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THE CANADIAN MANUFACTURER
 AND INDUSTRIAL WORLD
 DEVOTED TO THE MANUFACTURING INTEREST OF THE DOMINION

Vol. 27.

TORONTO, APRIL 6, 1894.

No. 7.

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See Advertisement. page 269

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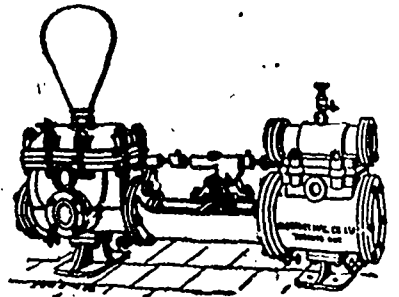
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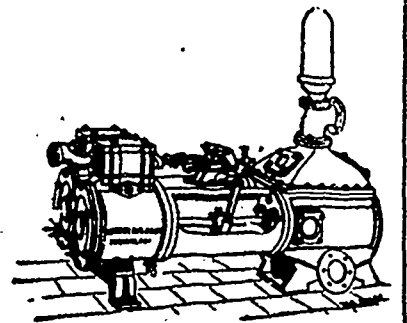
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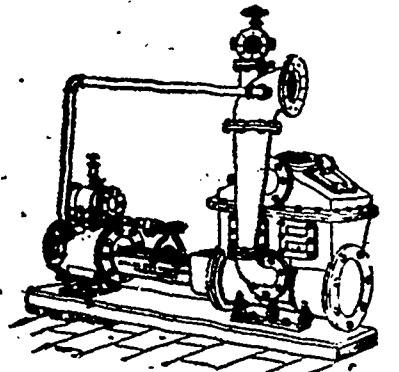


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THE NEW CANADIAN TARIFF.

To the exclusion of all editorial matter in this issue, we give place to the entire reproduction of the new tariff bill introduced by Mr. Foster, the Minister of Finance, in the Dominion House of Commons, sitting in Committee of Ways and Means on March 27. The importance of this tariff to the whole country, and particularly to our manufacturers, demands that it be thus given. It became the law of the land at the hour it was presented in the House, and it will remain so, with such changes and modifications as it may undergo during the consideration it is now receiving. There are many features of it that commend

themselves most strongly to the favourable consideration of the country; and there are other features that will require considerable alteration before they can be adapted to the circumstances which environ us. It shows the result of the hard, thoughtful labor that has been bestowed upon it; and that Minister Foster and his colleagues have been entirely impartial in adjusting it. We are satisfied that in its passage through Committee all its good features will be retained, and we are equally satisfied that, as they are pointed out, the objectionable features will be eliminated.

THE CANADIAN TARIFF.

CORRECTED COPY.

Resolutions Moved by Hon. Geo. E. Foster, Minister of Finance, in Committee of Ways and Means.

1. Resolved, That it is expedient to revise and consolidate the Acts and parts of Acts now in force respecting the duties of Customs, and that for this purpose it is expedient to repeal the following Acts or parts thereof not heretofore repealed, viz:—

The Act, Chapter 33, Revised Statutes, intitled: "An Act respecting the duties of Customs."

50-51 Victoria, Chapter 39, intitled: "An Act to amend the Act respecting the duties of Customs."

53 Victoria, Chapter 20, intitled: "An Act to amend the Acts respecting the duties of Customs."

53 Victoria, Chapter 21, intitled: "An Act to amend the Act of the present session, intitled: 'An Act to amend the Acts respecting the duties of Customs.'"

54-55 Victoria, Chapter 45, intitled: "An Act to amend the Acts respecting the duties of Customs."

55-56 Victoria, Chapter 21, intitled: "An Act further to amend the Acts respecting the duties of Customs."

56 Victoria, Chapter 16, intitled: "An Act further to amend the Acts respecting the duties of Customs."

And to provide otherwise by enacting that the following be substituted in lieu thereof:—

1. That unless the context otherwise requires—

(a) The initials "n.e.s." represent and have the meaning of the words "not elsewhere specified";

(b) The initials "n.o.p." represent and have the meaning of the words "not otherwise provided for";

(c) The initials "f.o.b." represent and have the meaning of the words "free on board";

(d) The expression "gallon" means an Imperial gallon;

(e) The expression "ton" means two thousand pounds avoirdupois;

(f) The expression "proof" or "proof spirits," when applied to wines or wine spirits of any kind, means spirits of a strength equal to that of pure ethyl alcohol compounded with distilled water in such proportions that the resultant mixture shall at a temperature of sixty degrees Fahrenheit have a specific gravity of 0.9198 as compared with that of distilled water at the same temperature.

(g) The expression "gauge," when applied to metal sheets or plates or to wire, means the thickness as determined by Stubbs' Standard Gauge;

(h) The expression "in diameter," when applied to tubing, means the actual inside diameter measurement;

(i) The expression "sheet," when applied to metals, means a sheet or plate not exceeding three-sixteenths of an inch in thickness;

(j) The expression "plate," when applied to metals, means a plate or sheet more than three-sixteenths of an inch in thickness.

2. That the expressions mentioned in section two of "The Customs Act," as amended by section two of "The Customs Amendment Act, 1888," whenever they occur herein, or in any Act relating to the Customs, unless the context otherwise requires, have the meaning assigned to them respectively by the said sections two; and any power conferred upon the Governor in Council by "The Customs Act" to transfer dutiable goods to the list of goods which may be imported free of duty is not hereby abrogated or impaired.

3. That the whole or part of the duties hereby imposed upon fish and other products of the fisheries may be remitted as respects either the United States or the Island of Newfoundland, or both, upon the proclamation of the Governor in Council, which may be issued whenever it appears to his satisfaction that the Governments of the United States and the Island of Newfoundland, or of either of them, have made changes in their tariffs of duties imposed upon articles imported from Canada in reduction or repeal of the duties in force in the said countries respectively.

4. That whenever it appears to the satisfaction of the Governor in Council that the Governments of France and Spain, or either of them, have made changes in their tariff of duties imposed upon articles imported from Canada, in reduction or repeal of the duties now in force in the said countries, he may by proclamation order the whole or part of the duty of thirty per centum and valorem hereby imposed

upon wines imported into Canada to be remitted as respects importations from the said countries, or from that one of the said countries by the Government of which such change in its tariff of duties has been made as aforesaid.

5. That any goods or packages being the growth, produce or manufacture of Canada, and having been exported therefrom and intended to be returned, may be admitted free of duty on being re-imported into Canada, provided such goods or packages were entered for exportation, and branded or marked by a collector or proper officer of Customs, and are fully identified by the collector or proper officer at the port or place where they are so re-imported; and provided further, that the property in such goods or packages has continued in the same person or persons by whom they were exported, and that such re-importation takes place within one year of the exportation thereof.

6. That all medicinal or toilet preparations imported for completing the manufacture thereof, or for the manufacture of any other article by the addition of any ingredient or ingredients, or by mixing such preparations or by putting up or labelling the same, alone or with other articles or compounds, under any proprietary or trade name, shall be irrespective of cost, valued for duty and duty paid thereon at the ordinary market value in the country whence imported of the completed preparation when put up and labelled under such proprietary or trade name, less the actual cost of labor and material used or expended in Canada in completing the manufacture thereof or of putting up or labelling the same.

7. That all medicinal preparations, whether chemical or otherwise, usually imported with the name of the manufacturer, shall have the true name of such manufacturer and the place where they are prepared permanently and legibly affixed to each parcel by stamp, label or otherwise; and all medicinal preparations imported without such names so affixed shall be forfeited.

8. That on imported Indian corn, to be kiln-dried and ground into meal for human food, or ground into meal and kiln-dried for such use, under such regulations as are made by the Governor in Council, there may be allowed a drawback of ninety per cent of the duty paid.

9. That any person who, without lawful excuse, the proof of which shall be on the person accused, sends or brings into Canada, or who, being in Canada, has in his possession, any bill-heading or other paper appearing to be a heading or blank capable of being filled up and used as an invoice, and bearing any certificate purporting to show, or which may be used to show, that the invoice which may be made from such bill-heading or blank is correct or authentic, is guilty of a misdemeanor and liable to a penalty of five hundred dollars, and to imprisonment for a term not exceeding twelve months, in the discretion of the court, and the goods entered under any invoice made from any such bill-heading or blank shall be forfeited.

10. That the export of deer, wild turkeys, quail, partridge, prairie fowl and woodcock in the carcase or parts thereof, is hereby declared unlawful and prohibited; and any person exporting or attempting to export any such article shall for each such offence, incur a penalty of one hundred dollars, and the article so attempted to be exported shall be forfeited, and may, on reasonable cause of suspicion of intention to export the same, be seized by any officer of the Customs, and, if such intention is proved, shall be dealt with as for breach of the Customs laws; Provided, that this section shall not apply to the export, under such regulations as are made by the Governor in Council, of any carcase or part thereof of any deer raised or bred by any person, company or association of persons upon his or their own lands.

11. That regulations respecting the manner in which molasses and syrups shall be sampled and tested for the purpose of determining the classes to which they shall belong with reference to the duty chargeable thereon shall be made by the Controller of Customs; and the instruments and appliances necessary for such determination shall be designated by him and supplied to such officers as are by him charged with the duty of sampling and testing such molasses and syrups; and the decision of any officer (to whom is so assigned the testing of such articles) as to the duties to which they are subject under the tariff shall be final and conclusive, unless upon appeal to the Commissioner of Customs within thirty days from the rendering of such decision, such decision is, with the approval of the Controller, changed; and the decision of the Commissioner with such approval shall be final.

12. That in the case of all wines, spirits, or alcoholic liquors subject to duty according to their relative strength of proof, such strength shall be ascertained either by means of Sykes' hydrometer or of the specific gravity bottle, as the Controller of Customs may direct; and in case such relative strength cannot be correctly ascertained by the direct use of the hydrometer or gravity bottle, it shall be ascertained by the distillation of a sample and the subsequent test in like manner of the distillate.

13. That subject to the foregoing provisions and to the requirements of the "Customs Act," (Chapter 32 of the Revised Statutes, as amended) there shall be levied, collected and paid upon all goods enumerated, or referred to as not enumerated in Schedule A hereto appended,—the several rates of duties of Customs set forth and described in the said Schedule and set opposite to each item respectively or charged thereon as not enumerated, when such goods are imported into Canada or when taken out of warehouse for consumption therein:

(2.) That subject to the same provisions and to the further conditions contained in Schedule B hereto appended, all goods enumerated

in the said Schedule B may be imported into Canada or may be taken into warehouse for consumption therein, without the payment of any duties of Customs thereon:

(3.) That the importation into Canada of any goods enumerated, described or referred to in Schedule C hereto appended, is prohibited, and that any such goods if imported shall thereby become forfeited to the Crown and shall be destroyed, and that any person importing any such prohibited goods or causing or permitting the same to be imported shall in each case incur a penalty of two hundred dollars.

2. Resolved, That it is expedient to cancel all Orders in Council and all Departmental regulations contrary to or inconsistent with any of the provisions of the foregoing resolutions or of the Schedule thereto.

3. Resolved, That it is expedient to provide that the foregoing resolutions and the alterations thereby made in the rate of duties of Customs payable on goods imported into Canada shall take effect on and after the 27th day of March instant.

SCHEDULE "A."

Ales, Beers, Wines and Liquors.

Ale, beer and porter, when imported in casks or otherwise than in bottle, sixteen cents per gallon. (See old item No. 123.)

Ale, beer and porter, when imported in bottles (six quart or twelve pint bottles to be held to contain one gallon), twenty-four cents per gallon. (See old item No. 124.)

Cider, not clarified or refined, five cents per Imperial gallon. (See old item No. 125.)

Cider, clarified or refined, ten cents per imperial gallon.

Lime juice and fruit juices, fortified with or containing not more than twenty-five per cent of proof spirits, sixty cents per gallon; and when containing more than twenty-five per cent of proof spirits, two dollars per gallon.

Lime juice and other fruit syrups and fruit juices, n.o.p., twenty per cent *ad valorem*.

Spirituous or alcoholic liquors, distilled from any material, or containing or compounded from or with distilled spirits of any kind, and any mixture thereof with water, for every gallon thereof of the strength of proof, and when of a greater strength than that of proof, at the same rate of the increased quantity that there would be if the liquors were reduced to the strength of proof. When the liquors are of a less strength than that of proof, the duty shall be at a rate herein provided, but computed on a reduced quantity of the liquors in proportion to the lesser degree of strength; provided, however, that no reduction in quantity shall be computed or made on any liquors below the strength of fifteen per cent under proof, but all such liquors shall be computed as of the strength of fifteen per cent under proof, as follows:—

(a) Ethyl alcohol, or the substance commonly known as alcohol hydrated oxide of ethyl or spirits of wine; gin of all kinds n.e.s.; rum, whiskey and all spirituous or alcoholic liquors, n.o.p.; amyl alcohol or fusel oil, or any substance known as potato spirit or potato oil, methyl alcohol, wood alcohol, wood naphtha, pyroxylic spirit or any substance known as wood spirit or methylated spirits, absinthe, arrack or palm spirit, brandy, including artificial brandy and imitations of brandy; cordials and liqueurs of all kinds, n.e.s.; mescal, pulque, rum shrub, Schiedam and other schnapps; tafia, angostura and similar alcoholic bitters or beverages, two dollars and twelve and one-half cents per gallon.

(b) Spirits and strong waters of any kind, mixed with any ingredient or ingredients, as being or known or designated as anodynes, elixirs, essences, extracts, lotions, tinctures or medicines, n.e.s., two dollars and twelve and one-half cents per gallon, and thirty per cent *ad valorem*.

(c) Alcoholic perfumes and perfumed spirits, bay rum, cologne, and lavender waters, hair, tooth and skin washes, and other toilet preparations containing spirits of any kind, when in bottles or flasks weighing not more than four ounces each, fifty per cent *ad valorem*; when in bottles, flasks or other packages, weighing more than four ounces each, two dollars and twelve and one-half cents per gallon, and forty per cent *ad valorem*.

(d) Nitrous ether, sweet spirits of nitre and aromatic spirits of ammonia, two dollars and twelve and one-half cents per gallon, and thirty per cent *ad valorem*.

(e) Vermouth and ginger wine, containing not more than forty per cent of proof spirits, seventy-five cents; if containing more than forty per cent of proof spirits, two dollars and twelve and one-half cents per gallon.

Wines of all kinds, except sparkling wines, including orange, lemon, strawberry, raspberry, elder and currant wines, containing twenty-six per cent or less of spirits of the strength of proof, whether imported in wood or in bottles (six quart or twelve pint bottles to be held to contain a gallon), twenty-five cents per gallon, and for each degree of strength in excess of the twenty-six per cent of spirits as aforesaid, an additional duty of three cents until the strength reaches forty per cent of proof spirits; and in addition thereto, thirty per cent *ad valorem*.

Champagne and all other sparkling wine, in bottles containing each not more than a quart but more than a pint, three dollars and thirty cents per dozen bottles; containing not more than a pint each

but more than one-half pint, one dollar and sixty cents per dozen bottles; containing one-half pint each or less, eighty-two cents per dozen bottles; bottles containing more than one quart each shall pay, in addition to three dollars and thirty cents per dozen bottles, at the rate of one dollar and sixty-five cents per gallon on the quantity in excess of one quart per bottle, the quarts and pints in each case being old wine measure; in addition to the above specific duty, there shall be an *ad valorem* duty of thirty per cent.

But any liquors imported under the name of wine, and containing more than forty per cent of spirits of the strength of proof shall be rated for duty as unenumerated spirits.

Tobacco, and Manufactures of.

Cigars and cigarettes, two dollars per pound and twenty-five per cent *ad valorem*, the weight of cigarettes to include the weight of the paper covering.

Cut tobacco, forty-five cents per pound and twelve and one-half per cent *ad valorem*.

Manufactured tobacco, n.e.s., and snuff, thirty-five cents per pound and twelve and one-half per cent *ad valorem*.

Opium (crude), one dollar per pound, the weight to include the weight of the ball or covering.

Opium, powdered, one dollar and thirty-five cents per pound.

Opium, prepared for smoking, five dollars per pound.

Animals, and Agricultural and Animal products.

Animals, living, n.e.s., twenty per cent *ad valorem*.

Live hogs, twenty-five per cent *ad valorem*.

Beef, salted, in barrels, two cents per pound.

Meats, fresh, n.e.s., three cents per lb.

Meats, n.e.s., including canned meats and canned poultry and game, twenty-five per cent *ad valorem*.

Mutton and lamb, fresh, thirty-five per cent *ad valorem*.

Poultry and game, n.o.p., twenty per cent *ad valorem*.

Extracts of meats and fluid beef not medicated, and soups, twenty-five per cent *ad valorem*.

Lard and cottolene, twenty-five per cent *ad valorem*.

Tallow, stearic acid and stearine of all kinds, n.e.s., twenty per cent *ad valorem*.

Beeswax, ten per cent *ad valorem*.

Candles, all other, twenty-five per cent *ad valorem*.

Soap, n.e.s., pearline and other soap powders, punice, silver and mineral soaps, sapolio and like articles, thirty-five per cent *ad valorem*.

Soap, common or laundry, not perfumed, one cent per pound.

Castile soap, mottled or white, and white soap, n.e.s., two cents per pound.

Glue and mucilage, twenty-five per cent *ad valorem*.

Feathers, undressed, twenty per cent *ad valorem* (See old item 24.)

Feathers, n.e.s., thirty per cent *ad valorem* (See old items 15 and 26.)

Butter, four cents per pound. (See old item 58.)

Cheese, three cents per pound.

Condensed milk, condensed coffee, condensed coffee with milk, milk foods and all similar preparations, including preserved ginger, thirty per cent *ad valorem*.

Apples, forty cents per barrel, including the duty on the barrel.

Beans, fifteen cents per bushel.

Buckwheat, ten cents per bushel.

Pease, ten cents per bushel.

Potatoes, fifteen cents per bushel.

Rye, ten cents per bushel.

Rye flour, fifty cents per barrel.

Hay, two dollars per ton.

Vegetables, when fresh, or dry salted, n.e.s., twenty-five per cent *ad valorem*.

Provided that green or ripe apples, beans, buckwheat, pease, potatoes, rye, rye-flour, hay, and vegetables, n.e.s., or any of them shall be free of duty when imported into Canada from the country of production, if such country whence any of the above products are imported imposes no duty on like products imported thence from Canada.

Barley, fifteen cents per bushel.

Indian corn, seven and a-half cents per bushel.

Provided that barley and Indian corn shall be free of duty when imported into Canada from the country of production, if such country whence either or both are imported admits both these products free of duty when imported thence from Canada.

Dutiable breadstuffs, grain and flour and meal of all kinds, when damaged by water *in transitu*, twenty per cent *ad valorem* upon the appraised value, such appraised value to be ascertained as provided by Sections 58, 70, 71, 72, 73, 74, 75 and 76 of the Customs Act.

Buckwheat meal or flour, one-fourth of one cent per pound.

Cornmeal, forty cents per barrel.

Oats, ten cents per bushel.

Oatmeal, fifty cents per barrel.

Rice, uncleaned, unhulled or paddy, five tenths of one cent per pound.

Rice, one cent per pound.

Rice and sago flour and sago, twenty-five per cent *ad valorem*.

Wheat, fifteen cents per bushel.

Wheat flour, seventy-five cents per barrel.

Biscuits of all kinds, twenty-five per cent *ad valorem*.

Macaroni and vermicelli, twenty-five per cent *ad valorem*.

Starch, including farina, corn starch or flour, and all preparations having the qualities of starch, one and one-half cents per pound; the weights of the package to be in all cases included in the weight for duty.

Seeds, viz.:—Garden, field and other seeds for agricultural or other purposes, n.o.p., when in bulk or in large parcels, ten per cent *ad valorem*; when put up in small papers or parcels, twenty-five per cent *ad valorem*.

Mustard, ground, twenty-five per cent *ad valorem*.

Mustard cake, fifteen per cent *ad valorem*.

Sweet potatoes and yams, ten cents per bushel.

Tomatoes, fresh, twenty cents per bushel and ten per cent *ad valorem*.

Tomatoes and other vegetables, including corn and baked beans, in cans or other packages, not elsewhere specified, one and one-quarter cents per pound; the weight of the cans or other packages to be included in the weight for duty.

Pickles, sauces and catsups, including soy, thirty-five per cent *ad valorem*.

Malt, fifteen cents per bushel, upon entry for warehouse, subject to excise regulations.

Extract of malt (non alcoholic) for medicinal purposes, twenty-five per cent *ad valorem*.

Hops, six cents per pound.

Compressed yeast, in bulk or mass of not less than fifty pounds, three cents per pound; in packages weighing less than fifty pounds, six cents per pound, the weight of the package in the latter case to be included in the weight for duty.

Yeast cakes and baking powders, six cents per pound, the weight of the package to be included in the weight for duty.

Trees, viz., apple, cherry, peach, pear, plum and quince, of all kinds, three cents each.

Grape vines, and gooseberry, raspberry, currant and rose bushes; also fruit plants not elsewhere specified, and shade, lawn and ornamental trees, shrubs and plants, twenty per cent *ad valorem*.

Blackberries, gooseberries, raspberries, strawberries, cherries and currants, n.e.s., two cents per pound, the weight of the package to be included in the weight for duty.

Cranberries, plums and quinces, twenty-five per cent *ad valorem*.

Prunes, one cent per pound, including raisins and dried currants.

Apples, dried, desiccated or evaporated; dates, figs, and other dried, desiccated or evaporated fruits, n.e.s., twenty-five per cent *ad valorem*.

Grapes, two cents per pound.

Oranges, lemons and limes, in boxes of capacity not exceeding two and one-half cubic feet, twenty-five cents per box; in one-half boxes, capacity not exceeding one and one-fourth cubic feet, thirteen cents per half box; in cases and all other packages, ten cents per cubic foot holding capacity; in bulk, one dollar and fifty cents per one thousand oranges, lemons, or limes; in barrels not exceeding in capacity that of the one hundred and ninety-six pounds flour barrel, fifty-five cents per barrel.

Peaches, n.o.p., one cent per pound, the weight of the package to be included in the weight for duty.

Fruits in air-tight can or other packages, two cents per pound, the weight on which duty shall be payable to include the weight of the cans or other packages.

Fruits preserved in brandy, or preserved in other spirits, one dollar and ninety cents per Imperial gallon.

Jellies, jams and preserves, n.e.s., three cents per pound.

Honey, in the comb or otherwise, and imitations and adulterations thereof, three cents per pound.

Coffee, green, when not imported direct without transhipment from the country of growth and production, ten per cent *ad valorem*.

Coffee, roasted or ground, when not imported direct without transhipment from the country of growth and production, two cents per pound and ten per cent *ad valorem*.

Coffee, roasted or ground, and all imitations of and substitutes for, not elsewhere specified, two cents per pound.

Extract of coffee, or substitutes therefor of all kinds, three cents per pound.

Chicory, three cents per pound.

Tea, when not imported direct without transhipment from the country of growth and production, ten per cent *ad valorem*.

Cocoa paste and chocolate and other preparations of cocoa, four cents per pound.

Almonds, shelled, five cents per pound.

Almonds, not shelled, three cents per pound.

Nuts of all kinds, n.e.s., three cents per pound.

Cocoa nuts, n.e.s., one dollar per hundred.

Cocoa nuts, when imported from the place of growth, by vessel, direct to a Canadian port, fifty cents per hundred.

Cocoa nut, desiccated, sweetened or not, four cents per pound.

Nutmegs and mace, twenty-five per cent *ad valorem*.

Spices, viz.: ginger and spices of all kinds, n.e.s., unground, fifteen per cent *ad valorem*; ground, twenty-five per cent *ad valorem*.

Books and Paper.

Albumenized and other papers chemically prepared for photographers' use, thirty-five per cent *ad valorem*.

Books, printed, periodicals and pamphlets, n.e.s., not being

foreign reprints of British copyright works nor blank account books, nor copy books, nor books to be written or drawn upon, nor bibles, prayer-books, psalm and hymn-books, six cents per pound.

British copyright works, reprints of, six cents per pound and in addition thereto twelve and one-half per cent *ad valorem* until March 27th, 1895, and thereafter six cents per pound.

Advertising pamphlets, circulars, illustrated advertising periodicals, illustrated price lists, advertising calendars, advertising almanacs, tailors' and mantle-makers' fashion plates, and all chromos, chromo-types, oleographs or artistic work of similar kind, produced by any process other than hand painting or drawing, whether for business or advertisement purposes or not, printed or stamped on paper, carboard or other material, n.e.s., six cents per pound and twenty per cent *ad valorem*.

Bank notes, bonds, bills of exchange, cheques, promissory notes, drafts and all similar work unsigned, and cards or other commercial blank forms printed or lithographed, or printed from steel or copper or other plates, and other printed matter, n.e.s., thirty-five per cent *ad valorem*.

Labels for fruits, vegetables, meat, fish, confectionery and other goods, also tickets, posters, pictorial show cards, advertising bills and folders, whether lithographed or printed, fifteen cents per pound and twenty-five per cent *ad valorem*.

Mens and charts, twenty per cent *ad valorem*.

Newspapers or supplementary editions or parts thereof, partly printed and intended to be completed and published in Canada, twenty-five per cent *ad valorem*.

Paintings, prints, engravings, drawings, building plans, photographs and pictures, n.e.s., twenty per cent *ad valorem*.

Playing cards, six cents per pack.

Printed music, bound or in sheets, ten cents per pound.

Paper hangings or wall paper, in rolls, thirty-five per cent *ad valorem*.

Paper sacks or bags of all kinds, printed or not, twenty-five per cent *ad valorem*.

Mill-board, not straw board, ten per cent *ad valorem*.

Strawboards, in sheets or rolls, plain or tarred, forty cents per hundred pounds.

Sand-paper, glass, flint and emery paper, twenty per cent *ad valorem*.

Paper, tarred, twenty per cent *ad valorem*.

Union collar cloth paper in rolls or sheets, not glossed or finished, fifteen per cent *ad valorem*.

Union collar cloth paper in rolls or sheets, glossed or finished, twenty per cent *ad valorem*.

Paper of all kinds, not elsewhere specified, twenty-five per cent *ad valorem*.

Manufactures of paper, including ruled and border and coated papers, paperies, boxed papers, envelopes and blank books, thirty-five per cent *ad valorem*.

Chemicals, Oils and Paints.

Acid, acetic and pyroligneous, n.e.s., and vinegar, a specific duty of fifteen cent for each gallon of any strength not exceeding the strength of proof, and for each degree of strength in excess of the strength of proof an additional duty of one cent. The strength of proof shall be held to be equal to six per cent of absolute acid, and in all cases the strength shall be determined in such manner as is established by the Governor in Council.

Acid, acetic and pyroligneous of any strength, when imported by dyers, calico printers or manufacturers of acetates or colours, for exclusive use in dyeing or printing, or for the manufacture of such acetates or colours in their own factories, under such regulations as are established by the Governor in Council, a duty of twenty-five per cent *ad valorem*.

Acid, muriatic and nitric, and all mixed acids, twenty per cent *ad valorem*.

Acid, sulphuric, four-tenths of a cent per pound.

Sulphuric ether, five cents per pound.

Acid phosphate, two cents per pound.

All medicinal preparations, including patent and proprietary preparations, tinctures, pills, powders, troches or lozenges, syrups, cordials, bitters, anodynes, tonics, plasters, liniments, salves, ointments, pastes, drops, waters, essences, oils and all chemicals, pharmaceutical or officinal preparations or medicines, not otherwise provided for; all liquids, fifty per cent *ad valorem*, and all others twenty-five per cent *ad valorem*.

Cod liver oil, medicated, twenty per cent *ad valorem*.

Oils, essential, ten per cent *ad valorem*.

Pomades, French or flour odours preserved in fat or oil for the purpose of conserving the odours of flowers which do not bear the heat of distillation, when imported in tins of not less than ten pounds each, fifteen per cent *ad valorem*.

Perfumery, including toilet preparations (non-alcoholic), viz.:—Hair oils, tooth and other powders and washes, pomatums, pastes, and all other perfumed preparations, n.o.p., used for the hair, mouth or skin, thirty per cent *ad valorem*.

Illuminating oils composed wholly or in part of the products of petroleum, coal, shale, or lignite, costing more than thirty cents per gallon, twenty-five per cent *ad valorem*.

Oils, coal and kerosene, distilled, purified or refined; naphtha and

petroleum, n.e.s., products of petroleum, not elsewhere specified, seven and a-fifth of a cent per Imperial gallon.

Lubricating oils, composed wholly or in part of petroleum and costing less than twenty-five cents per Imperial gallon, six cents per gallon.

Crude petroleum, fuel and gas oil, for fuel purposes, and for the manufacture of gas, three and three-fifths of one cent per gallon.

Paraffine wax, two cents per pound.

Paraffine wax candles, four cents per pound.

British gum dextrine, sizing cream and enamel sizing, ten per cent *ad valorem*.

Lubricating oils, n.e.s., and axle grease, twenty-five per cent *ad valorem*.

Barrels, containing petroleum or its products, or any mixture of which petroleum forms a part, when such contents are chargeable with a specific duty, twenty cents each.

Linseed or flax-seed oil, raw or boiled, lard oil, neatsfoot oil, and sesame seed oil, twenty per cent *ad valorem*.

Olive oil, prepared for salad purposes, thirty per cent *ad valorem*.

Vaseline, and all similar preparations of petroleum for toilet, medicinal or other purposes, thirty-five per cent *ad valorem*.

Blacking, shoe, and shoemakers' ink, and shoe, harness and leather dressing, and harness soap, twenty-five per cent *ad valorem*.

Ink for writing, twenty per cent *ad valorem*.

Blueing, laundry blueing of all kinds, twenty-five per cent *ad valorem*.

Dry white and red lead, orange mineral and zinc white, five per cent *ad valorem*.

Ochres, ochrey earths, raw siennas, and colours, dry, n.e.s., twenty per cent *ad valorem*.

Oxides, dry fillers, fire-proofs, umbers and burnt siennas, n.e.s., twenty-five per cent *ad valorem*.

Paints and colours, rough stuff and fillers, n.e.s., twenty-five per cent *ad valorem*.

Paints and colours, ground in spirits and all spirit varnishes and lacquers, one dollar per gallon.

Turpentine, spirits of, five per cent *ad valorem*.

Varnishes, lacquers, japans, japan driers, liquid driers and oil finish, n.e.s., twenty cents per gallon and twenty per cent *ad valorem*.

Paris green, dry, ten per cent *ad valorem*.

Putty, fifteen per cent *ad valorem*.

Earths, Earthenware, Glassware and Stoneware.

Brick for building, twenty per cent *ad valorem*.

China and porcelain ware, also earthenware and stoneware, brown or coloured and Rockingham ware, white granite or ironstone ware, "C.C." or cream-colored ware, decorated, printed or sponged, and all earthenware, n.e.s., thirty per cent *ad valorem*.

Earthenware and stoneware, viz., demi-johns or jugs, churns or crocks, two cents per gallon of holding capacity.

Earthenware or stone ink bottles, not exceeding three ounces capacity, twenty per cent *ad valorem*.

Drain tiles, not glazed, twenty per cent *ad valorem*.

Drain pipes, sewer pipes, chimney linings or vents, and inverted blocks, glazed or unglazed, and earthenware tiles, thirty-five per cent *ad valorem*.

Crystal and decorated glass tableware; made expressly for mounting with silver-plated trimmings, when imported by manufacturers of plated-ware, twenty per cent *ad valorem*.

Glass carboys and demi-johns, empty or filled, bottles and decanters, flasks and phials, glass jars and glass balls, and cut, pressed or moulded glass tableware, thirty per cent *ad valorem*.

Insulators of all kinds, and lamps, including arc and incandescent; lamp chimneys, side-lights and head-lights, lamps, gas-light and electric light shades, and globes—for lanterns, lamps, electric lights and gas lights, thirty per cent *ad valorem*.

Common and colourless window glass; and plain, coloured, stained or tinted or muffled glass in sheets, twenty per cent *ad valorem*.

Ornamental, figured and enamelled coloured glass; painted and vitrified glass; figured, enamelled and obscured white glass; and rough rolled plate glass, twenty-five per cent *ad valorem*.

Plate glass, not coloured, in panes of not over twelve square feet each, four cents per square foot, and when bevelled, two cents per square foot additional.

Plate glass, not coloured, in panes of over twelve and not over thirty square feet each, six cents per square foot; and when bevelled two cents per square foot additional.

Plate glass, in panes of over thirty and not over seventy square feet each, eight cents per square foot; and when bevelled, two cents per square foot additional.

Plate glass, in panes of over seventy square feet each, nine cents per square foot; and when bevelled, two cents per square foot additional.

Silvered glass, n.e.s., thirty per cent *ad valorem*.

Silvered glass, bevelled, thirty-five per cent *ad valorem*.

Stained glass windows, thirty per cent *ad valorem*.

All other glass and manufactures of glass, n.o.p., including bent plate glass, twenty per cent *ad valorem*.

Spectacles and eyeglasses, thirty per cent *ad valorem*.

Spectacles and eyeglass frames, parts of, twenty per cent *ad valorem*.

Show cases, thirty-five per cent *ad valorem*.

Magic lanterns and slides therefor, philosophical, photographic,

mathematical and optical instruments, n.e.s., twenty-five per cent *ad valorem*.

Cement, including Portland or Roman and hydraulic or water lime, forty cents per barrel, including the duty on the barrel.

Plaster of Paris, or gypsum, ground, not calcined, fifteen per cent *ad valorem*.

Plaster of Paris, calcined or manufactured, twenty per cent *ad valorem*.

Flagstones, granite, and rough freestones, sandstone and all building stone, except marble from the quarry, not hammered or chiselled, twenty per cent *ad valorem*.

Granite, flagstones and freestones, dressed; all other building stone dressed, except marble, and all manufactures of stone, n.e.s., thirty per cent *ad valorem*.

Grindstone, not mounted, and not less than twelve inches in diameter, one dollar and seventy-five cents per ton.

Lithographic stones, not engraved, twenty per cent *ad valorem*.

Marble in blocks and slabs, in the rough or sawn but not otherwise manufactured, twenty per cent *ad valorem*.

Marble, finished, and all manufactures of marble not otherwise provided for; also slate mantels, slates and manufactures of slate, n.e.s., thirty per cent *ad valorem*.

Slates, roofing slate, when split or dressed only; also slate pencils and school or writing slates, twenty per cent *ad valorem*.

Leather: Manufactures of, and Rubber.

Fur skins, wholly or partially dressed, fifteen per cent *ad valorem*.

Caps, hats, muffs, tippets, capes, coats, cloaks and other manufactures of fur, twenty-five per cent *ad valorem*.

Leather board and leatheroid, and boot and shoe counters made from leatheroid, twenty per cent *ad valorem*.

Leather and skins not otherwise provided for, tanned; belting leather, sole leather and upper leather, including dongola, cordovan, kid, lamb, sheep and calf, fifteen per cent *ad valorem*.

Leather, sole, tanned but rough or undressed, ten per cent *ad valorem*.

Japanned, patent or enamelled leather and morocco leather, twenty-two and one-half per cent *ad valorem*.

Skins for morocco leather, tanned but not further manufactured, fifteen per cent *ad valorem*.

Glove leathers, viz.: kid, lamb, buck, deer, antelope, and waterhog, tanned or dressed, coloured or uncoloured, when imported by glove manufacturers for use in their own factories in the manufacture of gloves, ten per cent *ad valorem*.

All manufactures of leather, n.e.s., twenty-five per cent *ad valorem*.

Belting of leather or other material, n.e.s., twenty per cent *ad valorem*.

Harness and saddlery of every description, thirty per cent *ad valorem*.

Whips of all kinds, thirty-five per cent *ad valorem*.

Boots and shoes, n.e.s., twenty-five per cent *ad valorem*.

India-rubber boots and shoes, with tops or uppers of cloth or of material other than rubber, thirty per cent *ad valorem*.

India-rubber boots and shoes, and manufactures of India rubber and gutta percha, n.e.s., twenty-five per cent *ad valorem*.

India-rubber clothing and clothing made waterproof with India rubber, thirty-five per cent *ad valorem*.

Rubber or gutta percha belting, hose, packing, mats and matting and cotton or linen hose lined with rubber, thirty-two and a-half per cent *ad valorem*.

Metals and Manufactures of.

Wrought scrap iron and scrap steel being waste or refuse wrought iron or steel, fit only to be re-manufactured, the same having been in actual use, not to include cuttings or clippings which can be used as iron or steel without re-manufacture, and steel bloom ends and crop ends of steel rails, three dollars per ton; and on and after the first day of January, eighteen hundred and ninety-five, four dollars per ton.

Iron or steel being pieces, punchings, or clippings of boiler plate or other plates, sheets or bars of iron or steel, whether the same have had the ragged or cropped ends or edges sheared off or not, and crops from iron or steel rails having both ends sawn or sheared off, the same not having been in actual use and being fit for re-rolling or re-manufacture only, four dollars per ton.

Iron in pigs, iron kentledge and scrap iron, ferro-silicon and spiegel-eisen, four dollars per ton; ferro-manganese, ten per cent *ad valorem*.

Iron or steel ingots, cogged ingots, blooms and slabs, billets and puddled bars, loops or other forms less finished than iron or steel bars but more advanced than pig iron, except castings, five dollars per ton.

Bar iron or steel rolled or hammered, comprising rounds and squares, and shapes of rolled iron or steel, not more than four inches in diameter, and flats not thinner than number seventeen gauge, whether in coils, bundles, rods or bars, n.e.s., ten dollars per ton.

Iron or steel plates or sheets, sheared or unsheared, hoops, bands, strips and skelp iron or steel, sheared or rolled in grooves, and iron or steel of all widths not thinner than number seventeen gauge, n.e.s., ten dollars per ton.

Universal mill or rolled edge steel plate, not exceeding thirty inches wide, and plates or sheets of steel over thirty inches wide, and one-

quarter of an inch and over in thickness, twelve and one-half per cent *ad valorem*.

Iron or steel sheets, hoops, bands, and strips, or other iron or steel of all widths, sheet iron, common or black, smoothed, polished, coated or galvanized and Canada plates, number seventeen gauge and thinner, five per cent *ad valorem*.

Plough plates, mould boards, land sides and other plates for agricultural implements, when cut to shape from rolled sheets of steel but not moulded, punched, polished or otherwise manufactured, and being of a greater value than four cents per pound, five per cent *ad valorem*.

Provided that on all iron or steel bars, rods, strips, or steel sheets of whatever shape, and on all iron or steel bars of irregular shape or section, cold rolled, cold hammered or polished in any way in addition to the ordinary process of hot rolling or hammering, there shall be paid five per cent *ad valorem* in addition to the rates imposed on the said materials.

Forgings of iron and steel of whatever shape or size or in whatever stage of manufacture, not elsewhere specified, and rolled or hammered bars of iron or steel not less than four inches in diameter, thirty-five per cent *ad valorem*.

Rolled iron or steel angles, channels, structural shapes and special sections, weighing less than thirty-five pounds per lineal yard, n. e. s., thirty-five per cent *ad valorem*.

Rolled iron or steel angles, channels, beams, joists, girders, structural shapes and special sections, including rolled iron or steel bridge plate not less than three-eighths of an inch thick nor less than fifteen inches wide, weighing not less than twenty-five pounds per lineal yard, and eye-bar blanks rolled by the Kibman process, twelve and one-half per cent *ad valorem*.

Iron bridges and structural iron work, thirty per cent *ad valorem*.

Iron and steel railway bars or rails for railways and tramways, of any form, punched or not punched, thirty per cent *ad valorem*.

Railway fish plates and tie plates, thirty per cent *ad valorem*.

Swedish rolled iron rods, under one-half inch in diameter and of not less than one and three-quarters of a cent per pound value, fifteen per cent *ad valorem*.

Axles, car springs, and springs of iron or steel or parts thereof, and all other springs, n. e. s., axle bars and axle blanks, without reference to the stage of manufacture, thirty-five per cent *ad valorem*.

Malleable iron castings and steel castings, n. e. s., twenty-five per cent *ad valorem*.

Cast iron vessels, plates, stove plates and irons, sad irons, hatters' irons, tailors' irons, and castings of iron, n.e.s., twenty-seven and one-half per cent *ad valorem*.

Cast iron pipe of every description, ten dollars per ton, provided that the duty shall not be less than thirty-five per cent *ad valorem*.

Boiler tubes of wrought iron or steel, including corrugated tubes or flues for marine boilers, seven and one-half per cent *ad valorem*.

Lap-welded iron or steel tubing, threaded and coupled or not, one and one quarter to two inches inclusive in diameter, for use exclusively in artesian wells, petroleum pipe lines and petroleum refineries under regulations to be made by the Governor in Council, twenty per cent *ad valorem*.

Tubes not welded, not more than one and one-half inch in diameter, of rolled steel, fifteen per cent *ad valorem*.

Wrought iron or steel tubing, threaded and coupled or not, over two inches in diameter, fifteen per cent *ad valorem*.

Other wrought iron tubes, or pipes, five-tenths of one cent per pound and thirty per cent *ad valorem*.

Chains (iron or steel) over five-sixteenths of an inch in diameter, five per cent *ad valorem*.

Nails and spikes, wrought and pressed, galvanized or not, horse shoe nails, and all wrought iron or steel and other nails not elsewhere specified, and horse, mule and ox shoes, thirty per cent *ad valorem*.

Composition nails and spikes and sheathing nails, fifteen per cent *ad valorem*.

Wire nails : nails and spikes of iron or steel, three-fourths of one cent per pound.

Cut tacks, brads or sprigs, not exceeding sixteen ounces to the thousand, one cent per thousand; exceeding sixteen ounces to the thousand, one and one-half cents per pound.

Screws, commonly called "wood screws" two inches and over in length, three cents per pound; one inch and less than two inches, six cents per pound; less than one inch, eight cents per pound; provided that the duty shall not be less than thirty-five per cent *ad valorem*.

Screws of iron, steel, brass or other metal, not otherwise provided for, thirty per cent *ad valorem*.

Wrought iron or steel nuts and washers, iron or steel rivets, bolts with or without threads, nut and bolt blanks, and "T" and strap hinges, one cent per pound and twenty per cent *ad valorem*.

Skates, ten cents per pair and thirty per cent *ad valorem*.

Clothes wringers, twenty-five cents each and twenty per cent *ad valorem*.

Cutlery, not otherwise provided for, twenty-five per cent *ad valorem*.

Celluloid, moulded into sizes for handles of knives and forks, not bored nor otherwise manufactured; also moulded celluloid balls and cylinders, coated with tinfoil or not, but not finished or further manufactured, ten per cent *ad valorem*.

Knife blades or knife blanks in the rough, unhandled, for use by electro-platers, ten per cent *ad valorem*.

Cast iron table forks, not handled nor ground, or otherwise manufactured, ten per cent *ad valorem*.

House furnishing hardware and builders', cabinet-makers', harness-makers' and saddlers' hardware, including curry combs, carriage hardware, locks, butts and hinges, n.e.s., saws of all kinds, and table cutlery, not elsewhere specified, thirty-two and a-half per cent *ad valorem*.

Adzes, hatchets, picks, mattocks, track tools, wedges, and crow-bars of iron or steel, and hammers and sledges, thirty per cent *ad valorem*.

Axes of all kinds, scythes, hay knives, lawn mowers, pronged forks, rakes, n.e.s., and hoes, and other agricultural tools or implements, n.e.s., thirty-five per cent *ad valorem*.

Shovels and spades, shovel and spade blanks, and iron or steel cut to shape for same, thirty-five per cent *ad valorem*.

Files and rasps, thirty-five per cent *ad valorem*.

Steel needles, viz.:—Cylinder needles, hand frame needles and latch needles, thirty per cent *ad valorem*.

Surgical and dental instruments of all kinds, fifteen per cent *ad valorem*.

Safes, doors for safes and vaults, scales, balances and weighing beams, thirty per cent *ad valorem*.

Fire engines, thirty-five per cent *ad valorem*.

Locomotives for railways, thirty-five per cent *ad valorem*.

Steam engines, boilers and machinery composed wholly or in part of iron or steel, not elsewhere specified, twenty-seven and a half per cent *ad valorem*.

Mowing machines, self-binding harvesters, harvesters without binders, binding attachments, reapers, sulky and walking ploughs, harrows, cultivators, seed drill and horse rakes, twenty per cent *ad valorem*.

Portable machines, portable steam engines, threshers and separators horse powers, portable saw mills and planing mills, and parts thereof in any stage of manufacture, thirty per cent *ad valorem*.

Sewing machines, or parts thereof, thirty per cent *ad valorem*.

Pumps of all kinds, n.e.s., and wind mills, thirty per cent *ad valorem*.

Type for printing, twenty per cent *ad valorem*.

Type metal, ten per cent *ad valorem*.

Bookbinders' tools and implements, including ruling machines, ten per cent *ad valorem*.

Printing presses and printing machines, such only as are used in newspaper, book, and job printing offices; folding machines and paper cutters, such as are used in printing and bookbinding establishments,—lithographic presses, ten per cent *ad valorem*.

Plates engraved on wood, and on steel or other metal, and transfers taken from the same, twenty per cent *ad valorem*.

Stereotypes, electrotypes, and celluloids for almanacs, calendars, illustrated pamphlets, newspaper advertisements or engravings, and all other like work for commercial, trade or other purposes, n.e.s., and matrices or copper shells for the same, two cents per square inch.

Stereotypes, electrotypes and celluloids of newspaper columns, and bases for the same, composed wholly or partly of metal or celluloid, three-quarters of a cent per square inch, and matrices or copper shells for the same, two cents per square inch.

Bird cages, thirty-five per cent *ad valorem*.

Barbed wire fencing of iron or steel, three-fourths of one cent per pound.

Buckthorn and strip fencing of iron or steel, one half of one cent per pound.

Machine card clothing, twenty-five per cent *ad valorem*.

Pins, manufactured from wire of any metal, thirty per cent *ad valorem*.

Wire-cloths of brass, copper and tin, twenty per cent *ad valorem*.

Wire covered with cotton, linen, silk or other material, thirty per cent *ad valorem*.

Wire of brass or copper, ten per cent *ad valorem*.

Wire of iron or steel, eleven to fourteen gauge inclusive, fifteen per cent *ad valorem*.

Wire of all kinds, n.e.s., twenty-five per cent *ad valorem*.

Wire rope of iron or steel, not otherwise provided for, twenty-five per cent *ad valorem*.

Fire-arms, twenty per cent *ad valorem*.

Manufactures, articles or wares not specially enumerated or provided for, composed wholly or in part of iron or steel, and whether partly or wholly manufactured, twenty-seven and a-half per cent *ad valorem*.

Corset clasps, spoon clasps or busks, blanks, busks, side steels and other corset steels, whether plain, japanned, lacquered, tinned or covered with paper or cloth; also back, bone or corset wires, covered with paper or cloth, cut to lengths and tipped with brass or tin, or untipped or in coils, five cents per pound and twenty per cent *ad valorem*.

Gas, coal oil and electric light fixtures, or parts thereof, twenty-seven and one half per cent *ad valorem*.

Gas meters, thirty-five per cent *ad valorem*.

Bells of any description, except for churches, and gongs, twenty-five per cent *ad valorem*.

Brass and copper nails, rivets and burrs, and manufactures of brass or copper not elsewhere specified, twenty-five per cent *ad valorem*.

Zinc, manufactures of, not elsewhere specified, twenty-five per cent *ad valorem*.

Babbit metal, ten per cent *ad valorem*.

Phosphor bronze, in blocks, bars, sheets and wire, ten per cent *ad valorem*.

Lead, bars, block and sheets, sixty cents per hundred pounds.

Lead, old, scrap and pig, forty cents per one hundred pounds.

Lead, manufactures of, n.e.s., thirty per cent *ad valorem*.

Cans and packages made of tin or other material, containing fish of any kind admitted free of duty under any existing law or treaty, not exceeding one quart in contents, or . . . cent and a half on each can or package; and when exceeding one quart, an additional duty of one cent and a half for each additional quart or fractional part thereof.

Stamped tinware japanned ware, galvanized iron ware, and all manufactures of tin, n.e.s., twenty-five per cent *ad valorem*.

Enamelled iron or steel ware, including granite, or . . . gate ware, thirty per cent *ad valorem*.

Telephone and telegraph instruments; telegraph, telephone and electric light cables; electric and galvanic batteries, electric motors and apparatus not elsewhere specified, twenty-five per cent *ad valorem*.

Gold, Silver and Jewellery.

Composition metal for the manufacture of filled gold watch cases, ten per cent *ad valorem*.

Britannia metal and German and nickel silver, manufactures of, not plated, twenty-five per cent *ad valorem*.

Nickel anodes, ten per cent *ad valorem*.

Gold and silver leaf, and Dutch or schlag metal leaf, twenty-five per cent *ad valorem*.

Manufactures of gold and silver, and all other articles, not elsewhere specified, commercially known as jewellery, twenty-five per cent *ad valorem*.

Sterling silver tableware and platedware, all other, electroplated or gilt, of all kinds, whether plated wholly or in part, thirty per cent *ad valorem*.

Plated cutlery, namely, knives plated wholly or in part, thirty-five per cent *ad valorem*.

Precious stones, n.e.s., polished, but not set or otherwise manufactured, and imitations thereof, ten per cent *ad valorem*.

Clocks, n.e.s., twenty-five per cent *ad valorem*.

Tower clocks, thirty per cent *ad valorem*.

Watches, twenty-five per cent *ad valorem*.

Watch actions or movements, ten per cent *ad valorem*.

Watch cases, thirty-five per cent *ad valorem*.

Cases for jewels and watches, cases for silver and platedware, and for cutlery and other like articles, writing desks, glove boxes, handkerchief boxes, manicure cases, perfume cases, toilet cases and fancy cases for smokers' sets, and similar fancy articles made of bone, shell, horn, ivory, wood, leather, plush, satin, silk, satinette or paper; dolls and toys of all kinds, including sewing machines, when of not more than two dollars in value; ornaments of alabaster, spar, amber, terra cotta or composition; and statuettes and bead ornaments, n.e.s., thirty-five per cent *ad valorem*.

Minerals.

Asbestos in any form other than crude, and all manufactures thereof, twenty-five per cent *ad valorem*.

Coal, bituminous, sixty cents per ton of 2,000 pounds.

Coal dust, twenty per cent *ad valorem*.

Plumbago, ten per cent *ad valorem*.

Plumbago, all manufactures of, n. e. s., twenty-five per cent *ad valorem*.

Electric light carbons or carbon points, not exceeding twelve inches in length, two dollars and fifty cents per thousand, and in proportion for greater or less lengths.

Manufactures of Wood; Vehicles, &c.

Cane or rattan, split or otherwise manufactured, n.o.p., twelve and a half per cent *ad valorem*.

Corks and other manufactures of cork wood or cork bark, twenty per cent *ad valorem*.

Lumber and timber further manufactured than rough sawn or hewn, twenty per cent *ad valorem*.

Hubs, spokes, fellowes, and parts of wheels, rough hewn or sawn only, ten per cent *ad valorem*.

Pails, tubs, churns, brooms, washboards, pounders and rolling-pins, twenty per cent *ad valorem*.

Manufactures of wood, n.e.s., and brushes, twenty-five per cent *ad valorem*.

Umbrella, parasol and sunshade sticks or handles, n.e.s., twenty per cent *ad valorem*.

Veneers of wood, not over one-sixteenth of an inch in thickness, five per cent *ad valorem*.

Walking sticks and canes of all kinds, n.e.s., twenty-five per cent *ad valorem*.

Picture and photograph frames, of any material, thirty per cent *ad valorem*.

Mouldings of wood, plain, twenty per cent *ad valorem*.

Mouldings of wood, gilded or otherwise further manufactured than plain, twenty-five per cent *ad valorem*.

Fishing rods, thirty per cent *ad valorem*.

Furniture of wood, iron or any other material, house, cabinet or office, finished or in parts, including hair and spring and other mattresses, bolsters and pillows, thirty per cent *ad valorem*.

Coffins and caskets, twenty-five per cent *ad valorem*.
 Billiard tables, with or without pockets, and bagatelle tables or boards, cues, balls, and cue racks, thirty-five per cent *ad valorem*.
 Farm and freight wagons, carts, drays and similar vehicles, twenty-five per cent *ad valorem*.
 Buggies and carriages, including children's carriages, pleasure carts or gigs, and other similar vehicles and democrat wagons, thirty-five per cent *ad valorem*.
 Bicycles and tricycles, thirty per cent *ad valorem*.
 Railway cars, sleighs, cutters, wheel barrows and hand carts, thirty per cent *ad valorem*.
 Fibre ware, indurated fibre ware, vulcanized fibre ware, and all articles of like material, twenty-five per cent *ad valorem*.
 Lead pencils of all kinds, in wood or otherwise, twenty-five per cent *ad valorem*.

Musical Instruments.

Organs, cabinet, thirty per cent *ad valorem*.
 Organs, pipe organs, and sets or parts of sets of reeds for cabinet organs, twenty-five per cent *ad valorem*.
 Pianofortes, thirty-five per cent *ad valorem*.
 Parts of pianofortes, twenty-five per cent *ad valorem*.
 Musical instruments of all kinds, not otherwise provided for, twenty-five per cent *ad valorem*.

Sugar, Syrups and Molasses.

All sugar above number sixteen Dutch Standard in colour, and all refined sugars of whatever kinds, grades or standards, 64/100 cents per pound.
 Syrups of all kinds, the product of the sugar cane or beet root, n. e. s., and all imitations thereof or substitutes therefor, 5/10 cents per pound.
 Glucose or grape sugar, glucose syrup and corn syrup, or any syrups containing any admixture thereof, a specific duty of one and one half cents per pound.
 Sugar candy brown or white, and confectionery, including sweetened gums, candied peel, and pop-corn, thirty-five per cent *ad valorem*.
 Liqueurice paste and liqueurice in rolls and sticks, twenty per cent *ad valorem*.
 Molasses produced in the process of the manufacture of cane sugar from the juice of the cane where imported in the original packages from the district where produced in the country where the cane was grown and which has not been subjected to any process of treating or mixture after leaving the country from which originally shipped.
 (a) Testing by polariscope, forty degrees or over and not over sixty degrees, a specific duty of one and one-half cents per gallon.
 (b) When testing by polariscope less than forty degrees and not less than thirty-five degrees, a specific duty of one and one-half cents per gallon, and in addition thereto one cent per gallon for each degree or fraction of a degree less than forty degrees.

Textiles.

Cotton batts, batting and sheet wadding, dyed or not, twenty-two and one-half per cent *ad valorem*.
 Cotton warps and cotton yarns, dyed or undyed, n. e. s., twenty-five per cent *ad valorem*.
 Gray, unbleached cotton fabrics, twenty-two and one-half per cent *ad valorem*.
 White or bleached cotton fabrics, n. e. s., twenty-five per cent *ad valorem*.
 Cotton fabrics, printed, dyed or coloured, thirty per cent *ad valorem*.
 Collars of cotton, linen, xylonite, xyolite or celluloid, twenty-four cents per dozen and twenty-five per cent *ad valorem*.
 Cuffs of cotton, linen, xylonite, xyolite or celluloid, four cents per pair and twenty-five per cent *ad valorem*.
 Shirts of all kinds, costing three dollars or less per dozen, twenty-five per cent *ad valorem*; costing more than three dollars per dozen, twenty-five per cent *ad valorem*, and a specific duty of one dollar per dozen.
 Cotton clothing and other manufactures of cotton, n. e. s., thirty-two and a half per cent *ad valorem*.
 Lampwicks, 25 per cent.
 Crapes, black, twenty per cent *ad valorem*.
 Velvets, velveteens and plush fabrics, n. e. s., thirty per cent *ad valorem*.
 Webbing, elastic and non-elastic, twenty per cent *ad valorem*.
 Jeans and cutails when imported by corset and dress stay makers for use in their own factories, twenty-five per cent *ad valorem*.
 Laces, braids, fringes, embroideries, cords, elastic, round or flat, tassels and bracelets: braids, chains or cords of hair; lace collars and all similar goods; handkerchiefs, lace, nets and netting of cotton, silk, linen or other material; table cloths and curtains when made up, trimmed or untrimmed, thirty per cent *ad valorem*.
 Cotton sewing thread in hanks or on tubes, black, bleached or unbleached, three and six cord, fifteen per cent *ad valorem*.
 Cotton sewing thread and crochet cotton, on spools or in balls, twenty-five per cent *ad valorem*.
 Cordage, n. e. s., thirty per cent *ad valorem*.
 Twine and cotton cordage, of all kinds, twenty-five per cent *ad valorem*.
 Rove, when imported for the manufacture of twine for harvest binders, ten per cent *ad valorem*.

Twine for harvest binders of hemp, jute, manilla or sisal, and of manilla and sisal mixed, twelve and a half per cent *ad valorem*.
 Boot, shoe and stay laces of any material, thirty per cent *ad valorem*.
 Hammocks and lawn tennis nets and other like articles manufactured of twine, n. e. s., thirty per cent *ad valorem*.
 Damask, twenty-five per cent *ad valorem*.
 Towels of every description, twenty-five per cent *ad valorem*.
 Sails for boats and ships, twenty-five per cent *ad valorem*.
 Bags or sacks of hemp, linen, cotton or jute, twenty per cent *ad valorem*.
 All manufactures of hemp, flax or jute, n. e. s., or of flax, hemp and jute combined, twenty per cent *ad valorem*.
 Jute cloth, dyed or bleached, or calendered, ten per cent *ad valorem*.
 Silk in the gum or spun, not more advanced than singles, tram and thrown orgazine, not coloured, fifteen per cent *ad valorem*.
 Sewing and embroidery silk and silk twist, twenty-five per cent *ad valorem*.
 Silk velvets and all manufactures of silk, or of which silk is the component part of chief value, not elsewhere specified, except church vestments, thirty per cent *ad valorem*.
 Ribbons of all kinds and materials, thirty per cent *ad valorem*.
 Wool, viz., Leicester, Cotswold, Lincolnshire, South Down combing wools, or wools known as lustre wools and other like combing wools, such as are grown in Canada, three cents per lb.
 Hair, curled, twenty per cent *ad valorem*.
 Yarns, woollen and worsted, n. e. s., twenty-seven and one-half per cent *ad valorem*.
 Cloths, fabrics and manufactures composed wholly or in part of wool, worsted, the hair of the alpaca goat or other like animal, n. e. s., thirty per cent *ad valorem*.
 Hair-cloth of all kinds, thirty per cent *ad valorem*.
 Women's and children's dress goods, coat linings, Italian cloths, alpacas, orleans, cashmeres, henriettas, serges, buntings, nun's cloth, bengalines, whip cords, twills, plains or jacquards of similar fabrics, composed wholly or in part of wool, worsted, the hair of the camel, alpaca goat, or like animal, not exceeding in weight six ounces to the square yard, when imported in the gray or unfinished state for the purpose of being dyed or finished in Canada, under such regulations as are established by the Governor in Council, twenty-two and one-half per cent *ad valorem*.
 Felt, pressed, of all kinds, not filled or covered by or with any woven fabric, seventeen and one-half per cent *ad valorem*.
 Hosiery and knitted goods of every description, n. e. s., thirty-five per cent *ad valorem*.
 Carpets, mats and rugs, n. e. s., thirty per cent *ad valorem*.
 Carpeting, mats and matting of cocoa, hemp or jute, and carpet linings and stair pads, twenty-five per cent *ad valorem*.
 Floor oil cloth, cork matting or carpet; oil cloth and oiled silk, in the piece, cut or shaped, oiled, enamelled, stamped, painted or printed, India-rubbered, flocked or coated, n. o. p., thirty per cent *ad valorem*.
 Window shades, thirty-five per cent *ad valorem*.
 Gloves and mitts of all kinds, thirty-five per cent *ad valorem*.
 Clothing, ready-made, and wearing apparel of every description, n. e. s., including horse clothing shaped, thirty-two and one half per cent *ad valorem*.
 Hats, caps and bonnets, n. e. s., thirty per cent *ad valorem*.
 Umbrellas, parasols and sunshades of all kinds and materials, thirty-five per cent *ad valorem*.
 Braces or suspenders and parts thereof, thirty-five per cent *ad valorem*.
 Surgical belts or trusses and suspensory bandages of all kinds, twenty-five per cent *ad valorem*.
Sundries.
 Artificial flowers, twenty-five per cent *ad valorem*.
 Buttons of hoof, rubber, vulcanite or composition, four cents per gross and twenty per cent *ad valorem*.
 Buttons of pearl, vegetable ivory or horn, eight cents per gross and twenty per cent *ad valorem*.
 Buttons, pantaloons, and all other buttons, n. e. s., twenty per cent *ad valorem*.
 Combs for dress and toilet, of all kinds, thirty-five per cent *ad valorem*.
 Fertilizers, compound or manufactured, ten per cent *ad valorem*.
 Fireworks, twenty-five per cent *ad valorem*.
 Gun, rifle and pistol cartridges; cartridge cases of all kinds and materials; percussion caps, and gun wads of all kinds, thirty per cent *ad valorem*.
 Nitro-glycerine, dynamite, dualin, blasting, mining and gun powder and other explosives, twenty-five per cent *ad valorem*.
 Photographic dry plates, thirty per cent *ad valorem*.
 Tobacco pipes of all kinds, pipe mounts, cigar and cigarette holders and cases for the same, thirty-five per cent *ad valorem*.
 Trunks, valises, hat-boxes, carpet bags, satchels, pocket-books and purses, thirty per cent *ad valorem*.
 Ships and other vessels, built in any foreign country, whether steam or sailing vessels, on application for Canadian register, on the fair market value of the hull, rigging, machinery and all appurtenances; on the hull, machinery and all appurtenances, except machinery, ten

per cent *ad valorem*; on boilers, steam engines and other machinery, twenty-five per cent *ad valorem*.

All goods not enumerated in this Act as subject to any other rate of duty, nor declared free of duty by this Act, and not being goods the importation whereof is by this Act or any other Act prohibited, shall be subject to a duty of twenty per cent *ad valorem*, when imported into Canada, or when taken out of warehouse for consumption therein.

Fish and Products of the Fisheries.

Mackerel, one cent per pound.

Herrings, pickled or salted, one-half cent per pound.

Salmon, pickled or salted, one cent per pound.

All other fish, pickled or salted, in barrels, one cent per pound.

Foreign caught fish, imported otherwise than in barrels or half-barrels, whether fresh, dried, salted or pickled, not specially enumerated or provided for by this Act, fifty cents per hundred pounds.

Fish, smoked and boneless fish, one cent per pound.

Anchovies and sardines, packed in oil or otherwise, in tin boxes measuring not more than five inches long, four inches wide, and three and a-half inches deep, five cents per whole box; in half boxes measuring not more than five inches long, four inches wide and one and five eighths deep, two and a-half cents per half box; and in quarter boxes, measuring not more than four inches and three quarters long, three and a-half inches wide and one and a-quarter deep, two cents each per quarter box.

When imported in any other form, thirty per cent *ad valorem*.

Fish preserved in oil, except anchovies and sardines, thirty per cent *ad valorem*.

Salmon and all other fish, prepared or preserved, including oysters, not specially enumerated or provided for in this Act, twenty-five per cent *ad valorem*.

Oysters, shelled, in bulk, ten cents per gallon.

Oysters, canned, in cans not over one pint, three cents per can, including the cans.

Oysters in cans over one pint and not over one quart, five cents per can, including the cans.

Oysters in cans exceeding one quart in capacity, an additional duty of five cents for each quart or fraction of a quart of capacity over a quart, including the cans.

Oysters in the shell, twenty-five per cent *ad valorem*.

Packages containing oysters or other fish, not otherwise provided for, twenty-five per cent *ad valorem*.

Oil, spermaceti, whale and other fish oils, and all other articles the produce of the fisheries, not specially provided for, twenty per cent *ad valorem*.

SCHEDULE "B."

Free Goods.

Articles for the use of the Governor General.

The following articles when imported by and for the use of the Army and Navy:—Arms, military or naval clothing, musical instruments for bands, military stores and munitions of war.

Articles imported by and for the use of the Dominion Government or any of the departments thereof, or by and for the Senate or House of Commons, including the following articles when imported by the said Government or through any of the Departments thereof for the use of the Canadian Militia:—"military clothing, musical instruments for military bands, military stores and munitions of war."

Articles for the personal use of Consuls General who are natives or citizens of the country they represent and who are not engaged in any other business or profession.

Travellers' baggage, under regulations prescribed by the Controller of Customs.

Carriages for travellers and carriages laden with merchandise, and not to include circus troupes nor hawkers, under regulations prescribed by the Controller of Customs.

Apparel, wearing and other personal and household effects, not merchandise, of British subjects dying abroad, but domiciled in Canada.

Settlers' effects, viz: Wearing apparel, household furniture, books, implements and tools of trade, occupation or employment, which the settler has had in actual use for at least six months before removal to Canada, musical instruments, domestic sewing machines, live stock, carts and other vehicles and agricultural implements in use by the settler for at least one year before his removal to Canada, not to include machinery or articles imported for use in any manufacturing establishment, or for sale; provided that any dutiable article entered as settlers' effects may not be so entered unless brought with the settler on his first arrival, and shall not be sold or otherwise disposed of without payment of duty, until after two years' actual use in Canada; provided also, that under regulations made by the Controller of Customs, live stock, when imported into Manitoba or the North-west Territories by intending settlers, shall be free until otherwise ordered by the Governor in Council.

Animals brought into Canada temporarily, and for a period not exceeding three months, for the purpose of exhibition or of competition for prizes offered by any agricultural or other association. (But a bond shall be first given in accordance with regulations prescribed by the Controller of Customs, with the condition that the full duty to which such animals would otherwise be liable shall be paid in case of

their sale in Canada, or if not re-exported within the time specified in such bond.)

Horses, cattle, sheep, and swine, for the improvement of stock, under regulations made by the Treasury Board and approved by the Governor in Council.

Menageries, horses, cattle, carriages and harness of, under regulations prescribed by the Controller of Customs.

Acids, used for medicinal, chemical or manufacturing purposes, not specially provided for in this Act.

Admiralty charts.

Alum, in bulk only, ground or unground.

Aluminium, or aluminium and alumina and chloride of aluminium or chloralum, sulphate of alumina and alum cake.

Ambergis.

Ammonia, sulphate of, sal-ammoniac.

Anatomical preparations and skeletons or parts thereof.

Aniline salts and arseniate of aniline; aniline dyes and coal tar dyes in bulk or packages of not less than one pound weight, including alizarine and artificial alizarine.

Aniline oil, crude.

Annato, liquid or solid.

Anchors.

Antimony salts, and antimony, not ground, pulverized or otherwise manufactured.

Arsenic.

Asphalt or asphaltum and bone pitch, crude only.

Barrels or packages of Canadian manufacture exported, filled with Canadian products, when returned, under such regulations as the Controller of Customs prescribes.

Bees.

Bells, when imported by and for the use of churches.

Bismuth, metallic, in its natural state.

Blanketing and lapping, and discs or mills for engraving copper rollers, when imported by cotton manufacturers, calico printers and wall paper manufacturers, for use in their own factories only.

Blood albumen, and tannic acid.

Bolting cloth, not made up.

Bones, crude, not manufactured, burned, calcined, ground or steamed.

Books, viz:—Bibles, prayer-books, psalm and hymn, and books printed in any language other than the English and French languages.

Books, embossed, for the blind, and books for the instruction of the deaf and dumb and blind.

Books printed by any Government or by any association for the promotion of science and letters and issued in the course of the proceedings of said association, to its members, and not for the purpose of sale or trade.

Books, not being printed or re-printed in Canada which are included in the curriculum of any university or incorporated college in Canada; books specially imported for the bona fide use of incorporated Mechanics' Institutes, public free libraries, and university and college libraries, not more than two copies of each book; and books, bound or unbound, which have been printed and manufactured more than twenty years.

Books printed in any of the languages or dialects of any of the Indian tribes of the Dominion of Canada.

Bookbinders' cloth.

Boracic acid, and borax, ground or unground, in bulk of not less than twenty-five pounds only.

Botanical specimens.

Brass scrap, and brass in sheets or plates.

Brass in bars and bolts, drawn, plain and fancy tubing.

Brass in trips for printers' rules, not finished.

Brass, copper, iron or steel rolled round wire rods under half an inch in diameter, when imported by wire manufacturers for use in making wire in their factories.

Brass and copper wire twisted, when imported by manufacturers of boots and shoes for use in their own factories.

Bristles.

Britannia metal in pigs and bars.

Bromine.

Broom corn.

Buckram for the manufacture of hat and bonnet shapes.

Bullion, gold and silver, in bars, blocks or lingots, and bullion fringe.

Burgundy pitch.

Burr stones, in blocks, rough or unmanufactured, not bound up or prepared for binding into mill stones.

Canvas of not less than forty-five inches in width, not pressed or calendered, for the manufacture of floor oilcloth.

Caplins, unfinished Leghorn hats, and Manilla hoods.

Casts as models, for the use of schools of design.

Cat-gut strings for gut cord for musical instruments; cat-gut or whip-gut, unmanufactured, and gut, and worm gut, manufactured or unmanufactured, for whip and other cord.

Celluloid, xylonite or xylolite in sheets, and in lumps, blocks or balls in the rough.

Chalk stone, china or Cornwall stone, felspar and cliff stone, ground or unground.

Cherry heat welding compound.

Chloride of lime.

Chronometers and compasses for ships.
 Cinnabar.
 Citron, lemon and orange rinds in brine.
 Clays, including China clay, fire clay and pipe clay.
 Clothing, donations of, for charitable purposes.
 Coal, anthracite, and anthracite coal dust.
 Coal tar and coal pitch.
 Coke.
 Cobalt, ore of.
 Cochineal.
 Coffee, green, except as hereinbefore provided.
 Coins, cabinets of, collections of medals and of other antiquities, including postage stamps.
 Coins, gold and silver, except United States silver coin.
 Coir and coir yarns.
 Colours, metallic, viz.:—oxides of cobalt, zinc, tin and copper, u.e.s.
 Communion plate, when imported by and for the use of churches.
 Copper, old and scrap, and copper in pigs, bars, rods, bolts, ingots, sheets, plates and sheeting, not polished or coated.
 Cooper seamless drawn tubing.
 Copper, precipitate of, crude.
 Cotton wool and cotton waste.
 Cotton yarns finer than number forty.
 Cups and other prizes won in competitions.
 Curling stones of granite.
 Degras.
 Diamonds unset, diamond dust or vort and black diamonds for borers.
 Diamond drills for prospecting for minerals, not to include motive power.
 Domestic fowls, pure-bred, for the improvement of stock, and pheasants and quails.
 Dragon's blood.
 Drugs, viz.:—aloes, ground or unground, a garlic, belladonna leaves, bichu leaves, hyoseyamus or henbane leaf, semina in leaves, conium cicuta or hemlock seed and leaf chamomile flowers, cinchona bark, ergot, India hemp (crude drug).
 Duck for belting and hose when imported by manufacturers of rubber goods for use in their factories.
 Dyeing or tanning articles, in a crude state, used in dyeing or tanning, not elsewhere specified; berries for dyeing or used for composing dyes, turmeric, nut galls; lac, crude, seed, button, stick and shell indigo, indigo paste and extract of, and indigo auxiliary or zinc dust; persis, or extract of archill and cudbear, terra japonica, gambier or catechu, extract of logwood, fustic, oak and of oak bark; camwood and sumac and extract thereof, tanners' bark, hemlock bark and oak bark.
 Eggs and egg yolk.
 Emery wheels and emery in blocks crushed or ground.
 Entomological specimens.
 Felt, adhesive, for sheathing vessels.
 Fertilizers uncompound or unmanufactured, including kainite or German potash salts, German mineral potash, bone-dust and bone-ash, fish offal or refuse, guano and other animal and vegetable manures.
 Fibre, Mexican, and tampico or istle and vegetable fibres, natural.
 Fibrilla.
 Fillets of cotton and rubber, not exceeding seven inches wide when imported by and for the use of manufacturers of card clothing.
 Fish hooks and twines to be used in making nets or seines, and fishing lines, not to include sporting fishing tackle or hooks with flies or trawling spoons, or threads or twines commonly used for sewing or manufacturing purposes.
 Flax fibre and flax tow.
 Fire bricks.
 Flint, flints and ground flint stones.
 Florist stock, viz.:—Palms, orchids, azaleas, cacti, and flower bulbs of all kinds.
 Folix digitalis.
 Fossils.
 Foot grease, being the refuse of cotton seed after the oil has been pressed out, but not when treated with alkalies.
 Fruits, viz.:—Bananas, plantains, pine apples, pomegranates, guavas, mangoes and shaddocks; and wild blueberries, wild strawberries and wild raspberries.
 Fuller's earth.
 Fur skins of all kinds not dressed in any manner.
 Gannister.
 Globes, geographical, topographical and astronomical.
 Gold-beaters' moulds, and gold-beaters' skins.
 Gold and silver sweepings.
 Grass, Manilla, Esparto or S, anish, and other grasses, and pulp of, including fancy grasses, dried but not coloured or otherwise manufactured.
 Gravels.
 Grease, rough, the refuse of animal fat, for the manufacture of soap only.
 Gummites.
 Gums, viz.:—Amber, Arabic, Australian, copal, dammar, kauric, mastic sandarac, Senegal, shellac; and white shellac in gum or flake, for manufacturing purposes; and gum tragacanth, gum gedda and gum barberry.

Gutta percha, crude.
 Gypsum, crude (sulphate of lime).
 Hair, cleaned or uncleaned, but not curled or otherwise manufactured.
 Hatters' furs, not on the skin.
 Hemp, undressed.
 Hides and skins, raw, whether dry, salted, or pickled, and raw pelts.
 Hoofs, horn strips, horn and horn tips.
 Hoop iron, not exceeding three-eighths of an inch in width and being No. 25 gauge or thinner, used for the manufacture of tubular rivets.
 Ice.
 Indian corn of the varieties known as "Southern white Dent Corn" or horse tooth ensilage corn, and "Western yellow Dent Corn" or horse tooth ensilage corn, when imported to be sown for soiling and ensilage, and for no other purpose, under regulations to be made by the Governor in Council.
 Iodine, crude.
 Iron sand or globules, and dry putty for polishing granite.
 Iron liquor, solution of acetate of iron for dyeing and calico printing.
 Iron or steel beams, sheets, plates, angles and knees for iron or composite ships or vessels.
 Iron masts for ships, or parts of.
 Iron or steel manufactures, which at the time of their importation are of a class or kind not manufactured in Canada, when imported for use in the construction of iron or steel ships or vessels.
 Ivory and ivory nuts, unmanufactured, and veneers of ivory, sawn only.
 Junk, old.
 Jute and jute butts.
 Jute cloth, rough, not coloured, bleached or calendered in any way.
 Jute yarn, plain, dyed or coloured, when imported by manufacturers of carpets, rugs and mats, and of jute webbing or jute cloth, for use in their own factories.
 Jute canvas, not less than fifty-eight inches wide, when imported by manufacturers of floor oil-cloth for use in their own factories.
 Kelp.
 Kyrolite or cyrolite, mineral.
 Lamp black and t.ory black.
 Lava, unmanufactured.
 Lead, nitrate and acetate of, not ground.
 Leeches.
 Lime juice, crude only.
 Litharge.
 Litmus and all licher, prepared or not prepared.
 Locomotive and car wheel tires of steel, when in the rough.
 Locomotive and railway passenger, baggage and freight cars, being the property of railway companies in the United States, running upon any line of road crossing the frontier, so long as Canadian locomotives and cars are admitted free under similar circumstances in the United States, under regulations prescribed by the Controller of Customs.
 Madder and munjeet, or Indian madder, ground or prepared, and all extracts of.
 Manganese, oxide of.
 Manuscripts.
 Maps and charts for the use of schools for the blind.
 Meerschaaum, crude or raw.
 Mineral waters, natural, not in bottle, under regulations prescribed by the Controller of Customs.
 Mineralogical specimens.
 Mining and smelting machinery imported prior to the sixteenth day of May, 1896, which is at the time of its importation of a class or kind not manufactured in Canada.
 Models of inventions and of other improvements in the arts; but no article or articles shall be deemed a model which can be fitted for use.
 Moss, Iceland, and other mosses, sea-grass and seaweed, crude or in their natural state or cleaned only.
 Musk, in pods or in grains.
 Newspapers, and quarterly, monthly and semi-monthly magazines, and weekly literary papers, unbound.
 Nickel.
 Oakum.
 Oils, viz.:—Cocconut and palm, in their natural state; carbolic or heavy oil; olive oil, u.e.s., for manufacturing and mechanical purposes, and oil of roses including ottar or attar of roses.
 Oil cake and oil cake meal, cotton seed cake and cotton seed meal and palm nut cake and meal.
 Osiers.
 Ores of metal of all kinds.
 Oxalic acid.
 Oysters, seed and breeding, imported for the purpose of being planted in Canadian waters.
 Paintings, in oil or water colour, by artists of well known merit, or copies of the old masters by such artists.
 Paintings, in oil or water colours, the production of Canadian artists, under regulations to be made by the Controller of Customs.
 Palm leaf, unmanufactured.
 Philosophical instruments and apparatus that is to say, such as are

not manufactured in the Dominion, when imported by and for use in universities, colleges, schools and scientific societies.

Phosphorus.

Pictorial illustrations of insects, &c., when imported by and for the use of colleges and schools, scientific and literary societies.

Pitch (pine), and pine tar in packages of not less than fifteen gallons each.

Plaits, chip, manilla, cotton, mohair, straw, Tuscan and grass.

Platinum wire; and retorts, pans, condensers, tubing and pipe made of platinum, when imported by manufacturers of sulphuric acid for use in their works in the manufacture or concentration of sulphuric acid.

Plumbago crucibles.

Potash, chlorate of, in crystals, when imported for manufacturing purposes only; potash, muriate and bi-chromate of, crude, caustic potash, and red and yellow prussiate of potash; also ashes, pot and pearl, in packages of not less than twenty-five pounds weight.

Precious stones, in the rough.

Prunella.

Pumice and pumice stone, ground or unground.

Quicksilver.

Quills in their natural state or unplumed.

Quinine, sulphate of, in powder.

Rags of cotton, linen, jute, hemp, and woolen, paper waste clippings, and waste of any kind except mineral waste.

Red liquor, a crude acetate of aluminum prepared from pyroligneous acid, for dyeing and calico printing.

Rennet, raw or prepared.

Resin or rosin in packages of not less than one hundred pounds.

Ribs of brass, iron or steel, runners, rings, caps, notches, ferrules, mounts and sticks or canes in the rough, or not further manufactured than cut into lengths suitable for umbrella, parasol or sunshade sticks, when imported by manufacturers of umbrellas, parasols and sunshades for use in their factories in the manufacture of umbrellas, parasols and sunshades only.

Roots, medicinal, viz.:—Alkanet, crude, crushed or ground, aconite, calumba, gentian, ginseng, jalap, ipecacuanha, iris, orris root, liquorice, sarsaparilla, squills, taraxacum, rhubarb, and valerian unground.

Rubber, crude, caoutchouc or India rubber, unmanufactured; hard rubber in sheets, but not further manufactured, and recovered rubber and rubber substitute.

Saddle jiggers, and stirrups, saddle-trees and cheap Morgan trees, for cowboys' saddles, including pack saddle trees.

Saffron, saffron cake, safflower, and extract of.

Salt, imported from the United Kingdom or any British possession, or imported for the use of the sea or gulf fisheries, not otherwise provided for.

Salt, not elsewhere specified, imported in barrels, bags or other packages, the bags, barrels or other packages to bear the same rate of duty as if imported empty.

Saltpetre.

Sand.

Sausage skins or casings, not cleaned.

Scrap iron and scrap steel, old and fit only to be re-manufactured, being part of or recovered from any vessel wrecked in waters subject to the jurisdiction of Canada.

Seedling stock for grafting, viz., Plums, pear, peach and other fruit trees.

Seeds, viz.:—Annato, beet, carrot, flax, turnip, mangold and mustard, and aromatic seeds which are not edible and are in a crude state, and not advanced in value or condition by grinding or refining, or by any other process of manufacture, viz.: Anise, anise star, caraway, cardamon, coriander, cumin, fennel and fenugreek.

Beans, viz.:—Bonquin, vanilla and nux vomica, crude only, locust beans and locust bean meal, and cocoa beans, shells and ribs, not roasted, crushed or ground.

Shells, tortoise and mother of pearl, and other, unmanufactured.

Shoe buttons, papier mache; metal glove fasteners, eyelet hooks and eyelets, for boots and shoes, and lacing hooks.

Silex, or crystallized quartz.

Silk, raw or as reeled from the cocoon, not being doubled, twisted or advanced in manufacture in any way, silk cocoons and silk waste.

Silver, German silver and nickel silver, rolled or in sheets.

Soda, sulphate of, crude, known as salt cake, barilla or soda ash, caustic soda; silicate of soda in crystals or in solution; bichromate of soda, nitrate of soda or cubic nitre, salsoda, sulphide of sodium, nitrite of soda, arseniate, binarseniate, chloride, and stannate of soda.

Spelter, in blocks and pigs.

Spurs and stilts, used in the manufacture of earthenware.

Steel bowls for cream separators.

Steel for the manufacture of files, when imported by file manufacturers for use in their factories.

Steel No. 20 gauge and thinner, but not thinner than No. 30 gauge, to be used in the manufacture of corset steels, clock springs and shoe shanks; and flat wire of steel of No. 16 gauge or thinner, to be used in the manufacture of crinoline and corset wire, when imported by the manufacturers of such articles for use in their own factories.

Steel, rolled rods of, under half an inch in diameter or under half

an inch square, when imported by knob or lock manufacturers or cutlers for use exclusively in such manufactures in their own factories.

Steel rails, weighing not less than forty pounds per lineal yard, for use in railway tracks.

Steel, in sheets of not less than eleven nor over eighteen wire gauge, and costing not less than seventy-five dollars per ton of two thousand two hundred and forty pounds, when imported by manufacturers of shovels and spades for use exclusively in such manufacture in their own factories.

Steel for saws and straw cutters, cut to shape, but not further manufactured.

Steel valued at two and one-half cents per pound, and upward, for use in the manufacture of skates.

Steel of No. 12 gauge and thinner, but not thinner than No. 30 gauge, when imported by manufacturers of buckle clasps and ice-creepers, to be used in the manufacture of such articles only in their own factories.

Stereotypes, electrotypes and celluloids of books, and bases and matrices and copper shells for the same, whether composed wholly or in part of metal or celluloid.

Sugar not above number sixteen Dutch Standard in colour, sugar drainings, or pumpings drained in transit, melado or concentrated melado, tank bottoms, and sugar concrete.

Sulphate of iron (copperas); and sulphate of copper (blue vitriol).

Sulphur and brimstone, crude, or in vroll or flour.

Tagging metal, plain, japanned or coated, in coils, not over one and a half inches in width, when imported by manufacturers of shoe and corset laces for use in their factories.

Tails, undressed.

Tartar emetic and gray tartar; cream of tartar in crystals and argal or argols.

Tea, except as hereinbefore provided.

Teasels.

Tin crystals, tin strip waste, and tin, in blocks, pigs, bars and sheets and tin plates, tin foil and tea lead.

Tobacco, unmanufactured, for excise purposes, under conditions of "The Act respecting the Inland Revenue."

Tree-nails.

Trees, forest, when imported into the Province of Manitoba, or the North-west Territories, for planting.

Turpentine, raw or crude.

Turtles.

Ultramarine blue, dry or in pulp.

Vaccine and ivory vaccine points.

Varnish, black and bright for ships' use.

Verdigris, or sub-acetate of copper, dry.

Whalebone, unmanufactured.

Whiting or whitening, gilder's whiting and Paris white.

Wire rigging for ships and vessels.

Wire, crucible cast steel.

Wire of iron or steel, No. 13 and 14 gauge, flattened and corrugated, used in connection with the machine known as the wire grip machine for the manufacture of boots, shoes and leather belting, when imported by manufacturers of such articles to be used for these purposes only in their own factories.

Wool and the hair of the camel, alpaca goat and of other like animals, not further prepared than washed, n.e.s., and noils, being the short wool which falls from the combs in worsted factories.

Mohair yarns.

Wool or worsted yarns, when genapped, dyed or finished, and imported by manufacturers of braids, cords, tassels and fringes to be used in the manufacture of such articles only in their own factories.

Wood.

Logs and round unmanufactured timber, not specially enumerated or provided for in this Act.

Firewood, handle bolts, heading bolts, stave bolts and shingle bolts, hop poles, fence posts, railroad ties, ship timber and ship blanking, not specially provided for in this Act.

Timber, hewn or sawed, and timber used for spars and in building wharfs.

Timber, squared or sided.

Sawed boards, plank, deals, and other lumber.

Pine clapboards.

Spruce clapboards.

Hubs for wheels, posts, last blocks, wagon blocks, car blocks, gun blocks, heading, and all like blocks or sticks, rough hewn or sawed only.

Laths.

Pickets and palings.

Shingles.

Staves of wood of all kinds, wood unmanufactured.

Provided that if any country shall impose a duty upon the articles in this Schedule enumerated, or any of them, when imported into such country from Canada, it shall be lawful for the Governor General in Council, from time to time, by Proclamation published in the Canada Gazette, to declare that the following Export Duties, or any of them, shall be chargeable upon logs exported into such country from Canada.

Viz:

Pine, Douglas Fir, Spruce, Fir Balsam, Cedar and Hemlock logs, not exceeding three dollars per thousand feet board measure.

In case of the Export of any of the above-enumerated logs in shorter lengths than nine feet, then a rate per cord may be levied in the same way, equivalent to the above enumerated rate per thousand feet, board measure.

And Export duty shall be chargeable accordingly, after the publication of such Proclamation.

Provided that the Governor General in Council may, by Proclamation published in like manner, from time to time, remove and reimpose such Export duty.

Bamboos, unmanufactured, and bamboo reeds, not further manufactured than cut into suitable lengths for walking sticks or canes, or for sticks for umbrellas, parasols or sunshades.

Cane, rattans and reeds, not further manufactured than split.

Corkwood, or cork bark, unmanufactured.

Lumber and timber planks and boards of amaranth, cocoboral, boxwood, cherry, chestnut, walnut, gumwood, mahogany, pitch pine, rosewood, sandalwood, sycamore, Spanish cedar, oak, hickory, whitewood, African teak, black heart ebony, lignum vitae, red cedar, redwood, satin wood and white ash, when not otherwise manufactured than rough sawn or split or creosoted, vulcanized or treated by any other preserving process; the wood of the persimmon and dogwood trees, hickory billets, and hickory lumber sawn to shape for spokes of wheels, but not further manufactured; hickory spokes rough turned, not tenoned, mitred, throated, faced, sized, cut to length, round tenoned or polished.

Wood pulp—mechanically ground.

Wood pulp, and chemical pulp, bleached or unbleached.

Yellow metal, in bolts, bars and for sheathing.

Zinc, in blocks, pigs and sheets, and zinc seamless drawn tubing.

Zinc, chloride, salts and sulphate of.

SCHEDULE "C."

Books, printed paper, drawings, paintings, prints, photographs or representations of any kind of a treasonable or seditious, or of an immoral or indecent character.

Reprints of Canadian copyright works, and reprints of British copyright works which have been also copyrighted in Canada.

Coin, base or counterfeit.

Oleomargarine, butterine or other similar substitute for butter.

Goods manufactured or produced, wholly or in part by prison labour, or which have been made within or in connection with any prison, gaol or penitentiary.

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.

Mr. Mitchell, of Millwood, Man., will build a saw mill at Selkirk, Man.

Barrett's large flour mill at Port Hope, Ont., was destroyed by fire March 19, loss about \$7,000.

Messrs. E. Leonard & Sons, London, Ont., are supplying two large boilers for the London Water Works.

The Coleman Planing Mill and Lumber Co., Burlington, Ont., is being incorporated with a capital stock of \$50,000 to operate saw mills at that place.

The Dodge Wood Split Pulley Co., Toronto, have received an order for all belt pulleys required in the new mill of Jacob Lawrence & Son, Watford, Ont.

Mr. E. F. Farquhar, of Toronto, has secured the contract for the construction of 25 miles of the new railway extending from Parry Sound to Long Lake, Ont.

The Dodge Wood Split Pulley Co., Toronto, have received a second large order from The Rathbun Co., of Deseronto, for their patent split friction clutch pulleys.

The T. W. Ness Electrical Co., Montreal, is being incorporated with a capital stock of \$150,000 to manufacture electrical machinery and appliances of all kinds.

Considerable new machinery is to be placed in the Lake of the Woods Milling Co.'s flour mill at Portage la Prairie, Man., which will increase its capacity to 800 barrels per day.

The D. S. Henderson Mfg. Co., Brantford, Ont., is the style of the company which Mr. D. S. Henderson has formed to manufacture high grade pneumatic sulky wheels, horse clippers, etc.

The Montreal Wooden Mills Co., Montreal, are making some repairs and additions to their machinery, including a number of gutta percha belts, which they say are giving excellent satisfaction.

Mr. J. Kerr is forming a company to build a brewery at Moosomin, Assa.

The capital stock of the Packard Lamp Co., Montreal, will be increased from \$100,000 to \$300,000.

W. H. Atkinson & Co. have just completed the construction of a saw mill at Lake Max, near Deloraine, Man.

The Canadian Typograph Company, Windsor, Ont., are applying for incorporation with a capital stock of \$250,000 to manufacture the Rogers typograph.

The Dodge Wood Split Pulley Co., Toronto, have received through their English agent a substantial order for Dodge patent wood split pulleys for South Africa.

The biscuit works at Galt, Ont., previously conducted by Jackson Bros., have been taken over by John Stevens, who will introduce \$2,000 worth of new machinery.

The Carnovsky Wood Mfg. Co., of Kingston, Ont., is being incorporated with a capital stock of \$10,000 to manufacture furniture, office fittings and other woodwork.

The Canadian Cone Coupler Carriage Co., of Palmerston, Ont., are applying for incorporation with a capital stock of \$50,000 to manufacture vehicles under the St. John cone coupler patent.

In a recent issue we stated that the Bain Bros. Mfg. Co., Woodstock, Ont., were increasing their capital stock to \$100,000. We should have said the Bain Bros. Mfg. Co., of Brantford, Ont.

Messrs. Kerr & Morgan, Montreal, have recently built and placed hoists and elevators in that city as follows:—Etters' Brewery, Montreal Brewing Co., Troy Steam Laundry (2), Roland Bros. and S. H. & A. S. Ewings.

The Royal Electric Company, of Montreal, have secured the contract for supplying an incandescent plant and system for the town of Mitchell, Ont. The plant is to be a five hundred light incandescent system, and will be put in during the summer months.

Messrs. Miller Bros. & Toms, Montreal, are general agents in that city for the Dodge Wood Split Pulley Co., of Toronto. They carry all ordinary sizes in stock and can attend to the wants of power users in and about Montreal in a prompt and satisfactory manner.

The Dominion Gas and Electric Company, Winnipeg, Man., are applying for incorporation with a capital stock of \$50,000 to manufacture gas and electricity for commercial purposes, and to manufacture apparatus and appliances used in connection with the production of gas and electricity.

The Pressed Brick Co. of Buckingham is the name of a company just organized at Buckingham, Que., to manufacture pressed brick, etc. Albert McLaren will be manager and the works will be equipped with the best and most modern machinery, with a capacity of over a million bricks per year.

The new bridge about being built by the Grand Trunk Railway over their tracks at the south end of John street, Toronto, will be of iron or steel, with six spans, two of which will be 140 feet and the others 100 feet each. The roadway will be 30 feet wide, with sidewalks on each side 6 feet wide.

D. E. Sprague, of the Winnipeg saw mills, states that his season's cut of logs has amounted to 3,500,000 feet. His camp is on the Rosseau river, near the Lake of the Woods, and in his employ there have been all winter nearly 100 men. The logs will be floated down to his mill here.—Winnipeg Commercial.

Messrs. John Bertram & Son, Dundas, Ont., inform us that they are making a specialty of manufacturing all kinds of machinery for pulp and paper mills. They are now building a paper pulp machine with 21 dryers for a works at Chatham, N. B. Messrs. Bertram are building such machinery at precisely the same price as is charged in the United States.

The Dodge Wood Split Pulley Co., Toronto, report with much pride that the Dodge patent pulley received highest award at Chicago World's Fair. The company call attention, in their advertisement in our columns, to the special advantages of their pulley, and also publish a list of names of their several agents in Canada who carry stock for prompt delivery.

The new power house of the Toronto Railway Co., Toronto, is being rapidly pushed to completion. The foundations of the two immense Siemens-Halske generators are completed and also the foundations for the big smoke stack. This chimney, it is said, will be the fourth highest on the continent. It will be 250 feet high above the street level, those exceeding it in height being that of the Brooklyn, N. Y., Electric Railway Co., 300 feet high; at Fall River, Mass., 276 feet, and at Newark, N. J., 260 feet. The foundation of the Toronto stack rests upon solid rock 15 feet beneath the surface, and is 40 feet square.

Auramine G. is a new yellow for cotton, manufactured by the Society of Chemical Industry, in Basle, and introduced in the American market by their sole agents, the A. Klipstein Company, 122 Pearl Street, New York. It is a very similar product to Auramine O, but much greener and more brilliant than the latter color. It dyes on a tannic and tartar emetic mordant; and 1 per cent of the color will give a very full and pretty shade. Very pretty green shades can be produced by combining Auramine G. with Fast Green Crystal O.

The Bennett Furniture Co., London, Ont., have just put in a new 100 h. p. engine, a 150 h. p. boiler, heater and pump.

The Toronto Steel Clad Bath and Metal Co., Toronto, manufacturers of the steel clad baths heretofore described in these pages, have just issued a circular to architects in which allusion is made to the favor that has been accorded by the fraternity to this bath, which is accepted as an acknowledgment of its merits. The circular states that the trade of the company is rapidly expanding, and that within the first eighteen months of the beginning of the business it was found necessary to largely increase the plant and facilities, so that at this time they are the most extensive manufacturers of baths in the Dominion.

The lamp in the sign of the Citizens' Electric Light Co., on the corner of Main and Beckwith streets, burned out on Saturday night last. Since being placed there, when the plant was started over a year ago, it has run continually every night. It threw light for four thousand five hundred and eighty four hours. The lamp was made by the Packard Lamp Co., of Montreal, and it is this class of lamps that the Citizens' Electric Light Co. is using exclusively, as they have proven more satisfactory than any other. If there is any other electrical plant in Eastern Ontario that can beat this lamp record we would like to hear about it.—Smiths' Falls News.

The Dominion Dyewood and Chemical Co., Toronto, writing us regarding new dyestuffs and anilines, say:—

Mucklow's Hematine Powder.—This has only been offered in liquid by the manufacturers but the agents for Mucklow & Co., The Dominion Dyewood and Chemical Co., advise that they will shortly place on the market the same quality of Hematine, only in powder, which will be a more convenient form for use, besides the saving in freight. For particulars write the Dominion Dyewood and Chemical Co., Toronto.

Direct Navy-Blue R.—This new Aniline color has the valuable properties of dyeing both cotton and wool in one bath with common salt and glauber salt as a mordant. It is an invaluable color for knit goods or other goods containing a percentage of cotton.

New Victoria Blue B.—This new color dissolves much more readily than the ordinary Victoria Blue, is faster to alkali and light and dyes either in a neutral or acid bath. It is highly recommended for blanket borders or when a specially bright blue is required.

The Dominion Dyewood and Chemical Co. control the color for Canada and will furnish dyed samples on application.

Navy-Blue D.—Dyes wool in an acid bath, takes on level and is a cheap color suitable for yarn or piece goods. For samples write the company.

The estate of James Battle, Thorold, Ont., have, in addition to their cement works, commenced the manufacture of common lime in their large draw kilns. This means, of course, more labor and employment for more hands. The quality of the lime is excellent, as it is burned from clear lime stone, for which the Thorold quarries are famous.

Horace R. Ridout, Montreal, writing us concerning his "Stick Fast" cement, says:—"Stick Fast" is meeting with great success amongst all classes of manufacturers, electric light companies, machine shops, cotton and woolen manufacturers, boot and shoe manufacturers, saw and planing mills, and in fact any place where they have belting. Large quantities have been sold in Quebec City within the last few days amongst all kinds of manufacturers. "Stick Fast" is manufactured by Horace R. Ridout, Montreal, and Alonzo W. Spooner is the agent for Ontario and Western Canada. Blackadar and Lear are the agents for the Lower Provinces.

Alex. P. Mende, manufacturing chemist, 14 Water street, New York, in a letter just received, says:—We refer to our communication regarding our patented process of extracting the valuable products from refuse and wash waters. Our patents are now adjusted and we can give you an idea of the process. That you may fully understand the advantage, we give you, first, the antiquated way of extracting such waters, the so-called Yorkshire process now in use.

It is done by having large basins to receive the refuse waters, allowing them to settle for quite a number of days; then the water is drawn off, the sediment removed into vats and tanks and thence treated for separation, which again takes quite a number of days to accomplish; finally, the sediment is transferred into steam presses, the pressed liquor again put into tanks and there treated, thence filled into barrels.

Against this process ours is as follows:—We do away with all large basins, because we extract the refuse water as fast as it comes by taking it into a tank containing certain chemicals and the use of air pressure while continually running the liquid into our specially constructed filter presses, where we get solid and almost dry cakes, from which we finally extract the oil by means of steam presses and make ready. This process of ours can be done with so large a saving of space and time and with less than half the force of labor, that the immense advantage must become apparent to any manufacturer exercising economy; for where it now takes almost two weeks to get through, we can do it in about 24 hours; and where now from 5 to 6 men are employed we need only 2 men. Moreover, the quality of the regained product comes out much finer upon our process; while upon the old process only part of the product is regained, we extract the entire.

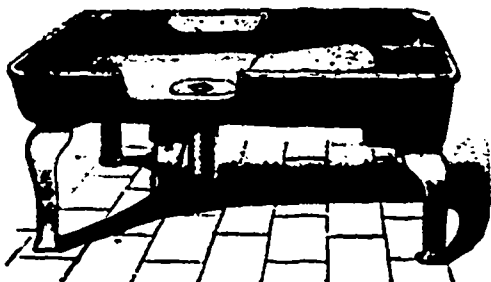


Buffalo Planing Mill Exhaust Fans

EFFICIENCY
UNEQUALLED
DURABILITY
UNSURPASSED
SMOOTH
RUNNING
INCOM-
PARABLE

THE LARGEST
FORGE
IN THE WORLD

Thirty-Eight Other
Types of
Portable and Sta-
tionary Types.



BUFFALO LUMBER DRY KILNS

Blower, Blacksmiths' Tools, etc.

The Cant Bros. Co., of Galt, Ltd.

...Manufacturers of...

Wood Working Machinery

Principal Gold Medal Toronto Exhibition, 1883

The GODERICH ORGAN CO., Goderich, write:

"We have tried the CARVING MACHINE bought from you on the trusser of our Piano Case Organ, and find it works very satisfactory. We are enabled to do more elaborate carving at half the cost of former work, and we will save the cost of the machine in one year. We are well pleased with the solid and neat manner in which the machine is constructed, and think it should fill a long-felt want among furniture and kindred manufacturers, who could not afford to buy the higher priced machines, there being no limit to the scope of your machine."

Exhaust Fans, Single and Double.

WRITE FOR CATALOGUES AND PRICES

GALT : : : ONT.

Messrs. Polson & Miller, lessees of the Polson Iron Works, Toronto, have been awarded a contract to build six tubular Scotch marine boilers for the new power house of the Toronto Railway Co. These boilers are to be 10 feet in diameter, 14 feet long, with steel shell $\frac{3}{8}$ inch thick, intended to develop 400 horse power each. They are to be delivered within two months.

Messrs. E. Leonard & Sons, London, Ont., have lately shipped complete saw mill outfits to Kavanagh & Co., Halifax, N. S.; Isaac Hamish, Annapolis, N. S.; F. J. Sweeney, Melrose, N. B.; also 85 h. p. boiler for The Laing Packing and Provision Co., Montreal, 70 h. p. boiler for St. Hyacinthe Gas Co., St. Hyacinthe, Que., a 30 h. p. Ball engine and 50 h. p. boiler for Godson Bros., St. John, N. B., a 50 h. p. Tandem Compound Leonard-Ball engine to J. W. Beckwith, Bridgetown, N. S., and a 30 h. p. Leonard-Ball engine and 35 h. p. boiler to W. E. and S. F. Koop, Middleton, N. S.

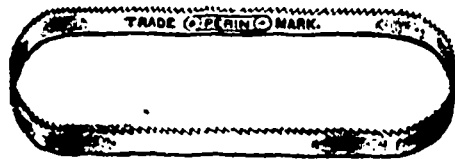
The Messrs. Cant Bros. Co., Ltd., of Galt, have just brought out a new carving machine for duplicating carvings, which will supply a real want, not only in furniture factories, but also in all establishments where hand carvings are done. It is simple in construction and easily worked. It will carve two copies complete, at one time, of any piece of wood which has been carved, without shifting the pattern, as the arms have both a vertical and a lateral movement. No manufacturer who employs carvers, and has any number of duplicate copies to make, ought to hesitate about getting this machine. It will save its cost in a few months, as the actual cost of reproducing the carvings is a mere trifle, and it then requires very little work by the hand carver to finish them up and make them equal to the originals. The Goderich Organ Company have already proved its value to them.

The Canada Machinery & Supply Co., Brantford, Ont., shipped the following machinery during the last month: The Bismarck Cheese Factory Co., Bismarck, Ont., a new boiler; James Lindsay, Milton, Ont., a new saw mill; Thomas Henry, Waterford, Ont., a new saw and planing mill; J. L. Yates, Hatchley, Ont., a new engine and saw mill; Brown & Street, Delhi, Ont., a new engine and boiler and complete lath and heading mill plant; West & Peachey, Simcoe, Ont., a 16 inch shaper; E. J. Elsworth, Port Colborne, Ont., engine and dynamo for lighting his factory by electricity; Paris Electric Plating Co., an engine, boiler, shafting, etc.; Leeshman Mandrell Co., Woodstock, Ont., complete saw and planing mill machinery; Alfred Daniels, Woodstock, Ont., a boiler, engine and complete laundry plant; James Hay & Co., Woodstock, Ont., machine for making chair bottoms; John J. Wichmann, Humberstone, Ont., a large sanding machine.

The Goderich Organ Co. reports having closed a very successful year with February. As well as making their well known line of organs this company also make a full line of bath-room wood-work, church seats and church and lodge chairs. They have a very complete factory, having, during the past year, built a large addition thereto.

Mr. John Forman, whose advertisement appears on page 295, has taken a commodious store at 650 Craig St., Montreal, where he will carry a large and complete stock of electrical supplies of all kinds. Mr. Forman starts business under favorable auspices, having secured the Canadian agencies of several of the best manufacturers of electrical supplies and apparatus. Among these are Messrs. Crompton & Co., of London, whose dynamos and storage batteries have a worldwide reputation for excellence, and the Edison and Swan United Electric Light Co., the largest manufacturers in the British Empire of incandescent lamps, electric light fittings and instruments. Though new to the electrical trade, Mr. Forman is well and favorably known to the commercial world, having been engaged in business in Montreal on his own account for a number of years, during which time he has gained an enviable reputation for fair and honorable dealing. Mr. Forman has secured the services of Mr. Geo. H. Hill, who has been for a long time engaged in electrical matters in Canada, and is well known to the electrical trade, as electrician, to take charge of the practical department of the business.

PERIN'S FRENCH BAND SAW BLADES



These blades are joined, set and filed, ready for use, and stamped with M. Perin's name and Trade Mark. They are highly finished, even in temper, and the backs rounded and polished.

All widths from $\frac{1}{2}$ to 1 $\frac{1}{2}$ inches X 17ft., 17ft. 10in., 18ft. 8in., and 20ft. 6in., always kept in stock.

RICE LEWIS & SON, Ltd.

::: Sole Agents for Canada :::

TORONTO.

E. LEONARD & SONS

LONDON - - - CANADA

MANUFACTURERS OF

ENGINES AND BOILERS

(NEW DESIGNS)

STEAM PLANTS EQUIPPED FOR ALL PURPOSES

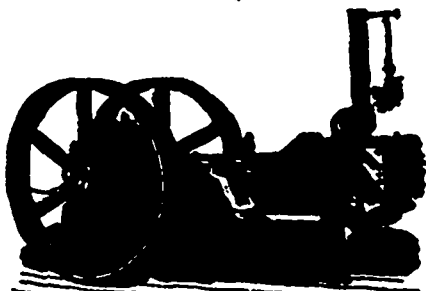
Highest Economy, Regulation Perfect. Send for Circular. Interviews Desired.

THOS NOPPER, - - - Sales Agent

79 YORK STREET, TORONTO, ONT.

Armington & Sims

AUTOMATIC HIGH SPEED ENGINES



-FOR-
ELECTRIC LIGHTING

-AND-
GENERAL FACTORY PURPOSES

Perfect Regulation and Highest Economy.

**Steam Pumps
SHAFTING, PULLEYS**

-AND-
General Machinery

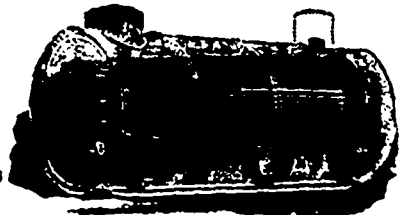
Nie & Whitfield - HAMILTON, ONT.

High Grade Power Plants

The...

MONARCH

ECONOMIC BOILER



Combines all the advantages of portable forms with the highest possible economy.

Robb Engineering Co., Ltd., Amherst, N. S.



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.

Oakville Electric Motor and Mfg. Co. is the name of a new concern recently started in Oakville, Ont., who will manufacture electric motors, etc.

A joint stock company with a capital of \$25,000 have taken over the business of Thorpe & Co., manufacturers of soda water, etc., Victoria, B. C.

The extensive works of Mr. Jesse Cook at Zephyr, Ont., including saw mill, planing mill, shingle mill and sash and door factory, were destroyed by fire March 30, loss about \$10,000.

The Canadian Construction Company, Toronto, are applying for incorporation with a capital stock of \$100,000 to manufacture materials used in the construction of pavements, roadways, etc., and to carry on the business of road making in all its branches.

Application for incorporation is being made by Messrs. Thomas Long, of Toronto; F. F. Telfer, R. T. Stephens, H. Y. Telfer, J. J. Long, A. L. Stephens, G. W. Brown, T. C. Brown and C. E. Stephens, of Collingwood, Ont., as the Collingwood Meat Company, with a capital stock of \$300,000, and headquarters at Collingwood.

Messrs. Darling Bros., Reliance Works, Montreal, inform us that they have just accepted an order for a 125 horse power Webster heater from the Montreal Warehousing Co., that city, and have just completed and placed their improved elevators as follows:—Ransom, Forbes & Co., Bushnell & Co., and George Childs & Co., all of that city.

A few days ago three new 10-wheel locomotives, built at the works of the Canadian Locomotive and Engine Works, Kingston, Ont., for the Intercolonial Railway, were sent out to duty. These engines were built specially for heavy freight traffic. Two fine locomotives for passenger traffic on the same railway are being constructed by this company.

The Bertram Engine Works Co., Toronto, and Messrs. Laurie Bros., Montreal, have been awarded contracts to build the two compound condensing horizontal Corliss steam engines—Allis 1890 type—for the new power house of the Toronto Railway Co. The cylinders of these engines will be 26x48 inches and 48x48 inches respectively and are to be delivered within three months. They are intended to drive the two immense Siemens & Halske multipolar electrical generators now being built for the Railway Co.

The Siemens & Halske Co. of America, of Chicago, have been awarded the contract for building two multipolar generators for the new power house of the Toronto Railway Co. These machines will be of 1500 horse power each, and will be coupled direct to shaft of the steam engines now being built to drive them. The armatures of these generators will be 13 feet 6 inches in diameter and will weigh 20 tons each, the entire weight of each being about 60 tons. It is said these will be the largest generators in use on the American continent.

John Ballantine, of Galt, Ont., is starting works at Preston, Ont., for the manufacture of woodworking machinery. He will erect a two story stone building 200x100 feet, which, when completed and equipped, will cost about \$20,000. Employment will be given at the start to about 30 skilled workmen; this number to be increased later. The municipality of Preston gives Mr. Ballantine one acre of land desirably situated, which, with the works, will be exempt from taxation for ten years; and a loan of \$10,000 will also be made him, which he is to repay in 10 equal annual installments. Mr. Ballantine is a good machinist, who was foreman with Cowan & Co., Galt, for many years.

The Gurney-Tilden Company, Hamilton, has purchased the Canadian rights for the new arc light invented by W. E. Irish. The company will proceed at once to manufacture the new lamp, which, it is claimed, will supplant nearly all other varieties in use on account of its cheapness, simplicity and economy. The present arc lamp costs \$45 each and weighs 50 pounds, whereas the Gurney-Tilden Company will turn out the new lamps at \$25 each without globe, and they weigh only about 8 pounds. The present arc lights require a current of 1,000 volts to operate them, and are therefore not entirely safe for use in houses or stores. The new light only requires 25 volts. It is probable that the company will employ a considerable additional number of hands—Spectator.

Wm. J. Matheson & Co., New York and Montreal, importers and manufacturers of dye-stuff, etc., have sent us a circular having reference to their New-Methylene-Blues, GG, F, N, in which they say: For dyeing purposes our New-Methylene-Blues are equal, with regard to fastness, to the older marks of this class of dye-stuffs, but have the advantage over the latter to produce finer, purer shades, to be of greater tinctorial power, and to be lower in price. For printing purposes the New-Methylene-Blues are distinguished by their resisting steaming well, that the printing paste keeps very well, and that they are better suitable for resists than any competing dye-stuff, which latter advantage has specially been pointed out to us by print-works where our New-Methylene-Blues are in regular use. The fastness against washing and acids of prints done with our New-Methylene-Blues is excellent and not surpassed by any product of the Methylene-Blue series.

The directors of the Galt and Preston Electric Railway Company held a very important meeting on Saturday last, to decide on tenders for engines, boilers, electrical appliances, cars, etc., for the road. The contract for engines, boilers, etc., was awarded to the Goldie & McCulloch Company, for \$6,000. This contract embraces two tandem compound engines, 100 horse power each, two steel plate boilers, condensers, etc., the engines to be geared to run together or separately. The Westinghouse Co., Messrs. Ahearn & Soper, of Ottawa, agents, were awarded the contract for all electrical appliances, including two handsome vestibuled cars, with 30 h. p. motors, fitted with incandescent lamps and electrical appliances for heating in winter. The Directors congratulate the company on the fact that these tenders were very much below anticipated cost. Everything going right from this on, the directors believe they can have the road running before the end of May.—Galt Reporter.

The Thorold Cement Mill was established in 1841 by John Brown. Mr. Brown, who had a contract on the Welland Canal, was unfortunately killed during its construction, when the cement mill passed into the hands of Mr. John Battle. That gentleman died in 1891, since which time the business has been conducted by his sons, under the title of the Estate of John Battle. The extensive quarries cover an extent of 44 acres, and are situated on the east side of the new canal. A steam drill is kept in operation the whole year round, convenient tracks running from the quarries to the kilns, where the burning is done, and is then brought to the mill, situated on the old canal, where it is manufactured. The Thorold cement manufactured by this firm has more than a Provincial reputation. Almost its first introduction was its use in the Victoria Tubular Bridge at Montreal. It was also used exclusively in the building of the old Welland Canal, and also in the new Welland Canal. It was also extensively used in the construction of the great St. Clair tunnel between Port Huron and Sarnia. The fact of this cement having been used in such important works as the foregoing is sufficient evidence as to its reliability. Forty hands altogether are employed. The mill is a three-storey frame structure, fitted up with all the latest appliances necessary for carrying on the business, and is 150x50 feet in extent. The Thorold cement has been used in all the great engineering undertakings since the building of the Victoria Tubular Bridge in 1851.

KERR & MORGAN

Montreal, Que.

MANUFACTURERS OF

ELEVATORS

HYDRAULIC,
BELT POWER,
ELECTRIC

..and..

HAND ELEVATORS

..For..

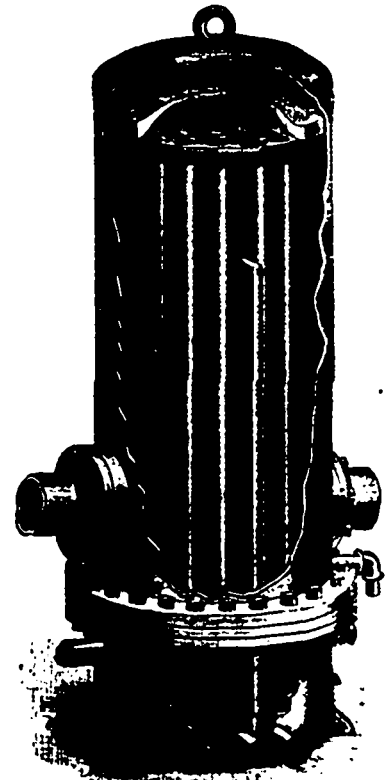
Passenger and Freight Service

..and..

General ..
.. Machinery

The Jacobs Patent Water Tube

Feed Water Heater and Purifier.



GREAT EFFICIENCY, SIMPLICITY OF CONSTRUCTION and LOW COST. Has a Cast Iron shell, which will never wear out, with seamless drawn brass tubes expanded into tube-plates at top and bottom, with double blow-off.

The tubes being surmounted by a cap forming a chamber at the top, and being fastened rigidly only to the lower tube plate, free play is given for expansion, thereby preventing rupture and leakage of joints.

CHAS. JACOBS & CO.

47 Oliver Street, Boston, Mass.

The Nanaimo, B. C., Electric Light Co. will discard their old electric machinery and introduce an entirely new system.

The Oakville Electric Motor and Mfg. Co., Oakville, Ont., is a new company starting to manufacture electric motors and appliances.

The Barney Ventilating Fan Co., Boston, Mass., have sent us a circular which explains itself as follows:—Through circumstances over which we had no control, on the night of February 27th last, the silver thread which bound our lease of life at 70 Pearl St., became terribly water-soaked, and in the present demoralized condition of the white metal, it parted. We had the rust pounded off our running gear; and as our energy and ability were stored in another building and carefully covered, they are still intact; our goods and chattels have been yarded in new pastures, and this is to advise that sample copies, spring openings, calendars, Life Insurance Company statements and remittances should be sent to the Barney Ventilating Fan Co., 54 Oliver street, Boston, Mass.

The Kay Electric Works, Hamilton, Ont., report having recently placed the following motors and electric machinery:—St. Andrew's Presbyterian church, Peterborough, a motor for blowing the organ; W. C. Henderson, Montreal, one motor; W. E. Potter, Montreal, electro-plating machine; Capt. Geo. Crandall, Lindsay, Ont., electric plant for search light for steamer Crandella; Confederation Life Building, Toronto, motor for elevator; St. Joseph's Convent, Hamilton, motor for elevator; Welland Electric Light Co., an additional dynamo; St. Paul's church, London, Ont., motor for electric organ; Toronto Paint Company, Toronto, alternating dynamo; T. C. Watkins, Hamilton, motor for running cash carrier; Galt Electric Plating Company, Galt, Ont., electro-plating machine; Ontario Plating Company, Hamilton, electro-plating machine; Mrs. Foley, Montreal, motor; Windsor Foundry Co., Windsor, N. S., electro-plating machine; Lawson Ballard, Toronto, electro-plating machine; Hamilton & Prout, Forest, Ont., dynamo; Thomas Eagan, Tottenham, 350 light incandescent plant; Watson Bros., St. Catharines, 12 h.p. motor.

... FOR ALL KINDS OF ...

Electric Supplies and Construction Work

WRITE

Lowe & Farrell, 38 James St. South, Hamilton.

Second-Hand Engines and Boilers for Sale by the

GOLDIE & McCULLOCH CO., Ltd.

GALT, ONT.

- 100-h.p. Wheelock Engine.
- 90-h.p. Wheelock Engine.
- 75-h.p. Slide Valve Engine.
- 60-h.p. Buckeye Engine.
- 30-h.p. Slide Valve Engine.
- 40-h.p. Slide Valve Engine.

- 35-h.p. Slide Valve Engine.
- 30-h.p. Slide Valve Engine.
- 15-h.p. Slide Valve Engine.
- 10-h.p. Slide Valve Engine.
- 100-h.p. Return Tubular Boiler.
- 90-h.p. Return Tubular Boiler.

- 80-h.p. Return Tubular Boiler.
- 70-h.p. Return Tubular Boiler.
- 55-h.p. Return Tubular Boiler.
- 30-h.p. Return Tubular Boiler.
- 18-h.p. Return Tubular Boiler.

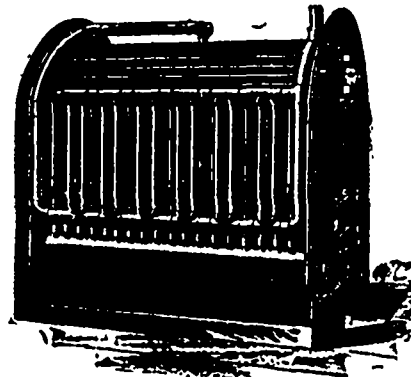
The above Engines and Boilers have been replaced by Wheelock Engines and New Boilers of greater power, and will be rebuilt and sold at very reasonable figures.

For Particulars Apply to

The Goldie & McCulloch Co., Ltd. - Galt, Ont.

The E. B. Eddy Co.'s new factory at Hull, Que., for the manufacture of indurated pails, etc., is being rapidly pushed to completion.

The Canada Paint Co., Montreal, are fitting up a new machine shop, and have placed an order with Thomas Forrester, that city, to supply them with Dick's patent gutta percha belting, for which he is sole agent.



... THE ...

FINLAYSON WATER TUBE MARINE BOILER

... FOR ...

YACHTS, LAUNCHES and OTHER STEAMERS

The most efficient and Reliable Water Tube Boiler in the market. Has entirely new features and improvements.

Send for Illustrated Catalogue of Boilers and Engines.

Doty Engineering Works

DOTY BROS. & Co., Proprietors.

5 YORK STREET, Opposite Union Station, : : TORONTO, ONT.

Fuel Oil Appliances

IMPROVED
DUPLEX
SYSTEM

FOR

Annealing, Forging, Enamelling, Welding,

Melting, Brazing and Heating Generally

WITH FUEL OIL

FURNACES DESIGNED AND BUILT FOR EVERY PURPOSE.

ESTIMATES MADE, AND WORKS EQUIPPED COMPLETE.

W. S. ROCKWELL

Constructing Engineer

81 Centre Street, NEW YORK

W. S. HILL ELECTRIC COMPANY

Manufacturers of High Grade

SWITCHES

For Power and Light Stations.

Switch Boards

For Arc, Power and Incandescent Circuits.

.. A NEW ..

Lightning Arrester

-- FOR ALL CIRCUITS --

Price \$15.00.

Discounts on Application.



In the Doane Arrester the short circuit is made through a non-inductive resistance sufficient to limit the current that will follow the lightning discharge to an amount that cannot do any injury.

In a 500 Volt Circuit

With a non-inductive resistance of 100 ohms in series with the arc, only five amperes can follow the discharge; this can do no possible harm, and the arc formed by the passage between the carbons is easily extinguished and without injury to any portion of the circuit.

No current passes through any of the movable parts of this Arrester, and with only a limited current through the carbons, they are practically indestructible.

133 Oliver St., BOSTON, MASS.

Represented in New York City by

The Elson & Brewster Eng'g Co., 141 Liberty St.

The British Columbia Jute and Cordage Co., Vancouver, B. C., whose works were recently destroyed by fire, have started up again with new buildings and new machinery.

D. H. Gilman, of Seattle, Wash., has floated a \$3,000,000 scheme in New York for the establishment at Seattle of a blast furnace and car shops, and British Columbia will, in the event of the plan being carried out, furnish the iron ore.

J. L. Harris, of Moncton, is in town. He arrived from Yarmouth last evening, where he enquired into the running and general working of the electric railway there. Mr. Harris says he is much pleased with the railway. He is the leading spirit in a company organized at Moncton, which intends running an electric railway there the coming summer. — Halifax Herald.

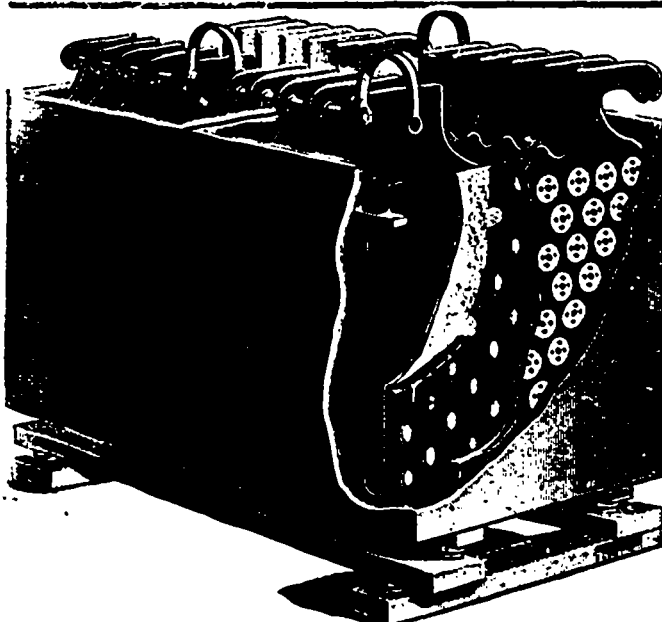
Work is about being begun upon the international bridge connecting Brockville, Ont., and Morristown, N. Y. The bridge will be 5,054 feet in length from shore to shore, will be 150 feet above high water mark and will be built on the cantilever principle. Connections will be made on the Canadian side with the Canadian Pacific and Grand Trunk systems and with the New York Central on the American side; also with other lines that may be built up to it.

The Acton flouring mills, of which Mr. John Harvey has been the proprietor for the past eight years, have been sold to Messrs. Cheyne Bros., of Guelph, with all the privileges in connection with the property. Messrs. Cheyne Bros. are practical millers, and have for a number of years been conducting the Speedvale mills at Guelph. It is their intention to remodel the mill throughout, putting in full roller process machinery of the most approved class. — Acton Free Press.

The Waterous Engine Works Co., Brantford, Ont., are building band saw machinery for a saw mill being erected at Hampton, N.B., for the G. & G. Flewelling Mfg. Co.

It is said that a syndicate of Buffalo capitalists have in view the construction of an electric railway between London and Woodstock, to be used for the carriage of freight and passengers. The project is as yet in a somewhat indefinite shape, and from advices which have been received would seem to hinge on the granting of certain concessions by the Woodstock Town Council. It is said that should these be granted the project would soon take definite form, and that the work on the railway would be projected at once. Woodstock Sentinel-Review.

Is electricity going to do what so far steam has failed to do? Many years ago there was considerable agitation having for its object the running of a switch of the Great Western up South and North Water streets, with switches into the yards of the various factories and mills, so that freight from and to them, coal, etc., could be handled at much less cost than when it has to be teamed to and from the station. Obstacles intervened and the project was abandoned, but now that the electric road is to be built on those streets to connect, or nearly so, with the Grand Trunk, it is quite possible some such scheme will be revived. The line will be railed sufficiently heavily to stand freight cars, and should the motor cars not prove powerful enough to move them there will be the steam motor. There is no doubt, should such a facility be obtained, the advantages would be great to the industries along the street. Galt Reporter.



THE CHLORIDE ACCUMULATOR

The Electric Storage Battery Co.

SOLE AMERICAN MANUFACTURERS OF

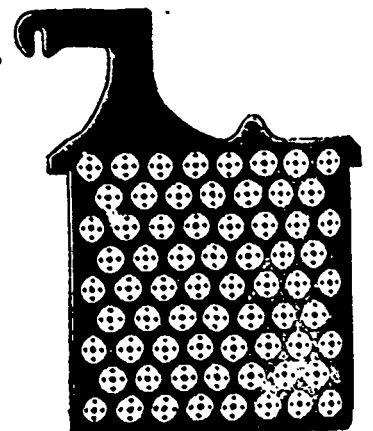
The Chloride Accumulator

Elements of all sizes, from two to 10,000 Watts-hours capacity each.

Traction Cells a Specialty

Electric Launch Equipment, Telegraph Phonograph, Surgical and all Special Cells.

Drexel Building - Philadelphia



The Westinghouse Electric Co., of Pittsburg, Penn., have secured, through their Canadian agents, Messrs. Ahearn & Soper, of Ottawa, a contract for a 1,000 light dynamo and the wire, transformers and other apparatus for the street lighting system at Windsor, N. S.

Mr. James Marshall, manager for the Montreal Laundry Supply Co., is placing quite a number of new machines in his laundry, and he says that he will have them all driven by Dick's patent gutta percha belts, which he has found, he says, to be a great improvement, especially in damp and wet drives.

The Doane Lightning Arrester.



In the ordinary forms of lightning arresters the effect of a lightning discharge is to cause a short circuit of the line through the ground, by means of the arc that is formed across the carbon points of the arrester. This short circuit, although it exists only an instant, is oftentimes sufficient to cause damage to some portion of the electrical circuit, especially if the coils of an armature are embraced in it.

In the Doane arrester shown in the accompanying illustration, and recently introduced by the W. S. Hill Electric Co., of 133 Oliver street, Boston, the short circuit is made through a non-inductive resistance, sufficient to limit the current that will follow the lightning discharge, to an amount that cannot do any injury. In a 500 volt circuit, with a non-inductive resistance of 100 ohms in series with the arc, only five amperes can follow the discharge. This can do no possible harm, and the arc formed by the passage between the carbons is easily extinguished and without injury to any portion of the circuit.

No current passes through any movable parts of this arrester, and

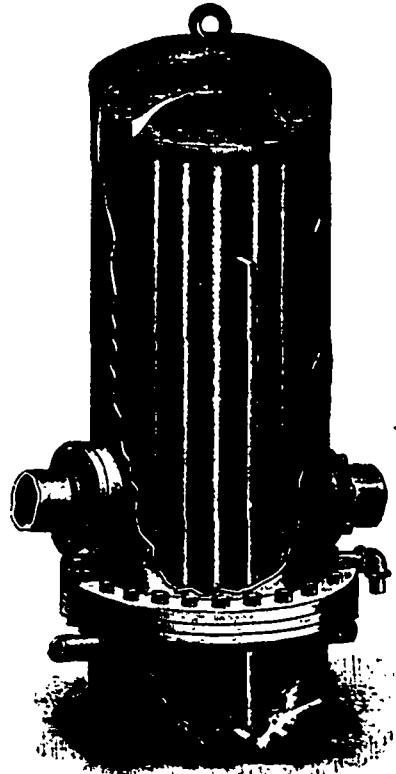
with only a limited current through the carbon, they are practically indestructible.

The Jacobs Feed-Water Heater.

This apparatus combines to a marked degree the essential qualities of great efficiency, simplicity of construction and low cost.

It is constructed of a cast iron shell, or body, which will never wear out; with seamless drawn brass tubes expanded into tube plates at top and bottom; with water chamber in the base, having a partition through the middle, which causes the feed-water upon entering the Heater to pass upwards through the tubes on one side of the partition, then downwards, through the tubes on the other side to outlet.

The tubes being surmounted by a cap forming a chamber at the top, and being fastened rigidly only to the lower tube-plate, free play is given for expansion, thereby preventing rupture and leakage of joints. In fact, the greater the water pressure on the tubes the tighter they become.



The exhaust chamber, or shell of Heater (whose area is five times

"STARR" Automatic Annunciators

THIS IS AN ENTIRELY NEW DEPARTURE IN ANNUNCIATORS, AS ALL THE TROUBLE AND ANNOYANCE OF RE-SETTING THE DROPS IS DONE AWAY WITH.



THE ONLY ANNUNCIATOR MADE THAT NEVER REQUIRES ATTENTION; HANDSOMELY GOTTEN UP; SIMPLEST, CHEAPEST AND BEST SELLING ANNUNCIATOR IN THE MARKET.

WRITE FOR CATALOGUE

Manufactured Only by . . .

JOHN STARR, SON & CO.

(LIMITED)

Manufacturers and Dealers in

ELECTRICAL APPARATUS AND SUPPLIES,

2, 4 and 6 Duke St., Halifax, N. S

PACKARD LAMP CO.
(Limited)

:: Of Montreal ::

manufacture an Incandescent Lamp, guaranteed to be equal to anything in the market. It is strictly

.. HIGH GRADE ..

very efficient, and maintains its rated candle power.

Give them a trial and be convinced that, though higher priced,

They are much cheaper in the End . .

that of exhaust pipe), has a partition extending upwards a portion of its height, which causes the exhaust steam, upon entering the Heater, to rise upwards and around the tubes on one side of partition, then downwards and around the tubes on the other side, to outlet; thus heating the feed-water to the highest point attainable (not 216° as is claimed by some heater manufacturers, but from 200° to 212°) without back pressure on the engine.

The drip opening at bottom of exhaust chamber provides for the draining off of condensation, while the blow off in both sections of the base allows for complete removal of all sediment.

Should it at any time be deemed advisable to clean tubes, it can be easily accomplished by loosening the bolts of outer shell and raising it by means of eye-bolt at the top, thus exposing the outside of tubes; then by removing the upper cap of water chamber, the inside of tubes can be reached.

From the foregoing description and a glance at accompanying illustration, it will be apparent that The Jacobs Feed-Water Heater and Purifier combines in itself all the qualities of a simple, effective and well constructed apparatus, built on thoroughly mechanical and scientific principles. C. Jacobs & Co., sole manufacturers, No. 45 Oliver street, Boston, Mass.

CANADIAN PATENTS.

The following patents have been issued from the Canadian Patent Office, from January 17 to January 31, 1894, inclusive.

Information regarding any of these patents may be had on application as follows:—

Fetherstonhaugh & Co., Bank of Commerce Building, Toronto.
 Ridout & Maybee, 103 Bay street, Toronto.
 A. Harvey, Central Chambers, Ottawa.
 J. A. Grenier, Imperial Building, Montreal.

Copies of American patents corresponding to Canadian patents can be procured from these attorneys for the sum of twenty-five cents each.

- 45,094 Station indicator, George Washington Robertson, Haverstock Hill, England, January 17, 1894.
- 45,095 Screw cutting lathe, James Herbert Paterson, Ingersoll, Ont., January 17, 1894.
- 45,096 Sofa bed, Henry Whiteside, St. John, N.B., January 17, 1894
- 45,097 Electric railway brake, Walter Hulme Scott, Toronto, Ont., January 17, 1894.

LOOK! LOOK!

Electric Dynamos and Motors Complete SECOND-HAND LIST

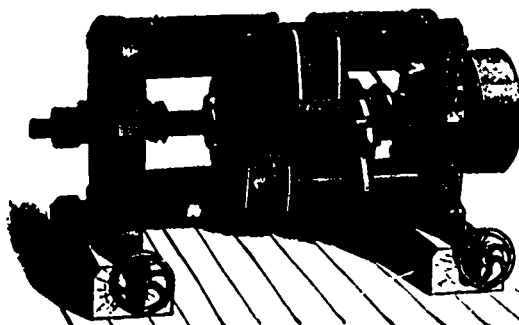
- 1-75 light Eddy, 110 Volt Dynamo.
- 1-30 light Jenney, 110 Volt Dynamo.
- 1-3 light 2000 C.P., 94 amperes Arc Dynamo and Lamp.
- 1-1 H.P. Sprague Motor.
- 1-1 H. P. C. & C. 220 Volt Motor.
- 1-6 K.W. Edison 110 Volt Dynamo
- 1-7 H.P. E. Leonard & Sons Slide Valve Engine. used very little.

Write for Particulars and Prices to

M. D. BARR & CO.,

Successors to ANDERSON, ROBINSON & CO., 56 1/2 KING STREET EAST, TORONTO, ONT.

We can supply full lines of Railway or Lighting Material on short notice.



THE RELIANCE ELECTRIC MANFC. CO. Ltd.

Manufacturers of The Reliance System of Arc and Incandescent Lighting

and Power Apparatus. The Itso System of Electric Railway.

HEAD OFFICE AND WORKS WATERFORD, ONTARIO

Branch Offices:

TORONTO, ONT. 141 King St. West. MONTREAL, T. W. NESS, 749 Craig St.

THE PETERBOROUGH

CARBON & PORCELAIN CO. LIMITED

MANUFACTURERS OF

Carbon Points for All Systems of Arc Lights

BATTERY PLATES, CARBON BRUSHES, and all kinds of PORCELAIN for Electrical and Hardware Lines.

All goods guaranteed equal in quality to the best manufacturers in the world.

PETERBOROUGH, - - ONTARIO

Kay Electric Co'y

MANUFACTURERS OF



DYNAMOS

FOR

ARC AND INCANDESCENT LIGHTING,

Plating Machines, Medical Batteries

AND ALL KINDS OF

ELECTRIC APPLIANCES

HAMILTON, ONTARIO

Single and Double Pole Switches

From 5 to 120 Am, etc

DOVETAIL ROSETTES

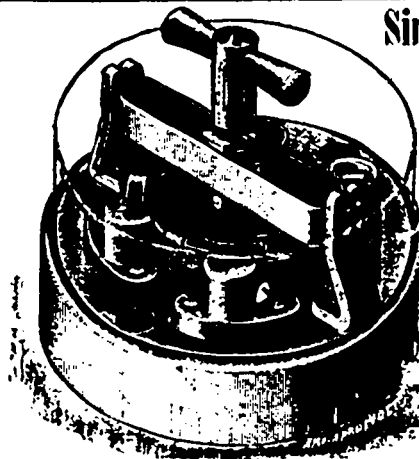
LAMP SOCKETS

All of Superior Workmanship and Design

Manufactured by the

Perkins' Electric Switch Mfg. Co.

Hartford, Conn



For Sale by The Canadian General Electric Co., Toronto.

Ingot Copper and Tin

Zinc and Brass Spelter

Antimony and Babbet Metal

M. & L. SAMUEL, BENJAMIN & CO.

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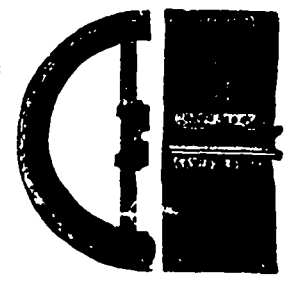
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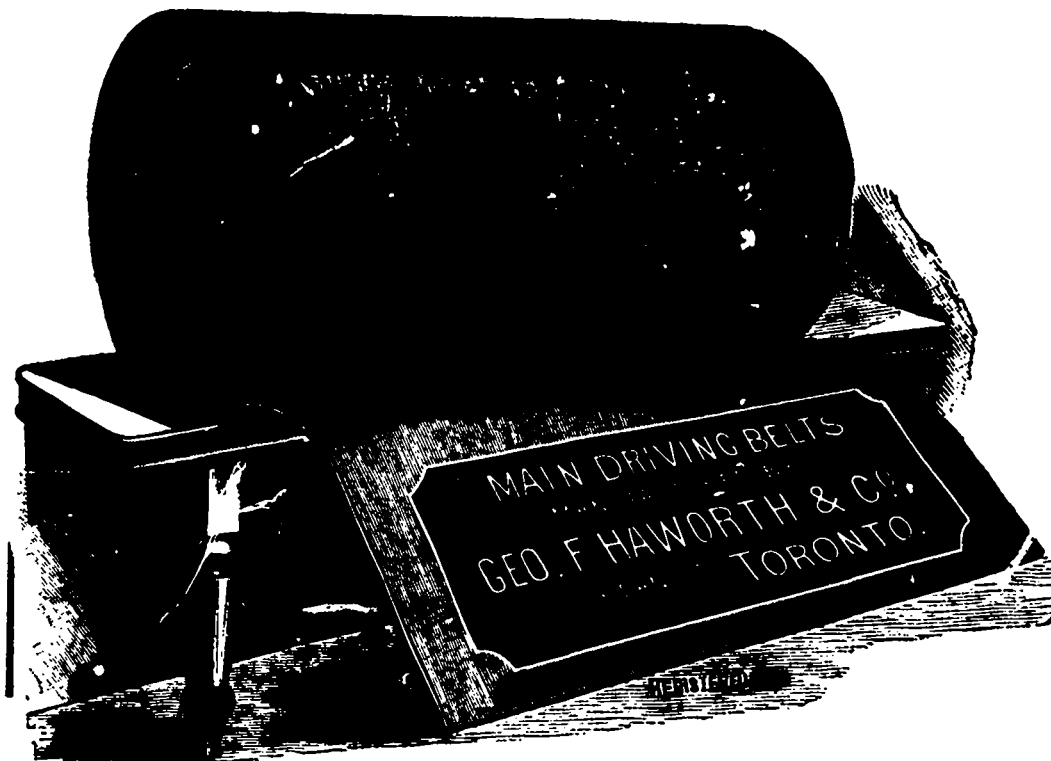
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- 45,098 Ore separator, Orvin Burten Peck, Chicago, Ill., January 17, 1894.
- 45,099 Gas engine, George Washington Lewis, Chicago, Ill., January 18, 1894.
- 45,100 Lawn mower, Simon Peter Graham, Detroit, Mich., January 18, 1894.
- 45,101 Extinguisher for lamps, Joseph Perrault, Montreal, Que., January 18, 1894.
- 45,102 Apparatus for supplying purified water to locomotives, Robert Learnmouth, Buffalo, N.Y., January 18, 1894.
- 45,103 Process of making air tight covers for tins, David Macdonald and William T. Tassie, Toronto, Ont., January 18, 1894.
- 45,104 Weather strip, Ernst Abraham Pilgram, assignee of Hermann C. W. Weyhe, Bremen, Germany, January 18, 1894.
- 45,105 Nut lock, William P. Sweetland and Donald Mackintosh, San Francisco, Cal., January 18, 1894.
- 45,106 Metallic coating, The London Metallurgical Company, assignee of Sherard O. Cowper Coles, London, England, January 18, 1894.

- 45,107 Electric current controller, The Watertown Street Railway Company, assignee of Edward A. Barber, Watertown, N. Y., January 18, 1894.
- 45,108 Metallic ceiling plate, Longley Lewis Sagendorph, Philadelphia, Penn., and Charles N. Harder, Philmot, N.Y., January 18, 1894.
- 45,109 Metallic ceiling plate, Longley Lewis Sagendorph, Philadelphia, Penn., and Charles N. Harder, Philmot, N.Y., January 18, 1894.
- 45,110 Winding cop and bobbin, Joseph Robert Leeson, assignee of Simon Willard Wardwell, Boston, Mass., January 18, 1894.
- 45,111 Winding cop and bobbin, Joseph Robert Leeson, assignee of Simon Willard Wardwell, Boston, Mass., January 18, 1894.
- 45,112 Dish-washer, Milo Covel, Chicago, Ill., January 18, 1894.
- 45,113 Sad iron, Horace W. Tibbals, Cleveland, Ohio, January 18, 1894.
- 45,114 Drier, William Harmon, Bartow, Florida, January 18, 1894.
- 45,115 Car ventilator, Charles Knapp, St. Louis, Mo., January 19, 1894.

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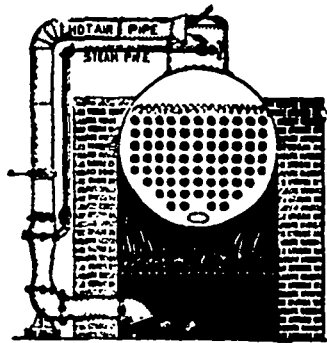
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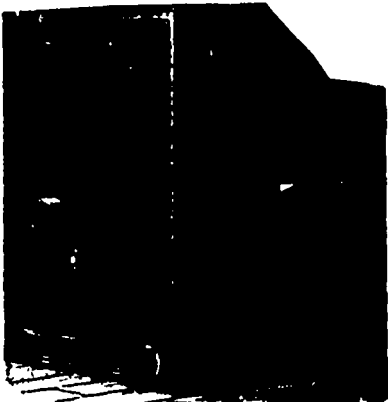
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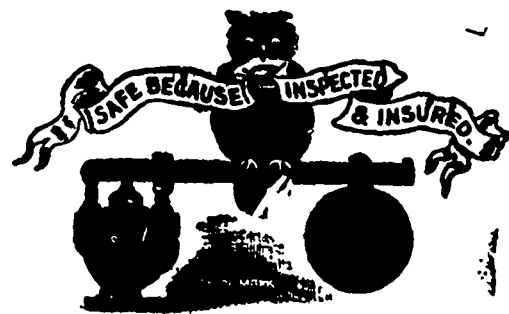
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- 45,116 Adjustable bracket for window shades, Richard C. Bird, Chicago, Ill., January 19, 1894.
- 45,117 Valve, Alfred Scott Slyker, Wilkesbarre, Penn., January 19, 1894.
- 45,118 Anti-rattling thill coupling, Peter Stalker, Union, N.Y., January 19, 1894.
- 45,119 Clevis, Ira J. Ribble, St. Thomas, Ont., January 19, 1894.
- 45,120 Shaft and harness attachment, John Eldridge Norwood, Sky-essville, Maryland, January 19, 1894.
- 45,121 Car replacer and hose bridge, Burt E. Tilden, Chicago, Ill., January 19, 1894.
- 45,122 Velocipede, Samuel McCormack, Dublin, Ireland, January 19, 1894.
- 45,123 Combined plough and seeder, Konrad Reichwein, Birmingham, Alabama, January 19, 1894.
- 45,124 Attachment for ironing boards or tables, Frederick N. Lewis Jackson, Mich., January 19, 1894.
- 45,125 Pneumatic tire, Frederick Henry Sprang, Wallington, England, January 29, 1894.
- 45,126 Potato masher, Alexander M. Amos, Buffalo, N. Y., January 19, 1894.
- 45,127 Pneumatic tire, Thomas James Williams, London, England, January 19, 1894.
- 45,128 Water heater, Samuel Bernstein, Chicago, Ill., January 19, 1894.
- 45,129 Apparatus for operating car brakes, Marcus E. Ellsworth, Hudson, Ohio, January 19, 1894.
- 45,130 Railway car axle, James A. Mahood, Victoria, B.C., January 19, 1894.
- 45,131 Boiler furnace, Judson W. Warner, Oneida, N.Y., January 19, 1894.
- 45,132 Calk for horse-shoes, Patrick H. Guyton, Lowell, Mass., January 19, 1894.

- 45,133 Thill coupler, Frank J. Buff, Milwaukee, Wis., January 20, 1894.
- 45,134 Window blind and screen, George E. Blaine, Alliance, Ohio, January 20, 1894.
- 45,135 Apparatus for obtaining distilled and sterilized water, Josef Nagel, Chemnitz, Germany, January 20, 1894.
- 45,136 Step-ladder, Louis A. Weiland, Pittsburgh, Penn., January 20, 1894.
- 45,137 Car coupler, John La Burt, Brooklyn, N.Y., January 20, 1894.
- 45,138 Reversing and cut-off mechanism for steam engines, Andrew J. Schindler, Chicago, Ill., January 20, 1894.
- 45,139 Machine file, Andrew Blackburn (in trust for Andrew S. Blackburn, Boston, Mass.,) and Alice M. Biette, assignees of Henry C. Biette, Toronto, Ont., January 20, 1894.
- 45,140 Retouching device, Albert S. Harry, Steubenville, Ohio, January 20, 1894.
- 45,141 Drier, Theodore Smith and Henry Smith, Jersey City, N. J., January 20, 1894.
- 45,142 Propeller for ships, Alfred Townsend Elford, San Francisco, Cal., January 22, 1894.
- 45,143 Steam canning cooker, Stephen D. Smith and Francis J. Kennard, Orlando, Florida, January 22, 1894.
- 45,144 Churn, John Corivin Budd, Defiance, Ohio, and George M. Everest, Arkona, Ont., January 23, 1894.
- 45,145 Grip for cable cars, William H. Russell, Vancouver, B. C., January 23, 1894.

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- 45,146 Wheel tire, Charles Frederick Lavender and Thomas Fane, Toronto, Ont., January 23, 1894.
- 45,147 Car coupler, The Gould Coupler Co., New York, assignee of William Fillmore Richard, Buffalo, New York, January 23, 1894.
- 45,148 Car coupler, Carman Frost Hewletts and Richard Sandford Brooklyn, N.Y., January 23, 1894.
- 45,149 Milk aerator, Charles Frederick Smith, Belleville, Ont., January 23, 1894.
- 45,150 Stove, Max Jahn, Leipzig, Germany, January 23, 1894.
- 45,151 Method of and apparatus for vaporizing petroleum and other liquids, Stanley C. Peuchen and Peter Clarke, Toronto, Ont., January 23, 1894.
- 45,152 Multiple gearing, Ignatius L. Unterbrink, Fryburgh, and Cyrenius A. Layton, Wapakoneth, Ohio, January 23, 1894.
- 45,153 Metallic shingle, The Metallic Roofing Company, of Canada, assignee of Carleton W. Conner, Toronto, Ont., January 23, 1894.
- 45,154 Steam generator, Otis Jones, Henry P. Ashley, Robert M. Farrar, John P. Woodson, Robert L. Sibley, George A. Cahanis, Walter G. Paschal, Samuel M. Wall, and Eugene J. Dobbs, Atlanta, Georgia, January 23, 1894.
- 45,155 Machine for separating gold from gravel, Joseph Allison Coombes, 46 Southampton Buildings, Holborn, London, England, January 23, 1894.
- 45,156 Sewing machine, The New Branston Two-Reel Sewing Machine Company, assignee of John Hobroyd and Charles

- B. Hunt and Richard J. Johns, London, England, January 24, 1894.
- 45,157 Electric fuse box, Edward Avery Parson, Ottawa, Ont., January 24, 1894.
- 45,158 Method of and apparatus for making glass articles, Jean-Baptiste Vernay, 31 Rue de l'Hotel de Ville, Lyons, France, January 24, 1894.
- 45,159 Cancellling stamp, Mike Peabody, New York, January 24, 1894.
- 45,160 Curd cutting machine, George Fortin and Alcide Nadeau, Weedon, Que., January 24, 1894.
- 45,161 Harvester, Thomas Henry Noxon, Ingersoll, Ont., January 24, 1894.
- 45,162 Organ pipe, Olivier Bissonnette, Toronto, Ont., January 24, 1894.
- 45,163 Water level alarm, John J. Weinert, Neustadt, Ont., January 24, 1894.
- 45,164 Shoulder brace, William Henry Horn, Philadelphia, Penn., January 24, 1894.

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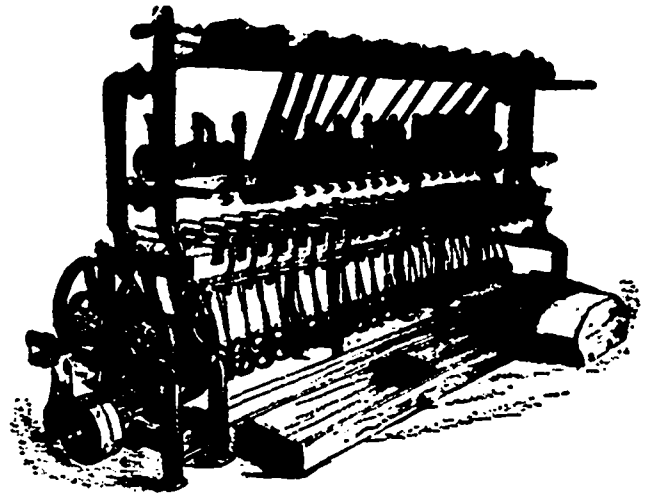
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- 45,165 Fender for saw mills, John Bell, Nelson, B. C., January 24, 1894.
- 45,166 Oil stove, James D. Foster, Ironton, and Charles A. Hammel, Findlay, Ohio, January 24, 1894.
- 45,167 Oil stove, James D. Foster, Ironton, and Charles A. Hammel, Findlay, Ohio, January 24, 1894.
- 45,168 Vehicle spring, Henry Timkin, St. Louis, Mo., January 25, 1894.
- 45,169 Car coupler, Guillaume D. Lamarche, St. Brigide d'Iberville, Que., January 25, 1894.
- 45,170 Matrix-making machine, The Standard Matrix Machine Co., East St. Louis, assignee of Albert John Kletzker, St. Louis, Ill., January 23, 1894.
- 45,171 Type line forming machine, Alexander W. Maynes, joint inventor with and assignee of Louis Ransom, Akron, Ohio, January 24, 1894.
- 45,172 Artificial leg, Terence Sparkham and James Hall, Brockville, Ont., January 25, 1894.
- 45,173 Non-telescopic railway cars, Justir E. Page, Independence, and Adelbert P. Nichols, Kansas, Mo., January 25, 1894.
- 45,174 Coal mining and coal cutting machine, Isaac Wantling, James T. Johnson and Eugene Zimmerman, Peoria, Ill., January 25, 1894.
- 45,175 Metallic ceiling plate, Longley L. Sagendorph, Philadelphia, and Charles N. Harder, New York, January 26, 1894.
- 45,176 Fastener for mail bags, George Low, Ottawa, Ont., January 27, 1894.
- 45,177 Traction machine, James Connee, Port Arthur, Ont., January 27, 1894.
- 45,178 Fire extinguisher, Omar A. Stempel, St. Louis, Mo., January 27, 1894.
- 45,179 Screw, George Augustus Macnutt, Melbourne, Victoria, Australia, January 27, 1894.
- 45,180 Friction clutch machine, Charles Edmund Tewitt and William Theodore Grundel, Ravenna, Ohio, January 27, 1894.
- 45,181 Harness, George Fierheller, Markham, Ont., January 27, 1894.
- 45,182 Safety device for railway crossings, Kennet William Blackwell, Montreal, Que., January 27, 1894.
- 45,183 Lace clasp, Harry Beecher Baker, Dighton, Mass., January 27, 1894.
- 45,184 Arm rest for telephones, Arthur Sampson Barwick, Montreal, Que., January 27, 1894.
- 45,185 Window screen, Cyrus D. Bennett, Lineas J. Halsey and George S. Darling, Tawas City, Mich., January 30, 1894.
- 45,186 Ore concentrator, George Johnston, San Francisco, Cal., January 30, 1894.
- 45,187 Method of treating canvas, George Jacob Junk, Berlin, Prussia, January 30, 1894.
- 45,188 Cultivator, Thomas Belair, Montreal, Que., January 30, 1894.
- 45,189 Carburetting machine, George Henry Burrows, Somerville, Mass., January 30, 1894.
- 45,190 Box for thread holders, John Keats, Baguall Hall, Stafford, England, January 30, 1894.
- 45,191 Harvester, John Allan McMaster, Orangeville, Ont., January 30, 1894.

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- 45,192 Trolley wheel, John W. Clark, Menards, N. Y., January 30, 1894.
- 45,193 Engine, John D. Gregory, Bertha, Manitoba, January 30, 1894.
- 45,194 Heater, Robert Donaldson, Montreal, Que., January 30, 1894.
- 45,195 Machine for lasting boots and shoes, John Blakey, Lady Lane-
1st St., York, England, January 31, 1894.
- 45,196 Screw driver, Thomas Edwards, jr., and John J. Edwards,
Grand Rapids, Mich., January 31, 1894.
- 45,197 Fabric for wheel tires, James Lyall, New York, January 31,
1894.
- 45,198 Drill bit and reamer, Alex. George Percy Creed, Sydney,
New South Wales, Australia, January 31, 1894.
- 45,199 Method of forming ice into blocks, Henry Van der Weyde,
London, England, January 31, 1894.

- Robert H. Laird, Toronto, assignor to William Henry Laird, New
York, furnace.
- George V. Martin, Whitby, trace buckle.
- Edwin Pope, Quebec, telephone exchange system.
- Edwin Pope, Quebec, telephone system.
- Ephraim Alpaugh, Preston, sand roller.
- Thomas Davies, Toronto, street car fender.
- Alpheus Hamlin, Almonte, churn.
- Alexander H. Costigan, Montreal, office-file.
- Thomas McCrossan, Winnipeg, washing-machine, patented in Can-
ada, September 5, 1893.
- Felix Meloche, Jr., and Clovis Meloche, Montreal, combination lock.
- Charles F. Lavender, Toronto, assignor of one-half to Thomas Fane,
same place, wheel tire.
- Sidney J. Sanford, Barrie, fire telegraph, patented in Canada May 3,
1893.
- George P. Harrison, Windsor, rotary ash sifter.
- George S. Ballard, Toronto, secondary battery.
- Orauel C. Stanley, New York, N. Y., assignor of two-thirds to William
C. Boon, Boonton, N. J., and Don C. Walters, Ottawa,
Canada, wrench.
- Robert Connell, Osprey, grain shocking machine.
- Joseph Oldfield, Toronto, duplicating check book.
- Charles E. Jewell, Toronto, inkstand.
- William Y. Rochester, Ottawa, and John McArthur, Nepean, said Mc-
Arthur assignor to George Rochester, Nepean, Canada,
dynamite and process for making same.
- William F. Doll, Winnipeg, ring gauge.

UNITED STATES PATENTS.

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D. C. Printed copies of these patents can be obtained from him for
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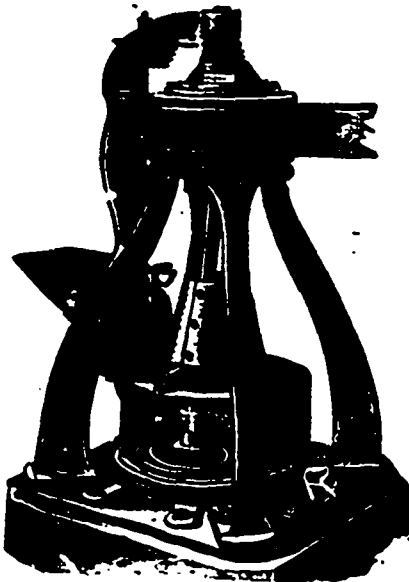
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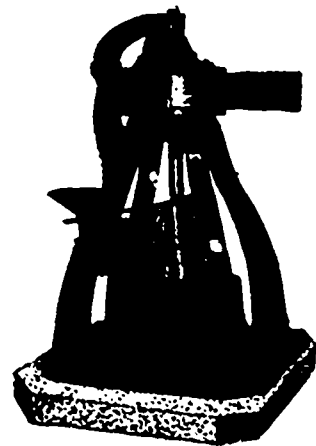
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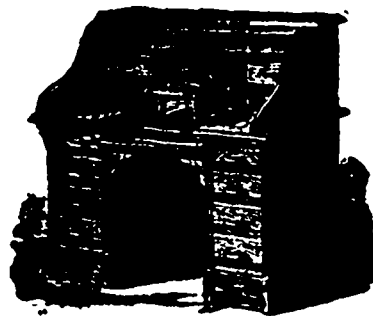
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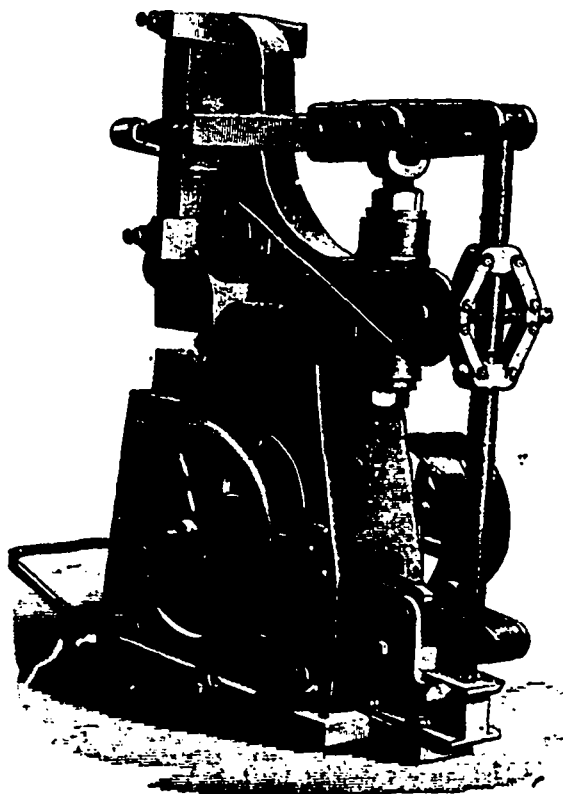
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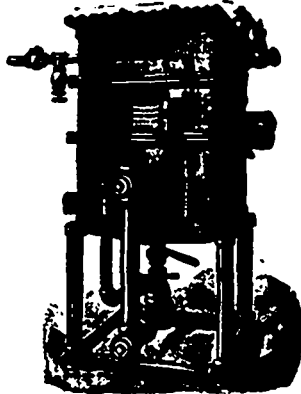
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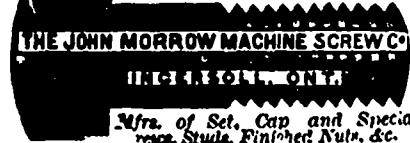
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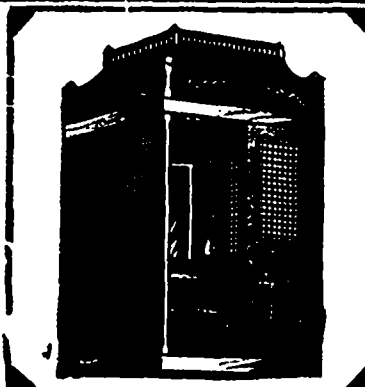
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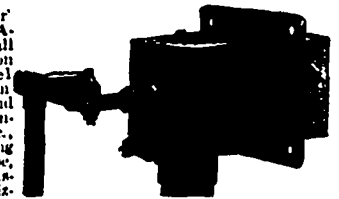
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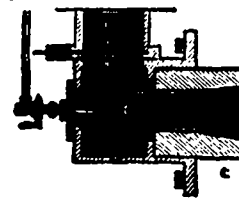
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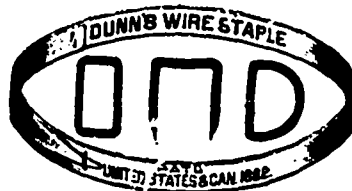
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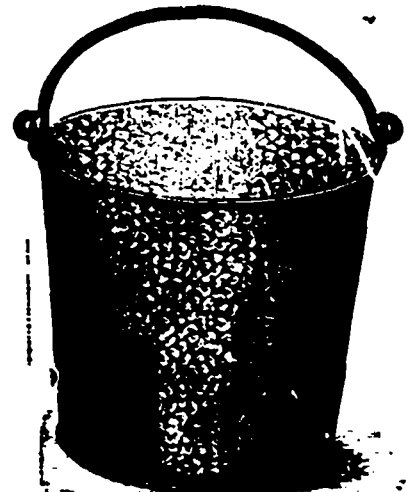
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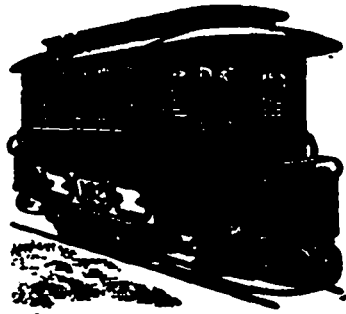
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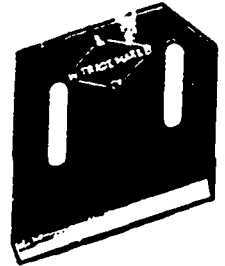
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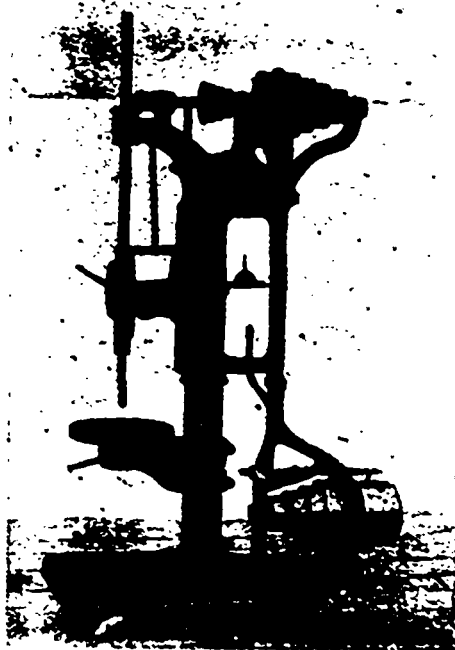
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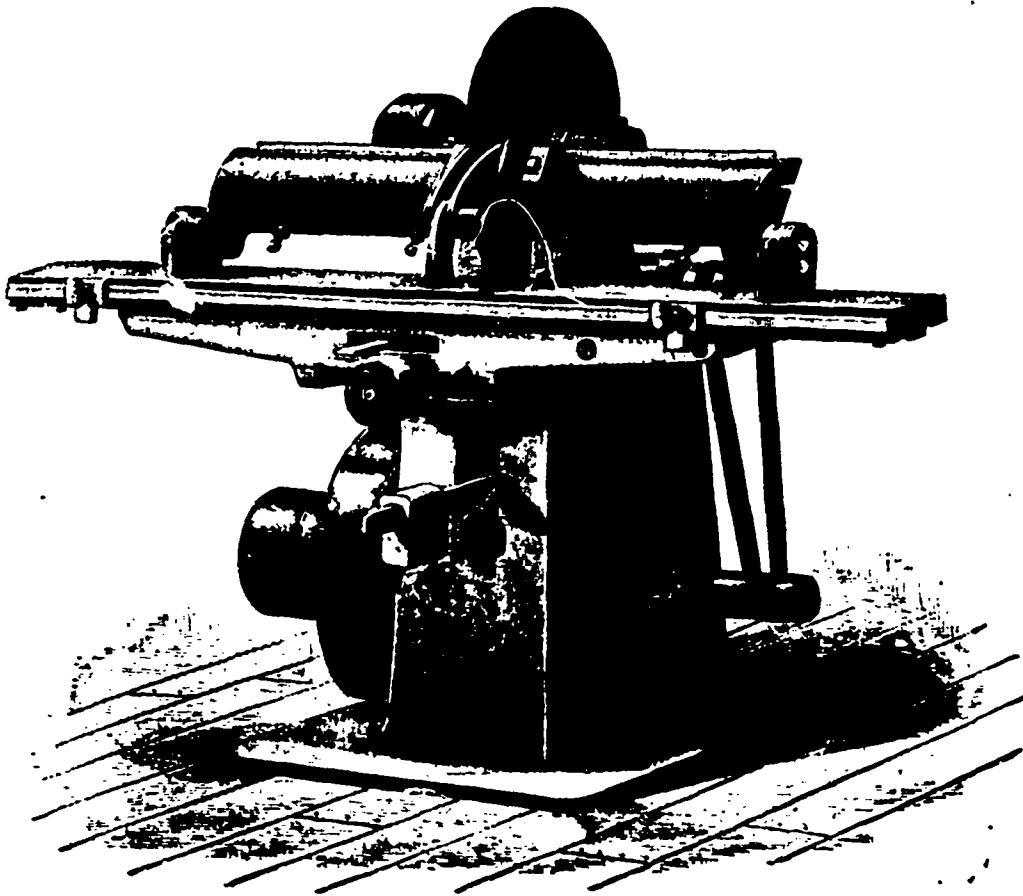
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(Signed) T. WOLFE, Manager.

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The COAL SAVING & SMOKE CONSUMING CO., Ltd

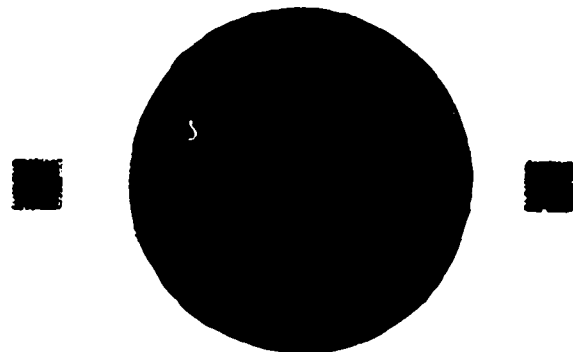
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THE OBJECTS OF THIS ASSOCIATION ARE:

- To secure by all legitimate means the aid of both Public Opinion and Governmental Policy in favor of the development of home industry and the promotion of Canadian manufacturing enterprises.
 - To enable those in all branches of manufacturing enterprises to act in concert as a united body whenever action in behalf of any particular industry, or of the whole body, is necessary.
 - To maintain Canada for Canadians.
 - Any person directly interested in any Canadian manufacturing industry is eligible for membership.
 - Manufacturers desiring to hold meetings for the promotion of their business are invited to avail themselves of the Board Room of the Association for the purpose, which is offered to them free of charge.
- J. J. CASSIDY, Secretary.

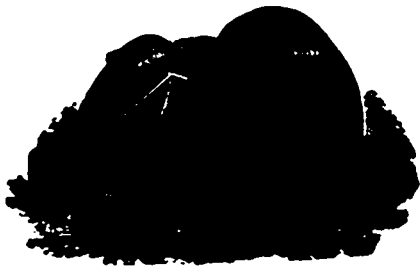
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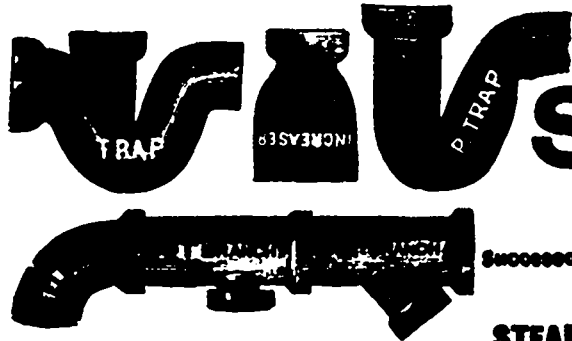
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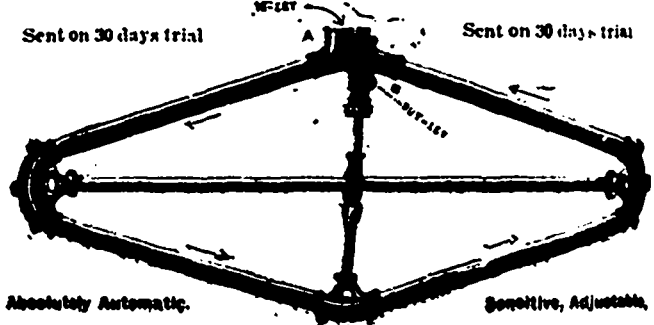
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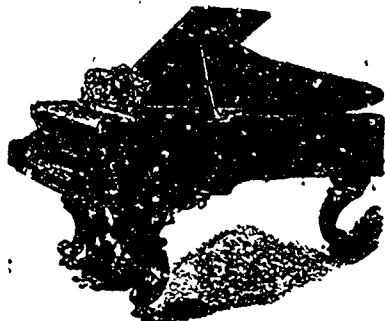
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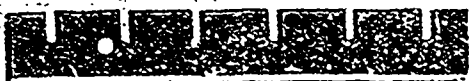
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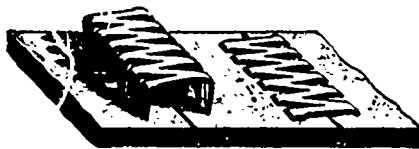
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