## CANADIAN

# CONTRACT RECORD

A Weekly Journal of Engineering, Public Works, Tenders, Advance Information and Municipal Progress

This Paper Reaches Every Week the Town and City Clerks, Town and City Engineers, County Clerks and County Engineers, Leading Civil Engineers and Contractors throughout Canada, and Purchasers of Municipal Debentures.

VOL. 17.

TORONTO, MONTREAL - DECEMBER 12, 1906 - WINNIPEG, VANCOUVER

#### THE CANADIAN CONTRACT RECORD

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#### THE G. H. MORTIMER PUBLISHING COMPANY

of Toronto, Limited,

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#### TO OUR READERS.

We wish to make the CON-TRACT RECORD of the greatest possible value to subscribers, and to that end we ask their co-operation. Each subscriber is requested to consider himself a correspondent of the paper and to send us intelligence regarding proposed works of construction and contracts awarded in his vicinity.

We cannot hope to learn, through our regular channels of information, of all work contemplated throughout this vast Dominion, but by the co-operation of our readers we may more nearly approach the maximum efficiency in the service given.

Correspondence sent to our head office at Toronto or to our branches at Montreal, Winnipeg or Vancouver, will receive due attention and be much appreciated.

#### WANTED

Bridge Erector to erect Three Small Highway Bridges. ONTARIO BRIDGE COMPANY, 34 Victoria Street, Toronto.

#### CONTRACTS OPEN.

GALT, ONT.—The Stevens Co. will erect a new moulding shop.

APPIN, ONT.—A bridge will be constructed here to cost \$15,000. LEMBERG, SASK .- J William will

erect a residence here next year.

NINGA, MAN.—A new school building is to be erected here, cost \$10,000.

PETERBORO, ONT.-W. R. Hetley will erect a brick building next spring. PARRY SOUND, ONT .- Sewers are to be laid on several streets to cost \$5,631

COBALT, ONT.—A three storey \$8,000

SARNIA, ONT.—The water mains will be extended to Point Edward, at a cost of \$2,500.

MOOSE JAW, SASK.—It is reported that Bullock & Bullock will erect large storage warehouses.

RICHMOND, QUE .- P. O'Connor is having plans prepared for the erection of a large hotel.

LACHINE, QUE .- It is probable that the Grand Trunk Railway will build a new station here.

WINDSOR, ONT. -The Lufkin Rule Measuring Co., Saginaw, Mich., will erect a factory here.

NEW LISKEARD, ONT.—It is re-orted that S. Salmon will erect a grist ported that S. Salmo mill to cost \$15,000.

NEW WESTMINSTER, B. C .-George McFarlane, Vancouver, will erect a three storey block.

CALGARY, ALTA.—W. M. Alexander will apply to the City Council for a street railway franchise.

TRENTON, ONT. — A reinforced concrete building is to be erected by the Glen Miller Paper Mills.

NAPANEE, ONT.—Debentures will issued for \$7,250 to cover cost of extending sewerage system.

HIGH RIVER, ALTA.—The rate-payers will vote on the question of erect-ing a town hall at cost of \$15,000.

LACOMBE, ALTA.—A.N. Inskip will erect a three storey hotel. The plans have been prepared by J. C. King. MAPLE CREEK, SASK.—The Town Council have decided to expend \$2,000 for extension of waterworks system.

INNISFAIL, ALTA.—The ratepayers have approved of a by-law to raise

\$23,000 by debentures for the erection of

CARLYLE, SASK .- Postmaster Riddell has purchased a site on which he will erect a two storey brick veneer building.

WEST, MOUNT, QUE.—The rate-payers recently defeated a by-law to make provision for an improved water supply. SUSSEX, N. B.—The Sussex Institute are considering the erection of brick and stone opera house to cost \$12,000.

KEEWATIN, ONT.—A.R. Cardinal and W. Murphy will erect several sum-mer residences in connection with their

BRACEBRIDGE, ONT.—The rate-payers will be asked to authorize the ex-penditure of \$23,000 for improving the water supply.

CHILLIWACK, B. C.—The ratepayers are considering a drainage scheme, which, if carried out, will cost about

ESTEVAN, SASK.—Willis Chipman, C.E., Toronto, has estimated the cost of waterworks and electric lighting system at \$67,000.

MILLSIDE, B. C.—The Fraser Saw M.lis Company have had plans prepared for a three story hotel which they will erect next year.

PORTAGE LA PRAIRIE, MAN.-The ratepayers will be asked to authorize the issuance of \$16,000 debentures for school purposes.

WALNUT, ONT .- W.A. McDonald, Treasurer of the Township of Brooke, is taking tenders for the purchase of \$509 5 per cent. drainage debentures.

NIAGARA FALLS, ONT.—G. H. Brooks, Fallsview, Ont.; is organizing a company to operate an iron foundry here. The capital of the company will be \$100,000

THOROLD, ONT .- The Provincial Board of Health have considered the plans submitted for the waterworks system, and recommended the installation of a filtration system.

SHAWINIGAN FALLS, QUE.— Plans are being prepared by F. P. Shel-don, Providence, R. I., for a large cotton mil to be erected here for the North American Cotton Co.

BERLIN, ONT .- The ratepayers will vote on the question of issuing \$24,612 debentures for the erection of a market building and construction of a trunk sewer in the west ward.

ANACONDA, B.C.—B. A. Isaacs and R. W. Hinton are the promotors of a company who purpose erecting several buildings in connection with the operating of an iron foundry in this town.

GUELPH, ONT.—The City Council have decided to grant a loan to Morlock Bros. The concern will erect buildings at a cost of \$18,000.—The Michigan Ammonia Works, Detroit, Mich., will establish a branch here.

ST. JOHN, N. B.—The Grand Falls Power Co., Ltd., who purpose developing power at Grand Falls, are applying to the City Council for a street railway franchise.—The congregation of Germain street Baptist church will erect a new Sunday school.

GODERICH, ONT.—The Rogers Manufacturing Co. have applied to the Town Council for a loan with which to extend their present plant.—The Goderich Carriage Co. are also seeking financial assistance for the purpose of erecting buildings and installing machinery to cost \$30,000.

STRATFORD, ONT. — The City Council have authorized the erection of a storage house to cost \$3,600.—Plans are being prepared for additions to the Grand Trunk Railway workshops to cost \$200.—ONCO church will erect a Sunday school building at a cost of about \$13,000

QUEBEC, QUE. — The Canadian Pacific Ralway have definitely decided to demolish the Chateau Frontenac and erect a more modern structure at a cost of \$1,000,000. — The City Engineer is preparing plans and estimates for the paving of several streets and laying of a number of sidewalks.

LONDON, ONT.—At a meeting of the Council of the County of Middlesex the construction of nine bridges was recommended by the County Engineer.—G. T. Hiscox is considering the erection of an arcade.—Additions will be made to Askin street Methodist church to cost \$15,000.—The Provincial Long Distance Telephone Company, of Toronto, are applying to the City Council for a franchise.

EDMONTON, ALTA.—The Hamilton Separating Co., Hamilton, Ont., have purchased a site on which to erect a warehouse.—A. W. Cameron will erect a one-storey block, cost \$3,000.—The City Council are considering the extension of the waterworks system and electric light plant.—C. H. S. Wade and W. Spurrell are figuring on building a theatre with a seating capacity of 1,200.

HAMILTON, ONT.—The Board of Works have recommended the expenditure of \$200,000 for the improvement of roadways.—G. J. White will erect a brick house on Smith avenue to cost \$2,100.—F. E. Walker has purchased property, corner King and Catharine streets, on which to erect a two-storey building.—F. B. Wood Co., ane about to erect a large addition to their factory.

ST. CATHARINES, ONT. — The City Council have passed a by-law authorizing the construction of several sewers.—A by-law will be submitted to the ratepayers for authority to extend the waterworks system.—Tenders will be received up to December 13 by W. Manson, Secretary Public School Board, for alterations and installation of sanitary appliances in Court street school. Plans with W. G. Watson.—Tenders will be received up to December 31 by the Superintending Engineer of the Welland Canal for the supply of timber, hardware, castings, etc. Specifications at the Engineers' office.

BRANTFORD, ONT. — The rate-payers will be asked to vote on a by-law authorizing the expenditure of \$0,000 for the erection of a pumping station.—The Nicholis-Pellatt syndicate, of Toronto, will extend their distributing system to this city, which will be used as a distributing point for the surrounding district. —The American Clay Machinery Co., Willoughby, Ohio, intend establishing a

clay and sand brick making plant here.— The Automatic Phone Co., will erect a large building.

large building.

VICTORIA, B. C.—Tenders will be received by W. W. Northcott, purchasing agent for the City, up to December 17, for brass goods and pipe fittings.—
J. Scott, of Winnipeg, Man., will erect a large residence on Oak Bay Avenue.—An addition will be made to St. Joseph's hospital to cost \$75,000.—It is reported that a six storey hotel will be erected on the corner of Elliott and Government streets, on property owned by Mrs. James Anderson.

OTTAWA, ONT.—The date for the reception of tenders for the construction of a wharf at Coleraine, Que., has been extended to December17.—The building committee of the Separate School Board have decided to install a system of heating and plumbing in St. Matthews and St. Bridgets' schools, also new sanitary arrangements in the former.—The date for the reception of competitive designs for the proposed additions to the Parliament buildings has been extended to the 15th of April, 1907.

VANCOUVER, B.C.—Farrell & Tregent who are erecting an apartment house on Granville street, have decided to make the structure six stories instead of five.—Building permits have been issued as follows: K.O. Hope, residence, corner Comox and Gilford streets, cost \$15,000. Parr & Fee, architects; E. Robson, residence on Harro street, cost \$8,000; Columbia Building Company, Sixth avenue, three houses; H. Wright, Fourth avenue, \$1800; J. Dickie, Sixth avenue, \$2500; M. C. McLatyre, West avenue, \$3000; L. Wakely, Third avenue, \$2300; J. G. and G. H. Lightheart, two dwellings on Pendrill street, cost \$7000; T. J. Whitesides, two houses on Fifth avenue, cost \$5500.

WINNIPEG, MAN.—H. B. Rugh, architect, will receive tenders up to December 15 for construction of a frame residence.—The Fairchild Co.'s building, tenders for which have just been taken by H. B. Rugh, architect, will be 100 x 132 ft. and consist of six stories and basement. It will be of mill construction, the materials used to be stone and Menominee brick.—An institution known as the Men's Own of the city of Winnipeg will erect a building to cost \$35,000.—Tenders will be received by the Chairman of the Committee on Works up to December 18, for the supply of from 2,000,000 to 5,000,000 feet of lumber, also up to December 31, for the supply of water pipe and specials.—A delegation recently waited on the Provincial Government requesting that a railway line be constructed from Somerset, Man., to the International boundary.

MONTREAL, QUE.—Tenders have just been taken by the Pure I:e Co., Ltd., 480 Temple building, for the supply and laying of 540 squares of 100 square feet each of roofing.—Plans have been prepared for extensions to be made to the Montreal Brewing Co.'s premises, to cost \$25,000. — Charles Brandeis, C. E., this city, has been appointed consulting engineer to the British North American Lumber Co., who purpose installing an electric light plant.— The Westmount Protestant School Commissioners have purchased property for a school site.—The following building permits have been issued: Israel Courre, 3 dwellings, Aylwin, cost \$2,000; Chas. Sarrazin, 2 dwellings, Dufferin, cost \$1,800; P.L.W. Dupre, 2 dwellings, Delorimier avenue, cost \$2,000; R. Legare, 6 dwellings, Ontario, cost \$8,000; F. Cote, 2 dwellings, cost \$2,000; A. Pion,4 dwellings, Marquette,cost \$4,000; store, house

and 2 dwellings, corner Gilford and Marquette, cost \$4,000; Neveu Zotique, 2 dwellings, Gauthier and Dumoni, cost \$2,000; Hon. V. Perodeau, addition to store, St. Catharine west, cost \$2,500.—Special meetings of the congregation of Knox church and members of Y.M.C. A. have been called at which to discuss the offers made by local capitalists for for their properties.—It is reported that \$150,000 has been offered for the former and \$350,000 for the latter.

TORONTO, ONT.—Darling & Pearson have been appointed architects for the new General Hospital.—Tenders will be received up to December 19 by the Board of Control for electric wring and tiling for the new Central firehall, on Adelaide street.—The Ontario Government have decided to proceed with the extension of the Temiskaming & Northern Ontario Railway.—A building will be erected by McMaster University to provide lecture room, gymnasium and dormitories.—The parish of Our Lady of Lourdes are considering the erection of a new church.—The congregation of St. John's Presbyterian church hive decided to erect a church and sunday school to cost \$50,000.—Tenders will be received by the Board of Control up to December 18 for construction of piling around city yard at Princess and Esplanade streets.—The following building permits have been issued: Edmonson, Bates & Co., 5 storey brick warehouse, corner Duncan & Adelaide streets, cost, \$25,000; O.to Higel Company, 2 story and attic brick and stone dwelling, 146 Dowling avenue, cost, \$8,500; H. Larkin, 3 attached 2 storey and attic roughcast dwellings, brick fronts, Hallam street, cost \$6,000; MacDonald Mig. Co., 4 story brick addition to factory, Catharine street, cost \$18,000; W.O. McTaggart, 4 tow storey and mansard brick stores and dwellings, 100; Bloor street west, cost \$12,000; G. Claxton, pair 2 story roughcast dwellings, brick fronts, Winnifred avenue, cost, \$2,000; Gerrard street Methodst church, alterations to church and sunday-school, corner River and Gerrard streets, cost, \$2,000; Grard Street Methodst church, alterations to church and sunday-school, corner River and Gerrard streets, cost, \$2,000; Grard Street Methodst church, alterations to church and sunday-school, corner River and Gerrard streets, cost, \$2,000; Grard Street Methodst church, alterations to church and sunday-school, corner River and Gerrard streets, cost, \$2,000; Grard Street Methodst church, alterations to church and sunday-school, corner River and Gerrard streets, cost, \$2,000; Grard Street Met

#### CONTRACTS AWARDED.

OSHAWA, Ont.—\$7,000 4½ per cent. debentures awarded to Wood, Gundy & Co., Toronto.

QUEBEC, QUE.—Erection building for the Quebec Railway Light & Power Co.: W. Sharpe, contracter.

REGINA, SASK. -\$180,0004½ per centlocal improvement debentures awarded to Nay, Anderson & Co., Regina.

OTTAWA, ONT.—Additions to Parliament buildings: McGillivray & Blake, Ottawa., successful tenderers, at \$235,000.

WATERLOO, ONT.—\$18.000 4½ per cent. town debentures awarded to Dominion Securities Corporation, Toronto, Ont., at \$17,727.

GODERICH, ONT.—Installing Kelsey system of warming and ventilating in Baptist church: James Smart Mfg. Co., Brockville.

FLESHERTON, ONT.—Heating and ventilating the Temperance Hotel: James Smart Mig. Co., Brockville, successful tenderers.

MILTON, ONT.—\$4,000 County of Halton debentures awarded to F. H. Deacon & Co., Toronto, highest tenderers.

WINNIPEG, MAN.—The Canadian Northern Railway Co. have let contracts for equipment to cost \$4,85,000. The cars will be supplied by Rhodes, Currry Co., Amherst, N. S., Crossen Car Co., Cobourg, Ont., and Canada Car Co., Montreal, Que.; Locomotives by, CanContinued on Page 6.1

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#### RURAL TRANSPORTATION.

The difficulties encountered in obtaining a cheap but efficient system of freight and postal delivery in rural sections has so far prevented any material success in this particular field. The interurban railway has played an important part in such matters, and is, of course, highly successful, though to justify the expenditure required for the construction of such an undertaking, the communities which it serves must be fairly well built up. Automatic devices of various kinds have been tried with limited success, for it appears to be essential to put the cars under the direct control of an operator who must necessarily travel with the car. When one considers the success which has been obtained in the manufacture of various articles by machines which are automatic in every sense of the word, it does not seem improbable that some day similar ideas may be incorporated into a system for rural freight delivery. A company is now being floated in Canada and the United States which has for its purpose the establishment of an automatic transportation system, the idea being to handle incoming and outgoing mail and freight of every description. A model of this system is now being exhibited in the city of Toronto, and the idea as presented seems to be quite feastible when carried out on a small scale. Success, of course, has been obtained in collecting mail bags by a fast moving train, and the system just mentioned is being worked out along somewhat similar lines. So far as the postal end of the scheme is concerned, the feasibility of the idea is apparent, because for this work the weights to be handled will always be small, and letter boxes can be picked up and dropped without material jar to the car itself or to its supporting structure. Any entirely automatic system must necessarily include tracks which are elevated a considerable distance above the ground, and while the cost of such structure is quite low where small weights are to be handled, still the expense will, we think, be a very serious item where heavy weights are concerned, and the possibility of picking up and dropping such weights from a moving car will bring forward many arguments against the system. The transportation scheme just mentioned includes a system of control whereby all cars are manipulated by an operator at the central point, and a modification of the block signal has been adopted so that the operator will know at any instant the exact position of all cars. Difficulty will be experienced, however, in keeping such cars properly spaced, as the speed of one, heavily loaded, will be considerably less than that of one running light. Slowing down and stopping at certain predetermined stations will also be another difficulty, for the cutting off of the current and the braking action must take place at some set point, and allowance cannot be made for the condition of the rails. In other words,

assuming for the sake of argument that the car is carrying a fixed load, if it be desired to stop or run slow-ly past a certain station, the brakes will be applied and the current cut off at a fixed number of yards before that station is reached. If the rails at this point are covered with ice, we cannot see what there is to prevent the car running past the station, and as there are no reversing appliances the car would undoubtedly pass on to the next station without delivering its freight. However, we must commend the spirit which has led the inventors to make a practical demonstration of the scheme, and we sincerely hope that the matter will prove satisfactory under actual working conditions.

#### SCHOOL OF SCIENCE DINNER.

The eighteenth annual dinner of the Engineering Society of the School of Practical Science, Toronto, was held at the Rossin House Friday evening, December 7th. About 400 persons were present. The tables were beautifully decorated and the banneret menu was a clever invention. The presiding officer was Mr. K. A. MacKenzie, President of the Engineering Society, while at the guest table sat President Hutton, of the University; Hon. W. J. Hanna, provincial secretary; H. Cockshutt, president Canadian Manufacturers' Association; J. W. Flavelle; Principal Galbraith; Dr. Ellis; Rev. Bruce MacDonald; Edmund Burke, president Ontario Association of Architects; C. H. Rust, city engineer; Prof. Steward; Prof. C. H. C. Wright; Prof. Mickle and Prof. T. R. Rosebrugh.

The toast list and respondents were as follows: "The King" by singing the National Anthem;" Canada and the Empire," by Mr. Cockshutt; "The Legislature," by Hon. Mr. Hanna; "The University," by President Hutton and Rev. Bruce MacDonald; "The Faculty of Applied Science," by Professor Galbraith; "Canadian Industries," by Mr. J. W. Flavelle, and "The Profession," by Messrs. C. H. Rust, M. Haney and E. Burke.

#### RULES FOR TELEPHONING.

In rules regarding the use of the telephone enforced by Marshall Field & Company, the following notice is conspicuously displayed in every department of their big Chicago store: "The manner in which a person uses a telephone indicates his character to a great extent and makes either a good or bad impression, and this impression is reflected directly upon the establishment from which such a message comes. It is a pleasure to do business with a house which performs every detail in a clean-cut, satisfactory manner; but it leaves a sting to be answered abruptly or discourteously over the telephone. It is folly to lose one's temper because one does not get immediate connection. This is rarely if ever the fault of the telephone operators, who are nearly always courteous and prompt. When one is called to the telephone he should respond quickly, and the person calling should not be left to hold the wire too long—something decidedly irritating and often unnecessary. Let us throughout the whole house strive to excel in satisfactory telephoning. Important Note—You will be heard distinctly if you place your lips within an inch of the mouthpiece and talk naturally as, if the person were standing beside you."

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adian Locomotive Works, Kingston, Ont., Canada Foundry Co., Limited, Toronto, Ont., and Locomotive & Machine Company, Montreal, Que.

TORONTO, ONT.—Erection of a central fire station, corner Adelaide and Simcoe streets: Masonry, F. Holmes, \$22,964; carpenter work, P. Arnot, \$13,-432; plumbing, J. E. Gray, \$2,036; heating, Toronto Fournace & Crematory Company, \$2,875; iron work, Dominion Bridge Co., \$4,200; lathing and plastering, Beaver & Company, \$1,995; painting and glazing, Taylor & Company, \$815; slating, galvanized iron and felt and gravel, roofing, Forbes & Co., \$1,173.

#### FIRES.

Repair shops of Canadian Northern Railway, Winnipeg, Man., loss \$7,000.—

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Matthews, Towers & Co., Yorkshire Importing Co., Canadian Underwear Co., and others, Montreal, Que., estimated loss \$40,000.—Grant Bros. drug store, F. A. McCulloch & Co., dry goods store and "ajoining buildings, New Glasgow, N. S., loss \$100,000.—J. B. Myers' hardware store, Stratford, Ont., loss \$2,000.—Canadian Folding Paper Box Co's building, Brantford, Ont., loss \$2,000.—Brick block owned by Kennedy Estate, Campbellford, Ont., loss \$2,000.—Shops of Marine Iron Workr, Victoria, B. C., damaged to the extent of \$5,000.—Building of the Owen Sound Adventiser, loss \$1,000.—General store of J. R. Grant, Listowel, Ont., loss \$15,000.—Boiler shops of the Canadian Northern Railway, Winnipeg,

Man., loss \$60,000.—Working house of the Canadian Pacific Railway, Fort Wil-liam, Ont., loss \$60,000.—St. Patrick's Home, Halifax, N. S., damaged to extent of \$2,000.—Strathcona Hotel, Neidig block and other buildings at Fort Steele, B. C., loss \$30,000.—Offices, draughting room aud portion of machine shop of





forged from one piece of High Carbon Bar Steel without weld or rivet, solid neck and blade, tempered in oil, straight chucked handle can be replaced when broken.

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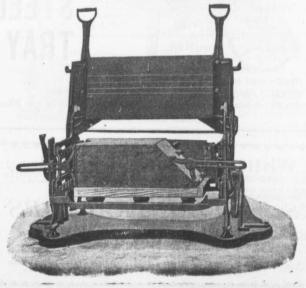


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Robb Engineering Co., Amherst, N. S., loss \$25,000.—Car barns of the Galt, Preston & Hespeler Electric Railway Co., and the Preston & Berlin Electric Railway Co., Preston, Ont., loss \$80,000. — Kilborn & Davisons' cheese factory, Delta, Ont., loss \$2,000.—Store of Richard Hall & Sons, Peterboro. Ont., \$3,000. — McGarvey building, C. A. Workman's building and adjoining structures, Montreal, Que., loss \$200,000.

During the month of November 108 building permits, valued at

several men are employed in the manufacture of cement pipe for the city. The capacity of the plant is about 500 feet per day and the engineer estimates a saving of 5 cents per feet as well as freight charges, on the price that would have to be paid were the pipes bought in the

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\$431,650, were issued in Montreal, This shows an increase of \$118,000 over the same month last year.

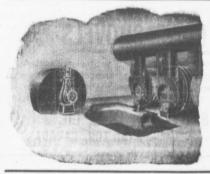
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WARING-WHITE BUILDING CO.

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23 Th

Peter Craib, a well-known builder of Woodstock, Ont., recently died at his home. Deceased was died at his home. born in Mortlach, Scotland, in Coming to Canada in 1853, he settled in Hamilton, Ont., the following year he removed to Woodstock and became associated with D. R. Stewart in the building and contracting business. He was for several years a member of the Town Council and was also Reeve of the County.

## JOHN CALT

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HIGH GRADE GERMAN BRANDS FOR GRANOLITHIC AND ARTIFICIAL STONE SIDEWALKS.

Sewer Pipes, Best English Cements. Best Belgian Cements W. McNALLY & CO., Montreal Culvert Pipes, &c.

Is the Highest Grade Artificial Portland Cement and the Best for High Class Work. Has been used largely for Government and Municipal Works. TO BE HAD FROM ALL CANADIAN DEALERS OR FROM

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for Cement Culvert Pipe

With or without Cone Top Filler. These Moulds are standard both in sizes and thickness of wall. Furnished with plain or telescopic joints. Write for Catalogue.

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Drag Scrapers (Solid pressed bowl)
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#### A NEW BUFFALO CONTINUOUS SHEAR, PUNCH AND BAR CUTTER.

During the past three years quite an extensive line of armour plate punches, shears, and bar cutters, comprising in all some 32 machines,



has been brought out by the Canadian Buffalo Forge Company, Montreal. The machine illustrated in the act of shearing a plate is a new addition to this line which has just passed ithrough several months of practical use to test the various points of merit claimed for it. One

special feature is the provision for shearing any length without binding or crimping by placing an ingenious device between the top and bottom plate to prevent any tendency in this direction.

The machine is built in three sizes, known as Nos. 2½, 3½ and 4½, weighing respectively 150, 320 and 460 pounds. The smallest will punch ¼ inch holes in ¼ inch plates, split plates of No. 12 gauge, cut round iron up to ½ inch in diameter and ¼ x 1 inch flat stock. The intermediate size punches ¾ x ¾ inch, splits No. 10 gauge and cuts ¾ inch round and 5/16 x 2 inch flat bars, and the largest punches ½ x ¾ inch, splits No. 8 gauge and cuts ¾ inch round and ¾ x 2½ inch flat bars.

The frames are made of armour plate and the other parts consist of drop forgings and crucible steel, with the exception of the stand, which is of cast iron. The bearing surfaces are machined and carefully fitted to eliminate lost motion. The jaws of the shears are of tempered crucible steel, and it is claimed will not give at the ends or spring and will not break under continual use at the rated capacities.

The use of much sheet metal in the company's works led to the development of these tools, where lightness, strength and indestructibility were important qualifications. Originally they were offered to the blacksmith trade only, but they have proved to be very convenient for workers in structural iron, and are now presented to the metal working trades in general.

The complete line includes machines for almost every use that may arise in these trades.

It is reported that Lee & Cunnlife, contractors, Hamilton, Ont., have assigned to W. G. E. Boyd.

The McKinley Darragh Savage Mines have purchased from Allis-Chalmers-Bullock, Limited, of Montreal, a large amount of mining machinery, including a powerful cross-compound air and compound stam Ingersoll air compressor, Ingersoll rock drills, two 80 h. p. boilers, a feed water heater condenser, air pump, Lidgerwood standard mining hoisting engine air receiver, etc.

At the annual meeting of the Ontario Portland Cement Company, Limited, which was held at the company's office, Brantford, Ont., on December 1st, the directors report and the auditor's statement were received and found to be entirely satisfactory. The following officers were elected: E. L. Goold, president; W. S. Wisner, vicepresident; W. G. Elliott, managing director, and S. H. J. Reid, secretary.



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#### $at\ higher\ prices\ than\ competitors\ has\ again\ this\ year\ been\ awarded\ the\ \underline{most\ important\ contracts}\ of\ the\ World's\ defined as$ CERMAN ALSEN, at higher prices than competitors has again this year been awarded the medical tests by leading Engineers proved its merit and relative economy. Note the following:

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175,000 bbis.
200,000 bbis.
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40,000 bbis. domestic Portland cement.

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### Dominion Government Estimates for Year Ending March 31, 1908

The Dominion Government estimates for the year ending March 31, 1908, were recently submitted to Parliament. They provide for an expenditure of \$105,689,519.03 and include the following appropriations for railways, canals, public buildings,

RAILWAYS AND CANALS—CHARGE-ABLE TO CAPITAL.

Intercolonial Railway.-Improvements at Mulgrave, \$61,000; to increase accommodation at Pictou, \$34,000; extension to Sidney Mines, \$51,200; Glengarry water tank and reservoir, \$8,500; to increase accommodation at Sydney, \$5,500; improvements at North Sydney Junction,\$4,500; to increase accommodation at Stellarton, \$9,000; improvements at Sackville, \$30,000; improvements at Amherst, \$34,000; improvements at Newcastle, \$32,-000; increased accommodation at Antigonish, \$10,250; Pirate Harbour water service, \$10,000; to dredge and blast rock at Deep Water Terminus, Halitax, \$5,000; to increase accommodation at Truro, \$110,000; to increase accommodation at Halitax, \$300,000; locomotive and car shops, and land purchase at Moncton, \$520,000; air brakes to freight cars, \$21,000; to exchange drawbars of freight cars, \$37,500; air compressors and reservoirs, \$5,400; air-brake equipment, \$19,500; new machinery for locomotive and car shops, \$100,000; to increase water service, \$32,000; increased accommodation and facilities along the line, \$62,000; new turntables, \$24,000; improvements at Ste. Rosalie, \$13,000; additional sidings along the line,\$19,200; Ballast plough and unloader, \$6,500; to improve telegrach line, \$24,500; improvements at Drummondville, \$25,000; to increase accommodation at Ste. Flavie,\$21,500; engine house, &c., Chaudiere Junction, \$66,800; engine house, machine shop, &c., at Riviere du Loup, \$65,000; towards double tracking parts of line, \$200,000; improvements at Campbellton, \$15,700; increased accommodation at St. John, \$14,000; to strengthen bridges, \$309,000. Prince Edward Island Railway.

Prince Edward Island Railway.— Increased accommodation at Charlottetown, \$318,000; rolling stock, \$20,000; extension of wharf at Souris, \$55,000; shelter and platform at Albion, \$600; shelter and platform at Uigg, \$500; improvements at Summerside, \$250; improvements at Toronto road, \$500; Murray Harbor Branch Land purchase, \$6,560.

Lachine Canal.—Rebuilding slope wall, \$90,350. Soulanges Canal. —Manny's gate bars, \$8,250; bridge at Clement's Gully, \$12,000; im-

provements, \$16,080. Chambly Canal. - Improvements at St. Johns Harbor, \$25,000. Quebec Canals. To purchase cement, \$55,000. Cornwall and other St. Lawrence Canals.-Englargement, \$7,000; to build oil and lumber storehouse,\$3,-River St. Lawrence.-Removal of shoals in River, upper entrance Galops Canal, \$28,000. Trent Canal.—Construction, \$280,-Welland 000; surveys, \$4,000. Canal.-Electric lighting and power plant, \$50,000; to remove centre piers and rebuild bridges at Queenston street and Homer road crossings, \$70,000; to make survey of \$10,000; to build turning basin, culvert and dock at Welland, \$60,000; to widen canal near Welland, \$75,000; improvements at Port Colborne entrance, \$200,000; elevator at Port Colborne, \$637,000. Sault Ste. Marie Canal.—Construction, \$150,000. Lachine Canal.— Wall at Warehousing Company's basin, No. 2, \$27,150. Soulanges Canal.—General repairs, \$5,200; lock gates litter, \$12,000. St. Ours Lock .- New boom piers and booms, \$4,100; Manny's gate bars, \$1,500. Carillon and Grenville Canals .macadamize road, Carillon Canal, \$10,230; General repairs, \$1,600. St. Anne's Lock.—Manny's gate bar, \$1,500; General repairs, \$1,200. Quebec Canals. - Dump scows, \$4,500; re-marking boundaries, surveys, etc., \$2,500; to purchase cement, \$16,000. Chambly Canal.-To mæcadamize towpath, \$14,000; to strengthen banks at Ste. Therese, \$9,500; general repairs, \$5,900. Cornwall Canal. — A gate litter, \$10,000; to make land plan and mark boundaries, \$5,000; to rebuild river wharf at foot of canal, \$2,500; to complete north bank above lock 21, \$10,000; to provide storage room for spare gates, \$2,000. Galops Canal.—To build retaining walls, \$15,000. Murray Canal.—To rebuild piers of concrete, \$55,000. Welland Canal.-To build retaining wall in the rock cut \$70,000; to renew entrance piers at Port Maitland, \$15,000; dredging in Port Dalhousie entrance, \$5,000. Trent Canal.— Improvements, \$33,500; dam at Buckhorn, \$35,000; new boat for towing and inspection, \$15,000; dam at Lovesick, \$10,000.

PUBLIC WORKS—CHARGEABLE TO CAPITAL.

Public Buildings. — Fittings, furniture, transit house etc., Ottawa Astronomical Observatory, \$8,000; Ottawa Royal Mint, \$55,000; additions and alterations, parliament, buildings, Ottawa, \$175,000; improvements, Rideau Hall, Ottawa, \$100,000; Victoria Memorial Museum, Ottawa, \$200,000; Addition to eastern departmental block,

Ottawa, \$75,000; new departmental buildings, including site, Ottawa, \$400,000; addition to library, Supreme Court, Ottawa, \$24.000.

HARBORS AND RIVERS.—Improvements Quebec harbor, \$280,000; harbor and river improvements, Port Arthur and Fort William, \$500,000; improvements at St. Andrews Rapids, Red River, \$200,-000.

PUBLIC WORKS—CHARGEABLE TO INCOME.

PUBLIC BUILDINGS.

Nova Scotia-Antigonish public building, \$5,000; Bridgewater building, \$7,000; Canso public building, \$5,000; Glace Bay public building, \$20,000; improvements, repairs, etc., Halifax Dominion building, \$20,000; Halitax immigrant building, \$1,000; Halifax immigrant detention building, \$11,000; Halifax new public building (Custom House, etc.) \$22,000; winter hospital, electric plant, repairs, etc., Halifax quarantine station on Lawlor's Island, \$10,-000; Inverness public building, \$18,000; Shelburne public building, \$10,000; Westville public building, \$10,000; improvements, Yarmouth public building, \$2,000.

Prince Edward Island.—Souris public building, \$3,000; assistance to municipal authorities towards opening Summer st. to Walter st. Summerside public building, \$1,-

New Brunswick. — Improvements, repairs, &c., St. John Dominion buildings, \$2,000; addition to stores building and wagon and gun shed, St. John military buildings, \$13,000; laundry and sanitary works, Tracadie Lazaretto,

\$5,000. Quebec.-Chicoutimi post office, \$12,000; renewals, improvements, repairs, etc., Dominion public buildings, P. Q., \$16,000; improvements and repairs to buildings, Grosse Isle quarantine station, \$12,000; disinfecting apparatus, including building, Grosse Isle quarantine station, \$7,500; Iberville public building, \$10,000; Immigrant buildings generally, P. Q., \$5,000; Lachute public buildings, \$10,000; Levis public building, \$8,000; Magog public buildbuilding, \$10,000; Montmagny public building, \$10,000; Montreal bar-racks for permanent corps. \$20,000; new storm \$20,000; new stores building, Montreal militay buildings, \$10,000; building for, and installation of pneumatic tube system for post office purposes, Montreal post office, \$50,000; site and building for Montreal new postal station B, \$30,000; improvements, alterations, repairs, etc., Montreal public buildings,

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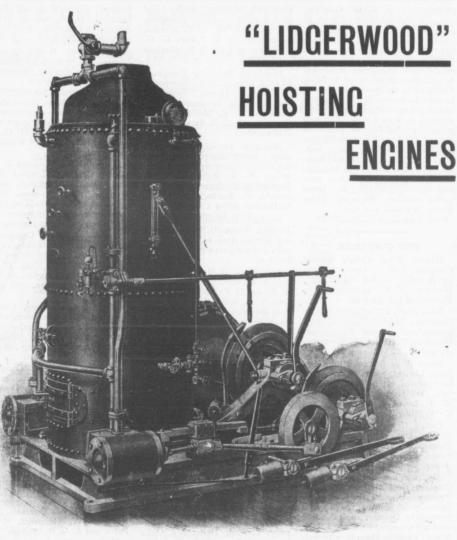
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#### NEW COMPANIES.

Hunter Silver Cobalt Minlng Company, Limited, Ottawa, Ont., incorporated, capital \$1,000,000. Directors, F. R. Latchford, W. L. Marler and J. J. Pheney.

Nova Scotia Silver Cobalt Mining Company, Limited, Toronto, Ont., incorporated, capital \$2,000,000. Directors, B. E. Bull, J. Montgomery and W. R. Williams.

South River Skating Rink Company, Limited, South River, Ont., incorporated, capital \$2,500. Directors, W. J. Ard, R. M. Carter, W. L. Lewis, J. F. Bellfoy and C. W. Miller.

Cobalt Union Mines, Limited, Toronto, Ont., incorporated, capital \$1,000,000. Directors, J. A. Ferguson, J. S. Back and A. C. Armstrong.

A license has been granted the Olympia Gold Mining Company, incorporated under the laws of the Territory of Arizona, to carry on business in Ontario, capital to be used not to exceed \$40,000. E. N. Armer, Toronto, Ont., is attorney.

Premier Asbestos Company, Limited, Montreal, Que., incorporators, E. Languedoc, W. J. Henderson, A. C. Calder, C. T. Jette, and J. Jenkins, all of Montreal.

German Development Company, Limited, Ottawa, Ont., incorporated, capital \$1,000,000. Incorporators, G. W. Buxestein, H. Dansiger, H. Craemer, all of Berlin, Germany, and O. E. Talbot, H. B. McGiverin, A. E. Barlow, and M. Cohn, all of Ottawa, Ont.

Dominion Chrome Company, Limited, Montreal, Que., incorporated, capital \$20,000. Incorporators, H. W. Beauclerk, A. C. Calder, J. Jenkins, A. Savard and E. Languedoc, all of Montreal.

Mussens, Limited, Montreal, Que., incorporated, capital \$500,000, to take over the business now earried on by W. H. C. Mussen &

Company, railway, mining and municipal contractors' supplies. Incorporators, W. H. C. Mussen, G. Boulter, G. G. Foster, C. G. McKinnon and W. R. Staveley, all of Montreal.

Dominion Dredging Company, Limited, Ottawa, Ont., incorporated, capital \$145,000. Incorporators, E. A. R. Larmonth, W. A. Cameron, E. R. McNeill, R. G. Stewart, and C. E. Stewart, all of Ottawa, Ont.

Miramichi Tanning & Fur Company, Limited, incorporated, capital \$45,000. Incorporators, R. H. Wing, R. S. Robinowich, W. Damery, J. B. Beveridge, J. McDonald, C. Ruddock and H. B. McDonald, all of Chatham, N. B.

Stothart Mercantile Company, Limited, Newcastle, N.B., are seeking incorporation to operate saw mills and carry on a general lumber business.

J. F. Tilley, A. Myles, J. A. Hayden, A. W. Hay, all of Woodstock, N. B., and G. F. Burpee, of Avondale, N. B., will seek incorporation from the New Brunswick Government, as the Woodstock Cold Storage Company, Limited.

Perth Electric Company, Limited, Perth, N. B., are seeking incorporation. Promoters, W. Amies, S. J. Brown, J. W. McPhail, C. L. Olmstead and G. E. Armstreng, all of Perth, N. B.

The Exploration Company of Canada, Limited, Toronto, Ont., incorporated, capital \$100,000. Directors, A. O. Beardmore, W. R. Johnston, H. C. Osborne, A. E. K. Evans and A. C. Macdonel.

North Cobalt Mining Company, Limited, Cobalt, Ont., incorporated, capital \$50,000. Directors, H. von Hagen, E. O. Seeley, and W. G. Kennedy.

Cobalt Native Silver Mining Company, Limited, Haileybury, Ont., incorporated, capital \$500,000. Directors, A. T. Budd, W. S. Mitchell and J. W. Kay.

Ruby Silver Mining & Development Company, Limited, Hamilton, Ont., incoporated, capital \$500,000. Directors, S. J. Lloyd, W. S. Hutchinson, J. M. Peregrine, G. R. Lloyd and H. S. Lees.

The Gilbert Plains Curling & Skating Rink Company, Limited, Gilbert Plains, Man., incorporated, capital \$5,000.

The Neva Development Company, Limited, Winnipeg, Man., incorporated, capital \$100,000. Incorporators, W. S. Linnell, T. H. Johnston, of Winnipeg, Man., and others.

The Schofield Paper Company, Limited, St. John, N. B., will seek incorporation at the next session of the New Brunswick Government.

D. E. Adams Coal Company, Limited, Winnipeg, Man., incorporated, capital \$100,000. Incorporators, D. E. Adams, H. E. Adams, D. Cameron, all of Winnipeg, and others.

The Noopka Marble Quarries, Limited, has been incorporated by the British Columbia Government with a capital of \$150,000.

Beaver Lumber Company, Limited, Winnipeg, Man., incorporated, capital \$3,000,000. Incorporators, J. Love, S. P. Clark, grain merchants, R. L. Gibson, H. Crowe, lumber merchants, all of Winnipeg, Man., and others.

General Metal Foundry & Machinery Company, Limited, Montreal, Que., incorporated, capital \$199,900. Incorporators, M. E. Lymburner, St. Agathe, Que., L.M. Lymburner, both of Montreal, Que., and others.

Canada Cement Construction Company, Limited, Quebec, Que., incorporated, capital \$100,000. Incorporators, J. A. Cote, D. W. Parante, E. Lamontagne, A. A. G. Gingras, J. Sampson, and J. A. Plante.

W. I. Kemp Company, Limited, Stratford, Ont.; incorporated, to manufacture agricultural implements, capital \$300,000. Directors, W. I. Kemp, N. J. Kemp and J. S. Lewis.

Duuglass Mining Company, Limited, Toronto, Ont., capital \$500,000. Directors, J. Douglas, C. S. Gzowski, J. Atwood, G. Laird, and J. A. Baggett.

Lorrain Mining Company, Limited, Toronto, Ont., incorporated, capital \$400,000. Directors, G. H. Draper, C. McEachren, T. E. Smith, W. B. Laidlaw and A. H. Smith.

Cobalt & New Ontario Prospectors, Developers & Investors, Limited, Toronto, Ont., incorporated, capital \$500.000. Directors, J. L. Ross, A. W. Holmsted, F. H. Potts, and A. R. Bickerstaff.

McCurry Manufacturing Company, Limited, Toronto, Ont., incorporated, to manufacture grocery sundries, capital \$40,000. Directors, H. R. McCurry, J. Edwards, and J. McCurry.

Canadian Billing & Spencer, Limited, Brockville, Ont., incorporated, to manufacture tools and machinery, capital \$200,000. Directors, J. G. Gardner, J. H. Botsford, and W. S. Buell.

Delta Lime Company, Limited, Delta, Ont., incorporated, capital \$30,000. Directors, W. M. Cameron, F. H. Cameron, W. H. Wood, W. S. Buell and C. A. McNaughton.

Edward Cobalt Mines, Limited, Toronto, Ont., incorporated, capital \$100,000. Directors, W. R. P. Parker, G. McP. Clark, J. A. Mc-Evoy, G. Russell, and Ethyl M. Lindsay.

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Dartnell, E. F.         8           Hopkins & Co., F. H         24           Ideal Concrete Machinery Co.         18	Iron & Brass Works Co	McGregor & McIntyre
Hopkins & Co., F. H 24		
Ideal Concrete Machinery Co 18	Seagrave, W. E., Walkerville, Ont 16	STONE
Marriago & Co., W. H. C	HOISTING MACHINERY	Crushed Stone, Limited 16
Mussen & Co., W. H. C	Allis-Chalmers-Bullock	Doolittle & Wilcox21
Vining Bros, Mfg. Co 5	Beatty-& Sons, M 22	
Timing areas and	Canada Foundry Co 23	SHOVELS (STEAM)
CONTRACTORS' PLANT	Hood & Sons, Wm''' 19	Allis-Chalmers-Bullock II
Allis-Chalmers-Bullock	Hopkins & Co., F. H 24	Beatty & Sons, M
Beatty & Sons, M 22	Beatty-& Sons, M. 22 Canada Foundry Co. 23 Hood & Sons, Wm 19 Hopkins & Co., F. H. 24 Mussen & Co., W. H. C. 3	Hopkins & Co., F. H.
C mada Foundry Co 23	HYDRANTS	Locomotive & Machine Co
Hopkins & Co., F. H 24	Canada Foundry Co 22	Hopkins & Co., F. H
Locomotive & Machine Co	Canadian Fairbanks Co	
Mussen & Co., W. H. C	Gartshore-Thompson Pipe & Foundry	SEWER PIPE
Contract   Contract	Co. 9 Kerr Engine Co. 6 Montreal Pipe Foundry Co. 9 McDougall Co., R. 21	Bremner, Alex
Toronto Fressed Steel Committee 7	Kerr Engine Co	Canadian Sewer Pipe Co 17
CONCRETE CONSTRUCTION	McDougall Co. P.	Dominion Sewer Pipe Co 14 Toronto Pottery Co 22
Ambursen Hydraulic Construction Co. 7	McDougan Co., K	Toronto Pottery Co 22
Loignon, A. & E 7	LOCOMOTIVES AND RAILS	SHOVELS
Loignon, A. & E	Canada Foundry Co 23	Canadian Shovel & Tool Co 5
	Gartshore, John J	Canadian Shovel & Tool Co.       5         Hopkins & Co., F. H.       24         Mussen & Co., W. H. C.       3
CONTRACTORS' EMPLOYMENT BUREAUS	Hopkins & Co	Mussen & Co., W. H. C 3
Bryans & Co., E. E	Mussen & Co., W. H. C	TELEPHONE SUPPLIES
Zarossi, Banco 15	Sessenwein Bros 7	Northern Electric & Mfg. Co 4
CORRUGATED IDON	PLASTER BOARDS	
CORRUGATED IRON	P. W. St. George	TANKS AND STAND PIPES
Meta lic Roofing Co 5		Canada Foundry Co
Pedlar People 22	PILE DRIVING	Ontario Wind Engine & Pump Co 17
CRUSHERS (STONE AND ROCK)	Hood & Sons, Wm	VALVES
Atti- Chalman Bullock		
Amis-Chaimers-Bulletin Beatty & Sons, M	PAVING AND PAVING MATERIALS	Canada Foundry Ce
Canada Foundry Co 23	Brunet, Joseph	Gartahore-Thomson Pine & Foundry
Dartnell, E. F 8	Forest City Paving Co 17	. Co., 9
Hopkins & Co., F. H 24	Ontario Asphalt Block Co	Kerr Engine Co 6
Mussen & Co., W. H. C 3	Brunet, Joseph. 17 Forest City Paving Co. 17 Ontario Asphalt B.ock Co. 17 Silica Barytie Stone Co. of Ontario 15 Warran Bituminous Paving Co. 15	Co. 9 Kerr Engine Co. 6 Montreal Pipe Foundry Co. 9 McDougail Co., R. #1
Morrison & Co. T. A	Warren Mituminous Paving Co 7	McDougall Co.; M

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Cobalt Annex Silver Mines, Limited, Haileybury, Ont., incorporated, capital \$500,000. Directors, A. T. Budd, G. McM. Petrie, and F. Pot-

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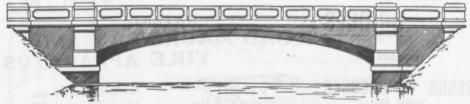
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Sombra Oil & Gas Company, Limited, Chatham, Ont., incorporated, capital \$40,000. Directors, N. H. Bowe, J. W. Shay, P. W. Roth, E. I. Barnard, and F. B. Barnard.

Power City Stone Company, Limited, Niagara Falls, Ont., in-corporated, capital \$40,000. Di-rectors, J. H. Symmes, G. G. Durham, R. Boyd, F. C. McBurney, and A. E. Boyd.

Oxbow Telephone & Lighting Company, Limited, Oxbow, Sask.

The death is reported of S. Goodbody, builder, Montreal, Que.

Mr. R. H. Haas has resigned his position as general superintendent of the Dominion Engineering & Construction Company, of Montreal, and is at present on a business trip to New York, Pittsburg and the West. He expects to return to Montreal about the second week in January to resume a similar position as that held by him with the Dominion Engineering & Construc-tion Company. Mr. H. F. Hass, superintendent of the Dominion Engineering & Construction Company, of Montreal, at the American Tobacco Company's new plant, has also severed his connection with the company.

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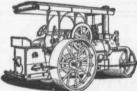


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According to a statement prepared by the City Engineer's department, 10,221 miles of asphalt pavement have been laid in Winnipeg this year as compared with 505 miles in 1905 and there are now

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							ı dy.	7 ds, s.	a8 dys.	3 mos.	ı yr.	ı dy.	7 dys.	28 dys	3 mos.	ıyr
1903	20	о.к.	3.135	2.1	162	345	307	701	783	827	*	74	214	299	367	
1904	44	O.K.	3.150	2.0	132	342	300	744	848	914	938	86	262	354	401	427

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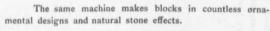
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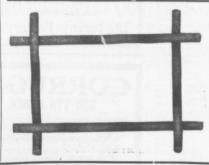
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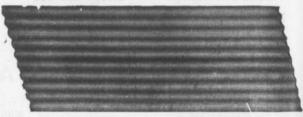
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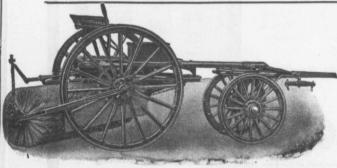
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