

VITRIFIED STREET PAVING BRICKS MUST POSSESS TOUGHNESS.

There are some vitrified brick that are so brittle that when the wheels of loaded vehicles come in contact with them they wear off very rapidly. These bricks are not good paving. They must combine toughness with the vitrification. If a brick is thoroughly vitrified, it means the whole body of clay melted homogeneously into one mass.

Toughness means the tempering which is given to the clay while in the firing or burning process, whereby the life, grain and tenacity of the brick are not destroyed.

The fact that a brick is vitrified does not of itself make a good paver, as there are a large number of clays which will burn to a state of vitrification and yet make into bricks not suitable for street paving because they lack the necessary toughness.—*Dr. J. S. Hopkins, President Georgia School of Technology.*

STEEL CHIMNEYS.

Steel chimneys are being erected in connection with some of Chicago's tall buildings. The Fair Building has at present the tallest under construction. The chimney, when completed, will be 250 feet high, being considerably higher than any other in the city, the highest at the present time being said to be the one at the Gottfried Brewing Company's plant, which is 175 feet. The outside diameter is 9 feet 5 inches, while the steel varies in thickness from $\frac{1}{2}$ at the top to $\frac{3}{8}$ inch at the bottom. The lower 75 feet of the chimney are lined with fire brick 8 inches deep, formed to fit the shell compactly all around. Above this it is lined with hollow tile. This lining is supported at intervals of 25 feet by angle iron riveted to the steel shell. The weight of the chimney is spread to the foundations in the same general way as that of the columns of the building, the base or foundation on which it rests being constructed in the same manner. The ground is first covered with a layer of cement, then two layers of steel rails in cement and one layer of I-beams, on which the cast-iron shoe which takes the shell of the stack rests. The capacity of the chimney is 12 60-inch boilers, 20 feet in length.

A SHORT SIGHTED POLICY.

Members of the Plasterers' Union in Philadelphia refuse to work with the boy graduates of the Philadelphia builders' training school. The incident is one of the many where the trades unions have gone beyond their legitimate field by a short sighted policy of preventing American youths from learning and practising a useful trade. The trades unions, generally, are growing arrogant and despotic. Ostensibly formed for the prevention of despotism by "capital," most of them are more despotic than the most tyrannical of the employers, without any of the latter's conservatism. The policy of the plasterers of Philadelphia is short sighted, because it strikes at the root of what, ultimately, would be the strongest rampart against cheap wages by producing intelli-

gent and highly trained skill, which, ultimately, would strengthen the unions themselves.

Our American trades unions are afflicted with large moieties of half trained labor, which the unions decree shall receive the same uniform price as the best trained professional. It is not only grossly unjust to the employer, but equally unjust to the best workman, and the tendency is to lower the status of the whole trade to the level of inefficiency of the poorest. The final result of such a policy must react disastrously upon the unions themselves.—*The Clay-Worker.*

TO BUILDERS.

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Prices of Building Materials.

LUMBER.

CAR OR CARGO LOTS.

1 1/2 and thicker clear picks, Am. ins.	\$30 00@32 00
1 1/2 and thicker, three uppers, Am. ins.	37 00
1 1/2 and thicker, pickings, Am. ins.	27 00
1 x 10 and 12 dressing and better.	18 00 20 00
1 x 10 and 12 mill run.	13 00 14 00
1 x 10 and 12 dressing.	14 00 16 00
1 x 10 and 12 common.	12 00 13 00
1 x 10 and 12 spruce culls.	10 00 11 00
1 x 10 and 12 maple culls.	9 00
1 inch clear and picks.	28 00 30 00
1 inch dressing and better.	18 00 20 00
1 inch siding, mill run.	14 00 16 00
1 inch siding, common.	11 00 12 00
1 inch siding, ship culls.	\$10 00 \$11 00
1 inch siding, mill culls.	8 00 9 00
Cull scantling.	8 00 9 00
1 1/2 and thicker cutting up plank	22 00 25 00
1 inch strips, 4 in. to 8 in. mill run.	14 00 15 00
1 inch strips, common.	11 00 12 00
1 1/2 inch flooring.	14 00 15 00
1 1/2 inch flooring.	14 00 16 00
XXX shingles, sawn.	2 30 @ 2 35
XX shingles, sawn.	1 30 1 35

Metallic Roofing Co. of Canada:

	Per Square.
Eastlake steel shingles (galvanized).	\$5 25 to \$5 75
Eastlake steel shingles (painted).	3 75 4 00
Improved Broad Rib Roofing (galvanized).	5 00 5 75
Improved Broad Rib Roofing (painted).	3 50 4 00
North Western steel siding (painted).	3 25 3 50
Manitoba steel siding (painted).	3 25 3 50
Metallic Finished Brick.	3 25 3 50
Tower or Mansard shingles (galvanized).	6 25
Tower or Mansard shingles (painted).	4 50
Metallic Terra Cotta Tiles.	7 00
Price of Copper shingles according to weight, and "Hayes" Patent Metallic Lathing according to quantity.	

Canada Galvanizing & Steel Roofing Co.

Corrugated Iron, galvanized, 26 W.G., per lb.	5 cts.
Corrugated Iron, galvanized, 28 W.G., per square.	5 1/2
Corrugated Iron, painted, 26 W.G., per square.	4 00
Corrugated Iron, painted, 28 W.G., per square.	3 50
Broad Rib Roofing, galvanized, per square.	5 50
Broad Rib Roofing, painted.	4 00
Westlake shingles, steel, galvanized, per square.	5 00
Westlake shingles, steel, painted.	3 50
Standard shingles, "Walter's patent," galvanized, per square.	5 50
Standard shingles, "Walter's patent," painted.	4 00
Northwestern steel siding, patented, per square.	3 50
Metallic Finish Brick, per square.	3 25
Metallic Finish Clapboard, per square.	3 50

YARD QUOTATIONS.

Mill cull boards and scantling.	10 00
Shipping cull boards, promiscuous widths.	13 00
Shipping cull boards, stocks.	12 00
Hemlock cantling and joist up to 16 ft.	11 00 12 00
" " " " 18 "	12 00 13 00
" " " " 20 "	13 00 14 00
Scantling and joist, up to 16 ft.	14 00
" " " " 18 ft.	15 00
" " " " 20 ft.	16 00
" " " " 22 ft.	17 00
" " " " 24 ft.	18 00
" " " " 26 ft.	19 00
" " " " 28 ft.	20 00
" " " " 30 ft.	21 00
" " " " 32 ft.	22 00
" " " " 34 ft.	23 00
" " " " 36 ft.	24 00
" " " " 38 ft.	25 00
" " " " 40 to 44 ft.	26 00
Cutting up planks, 1 1/2 and thicker, dry board.	25 00 26 00
Cedar for block paving, per cord.	18 00 20 00
Cedar for Kerbing, 4 x 14, per M.	5 00
	14 00

B. M.

1 1/2 inch flooring, dressed, F. M.	28 00 31 00
1 1/2 inch flooring rough, B. M.	18 00 22 00
1 1/2 " " dressed, F. M.	25 00 28 00
" " " undressed, B. M.	18 00 19 00
" " " undressed.	18 00 23 00
Beaded sheathing, dressed.	22 00 23 00
Clapboarding, dressed.	22 00 23 00
XXX sawn shingles, per M, 16 in.	2 65 2 75
Red oak.	2 00 2 20
White.	10 00 40 00
Basswood, No. 1 and 2.	15 00 45 00
Cherry, No. 1 and 2.	18 00 20 00
White ash, No. 1 and 2.	70 00 70 00
Black ash, No. 1 and 2.	25 00 25 00
Dressing stocks.	20 00 30 00
Picks, American inspection.	16 00 22 00
Three uppers, American inspection.	40 00 50 00

BRICK—B. M.

Common Walling.	\$7 50
Good Facing.	9 00
Sewer.	8 50 9 00

Pressed Brick.

Plain brick, f. o. b. at Milton, per M.	\$18 00
" " " 2nd quality, per M.	14 00
" " " 3rd " " " "	10 00
Hard Building.	8 00
Moulded and Ornamental, per 100.	\$3 to 10 00
Roof Tiles.	24 00
Diamond locking tile.	16 00
First quality, f. o. b. at Campbellville, per M.	18 00
2nd " " " "	14 00
3rd " " " "	11 00
Ornamental, per 100.	\$3 to 10 00
Tiles.	24 00

Stone.

Common Rubble, per Ton, delivered.	14 00
Large flat " "	18 00
Foundation Blocks, " Cubic Foot.	50

Slate: Roofing (per square).

" red.	18 00
" purple.	9 00
" untanned green.	9 50
" black slate.	7 75
Terra Cotta Tile, per sq.	25 00
Ornamental Black Slate Roofing.	8 25

Sand:

Per Load of 1 1/2 Cubic Yards.	1 25
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PAINTS. (1/2 lb oil, 1/2 lb.)

White lead, Can.	6 25 6 50
" zinc, Can.	6 1/2 7 50
Red lead, Eng.	5 1/2 6 1/2
" venetian.	1 60 1 75
" vermilion.	90 1 00
" Indian, Eng.	10 12
Yellow ochre.	5 10
Yellow chrome.	15 20
Green, chrome.	7 12
" Paris.	25 40
Black, lamp.	15 25
Blue, ultramarine.	45 20
Oil, linseed, raw (1/2 Imp. gallon).	65 68
" " boiled.	68 71
" " refined.	78 85
Putty.	2 1/2 3 1/2
Whiting, dry.	75 1 00
Paris white Eng., dry.	90 1 25
Litharge, Am.	6 1/2 8
Sienna, burnt.	15 20
Umber.	8 1/2 12

CEMENT, LIME, etc.

Lime, Per Barrel of 2 bushels, Grey.	40
" " " White.	55
Plaster, Calcined, New Brunswick.	2 00
" " " Nova Scotia.	2 00
Hair, Plasterers', per bag.	1 00
Cement, Portland, per bbl.	3 00 3 50
" Thorold.	1 50
" Queenston.	1 50
" Napanee.	1 50
" Hull.	1 50

HARDWARE.

Cut Nails:

American Pattern, 1 1/2 inch, per keg.	3 90
" " 1 1/2 to 1 3/4 inch, per keg.	3 10
Canadian Pattern, 1 1/2 inch, per keg.	3 40
" " 1 1/2 to 1 3/4 inch, per keg.	2 95
" " 2 to 2 1/2 inch, " "	90
" " 2 1/2 to 3 inch, " "	65
" " 3 inch and larger.	2 40
Steel nails 10c. per keg extra.	
Finishing nails, 1 inch, per keg.	5 40
" " 1 1/2 inch, " "	4 65
" " 1 3/4 " " "	4 15
" " 1 1/2 " " "	3 90
" " 1 3/4 " " and larger.	3 90