221	459,186	817,892	488,944	847,112
Electric light glass bulbs	10 p.c.	None	None	48,940	41,043	50,266	41,131
Electric light fixtures	30 p.c.	10,501	8,240	219,555	293,258	238,189	314,810
Gas meters	35 p.c.	8,357	7,600	12,160	29,528	20,517	37,133
Total		\$61,773	\$28,380	\$2,517,506	\$3,080,827	\$2,715,884	\$3,218,541

6. FUELS—3 Items.

Charcoal	20 p.c.	\$10,228	\$10,639	\$22,160	\$35,820	\$32,476	\$46,862
Coal bituminous	53c. per ton	273,448	93,226	8,825,970	7,905,705	9,108,208	8,002,896
Coal dust, n.e.s.	20 p.c.	18,131	13,131	490,681	330,325	544,123	313,156
Total		\$331,810	\$116,996	\$9,338,811	\$8,271,850	\$9,684,807	\$8,393,211

7. CLAYS, EARTHS, ETC., AND MANUFACTURES OF—11 Items.

Fire brick and lining	20 p.c.	\$1,594	\$3,713	\$36,133	\$41,033	\$38,335	\$44,746
Building brick	20 p.c.	6,416	2,150	110,797	165,672	117,468	168,122
Paving brick	20 p.c.	1,790	None	27,963	32,518	29,753	32,578
Drain tiles	20 p.c.	81	273	1,556	956	1,637	1,229
Sewer pipe, etc.	35 p.c.	8,677	17,628	44,981	83,189	53,958	101,166
Manufactures, n.o.p.	20 p.c.	1,175	1,320	14,673	18,708	17,204	20,801
Portland cement	12½c. per 100 lbs.	164,627	160,011	510,718	632,598	995,017	1,234,649
Cement, n.e.s. and mfrs. of, n.o.p.	20 p.c.	2,614	2,849	10,936	13,243	14,305	18,189
Earthenware bath tubs, n.o.p.	30 p.c.	2,639	4,181	68,119	69,119	70,927	73,569
Earthenware tiles	35 p.c.	18,652	11,457	35,028	50,795	55,319	65,181
Earthenware, n.e.s.	30 p.c.	11,949	11,139	43,041	53,221	56,388	71,609
Total		\$220,214	\$214,721	\$903,947	\$1,462,052	\$1,450,311	\$1,832,142

8. MINERALS—12 Items.

ARTICLES.	General Tariff.	Great Britain under Preferential Tariff.		United States under General Tariff.		All Countries.	
		1901.	1905.	1901.	1905.	1901.	1905.
Ashesos, mfrs. of	25 p.c.	\$3,490	\$5,860	\$77,909	\$109,786	\$83,827	\$116,836
Blacklead	25 p.c.	6,383	5,363	19,252	23,709	26,053	30,743
Mineral substances, n.o.p.	20 p.c.	10,238	5,027	25 05	44,633	43,137	58,569
Plumbago, mfrs. of, n.e.s.	25 p.c.	3,078	1,863	9,495	10,988	12,737	13,192
Coal oil, n.e.s.	5c. per gal.	2,419	2,613	1,523,187	940,088	1,526,989	943,207
Products of petroleum, n.e.s.	5c. per gal.	None	283	100,609	95,849	130,609	96,629
Fuel oil	2 1/2 c. per gal.	None	None	275,515	3,771	275,515	3,771
Lubricating oil	5c. per gal.	None	362	245,864	206,925	245,864	207,672
Lubricating oil, all other, n.e.s.	25 p.c.	4,057	5,729	114,092	98,582	119,063	106,329
Slate, roofing	25 p.c.	None	30	37,163	14,993	38,245	45,345
Slate, school	25 p.c.	92	23	27,632	18,436	28,091	18,681
Slate, n.e.s.	25 p.c.	None	145	17,356	20,341	17,364	20,505
Total		\$29,757	\$27,303	\$2,473,729	\$1,618,099	\$2,547,494	\$1,661,479

9. PAINTS, PIGMENTS AND COLORS—9 Items.

Bronze powder	25 p.c.	\$4,013	\$2,404	\$13,187	\$14,345	\$53,633	\$53,972
Colors, dry, n.e.s.	20 p.c.	13,357	14,872	84,622	95,803	109,287	123,898
*Ready mixed paints, n.e.s.	25 p.c.	27,960		134,545		165,269	
Dry white and red lead	5 p.c.	108,929	128,751	349,770	291,068	662,098	638,381
Ochres and siennas	20 p.c.	552	313	4,482	9,319	13,303	14,097
Oxides, n.e.s.	25 p.c.	6,841	9,232	10,490	10,252	23,333	21,790
*Paints mixed with varnish	25 p.c.	350		3,075		3,623	
Paints, anti-corrosive, n.e.s.	25 p.c.	8,177	44,930	30,283	196,489	40,397	248,928
Varnishes, etc., n.e.s. 20 cts. per gal. and 20 p.c.		32,771	14,870	94,839	102,597	128,838	148,082
Total		\$202,950	\$245,372	\$725,293	\$719,873	\$1,199,781	\$1,249,148

* The classification of "Paints, ground or mixed in japans, varnish, lacquers, etc." and of "Colors and paints, pulped or ground in oil or other liquids, and all liquid, prepared or ready-mixed paints, n.e.s.," as published in the Trade and Navigation Report for the fiscal year 1901, are classified and included in the report for 1905 under the one general heading of "Paints and colors, and rough stuff and fillers, anti-corrosive and anti-fouling paints commonly used for ships' hulls, and ground and liquid paints n.e.s." It was found impracticable from the description given in the entries to continue the classification in use in 1901 on account of the vagueness of the information furnished, hence the change in the classification.

10. AGRICULTURAL IMPLEMENTS—21 Items.

Cultivators	20 p.c.	None	None	\$12,468	\$15,115	\$12,468	\$15,142
Grain drills	20 p.c.	None	None	102,339	121,748	102,339	121,777
Farm rollers	25 p.c.	\$22	\$70	4,875	411	4,897	481
Farm forks	25 p.c.	98	170	6,227	5,357	6,325	5,527
Harrows	20 p.c.	20	75	82,074	44,799	82,112	44,874
Harvesters	20 p.c.	None	None	746,894	357,550	746,894	357,550
Ray tedders	25 p.c.	None	None	27,439	35,176	27,439	35,176
Hoes	25 p.c.	125	139	1,078	667	1,278	808
Horse rakes	20 p.c.	None	None	173,044	35,161	173,044	35,161
Lawn mowers	35 p.c.	None	169	14,682	17,156	14,682	17,325
Manure spreaders	20 p.c.	107	None	16,496	2,183	16,603	2,183
Mowing machines	20 p.c.	None	None	331,964	71,375	331,964	71,375
Plows	20 p.c.	56	4	299,820	256,706	300,135	258,829
Reapers	20 p.c.	None	None	48,325	18,113	48,325	18,113
Rythes	25 p.c.	3,035	2,498	13,947	18,417	17,126	21,377
Spades and shovels	35 p.c.	15,200	13,452	17,471	23,946	33,094	38,718
Parts paying 20 per cent.	20 p.c.	323	None	673,475	490,863	673,848	490,876
All others, n.e.s.	25 p.c.	2,856	2,394	38,581	32,384	42,100	35,351
Feed cutters	25 p.c.	None	None	2,350	1,298	2,350	1,298
Horse powers	25 p.c.	None	None	5,797	5,656	5,797	5,656
Thrashers	25 p.c.	None	None	291,774	165,908	291,774	165,908
Total		\$21,842	\$18,971	\$2,911,120	\$1,721,989	\$2,934,594	\$1,743,505

11. VEHICLES—15 Items.

Buggies, carriages, etc.	35 p.c.	\$1,175	\$2,400	398,794	\$93,251	\$100,898	\$96,056
Farm wagons	25 p.c.	None	None	236,829	146,991	236,829	146,991
Freight wagons	25 p.c.	109	23	26,837	30,974	26,946	30,997
Finished parts, n.e.s.	35 p.c.	\$35	689	96,512	108,816	97,347	109,505
Railway cars, passenger	30 p.c.	None	None	106,449	36,925	106,449	36,925
Cars, tram or horse	30 p.c.	None	None	5,934	9,823	5,934	9,823
Cars, box and flat	30 p.c.	None	None	181,110	116,711	181,110	116,711
Cars, parts of	30 p.c.	17,732	4,013	236,880	242,162	316,575	316,505
Road scrapers	30 p.c.	None	None	49,329	53,711	49,329	53,711
Sleighs	25 p.c.	None	None	27,570	20,936	27,570	21,004
Wheelbarrows	30 p.c.	319	122	90,002	98,696	91,486	98,876

VEHICLES—Continued.

ARTICLES.	General Tariff.	Great Britain under Preferential Tariff.		United States under General Tariff.		All Countries.	
		1901.	1905.	1904.	1905.	1904.	1905.
		Bicycles.	30 p.c.	\$526	\$1,859	\$51,272	\$46,825
“ parts of	30 p.c.	4,301	5,342	102,219	73,952	107,353	79,530
Children's carriages.	35 p.c.	223	45	27,898	31,910	28,344	31,979
Automobiles	25 p.c.	2,403	6,605	312,854	395,043	315,475	453,904
Total		\$27,623	\$21,098	\$1,650,489	\$1,506,726	\$1,743,798	\$1,653,205

12. MUSICAL INSTRUMENTS—6 Items.

Brass band instruments	25 p.c.	\$7,343	\$7,634	\$8,949	\$11,153	\$32,156	\$35,558
Cabinet organs	30 p.c.	122	None	14,951	11,577	15,284	11,747
Parts of organs	25 p.c.	664	1,231	17,577	13,534	18,241	15,115
Pianos.	30 p.c.	1,151	4,356	105,360	118,238	107,388	123,850
Parts of pianos	25 p.c.	9	None	136,830	135,105	147,377	143,290
Other musical instruments, n.e.s.	30 p.c.	1,393	1,714	43,465	34,806	140,513	123,220
Total		\$10,682	\$14,935	\$327,132	\$324,413	\$460,959	\$452,780

13. PAPER AND MANUFACTURES OF—14 Items.

Paper, photographers'	30 p.c.	\$4,463	\$8,961	\$105,814	\$118,822	\$110,865	\$128,672
Bags and sacks	25 p.c.	351	1,536	45,526	50,181	48,201	53,981
Cardboard, n.e.s.	35 p.c.	5,590	8,176	52,648	71,700	60,312	82,590
Envelopes	35 p.c.	14,362	12,538	49,692	62,334	66,784	76,179
Felt or straw board	25 p.c.	527	4,551	99,761	149,953	100,470	156,048
Wall paper	35 p.c.	10,987	13,458	173,326	176,101	187,342	199,924
Leather board	25 p.c.	None	None	23,604	23,618	23,636	23,618
Mill board	10 p.c.	2,266	1,020	31,159	38,681	35,575	41,977
Manufactures, n.o.p., n.e.s.	35 p.c.	109,299	125,794	486,420	512,892	656,772	722,694
Printing paper, n.e.s.	25 p.c.	135,378	166,509	289,033	340,846	435,082	519,784
Coated paper	35 p.c.	31,992	26,499	93,571	125,703	154,738	181,155
Straw board, rolls	25 p.c.	30	142	10,025	10,786	11,217	12,514
Wrapping paper	25 p.c.	2,625	6,838	34,207	33,927	47,801	51,280
All kinds, n.e.s.	25 p.c.	137,245	132,178	408,736	432,887	610,447	638,104
Total		\$455,315	\$508,206	\$1,903,522	\$2,148,431	\$2,549,242	\$2,888,820

14. LEATHER AND MANUFACTURES OF—7 Items.

Leather, sole, all kinds	15 p.c.	\$30,996	\$58,672	\$15,881	\$44,029	\$58,600	\$108,829
Leather for belting	15 p.c.	85,098	68,930	721	2,178	86,018	71,790
Leather, upper	17½ p.c.	27,663	33,661	86,679	114,971	127,828	158,069
Leather boots and shoes	25 p.c.	36,588	57,603	953,687	1,107,100	996,150	1,173,113
Leather, harness and saddlery	30 p.c.	16,137	18,534	77,188	63,529	95,076	83,924
Leather, belting	20 p.c.	22,306	24,252	31,815	38,996	55,167	63,463
Leather, all others, n.o.p.	25 p.c.	3,012	18,824	154,812	175,432	178,555	200,501
Total		\$221,800	\$280,476	\$1,320,783	\$1,546,235	\$1,597,394	\$1,859,689

15. MISCELLANEOUS—25 Items.

Boats, pleasure	25 p.c.	\$151	\$1,219	\$32,914	\$37,478	\$33,735	\$39,114
Clocks and movements	25 p.c.	5,578	6,235	234,516	240,749	289,412	307,484
Furniture, house and office	30 p.c.	29,068	33,619	526,242	619,326	582,292	633,994
Ammunition, rifle, etc.	30 p.c.	144,086	132,016	170,523	147,075	316,589	282,987
Gutta percha, boots and shoes	25 p.c.	296	123	141,281	124,473	141,695	124,965
Gutta percha, belting	25 p.c.	1,076	722	49,618	60,885	50,694	61,607
Gutta percha, hose	35 p.c.	877	1,318	47,404	50,634	48,440	51,975
Gutta percha, packing	35 p.c.	1,034	1,172	49,395	56,457	50,854	57,785
Ink, writing	20 p.c.	15,167	16,245	36,229	37,690	55,282	58,191
Ink, printing	20 p.c.	7,969	10,201	91,971	88,837	100,742	100,533
Wind mills	25 p.c.	None	None	33,914	37,939	33,914	37,939
Jewelery, n.o.p.	30 p.c.	64,335	56,529	688,665	644,811	869,238	827,413
Optical, etc., instruments, n.e.s.	25 p.c.	18,829	25,139	138,386	172,927	199,084	249,273
Spectacles, etc.	30 p.c.	444	358	10,283	10,281	12,819	13,924
Spectacle frames and parts	20 p.c.	26	None	51,291	43,223	53,051	44,070
Pocket books, etc.	30 p.c.	21,915	23,285	105,096	135,144	189,013	208,867
Soap, laundry	1c. per lb.	2,408	3,332	56,347	59,711	59,523	64,171
Soap, castile	2c. per lb.	4	18	4,791	3,555	73,412	67,528
Soap, toilet	35 p.c.	30,692	33,947	106,320	113,648	145,272	157,030
Soap powders	30 p.c.	36	391	79,162	88,642	79,655	89,034
Grindstones.	15 p.c.	4,504	6,467	33,345	33,984	38,144	40,860
Watches.	25 p.c.	1,054	1,161	24,419	22,600	76,602	85,639
Watch cases	30 p.c.	172	12	93,049	56,947	103,625	71,623
Watch movements	10 p.c.	758	319	583,233	574,939	755,901	730,546
Total		\$350,489	\$353,828	\$3,368,394	\$3,461,955	\$4,358,988	\$4,466,561

RECAPITULATION.

ARTICLES.	Great Britain under Preferential Tariff.		United States under General Tariff.		All Countries	
	1904.	1905.	1904.	1905.	1904.	1905.
1. Iron and steel and manufactures of	\$3,394,670	\$2,717,949	\$17,318,240	\$18,568,016	\$22,393,122	\$22,231,466
2. Brass and copper and manufactures of	79,587	98,237	688,545	684,482	803,876	829,615
3. Hardware	583,181	575,433	3,242,415	3,430,916	4,169,334	4,412,603
4. Metals and manufactures of	151,765	162,566	893,597	813,033	1,296,226	1,227,333
5. Electrical machinery and appliances	61,773	28,380	2,517,506	3,080,827	2,715,884	3,218,544
6. Fuels	331,810	116,996	9,338,811	8,271,850	9,684,807	8,393,214
7. Clays, etc., and manufactures of	220,214	214,721	903,947	1,462,052	1,450,311	1,832,142
8. Minerals	29,757	27,303	2,473,729	1,618,099	2,547,494	1,661,479
9. Paints, pigments and colors	202,950	245,372	725,293	719,873	1,199,781	1,249,148
10. Agricultural implements	21,842	18,971	2,911,120	1,721,989	2,934,594	1,743,505
11. Vehicles	27,623	21,098	1,650,489	1,506,726	1,743,798	1,653,205
12. Musical instruments	10,682	14,935	327,132	324,413	460,959	452,780
13. Paper and manufactures of	455,315	508,206	1,903,522	2,148,431	2,549,242	2,888,820
14. Leather and manufactures of	221,800	280,476	1,320,783	1,546,235	1,597,394	1,859,689
15. Miscellaneous	350,489	353,828	3,388,394	3,461,955	4,358,988	4,466,561
Total	\$6,183,458	\$5,384,471	\$49,603,523	\$49,358,897	\$59,905,810	\$58,120,104

The value of all merchandise imported into Canada for home consumption from Great Britain in 1904 and 1905 was as follows:

	1904		1905	
	Value.	Duty paid.	Value.	Duty paid.
Under General Tariff.	\$5,781,301	\$3,094,910	\$5,895,951	\$3,101,211
Under Preferential Tariff.	38,475,505	7,454,733	38,444,668	7,754,629
Total	\$44,256,806	\$10,549,643	\$44,340,619	\$10,855,840
Free Goods.	16,837,745		15,243,182	
Total Dutiable and Free	\$61,094,551		\$59,583,801	

The average rate of duty paid upon dutiable British imports under the general tariff in 1904 was 53.5 per cent. and under the preferential tariff, 19.3 per cent.; and in 1905 under the general tariff 52.6 per cent. and under the preferential tariff 20.1 per cent.

Merchandise imported from Great Britain under the general tariff, the product of that country, consisted of spirits, wines, tobaccos, etc., to which no tariff preference is shown.

The value of all merchandise imported for home consumption from the United States in 1904 and 1905 was as follows:

	1904	1905
Dutiable...	\$77,543,780	\$78,797,440
Free.	73,282,735	83,941,131
Total.	\$150,826,515	\$162,738,571

The amount of duty collected upon dutiable goods from the United States in the two years was:

1904—\$19,554,585, or at the rate of 25.2 per cent.

1905—\$20,580,302, or at the rate of 26.1 per cent.

The value of all imported merchandise, dutiable and free, entered for consumption in Canada was as under:

	1904			
	Great Britain.	United States.	All other Countries	Total.
Dutiable	\$44,939,829	\$77,543,780	\$26,425,967	\$148,909,576
Proportion	30.1 per cent.	52 per cent.	17.9 per cent.	100.00 per cent.
Free.	\$16,837,745	\$73,282,735	\$12,434,276	\$102,554,756
Proportion	16.4 per cent.	71.4 per cent.	12.2 per cent.	100.00 per cent.
Dutiable and Free.	\$61,777,574	\$150,826,515	\$38,860,243	\$251,464,332
Proportion	24.5 per cent.	60.0 per cent.	15.5 per cent.	100.00 per cent.
	1905			
Dutiable	\$45,099,527	\$78,797,440	\$27,031,820	\$150,927,787
Proportion	29.9 per cent.	52.2 per cent.	17.9 per cent.	100.00 per cent.
Free.	\$15,243,182	\$83,941,131	\$11,812,454	\$110,996,767
Proportion	13.7 per cent.	74.7 per cent.	11.6 per cent.	100.00 per cent.
Dutiable and Free.	\$60,342,709	\$162,738,571	\$38,844,274	\$261,925,554
Proportion	23.0 per cent.	62.2 per cent.	14.8 per cent.	100.00 per cent.

The value of all dutiable merchandise imported into Canada for home consumption in 1904 and 1905, and the duties imposed thereon was as follows:

	1904			1905		
	Value.	Duty Paid.	Rate of Duty.	Value.	Duty Paid.	Rate of Duty
General Tariff..	\$99,167,713	\$30,168,411	30.4 per cent.	\$99,170,283	\$30,754,951	31.0 per cent
Preferential tariff..	44,765,253	8,889,410	19.8 per cent.	45,893,728	9,096,170	19.9 per cent
Surtax tariff.....	4,976,610	1,896,528	38.2 per cent.	5,864,776	2,183,219	37.2 per cent
Total.....	\$148,909,576	\$40,954,349	27.5 per cent.	\$150,928,787	\$42,024,340	27.8 per cent

The aggregate trade of Canada on the basis of goods entered for consumption and domestic goods exported was as under

1904			1905		
Great Britain.	United States.	All Countries.	Great Britain.	United States.	All Countries.
\$179,368,950	\$223,599,447	\$464,985,567	\$157,457,576	\$233,165,336	\$452,780,500

Duty collected on imports of dutiable goods.

\$10,838,017	\$19,554,585	\$40,954,349	\$11,171,010	20,580,302	\$42,024,340
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Under an amendment to the Customs Act, passed in 1903, provision was made for the collection of a surtax of 33½ per cent on merchandise coming into Canada for home consumption from any foreign country which treats imports from Canada less favorably than those from other countries. This surtax is applied to merchandise of German origin only, but does not apply to the products of other countries imported through German ports.

Under the French Treaty, by which certain dutiable articles made in France and its dependencies were accorded a special tariff preference, merchandise was imported into Canada for home consumption in 1904 and 1905 as follows:

	1904	1905
Value of merchandise.....	\$726,708	\$734,400
Duty paid.....	195,928	199,164

SELECTED LIST, FREE IMPORTS, 1904 and 1905.

MANUFACTURES—60 Items.

ARTICLES.	Great Britain.		United States.		All Countries.	
	1904.	1905.	1904.	1905.	1904.	1905.
Bells for churches.....	\$4,996	\$1,692	\$11,965	\$17,493	\$43,053	\$40,700
Binder twine.....	591	5,857	1,459,113	1,288,696	1,459,704	1,294,533
Articles for manufacture of.....	8,495	5,639	66,207	52,406	74,702	60,621
Bolting cloth.....	None	8	15,220	7,168	15,359	8,047
Books for Schools, Colleges, etc.....	57,978	61,515	134,993	151,853	213,466	232,655
“ scientific, etc.....	7,094	8,549	97,686	85,332	113,539	104,984
Brick, fire, for manufacture.....	119,352	114,348	234,534	274,564	365,479	392,195
Coal, tar and pitch.....	25,743	24,597	96,855	125,452	122,598	150,141
Coke.....	22,440	8,437	742,683	799,329	765,123	807,842
Colors, oxides, etc., n.e.s.....	1,704	468	19,683	58,110	24,819	59,739
Cotton waste.....	41,759	56,295	381,593	355,480	444,835	422,207
Cotton wool.....	4,249	30,876	5,927,226	5,550,032	5,955,145	5,617,044
Crucibles—clay or plumbago.....	8,996	6,785	19,508	24,497	28,773	31,353
Diamond drills, for prospecting.....	300	None	10,777	13,688	11,077	13,688
Dyes, aniline.....	28,297	17,204	181,544	179,326	375,402	345,963
Dyeing or tanning articles, n.e.s.....	3,621	1,611	13,413	34,287	22,522	39,379
Extract of Logwood, etc.....	71,813	39,962	328,994	330,735	440,202	382,159
Gums, amber, arabic, etc.....	27,983	7,961	284,850	315,726	315,901	329,089
Salt petre.....	17,596	10,605	39,004	49,373	86,308	96,304
Soda—nitrate of.....	32	785	161,215	231,078	258,578	393,251
Duck—for belting and hose.....	313	634	197,219	88,433	197,532	89,067
Glove fasteners.....	8,390	6,970	114,894	118,102	128,570	132,517
Lamp Black.....	208	137	23,718	24,789	26,569	26,410
Metals,—Aluminum.....	31,980	166	68,442	153,884	101,427	151,599
“ Anchors.....	11,120	7,366	6,911	6,190	18,106	13,736
“ Brass, bolts, bars, etc.....	1,711	1,316	95,274	115,558	96,985	116,874
“ “ strips, sheets, etc.....	6,863	12,365	177,551	157,065	184,414	169,562
“ “ tubing.....	10,406	26,910	91,329	126,186	107,735	153,096
“ Copper bolts, bars, etc.....	716	1,746	748,728	1,229,983	749,498	1,231,729
“ “ strips, sheets, etc.....	32,207	15,672	264,707	331,967	296,914	347,877
“ “ tubing.....	2,736	13,757	42,173	63,830	44,109	77,587
“ “ pigs, ignots, etc.....	18,728	8,438	217,990	232,739	236,718	211,177
“ Cream separators.....	171,114	159,125	272,275	513,423	450,429	674,618
“ “ articles for.....	5,195	6,153	34,822	52,101	40,017	58,859
“ Iron or steel rods for making coil wire.....	346,537	65,619	727,115	726,459	1,134,149	792,078
“ Rolled iron tubes for manufactures.....	51,776	40,162	99,241	122,762	151,017	163,329
“ Locomotive and car wheel tires.....	670	1,198	17,631	21,241	95,750	128,639

MANUFACTURES—Continued.

ARTICLES.	Great Britain.		United States.		All Countries.	
	1904.	1905.	1904.	1905.	1904.	1905.
Metals, Machinery for beet sugar factories	None	None	\$12,278	\$8,975	\$12,278	\$9,071
“ “ for mining	\$67,140	\$37,702	940,258	684,990	1,018,590	763,561
“ Platinum wire, bars, strips, etc.	548	1,112	27,424	60,604	28,112	61,719
“ Ribs, etc., for umbrellas	31,174	21,878	78,707	65,416	134,112	127,494
“ Sewing machine attachments	18	387	47,397	50,337	47,517	50,724
“ German silver, ignots, etc.	None	1,298	12,968	41,519	13,047	43,744
“ Steel rails	1,830,834	461,339	1,261,480	4,517,486	4,329,363	5,051,762
“ Steel cut to shape for saws, etc.	13,061	7,784	102,608	112,208	115,669	120,034
“ Steel for files, augurs, etc.	50,744	23,892	106,414	146,625	162,511	173,482
“ Steel for carriage springs, etc	18,112	16,653	110,011	104,985	132,871	121,638
“ Tin in block, pig and bars	292,319	282,128	457,499	404,699	720,213	819,038
“ Tin plates and sheets	1,215,700	1,206,906	246,111	544,601	1,461,811	1,751,507
“ Tin foil	313	544	42,809	53,888	51,890	62,813
“ Barbed fencing wire	46,380	95,713	764,101	766,126	847,019	892,367
“ Galvanized wire	8,687	11,101	592,988	615,423	638,513	658,123
“ Zinc, block, pigs, etc.	33,005	42,306	22,041	27,665	138,057	141,514
Pianos, articles for manufacture of	2,353	4,837	33,616	33,181	63,625	57,586
Rubber, crude	733	13,040	2,196,939	2,445,330	2,197,712	2,458,386
“ hard, in sheets, etc.	747	13,197	276,139	216,931	277,770	230,439
Surgical and dental instruments	19,317	18,946	136,026	124,313	170,344	156,050
Gold and silver coin	52,666	5	6,971,359	9,085,002	7,029,351	9,085,951
Gold bullion	15	None	525,450	874,993	525,566	875,389
Silver bullion	277	None	319,119	346,950	319,396	347,095
Total	\$4,843,852	\$3,031,746	\$28,710,824	\$35,361,584	\$35,631,861	\$39,453,125

THE FOREST—22 Items.

Cork wood	\$4,250	\$2,424	\$54,419	\$58,325	\$78,357	\$79,095
D Shovel handles	110	None	45,776	52,735	45,886	52,735
Felloes, hickory	None	None	27,610	19,531	27,610	19,531
Bolts, heading, etc.	None	None	29,376	31,572	29,376	31,572
Billets, hickory	None	None	4,007	4,150	4,007	4,150
Spokes, sawn to shape	None	None	2,612	6,644	2,612	6,644
“ rough turned	None	None	178,603	126,275	178,603	126,275
Hubs for wheels	3	None	24,071	31,960	24,074	31,960
Railroad ties	None	None	202,887	376,014	202,887	376,014
Logs, round	None	91	395,984	479,685	396,348	479,791
Lumber, cherry, etc.	None	None	456,479	314,852	457,419	318,330
“ Mahogany	11,494	7,198	126,894	71,063	138,388	78,652
“ Oak	41	None	1,492,536	1,200,914	1,492,577	1,200,981
“ Pitch pine	5	None	302,370	405,733	302,375	405,733
“ Walnut	None	None	57,770	34,211	57,770	34,211
“ Ash	None	None	97,479	69,912	97,479	69,912
Timber, hewn or sawn	419	None	324,864	144,814	326,760	145,338
Boards, plank, etc., partly dressed	155	None	2,658,006	2,167,447	2,663,571	2,185,221
Laths	None	None	58,779	9,172	59,691	9,247
Shingles	None	None	22,141	16,570	22,141	16,590
Staves	None	821	146,566	135,072	146,580	135,893
Fire wood	None	None	112,631	110,112	112,631	111,328
Total	\$16,477	\$10,534	\$6,821,860	\$5,866,763	\$6,867,142	\$5,919,210

THE MINE—13 Items.

China clay	\$60,022	\$70,840	\$14,305	\$23,661	\$74,327	\$94,501
Fire clay	15,223	18,362	36,942	55,312	52,716	73,837
All other clays, n.e.s.	3,375	82	13,638	7,106	17,502	7,278
Anthracite and dust	51,356	81,509	10,409,867	12,011,862	10,461,223	12,093,371
Emery	2,147	2,341	19,408	19,639	21,626	21,980
Gannister	2,261	1,676	267	362	2,528	2,038
Gravel and sand	975	1,514	11,589	82,294	107,547	92,722
Pumice	253	98	5,942	6,807	6,537	8,447
Alumina	14,275	141	11,695	58,737	108,956	129,822
Cryolite	None	None	14,513	11,966	14,513	11,966
Litharge	17,134	25,528	3,995	14,986	32,633	57,736
Ores of metals	8,026	6,215	706,364	1,541,275	1,112,193	1,775,158
Whiting	37,166	44,501	5,341	6,672	42,507	51,215
Total	\$212,213	\$252,607	\$11,253,866	\$13,840,679	\$12,054,808	\$14,420,071

ANIMAL PRODUCTS—9 Items.

ARTICLES.	Great Britain.		United States.		All Countries.	
	1904.	1905.	1904.	1905.	1904.	1905.
Bone, black..	\$333	None	\$86,744	\$69,990	\$89,668	\$69,990
Bristles.	33,544	\$42,582	39,178	47,497	83,202	98,921
Fur skins, not dressed, n.e.s.	320,113	350,309	1,344,641	1,747,049	2,346,940	2,795,820
Degras.	13,541	4,999	62,629	34,576	82,802	52,231
Soap grease.	None	1,893	232,791	226,208	232,791	228,111
Hair, cleaned or uncleaned	447	721	51,009	48,950	54,988	53,571
Horse hair...	17,069	24,356	7,295	11,975	25,239	40,054
Hides and skins	660,658	1,391,347	2,711,011	1,896,174	4,775,464	5,147,073
Rennet..	43	419	59,422	40,247	84,070	65,151
Total.	\$1,045,748	\$1,816,626	\$4,715,729	\$4,121,717	\$7,866,164	\$8,550,925

RECAPITULATION.

1904

	Great Britain.	United States.	All other Countries.	Total.
Manufactures 60 items	\$4,843,852	\$28,710,824	\$2,077,185	\$35,631,861
The Forest 22 "	16,477	6,821,860	28,805	6,867,142
The Mine 13 "	212,213	11,253,866	588,729	12,054,808
Animal products 9 "	1,045,748	4,715,720	2,104,696	7,866,164
Total.	\$6,118,290	\$51,502,270	\$4,799,415	\$62,419,975
Proportion..	9.8 per cent.	82.5 per cent.	7.7 per cent.	100.00 per cent

1905

	Great Britain.	United States.	All other Countries.	Total.
Manufactures 60 items	\$3,031,746	\$35,361,584	\$1,059,795	\$39,453,125
The Forest 22 "	10,534	5,866,763	41,913	5,919,210
The Mine 13 "	252,607	13,840,679	426,785	14,420,071
Animal products 9 "	1,816,626	4,121,717	2,612,582	8,550,925
Total.	\$5,111,513	\$59,190,743	\$4,141,075	\$68,343,331
Proportion...	7.4 per cent.	86.6 per cent.	6.0 per cent.	100.00 per cent

The declared value of free imports of settlers' effects into Canada was as follows:

	Great Britain.	United States.	All other Countries	Total.
1904..	\$1,431,292	\$5,233,437	\$94,184	\$6,758,913
1905..	1,546,854	5,359,998	177,807	7,084,659

CANADIAN EXPORTS.

The following shows the values of a selected list of 67 articles of Canadian manufacture exported in the fiscal years, 1904 and 1905. the character of the articles exported and their destination:

ARTICLES.	Great Britain.		United States.		All Countries.	
	1904.	1905.	1904.	1905.	1904.	1905.
Agricultural implements	\$479,667	\$334,523	\$26,837	\$20,181	\$2,556,834	\$2,313,620
Books, pamphlets, etc.	54,010	52,455	83,904	90,959	178,987	181,671
Bread	725	126	5,701	9,090	37,481	31,660
Cartridges	26,388	7,905	91,060	88,887	130,855	106,779
Charcoal	None	1,800	14,878	351	14,878	2,651
Coke	None	None	258,047	473,578	258,047	473,590
Cement	31	65	1,849	2,763	3,205	5,430
Clothing	26,161	27,199	44,575	43,872	143,155	159,759
Cordage	35,132	18,707	447,071	286,848	517,072	344,024
Cotton fabrics	57,658	43,470	18,321	28,661	537,789	1,074,737
Cotton—other	9,801	5,676	6,086	10,994	31,492	29,052
Cotton waste	251	2,772	80,813	66,321	81,664	69,406
Drugs, Chemicals, etc., n.e.s.	84,195	201,671	341,414	414,416	690,928	834,838
Dyestuffs	364	None	1,395	1,800	4,626	3,470
Electrical apparatus	3,706	9,927	7,897	9,609	15,610	21,285
Explosives	19	None	168,931	123,206	198,820	184,531
Fertilizers	None	None	174,775	206,793	177,138	229,212
Fur—manufactures of	6,952	4,088	13,453	12,328	24,548	18,305
Glass and glassware	4,182	1,373	4,594	6,078	12,161	16,163
Grindstones manufactured	4	None	9,297	24,647	12,676	27,985
Hats and caps	481	393	960	1,604	5,503	5,815
Household effects, n.e.s.	118,995	80,119	1,115,472	1,217,755	1,259,291	1,329,030
India rubber, manufactures of	39,378	46,500	9,994	6,688	128,067	170,359
Iron and steel and manufactures of	123,459	32,562	809,431	112,809	1,046,279	245,562

CANADIAN EXPORTS.—Continued.

ARTICLES.	Great Britain.		United States.		All Countries.	
	1904.	1905.	1904.	1905.	1904.	1905.
Stoves.	\$605	\$394	\$4,712	\$4,418	\$13,428	\$16,738
Castings, n.o.s.	37,175	29,373	19,747	18,411	82,385	73,836
Pig iron	118,142	44,026	34,206	8,055	160,227	66,078
Machinery, n.o.s.	99,765	32,858	84,081	112,206	350,040	312,865
Sewing machines	541	1,816	11,098	13,442	20,663	22,863
Typewriters	111,600	74,445	944	1,807	150,914	125,544
Hardware, n.o.s.	33,200	34,701	14,278	38,876	98,288	153,226
Leather, sole	1,585,174	1,544,105	24,838	189	1,733,621	1,678,271
Leather, upper	182,936	164,998	805	823	191,058	169,485
Leather, n.o.s.	147,556	213,207	41,626	33,810	225,968	200,317
Boots and shoes	5,620	5,457	26,954	28,338	152,116	158,064
Harness and saddlery	1,459	781	3,683	5,797	9,240	10,566
Leather—other manufactures of	12,150	13,596	74,271	18,731	94,029	38,206
Lime	None	300	83,962	68,097	104,028	75,408
Liquors—whisky...	47,949	1,556	428,149	8,043	570,697	10,085
Metals n.o.p.	96,643	150,250	61,859	49,119	542,401	235,181
Musical instruments—organs	200,838	174,745	4,452	5,055	279,106	232,298
“ “—pianos	9,490	5,175	40,136	27,974	68,631	49,676
Paper, n.o.s.	447,536	940,731	160,563	179,861	1,083,620	1,768,020
Plumbago, manufactures of	None	40	7,130	1,438	14,643	1,478
Soap.	10	230	2,330	3,797	20,474	30,198
Tar	29	None	24,299	12,346	27,775	28,646
Tin—manufactures of	636	1,850	14,618	8,893	67,529	37,535
Vehicles—Carriages...	450	1,606	2,983	3,503	78,045	32,594
“ Carts	1,493	129	2,741	557	13,375	14,098
“ Wagons	249	1,311	1,391	1,814	3,684	4,866
“ Bicycles	889	895	1,904	1,118	206,846	58,246
“ Other	1,780	34,601	12,001	44,320	16,889	98,751
Household furniture	168,745	128,032	22,542	16,251	340,251	304,493
Doors, sashes and blinds	153,567	76,190	3,364	8,130	187,558	128,065
Wood pulp	548,720	680,199	1,807,442	2,694,122	2,409,074	3,399,158
“ manufactures of, n.o.s.	275,718	188,523	66,375	74,293	395,047	332,204
Woolen goods	6,403	8,384	12,383	9,626	57,004	58,299
Total	\$5,358,787	\$5,425,835	\$6,838,622	\$6,763,498	\$17,735,861	\$17,894,382

TOTAL VALUE OF EXPORTS.

The total value of all exports of Canadian produce in 1904 and 1905 were:

Manufactures	\$6,231,094	\$6,378,419	\$7,416,498	\$8,280,842	\$19,864,049	\$21,191,333
The Mine	641,072	991,874	32,025,193	28,764,461	33,626,739	37,932,329
The Fisheries	3,084,930	2,524,495	4,224,226	4,593,564	10,759,029	11,114,318
The Forest	14,962,927	12,214,007	15,009,838	17,837,049	33,091,922	33,235,683
Animals and their produce	57,920,010	56,097,451	4,217,653	5,906,259	63,812,117	63,337,458
Agricultural products	27,266,656	18,884,067	3,863,021	5,034,640	37,138,875	29,994,150
Miscellaneous	14,203	24,554	100,456	9,950	121,708	49,675
Total	\$110,120,892	\$97,114,867	\$66,856,885	\$70,426,765	\$198,414,439	\$190,854,946

The following statement shows the value of merchandise imported into and exported from Canada through United States ports, from and to foreign countries in 1904 and 1905:

	Imports		Exports	
	1904.	1905.	1904.	1905.
Great Britain	\$12,685,878	\$12,399,326	29,274,168	\$25,279,117
Entire British Empire	16,370,811	16,032,747	32,655,899	28,433,345
Other countries	8,791,568	8,610,130	5,144,088	5,012,982

Total in-transit trade through United States:

Imports	\$25,162,379	\$24,642,877
Exports	37,799,987	33,446,327
Total	\$62,962,366	\$58,089,204

CAPTAINS OF INDUSTRY.

The following items of information, which are classified under the title "Captains of Industry," relate to matters that are of special interest to every advertiser in these pages, and to every concern in Canada interested in any manufacturing industry whatever, this interest extending to supply houses also.

The Empire Gas & Construction Co., New York, have been awarded the contract for the construction of a municipal gas plant at Guelph, Ont., at a cost of \$65,000.

The ratepayers of Stratford, Ont., will vote on a by-law to provide \$56,000 for stone sewers.

Engineers of the Grand Trunk Pacific Railway are preparing plans for necessary dredging at Fort William, Ont.

Engineer Duncan, Port Arthur, Ont., is preparing plans for the construction of a dam at the outlet of Hazelwood Creek, near that place.

A new Roman Catholic church is to be built at Rainy River, Ont., from plans now being made by Architect A. G. Le Vasseur, of International Falls, Minn.

The Canadian Pacific Railway will make considerable improvements to their elevator "D" at Fort William, Ont.

The International Gas Appliance Co. will erect a one-story factory in Toronto, at a cost of \$6,500.

Messrs. George H. Hees, Son & Co., Toronto, will erect a five-story warehouse at a cost of \$40,000.

Messrs. Laidlaw & Co. will erect a planing mill in Toronto at a cost of \$8,000.

The Rat Portage Lumber Co.'s planing mill at Norman Mill, near Kenora, Ont., was destroyed by fire September 21. Loss about \$28,000.

The Coleman Cobalt Mining Co., Toronto, have been incorporated with a capital of \$250,000, to carry on a mining, milling and reduction business, etc. The provisional directors include A. R. Moore, H. B. Wills and John Jennings, Toronto.

The Temagami Lumber Co., Orillia, Ont., have been incorporated with a capital of \$300,000, to manufacture lumber, timber, etc. The provisional directors include George Gordon, Pembroke, Ont.; H. J. Bartlett, Orillia, and John Barry, Toronto.

The Canada Lands Improvement Co., Toronto, have been incorporated with a capital of \$500,000, to cultivate and improve lands, to mill and manufacture grain, to erect saw-mills, etc. The provisional directors include R. A. Grant, Alexander McKenzie, and W. H. Templeton, Toronto.

Messrs. Ryerson Bros., wholesale fruiterers at Brantford, Ont., will greatly enlarge their warehouse.

The Woodstock College at Woodstock, Ont., will have a new gymnasium erected shortly. The building will be three stories high, 80x56 feet.

The Canadian Tool Co., Woodstock, Ont., have been incorporated with a capital of \$100,000, to manufacture tools, machinery, engines, etc. The provisional directors include E. G. Law, Joseph Stickney, and A. J. Downing, Toronto.

Huyler's, Limited, a United States incorporation, have been licensed to manufacture chocolate, confectionery, etc., in Ontario, with a capital of \$15,000. H. E. Rose, Toronto, is their attorney.

The business of Messrs. Debarham, Caldecott & Co., wholesale dry goods, Toronto, has been acquired by Debarham's Limited, an English company, with a capital of \$500,000. The directors include E. R. Debarham and Stapleton Caldecott, members of the former firm.

The Palmerston Flax Mill at Palmerston, Ont., was destroyed by fire September 19. Loss about \$3,000.

The ratepayers of Woodstock, Ont., have voted favorably on a by-law granting \$50,000, for improving the water and lighting system of that city. The improvements include a reservoir, a water main extension to the new Government Epileptic Hospital, and new electric machinery.

Messrs. T. Long & Bros.' stores at Collingwood, Ont., were partially destroyed by fire September 20. Loss about \$60,000.

The propeller Melbourne, owned by the Melbourne Steamship Co., Hamilton, Ont., was destroyed by fire about three miles from Trenton, Ont., on September 19. Loss about \$25,000.

The barge Roby at Amherstburg, Ont., owned by Becker of Cleveland, Ohio, was destroyed by fire September 19. Loss about \$40,000.

The Alexander Brown Milling & Elevator Co.'s warehouse at Toronto, was destroyed by fire September 19. Loss about \$160,000.

The tug Seaman owned by the Crawford Tug Co., was destroyed by fire near Cape Croker, Ont., September 12.

The American Cereal Co., Peterborough, Ont., have just completed the erection of a large flour mill in connection with their plant. The mill is provided with 16 double-stand rolls, and will have a capacity of 600 barrels daily. It will be run by electric power.

The Hart Corundum Wheel Co. and the Canadian Corundum Wheel Co., of Hamilton, Ont., have amalgamated under the name of the Canadian Hart Corundum Wheel Co., Limited with a capital of \$75,000.

Perth, Ont., town council have passed a by-law providing for the issue of debentures to the amount of \$20,000 to complete the sewerage system in that place.

P. Downham, Chatham, Ont., will erect a large creamery there at a cost of \$35,000.

Prof. Miller, provincial geologist, reports an important discovery of Bessemer iron ore at Loon Lake, east of Port Arthur, Ont. It is said the deposits are much more extended than first supposed, and that the quality is of a high grade.

S. F. Whitham, Brantford, Ont., has been awarded the contract for the erection of an implement hall at the Ontario Agricultural College at Guelph, Ont., at a cost of \$30,110.

Plans have been prepared for a large hotel to be erected at Ottawa by the Grand Trunk Pacific Railway Co. It is understood that the hotel will be constructed on the site of the present Central Station and will be a depot and hotel combined. It is said the building will be of magnificent proportions and will extend over the canal by means of a great arch.

The Wallaceburg Sugar Co. are considering purchasing the property of the Peterborough Sugar Co. at Peterborough, Ont., and complete the erection of the factory started some time ago.

The Canadian General Electric Co., Peterborough, Ont., will greatly extend their present buildings and erect new buildings at a cost of about \$100,000.

Mr. Morse, vice-president of the Grand Trunk Pacific Co., states that they will build and operate hotels in connection with their transcontinental railway system.

The Brantford Electric & Operating Co. will erect a new building in Brantford, Ont. at a cost of \$10,000.

The County Council of Carleton Ont. will build a concrete bridge across the Rideau River at a cost of \$20,000.

Hon. C. S. Hymann, Minister of Public Works, Ottawa, has ordered that \$10,000 shall be spent on the Toronto Island protection works to remedy the damage done by the recent storm.

The Government have passed an Order-in-Council granting E. W. Backus permission to build a dam across Rainy River at Fort Frances, Ont. Mr. Backus' company propose to develop electricity from works on the Rainy River.

Matters are rapidly getting into shape for the experiments in electric smelting of ores and making of steel rails at Sault Ste. Marie, Ont., which will be conducted by the Department of Mines. The furnace is already constructed, and the transformer ordered from the Westinghouse Co. for transforming a high voltage current into one of low voltage is already on the way. The electrodes have been purchased in Sweden, and are now on the way out. Shipments of ore from various mines in Ontario have been received.

The Oshawa Heat, Light & Power Co. with head office at Toronto, have been incorporated with a capital stock of \$100,000 to manufacture gas for all domestic purposes and electricity for all commercial purposes, etc. The provisional directors include Peter Ryan, R. J. Goudy, and L. E. Daney, all of Toronto.

The Martin Milling Co., with head office at Ottawa, have been incorporated with a capital stock of \$150,000, to take over and carry on the flour milling business of John Martin, of Ottawa. John Martin, J. F. Gilmore and Alfred Lee, all of Ottawa, are provisional directors.

The Canada Creamery Co., with head office at Toronto, have been incorporated with a capital stock of \$100,000, to manufacture farm, dairy and creamery products, machinery, implements and supplies, etc. The provisional directors include H. C. Spang, W. R. Pringle, J. M. Scheek and H. D. Petrie, Toronto.

The Canada Fence Co., London Ont. have been incorporated with a capital stock

of \$10,000, to manufacture wire fences, wire goods, etc. The provisional directors include W. S. B. Barkwell, J. E. Sutton and Donald McLachlan, London.

The capital stock of the John Bertram & Sons Co., Limited, Dundas, Ont., has been increased from \$300,000 to \$600,000.

The capital stock of the Manson Campbell Co., Limited, Chatham, Ont., has been increased from \$300,000 to \$500,000.

The O'Connor Steamboat & Hotel Co., with head office at Temagami, Ont., have been incorporated with a capital stock of \$150,000 to conduct business indicated by the name. The provisional directors include Daniel O'Connor, M. A. O'Connor and R. McKay.

The Canadian Tap & Die Co., of Galt, Ont., have been incorporated with a capital stock of \$40,000, to manufacture taps, dies and other screw cutting tools and machinery, etc. W. M. Preston, of Galt; F. E. Snow, F. O. Wells, E. S. Taft, and Edward Blake, of Greenfield, Mass., are provisional directors.

The Ontario Transmission Co., incorporated under a Dominion charter, have appointed F. W. Hill of Niagara Falls, Ont., to be their attorney in the province of Ontario.

The Sherwin-Williams Co., manufacturers of paint, etc., incorporated under the laws of the State of Ohio, have been licensed to do business in Ontario, and have appointed A. J. R. Snow, Toronto, as their attorney.

The H. J. Heintz Co., manufacturers of pickles, etc., a Pennsylvania corporation, have been licensed to carry on business in Ontario. Oscar Baker, Burlington, Ont., has been appointed their attorney.

About 70 years ago Joseph Demster, one of the big lumber dealers of his day, started a raft of white oak timber down the Lindsay River so late in the season that it was caught in the ice in Lake Scuzog and sunk, because of not being properly buoyed up. N. W. Trimble a grandson of Demster, who until recently resided at Elmstead, Ont., spent nearly a year in a quiet hunt for the raft, which lies under 30 feet of water and imbedded in the mud. About a month ago he was successful in locating it. He says it contains several thousand sticks of white oak timber. Each stick contains about 160 cubic feet worth at present about one dollar per cubic foot. There are probably one million dollars worth of timber in the raft. Mr. Trimble will recover the timber.

J. Y. Griffin & Co., Winnipeg, Man., have commenced building a large brick warehouse at West Willam, Ont.

To meet the rapidly increasing demand for current a new 300 kilowatt generator will shortly be installed in the power house at Bracebridge, Ont. Current to the extent of nearly 200 h. p. is now being furnished to private electric motors, and the Beardmore Manufacturing Co. is arranging to install motors of 75 h. p. capacity in their works there.

The Jencks Machine Co., Sherbrooke, Que., have commenced work on their new factory buildings at St. Catharines, Ont., the contract having been awarded to New-
Bros.

The Hedley Shaw Milling Co., Thorold, St. Catharines, Ont., have completed

arrangements for taking over and operating the mill of the Frontenac Cereal Co. at Kingston, Ont.

The Gananoque Bolt Co., Gananoque, Ont., have ordered from the Smart-Turner Machine Co., Hamilton, Ont., two tumbling barrels.

The Thornton & Douglas Co., manufacturers of clothing, etc., Stratford, Ont., have purchased a site in Hamilton, Ont., upon which they will erect a three story factory building 110x60 feet.

The A. & J. Clark Co., Bullock's Corners, Ont., manufacturers of blankets, have installed a hosiery plant in their works.

Messrs. Bickford & Mackay Dundas, Ont., will erect a new knitting mill there.

The Niagara Construction Co., Niagara Falls, Ont., have placed with the Prometheus Electric Co., New York City, an order for a complete electric kitchen sufficiently large to prepare meals for 50 persons, and which will be used on the occasion of the opening of the new power station of the Ontario Power Co.

The Smart-Turner Machine Co., Hamilton, Ont., have recently sold to Wm. Baird of Woodstock, Ont., one of their standard duplex pumps.

The Rossmund Woolen Co. are installing four sets of cards in their plant at Almonte, Ont.

Contractors Edge and Gutteridge, of Scarborough, Ont., have been awarded the contract for 13 stations on the Guelph and Goderich branch of the Canadian Pacific Railway. These do not include Goderich or Guelph stations. The station work will begin at once at Milverton and follow toward Goderich, Ont. The total cost of the 13 stations will be about \$35,000.

Messrs. A. Millar, G. Schmidt, A. Foster, Sr. and J. A. Thibaudau, of Pembroke, Ont., have purchased from Mr. A. A. Rousseau a water-power owned by him on the Black River near Waltham, Que. A new company, to be known as the Pembroke Electric Light & Power Co., has been formed to develop the power and to absorb the old Pembroke Electric Light Co.

The Skedden Brush Co., Hamilton, Ont., will build a new factory at a cost of about \$12,000.

Messrs. I. D. Bradshaw & Co. have recently installed an automatic feed pump and receiver, being supplied by the Smart-Turner Machine Co., Hamilton, Ont.

The B. F. Sturtevant Co., Boston, Mass., incorporated under the laws of that State, have been licensed to carry on business in Ontario and have appointed J. C. Grant of Toronto, as their attorney. They manufacture exhaust fans, blowers, steam heaters, steam fans, steam and other engines, electric and other motors and other machines, machinery and connections pertaining to the same made in whole or in part of iron, steel, copper, brass or other metals or wood; also veneers, pegwood for use in pegging machines and otherwise, pegs, metals and other fasteners of soles for boots and shoes, bobbins, spools and pegging machines and machinery, etc.

The Cash-With-Order Co., with head office at Hamilton, Ont., have been incorporated with a capital stock of \$50,000, to manu-

facture and deal in goods, wares and merchandise.

The International Harvester Co. have placed an order for a centrifugal pump with the Smart-Turner Machine Co., Hamilton, Ont. This is the sixth Smart-Turner pump the International Harvester Co. have installed in their works at Hamilton.

The General Brass Works, Limited, Toronto, have been incorporated with a capital stock of \$40,000, to take over the business of the General Brass Works Co., and to carry on the business of a brass foundry, manufacture plumbers' supplies, etc.

Canadian Swensons, Limited, Lindsay, Ont., have been incorporated with a capital stock of \$40,000, to carry on the business of manufacturers and dealers in machinery, agricultural tools and implements, etc. The provisional directors are Henry Rustad, Isaac E. Weldon and W. H. Kennedy.

The twin screw car ferry steamer Bessemer & Marquette No. 2, built at Cleveland, Ohio, for the Marquette & Bessemer Dock & Navigation Co., was launched September 12. She is to be operated between Conneaut, Ohio, and Port Stanley and Port Dover, Ont. The steamer is 350 feet over all, 338 feet keel, 54 feet beam and 36 feet deep and is equipped with triple-expansion engines with cylinders 19, 31 and 52-inch diameters by 36-inch stroke. Steam will be furnished by four Scotch boilers 13 feet 9 inch diameter and 12 feet long, allowed 175 pounds pressure. She will carry 30 loaded cars on 14 feet of water, and is designed for a speed of 14 miles.

W. J. Campbell has recently ordered from the Smart-Turner Machine Co., Hamilton, Ont., one 15-ton and one 5-ton hand power traveling crane, for the Ottawa Boiler Works, Ottawa.

The Canadian Pacific Railway Co. will erect a large freight shed at Ottawa.

Fire in the hardware store of Cory Bros. & Southcott, at St. Catharines, Ont., September 25, did damage to the extent of about \$4,000.

Fire in the lumber yards of the Rathbun Co. at Gravenhurst, Ont., destroyed about 7,000,000 feet of valuable lumber.

The storehouse of A. C. Douglas, the contractor who is building the tunnel and wheelpit of the Electrical Development Co. at Niagara Falls, Ont., was burned September 26, together with a quantity of oil and gasoline.

The Wilson Publishing Co., Toronto, have placed an order with the Smart-Turner Machine Co., Hamilton, Ont., for one of their outside packed duplex pot valve pumps.

The Canadian Bank of Commerce propose erecting a five story bank and office building at Woodstock, Ont.

The Wellington Dressed Beef & Cold Storage Co., Fergus, Ont., a co-operative institution, have sold their plant to William Ryan & Co., Toronto, who will enlarge the premises and extend the trade.

The Lake Orion Oil & Gas Co., Leamington, Ont., brought in a big gusher a few days ago, which is flowing at the rate of over 600 barrels per day. This is the second gusher drilled by that company in within

the last few days. The Leamington Oil Co. have also completed a well which is making about 100 barrels per day. The St. Clair River Oil Co.'s well, which was completed a few days ago, is still keeping up its big flow.

Mr. P. Downham, of Chatham, Ont., will establish a large creamery plant in that place.

The town of Chatham, Ont., is considering spending about \$35,000 on the enlargement of its electric light plant.

Forwell Bros., Berlin, Ont., are preparing plans for their new foundry and buildings will be erected as soon as possible. The two main buildings will be of brick; one 100x52 feet, and the other 100x35 feet. There is to be a stock shed 65x29 feet and a supply shed 115x18 feet. These buildings will cover over 12,000 square feet of surface.

After three years spent in construction work at Espanola, Ont., the Spanish River Pulp Co. will now begin the manufacture of pulp. The buildings, machinery, plant and other equipments have cost in the neighborhood of \$500,000. An immense concrete dam has been constructed on Spanish River, and 100 houses, each supplied with electric light, have been provided for employes. Connecting Espanola with the Canadian Pacific line at Webbwood, a four mile spur has been built.

The Hamilton Bridge Co., Hamilton, Ont., have recently ordered from the Smart-Turner Machine Co., Hamilton, Ont., two standard duplex pumps, for construction work.

American glass manufacturers are said to be behind the proposition to establish a glass factory at Cayuga, Ont. Excellent glass sand is said to exist in large quantities near Cayuga while the supply of natural gas being piped through the district by the Dominion Natural Gas Co. makes available a cheap fuel suitable for manufacturing purposes.

The congregation of Dovercourt Presbyterian Church, Toronto, have begun the erection of a new church edifice which will cost about \$25,000.

The ratepayers of Parry Sound Ont., have voted favorably on two money by-laws, one to bonus the James Bay Railway to the extent of \$25,000 to establish a divisional point there, also the erection of machine and car repair shops, the other for \$20,000 towards the improvement of the electric light plant.

Princess Quarries Co., Bancroft, Ont. have recently ordered from the Smart-Turner Machine Co., Hamilton, Ont. one of their 6-ton hand power traveling cranes

Sir William Mulock, the Postmaster-General, says that he expects that the pneumatic delivery tubes for collecting and delivering the mails in Toronto will soon be ready for laying.

Word has been received by Mr. Aubrey White, Deputy Minister of Crown Lands, from T. J. Patten, the Ontario member of the commission which is engaged in marking the northern boundary line between Ontario and Quebec, that on September 16 the surveyors had penetrated into the wilds, 65 miles north of Labyrinth Lake. From the lake to the fifty-eighth post the country was very rough. This was to be expected

as that is the neighborhood of the height of land. Beyond that the party crossed many beds of good clay soil. The territory is heavily timbered with large white and black spruce, jack pine, poplar and balsam of Gilead. The higher ground is covered with white pine and as far as could be seen there was no burnt forest land.

The Grand Trunk Railway Co. propose to build a combined depot and hotel at London, Ont., at a cost of about \$2,000,000.

The Plymouth Cordage Co., Plymouth, Mass., turned the sod for the buildings for their Canadian branch at Welland, Ont., on September 27. The company have been established in Plymouth for about 50 years and manufacture binder twine, ropes and cordage of all descriptions, the same as they will manufacture in their Canadian branch. The main building will be 635x115 feet, principally two story; one warehouse 140x60 feet, with four or five other buildings, and the contract for all of these are let. The contractors expect to have two or three hundred men at work very shortly. Switches are being put in the grounds and a turning basin will be put in the canal so they can ship by water. They expect to employ about 400 hands to start, and will put up residences for their employes.

E. J. O'Neill, Guelph, Ont., will erect a fine new storehouse to be two stories high constructed of cement concrete.

Cecil B. Smith, consulting engineer of the Ontario-Hydro Electric Commission, states that the cost of the electric power is getting down to where one can begin to figure on a hard basis. The Ontario Electric Power Co., Niagara Falls, Ont. have closed a contract for 30,000 h.p. at \$12 per h.p., and closed another contract in Welland for 1,200 h.p. at \$15 per h.p. with the Plymouth Cordage Co.

In order to facilitate business all the Canadian canals from Sault Ste. Marie through to the Lachine have been ordered to remain open for traffic on Sundays from the first of October to the close of navigation.

The Wolverine Cedar Lumber Co., Menominee, Mich., have closed a deal for a large tract of timber on the Spanish River, in Ontario, estimated to contain more than 100,000,000 feet. The price paid was \$500,000.

L. E. Carson, electrical engineer of the American Telephone Co., and S. P. Young, superintendent of construction, were in Kingston, Ont., a few days ago for the purpose of making a survey for a direct telephone line between Kingston and Watertown, N. Y.

It is rumored at Port Arthur, Ont., that the Mackenzie & Mann Co. will purchase the Marks-Wiley mining interests in the Lion Lake district in Western Ontario. Their expert, Mr. Eugene Coste, Toronto, is inspecting the rich hematite field, and on his report depends the sale. Mackenzie & Mann have in view a great manufacturing centre in Port Arthur, and are securing iron fields as a source of supply for the industries to be established there. They have also begun work on the Nepigon Railway, which will be the supply road of the new line during construction. It will extend to Nepigon Lake, when a line of steamers will be put on, and beyond the lake, 40 miles more of road will be built to reach the Grand Trunk Pacific. The road will also open up rich

mining lands, where ore is abundant, which will be brought to Port Arthur for smelting in the company's blast furnace now being built there.

The Canadian Pacific Railway Co. will install an additional 500 k.w. generator in their power house at Fort William, Ont.

The Grand Trunk Railway Co. will defer their road to touch Norwich, Ont., at which place they will build a large depot.

A large reservoir for water storage will be built at Woodstock, Ont.

The William Davies Packing Co. contemplate building a plant at Harriston, Ont.

The Canada Stone Works will erect works at Harriston, Ont.

A waterworks and sewerage system will probably be built at Rainy Lake, Ont. regarding which W. B. Cameron can give further information.

The J. I. Case Threshing Machine Co. who own a large agricultural machinery manufacturing plant at Racine, Wis., will build a Canadian branch works at Port Arthur, Ont.

The large stores of the Cockburn Mercantile Co., at Sturgeon Falls, Ont., were destroyed by fire September 26. Loss about \$25,000.

On October 12 the ratepayers of Port Arthur, Ont., will vote on four important money by-laws, one to raise by debentures \$59,000 for extension of the sewer system of the town; one for \$112,000 for extension of the waterworks system, one for \$10,000 for a new firehall and apparatus, and one for \$18,000 for a telephone building and extension of the system.

The Algoma Central Steamship Co. steamer Theano is unloading at the Canadian Pacific Railway docks at Owen Sound Ont. 2,000 tons of steel rails from the Lake Superior Consolidated Rail Mills at Sault Ste. Marie, Ont. A portion of the cargo goes to Guelph for the new Guelph-Goderich line, and the balance to Bolton, where they form the first consignment of rails for the new Toronto-Sudbury division of the Canadian Pacific Railway. A new main line switch was put in recently at the Bolton Junction to facilitate the unloading of material there.

The Bams Carriage Co., Buffalo, N. Y. will establish large branch works in Hamilton, Ont., A Canadian corporation will be formed with a capital stock of about \$250,000 for the purpose.

The A. A. Barthelmes & Co., Limited, Toronto, have been incorporated with a capital stock of \$200,000, to acquire the business of A. A. Barthelmes & Co., and to manufacture all kinds of musical instruments and parts thereof, and machinery for manufacturing the same. The provisional directors include A. A. Barthelmes, T. H. Eagen and H. J. Wharin.

V. J. Hedden & Sons Co., Limited, Toronto, have been incorporated with a capital stock of \$100,000, to carry on the business of builders and contractors. The provisional directors are R. W. Berliner, H. C. Whitten and R. Gillie.

J. Flett & Co. Limited, Warton, Ont. have been incorporated with a capital stock of \$25,000, to manufacture carriages, wagons, cutters, etc. James Flett, W. R. P. Flett and G. M. Clark are provisional directors.

The Northern Exploration Co., Limited, with head office at Hanleybury, Ont., have been incorporated with a capital stock of \$100,000, to carry on operations in mining, milling, reduction and development. The provisional directors are F. M. Perry and S. D. Lauder, Toronto, and A. C. Boyce, Sault Ste. Marie, Ont.

The Standard Power Gas Construction Corporation, Limited, Toronto, have been incorporated with a capital stock of \$100,000, to manufacture gas, gasoline, electric and other power engines and machinery, etc. The provisional directors are Frank Ford, Britton Osler and G. C. Loveys.

The Pre-Payment Electric Meter Co., Limited, with head office at Peterborough, Ont., have been incorporated with a capital stock of \$100,000, to manufacture electrical meters, motors, transformers, electrical fans, etc. The provisional directors are A. A. Hollingshead, William Hamilton, J. H. Larmonth, J. H. McClellan and Alfred Parker.

The Boiler Flue Cleaner & Supply Co., Limited, Toronto, have been incorporated with a capital stock of \$100,000, to manufacture engines, boilers, boiler flue cleaners, etc. The provisional directors are D. W. Livingstone, Toronto; C. E. Adams and T. H. Wark, London, Ont.

The Canadian General Electric Co., Toronto, are supplying electrical machinery for the Kamistiquia development at Fort William, Ont.

The Canadian Pacific Railway Co. are erecting a large machine shop, 48x40 feet, two stories in height, directly south-east of the round-house. The building will be built of brick and will be fitted up as an office for the mechanical foreman and his clerk, in addition to having a lathe, a planer, a screwing machine, a drilling machine, a grindstone, and an air compressor installed, besides the engines now in use in the round-house. The upper story will be used for a bath room, a lavatory and a storeroom.—Havelock, Ont., Standard.

A charter has been granted to the Hayne Milling Co., Limited, Brigiden, Ont. The capital stock is \$40,000, and the directors are J. J. Hayne, J. Wheeler, T. Hayne, M. J. Hayne and A. Wheeler.

The Lake-of-the-Woods Milling Co., Keewatin, Ont., have completed an elevator at Crefford, on the Brookdale extension of the Canadian Pacific Railway.

The Western Canada Milling Co., Toronto, have contracted with James Stewart & Co. for six large buildings, to comprise a milling plant that will cost upwards of \$600,000. The mill proper will have a capacity of 5000 barrels of flour daily and the grain elevator a storage capacity for 1,000,000 bushels. All the buildings will be of concrete and steel and fireproof.

City Architect McCallum, Toronto, has begun the last quarter of the year with a record for building permits which is already ahead of the value of the permits issued during the whole of 1904. Since the first of this year plans for buildings which represent a value of \$7,945,787 have been approved by the department. This is an increase of \$3,382,296 over the corresponding period of last year, when, in the nine months, the value of the permits reached \$4,563,488. That the building industry is not yet on the

decline is shown by the fact that during last month plans for no less than 261 buildings were approved, whereas in September of last year there were but 186 permits. The values of the permits were \$877,005 in September, 1905, and \$546,275 in September, 1904. Somewhere in the neighborhood of 2,100 permits were issued this year, and 2,424 buildings were actually erected, some of the permits being for half a dozen houses. Last year there were 1,445 permits issued to September 30, and 1,248 new buildings erected.

Citizens of Toronto have contributed the sum of \$355,000 towards the construction of the new hospital to be erected in this city. The sum already subscribed or contributed amounted to \$500,000 so that there is actually in sight for the carrying out of the plans \$855,000. The private subscriptions towards this munificent sum are

Mr. Cawthra Mulock	\$100,000
Hon. Senator Geo. A. Cox	100,000
Mr. Timothy Eaton	50,000
Mr. J. W. Flavell	25,000
Mr. E. R. Wood	25,000
Mr. E. R. Osler	25,000
Mr. Byron E. Walker	10,000
Mr. H. D. Warren	10,000
Mr. Peter C. Larkin	10,000
The public contributions are:	
Province of Ontario	250,000
City of Toronto	200,000
University of Toronto	50,000

The generosity of the private donors cannot be sufficiently praised. About \$350,000 are still needed to carry out the designs of the trustees.

It is reported that the Carborundum Co., at Niagara Falls, Ont., will rebuild their plant which was destroyed by fire some time ago. Carborundum has grown to be one of the most popular abrasives. With the exception of one year, 1902, there has been a continuous increase from year to year in the production and use of carborundum. In that year the decrease was due to a scarcity of supplies used in the manufacture. Last year the total production was 7,060,380 pounds, which was an increase of 2,300,490 pounds over 1903, when the production was 4,759,890 pounds. To have Ontario once more take part in the manufacture and in supplying the market with such a popular product of the electric furnace will be good industrial progress.

The plant, business and goodwill of M. Beatty & Sons at Welland, Ont., have been purchased by M. Beatty & Sons, Limited. The new company will be under the same management and control, and continue the manufacture of the same lines of high-grade machinery as heretofore.

Among the recent sales of the Allis-Chalmers-Bullock, Limited, Montreal, are a mining outfit to the Canada Metal Co., Ainsworth, B.C., including one 15 h.p. vertical boiler, one 40 h.p. vertical boiler, two No. 5 Cameron Sinker pumps, one 6½x8 inch hoisting engine, one 7x10 hoisting engine, ore buckets, etc., and to the Souris Coal Mining Co., Bienfait, Assa., one 75 h.p. Lidgerwood hoisting engine of the combined friction drum and brake and reversible link motion type.

The Colonial Creamery Co., Montreal, have been incorporated with a capital stock of

\$20,000, to manufacture and deal in dairy and farm machinery, etc. The charter members are John N. McKim, Montreal; J. E. Crealy, Westmount; J. W. Blair and R. Bissonnette, Montreal.

The Zil Co. of Canada, with head office in Montreal, have been incorporated with a capital stock of \$20,000, to acquire and carry on the business of a concern of the same name and to manufacture zil household fluid, zil railway and carriage cleaner, etc. The incorporators include L. B. Benjamin Samuel Duncan, J. A. Gervais, and J. R. Constantineau, all of Montreal.

Marbelite, Limited, Montreal, have been incorporated with a capital stock of \$20,000, to take over and carry on the business of the Marbelite Co. of Montreal, and to manufacture the special products known as marbelite, onah and opahne, in all kinds of cement, plaster, etc. L. N. Benjamin and J. B. Benjamin, Lachine, Que., and H. G. Lajoie and Paul Lacoste, Montreal, are incorporators.

The Woodburn Sons Co., Montreal, have been incorporated with a capital stock of \$49,000, to carry on the business of printers, lithographers, etc. W. J. Woodburn, E. J. Woodburn and R. F. Woodburn are incorporators.

The Militia Department have received 3,000 rifles up to date from the Ross factory at Quebec on the first order of 12,000. They are now being delivered at the rate of over 100 per day. The Mounted Police Department have also received 1,000 rifles, and the Marine Department 500.

Fire did \$8,000 damage in the factory of the Canada Cigar Co., Montreal, a few days ago.

Some weeks ago the Canada Car Co., Montreal, invited tenders for providing their plant with fire hose. The quantity required totalled 4,400 feet. The successful tenderers are the Canadian Rubber Co., Montreal, who will supply 4,400 feet of their new three-stripe "Star" Underwriters' 2½ inch Co. fire hose, with couplings attached. This hose is manufactured and supplied in conformity with the rigid requirements and specifications of the Underwriters. Delivery is to be made complete within two weeks.

Grand Trunk officials in Montreal announce that the company's large round-house at Turcot, near that city, will be completed this week. This round-house is of circle design and will be one of the largest in America. While only 40 stalls are now being completed, the foundations are laid for 20 more, so that, when the company require more engine accommodation than 40 stalls allow, the others can be quickly built. The structure is entirely of concrete except the roof, and in connection with it is a 100-foot turn-table. The only turn-table on the continent which is larger is that of the Pennsylvania railroad at their Altoona shops. With the completion of these improvements, work on the construction of extensive yards at the same place is beginning. When these are finished they will accommodate an almost unlimited number of cars, present provision being made for between 2,000 and 2,500. But the company have arranged that additional tracks may be laid as they are needed.

Joseph Bourque, Hull, Que., has been awarded the contract for the erection of the

new postal station in Montreal, at a cost of \$57,400.

Messrs. Gignac, Beland & Co.'s sawmill at St. Roches, Que., was partially destroyed by fire September 11. Loss about \$5,000.

Survey parties in Northern Quebec engaged in exploratory work in connection with the route of the transcontinental railway have encountered in the region north and east of Lake Abitibi good indications of petroleum, of cobalt and copper. The petroleum was found bubbling through the waters of a lake of considerable size.

One of the largest orders ever given by a railway at one time for rolling stock has been issued by the Canadian Pacific Railway Co. It calls for an expenditure of over \$3,000,000, representing the following rolling stock—Twenty-five parlor, sleeping and dining cars, 90 passenger coaches, and 3,000 freight cars. The passenger coaches will include both first and second-class cars, as well as cars for suburban traffic which latter is developing rapidly year by year. The order for freight cars includes box cars, flat cars, refrigerator cars, cattle cars etc. There is a feature about this order which is worthy of notice. It is that the cars, together with their parts, will be made at the company's Angus shops, and every cent of the \$3,000,000 involved will be spent there. This order contains no provision for locomotives, as the company have already 25 on order, also at the Angus shops.

It is reported that the Baylis Pulp & Paper Co., Binghamton, N.Y., have purchased 300 miles of spruce timber on the River Ste. Anne, 30 miles from Quebec City, at a cost of about \$1,000,000. The company will establish pulp and paper mills in that vicinity to cost \$700,000.

The St. Lawrence Supply Co., Limited, have been formed in Montreal with a capital of \$20,000, to manufacture machinery, electrical and steam devices, etc. Mr. M. H. Phelan, advocate, is one of the promoters.

The Syracuse Smelting Works are now established in their new works at 36th Street and Tenth Avenue New York City, where, with the increased facilities they so much required, they will be able to fill orders promptly. They have branches in Seattle, Wash., and in Montreal, Que. The manufacture of babbit metal has grown in importance and the Syracuse Co. have supplied some of the largest railroads in the United States and continue to hold their business. They have also supplied the United States battleships and other very important users of babbit metal.

The Standard Non-Inflammable Mfg. Co., Quebec City, have been incorporated with a capital of \$20,000, to manufacture fireproofing, non-inflammable composition known as the process Gaston Mahieux. The provisional directors include L. G. Scott, Gaston Mahieux and R. W. Gale, Quebec City.

The Canadian Glass Mfg. Co. Montreal have been incorporated with a capital stock of \$25,000 to manufacture glassware, etc. H. D. Herdt, A. Herdt and Henri Jonas are incorporators.

The Boston Varnish Co. Montreal have been incorporated with a capital stock of \$50,000, to manufacture paints, varnishes, etc. Among the incorporators are Z. E. Martin, Chicago, Ill., J. B. Lord and H. A.

Hall, Malden, Mass.; and C. G. MacKinnon and W. R. Stavely, Montreal.

The Martin-Senour Co., Montreal, have been incorporated with a capital stock of \$50,000, to manufacture paints, oils, varnishes, chemicals, etc. Z. E. Martin, Chicago, J. B. Lord, Malden, Mass., and William Hill, C. G. MacKinnon and W. R. Stavely, Montreal, are the incorporators.

La Societe Parisienne d'Installations Artistiques, Limited, Montreal, have been incorporated with a capital of \$100,000, to manufacture furniture, artistic wall-papers, fixtures etc. The provisional directors include C. H. Branchaud, Donat Raymond and J. A. Lamarche, Montreal.

The Moutarde's Electric Accumulator Co., Montreal, have been incorporated with a capital of \$250,000, to manufacture electric accumulators, motors, dynamos, etc. The provisional directors include Francois Moutarde, Montreal; J. G. Ryan, New York City, and J. S. Visger, Denver, Col.

There was a bad mix-up in the St. Lawrence river opposite Montreal on September 29, the result of which a Dominion Government dredge was sent to the bottom and another was damaged, while other vessels suffered minor damage. The coal laden steamer Universe was coming up the river opposite the Canadian Rubber Co.'s factory and the steamer Bay State, with two light coal barges in tow, was bound down. The river is quite narrow at this point and the barges swung across the current. In endeavoring to clear them the Universe had to swerve from her course and struck one of the barges and was thrown against one of the dredges anchored at that point. The dredge was sunk by the collision. The other dredge was also somewhat damaged. The Universe was but slightly damaged. The work of raising the dredge is going on.

The Canada Gazette announces the incorporation of the Sovereign Construction Co. with a capital of \$1,000,000 and headquarters in Montreal. The object of the syndicate is to bid for construction work on the National Transcontinental Railway. The incorporators are G. W. Cook and M. O'Meara, Montreal, E. Dussault, Levis; M. and H. Kennedy, Quebec, L. M. Aldrich, C. W. Simons, Watertown, N.Y.; M. P. McGrath, Worcester, Mass.; T. A. and W. O. Hay, Easton, Pa., and J. F. Mooney, Boston, Mass.

The Farmers' Elevator at La Riviere, Que., with 8,000 bushels of grain, was destroyed by fire September 22.

The Canadian Pacific Railway Co. will make a large and important addition to the Chateau Frontenac, City of Quebec.

The Bank of Montreal will erect a fine new banking building in the City of Quebec.

The Northern Electric Mfg. Co. will erect a factory at the corner of King and William Streets, Montreal, to cost \$115,000.

The Wire & Cable Co., Montreal, will erect a \$35,000 building at the corner of Guy and St. James that city.

The Bell Telephone Co. will put up a \$4,000 office building on Aqueduct Street, Montreal, and a telephone exchange on Mountain Street, also costing \$4,000.

Ald S. D. Vallieres will build eight dwellings on Market Street, Montreal, at a cost of \$5,200.

The Grand Trunk Pacific Railway Co. have placed an order for 5,000 tons of steel rails with the United States Steel Corporation.

The Pusey & Jones Co., Wilmington, Del., have just secured an order from J. R. Booth, Hull, Que., for new paper machinery for the new Booth mills, now being built. It calls for three Fourdrinier paper machines, two being 152 inches in width and one 134 inches. Each machine will be built so that it will produce paper at the rate of 500 feet of paper per minute. They will each have a wire 65 feet in length and three pairs of press rolls, 30 dryers, each four feet in diameter, and a heavy stack of chilled calender rolls. The Pusey & Jones Co.'s patent New Century capital shake will be fitted to each machine and several other patents of the firm, notably the patent drum winders, friction clutches and steam joints, will be used. The 134-inch machine is to be shipped in January, while the others are not demanded before April 1.

The management of the Richelieu & Ontario Navigation Co. announce that next year they expect to spend upwards of a million dollars in additions and improvements to their fleet of steamers. A new vessel of the Montreal type will be built for the Montreal-Quebec route, and two smaller ones to run the rapids between Montreal and Prescott, Ont. Besides that, 40 new staterooms will be added to the steamer Toronto.

On the Perkins property, near East Templeton, Que., about five miles from Ottawa, a very fine and valuable strike of graphite has been made. The discovery of the rich vein was made by prospectors who had been following the indications during the summer months.

The Pearsons, London, England, publishers, have just completed negotiations for the acquisition of 2,000 square miles of forest land in Newfoundland and a colony is being formed for the purpose of establishing pulp mills on a large scale. The Government requires that \$1,000,000 be spent on the property within the next three years.

Messrs. I. Matheson & Co., New Glasgow, N.S., have under construction a complete gold mining outfit for Newfoundland. The plant will consist of a crusher, engines, boilers, tools and concentrating tables. The company for which the plant is intended is known as the Goldenville Mining Co., who have been conducting development work for some time. A shaft has been sunk on the body to a depth of 150 feet. Samples have been carefully selected as the sinking was prosecuted and shipped to Libby's Mill at North Brookfield, N.S., and they have tested with sufficiently gratifying results as to warrant the company in erecting a milling plant. This is the first mine in Newfoundland where gold has been discovered in paying quantities and the Matheson plant will be the first one to be erected there.

The J. A. MacDonald Piano & Music Co.'s warehouse and Frank Reardon's paint warehouse at Halifax, N.S., were destroyed by fire September 12. Loss about \$90,000.

A report comes from West Bay, N.S., that a valuable discovery of mica has been made in that vicinity. Development work shows that the mineral exists there in large quantities.

W. A. MacKay, who has large electrical interests in Newfoundland, is at present promoting a scheme for the erection of a series of large hotels in St. John's and elsewhere in Newfoundland. A company has been formed with a capital of \$100,000 with Sir Robert Bond as provisional president. An option has been secured on property in the centre of the city of St. John's known as the Clapp estate, and the first hotel, which will contain a hundred rooms, will be rushed to completion and probably finished by August of next year. The new hotel is made necessary by the phenomenal increase of the tourist traffic during the past few years.

The Nova Scotia Steel & Coal Co. are considering the establishment of a shovel factory at North Sydney, N.S.

The waters surrounding the Cape Breton coast are literally alive with dogfish. Local fishermen state that the presence of this pest is very quickly discovered by the sudden departure of food fish. In order to destroy this pest the government, after the fullest enquiry, has established reduction works at different points. One of these experimental plants is in operation at Canso and at the present time is taxed to its fullest capacity. A despatch from Canso states that the collecting steamer Nelson, is bringing into Canso 25 tons of dogfish daily from points on the Cape Breton coast. The factory is so equipped that over a hundred tons can be handled daily. - North Sydney, N.S., Herald.

The Nova Scotia Iron & Steel Co., New Glasgow, N.S., have recently put in two automatic spike machines, manufactured by the Smart-Turner Machine Co., Hamilton, Ont.

The Canadian steamer Fairmount is now taking 2,000 tons of iron ore from Pilley's Island near the coast of Newfoundland, to Washburn, Mich., on the south shore of Lake Superior. There are two unusual features in connection with the movement, one is that she carries a cargo of iron ore to one of the greatest iron ore producing centres in the world, the other that the cargo is carried the full distance without transshipment which is very unusual with cargoes from that section. The ore is a peculiar grade different from that found in Michigan and is wanted for a special purpose.

Plans are being prepared for a new hotel to be built by Lewis Green of St. John, N.B.

Hon. Raymond Prefontaine has decided to call in the services of a London expert in connection with designing a new ice-breaker to be put on the winter route between Pictou, N.S., and Georgetown, P.E.I.

The Robb Engineering Co., Amherst, N.S., have recently ordered from the Smart-Turner Machine Co., Hamilton, Ont., one of their independent air pumps and jet condensers, also a duplex boiler feed pump.

Mr J. H. Plummer, the president of the Dominion Iron & Steel Co., confirms the statement that his company had contracted with the Grand Trunk Pacific Railway Co. for a supply of \$4,000,000 worth of steel rails for delivery during the next five years. This is about one-third the amount the road will require before completion. The offer of a contract for rails from a Chinese railroad had been refused because the domestic demand gave the mills enough to do.

The Eureka Mfg. Co., Sussex, N.B., are applying for incorporation with a capital stock of \$24,000, to manufacture appliances for generating acetylene gas, and to acquire the patent right in an acetylene gas generator known as the Eureka Gas Generator. Some of the applicants for incorporation are G. W. Fowler, M. W. Carrier, and W. B. Jonah, all of Sussex.

Edmund Riley is at the head of a plan to build a new cornmeal mill at St. John, N.B. The mill at that place, operated by E. Riley & Co., was burned about a year ago.

The Philip N. Hamm Mfg. Co., Moncton, N.B., have been incorporated with a capital of \$10,000, to acquire the business of Philip N. Hamm and to manufacture confectionery, etc. The provisional directors include P. N. Hamm, J. W. Y. Smith and J. H. Harris, Moncton.

The Alexander Dunbar & Sons Co., Limited, Woodstock, N.B., have been incorporated with a capital of \$75,000, to acquire the foundry business of Alexander Dunbar & Sons, and to manufacture mill machinery, electrical machinery, engines, etc. The provisional directors include Alex. Dunbar, Sr.; Alex. Dunbar, Jr., and Andrew Dunbar, Woodstock.

The Dominion Antimony Co., which is largely composed of St. John men, and owns property at West Gore, Hants County, N.B., will award to Mr. John McArthur, of Glasgow, a contract for the construction of a complete plant at the mine. This will cost in the vicinity of \$75,000, and work is to be commenced this fall.

Mr. Harry McLaughlin, one of the promoters of the Grand Falls Development & Power Co., who have secured a charter for the development of waterpower at Grand Falls, N.B., states that there is a possibility that operations will be commenced this year.

The Power Co., Limited, have been incorporated at Hampton, N.B., with a capital stock of \$20,000, to manufacture gas engines, etc. The promoters are Messrs. James E. March, C. J. Coster, J. P. Carritte, and A. E. Emery, of St. John, and F. W. Wedderburn and R. A. March, of Hampton.

Nine new churches are in course of erection in Winnipeg, Man., this year, and seven are being enlarged.

The Canada Life Insurance Co., Winnipeg, Man., will erect a sixteen story office building in that city to cost \$750,000.

The Canadian General Electric Co., and the Canada Foundry Co. will erect a warehouse 140x40 feet in Winnipeg, Man.

The Canada Malting Co., Toronto, will erect a large building in Winnipeg, Man., at a cost of \$35,000.

The ratepayers of St. Boniface, Man., have voted favorably on a by-law granting the Western Canada Flour Mills Co. exemption from taxation, and the company will erect a plant which will consist of a 4,000-barrel flour mill, a 500,000-bushel storage elevator, and a 70,000-barrel storage warehouse. Tenders for the construction of the mill, warehouse and elevator have been awarded, and the work will proceed immediately. In addition to this the company will erect a long line of elevators at country points.

Kelly Bros. & Mitchell, Limited, Winni-

peg, Man., have been incorporated with a capital stock of \$200,000, for the purpose of carrying on the business of contractors and builders in all branches. Thomas Kelly, Michael Kelly, Martin Kelly, and G. A. Mitchell, all of Winnipeg, are interested.

Curran, Goulding & Skinner, Limited, Winnipeg, Man., have been incorporated with a capital stock of \$40,000, to carry on the business of manufacturers and dealers in pianos and other musical instruments. W. T. Curran and R. T. Skinner, Winnipeg, and Frederick Bull, vice-president of the Williams Piano Co., Oshawa, are interested.

T. R. Todd, W. H. English and associates, all of the town of Harding, Man., have been incorporated under the name of the Harding Milling Co., Limited, for the purpose of building and operating a flour mill and carrying on the business of millers, etc.

A site has been selected for the erection of a new post-office at St. Boniface, Man.

Architects Sproatt, Rolph & Wardell, Winnipeg, Man., are preparing plans for a \$45,000 stone and brick residence for Hon. Robert Rogers at that place.

The old car shops of the Canadian Pacific Railway Co. at Winnipeg, Man., were destroyed by fire a few days ago. Loss about \$30,000.

The Westminster Block at Winnipeg, Man., will have an addition of three stories. The owner is Robert Stott.

John Atchison, architect, Winnipeg, Man., has prepared plans for an apartment building, to be 96x36 feet, three stories high.

The Canadian Northern Railway Co. will build a double track steel bridge across the Assinaboia River. M. H. McLeod, Winnipeg, Man., is the engineer in charge.

The Canadian Northern Railway Co. will build a suburban depot in the western portion of Winnipeg, Man.

Architects Darling, Pearson & Ober, Winnipeg, Man., have prepared plans for a sixteen story brick and steel warehouse and office building to be erected in that city, to be 250x115 feet. A. B. Archer, London, England, is promoting the enterprise.

The Canada Life Building at Winnipeg, Man., will be razed and a sixteen story skyscraper erected on the plot. Porter & Porter, Winnipeg, are the architects.

The engine shed and coal dock of the Canadian Northern Railway Co. at Emerson, Man., were destroyed by fire September 24. Loss about \$30,000.

Messrs. James Stewart & Co., Chicago, Ill., have been awarded the contract for the erection of the mills, storehouses, and elevator at St. Boniface, Man., for the Western Elevator Co.

Tenders for the new civic building to be erected at Winnipeg, Man., were considered too high, and the question of building the addition has been held over for the present. It is probable that a by-law will be submitted to the ratepayers to provide sufficient money to build an entirely new city hall at a cost of about \$1,000,000. Address S. Hooper, architect, or C. J. Brown, city clerk, Winnipeg.

The Rathwell Farmers' Milling Co. has been organized at Rathwell, Man., with a capital stock of \$20,000.

An agreement has been entered into between the Canadian Pacific Railway Co. and the town of Macleod, N.W.T., under which the company will immediately construct a line into the town. This will be a great factor in the future development of Macleod.

Architects Lawson & O'Gann, Calgary, Alta., have prepared plans for a \$20,000 block to be erected for T. S. Clouston.

The Red Deer Flour, Elevator & Milling Co., have been organized at Red Deer, Alta., to build a flour mill and grain elevator at a cost of \$40,000. The elevator is being rushed to completion to accommodate this year's crop.

Architect Elliott, Brandon, Man., has prepared plans for a hotel to be erected by Messrs. Benton & Smith, Brandon, at Saskatoon, Sask., at a cost of \$45,000.

The ratepayers of Fort Saskatchewan, Sask., will vote on by-laws to provide \$7,000 for fire-fighting appliances and \$8,000 for a fire hall.

J. H. Morrison's tender to erect a new town hall at Arcola, N.W.T., at a cost of \$10,850 has been accepted.

It is estimated that the daily capacity of the new oil fields of Pincher Creek, Alta., is close on a million gallons. The big gusher just discovered is within five miles of the Montana boundary, and shows every prospect of increasing in volume. Surveyors are already running lines for branches of the Great Northern and Canadian Pacific Railways to the oil fields.

D. W. Beaubier and R. Smith, Saskatoon, Sask., are about to build a stone and brick hotel 70x60 feet, four stories and basement, steam heating. Plans by W. A. Elliott, architect, Brandon, Man.

The new flour mill which the Western Milling Co. is building at Calgary, N.W.T., is expected to commence grinding in December. The mill will have a capacity of 500 barrels daily and the grain elevator a capacity of 70,000 bushels.

The milling plant of the Victoria Milling Co., Paken, Alta., has been bought by J. A. Mitchell of that place, who will form a company to operate the mills.

Weibe & Rompel are building a new 125-barrel flour mill at Langham, Sask.

The Brackman-Ker Milling Co. are building an \$5,000-bushel grain storage tank at Strathcona, Alta.

The Western Milling Co., Calgary, N.W.T., will build a 20,000-bushel grain elevator at Macleod, Alta.

J. P. Smith will erect a factory at Vancouver, B.C., for the manufacture of mining machinery.

President Elliott of the Northern Pacific Railway Co. states that the Great Northern and Northern Pacific Railroad Companies have organized and own jointly the Portland & Seattle Railway Co. That company will build a railroad from Kennewick, Wash., along the north bank of the Columbia River to Vancouver, B.C. This will give to the Great Northern and Northern Pacific first-class entrance to Portland and a direct line to and from the east.

The Canadian Pacific Railway Co. will replace all their main line wooden bridges with

steel along the Pacific division. A step in this direction has just been taken in the letting of contracts to the British Columbia General Contract Co. for the replacing of the wooden piers of the company's main line bridge across the Pitt River with concrete piers.

New equipment is being delivered daily by the builders to the Chicago & North-Western Railway, for the Overland Limited, their fast three-day train to the Coast. One of the features of these new cars is the new sleeping car equipment, of latest design, maximum size, electric lighted Pullmans. These are fitted with ten sections, a drawing room and two private compartments in each car, and are intended for the Chicago-San-Francisco service. Similar sleeping cars, equipped with 12 sections, one drawing room and one compartment, will be operated on the Chicago-Portland line. These sleeping cars, together with dining-cars and composite-buffet-smoking, library and observation car, constitute the equipment of the train. In addition to the service that has heretofore been maintained to San Francisco and Portland, the opening of the New Salt Lake Line gives a direct Los Angeles connection to the Overland Limited over a new and desirable route.

The City Council of Vancouver, B.C., have received proposals from four firms for the erection of the proposed public abattoir, these being Carstens Packing Co., Tacoma, Wash.; Frye-Bruhn Co., Seattle, Wash.; P. Burns & Co., Vancouver, and the B. C. Market & Meat Co., Vancouver.

The North Western Lumber Co., have been incorporated at Victoria, B.C., with a capital of \$10,000, to manufacture lumber, shingles, etc.

The Green City Gold Mining, Smelting & Development Co. have been incorporated at Victoria, B.C., with a capital of \$1,500,000, to carry on a mining, milling and reduction business.

The Independent Asphalt Paving Co., Seattle, Wash., have been awarded a contract by the City of Vancouver, B.C., for paving certain streets with asphalt for which \$20,217 is to be paid. The company will at once install a plant at Vancouver.

The British Columbia Mfg. Co. is being formed at Revelstoke, B.C., with a capital of \$75,000, to manufacture stump extractors for clearing land. Address E. Adair.

Architect W. T. Whiteway, Vancouver, B.C., has prepared plans for an eight story warehouse for Kelly, Douglas & Co., that place. It will be constructed of stone and pressed brick at a cost of \$75,000.

Full returns of the lead production in British Columbia during the fiscal year 1904-1905 and the bounty paid by the Dominion Government are at hand. The returns of shipments to the Canadian reduction works at Trail from July 1, 1904 to June 30, 1905, show that the St. Eugene mine produced 6,247,508 pounds of lead, and the North Star 2,082,903 pounds. The total shipment of the province was 29,874,756 pounds of lead, of this amount 70 per cent. must be credited to the St. Eugene and North Star mines. The total lead produced and treated in Canada amounts to 33,730,546

pounds of lead, and the bounty paid amounted to \$240,288. The amount of lead exported was 21,972,988 pounds, on which the bounty paid was \$96,579. The grand total for the year is 55,703,534 pounds of lead produced and \$336,886 paid in bounty. The leading lead producers and bounty earners were the St. Eugene and North Star mines, which are located in South-east Kootenay.

The Esquimalt Marine Railway Co., Victoria, B.C., have been awarded a contract for building and maintaining a wrecking plant for that province.

R. H. Sperling, general manager of the British Columbia Electric Railway, recently submitted the first rough estimate of the expenditure involved in the construction of an electric tramway, light and power station at North Vancouver. The estimate totals about £400,000. Mr. Sperling states that it has been decided to increase the capacity of the company's electric generating plant by a third thus increasing the present installation of three electrical units, aggregating 9,000, to an aggregate of 12,000 h.p. The units so far employed have been of 3,000 h.p., but any further units necessitated after the present addition will be of twice that capacity. The motors for the cars to be ordered will be of the latest model and very powerful, so that the grades at North Vancouver may be easily surmounted. If the present scheme of extension proves successful, much fresh work is likely to be undertaken at an early date in the installation of further generating plant, the building of sub-stations, separate reduction stations, etc.

The New England Fish Co., Boston, Mass. and Vancouver, B.C., are having a steam trawler built at Philadelphia for halibut fishing in the north Pacific. This will be the first trawler to be operated in these waters.

The Fraser River Sawmills Co., New Westminster, B.C., intend making further additions to their sawmill and installing planing mill and shingle machinery.

It was recently announced that the directorate of the Dominion Copper Co. have practically decided to build their smelter at a site situated on the North Fork River B.C., about half a mile above the Granby smelter. It has been generally thought that the Morrissey creek situation was the favorite, but it has been learned that by building above the Granby smelter no damage by smoke would be done to any fruit farms, which was feared if the other location had been taken. It has also been ascertained that the new plant will have six furnaces to commence with, with one large stack. The entire plant will cost in the neighborhood of \$750,000, and will take a year and a half to complete.

J. E. and E. C. Hall, Brandon, Man. will build a grain elevator at Vancouver B.C.

The Abbotsford Building & Development Co., Abbotsford, B.C., have been incorporated with a capital stock of \$10,000, to carry on a general construction business in that province.

Great activity in railway building and allied industrial movements is reported from British Columbia. Two great railways, the Canadian Pacific and the Great Northern are rapidly extending their lines and competing with each other in the opening of

and developing of the country, and wherever they do the pioneer work, big opportunities are developed, first for the real estate men, and then for the merchants, small tradesmen, miners, farmers and others. The work of developing the south central portion of British Columbia is going forward by leaps and bounds. The Canadian Pacific Railway have a large force of men at work constructing a branch line from Spence's Bridge southeastward to Nicola, a distance of 60 miles. This road will give access to a region extremely rich in minerals, and will open up such fertile land especially adapted to fruit culture. Another company are now constructing a line from Midway on the Boundary of Vernon. This road will follow the waters that flow from Okanagan Lake to Penticton, at the foot of the lake, then follow its shores to Vernon. At Midway this line will connect with the Canadian Pacific, so that shipments from the most productive fruit-growing district may be made to the prairie country in the north-west territories, and direct shipments will be made by this line to the coast. It will also connect with the Great Northern in opening an outlet for produce to Spokane and eastward. The Great Northern Railway are now constructing an extension of their Kettle River line from Grand Forks to Franklin Camp, 45 miles distant. This road will open one of the richest mining districts in the province. The Great Northern are already at work upon the line from Midway to Vancouver, thereby giving that city direct communication with the Similkameen and Boundary districts. This means very much to the people of Vancouver.

Mr. J. A. Douglas, Montreal, will erect a handsome business block in Vancouver at a cost of about \$30,000.

A by-law will be submitted to the electors to grant a bonus of \$30,000 to the Dominion Copper Co for the erection of a smelter at Grand Forks, P.C.

J Hanbury, Brandon, Man., has purchased the plant of the British Columbia Box & Timber Co. at Vancouver, B.C., and contemplates building a large flour mill and grator which he will operate in connection with his other interests.

DOES YOUR WATCHMAN SLEEP?

This is a subject of interest to every business man who employs a watchman. The vigilance of the night watchman and attention to duty often depends the property of his employer—the product of his life-time of business ability or unremitting industry. How many fires and robberies can be traced directly to the fact that the watchman was asleep at the critical moment, and the time he was aroused from his slumbers the fire was beyond his control, or the robbery committed? It is of the utmost importance, therefore, that the watchman should always be wide awake and on the alert to protect his employer's property. The Eco Magneto Watchman's Electric Alarm, manufactured by the Eco Magneto Alarm Co., Boston, Mass., is one of the best of its kind manufactured, by reason of its many advantages it possesses over other devices, and the perfect satisfaction is given whenever used. We give here a list of its advantages.

1. It has no batteries, nor complicated mechanism.
 2. There is no expense connected with its use.
 3. There is no possibility of the watchman cheating it.
- The company have sold and installed a great many of their clocks in Canada and it behooves those who contemplate a device of this kind to look into the merits of the Eco Magneto system.

ELECTRICITY.

Electrical machinery and appliances of all kinds, electrical power plants and other progress in the electrical industries will be noted here.

Application will be made at the next session of the Ontario Legislature for an Act incorporating a company for the purpose of constructing and operating an electric railway in and from the town of Pembroke, Ont., to some adjacent places, and to construct and operate telegraph and telephone systems in connection therewith.

The Moose Jaw Telephone Co., Moose Jaw, Sask., are installing a Kellogg switchboard, when the long distance line between that place and Regina will be completed.

The Saskatchewan Telephone Co., Saskatoon, Sask., are preparing to build long distance lines to several adjacent towns.

The Town Council of Westmount, Que., have accepted the tender of the Robb Engineering Co., Amherst, N.S., for engines, accessories and their erection in connection with the new electric lighting plant at a cost of \$8,300.

A syndicate composed of Canadian and American capitalists intend developing the water power on the Assiniboine River at Brandon, Man. The intention is to erect a large power house and plant at Curries Landing.

The Moose Jaw Telephone Co., Moose Jaw, Sask., is laying several long distance lines

The ratepayers of the town of Dauphin, Man., have voted in favor of the establishment of a municipal telephone service, which will be installed during the coming winter.

The Bell Telephone Co. will erect a large new building in Brantford, Ont.

Negotiations have been concluded for the lease of the Lake Superior Corporation's new copper plant at Sault Ste. Marie, Ont., to the Canadian Nickel Co., a new concern organized for the purpose of refining copper and nickel by electricity. The preliminary arrangements for the installation of the new process have been made, and within a few months it is expected the first plant in the world by which nickel will be refined by electricity will be in operation at the Canadian Soo.

The International Electric & Mfg. Co. have been organized at Milwaukee, Wis., with a capital of \$300,000. The company propose to take over the option of the Milwaukee Engineering Co. on the plant and business of the Milwaukee Electric Co at West Allis, which discontinued active business last year. The company will manufacture electric machinery of all kinds, gas and gasoline engines, steam boilers and engines, switchboards,

telephone and telegraph instruments, water and electric meters, also a full line of street railway motors, alternators and rotaries. The plant of the company is said to be well constructed and equipped with machinery, and it is expected that the new company will be able to commence business this month.

The Melita-Arthur Telephone Co., Melita, Man., will build a line southwardly to connect with West Hope and nearby settlements.

Toronto's gold mine, the street railway, continues to yield a rich return. For the month of September the earnings were the largest of any month in the history of the company, and totalled \$282,572.52, against \$246,861.68 for September, 1904, being an increase of \$35,710.84, the largest increase in the company's record. The next largest increase was for last August, when the amount reached \$32,912.69. It will be observed that September has beaten that by nearly \$3,000. The increase has been continuous, and since the Exhibition closed some of the daily increases have been larger even than during the Fair. The city's share of September earnings will be about \$10,000.

The town of Port Arthur, Ont., is installing a new 4,000-light dynamo in the power-house there, which will increase the capacity of the works to 8,000 lights. A new storage dam is being built at Hazelwood lake, near Port Arthur, to meet the requirement for more power.

All the large works engaged in electrical industries in Germany have announced to their customers that, owing to increased wages and cost of raw materials, a general advance of 10 per cent. has been made in their products, including motors, machines, apparatus, fittings, etc.

Mr. A. D. Adams, writing in the Technical World concerning the utilization of Niagara Falls for power purposes submits an alternative proposition by which the Falls may be saved and its waters be used for the generation of electrical energy. For seven miles below the Falls the drainage of half a continent flows through a rock-walled gorge about 400 feet in width. The walls rise to a height varying from 200 to 300 feet. In the course of this seven miles the river level drops about 100 feet. Mr. Adams proposes the construction of a dam at the terminus of the escarpment, just above the town of Lewiston. He shows that the erection at this point of a dam 1,000 feet long "can be made to raise the water level these 100 feet without changing the elevation of the pool at the foot of the cataract. He shows that the basin thus made would carry the waters of both the Canadian and the American Falls, and would supply a practically permanent and unvarying force of 1,500,000 h.p. He says that "an indirect result of the great power development at this dam might well be to prevent multiplication of the canals, pipe lines and tunnels that now threaten to reduce Niagara River to a stream of uncertain width at the centre of the Canadian channel and to dry up entirely the American Fall."

The agreement between the Toronto & Hamilton Railway Co. and the Canadian Electrical Development Co. regarding the construction of a line between Toronto and Niagara Falls has been ratified at a special general meeting of the shareholders of the

Development Co. The Railway Co., by the agreement undertakes to construct the line, and pay the interest on half of the cost of the right of way of the Power Co. By the arrangement, the Development Co., among other advantages, have secured the construction of a line which will enable them to control the right of way on their line. A great difficulty at present has been the great gaps at the Humber, Port Credit, Bronte and Burlington, in the grade of the feed lines, and this will be remedied. The company also secure a large customer for their electric power. The cost of the line will be several millions of dollars.

FUEL.

For names of local dealers see "Coal and Coke" in Classified Index.

The fuel supply question is a most important one to Canadian manufacturers. The information published in this department will keep the readers posted on sources of production.

An output of 800 tons per day is being steadily maintained at the new mine of the International Coal & Coke Co., at Coleman, Alta., and the production can be increased at any time to 1,500 or 2,000 tons a day, as the mine, haulage system and tippie are now in a position to produce and handle a tonnage of that size should the demand warrant it.

The amalgamation of the National Council of Retail Coal Associations of the United States and the International Anthracite Merchants' Association were effected at a joint session held in Buffalo a few days ago. The new organization will be known as the International Council of Coal Merchants. The object of the amalgamation, as stated by the officers of both bodies, is to send a representative to the coal companies and prevent, if possible, the selling of coal direct to the consumer. It was demed emphatically that the object of the amalgamation is for the purpose of conspiring to fix the price of coal.

The Arbuthnot Fuel Co., Winnipeg, Man., have been incorporated with a capital stock of \$10,000 with the object of carrying on a general coal and other fuel business, etc. John Arbuthnot and C. A. Hutchinson, Winnipeg, are interested.

For more than two weeks fire has been burning in a huge pile of coal at the Point Ann cement works, near Belleville, Ont., and a large gang of men have been turning the coal over trying to extinguish it. There are 9,000 tons of coal in the pile, with the fire in the centre.

Coal production statistics for the first six months of the current year, from Nova Scotia, show a slight falling off as compared with the returns of the corresponding period of 1904, thus: the Dominion Coal Co. shipped 1,156,586 tons, as against 1,218,525 tons; Cumberland Railway & Coal Co. 187,675 tons, as against 204,543 tons; Nova Scotia Steel & Coal Co., 196,653 tons, as against 206,376 tons; Inverness Railway & Coal Co., 74,669 tons, as against 56,081 tons; Intercolonial Coal Co., 121,368 tons, as against 88,089 tons; and Acadia Coal Co., 115,291 tons, as against 123,097 tons.

OPPORTUNITIES.

Manufacturers and others in need of machinery, supplies, etc., of any kind are requested to consult our advertising columns, and if they cannot find just what they want, if they will send us particulars we will make their wants known free of cost, and in this way secure the attention of those who may be able to supply them. No charge for publishing what is wanted nor for giving information. When writing to enquirers kindly mention The Canadian Manufacturer.

Mr. W. A. MacKinnon, Canadian commercial agent in Bristol, England, calls the attention of Canadian architects to the programme of the competitions for the plans for the Palace of Peace to be erected at The Hague, Holland. Full instructions to competitors have been forwarded to the Department of Trade and Commerce.

The Department of Public Works, Fredericton, N.B., will receive tenders for constructing two metal superstructure spans, each of 236 feet, 10 inches from centre to centre of end piers for Fredericton bridge. Tenders for rebuilding Forest Glen bridge, over Pollet River near Salisbury, N.B., will also be received by the Department.

The Department of Public Works, Ottawa, will receive tenders for the construction of an addition to the Drill Hall at Toronto.

The Canadian Pacific Railway Co. will build a steel bridge across the river at Lethbridge, Alta., which will be 900 feet long and 350 feet above the water level. Address F. E. Busted, chief engineer, Winnipeg.

Tenders will be received by the Department of Public Works, Ottawa for the construction of a breakwater at Indian Head, Summerside Harbor, P. E. I.

The jefe politico of Juarez, Mexico, on the south bank of the Rio Grande and opposite El Paso, Tex., is inviting tenders for the installation of new water-works for that city. The articles required are as follows: Tools and labor, pipe, valves and hydrants, engines and pumps, reservoir.

The British consul at Fort de France suggests that merchants would find a market in Martinique for the following articles: Fancy biscuits, preserves, cheap common soap, cheap cutlery, cheap saddlery and harness, hams, barbed wire for fencing, light galvanized iron roofing sheets (these should be as light as possible, as duty is levied on the weight of the article) and tea.

It is said that Norwegian fishermen are becoming general users of motor-driven boats in place of their old sailing boats, and that many of the latter are being equipped with motors. This suggests a good opening for the sale of marine motors in Norway. Most of this trade would probably pass through Denmark.

The Department of Railways and Canals, Ottawa, are inviting tenders until October 11, for the construction of a concrete retaining wall on the Welland Canal near Ramley's Bend.

Unless a man believes in himself he may as well be buried immediately for all the work he is going to do in the world.

PUBLICATIONS.

The publishers of The Canadian Manufacturer solicit in advance, if possible, catalogues, circulars, and other industrial publications issued by manufacturers. We wish to review such literature, and bring the principal points to the attention of our readers.

The Westinghouse Electric & Mfg. Co., Pittsburg, Pa., have sent us Circular No. 1120 relating to Westinghouse No. 113 railway motor for direct-current service, and Circular No. 1123 describing Westinghouse Prepayment Wattmeters.

The Canada Foundry Co., Toronto, have issued Bulletin No. 32 from their Boiler Department, which describes and illustrates "Canada Water-Tube Boilers."

The Link-Belt Machinery Co., Chicago, Ill., have recently issued two booklets, entitled respectively, "Link-Belt Car Hauls" and "Washing Bituminous Coal." The first booklet describes various forms of car hauls, and discusses the advantages of using a car haul, over the practice of handling cars in trains at mines or power houses. A number of photographs of various installations are shown. The second booklet describes the process of washing coal as carried on at various washeries. The various pieces of apparatus used are illustrated and described, and a number of jigs, including the Huang, New Century, and Stewart are described in detail. A few pages follow on sampling and analyzing coal, and photographs and drawings of machinery and completed installations fill the closing pages of the book.

Messrs. William R. Perrin & Co., Toronto, manufacturers of hydraulic and power screw presses, have sent us a copy of their handsome catalogue No. 10, which describes and illustrates a number of varieties of their presses, including the knuckle joint presses, lever lard oil presses, box packing presses, hydraulic starch presses, hydraulic belting presses and many others.

The Wellman-Seaver-Morgan Co., Cleveland, Ohio, have sent us a copy of a very beautiful and artistic catalogue entitled Section "D" Charging and Manipulating Apparatus. This company are the sole manufacturers of the celebrated Wellman patented open hearth furnace charging machines and charging boxes, and have supplied them not only to leading steel works in America, but also to a large number of plants abroad. The list of charging machines given in this catalogue speaks for itself as to the extensive adoption of these labor-saving and cost reducing machines.

The Westinghouse Electric & Mfg. Co., Pittsburg, Pa., have sent us a copy of a very handsome publication entitled "Westinghouse Railway Apparatus," which was distributed at the convention of the American Street Railway Association at Philadelphia, Pa. The book describes and illustrates the lines of alternating and direct current railway motors manufactured by the Westinghouse Co., as well as their generators for railway work and systems of control for electric railways. It also contains a description of their system of catenary line construction for street railway work. Information covering detail and repair parts of motors and other railway apparatus is embodied in the work.

The National Electric Co., Milwaukee, Wis., have sent us Bulletin No. 355 which contains illustrations and valuable information on direct current belt driven generators. Bulletin No. 357 is also to hand, which relates to "The Christensen Air Brake System" manufactured by the National Electric Co., who state they are the pioneers in the introduction and development of air brakes for electric cars.

The improved Cincinnati air compressor described in a 32 page bulletin, L508, lately published by the Laidlaw-Dunn-Gordon Co., 114 Liberty St., New York City. This compressor is characterized by a new and simple air-valve mechanism by which the elasticity of poppet valves is combined with the quiet action, efficiency and high-speed qualities of positively moved valves, permitting the machine, in all sizes, to be directly connected without gears or belts to electric motors and gas engines. In the present circular the adaptations of this compressor to different methods of driving, to different types of steam ends, as simple and compound, Corliss and Meyer-gear, etc., are shown by numerous illustrations. The Cincinnati gear is applied to machines for all pressures, including those for 1,000 pounds per square inch and above for liquefying carbonic acid gas and charging compressed air locomotives.

The Armstrong Mfg. Co., Bridgeport, Conn., have sent us their new catalogue relating to the "Genuine Armstrong" stocks and dies manufactured by them. The different sizes and styles of these goods are fully illustrated and described, as are also their machines for threading and cutting off pipe, which, we are told, are built with the same care, and under the same able mechanical supervision as their stocks and dies, and other small tools.

Bulletin No. 12, issued by the Robins Conveying Belt Co., Park Row Building, New York City, tells some very interesting things in reference to hoisting and conveying machinery for power stations. The bulletin is fully illustrated, showing the working parts of the Robins system for handling fuel and ashes.

The De Laval Steam Turbine Co., of Trenton, N.J., have issued a very attractive booklet, showing the different kinds of high speed steam turbine machinery they make. Many interesting things are told in it, and the illustrations show pumps, dynamos, motors and blowers made by the company.

The prizes offered by Engineering News and the Cement Age of New York for the best papers on "The Manufacture of Concrete Blocks and their Use in Building Construction" have just been awarded by the committee, which was composed of Messrs. Robert A. Lesley, past-president of the American Cement Manufacturers' Association; Richard L. Humphrey, president of the Cement Manufacturers' Association; and Prof. Edgar M. Clark, secretary of the American Society of Testing Materials. The first prize of \$250 was won by a paper by Mr. H. H. Rice, Denver, Colorado, secretary of the American Hydraulic Stone Co. The second prize of \$100 was given to a paper by Mr. Wm. M. Lawrence, C.E., New York City, assistant engineer in charge of concrete-steel design at the Hudson Tunnel Companies.

The David Bell Engineering Works, Buffalo, N.Y., have sent us their Bulletin 805 which has reference to the new improved single frame standard guide steam hammers manufactured by them. The company say they are making an exclusive specialty of steam hammers, building them in sizes in single frame style from 200 to 2,500 pounds falling weights, and in their regular "Bell" style, having octagon piston rod, falling weights from 250 to 1,500 pounds.

PERSONALS.

At the recent meeting of the Canadian Manufacturers' Association held in the City of Quebec the following officers and chairmen of committees were chosen for the following year:

President, C. C. Ballantyne, the Sherwin-Williams Co., Montreal.

First Vice-President, H. Cockshutt, Cockshutt Plough Co., Limited, Brantford, Ont.

Ontario Vice-President,—Lloyd Harris, Brantford.

Quebec Vice-President—Geo. E. Amyot, Dominion Corset Mfg Co., Quebec.

Nova Scotia Vice-President—D. W. Robb, Robb Engineering Co., Amherst.

New Brunswick Vice-President—W. S. Fisher, Emerson & Fisher, St. John.

Prince Edward Island Vice-President—F. L. Hassard, Charlottetown Condensed Milk Co., Limited, Charlottetown.

Manitoba Vice-President—E. L. Drewry, brewer, Winnipeg.

Alberta Vice-President—A. E. Cross, Calgary Brewing & Malting Co., Calgary.

Saskatchewan Vice-President — E. J. Brooks, Western Mfg. Co., Regina.

British Columbia Vice-President—John Hendry, British Columbia Mills, Timber & Trading Co., Vancouver.

Treasurer—George Booth, Booth Copper Co., Toronto.

Chairmen of committees as follows:
Railway and Transportation—R. Robson, Hamilton, Ont.

Parliamentary—George W. Watts, Toronto.

Commercial Intelligence—Thomas Roden, Toronto.

Tariff—W. K. McNaught, Toronto.

Reception and Membership—L. V. Dussseau, Toronto.

Industrial Canada—T. A. Russell, Toronto.

Insurance—P. H. Burton, Toronto.

Frank H. Alfred, chief engineer of the Pere Marquette Railroad, has resigned his position, to take effect very soon. He has accepted an important position with the Canadian White Co., the Canadian branch of the great contracting firm of J. G. White & Co., who have headquarters in New York, London and Montreal. Mr. Alfred will have his headquarters in Montreal. Mr. Alfred has been for a long time at the head of the engineering department of the Pere Marquette Railway.

Mr. W. C. Thomas has been appointed smelter superintendent of the Dominion Copper Co.'s works at Boundary Falls, B.C.

We understand that Mr. R. R. Shuman, for many years connected with the David

Williams Co., publishers, New York City, as western editor of the Iron Age, has severed his connection with that concern and is going into business for himself at 1270 Old Colony Building, Chicago, Ill.

The Rogers Electric Co., Toronto, who were for several years located at 114 Bay Street, have moved into larger and more convenient quarters at 134 King Street West.

Arthur E. Millington, who has been superintendent of the Sault Ste. Marie Pulp & Paper Co.'s mill at Sault Ste. Marie, Ont., for the last five years, has been appointed general manager of the Spanish River Pulp & Paper Co., at Webbwood, Ont.

In view of the great increase in the number of factory buildings going up in Ontario, especially in Toronto, the Minister of Agriculture, who has charge of the factory inspectors, has issued a notice, reminding proprietors that they are liable to prosecution under the Factories Act if they fail to notify the inspectors when buildings are ready for inspection after completion and before occupation.

Mr. G. W. Gouinlock, the well-known Toronto architect, has been appointed architect of the new Live Stock Arena and Process Building at the fair grounds of the Canadian National Exhibition Association.

Cecil B. Smith, engineer for the Temiskaming & Northern Ontario Railway, and the Ontario Hydro-Electric Power Commissions, has gone to Europe to gather information. He will especially look at the electric locomotives in use in Italy, Switzerland, Germany, France and England. It is the intention of the commission to equip the New Ontario railway with electric locomotives.

The Society of Russian Civil Engineers is arranging for an international building trades' exhibition to be held at St. Petersburg from April 3 to May 23, 1906. Particulars will be furnished by the Bureau des Ausstellungenkomitees der Baukunstausstellung 10, Serpuchowskaja, St. Petersburg.

The first convention of employing printers of Ontario was brought to a close at St. Catharines, Ont., September 29. During the session C. C. Riordan, manager of the Riordan paper mill, made an address on pulp and paper, followed by Isaac H. Blanchard, New York, an expert, who gave an illustrated lecture on prices for printing. J. Clyde Oswald, editor of the American Printer, New York, spoke on "Printing Office Management." An address upon "Advertising Printing" was delivered by Harry A. Woodworth, editor of the department of criticism on the National Printer-Journalist. The new organization adopted a constitution and by-laws, selecting the name as the Master Printers' Guild of Ontario. The following officers were elected for the ensuing year:—President, W. B. Burgoyne, St. Catharines; vice-president, R. H. McBride, Toronto; secretary, W. J. Keyes, St. Catharines; treasurer, F. H. Dobbin, Peterborough; executive committee, A. C. Woodward, Chatham, H. A. Jones, London; R. J. Robertson, Hamilton; A. E. Bradwin, Blythe; W. Williams, Collingwood; C. J. Bowell, Belleville; W. J. Taylor, Woodstock, George H. Wheeler, Toronto; Matthew Esdale, Ottawa; H. P. Moore, Acton, and the officers. The convention selected Toronto as the next place of meeting, to be held in May next.

At the recent annual meeting of the shareholders of the Allis-Chalmers-Bullock, Limited, the following were elected directors: Lieut.-Col. F. C. Henshaw, W. C. McIntyre, Edgar McDougall, J. W. Pyke, Phelps Johnson, William McMaster, Henry J. Fuller, Alex. Pringle, all of Montreal; W. H. Whiteside, president of the Allis-Chalmers Co.; Charles Allis, J. A. Milne, all of Milwaukee, Wis.; George Bullock, president of the Bullock Electric Mfg. Co., and J. S. Neave, Cincinnati; E. D. Adams, and W. W. Nichols, New York. At a subsequent meeting of the directors, Mr. George Bullock was re-elected president, and Mr. Edgar McDougall vice-president. The reports were all satisfactory. The company last year spent over \$110,000 on the plant, and opened sales offices in Halifax, Toronto, Winnipeg, Nelson and Vancouver.

Mr. Wm. B. Rankine, vice-president of the Niagara Falls Power Co., died a few days ago at Franconia, N.H., to which place he went for the benefit of his health on August 12. Mr. Rankine was interested in the organization of the Niagara Falls Power Co., and at the time of his death was vice-president of that company, the Canada Niagara Power Co., and in addition was interested in a large number of allied concerns.

PATENTS.

In our last issue in an item relating to patents that had recently been issued to inventors, the names of whom had been sent us by a firm of reputable patent attorneys, it is made to appear that the patents therein

alluded to had been obtained by them. This was incorrect, for our correspondent set up no such claim. We have no knowledge as to the names of the attorneys who obtained the different patents.

A MINING CONVENTION.

A revision of the mining laws of the Province of Ontario will be submitted to the next session of the Legislature. This decision has been reached by the Government after a consideration of the existing regulations and of suggestions which have been made from time to time. In order to give an opportunity to mining men generally throughout the Province to express their opinions as to what changes, if any, should be made, the Department of Lands and Mines is asking them to hold meetings at which there can be free discussion of the whole matter from the point of view of the several interests engaged in mining and prospecting. They are asked to place themselves on record as to what amendments should be effected, if they are not satisfied with the regulations as at present in force. These meetings will be held at Kingston, Madoc, Haileybury, Sudbury, Sault Ste. Marie, Port Arthur, Kenora and Fort Frances.

It is suggested further that delegates be appointed to attend a general meeting to be held in Toronto about the end of November, at which the suggestions sent from the local gatherings can be discussed by the whole body. The Government hope in this way to obtain the opinions of working miners, mine owners, prospectors and all who are in any way interested in mining matters. There

is no doubt that these expressions of opinion will have weight with the Government in framing the new regulations and with the Legislature when it comes to discuss the mining laws at the coming session.

STEAM ENGINEERS' CONVENTION

The ninth annual convention of the International Union of Steam Engineers, held in Toronto September 11 to 15, was attended by delegates from all over Canada and the United States. A number of prominent Canadian and American manufacturers took occasion to exhibit their up-to-date appliances in the line of engineers' and steam-users' supplies, including the following:

Canadian Fairbanks Co., Montreal Engineers' supplies.

Babcock & Wilcox Limited, Montreal Boilers and superheaters.

Economical Supply Co., Toronto Engineers' supplies.

Gentle & Travis, Toronto—Steam traps.

Garlock Packing Co., Hamilton, Ont.—

Engine packing, etc.

Queen City Oil Co., Toronto—Oils and lubricants.

Crandell Packing Co., Palmyra, N.Y.—Engine packings.

Greene, Tweed & Co., New York—Engine packings.

The Lukenheimer Co., Cincinnati, Ohio—Lubricators and oiling devices.

Dearborn Drug & Chemical Co., Chicago Ill.—Lubricants.

McLeod & Henry Co., Troy, N.Y.—Furnace linings, firebrick, etc.

Norwall Mfg. Co., New York—Valves.

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 Peerless Rubber Co., New York--Packings.
 United States Graphite Co., Saginaw, Mich.--Lubricants.

DEMAND FOR MECHANICAL STOKERS.

That the mechanical stoker has reached such a state of perfection as to be considered indispensable in the equipment of modern boiler plants is indicated by the large number of orders booked by the Westinghouse Machine Co. for the Roney stoker, a type of their exclusive manufacture. During the past ten years this company has developed the Roney stoker by successive improvements until it has become capable of meeting successfully all the requirements of heavy modern service.

During the past month orders have been received for no less than 51 Roney mechanical stokers, ranging in size from 54x20 inch grate to 132x26 inch grate, the largest of the orders being that of the Pennsylvania Railroad for six 132x26 inch grate stokers, and five 100x20 inch grate stokers. A large order from the Ohio Hospital for Epileptics at Gallipolis, Ohio, has also been received and others from the American Bridge Co., Ambridge, Pa.; National Tube Co., Pittsburgh, Pa.; Detroit United Railway Co., Detroit, Mich.; York Engineering Co., York, Pa.; Proctor & Gamble Co., Cincinnati, Ohio; the Union Rolling Co., Cleveland, Ohio; Gulfport & Mississippi Coast Traction Co., Gulfport, Miss.; United Pres-

byterian Board of Publication, Pittsburg, Pa.; Indiana Boys' School, Plainfield, Ind.; B. & O. office building at New York City and the Railway Exchange Building at Chicago, Ill.

SETTLERS LOW RATES WEST.

The Chicago and North Western Railway will sell one way second class settlers' tickets, daily from September 15 to October 31, 1905, to points in Utah, Montana, Nevada, Idaho, Oregon, Washington, California and British Columbia. Rate from Toronto to Vancouver, Victoria, New Westminster, B.C., Seattle, Wash., or Portland, Ore., \$42.25; to San Francisco or Los Angeles, Cal., \$44.00. Correspondingly low rates from all points in Canada, choice of routes. Best of service. For full particulars and folders write to B. H. Bennett, general agent, 2 East King Street, Toronto, Ont.

COPPER IN BRITISH COLUMBIA.

Harry Howson, Victoria, B.C., who has just returned from the northern interior of British Columbia, reports, according to the Colonist, that copper discoveries have been made in the Bulkley valley, which, if the values continue with depth, will put the mines of the Amalgamated in the shade.

"We could not say too much of the mineral values, that is in copper," said one of Mr. Howson's party, "yet if we were to say what we verily believe people might say we were stretching the truth. The finds are mostly in a mineral belt about 40 miles by 50 miles, at the headquarters of the Telqua, Morice and Copper Rivers, which is about

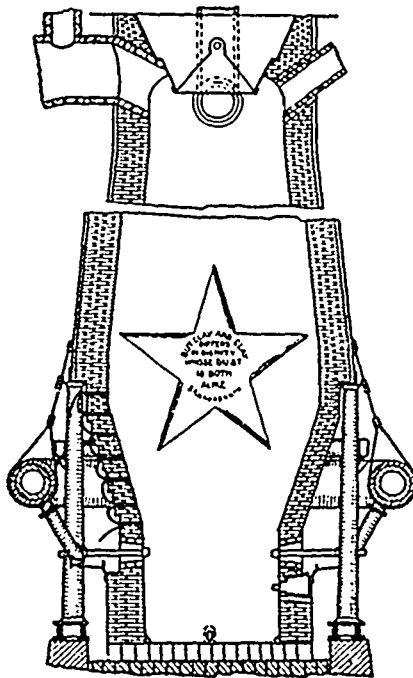
30 or 40 miles back from the Bulkley River. Not only are the values wonderfully high, but vast extents of copper of almost all grades are found throughout.

"There will be a big camp in that part of the country, and it will not be long before some of the big copper people find out about things. In fact, already their representatives have been in the country, and both Chicago capitalists and Heinze will soon have minute particulars of the claims. There is chalcide, barnite, and chalcoppyrite, and some of the latter, from a vein 200 feet wide, assayed \$40 odd. A vein 200 feet wide may seem large, and it is, and yet there it is. The copper prospects are some of the richest I have ever seen, and mining men of large experience who I was talking with stated that nothing they have seen equals it. The surface showing is magnificently fine, and the values go with depth, that is if copper behaves as it should. Bulkley valley will be the site of one of the greatest copper camps in the world. Some values run \$100 and \$150, and others \$300, copper and silver and gold in relative proportions being the values. As yet only the surface has been prospected, and it will not be until some money has been spent that it will be ascertained just what is in the country. Certainly it should develop into something, if showings are anything to go by. The district is an ideal one for smelting, as all kinds of coal are very convenient, and iron and lime are in abundance, furnishing any flux which may be required. Nothing will have to be hauled more than ten or fifteen miles. There is one big deposit of excellent hematite ore, but this may be a capping for copper

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 MAGNESITE BRICK**

**CHROME ORE
 CHROME BRICK**

as through it are strings of copper to be seen."

The country is fairly accessible as new countries go, according to the statements of the men, and they do not consider anything formidable in the way of men who will soon be after the copper propositions. It is much more accessible than Rosland and the Boundary were when the big discoveries were made there, and all the men look for developments.

OIL IN ALBERTA.

A Pincher Creek, Alta., despatch says:—The discovery of an oil gusher which now yields 300,000 gallons daily, as well as smaller wells in the immediate vicinity, has shown that there are other resources of the new province than wheat.

This oil district, under which it is believed a large lake of oil lies, is in the southwestern portion of the new province of Alberta. The gusher is less than five miles north of the Montana boundary and within 40 miles of the main line of the Canadian Pacific Railway.

Less than a year ago the first well was bored, and at a depth of 500 feet a 12,000-gallon well was struck. Confident that this was not the limit, the operators kept on,

with the result that several other wells were struck. So hopeful were the prospects that the company sent east for a standard cable drill, capable of boring a twelve-inch hole 3,000 feet deep.

It was not until last spring that this machine was put to work. When it was down about 800 feet a small flow of oil was struck. Going deeper it got into a seam of coal, and when this was passed it struck solid rock. When their hopes were dying out, the oil lake was struck, and with a mighty roar a twelve-inch stream spouted 50 or more feet into the air, taking with it the drill and other machinery. Before the well could be plugged oil had filled the hollows in the surrounding ground, and in some places was five and six feet deep.

The story of the find reads like fiction. Several years ago William Aldrich was supplying his Mormon neighbors with as much oil as they could use for lighting purposes. Where he got it, or how, he kept a secret, but it was known that he made two days' journeys and returned with half-a-dozen or more barrels of oil.

John Lindham, a wealthy rancher from Okotoks, resolved to look into the matter and discovered that Aldrich was getting his

oil from surface seepages. He formed a company, taking in the discoverer, and bought all the land which an eastern expert said contained oil. This was in 1902, but it was not until last fall that the first well was bored. The geologist who first looked over the ground describes the pass in which the oil is found as an enormous crevice formed by volcanic eruptions, cross-cutting the formation of the Rocky Mountains and thus making huge basins into which the oil has been oozing for hundreds of years until it has formed vast lakes.

Surveyors have been in the district mapping out lines for the Canadian Pacific and the Great Northern Railways that these companies may tap the rich district.

At midnight on Saturday, September 30, the Canada Atlantic Railroad became the Ottawa division of the Grand Trunk, and all the leading executive officers of the latter road have assumed jurisdiction over the newly-acquired property. The office of General Superintendent of the Canada Atlantic has been abolished, and Mr. M. Donaldson has been appointed superintendent of transportation and maintenance of way

Crucible-making has engaged our entire thought and labor for 35 years. This partly explains why McCullough-Dalzell crucibles lead all others. Send us an order.

McCULLOUGH-DALZELL CRUCIBLE CO., Pittsburgh, Pa.

FOR IMMEDIATE SHIPMENT

¶ A Water Wheel Plant consisting of a pair of our 30" Crocker Turbines horizontally set in central discharge steel case. All complete with Draft Tube, Driving Pulley and Woodward Governor.

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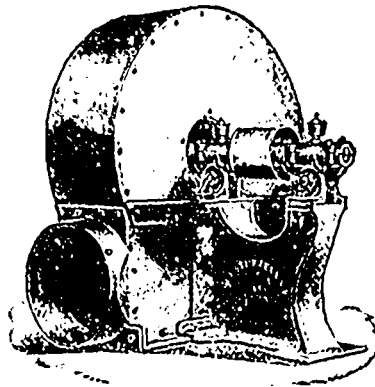


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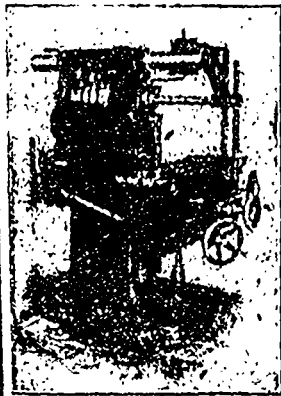
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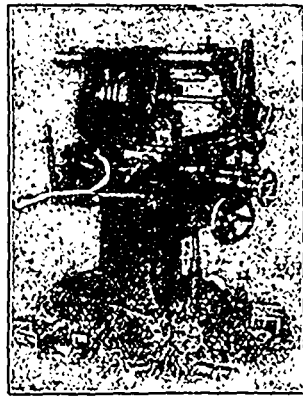
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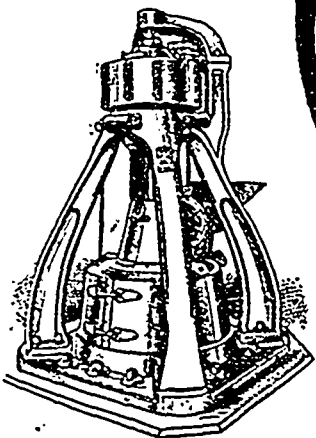
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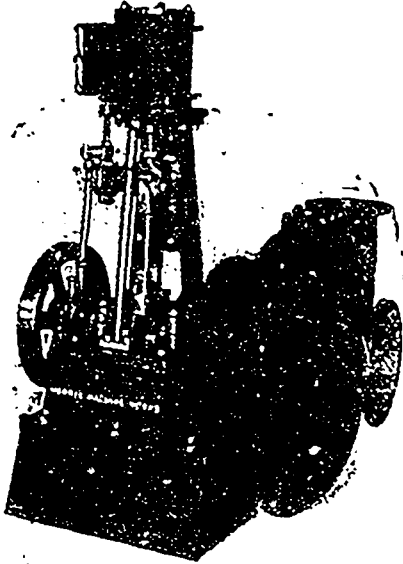
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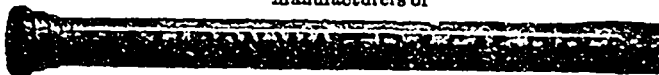
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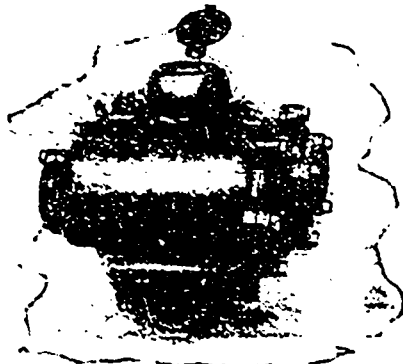


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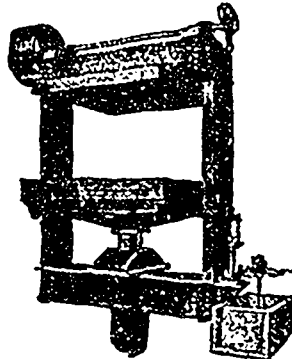
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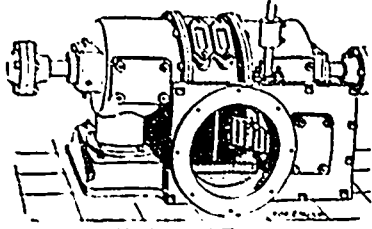
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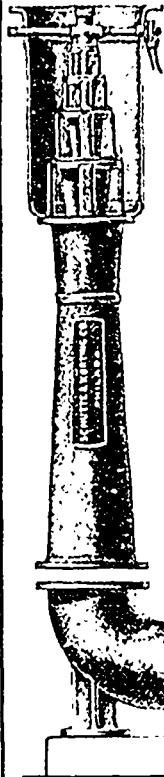
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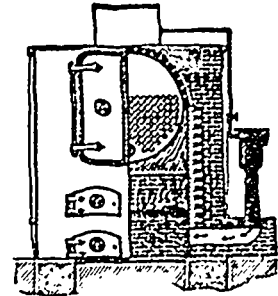
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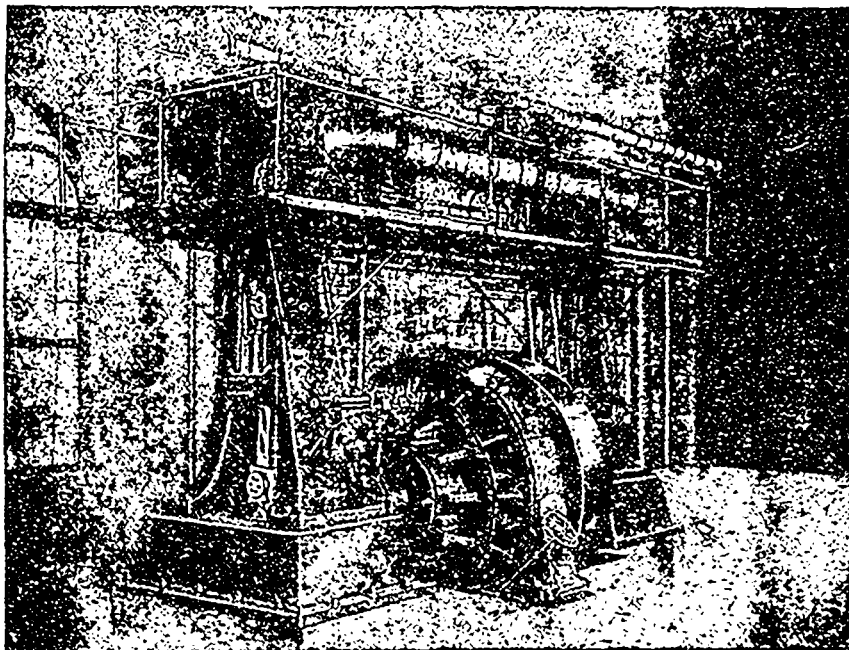
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Conduits Company, Limited, Toronto.
Expanded Metal & Fireproofing Co., Toronto.
Gartshore, John J., Toronto.
Hopkins, F. H. & Co., Montreal.
Ous-Fensom Elevator Co., Toronto.
Pedlar People, Oshawa, Ont.
Sheldon & Sheldon, Galt, Ont.

Cables

Dominion Wire Rope Co., Montreal.
Greening, B. Wire Co., Hamilton, Ont.
Phillips, Eugene F. Electrical Works, Montreal.

Canada Plates

Leslie, A. C. & Co., Montreal.
Nova Scotia Steel & Coal Co., New Glasgow, N.S.

Canoes

Peterborough Canoe Co., Peterborough, Ont.

Caps

McCullough-Dalzell Crucible Co., Pittsburg, Pa.

Card Clothing

McLaren, D. K., Montreal and Toronto.
McLaren, J. C. Belting Co., Montreal and Toronto.

Cast Iron Pipe

Canada Foundry Co., Toronto.
Montreal Pipe Foundry Co., Montreal.
McDougall, John, Caledonian Iron Works Co., Montreal.

Castings (Grey Iron, Malleable Iron and Brass)
International Harvester Co., Hamilton, Ont.
Jenckes Machine Co., Sherbrooke, Que.
Kerr Engine Co., Walkerville, Ont.
McDougall, John, Caledonian Iron Works Co., Montreal.

Cement Machinery

Allis-Chalmers-Bullock, Limited, Montreal
Bradley Pulverizer Co., Boston, Mass.
McDougall, John, Caledonian Iron Works Co., Montreal.

Centrifugal Pumping Machinery
Morris Machine Works, Baldwinville, N.Y.

Chain Making Machinery (Welded Coil Chain)

Turner, Vaughn & Taylor Co., Cayahoga Falls, Ohio.

Channels

Bourne-Fuller Co., Cleveland, Ohio.
Canada Foundry Co., Toronto.
Leslie, A. C. & Co., Montreal.
Nova Scotia Steel & Coal Co., New Glasgow, N.S.

Charcoal Pig Iron

Canada Iron Furnace Co., Montreal.
McDougall, John, Caledonian Iron Works Co., Montreal.

Chemicals

Canada Chemical Co., London, Ont.
Nichols Chemical Co. of Canada, Montreal.

Chemists

Archbold, Dr. Geo., Prescott, Ont.
Heys, Thomas & Son, Toronto.

Clay Working Machinery

Turner, Vaughn & Taylor Co., Cayahoga Falls, Ohio.

Coal and Coke

Bourne-Fuller Co., Cleveland, Ohio.
Ferguson, J. D., Hamilton, Ont.
Miles, James H. & Co., Toronto.
Myles' Thos. Sons, Hamilton, Ont.
Old Colony Coal & Coke Co., Pittsburgh, Pa.
Pittsburgh Coal Co., Pittsburgh, Pa.
Shawmut Coal & Coke Co., St. Mary's, Pa.
Sawyer, Edward T., Columbus, Ohio.
Skae, E. A., Detroit, Mich.
Wick, H. K. & Co., Buffalo, N.Y.
Wilson, H. T. Coal Co., Detroit, Mich.

Coal Cutting Machines

Allis-Chalmers-Bullock, Limited, Montreal
Canadian Hand Drill Co., Sherbrooke, Que.
Jeffrey Mfg. Co., Columbus, Ohio.

Coal Tipples

Jeffrey Mfg. Co., Columbus, Ohio
Jenckes Machine Co., Sherbrooke, Que.

Coil Chains

Greening, B. Wire Co., Hamilton, Ont.
Leslie, A. C. & Co., Montreal.

Coke Oven Brick

Dunbar Fire Brick Co., Pittsburgh, Pa.
Stowe-Fuller Co., Cleveland, Ohio.

Collection Agency

Petrie, H. D., Hamilton, Ont.

Concrete Mixers

Hopkins, F. H. & Co., Montreal.

Concrete (Reinforced)

Trussed Concrete Steel Co., Detroit, Mich.

Conduits (Interior)

Conduits Company, Limited, Toronto.

Contractors' Machinery

Allis-Chalmers-Bullock, Limited, Montreal
Gartshore, John J., Toronto.
Hopkins, F. H. & Co., Montreal.
Jenckes Machine Co., Sherbrooke, Que.
McDougall, John, Caledonian Iron Works Co., Montreal.
Schutte & Koerting Co., Philadelphia, Pa.

Contractors' Plants

Allis-Chalmers-Bullock, Limited, Montreal
Hopkins, F. H. & Co., Montreal
Jenckes Machine Co., Sherbrooke, Que.
Petrie, H. W., Toronto.
Von der Osten, E. & Co., Toronto.
Williams A. R. Machinery Co., Toronto.

Conveying Machinery

Allis-Chalmers-Bullock, Limited, Montreal
Babeock & Wilcox, Limited, Montreal
Canada Foundry Co., Toronto.
Jeffrey Mfg. Co., Columbus, Ohio.
Lank-Belt Engineering Co., Philadelphia, Pa.
McDougall, John, Caledonian Iron Works Co., Montreal.
Perrin, William R. & Co., Limited, Toronto
Rossendale Belting Co., Toronto.

Copper Materials

Greening, B. Wire Co., Hamilton, Ont.
Phillips, Eugene F. Electrical Works, Montreal
Syrause Smelting Works, Montreal

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(CONTINUED).

Cotton Banding and Rope

McLaren, J. C. Belting Co., Montreal.

Covers

McCullough-Dalzell Crucible Co., Pittsburg, Pa.
Pittsburg Crucible Works, Pittsburg, Pa.

Crayons

Lowell Crayon Co., Lowell, Mass.
McLaren, J. C. Belting Co., Montreal

Crucibles

Johnson, Joseph, Crucible Co., Jersey City, N. J.
McCullough-Dalzell Crucible Co., Pittsburg, Pa.
Pittsburg Crucible Works, Pittsburg, Pa.
Veracuse Smelting Works, Montreal.

Crucible Caps

McCullough-Dalzell Crucible Co., Pittsburg, Pa.
Pittsburg Crucible Works, Pittsburg, Pa.

Crucible Covers

McCullough-Dalzell Crucible Co., Pittsburg, Pa.
Pittsburg Crucible Works, Pittsburg, Pa.

Cutter Grinding Machines

Saker-Brainard Milling Machine Co., Hyde Park, Mass.

Deep Well Engines

American Steam Pump Co., Battle Creek, Mich.

Detective Agency

Dezar Detective Agency, St. Louis, Mo.

Dies (Socket, Sewer Pipe and Tile)

Dezer Vaughn & Taylor Co., Cuyahoga Falls, Ohio

Directories

McLaren's Directories, Limited, Toronto.

Draw Benches (Wire)

Dezer Vaughn & Taylor Co., Cuyahoga Falls, Ohio

Drilling and Fishing Tools

General Supply Co., Leamington, Ont.
Well Supply Co., Pittsburg, Pa.

Drilling Machines (Portable)

General Supply Co., Leamington, Ont.
Well Supply Co., Pittsburg, Pa.

Drills

Albion-Chalmers-Bullock, Limited, Montreal
B. F. Co., Rockford, Ill.
Canadian Westinghouse Co., Ltd., Hamilton, Ont.
H. W. Toronto

Drills (Pneumatic and Rock)

Albion-Chalmers-Bullock, Limited, Montreal
Canadian Rand Drill Co., Sherbrooke, Que.
Jeffrey Mfg. Co., Columbus, Ohio

Drop Forgings

Machine & Stamping Co., Cleveland, Ohio

Drop Forging Dies

Machine & Stamping Co., Cleveland, Ohio.

Dry Kiln Apparatus

Sheldon & Sheldon, Galt, Ont.

Evant, B. F. Co., Boston, Mass.

Dust and Shavings Separators

Sheldon & Sheldon, Galt, Ont.

Evant, B. F. Co., Boston, Mass.

Dye Stuffs and Chemicals

W. T. & Co., Montreal.
Mond & Co., Northwich, England.
Chemical Mfg. Co., London, Ont.
Color Co., New York City.
Aniline & Extract Co., New York City
Arthur Cornille & Co., Montreal.
Chemical Co. of Canada, Montreal
& Holland, Montreal.

DYNAMOS (See Motors and Dynamos)

Electric Meters and Transformers

Albion-Chalmers-Bullock, Limited, Montreal
United Electric Co., St. Catharines, Ont.

Electric Mine Locomotives

Canadian General Electric Co., Toronto.
Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Jeffrey Mfg. Co., Columbus, Ohio.

Electrical Repairs

Engineering Co., Toronto.

Electrical Supplies

Albion-Chalmers-Bullock, Limited, Montreal
Co., Waterbury, Conn.
Canadian General Electric Co., Toronto
Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Construction Co., London, Ont.

Writing to Advertisers kindly mention THE CANADIAN MANUFACTURER.

Forman, John, Montreal.
Jones & Moore Electric Co., Toronto.
Keystone Engineering Co., Toronto
Cackard Electric Co., St. Catharines, Ont.
Toronto & Hamilton Electric Co., Hamilton, Ont.
United Electric Co., Toronto
Worth & Martin, Toronto

Elevators and Conveyors

Albion-Chalmers-Bullock, Limited, Montreal
Darling Bros., Montreal.
Jeffrey Mfg. Co., Columbus, Ohio
Jenckes Machine Co., Sherbrooke, Que.
Link-Belt Engineering Co., Philadelphia, Pa.
Otis-Fensom Elevator Co., Toronto

Elevator Insurance

Canadian Casualty & Boiler Insurance Co., Toronto

Emery and Emery Wheels

Forman, John, Montreal
Petrie, H. W., Toronto.

Engineers (Chemical)

Heys, Thomas & Son, Toronto.
Hunt, Robert W. & Co., Chicago, Ill.

Engineers (Civil)

DeLano-Osborn Engineering Co., Toronto
Parke, R. J., Toronto
Vogel, C. H., Ottawa.

Engineers (Consulting)

Atken, K. L., Toronto
Canadian White Co., Montreal
DeLano-Osborn Engineering Co., Toronto
Electrical Construction Co., London, Ont.
Fensom, C. J., Toronto
Hunt, Robert W. & Co., Chicago, Ill.
Keystone Engineering Co., Toronto, Ont.
Marion & Marion, Montreal
Parke, R. J., Toronto
Perzin, William R. & Co., Limited, Toronto
Vogel, C. H., Ottawa.
Von der Osten, E. & Co., Toronto

Engineers (Contracting)

Armstrong Herbert J., Toronto.
Babeock & Wilcox, Limited, Montreal
Canada Foundry Co., Toronto.
Canadian White Co., Montreal
Darling Bros., Montreal
Electrical Construction Co., London, Ont.
Fensom, C. J., Toronto
Keystone Engineering Co., Toronto.
McDonnell, John, Caledonian Iron Works Co., Montreal
Robb Engineering Co., Amherst, N.S.

Engineers (Electrical)

Atken, K. L., Toronto
Albion-Chalmers-Bullock, Limited, Montreal
Canadian General Electric Co., Ltd., Toronto
Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Canadian White Co., Montreal
Crockard-Wheeler Co., St. Catharines, Ont.
DeLano-Osborn Engineering Co., Toronto
Electrical Construction Co., London, Ont.
Fensom, C. J., Toronto
Jones & Moore Electric Co., Toronto
Keystone Engineering Co., Toronto
Marion & Marion, Montreal
Toronto & Hamilton Electric Co., Hamilton, Ont.
United Electric Co., Toronto
Worth & Martin, Toronto

Engineers (Mechanical)

Albion-Chalmers-Bullock, Limited, Montreal
Armstrong, Herbert J., Toronto
Babeock & Wilcox, Limited, Montreal
Darling Bros., Montreal
DeLano-Osborn Engineering Co., Toronto.
Electrical Construction Co., London, Ont.
Fensom, C. J., Toronto
McDonnell, John, Caledonian Iron Works Co., Montreal
Hunt, Robert W. & Co., Chicago, Ill.
Kerr Engine Co., Walkerville, Ont.
Marion & Marion, Montreal.
Robb Engineering Co., Amherst, N.S.
Sheldon & Sheldon, Galt, Ont.

Engineers (Mill and Hydraulic)

DeLano-Osborn Engineering Co., Toronto
Fensom, C. J., Toronto
Hawksworth, Alfred, Montreal
Vogel, C. H., Ottawa.

Engineers (Mining)

Heys, Thomas & Son, Toronto
Mills, S. D., Toronto.

Engineers (Municipal)

Von der Osten, E. & Co., Toronto

Engineers and Contractors

Canadian White Co., Montreal
Jeffrey Mfg. Co., Columbus, Ohio
Jenckes Machine Co., Sherbrooke, Que.

Engines and Boilers

Albion-Chalmers-Bullock, Limited, Montreal
Babeock & Wilcox, Limited, Montreal
Canada Foundry Co., Toronto.
Corbett, R. B., Brooklyn, N.Y.



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Goldie & McCulloch Co., Galt, Ont.
 Hamilton, Wm. Mfg. Co., Peterborough, Ont.
 Hopkins, F. H. & Co., Montreal
 Jenckes Machine Co., Sherbrooke, Que.
 Morris Machine Works, Baldwinsville, N.Y.
 McDougall, John, Caledonian Iron Works Co., Mont-
 real
 McEachren Heating & Ventilating Co., Galt, Ont.
 National Supply Co., Leamington, Ont.
 Oil Well Supply Co., Pittsburgh, Pa.
 Petrie, H. W., Toronto
 Robb Engineering Co., Amherst, N.S.
 Sheldon & Sheldon, Galt, Ont.
 Sturtevant, B. F. Co., Boston, Mass.
 Williams, A. R. Machinery Co., Toronto

Engravers

Canadian Manufacturer, Toronto
 Jones, J. L. Engraving Co., Toronto

Exhaust Fans

Sheldon & Sheldon, Galt, Ont.
 Sturtevant, B. F. Co., Boston, Mass.

Exhaust Heads

Darling Bros., Montreal
 Sheldon & Sheldon, Galt, Ont.
 Sturtevant, B. F. Co., Hyde Park, Mass.

Exhausters

Schutte & Koerting Co., Philadelphia, Pa.
 Sturtevant, B. F. Co., Hyde Park, Mass.

Explorer and Geologist

Evans, Horace F., Sherbrooke, B.C.

Factory Sites

(See Factory Locations, page 38.)
 Board of Trade, Orillia, Ont.
 Central Ontario Power Co., Peterboro, Ont.
 Hutchison, S. M., Paisley, Ont.

Feed Water Heaters

Babecock & Wilcox, Limited, Montreal
 Darling Bros., Montreal
 McDougall, John, Caledonian Iron Works Co., Mont-
 real

Robb Engineering Co., Amherst, N.S.
 Schutte & Koerting Co., Philadelphia, Pa.

Files

Spence, R. & Co., Hamilton, Ont.
 Fillet (Pattern)

McLaren, J. C. Belting Co., Montreal.
 Sadler & Haworth, Montreal and Toronto

Filters (Oil)

Babecock & Wilcox, Limited, Montreal
 Darling Bros., Montreal
 McDougall, John, Caledonian Iron Works Co., Mont-
 real

Perrin, William R. & Co., Limited, Toronto.

Filters and Filtering Systems (Water)

Babecock & Wilcox, Limited, Montreal.
 Jenckes Machine Co., Sherbrooke, Que.
 McDougall, John, Caledonian Iron Works Co., Mont-
 real

Financial

Bradstreet's, New York City
 Dun, R. G. & Co., Toronto
 Nell & Postlethwaite, Toronto
 Petrie, H. D., Hamilton, Ont.

Fire Brick and Clay

Dunbar Fire Brick Co., Pittsburgh, Pa.
 Hamilton Lumber Mill Co., Hamilton, Ont.
 Pennsylvania Fire Brick Co., Lock Haven, Pa.
 Queen's Run Fire Brick Co., Lock Haven, Pa.
 Reese-Hammond Fire Brick Co., Bohyer, Pa.
 Stowe-Fuller Co., Cleveland, Ohio

Fire Escapes

Darling Bros., Montreal

Fire Insurance

Inter-Insurance of America, New York City

Flour Mill Machinery

Goldie & McCulloch Co., Galt, Ont.

Forges and Blowers

Canada Foundry Co., Toronto
 McEachren Heating & Ventilating Co., Galt, Ont.
 Sheldon & Sheldon, Galt, Ont.
 Sturtevant, B. F. Co., Boston, Mass.

Founders

Canada Foundry Co., Toronto.
 Goldie & McCulloch Co., Galt, Ont.
 Hamilton, Wm. Mfg. Co., Peterborough, Ont.
 Jenckes Machine Co., Sherbrooke, Que.
 McDougall, John, Caledonian Iron Works Co., Mont-
 real
 Robb Engineering Co., Amherst, N.S.

Foundry Facings and Supplies

Hamilton Facing Mill Co., Hamilton, Ont.

Fuel Economizers

Babecock & Wilcox, Limited, Montreal.
 Schutte & Koerting Co., Philadelphia, Pa.
 Sturtevant, B. F. Co., Hyde Park, Mass.

Furniture (Lodge, Opera and School-
 Canadian Office & School Furniture Co., Peterborough

Galvanizing

Ontario Wind Engine & Pump Co., Toronto
**Galvanizing and Tinning Machinery and
 Furnaces (Wire)**

Lurner, Vaughn & Taylor Co., Cayahoga, I.

Gas and Gasoline Engines

Goldie & McCulloch Co., Galt, Ont.

Morrison, T. A. & Co., Montreal

Gauges (Recording Pressure

Bristol Co., Waterbury, Conn.

Gauges (Steam)

Penberthy Injector Co., Windsor, Ont.

Petrie, H. W., Toronto.

Williams, A. R. Machinery Co., Toronto

Gauges (Water)

Babecock & Wilcox, Limited, Montreal

Penberthy Injector Co., Windsor, Ont.

Generating Sets

Sturtevant, B. F. Co., Hyde Park, Mass.

Generators

Allis-Chalmers-Bullock, Limited, Montreal

Canadian General Electric Co., Toronto

Canadian Westinghouse Co., Ltd., Hamilton, Ont.

Electrical Construction Co., London, Ont.

Forman, John, Montreal.

Jeffrey Mfg. Co., Columbus, Ohio.

Jones & Moore Electric Co., Toronto.

Phillips, Eugene F., Electrical Works, Montreal

Toronto & Hamilton Electric Co., Hamilton, Ont.

Gloves, Mittens and Moccasins

Storey, W. H. & Son, Acton, Ont.

Glue Heaters

Advance Machinery Co., Toledo, Ohio

Glue Room Equipment

Advance Machinery Co., Toledo, Ohio.

Government Notices

Factory Inspectors,

Minister of Agriculture.

Graphite

Dixon, Jos. Crucible Co., Jersey City, N. J.

McCullough-Dalzell Crucible Co., Pittsburg, Pa.

Pittsburg Crucible Works, Pittsburg, Pa.

Grease Cups

Penberthy Injector Co., Windsor, Ont.

Hardware

Butterfield & Co., Rock Island, Que.

Cartshore, John J., Toronto.

Globe Machine & Stamping Co., Cleveland, Ohio.

Hopkins, F. H. & Co., Montreal.

Morrow, John, Machine Screw Co., Ingersoll, Ont.

Heating and Ventilating Apparatus

Darling Bros., Montreal

McEachren Heating & Ventilating Co., Galt, Ont.

Sheldon & Sheldon, Galt, Ont.

Sturtevant, B. F. Co., Boston, Mass.

Hoisting Engines

Jenckes Machine Co., Sherbrooke, Que.

Hoists (Chain and Pneumatic)

Allis-Chalmers-Bullock, Limited, Montreal

Canadian Rand Drill Co., Sherbrooke, Que.

Hopkins, F. H. & Co., Montreal.

Hose (Fire and Pneumatic)

Gutta Percha & Rubber Mfg. Co., Toronto

McLaren, J. C. Belting Co., Montreal and Toronto

Sadler & Haworth, Montreal and Toronto

Hotel

Gallatin Hotel, New York City.

Hydrants

Kerr Engine Co., Walkerville, Ont.

Jenckes Machine Co., Sherbrooke, Que.

McDougall, John, Caledonian Iron Works Co., Mont-
 real.

Hydraulic Accumulators

Jenckes Machine Co., Sherbrooke, Que.

McDougall, John, Caledonian Iron Works Co., Mont-
 real.

Hydraulic Leather

McLaren, J. C. Belting Co., Montreal

Sadler & Haworth, Montreal and Toronto

Hydraulic Machinery

Canada Foundry Co., Toronto.

Darling Bros., Montreal.

Hamilton, Wm. Mfg. Co., Peterborough, Ont.

Jenckes Machine Co., Sherbrooke, Que.

McDougall, John, Caledonian Iron Works Co., Mont-
 real.

Perrin, William R. & Co., Limited, Toronto

Petrie, H. W., Toronto.

Wilson, J. C. & Co., Glenora, Ont.

Industrial Plants
 Von der Osten, E. & Co., Toronto.

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Insulated Wires and Cables

Phillips Eugene F., Electrical Works, Montreal.

Insurance

Mer-Insurers of America, New York City.

Iron and Steel Specialties

Armstrong Mfg. Co., Bridgeport, Conn.
 Barne-Fuller Co., Cleveland, Ohio.
 Canada Foundry Co., Toronto
 Leslie A. C. & Co., Montreal
 London Rolling Mill Co., London, Ont
 Leighton, John, Limited, Bristol, England and Montreal
 Nova Scotia Steel & Coal Co., New Glasgow, N.S.
 Petrie, H. W., Toronto.

Injectors

Canada Foundry Co., Toronto.
 Hamilton Brass Mfg. Co., Hamilton, Ont
 Penberthy Injector Co., Windsor, Ont
 Schutte & Koerting Co., Philadelphia, Pa.
 Williams, A. R. Machinery Co., Toronto

Iron and Steel Inspection

Hart, R. W. & Co., Chicago, Ill.

Lamps - Electric

Allis-Chalmers-Bullock, Limited, Montreal.
 Canadian General Electric Co., Toronto
 Canadian Westinghouse Co., Ltd., Hamilton, Ont.
 Forman, John, Montreal.
 Packard Electric Co., St. Catharines, Ont
 Osbeam Incandescent Lamp Co., Toronto and St. Catharines, Ont.

Lathes

Barnes, B. F. Co., Rockford, Ill.
 Petrie, H. W., Toronto.
 Williams, A. R. Machinery Co., Toronto

Lathes (Wood-working)

Ellie & McCulloch Co., Galt, Ont.
 Petrie, H. W., Toronto.
 Williams, A. R. Machinery Co., Toronto.

Loom Reeds

McLaren, J. C., Belting Co., Montreal.

Lubricators

Penberthy Injector Co., Windsor, Ont.

Machinists

Ellie & McCulloch Co., Galt, Ont.
 Robb Engineering Co., Amherst, N.S.
 Smith & Martin, Toronto.

Machinists' Supplies

Armstrong Mfg. Co., Bridgeport, Conn.
 Barnard & Co., Rock Island, Que
 Ellie & McCulloch Co., Galt, Ont.
 Gatta Percha & Rubber Mfg. Co., Toronto
 Hopkins, F. H. & Co., Montreal.
 Jeffrey Mfg. Co., Columbus, Ohio.
 Morrow, John, Machine Screw Co., Ingersoll, Ont.
 Petrie, H. W., Toronto.
 Smith & Martin, Toronto.

Machine Tools

Barnes, B. F. Co., Rockford, Ill.
 Becker-Bramard Milling Machine Co., Hyde Park, Mass.
 Darling Bros., Montreal.
 Petrie, H. W., Toronto.

Malleable Castings

International Harvester Co., Hamilton, Ont.
 Smith's Falls Malleable Castings Co., Smith's Falls, Ont.

Marine and Stationary Engines and Boilers

Allis-Chalmers-Bullock, Limited, Montreal.
 Gatta Machine Co., Sherbrooke, Que.

Mechanical Draft

Block & Wilcox, Limited, Montreal.
 Gleason Heating & Ventilating Co., Galt, Ont.
 Johnson & Sheldon, Galt, Ont.
 Stearns B. F. Co., Boston, Mass.

Metal Stamping

McMebino & Stamping Co., Cleveland, Ohio.
 Taylor People, Oshawa, Ont.

Metallurgists

Mills, S. D., Toronto

Mill Machinery and Supplies

Allis-Chalmers-Bullock, Limited, Montreal
 Armstrong Mfg. Co., Bridgeport, Conn.
 Becker-Bramard Milling Machine Co., Hyde Park, Mass.
 Darling Bros., Montreal
 Gattshore, John J., Toronto
 Goldie & McCulloch Co., Galt, Ont
 Gatta Percha & Rubber Mfg. Co., Toronto
 Hamilton Brass Mfg. Co., Hamilton, Ont
 Hamilton, Wm., Mfg. Co., Peterborough, Ont
 Hawksworth, Alfred, Montreal
 Hay, Peter Knife Co., Galt, Ont
 Hopkins, F. H. & Co., Montreal
 Jeffrey Mfg. Co., Columbus, Ohio
 Jenckes Machine Co., Sherbrooke, Que
 Morrow, John, Machine Screw Co., Ingersoll, Ont
 McDougall, John, Caledonian Iron Works Co., Montreal.
 McLaren, D. K., Montreal and Toronto
 McLaren, J. C., Belting Co., Montreal
 Penberthy Injector Co., Windsor, Ont
 Petrie, H. W., Toronto.
 Reddaway, F. & Co., Manchester, England
 Robb Engineering Co., Amherst, N.S.
 Spence, R. & Co., Hamilton, Ont
 Wilson, J. C. & Co., Glenora, Ont

Milling Cutters and Machines

Becker-Bramard Milling Machine Co., Hyde Park, Mass.

Miners' Lamps

Allis-Chalmers-Bullock, Limited, Montreal

Mining Machinery

Allis-Chalmers-Bullock, Limited, Montreal
 Canadian Hand Drill Co., Sherbrooke, Que
 Corbett, R. B., Brooklyn, N.Y.
 Gattshore, John J., Toronto.
 Hamilton, Wm. Mfg. Co., Peterborough, Ont.
 Hopkins, F. H. & Co., Montreal.
 Jeffrey Mfg. Co., Columbus, Ohio
 Jenckes Machine Co., Sherbrooke, Que.
 Link-Belt Engineering Co., Philadelphia, Pa.
 McDougall, John, Caledonian Iron Works Co., Montreal.
 Perrin, William R. & Co., Limited, Toronto.
 Petrie, H. W., Toronto.
 Schutte & Koerting Co., Philadelphia, Pa.
 Williams, A. R. Machinery Co., Toronto

Motors and Dynamos

Allis-Chalmers-Bullock, Limited, Montreal.
 Canadian General Electric Co., Toronto
 Canadian Westinghouse Co., Ltd., Hamilton, Ont.
 Corbett, R. B., Brooklyn, N.Y.
 Electrical Construction Co., London, Ont.
 Forman, John, Montreal
 Jeffrey Mfg. Co., Columbus, Ohio
 Jones & Moore Electric Co., Toronto
 Keystone Engineering Co., Toronto.
 Petrie, H. W., Toronto
 Sturtevant, B. F. Co., Hyde Park, Mass.
 Toronto & Hamilton Electric Co., Hamilton, Ont.
 United Electric Co., Toronto

Moulding Sand

Hamilton Facing Mills Co., Hamilton, Ont.

Nickel

Canadian Copper Co., New York, N.Y.
 Orford Copper Co., New York, N.Y.

Novelty Manufacturers

Worth & Martin, Toronto.

Nozzles

McCullough-Dalzell Crucible Co., Pittsburg, Pa.
 Pittsburg Crucible Works, Pittsburg, Pa.

Office and Bank Fittings

Canadian Office & School Furniture Co., Preston, Ont.

Oils and Lubricants

Dixon, Jos., Crucible Co., Jersey City, N.J.
 Imperial Oil Co., Petrolina, Ont.
 Queen City Oil Co., Toronto.

Oil Cloth

Dominion Oil Cloth Co., Montreal.

Oil Cups

Penberthy Injector Co., Windsor, Ont.

Oil Well Supplies

National Supply Co., Learnington, Ont
 Oil Well Supply Co., Pittsburgh, Pa.

Paints and Colors

Berry Bros., Walkerville, Ont.
 Geigy Aniline & Extract Co., New York City.
 McArthur, Cornelle & Co., Montreal.

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Hartford Building.

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Paper Manufacturers

Barber, Wm & Bros., Georgetown, Ont.
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Patents

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Marion & Marion, Montreal.

Perforated Metals

Globe Machine & Stamping Co., Cleveland, Ohio.
Greening, B. Wire Co., Hamilton, Ont.

Personal Accident

Canadian Casualty & Boiler Insurance Co., Toronto.

Phosphorizers

McCullough-Dalzell Crucible Co., Pittsburg, Pa.
Pittsburg Crucible Works, Pittsburg, Pa.

Pig Iron

Bourne-Fuller Co., Cleveland, Ohio.
Canada Iron Furnace Co., Montreal.
Nova Scotia Steel & Coal Co., New Glasgow, N.S.
Syracuse Smelting Works, Montreal.

Pipe Line Supplies

National Supply Co., Learnington, Ont.
Oil Well Supply Co., Pittsburg, Pa.

Pipe (Riveted, Iron and Steel)

Babcock & Wilcox Limited, Montreal.
McDougall, John, Caledonian Iron Works Co., Montreal.

Pipe Threading Machines

Armstrong Mfg. Co., Bridgeport, Conn.
Butterfield & Co., Rock Island, Que.
Petrie, H. W., Toronto.

Pipes and Tubes

Bourne-Fuller Co., Cleveland, Ohio.
Canada Foundry Co., Toronto.
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Montreal Pine Foundry Co., Montreal.
National Supply Co., Learnington, Ont.
Oil Well Supply Co., Pittsburg, Pa.

Plaster

Albert Mfg. Co., Hillsborough, N.B.

Plates

Bourne-Fuller Co., Cleveland, Ohio.
Nova Scotia Steel & Coal Co., New Glasgow, N.S.

Plumbago

Hamilton Facing Mills Co., Hamilton, Ont.
McCullough-Dalzell Crucible Co., Pittsburg, Pa.
Pittsburg Crucible Works, Pittsburg, Pa.

Pneumatic Tools

Allis-Chalmers-Bullock, Limited, Montreal.
Canadian Rand Drill Co., Sherbrooke, Que.

Pointer Rolls (For Rods and Wire)

Turner, Vaughn & Taylor Co., Cuyahoga Falls, Ohio.

Power Plants—Equipments

Allis-Chalmers-Bullock, Limited, Montreal.
Armstrong, Herbert J., Toronto.
Babcock & Wilcox, Limited, Montreal.
Canadian General Electric Co., Toronto.
Canadian Westinghouse Co., Ltd., Hamilton, Ont.
Corbett, R. B., Brooklyn, N.Y.
Darling Bros., Montreal.
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Electrical Construction Co., London, Ont.
Goldie & McCulloch Galt, Ont.
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Jeffrey Mfg. Co., Columbus, Ohio.
Jones & Moore Electric Co., Toronto.
Keystone Engineering Co., Toronto.
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Packard Electric Co., St. Catharines, Ont.
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Petrie, H. W., Toronto.
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Robb Engineering Co., Amherst, N.S.
Sartorius & R. F. Co., Boston, Mass.
Toronto & Hamilton Electric Co., Hamilton, Ont.
United Electric Co., Toronto.
Wilson, J. C. & Co., Glenora, Ont.Presses (Tire, Sewer Pipe, Nozzles and
Sleeves)

Turner, Vaughn & Taylor Co., Cuyahoga Falls, Ohio.

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Goldie & McCulloch Co., Galt, Ont.
Hamilton Wm Mfg. Co., Peterborough, Ont.
Jeffrey Mfg. Co., Columbus, Ohio.
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McLaren, J. C., Belting Co., Montreal and Toronto.
Petrie, H. W., Toronto.
Wilson, J. C. & Co., Glenora, Ont.

Pumps and Pumping Machinery

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Canada Foundry Co., Toronto.
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Darling Bros., Montreal.
Downie Pump Co., Downsville, Pa.
Goldie & McCulloch Co., Galt, Ont.
Jencks Machine Co., Sherbrooke, Que.
Kerr Engine Co., Walkersville, Ont.
Morris Machine Works, Baldwinsville, N.Y.
McDougall, John, Caledonian Iron Works Co., Montreal.
Ontario Wind Engine & Pump Co., Toronto.
Petrie, H. W., Toronto.
Schutte & Koerting Co., Philadelphia, Pa.

Punches and Shears

Globe Machine & Stamping Co., Cleveland, Ohio.
Petrie, H. W., Toronto.

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Babcock & Wilcox, Limited, Montreal.
Goldie & McCulloch Co., Galt, Ont.
McDougall, John, Caledonian Iron Works Co., Montreal.

Purifying and Softening Systems (Water)

Babcock & Wilcox, Limited, Montreal.
Darling Bros., Montreal.
McDougall, John, Caledonian Iron Works Co., Montreal.

Railroads

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Nova Scotia Steel & Coal Co., New Glasgow, N.S.
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Butterfield & Co., Rock Island, Que.

Rivets

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London Rolling Mills, London, Ont.

Rock and Ore Crushers

Allis-Chalmers-Bullock, Limited, Montreal.
Bradley Pulverizer Co., Boston, Mass.

Rolling Mill Engineers

Bourne-Fuller Co., Cleveland, Ohio.

Roofing

Bourne-Fuller Co., Cleveland, Ohio.
Pedlar People, Oshawa, Ont.

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Gutta Percha & Rubber Mfg. Co., Toronto.

Rubber Packing

Gutta Percha & Rubber Mfg. Co., Toronto.

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Turner, Vaughn & Taylor Co., Cuyahoga Falls, Ohio.

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Globe Machine & Stamping Co., Cleveland, Ohio.

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Goldie & McCulloch Co., Galt, Ont.

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Screw Plates

Armstrong Mfg. Co., Bridgeport, Conn.
Butterfield & Co., Rock Island, Que.

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McDougall, John, Caledonian Iron Works Co., Montreal.
Nova Scotia Steel & Coal Co., New Glasgow, N.S.
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Shapers and Carvers

Advance Machinery Co., Toledo, Ohio.

Shear Knives

Hay, Peter Knife Co., Galt, Ont.

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Leslie A. C. & Co., Montreal.
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McDougall, John, Caledonian Iron Works Co., Montreal.

Robb Engineering Co., Amherst, N.S.

Solder

Globe Machine & Stamping Co., Cleveland, Ohio.
Syracuse Smelting Co., Montreal.

Special Machinery

Wals-Chalmers-Bullock, Limited, Montreal.
Globe Machine & Stamping Co., Cleveland, Ohio.

Speed Recorders

Enrol Co., Waterbury, Conn.

Sprinkler Insurance

Canadian Casualty & Boiler Insurance Co., Toronto

Stamps and Stenolls

Globe Machine & Stamping Co., Cleveland, Ohio.

Steam Pumps

Wals-Chalmers-Bullock, Limited, Montreal.
American Steam Pump Co., Battle Creek, Mich. &
Canada Foundry Co., Toronto.

Young Bros., Montreal.
Wilde & McCulloch Co., Galt, Ont.
McDougall, John, Caledonian Iron Works Co., Montreal.

Petrie, H. W., Toronto.
Williams, A. R. Machinery Co., Toronto.

Steam Separators

Babcock & Wilcox, Limited, Montreal.
Young Bros., Montreal.
Hessren Heating & Ventilating Co., Galt, Ont.
2000 Engineering Co., Amherst, N.S.
Sheldon & Sheldon, Galt, Ont.

Steam Specialties

Young Bros., Montreal.
Hessren Heating & Ventilating Co., Galt, Ont.
Perry Injektor Co., Windsor, Ont.
Watte & Koerting Co., Philadelphia, Pa.
Sheldon & Sheldon, Galt, Ont.
Stevant, B. F. Co., Hyde Park, Mass.

Steam Valves

American Steam Pump Co., Battle Creek, Mich.
Babcock & Wilcox, Limited, Montreal.
Young Bros., Montreal.
Water Engine Co., Walkerville, Ont.
Petrie, H. W., Toronto.
Williams, A. R. Machinery Co., Toronto.

Steel Balls

Wals Steel Co., Sault Ste. Marie, Ont.
Diamond, McCall & Co., Montreal and Toronto.
Lamore, John J., Toronto.
Young F. H. & Co., Montreal.

Steel Shafting

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Wilde & McCulloch Co., Galt, Ont.
Hamilton, Wm. Mfg. Co., Peterborough, Ont.
Leslie, A. C. & Co., Montreal.
McDougall, John, Caledonian Iron Works Co., Montreal.
Wals Steel & Coal Co., New Glasgow, N.S.
Young, J. C. & Co., Glenora, Ont.

Stocks and Dies

Young Mfg. Co., Bridgeport, Conn.
Sheldell & Co., Rock Island, Que.
Petrie, H. W., Toronto.
Leslie & Martin, Toronto.

Stoppers

Laugh-Dalzell Crucible Co., Pittsburg, Pa.
Laugh Crucible Works, Pittsburg, Pa.

Structural Steel

Bourne-Fuller Co., Cleveland, Ohio.
Canada Foundry Co., Toronto.
Young F. H. & Co., Montreal.

Sulphate of Alumina

Canada Chemical Co. of Canada, Montreal.

Sulphur Furnace

Watte & Koerting Co., Philadelphia, Pa.

Suspension Furnaces

Wals Iron Works Co., New York City.

Tanks (Oil and Water)

Canada Foundry Co., Toronto.
Corbett, R. B., Brooklyn, N.Y.
Wilde & McCulloch Co., Galt, Ont.

Hamilton, Wm. Mfg. Co., Peterborough, Ont.
Jenckes Machine Co., Sherbrooke, Que.
McDougall, John, Caledonian Iron Works Co., Montreal.
Ontario Wind Engine & Pump Co., Toronto.

Taps and Dies

Butterfield & Co., Rock Island, Que.
Globe Machine & Stamping Co., Cleveland, Ohio.

Tees

Bourne-Fuller Co., Cleveland, Ohio.
Canada Foundry Co., Toronto.

Textile Manufacturers

Domimon Oil Cloth Co., Montreal.
Smith Mfg. Co., Toronto.
Storey, W. H. & Sons, Acton, Ont.

Textile Supplies

McLaren, J. C. Belting Co., Montreal and Toronto.

Thermometers (Recording)

Bristol Co., Waterbury, Conn.

Tin

Leslie, A. C. & Co., Montreal.
Syracuse Smelting Works, Montreal.

Tool Grinders

Barnes, B. F. Co., Rockford, Ill.

Tool Steel

Bourne-Fuller Co., Cleveland, Ohio.
Hopkins, F. H. & Co., Montreal.
Leslie, A. C. & Co., Montreal.

Trucks

Corbett, R. B., Brooklyn, N.Y.
Hopkins, F. H. & Co., Montreal
McDougall, John, Caledonian Iron Works Co., Montreal.
Sheldon & Sheldon, Galt, Ont.

Trucks (Railway)

Canada Foundry Co., Toronto.

Trucks (Wire Mill Supplies)

Turner, Vaughn & Taylor Co., Cuyahoga Falls, Ohio.

Tubs (Cleaning and Coating Wire)

Turner, Vaughn & Taylor Co., Cuyahoga Falls, Ohio.

Tumbling Barrels

Globe Machine & Stamping Co., Cleveland, Ohio.

Turbines

Canada Foundry Co., Toronto.
Hamilton, Wm. Mfg. Co., Peterborough, Ont.
Jenckes Machine Co., Sherbrooke, Que.
Wilson, J. C. & Co., Glenora, Ont.

Typewriters and Supplies

United Typewriter Co., Toronto.

Valves

American Steam Pump Co., Battle Creek, Mich.
Babcock & Wilcox, Limited, Montreal.
Canada Foundry Co., Toronto.
Hamilton Brass Mfg. Co., Hamilton, Ont.
Kerr Engine Co., Walkerville, Ont.
Petrie, H. W., Toronto.
Schutte & Koerting Co., Philadelphia, Pa.
Williams, A. R. Machinery Co., Toronto.

Valves (Rubber)

Gutta Percha & Rubber Mfg. Co., Toronto.

Varnishes

Berry Bros., Walkerville, Ont.

Ventilators

Darling Bros., Montreal.
Sheldon & Sheldon, Galt, Ont.
Sturtevant, B. F. Co., Boston, Mass.

Wagon and Carriage Wood Work

Hore, F. W. & Son, Hamilton, Ont.

Washers or Hollinders (Cleaning Rubber)

Turner, Vaughn & Taylor Co., Cuyahoga Falls, Ohio.

Watchman's Clocks

Eco Magneto Clock Co., Boston, Mass.

Water Power Development

Vogel, C. H., Ottawa.

Water Purifying Chemicals

Canada Chemical Mfg. Co., London, Ont.

Windmills

Ontario Wind Engine & Pump Co., Toronto.

Wire Mill Supplies

Turner, Vaughn & Taylor Co., Cuyahoga Falls, Ohio.

Wire and Wire Rope

Domimon Wire Rope Co., Montreal
Greening, B. Wire Co., Hamilton, Ont.
Leslie, A. C. & Co., Montreal
Phillips, Eugene F. Electrical Works, Montreal

Wire Rope Fittings

Domimon Wire Rope Co., Montreal

Wire Cloth

Greening, B. Wire Co., Hamilton, Ont.

Wire Drawing Machinery

Turner, Vaughn & Taylor Co., Cuyahoga Falls, Ohio.

Wood-Working Machinery

Advance Machinery Co., Toledo, Ohio
Golde & McCulloch Co., Galt, Ont.
Petrie, H. W., Toronto.
Sheldon & Sheldon, Galt, Ont.
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American Architect	New York	Weekly	\$6 00	\$6 25	Illustrated London News	London	Weekly	\$6 00	\$6 25
American Electrician	New York	Monthly	1 00	1 25	Inter-Ocean	Chicago	Weekly	1 00	1 25
American Federationist	Washington	Monthly	1 00	1 25	Iron Age	New York	Weekly	5 00	5 25
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Architect and Builders Magazine	New York	Monthly	2 00	2 25	Ladies' Home Journal	Philadelphia	Monthly	1 25	1 50
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