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Vol. 32.

TORONTO, MARCH 6, 1896.

No. 5.

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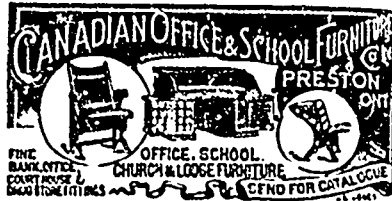
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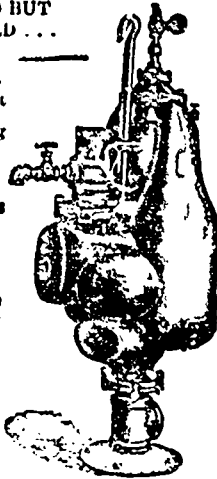
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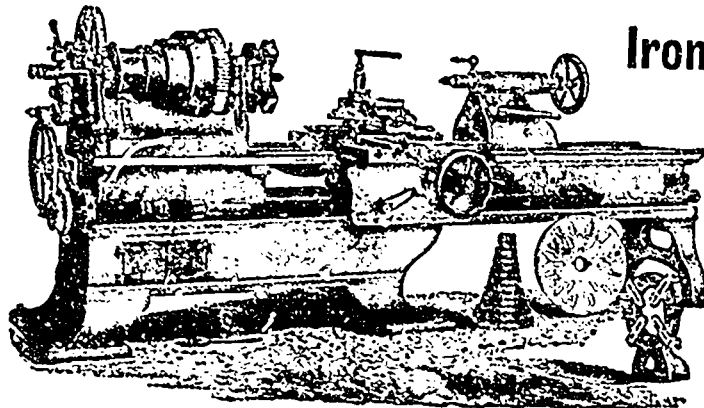
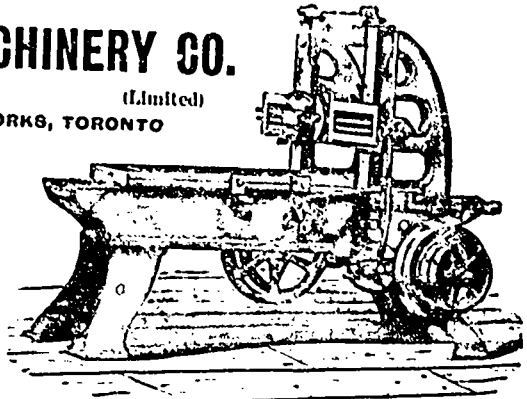
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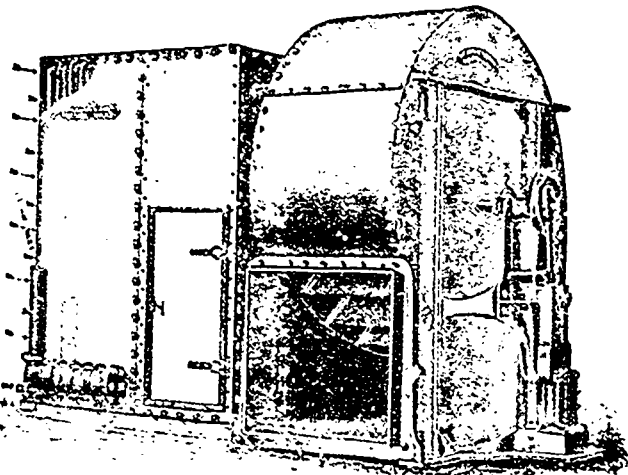
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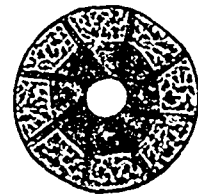
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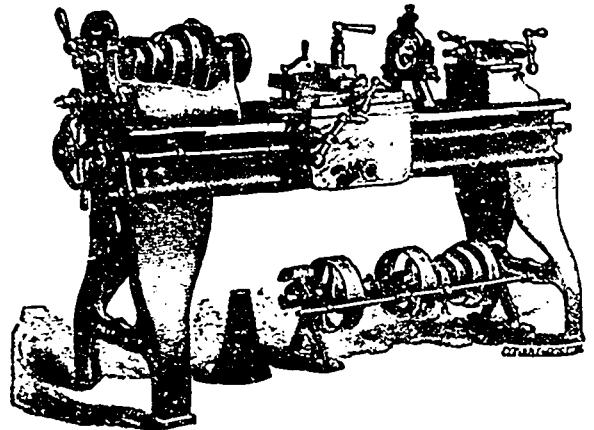
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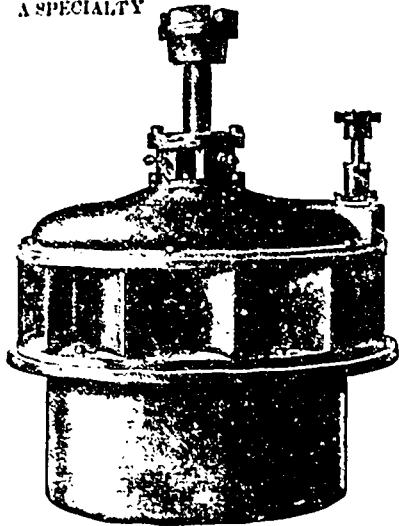
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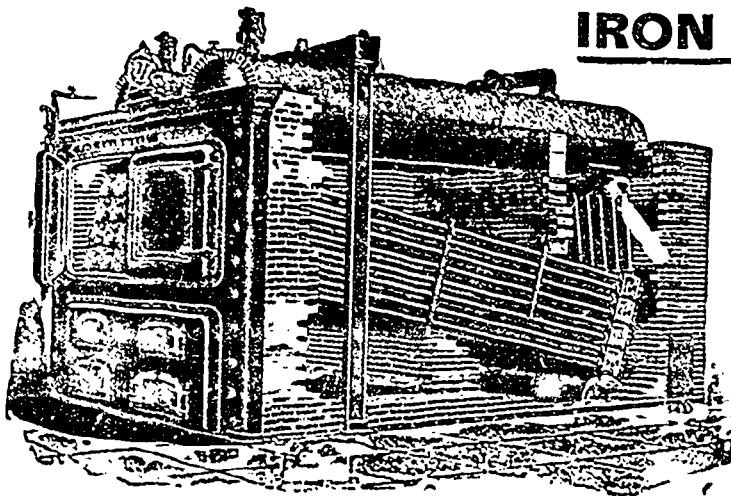
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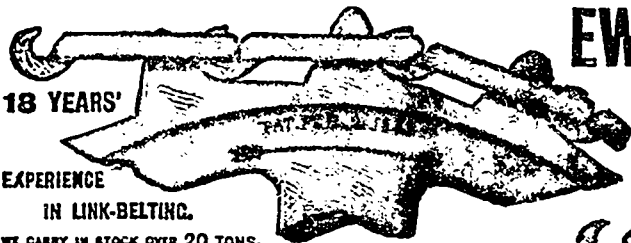
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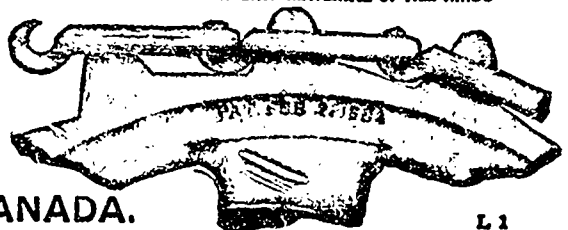
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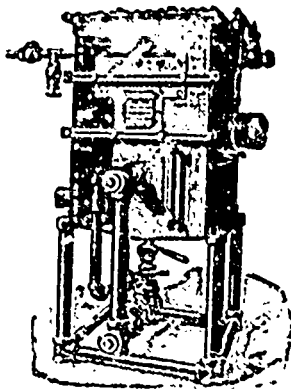
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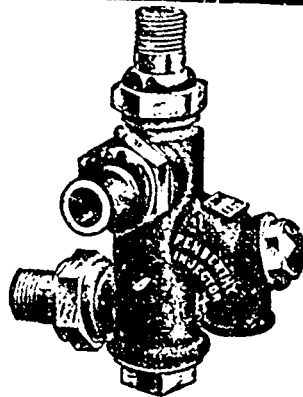
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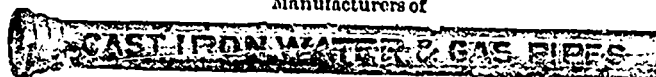
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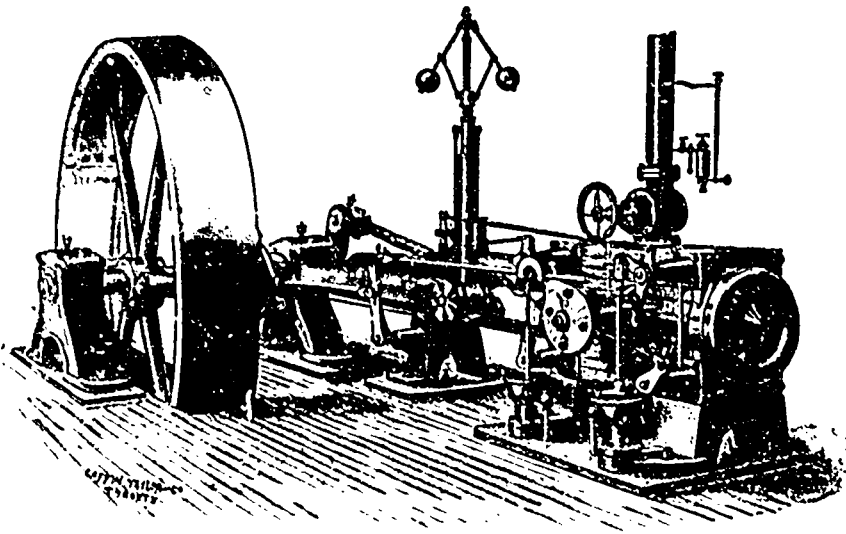
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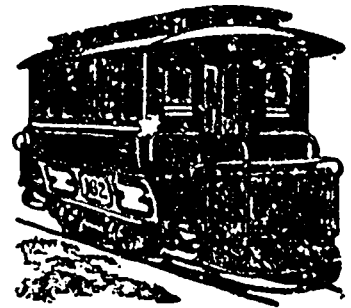
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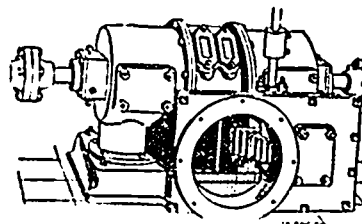
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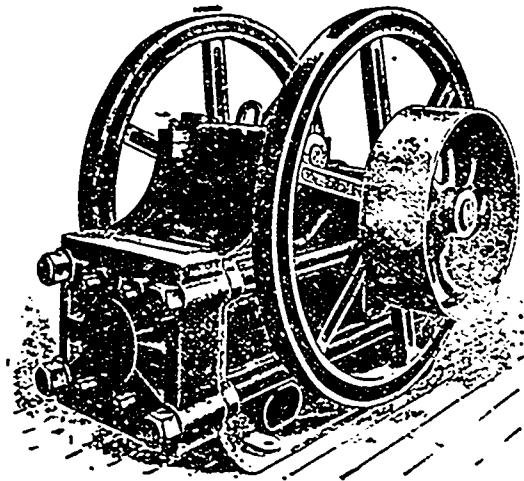
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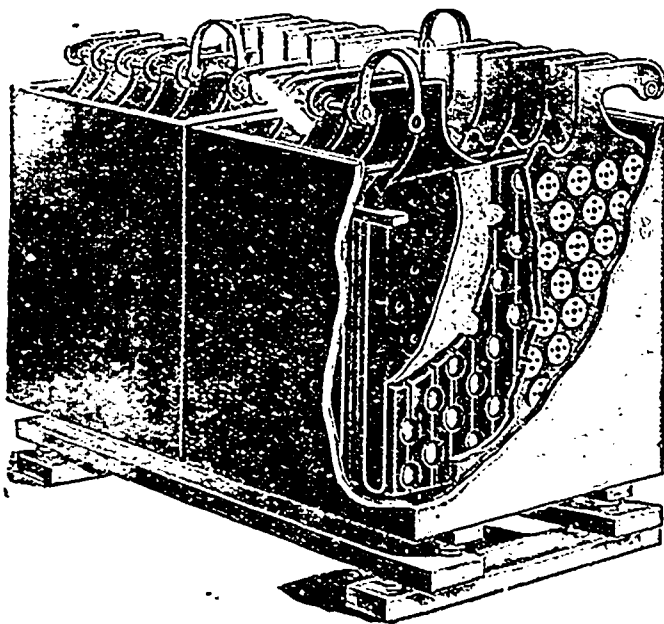
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THE TARIFF CHANGES.

Elsewhere in this issue is given in detail a statement showing the articles on which reductions of duty were made by the changes of the tariff in 1894 and since.

In presenting this statement to the House of Commons Mr. Foster, the Minister of Finance, stated that the list included all the articles on which reductions had been made, showing that they were important and significant. These reductions, Mr. Foster said, were made at a time when the act was accompanied with the greatest difficulties. It was at a time when prices were lowering in the United States, in Belgium, and in every great manufacturing country; not only when

prices were being lowered, as quoted in the regular markets, but when hard times had made it necessary for manufacturers to sell even at cost or less. Many and many a case occurred, he said, in which manufactured goods were held as collateral security by the banks, and the manufacturers, being unable to meet their obligations, the goods were sold for whatever they would fetch in order that the holders could convert them into cash. It was in this period of depression, and of strong competition; this period of slaughter prices, that the revision of the tariff was undertaken. Taking all these things into consideration, the remarkable cut that was made in the tariff, going to the very verge of the extreme, shows that a great advantage was afforded to consumers in the remission of taxation and the consequent cheapening.

Mr Foster having stated quite correctly the circumstances under which this great reduction of duty was made, the wonder is that the manufacturing industries of Canada were at all able to withstand the fearful shock given to them thereby. The only explanation given for this distressing attack upon the tariff, and that too, by the man who attained to be Finance Minister of Canada by the grace of the upholders of the National Policy and the believers in a protective tariff, was that the change would be of advantage to consumers in the lower prices that would evidently prevail. That argument may be read any day in The Toronto Globe; and Sir Richard Cartwright, whose seat in the House of Commons is opposite that of Mr. Foster, thunders that sentiment in his most explosive and denunciatory language at the Government upon every possible occasion; and really it seems most remarkable, from the standpoint of a protectionist, that the Finance Minister should have used it to explain why he should deal such a fearful blow to his political friends and supporters. It was certainly a most inopportune time to do so. As he says, it was at a time when prices were being lowered in all the manufacturing centres of the world; when there was the most acute distress everywhere; when financial and industrial wreck prevailed, and when the outlook for Canadian manufacturers was almost as gloomy and forbidding as it was for their most active foreign competitors. As will be observed, in many cases the changes included the removal of specific duties, allowing foreign goods to be brought in at ad valorem rates, which meant the most ruinous slaughter sacrifices on the part of foreign exporters. We know that the effect was most disastrous upon our manufacturing industries, the wonder being that at least all the weaker of them were not driven into bankruptcy.

It is to be most sincerely hoped that at the very earliest possible moment Mr. Foster's revision of the tariff may be revised and made to conform to the requirements of the country and expectations of the manufacturers.

Mr. George H. Burleigh, Gananoque, Ont., manufacturer of polygraphs, recently placed an advertisement of his business in THE CANADIAN MANUFACTURER, the first appearance of which was in our issue of February 21st. We are in receipt of a letter from Mr. Burleigh, dated February 26th, in which he says:—"I am more than pleased with the very satisfactory manner in which you are doing my advertising; enquiries are coming in at a good rate already." Mr. Burleigh was inspired by a happy thought when placing his business card with us, and already, and after only one issue, he is reaping his reward.

Changes in the Tariff of 1894.

Reproduced from Hansard.

Following is a statement made by Hon. George E. Foster, Finance Minister, in the House of Commons, on January 31st, 1896, showing the articles on which reductions of duty have been made since the enactment of the tariff of 1894. —

Article.	Old Rate of Duty.	New Rate of Duty.	Reduction.
Animals, living, viz.:—			
Horned cattle.....	30 per cent.	20 per cent.	10 per cent.
Sheep.....	30 do	20 do	10 do
Hogs.....	2c. per lb.	1½c. per lb.	½c. per lb.
Baking powder in packages of less than one lb.....	8c. do	6c. do	2c. do
Bells, except for churches.....	30 per cent.	25 per cent.	5 per cent.
Brass and manufactures of:—			
Nails, rivets and burrs.....	35 do	30 do	5 do
Wire.....	15 do	10 do	5 do
Biscuits of all kinds, sweetened.....	35 do	25 do	10 do
Macaroni and vermicelli.....	2c. per lb.	25 do	23 do ad val.
Barley.....	15c. per bush.	30 do	15 do do
British gum, dextine, sizing cream and enamel sizing.....	1c. per lb.	10 do	20 do do
Brooms.....	25 per cent.	20 do	5 do
Buttons of vegetable, ivory or horn.....	10c. per gross and 20 per cent.	8c. per gross and 20 per cent.	2c. per gross.
do hoof, rubber, vulcanite or composition.....	5c. per gross and 20 per cent.	4c. per gross and 20 per cent.	1c. do
do all other, n.e.s.....	25 per cent.	20 per cent.	5 per cent.
Candles, paraffine wax.....	5c. per lb.	4c. per lb.	1c. per lb.
Cane or rattan, split or otherwise manufactured.....	25 per cent.	17½ per cent.	7½ per cent.
Carriages, etc.:—			
Farm wagons and farm carts costing less than \$50.....	\$10 ea. and 20 p.c.	25 do	30 do ad val.
do do \$50 and less than \$100.....	\$15 do	25 do	18 do do
do do \$100 and over.....	35 per cent.	25 do	10 do
Cases for jewels, watches, silverware, platedware, cutlery and other like articles.....	10c. ea. and 30 p.c.	5c. ea. and 30 p.c.	5c. each.
Clocks.....	35 per cent.	25 per cent.	10 per cent.
Clothes wringers.....	\$1 ea. and 30 p.c.	25c. ea. and 20 p.c.	75c. ea. and 10 p.c.
Coal tar and coal pitch.....	10 per cent.	Free.	10 per cent.
Cocoa mats and matting.....	30 do	25 per cent.	5 do
Cocoa nut, desiccated, sweetened or not.....	8c. per lb.	5c. per lb.	3c. per lb.
Coffee:—			
Extracts of or substitutes therefor.....	5c. do	3c. do	2c. do
Roasted or ground, not imported direct.....	3c. p. lb. and 10 p.c.	2c. p. lb. and 10 p.c.	1c. do
do and substitute, n.e.s.....	3c. per lb.	2c. per lb.	1c. do
Collars of cotton or linen, xylonite, xylonite, celluloid.....	24c. per doz. and 30 per cent.	24c. per doz. and 25 per cent.	5 per cent.
Copper and manufactures of:—			
Nails, rivets and burrs.....	35 per cent.	30 per cent.	5 do
Copper, old and scrap.....	10 do	Free.	10 do
do in pigs.....	10 do	do	10 do
do seamless drawn tubing.....	10 do	do	10 do
do ingots, sheets, plates and sheathing, not planished or coated.....	10 do	do	10 do
Copper in bars, rods and bolts, in length not less than 6 feet.....	10 per cent.	Free.	10 per cent.
Cordage, cotton.....	30 do	25 per cent.	5 do
Cotton, manufactures of:—			
Clothing, including corsets.....	35 do	32½ do	2½ do
Cuffs of cotton, linen, xylonite, xylonite and celluloid.....	4c. p. pr. and 30 p.c.	4c. p. pr. and 25 p.c.	5 do
Dressing, harness, leather and shoe.....	30 per cent.	25 per cent.	5 do
Drugs, dyes, chemicals and medicines:—			
Acid, phosphate.....	3c. per lb.	2c. per lb.	1c. per lb.
Glue, sheet, broken sheet or ground.....	3c. do	25 per cent.	15 p.c. ad val.
do liquid.....	30 per cent.	25 do	5 do
Liquorice, paste.....	2c. per lb.	20 do	5 p.c. do
do in rolls and sticks.....	3c. do	20 do	9 do
Yeast, compressed in bulk or mass of not less than 50 lbs.....	4c. do	3c. per lb.	1c. per lb.
Earthenware and china:—			
Brown or colored, and Rockingham ware.....	35 per cent.	30 per cent.	5 per cent.
Decorated, printed or sponged, and all earthenware, n.e.s.....	35 do	30 do	5 do
White granite or iron stoneware, C.C. or cream colored ware.....	35 do	30 do	5 do
Manufactures of earthenware, n.e.s.....	35 do	30 do	5 do
Feathers, ostrich and vulture, dressed.....	35 do	30 do	5 do
Fertilizers.....	20 do	10 do	10 do
Fruits, green:—			
Blackberries, gooseberries, raspberries and strawberries, n.e.s.....	3c. per lb.	2c. per lb.	1c. per lb.
Plums.....	50 per cent.	25 per cent.	5 per cent.
Furniture, house, cabinet or office.....	35 do	30 do	5 do
Glass, etc.:—			
Flasks and phials of 8 oz. capacity and over, telegraph and lightning rod insulators, jars and glass balls and cut, pressed and moulded table ware.....	5c. doz. and 30 p.c.	30 do	5c per doz.
Silvered glass, bevelled.....	35 per cent.	32½ do	2½ per cent.

Article.	Old Rate of Duty.	New Rate of Duty.	Reduction.
Gunpowder and other explosives :—			
Gun, rifle and sporting powder.....	5c. per lb.	3c. per lb.	2c. per lb.
Gun, rifle and pistol cartridges and cartridge cases.....	35 per cent.	30 per cent.	5 per cent.
Gun wads and percussion wads.....	35 do	30 do	5 do
Gutta percha and india-rubber and manufactures of :—			
Belting.....	5c. per lb. and 15 per cent.	32½ do	4 do ad. val.
Ink, writing.....	25 do	20 do	5 do
Iron and manufactures of :—			
Agricultural implements—			
Binding attachments.....	35 do	20 do	15 do
Drills, seed grain.....	35 do	20 do	15 do
Harrows.....	35 do	20 do	15 do
Harvesters, self-binding and without binders.....	35 do	20 do	15 do
Mowing machines.....	35 do	20 do	15 do
Ploughs, sulky and walking.....	35 do	20 do	15 do
Reapers.....	35 do	20 do	15 do
Iron, bar and round rods, galvanized.....	30 do	27½ do	2½ do
Bar iron, rolled or hammered, comprising rounds, squares, etc.....	\$13 per ton.	\$10 per ton.	\$3 per ton.
Cast iron pipes of every description.....	\$12 do but not less than 35 per cent.	\$10 do but not less than 35 per cent.	\$2 per ton when not less than 35 per cent.
Engines, other than locomotive and fire, and boilers.....	30 per cent.	27½ do	2½ per cent.
Hardwars, viz.:—Builders', cabinetmakers', harnessmakers' and saddlers' hardware, including curry combs and carriage hardware.....	35 do	32½ do	2½ do
Iron or steel sheets or other iron, or steel of all widths, sheet iron, common or black, smoothed, polished, coated or galvanized and Canada plates, No. 17 gauge and thinner, and hoop band or strip, iron and steel, n.e.s.....	12½ do	5 do	7½ do
Iron in slabs, blooms, billets, loops, puddle bars, or other forms less finished than iron in bars, and more advanced than pig iron, except castings.....	\$9 per ton	\$5 per ton.	\$4 per ton.
Locks of all kinds.....	35 per cent.	32½ per cent.	2½ per cent.
Portable machines :—			
Portable steam engines, and parts of.....	35 do	30 do	5 do
Threshers and separators, and parts of.....	35 do	30 do	5 do
Sewing machines, or parts of.....	\$3 each and 20 per cent.	30 do	1½ do
Machines, typewriting.....	30 do	27½ do	2½ do
All other machinery, except portable machines, composed wholly or in part of iron and steel.....	30 do	27½ do	2½ do
Malleable iron castings and steel castings.....	\$25 per ton and not less than 30 per cent.	25 do	14 6-7 do ad. val.
Nails and spikes and sheathing nails, composition.....	20 per cent.	15 do	5 do
Nails and spikes, wrought and pressed, galvanized or not, horse-shoe nails, and all wrought iron or steel and other nails, n.e.s., and horse, mule, and ox-shoes.....	1½c. per lb.	30 do	11 do ad. val.
Nails and spikes, cut.....	1c. do	2c. per lb.	½c. per lb.
Nails, wire.....	1½c. do	1c. do	½c. do
Plough-plates, mould-boards, land-sides, when cut to shape from rolled plates of steel, but not moulded, punched, polished, or otherwise manufactured, and being of greater value than four cents per pound.....	12½ per cent.	5 per cent.	7½ per cent.
Other plates for agricultural implements.....	35 do	5 do	30 do
Pumps, other than steam.....	35 do	30 do	5 do
Railway fish-plates and tie-plates.....	\$12 per ton.	\$10 per ton.	\$2 per ton.
Safes and doors for safes and vaults.....	35 per cent.	30 per cent.	5 per cent.
Screws, iron or steel, commonly called wood screws :—			
2 inches or over in length.....	6c. per lb.	3c. per lb.	3c. per lb.
1 inch and less than 2 inches.....	8c. do	6c. do	2c. do
Less than 1 inch.....	11c. do	8c. do	3c. do
Scales, balances and weighing beams.....	35 per cent.	30 per cent.	5 per cent.
Skates of all kinds.....	20c. per pair and 30 per cent.	10c. per pair and 30 per cent.	10c. per pair.
Stoves.....	30 per cent.	27½ do	2½ per cent.
Swedish rolled iron nail rods, under ½ inch in diameter, for manufacture of horse-shoe nails.....	20 per cent.	15 do	5 do
Boiler tubes of wrought iron or steel.....	7½ do	7½ do	7½ do
Other wrought iron tubes or pipes, not classified.....	6-10c. per lb. and 30 per cent.	5-10c. per lb and 30 per cent.	1-10c. per lb.
Wire fencing, barbed, of iron or steel.....	1½c. per lb.	2c. per lb.	½c. do
Wire, covered with cotton, linen or other material.....	35 per cent.	30 per cent.	5 per cent.
Surgical and dental instruments.....	20 do	15 do	5 do
Steel ingots, clogged ingots, blooms and slabs.....	30 do but not less than \$8 per ton.	\$5 per ton.	\$3 per ton and in some cases more.
Saws.....	35 per cent.	32½ per cent.	2½ per cent.
Manufactures of steel not classified.....	30 do	27½ do	2½ do

Article.	Old Rate of Duty	New Rate of Duty.	Reduction.
Jellies, jams and preserves, n.o.s.	5c. per lb.	3½c per lb.	1¾c. per lb.
Lead pipe and lead shot.	1½c. do	4-10c. per lb. and 25 per cent.	5 per cent. ad. val.
Leather:—			
Leather, sole.	½c. p.lb. and 15 p.c.	15 per cent.	½c. per lb.
Leather, belting leather, dressed, waxed or glazed.	20 per cent.	15 do	5 per cent.
Calf, kid, lamb and sheep skins, dressed, waxed or glazed.	20 do	17½ do	2½ do
Upper leather, dressed, waxed or glazed.	20 do	17½ do	2½ do
Japanned, patent or enamelled leather.	25 do	22½ do	2½ do
All other leather and skins tanned not classified.	20 do	15 do	5 do
Manufactures of leather:—			
Harness and saddlery.	35 do	30 per cent.	5 do
Leather belting.	25 do	20 do	5 do
Manilla hoods.	20 do	Free.	20 do
Gas, coal-oil and electric-light fixtures, or parts thereof.	30 do	27½ per cent.	2½ do
Milk, condensed, sweetened.	1½c.p.lb.and 35p.c.	3½c. per lb.	17 do ad. val.
do do not sweetened.	35 per cent.	3½c. do	
Plumbago.	15 do	10 per cent.	5 per cent.
Blacklead.	30 do	25 do	5 do
Plumbago, manufactures of.	30 do	25 do	5 do
Mucilage.	30 do	25 do	5 do
Oils:—Mineral—			
Coal and kerosene, distilled, purified or refined, naphtha and petroleum, n.o.s.	7 1-5c. per gall.	6c. per gall.	1 1-5c. per gall.
Products of petroleum.	7 1-5c. do	6c. do	1 1-5c. do
Lubricating oils, composed wholly or in part of petroleum and costing less than 25c. per gall.	7 1-5c. do	6c. do	1 1-5c. do
Essential oils.	20 per cent.	10 per cent.	10 per cent.
Paints and colors:—			
Colors and paints, pulped or ground in oil or other liquids and all liquid, prepared or ready-mixed paints, n.o.s.	30 do	25 do	5 do
Ochres and ochrey earths and raw siennas.	30 do	25 do	10 do
Oxides, fire-proofs, umbers and burnt siennas, n.o.s.	30 do	25 do	5 do
Paints ground or mixed in, or with, either Japan, varnish, lacquers, liquid dryers, collodion, oil finish or oil varnish, rough stuff and fillers.	5c. p. lb and 25 p.c.	25 do	5 cts. per lb.
Putty.	25 per cent.	15 do	10 per cent.
Paper, leaf and grass, etc., manufactures of:—			
Bags or sacks, printed or not.	35 do	25 do	10 do
Ruled, boarded and boxed papers.	35 do	30 do	5 do
Straw board, in sheets or rolls, plain or tarred.	40c. per 100 lbs.	30c. per 100 lbs.	10c. per 100 lbs.
Paraffine wax.	3c. per lb.	2c. per lb.	1c. per lb.
Pencils, lead, in wood or otherwise.	30 per cent.	25 per cent.	5 per cent.
Pocket-books, purses.	35 do	30 do	5 do
Lard, dried or rendered.	3c. per lb.	2c. per lb.	1c. per lb.
Meats:—			
Bacon and ham, shoulders and sides.	3c. do	2c. do	1c. do
Canned meats.	3c. do	25 per cent.	3 per cent.
Dried or smoked meats and meats preserved in any other way than salted or pickled, n.o.s.	3c. do	2c. per lb.	1c. per lb.
Other meats salted.	3c. do	2c. do	1c. do
Sand paper, glass, flint and emery paper.	30 per cent.	20 per cent.	10 p. c.
Sauces and catsup in bottles.	40c. per gall. and 20 per cent.	35 do	16 do ad. val.
do do bulk.	30c. per gall. and 20 per cent.	35 do	56 do
Soy.	10c. per gall.	35 per cent.	23 per cent.
Flax seed.	10c. per bush.	Free.	10c. per bush.
Soap:—			
Common or laundry, not perfumed.	1½c. per lb.	1c. per lb.	½c. per lb.
Harness soap.	30 per cent.	25 per cent.	5 per cent.
Perfumed or toilet.	1c.p.lb.and 10 p.c.	35 do	22 do ad. val.
Powders, pumice, silver and mineral soaps, sapolio and like articles.	3c. per lb.	35 do	10 do do
Ginger, preserved.	35 per cent.	30 do	5 do
Sugar candy, brown or white and confectionery, including sweetened gums and candied peel.	1½c. per lb. and 35 per cent.	½c. per lb. and 35 per cent.	¾c. per lb.
Glucose or grape sugar, glucose syrup or corn syrup.	1½c. per lb.	1½c. per lb.	½c. do
Turpentine, spirits of.	10 per cent.	5 per cent.	5 per cent.
Twine for harvest binders, of jute, manilla or sisal and of manilla and sisal mixed.	25 do	12½ do	12½ do
Twine, cotton.	1c.p.lb. and 25 p.c.	25 per cent.	1c. per lb.
Twines of all kinds, n.o.s.	30 per cent.	25 do	5 per cent.
Twines, manufactures of, viz:—			
Hammocks and lawn tennis nets and other like articles, n.o.s.	35 do	30 do	5 do
Varnish, lacquers, japans, japan driers, liquid driers, and oil finish, n.o.s.	20c.p.g.and 25 p.c.	20c.p.g. and 20 p.c.	5 do ad. val.

Article.	Old Rate of Duty.	New Rate of Duty.	Reduction.
Tomatoes, fresh.....	30c. per bush. and 10 per cent.	20c. per bush. and 10 per cent.	10c. per bush.
Tomatoes and other vegetables, including corn and baked beans in cans or other packages.....	2c. per lb.	1½c. per lb.	½c. do
Webbing, elastic.....	25 per cent.	20 per cent.	5 per cent.
Wood and manufactures of :—			
Barrels containing petroleum or its products, etc.....	40c. each.	20c. each.	20c. each.
Caskets and coffins.....	35 per cent.	25 per cent.	10 per cent.
Mouldings, plain.....	25 do	20 do	5 do
do gilded, etc.....	30 do	25 do	5 do
Hubs, spokes, felloes parts of wheels, rough hewn or sawn only	15 do	Free.	15 do
Shingles.....	20 do	do	20 do
Show cases.....	\$2 each and 35 p.c.	35 per cent.	\$2 each.
Woodenware, pails, tubs and churns.....	25 per cent.	20 do	5 per cent.
Picture frames.....	35 do	30 do	5 do
Veneers of wood not over 1-16 inch thick.....	10 do	5 do	5 do
Coke, (2,000 lbs. to a ton).....	50c. per ton.	Free.	50c. per ton.
Marble, in the rough, in blocks, containing less than 15 cubic feet	15 per cent.	do	15 per cent.
Marble, in the rough, in blocks, containing 15 cubic feet or over..	10 do	do	10 do
Ship timber and ship planking.....	20 do	do	20 do
Timber, hewn and sawn and timber used for spars and in building wharfs.....	20 do	do	20 do
Timber, square or sided.....	20 do	do	20 do
Creosoted lumber.....	20 do	do	20 do
Sawn boards, planks, deals, and other lumber, undressed or dressed on one side only.....	20 do	do	20 do
Pine clapboards.....	20 do	do	20 do
Spruce do.....	20 do	do	20 do
Posts, last blocks, wagon blocks, oar blocks, gun blocks, heading, and all like blocks or sticks, rough hewn or sawn only.....	20 do	do	20 do
Laths.....	20 do	do	20 do
Pickets and palings.....	20 do	do	20 do
Staves of wood of all kinds.....	20 do	do	20 do
Flax fibre, scutched.....	1c. per lb.	do	1c. per lb.
do hackled.....	2c. do	do	2 do
Flax, tow of, scutched or green.....	1c. do	do	1 do
Raspberries, wild.....	3c. do	do	3 do
Album insides, made of paper.....	35 per cent.	do	35 per cent.
Blast furnace slag.....	20 do	do	20 do
Bibles, prayer books, psalm and hymn books.....	5 do	do	5 do
Books printed in any language, other than English and French languages, n.e.s.....	15 do	do	15 do
Bookbinder's cloth.....	10 do	do	10 do
Buttons, shoe, papier mache.....	5c. per gross and 20 per cent.	do	5c. per gross and 20 per cent.
Oxide of copper, n.e.s.....	30 per cent.	do	30 per cent.
Curling stones of granite.....	25 do	do	25 do
Ammonia, nitrate of.....	do	do	do
Cyanide of potassium.....	do	do	do
Saltpetre.....	20 per cent.	do	20 do
Soda, chlorate and bi-sulphite of.....	20 do	do	20 do
Tin crystals.....	20 do	do	20 do
Zinc, salts of.....	5 do	do	5 do
Sumac, other than for dyeing purposes.....	20 do	do	20 do
Glove fasteners, metal, eyelet hooks and eyelets.....	30 do	Free.	30 per cent.
Globes, geographical, topographical and astronomical.....	20 do	do	20 do
Grommets.....	According to metal.	do	do
Ingot moulds.....	1½c. per lb. but not less than 35 p.c.	do	1½c. per lb.
Iron sand or globules and dry putty for polishing granite.....	20 per cent.	do	20 per cent.
Lamp black and ivory black.....	10 do	do	10 do
Manilla hoods.....	20 do	do	20 do
Brass in bars, bolts not bent or otherwise manufactured, and in lengths not less than 6 feet.....	10 do	do	10 do
Brass, drawn, and plain and fancy tubing, not bent or otherwise manufactured, in lengths not less than 6 feet.....	10 do	do	10 do
Brass in strips for printers' rules, not finished.....	15 do	do	15 do
Lead, nitrate of and acetate of, not ground.....	5 do	do	5 do
Lead, tea.....	30 do	do	30 do
Stereotypes, electrotypes and celluloids of books and bases and matrices and copper shell for the same, whether composed wholly or in part of metal or celluloid.....	3c. per sq. inch.	do	3c. per sq. inch.
Mohair yarns.....	10c. per lb. and 20 per cent.	do	10c. per lb. and 20 per cent.
Carbolic or heavy oil.....	10 per cent.	do	10 per cent.
Olive oil for manufacturing and mechanical purposes.....	20 do	do	20 do
Plumbago crucibles.....	30 do	do	30 do
Potash caustic.....	20 do	do	20 do
Potash, red and yellow prussiate of.....	10 do	do	10 do
Prunella for boots and shoes.....	10 do	do	10 do
Rosin oil.....	20 do	do	20 do
Saddle jiggers and stirrups.....	35 do	do	35 do

IMPOSE THE DUTY.

In his budget speech Mr. Foster, telling in what manner the country had been relieved of certain taxation, said that in 1882 the Government found that tea and coffee were taxed—articles that were not raised in Canada, the same being true with reference to tin, and that from that period until the present time there had been saved to the people on these articles alone the following amounts:—On tea, \$11,034,039; on coffee, \$832,528, and on tin, \$1,465,103. It would be interesting to learn by what operation of his mind the Finance Minister happened to join tin with tea and coffee. It is true that tea and coffee are not raised in Canada, and therefore no system of taxation could ever procure their production here; but neither of these articles are subjected to any process of manufacture preparatory to their entering into consumption. Not so with tin, which, being a mineral, and, as usually imported, is in a condition similar to pig iron which cannot be used in that condition to any appreciable extent, but which, being a raw material, enters almost entirely into the manufacture of that article of commerce known as tin plates. Tin plates, as we all know, are sheets of iron which have been dipped into molten tin, the weight of the tin consumed in the operation being only about five per cent. of the weight of the iron. The manufacture of tin plates gives occupation to large numbers of skilled workmen chiefly in Wales, and although Cornwall produces some tin ore, which is smelted and converted into pig tin, a very large portion of the tin consumed in the Welsh tin plate mills is brought from the Straits Settlement in the far east, and could be brought to Canada quite as well as carried to Swansea. It is true we have not tin plate mills in Canada, nor have we any mills for the production of the iron sheets necessary in the manufacture of tin plates. But that is no reason why we never should have, and in this connection it should be noticed that while the Government have what they call an iron policy—that is to say, a policy intended to encourage the production of different forms of iron and steel in this country, those forms that have really been encouraged by the tariff have prospered to a certain extent, while those that have not been thus encouraged have not even yet appeared. To illustrate, no duty is imposed upon steel rails, nor upon tin plates, and Canada is entirely devoid of such industries. We have a duty upon pig iron, and our pig iron industry is in a fairly flourishing condition. We have a duty upon bar iron, and we manufacture the article quite extensively. We have a duty upon iron machinery and we have industries capable of producing such machinery to a very satisfactory extent. We have an inadequate duty upon boiler plates, and no effort has ever been made to manufacture boiler plates in Canada. We have an incongruous tariff affecting iron and steel bridges and similar structures, and also affecting the materials of which such structures are built, and by which, frequently, the duty upon the finished structure is absolutely less than the duty upon the raw materials, and we see our works for the construction of bridges, etc., laboring at a great and painful disadvantage. All these things accentuate the fact that if it is desirable to have these industries established in Canada our tariff must be shaped in that direction. For years and years the United States was dependent upon the Welsh tin plate makers for all their supplies, and, imbued with ideas similar to those of Mr. Foster, the government of that country maintained only a tariff for revenue upon

tin plates, during all of which period no tin plate industry was ever successfully established in that country. But the spirit of McKinleyism finally induced the imposition of a protective—perhaps it might be called a prohibitive, duty upon tin plates, and forthwith the industry sprang into active and prosperous existence, and the people of that country do not now have as much to pay for their tinware as they did when the duty was only nominal, and all their tin plates were produced in Wales. So too, with their steel rail industry, and many other industries. No doubt Mr. Foster would be pleased to see steel rail mills and tin plate mills in active operation in Canada, as a feature and part of our iron industry, but should his beard grow to be as long as that of Aaron, and his years accumulate and become as numerous as those of Methuselah, he will not live long enough to witness the advent of the much to be desired industries. We do not desire to have duties imposed on either tea, coffee or pig tin, but if we are ever to have a comprehensive iron and steel industry, there must be adequate duties imposed upon all manufactures of tin and iron, including steel rails.

PESSIMISM GONE CRAZY.

It is somewhat remarkable the number of persons who rush themselves into the newspapers to air their grievances—it is even more remarkable that these people should imagine that any weight whatever attaches to anything they may say, particularly when they themselves hold such light opinions of their cause as to decline to attach their names to their communications. These disgruntled ones very frequently obtain their say in the columns of *The Globe*, particularly when the manufacturers, or the National Policy, or the Government are to be favored with their criticisms, and it is to be noticed that that estimable journal finds it to its interest to allow these anonymous writers to occupy large space in its columns in saying things, and to some extent shaping, or endeavoring to shape, public opinion, when its own sense of decency would deter it from any editorial endorsement thereof.

But a few days ago "A Suffering Manufacturer" had his innings by the grace of *The Globe*, and snarled away to his heart's content at the Government for having placed in the estimates certain sums of money for maintaining our militia establishment. We do not perceive why the writer should be a suffering manufacturer in this matter more than a suffering merchant, or lawyer, or blacksmith, or bootblack, but he seems to suffer intensely because money is voted to maintain and support our militia, and to place the country in a state of preparedness to meet any hostile demonstrations that might be made against us. He ridicules the idea that Canadians should take pride in alluding to the battles at Ridgeway, Fish Creek, and other places where Canadians shed their blood for their country, and sneers at the feeling that induces us to maintain military schools and colleges for the education in the arts of war, of our young men.

This suffering manufacturer, having relieved his mind of his opinions regarding the militia, pathetically enquires what provisions the Government have made for the promotion of trade with the sister colonies and the rest of the world, for which, he says, our manufacturers and farmers are languishing, while the Government is providing in such a liberal manner for the militia, and immediately answers himself, by giving the names and places at which they are located, of the commercial

agents Canada maintains in other countries. His contention is that the expense of maintaining these agencies is, like that of the militia, a hardship to him as a suffering manufacturer in that no adequate benefit is derived therefrom. He says that the National Policy was to have provided new markets and decided opportunities for the industries which it had fostered, and that our manufacturers are suffering for lack of foreign markets in which to dispose of their surplus products. And herein it is apparent that the writer knows little or nothing of the theory of the National Policy. It was never expected that protection was to do more than give the home market to home producers, to the exclusion of foreign producers, until the time had arrived when this result had been accomplished. What is the character of the articles we now desire to sell abroad? As far as manufactured products are concerned they represent industries that have been built up under the National Policy. These industries have become possessed of the home market, virtually to the exclusion of similar foreign products; and now, having become fully and strongly established, find it convenient to produce more goods than can be disposed of at home, and desire to sell them abroad. Our suffering manufacturer does not explain just what particular line of business he is engaged in, but if he is really what he would lead his readers to believe him to be—a manufacturer who in his business has become fully possessed of the home market, and, producing an exportable surplus, desires to dispose of it abroad—he is to be congratulated upon his success. The National Policy has been in operation a number of years, and to it, and it alone this sufferer should ascribe his success. Without it he could never have fully occupied the home market, and therefore could not now be in a condition to export his surplus products. Ungrateful curs snap and snarl at the hand that feeds them.

It is exceedingly disgusting to observe that there are people who can only exist in an atmosphere of mephitic pessimism. In some respects they are like the dog in the manger that cannot digest and assimilate the good things with which it is surrounded, and delights in preventing others from doing so. In other respects they are like the selfish wretch who, in the struggle and battle of life, cares nothing for those who may be struggling around him for existence so long as he can keep his own nose above the water. In still other respects they are like the wretch with soul so dead, who never to himself hath said that between his country and his selfish desires patriotism must sink out of sight. Such men are of no value in the community.

CONVICT LABOR VS. FREE LABOR.

In a recent issue of this journal allusion was made to the National Association of Manufacturers of the United States, and to the statement made at the recent convention thereof in Chicago, that the 250 members there present represented in their different industries more than \$3,500,000,000. Since that meeting Hon. Warner Miller, vice-president of the Association for the State of New York, and a number of other gentlemen prominently identified with manufacturing interests in that State, entertained the executive committee of the Association at a dinner, at which Senator Miller, speaking of the enormous interests confided to the care of the members of the Association, said that the plants of the members have an annual output valued at more than \$1,000,000,000.

Mayor Strong, of New York, speaking in behalf of the manufacturers of that city, said that there were 25,000 manufacturing establishments there, employing \$500,000,000 in capital and utilizing the services of 500,000 hands, the workers receiving \$250,000,000 annually as wages, the establishments producing one-twelfth of the value of the total manufactured product of the whole United States. The Mayor of Brooklyn said that his city possessed over 10,000 manufacturing establishments, employing a capital of \$200,000,000, and giving work to some 150,000 persons who annually receive in wages \$100,000,000, turning out finished products of the value of \$300,000,000 annually. Mayor T. C. Search, of Philadelphia, a manufacturer who is president of the Association, speaking of the real policy of the organization, said that included in it was the aim to support an equalizing feature by means of the tariff, so long as labor in the United States cost more there than abroad.

This allusion to the cost of labor in the United States is all that has come under our observation as having been said either at the Chicago convention, at the meeting of the executive committee of the Association or at any other meeting of these manufacturers; but there are laws in force made by both the Federal Government and that of a number of the States looking to the protection of free labor against the unfair competition of convict labor; and there can be no doubt that American manufacturers as a class are strongly opposed to such competition. Therefore we are surprised that The Manufacturer, published in Philadelphia, the home of the president of the American Manufacturers' Association, and aspiring and professing to be the organ of the Association, should advocate a system of prison discipline that brings the products of convict labor into direct competition with those of the hundreds of thousands of free men and women employed by the members of the Association, and of American manufacturers generally. It assumes the ground that inasmuch as prisoners must be fed, clothed, warmed and housed, all of which must be paid for, that the unfortunates must be employed in productive labor to the end that the cost will not fall solely upon free men engaged in the production of wealth. That is to say, that if convicts are not to be employed in productive labor, and therefore are not competitors with free labor, each free workman must surrender a portion of his wages to go into the hands of the prison authorities so that criminals may be permitted to live, fat and lazy, in idleness. It enquires "How can a free and honest workman be injured by an arrangement which permits him to expend upon his own family that share of his earnings which, if convict labor were forbidden, would be taken from him to feed and clothe prisoners?"

The argument is not conclusive. In the first place the interests of the employers and the employees are or should be, to a certain extent, identical—that whatever injuriously affects the one will also injuriously affect the other. It is not good morals to force convicts to exist without sufficient exercise and it is very true that their strength should be expended in some practical and useful direction. They may properly be employed in the production of whatever may be necessary for their own comfort and welfare; they should be made to produce the shoes, hats and clothing they require, and where circumstances permit, their own food or a portion of it, and that of their keepers, and in this manner their prisons may be made, to a certain and large extent, self supporting. The objection in going beyond this lies in the fact that if convict labor is

used to produce articles intended for consumption beyond the limits of prison walls, the very moment they are offered for sale they are in competition with similar products made in establishments erected and operated by manufacturers who have invested their capital in them, and who thereby give employment to free labor. If the convict competition in the open market depresses the value of the article offered, does not the free employee in the outside factory, as well as the employer, bear the brunt and suffer from the depreciation? Such competition means lower wages for free labor as well as smaller profits for free capital. Of what avail would it be to the free workman that he was not taxed to support the convict, if in obtaining that immunity his wages are reduced? Labor, like all other classes, must bear its share of the cost of maintaining peace and order in the community. We do not view prisons as luxuries, nor their inmates as something that may be dispensed with. The prisons are necessities of our civilization, their use being to restrain the freedom of the vicious, and the cost of the system must be considered in the light of a necessity that cannot be avoided. While convicts may contribute much to their own support, in the manner indicated, whatever deficiency there may be must be borne by the community, similarly as we have to pay for maintaining courts of justice, police force, municipal and similar organizations, etc.

The idea that convict labor must be not only self-supporting but made to create wealth for the state, became a mania in Canada a few years ago with most disastrous results to both capital and free labor. In Ontario the convicts were farmed out to contractors who employed them in certain industries that were then flourishing outside the prison walls. At that time

there were dozens of establishments of varying importance in Toronto, all employing free labor—free men and free women—in the production of brushes, brooms, woodenware, toys, etc. This farmed out prison labor was cheaper than the free labor employed in these industries, and, of course, the products of the convict labor, sold in the open market at prices with which the products of free labor could not compete, soon forced the closing of the outside factories, and the loss of employment to the free labor. Was it good statesmanship that brought about this condition of things? Was it right and desirable that free men should, because of lack of occupation, be driven into vagabondage and crime, soon to find their way behind prison bars, there, as convicts, to be employed at just such work as they had previously followed as free men? Was it in the interest of humanity, of morality and of female virtue, that, for the sake of keeping convicts employed at productive labor, the wives, the sisters and the daughters of laboring men should be forced by dire necessity into leading lives of shame and degradation? But these are the inevitable results of the employment of convicts in the production of articles to be sold in the open market in competition with the products of free labor.

EDITORIAL NOTES.

The City of Brantford has brought an action against the Grand Trunk Railway to restrain them from moving the car shops to London, and to recover a bonus of \$32,500 granted to the railway by the city.

An enthusiastic advocate of wood pulp for building material as a substitute for stone is Mr. G. D. Rice, who has made

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the subject one of close study and investigation. His conclusion is that it possesses the needed elements of a durable constructive substance, being at the same time devoid of those features which detract from the value of stone and brick. He summarizes some of the qualities presented by this new factor in building as consisting in its being light in weight, exceedingly hard, a poor conductor of heat and sound, and sufficiently elastic to meet all the usual requirements for the purpose; it is tough, although a nail can be driven into it, and it can also be drilled, while the other necessities of a stone substitute, as enumerated, together with resistance to frost and heat, with ability to stand strain, and so on, are said to be met, besides the important item of saving in the cost of transportation. It is urged further that the difficulty of procuring perfectly square stone blocks, except at high rates, is overcome, for the pulp blocks, being cast in a square mould, are necessarily uniform. Differing from stone and brick, which absorb so much heat in summer, the proposed material is claimed to be cooler in summer, while in cold weather it prevents dampness, so common to stone.—Boston Transcript.

Sir Richard Cartwright pricked the preferential trade bubble last night. He asked if the Canadian manufacturers were prepared to adopt preferential trade with England on the only possible basis upon which such a system could be founded, namely, the free admission of English manufactured goods into Canada in consideration of a British tax on agricultural products imported from other countries than Canada. John Bull, he said, is not quite a fool, and he is not going to give preferential advantages on any consideration to his colonies or anybody else, unless his colonies are prepared to admit his

manufactured goods free of charge, or at any rate on vastly reduced terms.—Hamilton Times.

It is rather odd that Sir Richard should not know by this time that the preferential trade proposition includes the free admission, or the admission at a low rate of duty, into Canada of British goods. We do not ask something for nothing. Those in favor of the scheme are prepared to make it worth while to John Bull to go in for the arrangement. The bubble Sir Richard has pricked is a bubble of his own making; it is not the proposal of the imperial trade federationists.—Hamilton Spectator.

It is rather odd that the Spectator should not know by this time that the preferential trade proposition does not include the free admission or the admission at a low rate of duty of British goods. On many articles the duty is now entirely too low, and should be increased; and while manufacturers would be glad to see some feasible arrangement proposed looking to Imperial Federation, they will never consent to see it effected at the sacrifice of the National Policy. The arrangement the manufacturers would consent to and endorse would include fair and adequate tariff protection to their industries, with a suitable discount or rebate of said duty upon articles manufactured under the British flag imported into Canada. Imperial Federation would be of little use to Canadian manufacturers if thereby their industries were destroyed. As the Spectator says, we do not ask something for nothing, and we are in favor of making material concessions in favor of the scheme if by so doing John Bull would be induced to go into the arrangement, but the sacrifice must not amount to entire destruction and annihilation.

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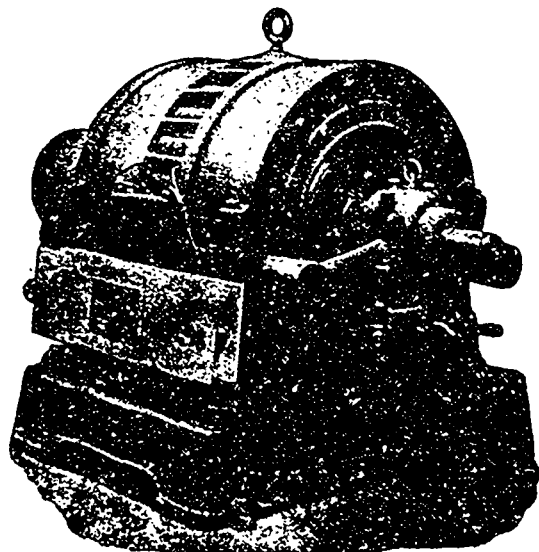
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No Moving Wire

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LITERARY NOTES.

Our whilom friend and contemporary, the Maritime Grocer, of Halifax, N.S., has found, we are pleased to say, its business of such a prosperous and enlarged character that it has changed its name to Maritime Merchant. The change is quite comprehensive, giving the journal a much wider business scope than it could otherwise have obtained under the old name. We are glad to notice that much pains is taken in recording whatever may be going on in the manufacturing industries of the Maritime Provinces. We wish it every success.

Of special and timely interest in the March number of the Methodist Magazine are the illustrated articles on the "Red Cross Society and its Work," on "Cuba," and on "Huxley," with portrait, and on "Recent Science," with engravings of Roentgen's Cathode Photos. Of wide interest also are the splendidly illustrated articles on "Here and There in the Home Land," with a score of illustrations, and "A Recent Visit to Spain." "McGregor's Removal," is a touching Nova Scotian story. Generous instalments of "The Elder's Sin," and "The Story of Irish Methodism" are also given. Among other timely articles are a sketch and a portrait of the late Dr. Jeffers. Dr. Carman's vigorous article on "Soul-Winning," and Chancellor Burwash's review of Salmund's great work on "Immortality." "The First Fifty Years of Methodism," by E. S. Orr, and "The Old-Time Sabbath in New England," by the Rev. J. S. Gilbert, A.M., will reveal that marked improvement has taken place. Rev. J. T. Pitcher, of Stanstead, Que., gives an able paper "On the Social Life in the Church." The departments of "The World's Progress," "Current Thought," "Popular Science," "Book Reviews," "Religious and Missionary Intelligence," are of more than ordinary interest. This popular magazine should be in every Methodist household. Back numbers can be supplied.

As President Andrew's History serial in Scribner's Magazine draws to a conclusion the quality of it is intensified. The March instalment gives thirty-five pictures in one article, - including original and artistic views of the Chicago World's Fair. The Homestead riots and the Tennessee convict troubles are also fully illustrated. The text gives, among other striking passages, an interesting summary of the marvellous advance made by electricity in recent years. In this time of international friction a real public

service is done by the paper on "British Opinion of America" by Richard Whiteing of the London Daily News. His article is directed to representing not the opinion of social and political leaders, but of the Man in the Street and the great body of work-people in England. He shows that the latter have within the last twenty years revised their idea of America as a paradise for working-people. They have found that America has the same industrial problems as England, and the masses have lost their old-time romantic affection for the United States. The article closes with an allusion to the Transvaal difficulty, which he ascribes to an excess of activity caused by the Tory "Imperial idea."

Outing for March is a delightful number. Many beautiful illustrations add to the attractiveness of reasonable tales of sport, travel and adventure the world over. The contents are as follows: "Duck Shooting on Savannah River"; "Incognito," by Caroline Shelley. "A Cycling Trip in Trinidad," by Hy. Macbeth; "Wild Sport in Ceylon," by F. F. Dixon; "Across the Mosaba," by Janet Shepard; "Among the Russian Bears," by Fred. Whishaw; "Lenz's World Tour A-wheel"; "About the Balearics," by Chas. Edwardes; "Adolph," by Therese G. Randall; "Model Yachts," by Franklyn Bassford; "Faculty Control of Athletics at English Universities," by J. W. Laing and W. W. Bolton; "National Guard of Nevada," by Lieut. W. R. Hamilton, and the usual editorials, poems, records, etc.

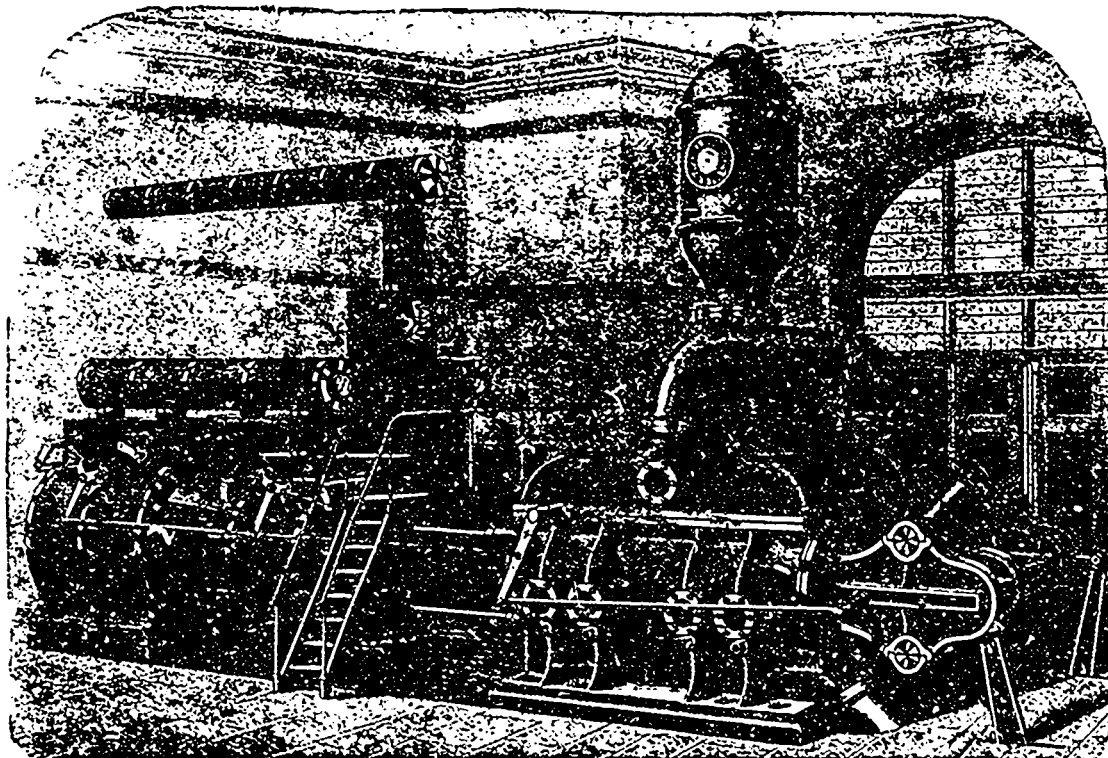
Just a few suggestions of the approach of spring and the coming of Easter give a refreshingly poetic and timely interest to the March Ladies' Home Journal. The number opens with a story by the late Eugene Field—"The Werewolf." It is explained that "The Werewolf" is the only manuscript by the lamented poet and story-writer that has not previously been published. General A. W. Greely presents his first paper on "The Personal Side of Washington," which is illustrated. Never before have the duties of a President been so clearly revealed as they are by ex-President Harrison. Edward W. Bok talks most interestingly of "Mary Anderson as She is To-day." By The Curtis Publishing Company, Philadelphia. One dollar per year, ten cents per copy.

The Levis Knitting Co., Point Levis, Que., are applying for incorporation with a capital stock of \$5,000 to manufacture woollen goods, etc.

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CAPTAINS OF INDUSTRY.

This department of the "Canadian Manufacturer" is considered of special value to our readers because of the information contained therein. With a view to sustaining its interesting features, friends are invited to contribute any items of information coming to their knowledge regarding any Canadian manufacturing enterprises. Be concise and explicit. State facts clearly, giving correct name and address of person or firm alluded to, and nature of business.

- St. John's N'fd., is to have an electric street railway.
- Burnham & Morrill, Portland, Me., will erect a lobster factory, 100 x 20 feet, at Grand Mannan, N.B.
- The Ottawa Gas Co., Ottawa, have invited tenders for the excavation for the building and the construction of a gas-holder tank.
- The Central Bridge Co., Peterborough, Ont., have secured the contract for the construction of the new bridge at St. Thomas, Ont.
- The Cape Sable Packing Co., Yarmouth, N.S., are applying for incorporation, with a capital stock of \$8,000, to pack fish, fruit, vegetables, etc.
- The Taylor Iron and Steel Co., Montreal, are applying for incorporation, with a capital stock of \$30,000, to take over the business now carried on by the firm of J. & H. Taylor, iron merchants and manufacturers.
- The Dominion Car Axle Lubricating Co., Windsor, Ont., are applying for incorporation, with a capital stock of \$50,000, to manufacture car axle lubricators.
- Charlottetown, P.E.I., is to have a new Roman Catholic cathedral to cost about \$100,000.
- A company is being formed in Amherst, N.S., to manufacture confectionery. They will employ about sixty hands. Mr. E. Biden will give information.
- Messrs. Rhodes, Curry & Co., Amherst, N.S., have secured the contract for the erection of the new emigrant sheds at Halifax, N.S.

The Lawton Saw Co., St. John, N.B., are now manufacturing woven wire fencing.

The Credit Forks Mining and Manufacturing Co., Toronto, have been incorporated, with a capital stock of \$200,000, to manufacture lime, bricks, terra cotta, etc.

We are pleased to notice that the A. R. Williams Machinery Co., Toronto, have outgrown their present quarters, and are erecting a warehouse that will not only provide suitable accommodation for their growing business, but will be an ornament to that portion of the city in which it is located, being directly opposite the west wing of the Queen's Hotel on Front street, and consisting of a building seventy-five feet frontage, by 150 feet depth, with five storeys. This building is nearing completion and will shortly be ready for occupation, when the offices of the company will be transferred to the Front street premises.

The Beaver Bag Co., Montreal, are applying for incorporation, with a capital stock of \$100,000, to manufacture jute and cotton cloths, twines, etc.

The Scribner Organ and Manufacturing Co., London, Ont., are applying for incorporation, with a capital stock of \$50,000 to manufacture organs, etc.

The Waterous Engine Works Co., Brantford, Ont., are just shipping seven complete saw mill outfits to Chili, South America. We learn that about twenty per cent. of the entire output of this concern, mostly saw mills and saw mill machinery, is for South American orders. Since they moved into their extensive new premises they give employment to, perhaps, three hundred hands, not spasmodically, but every working day of the year.

The Whitney Electrical Instrument Company, whose head works are at Penacook, N.H., with branch factory at Sherbrooke, Que., inform us that their Canadian trade is doubling each year. Although much of their machinery sold in Canada is made in New Hampshire, their Sherbrooke works are always available to make good any break-downs that may occur in any instruments they sell in this country.

The Hub, Spoke and Bent Goods Manufacturing Co., Sarnia, Ont., have been incorporated, with a capital stock of \$50,000, to manufacture hubs, spokes, etc.

DRY KILNS
and HEATERS

CHEAP

One Second-hand Sturtevant Heater, 1,000 feet one-inch Pipe and Fan to match, has been used only about four months.

One Sturtevant Heater, 5,500 feet one-inch Pipe and Fan to match; in first-class order.

The above have been used in lumber dry kilns, but are also applicable to heating buildings, etc.

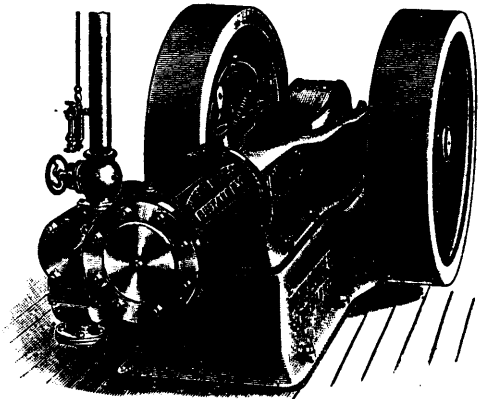
For Prices and full particulars, address

McEACHERN

Heating and Ventilating Company

GALT, - ONTARIO

BUFFALO FORGE CO.



AUTOMATIC CUT-OFF ENGINE

Horizontal and Upright Types, for Electric Light and Power Purposes.

DIRECT CONNECTED AND BELTED

1896 Sectional Catalogue furnishes full details.

Buffalo Forge Co., Buffalo, N.Y., U.S.A.

BRANCHES:

NEW YORK, CHICAGO, PHILADELPHIA, LONDON, PARIS AND ST. PETERSBURG

The Fort William, Ont. Journal is talking about the possible erection in that place of a 2,000-barrel per day flour mill.

Messrs. Heidermann & Trachel, Shakespeare, Ont., will rebuild their flax mill which was recently destroyed by fire.

The Montreal Cotton Co., Valleyfield, Que., will erect a three storey warehouse 170 x 90 feet.

L. E. Benz, of Wetaskiwin, Alta., is erecting a flour mill near that place.

Messrs. Chalmers Bros. & Bethune, Manitou, Man., will erect a 30,000-bushel elevator at La Riviere, Man.

A trial trip of the first car on the new Halifax Electric Street Railway took place a few days and was a pronounced success. The cars are of elegant construction and finish, and reflect credit upon Messrs. Rhodes & Curry, of Amherst, N.S., who built them.

Messrs. McPherson & Hickey are building a salmon cannery at Eburne, B.C.

The Sydenham Glass Co., Wallaceburg, Ont., have been authorized to increase their capital stock from \$50,000 to \$100,000.

The Goldie-McCulloch Co., Galt, Ont., who have recently begun the manufacture of the Ideal automatic self-oiling steam engine, are meeting with much success in introducing it upon the Canadian market. They have just closed a contract to supply two of these engines, of 200 h.p. each to the T. Eaton Co., Toronto, as an addition to their lighting plant in their immense departmental stores in this city. These engines are to be direct connected to multipolar dynamos with extended sub-base and outboard self-oiling bearing. This style of the Ideal engine is particularly adapted to direct connected work on account of its perfect balance, quiet running, automatic lubrication and cleanliness. In its improved form and various modifications as built for direct connection to the prominent types of medium speed dynamos, for electric lighting and street railway service, the company declare that this engine is deserving of the attention of engineers and manufacturers of electrical machinery. They are prepared to build this engine and to guarantee its performance; and they will be glad at any time to furnish estimates on application, and to build the engines to receive the dynamos of any reliable manufacturer.

Goderich, Ont., has voted \$100,000 for new industries including a saw mill, bicycle factory, knitting mill and furniture factory.

The Paris Electro Plating Co., Paris Station, Ont., manufacturers of stove trimmings, etc., are increasing their lines of specialties and now include the manufacture of all kinds of trimmings for pianos and organs such as pedals, pedal guards, action brackets, etc.

The Gibson Foundry and Machine Co., Gibson, N.B., has been incorporated with a capital stock of \$20,000 to manufacture iron, brass, and other metal goods.

Messrs. Beckler & Co., Sarnia, Ont., will build a large saw mill at that place.

A Montreal exchange prints some interesting details concerning the new Masterman sulphite pulp mill, which is being erected on the banks of the Miramichi river, at Mill Cove, N.B. It says: "Mr. Masterman, the proprietor of the mill, began work last June, and after spending \$100,000 in plant and erecting several large buildings, finds himself in possession of one of the most complete and extensive establishments of the kind in Canada. The walls of what is called the digesting building, which is 84 by 32 feet, are built of free stone, found in the vicinity, to a height of 30 feet, while the structure, 60 feet above, is of wood. The store room, standing on the wharf, is 100 by 50, and the paper mill rooms, adjoining, are 150 by 50 feet, while to the rear of these is the engine and boiler buildings, 100 by 40 feet in extent. There are two other buildings, through which the pulp passes, in different stages of its manufacture, measuring 20 by 100 and 50 by 40 feet. The informant likewise referred to the large digester building, which is 84 by 32, and has a tank house of one storey adjoining, measuring 84 by 30 feet. This last is connected with the waters of the Miramichi, by a slip 240 feet in length. As might be expected, this hive of industry will have a first-class electric plant, and all the machinery is of the most modern kind. It is Mr. Masterman's intention to employ only that labor which the locality furnishes, so it is quite probable that seventy hands from along the king of New Brunswick rivers will have constant work as soon as the mill is in running order. During construction from ninety to one hundred men were employed, and sometimes the pay list was even more extensive."

We have been appointed the exclusive agents for the celebrated Homer Commutator, made by F. E. Homer & Co., of Cleveland, Ohio. This is the highest grade Commutator made in the United States; it will last two to four times as long as any of domestic manufacture. We can quote competing prices on all Commutators, especially those for Street Railway work. Write us before ordering.

N.B.—Do not forget that we are making incandescent lamps of all commercial efficiencies from three to four watts per candle. We can make prompt shipment of transformers as well as lamps.

Rewinding of Transformers and Street Railway Armatures a Specialty.

WRITE US FOR PRICES ON ALL KINDS OF REPAIR WORK.

**The PACKARD ELECTRIC CO., Ltd., St. Catharines,
ONTARIO.**

BRUNNER, MOND & CO., (LTD.), Northwich, Eng.

MANUFACTURERS OF

The Strongest and Cheapest Form of SODA ASH for the Manufacture of . .



PURE ALKALI

SOAP, GLASS, PAPER, WOOD PULP AND COLORS

GUARANTEED 58 DEGREES

Also for Printers and Bleachers

BLEACHING POWDER AND CAUSTIC SODA, 70%, 74%, & 76%.

Winn & Holland, Montreal

SOLE AGENTS FOR THE DOMINION OF CANADA.

HEMOLIN

PATENTED



THE Cheapest Black-producing Dye for Wool on the Market. Has all the advantages of Logwood with none of its inconveniences. Can be Dyed in one Dip, or may be employed in Wool Dyeing as a self-color, or in combinations, wherever Logwood is used, by following the same recipes.

This is not a mixture, but a new product for which patents have been granted in U.S.A., Great Britain, Canada, Germany, France and Austria, and use in these countries has increased constantly since its introduction.

MANUFACTURED BY—

WM. J. MATHESON & CO., Limited, New York, U.S.A.

BRANCH HOUSES—BOSTON, PROVIDENCE, PHILADELPHIA, MONTREAL

1895.

The Latest Invention in Coal Saving Appliances

“MICA”

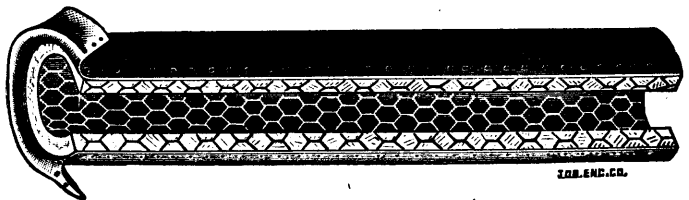
The well-known **Electrical Insulator** successfully adapted as an insulator of **Steam** heat. **Enormous Saving of Fuel Guaranteed** by the use of **Mica** boiler and steam pipe covering.

Patented

1894

and

1895

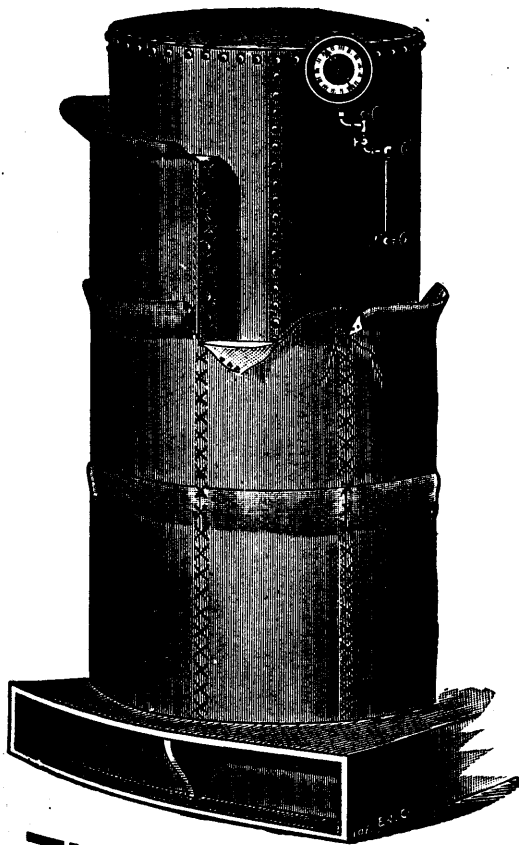


Now being used with great success by the Toronto Street Railway Co., Niagara Navigation Co., Toronto Ferry Co., etc., etc. Has been tested and thoroughly examined by the highest authorities and pronounced the most effective in the market. Impervious to the extremes of heat or cold, damp or vibration. Made in any size mats in any shape. Can be applied and removed as often as desired without injury.

SOLE MANUFACTURERS

The Mica Boiler Covering Company (Ltd)

9 JORDAN STREET, TORONTO.



The Bertram Engine Co., have secured the contract for the supply of steel pipe for the new conduit for the Toronto Water Works. It amounts to \$31,620.

Thos. McCready & Son, Brookville, N.B., are applying for incorporation with a capital stock of \$10,000 to manufacture vinegar, pickles, etc.

J. W. Drake's furniture factory at Windsor, Ont., was destroyed by fire Feb. 25th. Loss about \$3,000.

The Latbot, Cockroft and Harvey Carpet Co., Elora, Ont., are applying for incorporation with a capital stock of \$99,000 to manufacture carpets, rugs, etc.

The Picou Charcoal Iron Co., Bridgeville, N.S., will put two new puddling furnaces, steam hammer, rolls, etc., in their works, besides making other improvements.

The Metallic Monument Co., Toronto, are applying for incorporation with a capital stock \$45,000 to manufacture metallic monuments, etc.

HAMILTON COTTON CO.

HAMILTON, ONTARIO.

Yarn Manufacturers Dyers and Bleachers

Warp Yarns of all descriptions, in Skein, Chain, or on Beams.

Hosiery Yarns in Single or Double; in Cop, Skein or Cone.

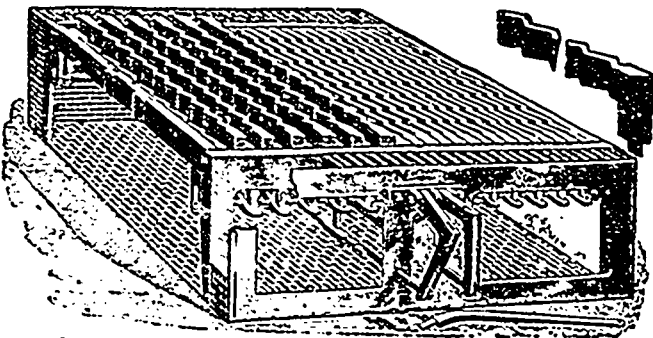
Yarns of all kinds for Manufacturers' use.

Twines, Lampwicks, Webbing, Etc.

Dyeing of all colors, including GENUINE FAST BLACK.

THE VOLCANIC PATENT SHAKING GRATE

MANUFACTURED BY THE GURNEY FOUNDRY CO., Ltd., Toronto.



Toronto, June 17th, 1895.

THE GURNEY FOUNDRY CO., LTD., Toronto.

GENTLEMEN, With reference to the Volcanic Patent Shaking Grates—I am glad to say that I am well satisfied with the working of the grates and am convinced there is a very considerable saving of fuel by their use.

Since putting in the "Volcanic" we have no clinkers at all, and use common uncleaned slack coal. We only clean out the fire once a week. When shutting down at night, the dampers are closed to shut off the fire and the next morning a few shavings thrown on top with a little fresh coal is all that is needed to start the fire. This alone adds materially to economy in coal consumption.

My first impression that it was a first-class device and the best I had ever seen has been fully confirmed by the work the bars have done. I have no hesitation in recommending them as the best grate bars I have seen or used since I first entered the engine business eight years since.

F. W. BARRETT,
Late of the Polson Iron Works Co.

THE GURNEY FOUNDRY CO. Ltd., TORONTO.

Jas. McDonald's planing mill at Orangeville, Ont., was damaged by fire a few days ago to the extent of about \$500.

C. R. Smith, Hamilton, Ont., is promoting a company to secure a franchise to use the city sewage for manufacturing fertilizer. If the company can make arrangements with the city it will put up an interception plant, the model of which has already been prepared.

The Hamilton Blast Furnace Co., Hamilton, Ont., are applying for incorporation with a capital stock of \$1,000,000.

The Maritime Hay & Chopping Co., Amherst, N.S., are applying for incorporation with a capital stock of \$3,200 to chop hay, chaff, etc.

R. W. Richardson will erect a wood-working factory at Hartland, N.B.

The new planing mill of McIntyre, Reinke and Boland, at Eganville, Ont., has started operations. The motive power is electricity.

Kennedy, Davis & Co., Lindsay, Ont., will make extensive repairs to their mill on Pigeon Lake, Man.

It is reported that a pulp mill will be erected in the spring on the Sissiboo river, N.S. Enquire of the Mayor of Digby, N.S.

The Beck Lumber Co., Penetanguishene, Ont., are contemplating the erection of a new mill on the shore of Trading Lake.

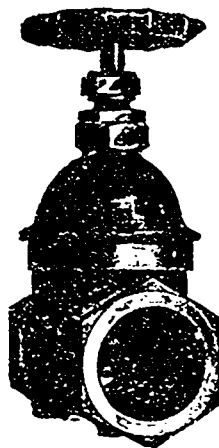
Mr. Mark Waind will establish a glove factory at Georgetown, Ont.

There is a movement on foot to connect Kingston, Ont., Ganarquo, Ont., Rockport, Ont., and Brockville, Ont., by an electric railway.

The Lincoln Radial Electric Railway Company, St. Catharines, Ont., are applying for incorporation to construct and work railway lines by electricity in that place and vicinity.

Thos. Nichol's elevator at Rosebank, Man., was burned a few days ago. Loss about \$7,000.

Moore Bros.' oil plant at Bothwell, Ont., was destroyed by fire Feb. 25th. Loss about \$800.



THE WEBBER PATENT -STRAITWAY VALVE-

For Steam, Water or Gas.

EVERY VALVE TESTED.

The Kerr Engine Co. Ltd.

WALKERVILLE, ONT.

SOLE MANUFACTURERS FOR CANADA

SEND FOR PRICE LIST

TORONTO ELECTRIC
MOTOR CO.



BEWARE
of the
-- PIRATE

A large and pretentious concern doing business in Canada, having no regard for the rights of others, are manufacturing a motor copied, as far as possible, from that made by us, but without the name of the Toronto Electric Motor Co., thereon. Pirates are all communities, and the one here alluded to is a big one, sailing under a high-sounding title. The public should be on their guard against the pirate.

Toronto Electric Motor Co., 107-109 Adelaide St. W.
TORONTO

ANDREW ALLAN
President

J. O. GRAVEL
Secretary-Treasurer

F. SCHOLES
Man.-Director

J. J. MCGILL
General Manager

Canadian Rubber Company

(TORONTO)

OF MONTREAL

(WINNIPEG)

Capital, - - - - - \$2,000,000.00

.....MANUFACTURE ALL KINDS OF.....

RUBBER HOSE

Made with our Patent
Process Seamless Tube

Rubber Valves, Packings, Gaskets, Etc.

Superior Quality RUBBER BELTING the following Grades:

"Extra Star"

"Extra Heavy Star"

"Fine Para"

"C. R. Co. Stitched"

"Forsyth Patent" Seamless

First Quality RUBBER BOOTS and SHOES

Western Branch: Cor. Front & Yonge Sts., Toronto J. H. WALKER, Manager

...INCANDESCENT LAMPS...

Manufactured by....

THE EDISON AND SWAN UNITED ELECTRIC LIGHT CO.

STAND HIGHEST IN THE MARKETS OF THE WORLD
FOR GENERAL ELECTRICAL AND MECHANICAL
PERFECTION, AND ARE MADE FROM 1 TO 2,000 C.P.
IN ALL VOLTAGES, COLORS AND SHAPES . . .

Electrical Supplies of Every Description

JOHN FORMAN, 650 CRAIG STREET MONTREAL



“BLUE SEAL”



“BLUE SEAL” EXTRACTS

For Bottlers.

“Blue Seal” Distilled Ginger Ale Extract (4 ozs. to 1 gal.),	\$5.00 a gal.
“Blue Seal” Birch Beer (1 oz. to 1 gal.)	5.00 „
“Blue Seal” Orange Extract (1 oz. to 1 gal.)	5.00 „
“Blue Seal” Lemon Sour Extract (1 oz. to 1 gal.)	5.00 „
“Blue Seal” Strawberry Extract (1 oz. to 1 gal.)	5.00 „
“Blue Seal” Root Beer Extract (2 ozs. to 1 gal.)	5.00 „
“Blue Seal” Cream Soda Extract (1 oz. to 1 gal.)	8.00 „
“Blue Seal” Sarsaparilla Extract (1 oz. to 1 gal.)	5.00 „
“Blue Seal” Crab Apple Cider Extract (3 ozs. to 1 gal.)	4.00 „
“Blue Seal” Cherry Phosphate Extract (2 ozs. to 1 gal.)	5.00 „

Solubility, Strength, and Flavor Guaranteed.

No charge for packages.

Send for Bottlers’ Price-List.

McKEY & CO., BOSTON.



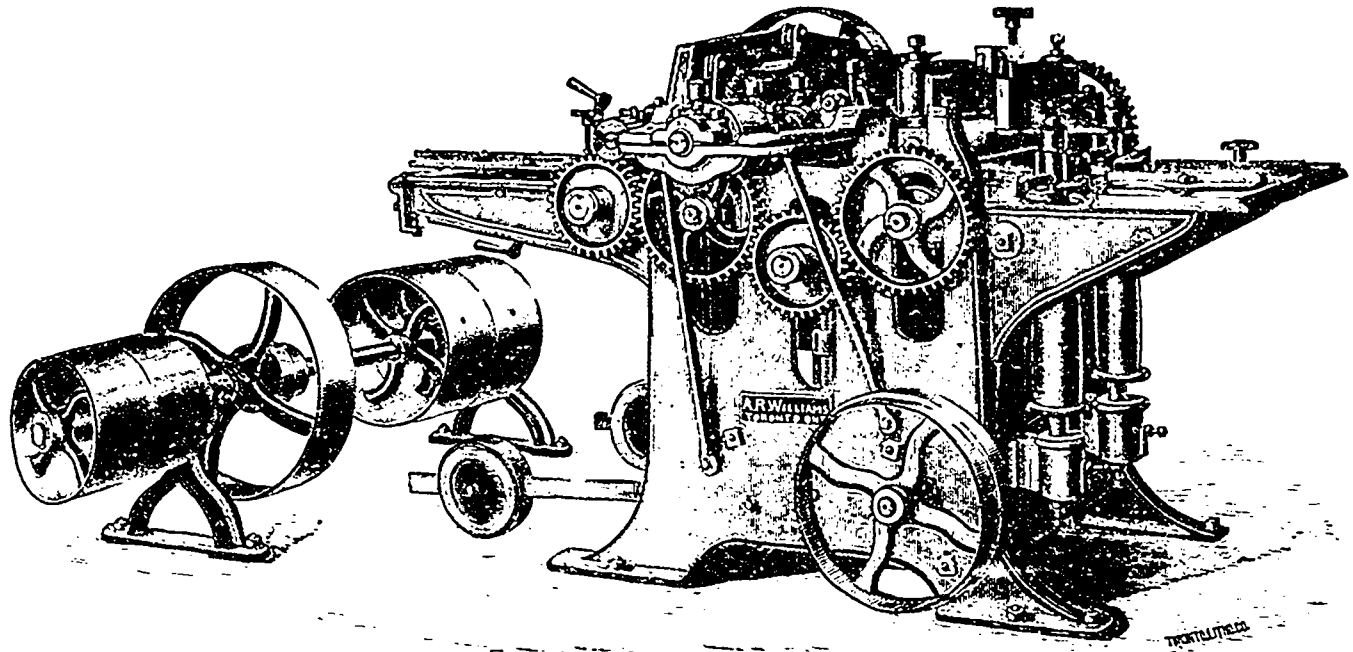
“BLUE SEAL”



ECLIPSE PLANER, MATCHER AND MOULDER COMBINED.

The accompanying illustration represents a somewhat new machine for general planing, matching and moulding, and embodies a

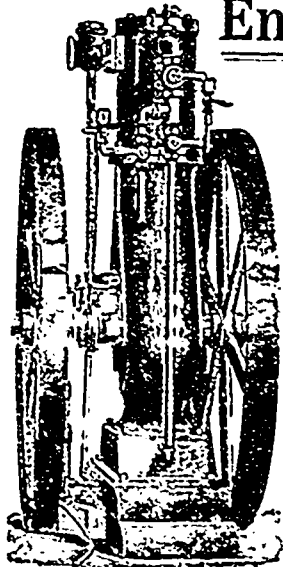
perceptible mark across the lumber. The Ross attachment used in connection with this machine completely obviates this difficulty, as the cylinder is cut off from that portion of the shaft carrying the driving pulley by a coupling with sufficient flexibility to arrest the jar caused by any unevenness in the belt, leaving the cylinder to



number of new features, which by long practical experience have been found desirable in preparing inside wood-work for practical use. In most planing machines the running of the belt over the pulley causes a jar upon the cylinder at every joint of the belt, making a

revolve without the slightest vibration, thus ensuring the desired result of perfectly smooth planing. The cylinder of this machine is also slotted to permit the use of beading, moulding and shaping bits of various patterns; and in the same connection both front and rear pressure bars are ad-

THE ELECTRICAL GAS OR GASOLINE...
Engine



WRITE FOR CATALOG AND TESTIMONIALS

J. R. BAIRD

WOODSTOCK, ONTARIO

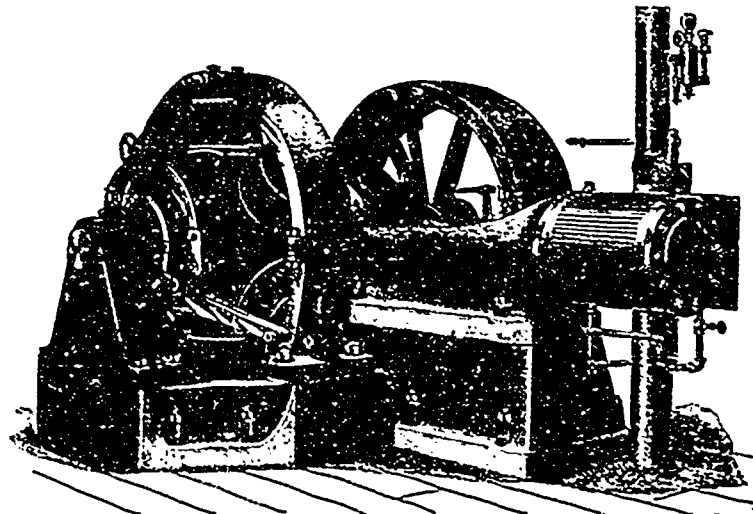
Firstbrook Bros.

Dovetail and Packing Boxes
Top Pins, Side Blocks and Cross Arms, Wood Printers, Etc.
Cigar Boxes, Shipping Cases,
TORONTO, ONTARIO. Write for Prices

ROBB-ARMSTRONG ENGINES.

Simple, Tandem and Cross Compound.

Correct Design



Superior Workmanship

We highly recommend the Robb-Armstrong Engine for direct connection to Dynamo.

Robb Engineering Company (Ltd.)

AMHERST, N.S.

AGENTS-- Canada Machinery Agency, 321 St. James Street, Montreal.
William McKay, Seaforth, Ont., Traveller.

BREWERS COPPER WORK

Brewing Kettles, Boiling Coils,
Beer Coolers, Attenuators,
Spargers, etc., etc.

THE BOOTH COPPER CO.,
TORONTO, ONT. Ltd.
Established 1854

THE UNITED ALKALI COMPANY, Ltd.

OF
ENGLAND

WILSON, PATERSON & CO.

MONTREAL, Sole Agents

CAUSTIC SODA, 60°, 70°, 71°, 76°, 77°; SODA ASH, all strengths;
SAL. SODA; PURE ALKALI, 58°.

Sulphate of Alumina, Borax, Caustic Potash, Hyposulphite of Soda, Bichromate of Soda, Silicate of Soda, Crystal Carbonate, Coconut Oil, Palm Oil, Castor Oil, Cottonseed Oil, Rosin Oil.

ROSIN of all Grades. SOAP MAKERS SUPPLIES
New York Office, 134 Front St.

AUSTRALIA.

Boswell, Son & Gilbert
CANADIAN MANUFACTURERS' AGENTS

Wynyard Square, Sydney, New South Wales.

All Communications promptly attended to.

References : { Menzie, Turner & Company, Toronto.
Dominion Suspender Co., Niagara Falls, Ont.

justable to and from the cylinder to allow the projecting knife to revolve.

The rollers, both top and bottom, are power driven, thus ensuring a powerful feed, at the same time the bed is solid, which is found necessary to ensure perfect planing.

The pressure bars and rollers are so arranged that very short material can be passed through and planed perfectly without in any way gouging at the ends of the stick.

The A. R. Williams Machine Co., Ltd, at their Soho Machine Works, Toronto, show samples of the work done on this machine, forwarded to them by Messrs. Knight Bros., of Burks Falls, Ont. These samples consist of birch and other woods dressed for ceiling, wainscoting, siding, flooring, etc. The work is shown just as it came from the machine, and is certainly of a most excellent description.

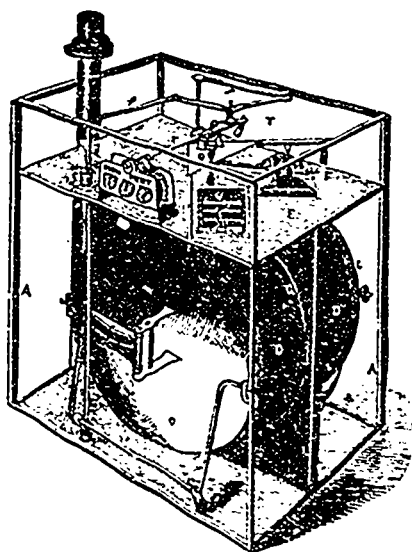
Messrs. Knight Bros., we understand, have built up a very large trade in this line of builders' supplies, and have adopted the name of the machine in describing their large output, designating it the Eclipse wainscoting, siding, etc.

This invention was made by Mr. Josiah Ross, of Buffalo, N.Y., who has patented the device in the United States and Canada, and who receives from the manufacturers for Canada, The A. R. Williams Machinery Co., a royalty on every machine to which it is applied. We are assured by the Canadian manufacturers of this machine that this device has been pronounced a decided improvement upon planing machines by all who have tested it practically.

We understand the manufacturers are meeting with very large sales of this machine, and when we consider the variety of work it is capable of performing, we do not wonder at their success.

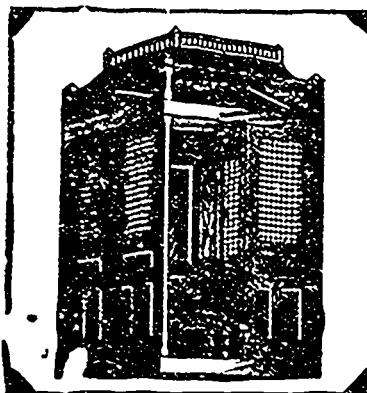
THE MOORE GAS METER.

The accompanying illustration is of the Moore Gas Meter, manufactured by the Dominion Gas Meter Works, London, Ont., of



which Mr. John S. Moore is proprietor. Mr. Moore has had over forty years of practical experience in the manufacture of every description and variety of gas meters, both wet and dry, his instruments always ensuring the most accurate measurement, by compensation, which is so essential, while there is the least possible friction or liability to derangement. All of the working parts are constructed of anti friction metal, without any complex or intricate arrangements, the diaphragm being made from a specially prepared material. Mr. Moore has evidence in

his possession to show that some of the meters manufactured by him have been in constant service for thirty years without the necessity of replacing a diaphragm. These meters and station meter drums are made to order in any required size. For further information apply as above.



ELEVATORS

FENSOM ELEVATOR
WORKS
52-54-56 DUKE ST
TORONTO.

ELECTRIC HYDRAULIC
STEAM & HAND-POWER
PASSENGER & GOODS
ELEVATORS. DUMB WAITERS

THE BRITISH COLUMBIA SMELTING INDUSTRY.

Looking back over a period of less than two years, the progress made in the development of the smelting industry in British Columbia must be regarded as eminently satisfactory. Regarding it, the Vancouver Statistic News Advertiser says.—In 1894 there was not a single smelter in operation. The two or three attempts which had been made to smelt the ores mined in the Province within its boundaries, had been fruitless of any satisfactory results. Although two smelters had been built in the Kootenay District they had remained idle, and that fact had led many persons to believe that the day was far distant when we should do anything more than raise the ores and leave to the people of a foreign country the profit to be derived from the treatment of the mineral of which our Province possesses such rich abundance. While these views were too pessimistic, there were undoubtedly many difficulties and obstacles in the way of the establishment of a smelting industry. Some of these arose from natural conditions in regard to fluxes and fuel and from the character of the ores. Others were caused by the fiscal policies of other countries and by the comparatively small market in Canada for certain metallic products, which of course, made capitalists hesitate to invest large sums in costly plants, for the output of which it might be difficult to find ready and profitable markets.

Having regard to those things we cannot but consider the situation to-day as most satisfactory. Much has already been accomplished; the outlook is bright for still greater achievements in the immediate future. Two smelters are already in successful operation in West Kootenay; another, and one still larger than these two, is nearing completion. When it is in blast the smelting capacity of that district will be nearly 500 tons of ore per day, with arrangements that will enable the capacity of at least two of the plants to be doubled at comparatively small expense. Even with the drawback under which the industry labors in regard to the distance from which the supply of coke has to be brought, the smelters appear to be financially successful and there seems to be a probability that before very long the vast deposits of coking coal in the Crow's Nest Pass district will be available and a now and greatly more favorable condition of things result therefrom.

It must also not be forgotten that this excellent progress in our smelting industry has been made with the depressed state of the markets for lead and silver. The means of transportation from some of the best mining sections are also either entirely lacking or in a very primitive state, consisting of only trails or wagon roads in bad condition. All these things tend to check the output of ore and to make the owners of veins of large size but of low grade ore disinclined to ship, and in some cases even to work their properties.

The change which the next few months are likely to make for the better in all these circumstances, is practically an immense reserve which can—and will—be drawn upon in the development of our mining industry. We do not think that it is taking too sanguine a view of the situation to anticipate that the beginning of the year 1897 will find the smelting capacity of the West Kootenay district alone at least 1,000 tons of ore per day while in other parts of the Province, where either mineral deposits, or favorable transportation and other conditions, point out a locality as a suitable place for such an industry, we shall see smelters erected and in profitable operation. Certainly the important part which British Columbia is to play in the industrial development of Canada is being rapidly and satisfactorily shown, and the results to the western section of the Dominion it will be difficult to exaggerate.

Babbitt

Without **COPPER** properly amalgamated with the other ingredients by thorough practical Metallurgists is **UNRELIABLE**.

DO YOU USE BABBITT?

If so, get the best value for your money by asking your supplier for that made by

GEO. LANGWELL & SON

10 and 12 Dorchester St. East, MONTREAL

KEYSTONE INCANDESCENT LAMP

FOR MULTIPLE OR SERIES CIRCUITS

W. A. JOHNSON ELECTRIC CO.'Y
34 YORK STREET, TORONTO, ONT.

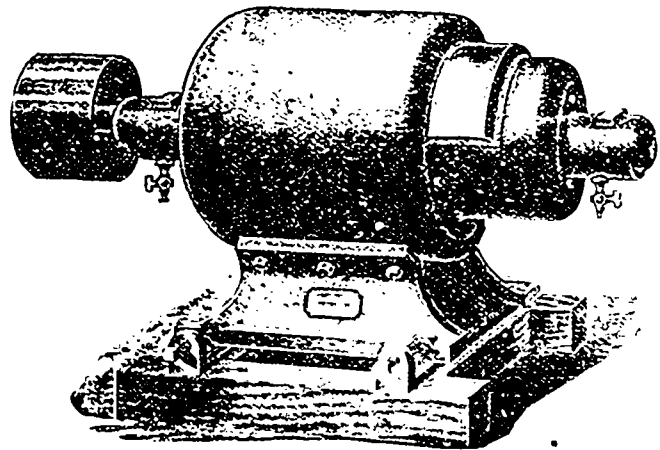
The STOREY STEEL MOTOR and DYNAMO

Manufactured by

The Storey Motor and Tool Co.

JOHN STREET NORTH, HAMILTON, CAN., AND PHILADELPHIA

The Storey Motor and Tool Co. manufactures the following:—
 - Steam Engines, from 10 to 100 H.P.
 - Compound Engines, from 10 to 100 H.P.
 - High Speed Engines, from 10 to 100 H.P.
 - Vertical Engines, from 10 to 100 H.P.
 - Horizontal Engines, from 10 to 100 H.P.
 - Compound Engines, from 10 to 100 H.P.
 - High Speed Engines, from 10 to 100 H.P.
 - Vertical Engines, from 10 to 100 H.P.
 - Horizontal Engines, from 10 to 100 H.P.



OXY-DIAMINE BLACK S 000, PATENTED.

MANUFACTURED BY LEOPOLD CASSELLA & CO.

Messrs. Wm. J. Matheson & Co., New York and Montreal, have sent in a card descriptive of this dyestuff, accompanied with specimens of three dyeings done with it. Regarding it they say that compared with their already well-known Oxy-Diamine Black N it shows the following advantages :

- 1st. A better solubility.
 - 2nd. A brighter shade, Oxy-Diamine S 000 dyes not only deep blacks, but also very handsome blue blacks.
 - 3rd. It is remarkably well adapted for dyeing mixed goods.
- Oxy-Diamine Black N owing to its great tinctorial power will retain its importance for the production of low priced one dip blacks on cotton, Oxy-Diamine Black S 000 will find its principal use, where the properties above enumerated are of value.

Cotton.—Oxy-Diamine Black S 000 is dyed with the addition of two per cent. soda and fifteen per cent. Glaubers salt or twenty per cent. Glaubers salt only. The shade becomes handsomer by passing the cotton after dyeing through a cold or tepid soap bath containing one-third ounce of soap per gallon water or through an oil bath, the method of preparing which they give.

Oxy-Diamine Black S 000 will render excellent services for dyeing cops and hobbins, as it penetrates easily and yields in continuous dyeing a good black with only three to three-and-half per cent. dye-stuff. For the purposes of this industry the dye-stuff is best dis-

solved with the addition of its weight of soda crystals (or one-third of same of calcinated soda) and then added to the apparatus.

For low priced dark blues the dye-stuff will also prove very useful both in direct dyeings as well as shaded with the various Diamine Blues.

Diazotised and developed it is also of importance, as two-and-a-half to three-and-half per cent. Oxy-Diamine Black S 000 developed with Beta-Naphtol or Phenylendiamine yield from dark blue to black shades which, although less bright than those produced with our Diamine Blacks BO and BH, cover so well, that especially the black developed with Phenylendiamine can very well be used as a substitute for logwood. The fastness to washing, milling and acids of this developed black is excellent.

In cotton and wool mixed goods Oxy-Diamine Black S 000 dyes the cotton deeper than the wool; thus it is well suitable for shading Union Black S, if by the latter the cotton is not sufficiently covered.

In analogous cases Oxy-Diamine Black S 000 is of importance for cotton and silk mixed goods. It covers the cotton well, and the silk can afterwards be shaded at will with basic or acid dyes to a good black, as Oxy-Diamine Black S 000 is not impaired by acids.



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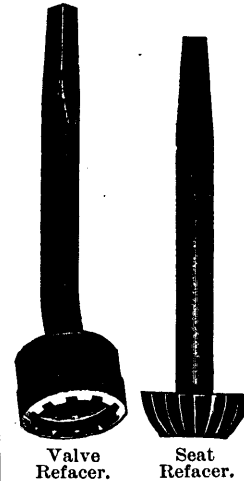
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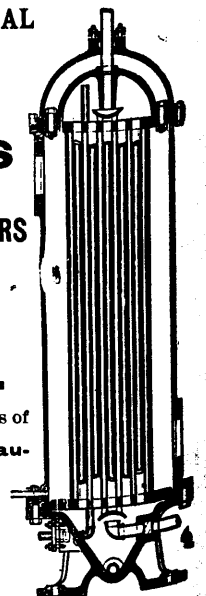
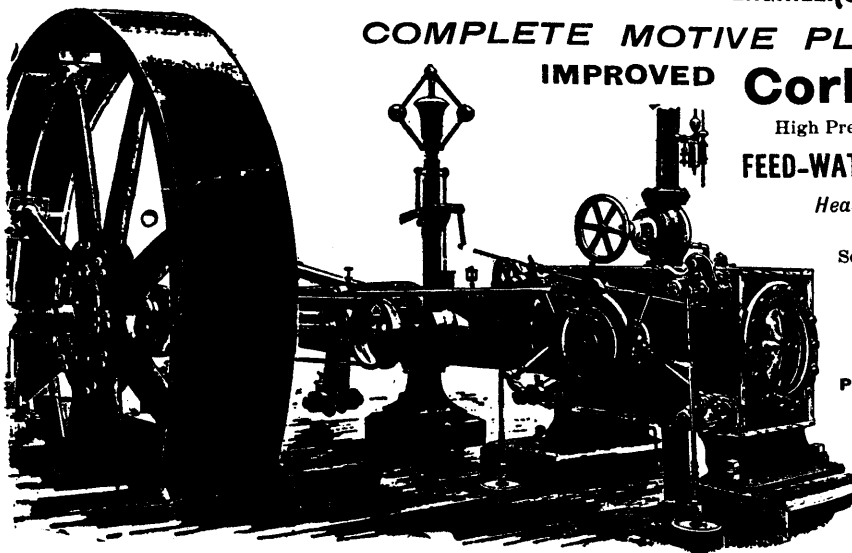
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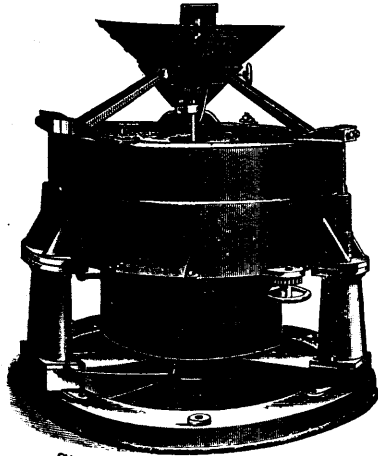
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THE STURTEVANT GRINDER.

We have received the following notice from the Sturtevant Mill Co., introducing their new Horizontal Mill :-

This Rock Emery Mill illustrates the readiness with which new things are produced when really wanted. The emery-millstone, as is now well known, is the finest as well as the fastest grinder in the world, but these qualities cannot be fully brought out in an ordinary mill-frame. Any stone to grind fine and run fast, must be carefully balanced in a mill-frame that will not vibrate. Every vibration throws the stones out of tram and lets out coarse products.



Sturtevant Rock Emery Mill.

The cut sufficiently shows the great strength and small height of the Sturtevant Horizontal Emery Mill-frame. The five inch shaft, to which the running stone is firmly fixed, is so short and rigid that the emery stone, always carefully made, runs with as

little vibration as a clock. To millers this will scarcely seem possible, but is a fact, and these mill-frames are guaranteed to do finer grinding than anything heretofore seen. The upper stone is raised and lowered by means of the hand-wheel, but the stones themselves are, by a simple automatic device, kept always in a perfect tram, without any attention of the miller.

Bits of iron or other material, accidentally between the stones do no harm, as they are automatically released, and thrown out of the mill. The bearings are bronze, and run in oil. The bedstone is bolted in, and cannot be got in wrong. It is difficult to obtain skilled millers, and this mill-frame, with emery stones, not only grinds everything faster and finer than others, but the emery mill is capable of reducing substances that would soon destroy any other grinder.

It is constructed to do a large amount of work, and to give the least possible trouble. Its few parts are interchangeable, and can be re-placed at small expense.

We think that any miller will recognize by the cut that this mill is the simplest, strongest, and by far the best he has yet seen. The face of the rock emery stone, it will be remembered, requires no dressing and is always sharp.

President Osler, of the Hamilton and Dundas railway, is making arrangements to convert the road into a trolley line as soon as the Myles lease expires in June. He has sent a petition to the city council asking that a by-law be prepared to enable the company to make the change.—Hamilton Spectator.

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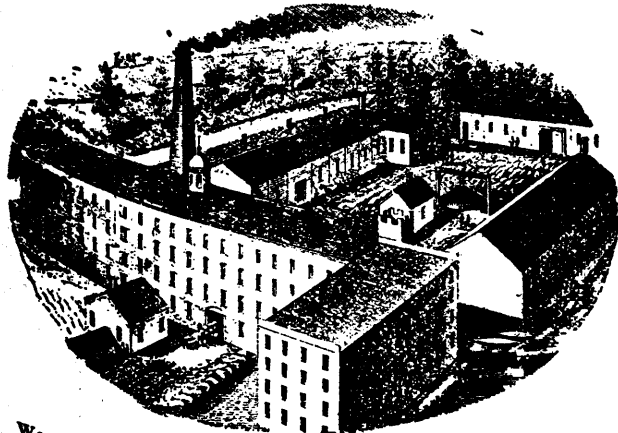
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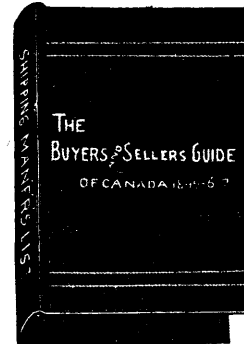
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I also have for sale, one set of 48 inch Cards, 2 sets of 60 inch Cards, 4 Tatham Mules, 20 Broad Looms, 2 English Gigs, 2 Chinchilla Machines, Eight 60 inch Shoddy Cards, 2 Fulling Machines, 3 Shoddy Pickers, 1 Rag Duster, etc., etc.

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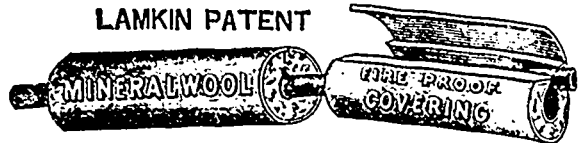
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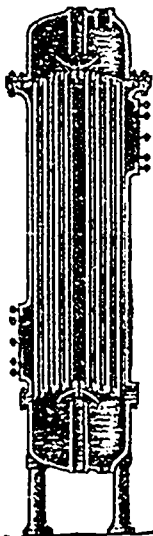
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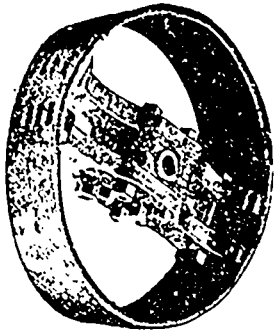
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Wishing you every prosperity
Yours truly

A. Lindsay

Manager

CANADIAN PATENTS.

The following patents have been issued from the Canadian Patent Office, from December 13th to December 28th, 1895.

Information regarding any of these patents made be had on application as follows.—

Fetherstonhaugh & Co., Bank of Commerce Building, Toronto.
Ridout & Maybee, 103 Bay Street, Toronto.

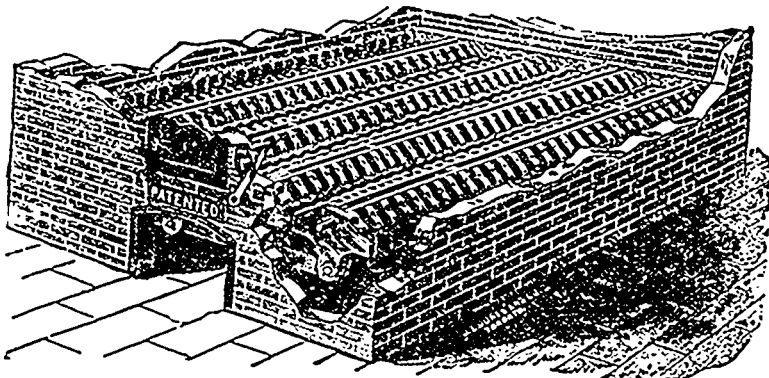
C. H. Riches, Canada Life Building, Toronto.

A. Harvey, Central Chambers, Ottawa.

Copies of any American patents can be procured from either of these attorneys for the sum of twenty-five cents each.

- 50,815 Electric railway system, John La Burt, Brooklyn, N.Y.
50,816 Toe calk, Thos. B. Huestis, Chelsea, Mass., Charles M. Bunker and R. B. Richardson, Boston, Mass.
50,817 Feed water heater, Henry G. Keasbey, Ambler, Pa.
50,818 Feed water heater, Henry G. Keasbey, Ambler, Pa.
50,819 Feed water heater, Henry G. Keasbey, Ambler, Pa.
50,820 Machine for erecting frame structures, Josiah Fairbank, Helena, O.
50,821 Photographic developing tray, Wm. I. Rood, Spencer, Ia.
50,822 Electric lamp, Wm. H. Sheppard, New York, N.Y.
50,823 Boiler covering, James W. McKenzie, Montreal.
50,824 Can soldering machine, Edward P. Holden, Chicago, Ill.
50,825 Crate for shipping fruit, etc., Asa S. Sherman, Canastota, N.Y.
50,826 Tool for drawing bolts, etc., Howell N. Lewis, Green Cove Springs, Fla.
50,827 Saw clamp, Aaron T. Binkerd, Alleghany, Pa.
50,828 Bed clamp, Henry J. Ney, Pottsville, Pa.
50,829 Pneumatic tire, Geo. W. Grote and David W. Alexander, Toronto.
- 50,830 Platform and tank for setting tires, Geo. E. Meyer and Keillor, Wallace town, Ont., and John N. Caswell, Detroit, Ont.
50,831 Car coupler, Hermann Butschbach, Altonkirchen, Prussia.
50,832 Wagon tire heater, Isaac Harvey, Hartley, Ia.
50,833 Hot water heating apparatus, Oliver Schlemmer, Cincinnati, O.
50,834 Valve, Henry C. Hodges, Detroit, Mich.
50,835 Method of and apparatus for removing snow, etc., Richard Ripley, Liverpool, Eng.
50,836 Baby carriage, Julius Paulsen, Neuenkirchen, Prussia.
50,837 Steam generator and water circulator, The Hascall Richard Steam Generator Co., assignee of Jas. J. Bask, Boston, Mass.
50,838 Automatic railway signal, J. Forster, Lancaster, Eng.
50,839 Bottle stopper, Ignatz Martin, assignee of Mathilda Schatz, Brooklyn, N.Y.
50,840 Ash sifter, Robt. S. Thwaite, Little Falls, N.J.
50,841 Bicycle costume, Frederick J. H. Hazard, Toronto.
50,842 Machine for raising out of wells and separating gas and water, James Decow, Ridgetown, Ont.
50,843 Car fender, Oliver Malette, Montreal.
50,844 Door securer, Barney Murphy, New Haven, Conn.
50,845 Corn holder, Thos. F. Boyce, New York, N.Y.
50,846 Gravity railway, Paul Boyton, New York, N.Y.
50,847 Device for photographing by electric light, Andrew G. Adamson, Glasgow, North Britain.
50,848 Electric railway switch, Loyall A. Osborne, Newark, N.J.
50,849 Step-ladder, Maxwell Minier, Elmira, N.Y.
50,850 Loom, John Poyser, Mansfield, Eng.
50,851 Process of and apparatus for the manufacture of barrels, Josef Polko, Vienna, Austria.
50,852 Bicycle brake, Wm. L. Stewart, Wilmerding, Pa.
50,853 Oil purifier, David H. McClelland, New York, N.Y.
50,854 Saw mill carriage, Noah Shaw, Eau Claire, Wis.

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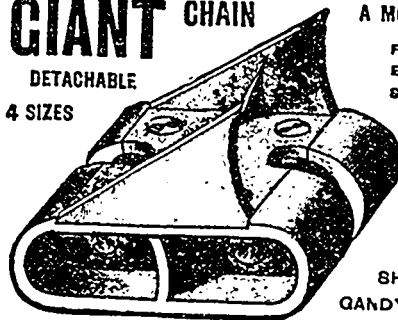
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- 50,860 Water closet, Henry B. Dunedin, New Zealand, and Chas. Wm. Anderson, Hull, Eng.
- 50,861 Machine for cleaning and sorting grain, etc., August Schnotzer, Budapest, Hungary.
- 50,862 Door check, Thos. Barnes, Rawlms, Wyoming.
- 50,863 Foot brush, John Mellor, Aspen, Col.
- 50,864 Churn dasher, Jacob J. A. Morath, Clayton, Mo.
- 50,865 Boiler, Joseph J. Bohner, Brooklyn, N.Y.
- 50,866 Machine for threshing, shelling and dressing clover, John Greenslade, Canterbury, New Zealand.
- 50,867 Chimney cowl or ventilator, Milo H. Ingalls, North Granville, N.Y., and Truman E. Ingalls, Troy, N.Y.

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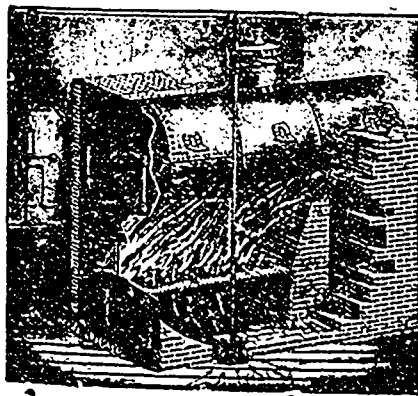
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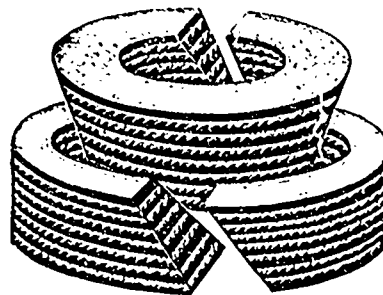
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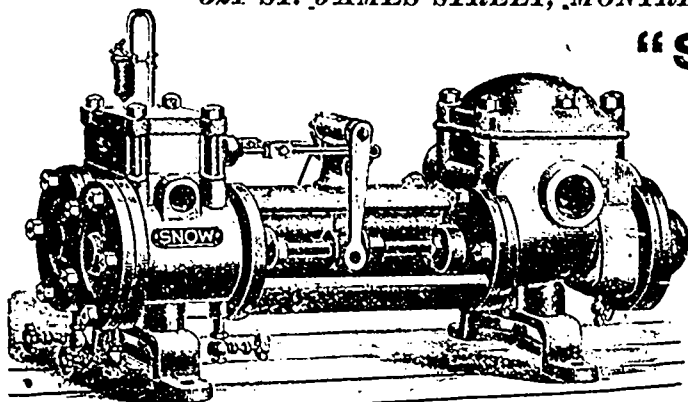
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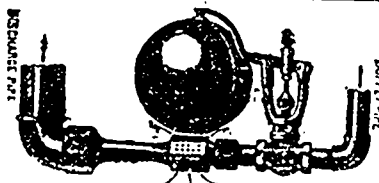
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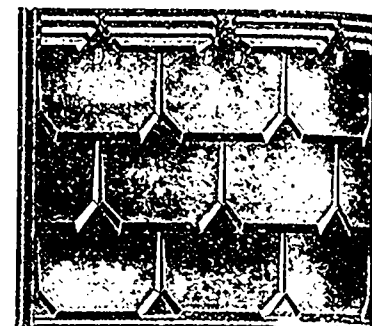
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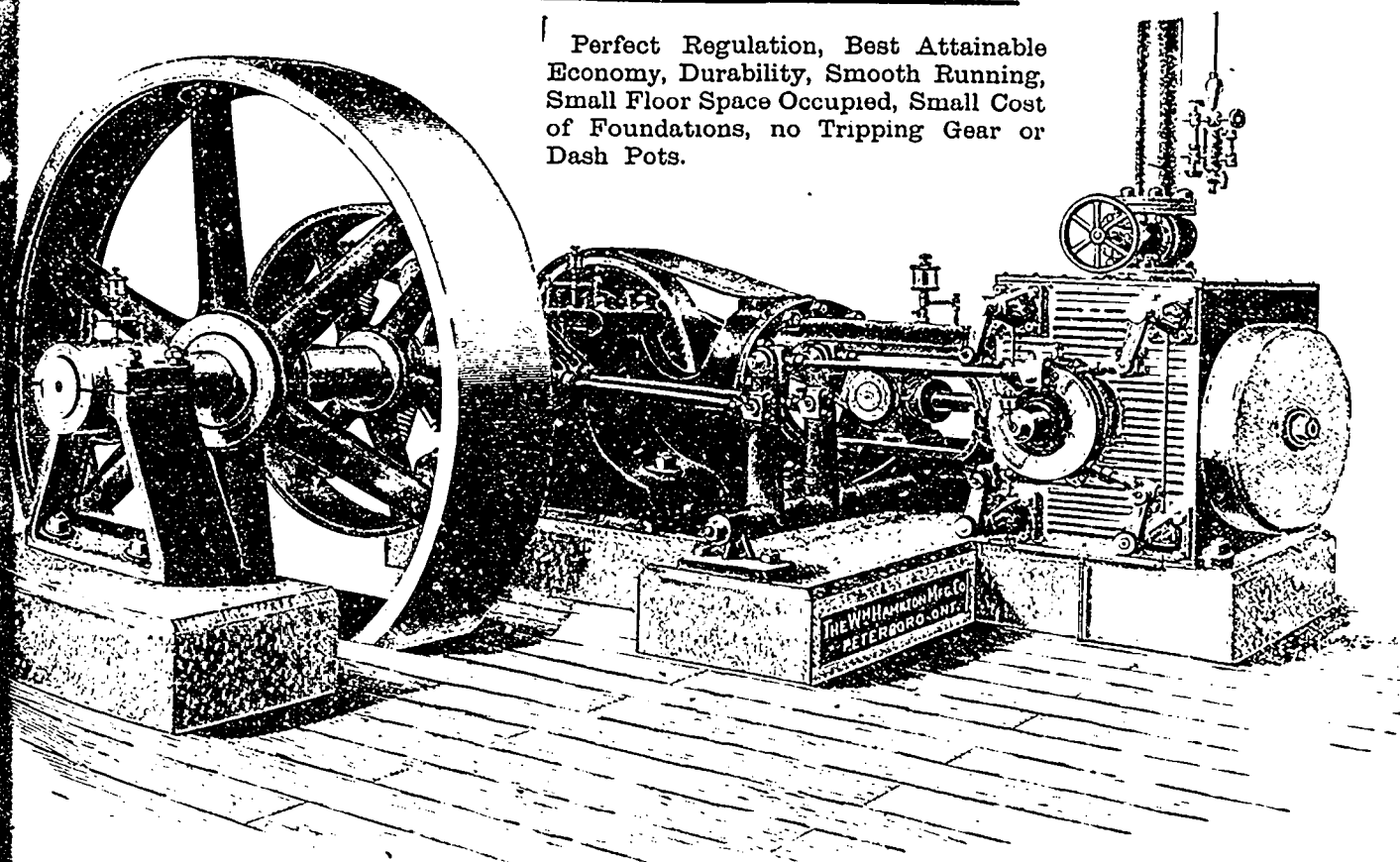
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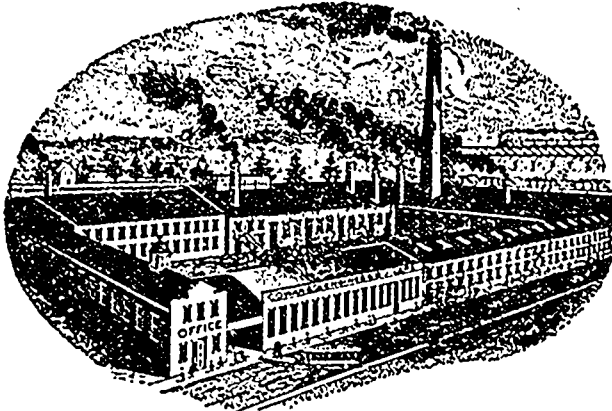
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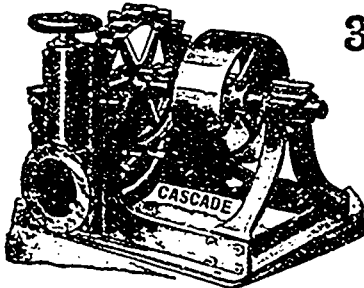
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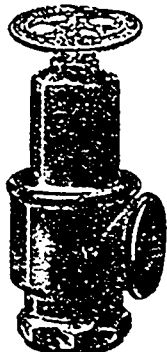
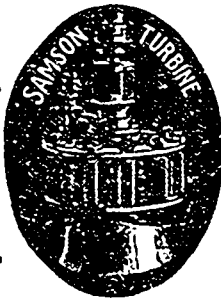


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- 50,940 Fluid pressure brake, John G. A. Kitchen, Manchester, Eng.
- 50,941 Metallic wheel and axle, Isaac Davis, Armodale, Victoria, N. S. W.

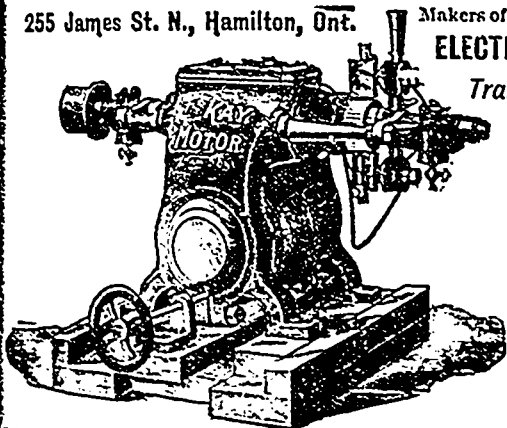
United States Patents to Canadian Inventors.

Since our last issue, United States patents to Canadian inventors have been issued as follows:—

- 554,734 Die for forging reamer-blanks, Wm. Ross, Montreal, Que.
- 554,766 Electric clutch, T. A. Briggs, Niagara Falls, Ont.
- 554,802 Machine for pulverizing quartz, F. W. Thomson, Fort William, Ont.
- 554,944 Stand for shoeing horses, David Menard, St. Paul d'Abotsford, Que.
- 554,996 Cooking utensil, H. H. Fern Digby, N. S.
- 555,064 Belt coupling, H. S. Arnfield, Preston, Ont.
- 555,081 Railway, V. A. Edmond, Quebec, Que.
- 555,252 Electrical propulsion of vehicles, E. A. LeSueur, Ottawa, Ont.
- 555,364 Car coupling, D. Colen, Inwood, Ont.
- 555,409 Pianoforte, R. M. Squire, Montreal, Que.
- 555,454 Railway cleaner, Robert Leslie, Toronto Junction, Ont.

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1½	1½	5.01	"	3	2½	22.50	"
1½	1½	5.94	"	3½	3½	26.00	"
1½	1½	7.40	"	3½	3½	30.94	"
2	1½	9.83	0 04	4	4	42.33	0 05
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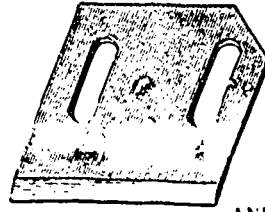


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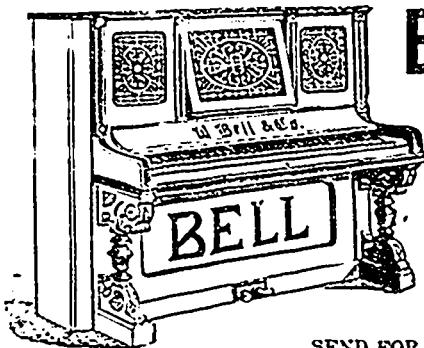
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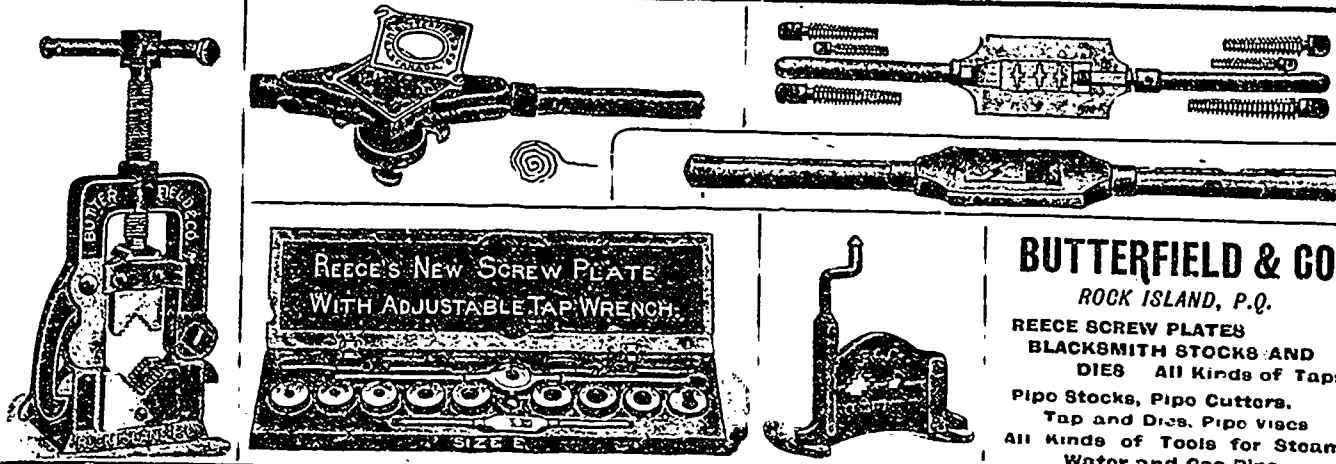
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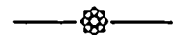
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