

accepted the tender of the Canada Pipe Co.—Messrs. Lomer & Rose have been awarded the following contracts for elevators. Young Men's Christian Association, Montreal, North of Scot land building, Toronto, City Hotel, Montreal. —The Montreal Terra Cotta Lumber Co. have been awarded the contract to supply porous terra cotta for lining walls of the Victoria Hospital, and the partitions and inside walls of the new Court House in Montreal.

BIDS.

TORONTO, ONT.—The Board of Works has recommended acceptance of the following tenders. Concrete sidewalks, Gerrard street, both sides, Jarvis to Sherbourne, \$1.78 per lineal foot; Queen street east, 12 foot granolithic sidewalk, stone 5-inch curb, R. Forsyth, \$5 per lineal foot. Sewers—Dupont street, Christie street to Manning avenue, 15-inch tile, J. J. Booth, \$1.143. Sheridan avenue, 350 feet north of Bank street to Dundas street, 15-inch tile drain, Burns & McCormack, \$1,499. Cedar pavements—Harris street, Queen street to Paul street, W. F. Donaldson, \$1,269; Howard Park avenue, Dundas street to Roncesvalles avenue, W. F. Donaldson, \$2,029; Vermont avenue, Bathurst street to Manning avenue, W. F. Donaldson, \$2,884; Woodlawn avenue, W. F. Donaldson, \$2,090. Bismarck avenue, Gwynne avenue to east terminus, A. W. Godson, \$1,088. Christie street, Thorn street to Melville street, A. W. Godson, \$3,997. Bloor street, from Clinton street to Shaw street, A. W. Godson, \$12,589. East avenue, First avenue to South avenue, Callaghan & Gibson, \$1,660; Walmer road, Ca. le avenue to Bernard avenue, D. L. Van Vlack, \$2,280.

USEFUL HINTS.

CEMENT FOR STEAM OR WATER PIPES.—An expert in such matters says he has found the following the best thing he has tried for making joints against fluid pressure: Five pounds Paris white, five pounds yellow ochre, ten pounds litharge, five pounds red lead, four pounds black oxide manganese. The whole is to be well mixed, and a little asbestos and boiled oil added. This, he says, soon becomes nearly as hard as the iron itself.

A steel color is developed on brass by using a boiling solution of arsenic chloride. A concentrated solution of sodium sulphite causes a blue coloration. Black, as on optical instruments, is obtained from a solution of platinum chloride, to which tin nitrate has been added. In Japan, brass is bronzed by using a boiling solution of copper sulphate, alum and verdigris.

A writer in the Scientific American claims that salt is the best and cheapest preservative that can be found for posts. This he bases on his own experience as follows: Thirty-four years ago he set four oak hitching posts three and a half feet deep in the earth, having first bored a one-inch hole in the same about three inches above and another of like size about four inches below the earth's surface. The holes were partly filled with salt and then stopped with a dry oak plug. The posts remain to-day sound and strong.

M. Le Chatelier, the well-known French engineer, advocates the practice of hardening cement briquettes in hot water. In this way the chemical reactions are accelerated, and in the case of good cement the briquette is said to be as strong after two days' hardening in hot water as after seven days' in cold, or after seven days' hardening in hot water the briquette gives

the same results as after 28 days' in cold. The method is also pointed out to be of value in detecting the presence of free lime in the specimen, as in that case the briquette flies to pieces, from the expansion of the lime, if the hardening takes place in warm water.

PAINTING WOOD.—It is found that in painting wood one coat takes 20 lbs. of lead and 4 gallons of oil per 100 square yards; the second coat 40 lbs. of lead and 4 gallons of oil; and the third the same as the second; say 100 lbs. of lead and 16 gallons of oil per 100 square yards for the three coats. The number of square yards covered by one gallon of priming color is found to be 50; of white zinc, 50; of white lead paint, 44; of lead color, 50; of black paint, 50; of stone color, 44; of yellow paint, 45; of blue color, 45; of green paint, 45.—Invention.

A VALUABLE CEMENT.—Prof. Alex. Winchell is credited with inventing a cement that will stick on anything: Take two ounces of clear gum arabic, 1 1/2 ounces of fine starch, 1/2 ounce of white sugar. Pulverize the gum arabic, and dissolve it in as much water as the laundress would use for the quantity of starch indicated. Dissolve the starch and sugar in the gum solution. Then cook the mixture in a vessel suspended in boiling water until the starch becomes clear. The cement should be as thick as tar, and kept so. It can be kept from spoiling by dropping in a lump of gum camphor, or a little oil of cloves or sassafras. This cement is very strong, and will stick perfectly to glazed surfaces, and is good to repair broken rocks, minerals or fossils.

Prices of Building Materials.

LUMBER.

Table with columns for material types (CAR OR CARGO LOTS, CARBONATED LUMBER, etc.) and prices per unit.

Metallic Roofing Co. of Canada:

Table listing prices for various roofing materials like Eastlake steel-shingles, Improved Broad Rib Roofing, etc.

Canada Galvanizing & Steel Roofing Co.:

Table listing prices for galvanized iron and steel roofing products from the Canada Galvanizing & Steel Roofing Co.

WARD QUOTATIONS.

Table listing various building materials and their prices, including Mill cull boards, Shipping cull boards, Scantling and joist, etc.

BRICK—M

Table listing prices for different types of bricks like Common Walling, Good Facing, Sewer, etc.

Stone.

Table listing prices for Common Rubble, Large flat, Foundation Blocks.

Slate: Roofing (per square).

Table listing prices for various types of roofing slate.

Sand:

Table listing price for Per Load of 1 1/2 Cubic Yards.

PAINTS. (In oil, per lb.)

Table listing prices for various types of paints like White lead, Zinc, Red lead, etc.

CEMENT, LIME, etc.

Table listing prices for Lime, Plaster, Cement, etc.

HARDWARE.

Table listing prices for various hardware items like Cut Nails, American Pattern, Canadian Pattern, etc.