

vaulted ceilings, and vaults; tunnels, aqueducts, sewer and water pipes, and ornamental work of every description within the province of the architects or engineer, it possesses advantages peculiar to itself and not equally shared by other materials.

The object of this article is to demonstrate its utility in the Northwest in the construction of dwellings, barns, outhouses, creameries, etc. There are no difficulties in the way to its adoption and use by farmers, provided they will adhere to the formulas as laid down by the manufacturers.

Wherever sand and gravel can be obtained, buildings can be erected of concrete much more cheaply than can be done with brick, stone or wood, and moreover a concrete building is much warmer in winter and cooler in summer than any buildings constructed with the other materials named. Frost will not penetrate the walls and they will be dry, strong and durable.

The farmer who is largely engaged in raising stock will, if he constructs concrete cattle barns, come to understand the value of the buildings so constructed after passing through one of the severe winters common to this latitude, as the saving in fodder for his cattle in a single year will nearly compensate him for his outlay. It is a conceded fact that cattle that are warmly housed will require but half the fodder that is required to be fed to cattle that are housed in cold places, and a farmer cannot become truly prosperous until he has learned that it is as necessary to as warmly house his stock as he does his family.

Concrete buildings can be fairly estimated to cost about one-half that of wood and about one-fourth the cost of brick or stone, where the latter has to bear transportation. With these facts before us it is not too much to predict that as soon as the people of the Northwest become familiarized and convinced of the inestimable value of concrete building, that it will be but a few years when concrete building will be the ruler rather than the exception. For who among our readers will not concede that a building composed of one solid stone, indestructible by fire, wind or water, is vastly superior to any other form or mode of building?

Its cheapness, strength and durability all commend it to the favorable consideration of those who intend to build, and we advise our readers to make a thorough investigation of this subject, before deciding against it.

Architects could confer no greater blessing upon the people of the Northwest than by taking up this subject and pursuing it understandingly. They will find, if they do not know already, that in Europe magnificent buildings are erected entirely with concrete, with basements dry, impermeable to water or vermin, with partition walls and hall-ways, stairways, handrails, floors, ceilings, chimneys, fences, walks, sewers, drains, all constructed out of this invaluable material. All these things can be done with cement, and we urge upon all who are interested in the building up of our beautiful Northwest to give their earnest attention to this cheap and indestructible material.

In our next issue we shall prescribe the formulas laid down for the proper preparation and manipulation of concrete.—*Northwestern Improvement Record.*

How Iron is Tinned.

The great sheets are cut into squares and trim and then sent to the pickling tub to be cleaned from the black oxide which covers them. This tub is a large cistern lined with lead and filled with dilute sulphuric acid, over which an immense copper cage is suspended. After the cage is packed with the plates, it is dipped down into the acid liquid, makes a few revolutions, then rises, and with a half turn of the beam which carries it, is brought over another vat through which a stream of water is passing. The dip and spin are here repeated until all the acid is washed away, and the plates are taken out perfectly clean, but with abraded surfaces. To get rid of this defect, they are passed for the last time, and without reheating, between a pair of highly polished rollers, and emerge perfectly smooth and resembling in color Damascus steel.

They are now ready for tinning, and on our way to the next department we pass a stack of dusty bars of that metal. "Cost a thousand pounds," says the master of the rolls, with a rap of his knuckles on the top one. The tin is first melted and "polled"—that is, stirred up with a piece of green wood—which sends a current of steam through it and sweeps some impurities to the surface; it is then transferred to square iron cisterns, where it is kept melted, with a layer of palm oil on the surface to prevent oxidation.

Beneath the black, seething pool the iron plates are plunged, and when they are taken out they seem to have been transmuted from iron to silver, so brilliant is the coating. They are now rubbed with sawdust, to get rid of the oil, then away to be packed. But they are first subjected to a curious test. It is important that plates of the same thickness and equally coated should be sorted together. But it would be difficult to gauge them, so a man with a good ear is seated in a comparatively quiet part of the works, and, taking each sheet by the corner, gives it a dexterous shake, eliciting a thrumming sound, which differs, of course, in pitch, with the slightest change in thickness, and thus he sorts them.

At the end of the works is a saw-mill where the oak boxes are made in which the tin is packed, and whence it travels all over the world as "Best Charcoal Tin." It is acceptable among all nations—from Russia, where it is used for roofing houses and covering the bizarre domes of the emerald green topped churches, to the upper waters of the Amazon, where it glitters more brightly still as the nose-plate of the festive savage, dancing, impecuniously, but happy, amidst the living emeralds of his forest home.—*Chambers' Journal.*

Dissolution of Partnership.

On and after the 1st of September, 1884, the partnership existing between J. P. DILL and H. CROSS, General Merchants, in the Town of Wolseley, N.W.T., is discontinued. The said J. P. Dill will assume all liabilities contracted by the said Dill & Cross and collect all debts due the firm.

Wolseley, Sept. 1st, 1884. Signed, J. P. DILL.
H. CROSS.

WOLSELEY HOME INDUSTRY. THOMAS C. FLETCHER, Manufacturer of Choice Havana Cigars. All orders promptly filled. 361 Main Street, opposite Court Block, Winnipeg.

The Bell Telephone Co., of Canada.

ANDREW BOWMAN, President. C. F. SISK, Vice-President.
C. P. SILVER, Secretary-Treasurer.

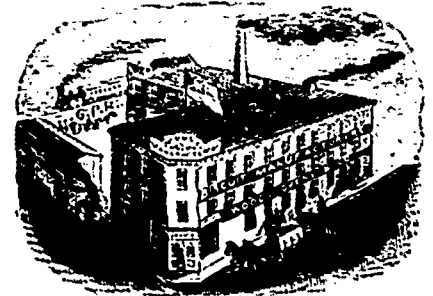
This Company, which owns the Telephone Patents in Canada of Bell, Blake, Edison, Phelps, Gray and others will furnish instruments of different styles, and applicable to a variety of uses. It will arrange to connect places not having telegraphic facilities with the nearest telegraph office, or it will build private lines for individuals or firms connecting their different places of business or residence.

This company is also prepared to manufacture Telegraph and Electrical Instruments, Electro-Medical apparatus, Fire Alarm apparatus, Magnets for Mills, Electric Gas-lighting apparatus, Burglar alarms, Hotel and House Annunciators, Electric Call-bells, &c. Any further information relating hereto can be obtained from the Company.

NO. 12 HOSPITAL STREET, MONTREAL,
OR 7104

MR. F. G. WALSH AGENT, WINNIPEG

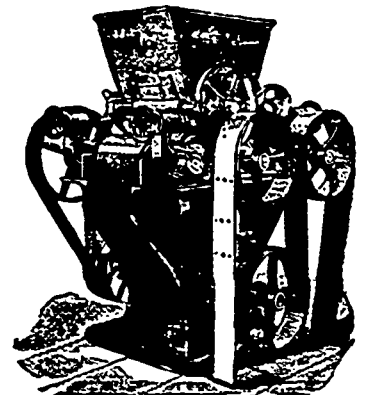
N.B.—All persons using Telephones not licensed by this Company are hereby respectfully notified that they are liable to prosecution and for damages for infringement and will be prosecuted to the full extent of the law.



Manufacturers of
**BISCUIT—every variety. Brooms.
Coffee & Spices. Self-Raising Flour.**

The Trade only supplied, and on best terms. Send for Price List.

WOODS, OVENS & CO.,
Factory and Office—Corner Higgins, Fonseca and Argyle
Streets, Winnipeg.



Send for Illustrated Catalogue

—OF—
W. D. GRAY'S

(Of Milwaukee, Wis.)

PATENT NOISELESS

ROLLER MILLS,

As used in the system of milling by
GRADUAL REDUCTION.

Manufactured exclusively in Canada by

MILLER BROS. & MITCHELL,

Machinists and Millwrights,

MONTREAL.