

ASPHALT FLOORS.

In a letter to the *Engineering Record*, Edward P. North, a prominent civil engineer, urges the use of asphalt floors to stop conflagrations. Mr. North refers to the experience gained at the fire which burned off the upper part of the United States Express Co.'s stable in Jersey City, some three years ago and destroyed about 70 horses. The second floor, with an area of some 25,000 square feet, had been covered with (rocks) asphalt mastic. The fire burned down to this and was stopped by it, nothing below it having been injured; and when any litter retained a layer of water on the surface, the mastic itself was uninjured. Where the fire had direct access to the mastic the bitumen had been evaporated, or fried out of the mastic, so that the whole floor was taken up and relaid. On rebuilding the stable the floors above this were also covered with mastic. After the burning of Major & Knapp's lithographing establishment in New York, advantage was taken of the above mentioned experience, and the floors were not only covered with mastic, but a flashing was carried up the walls, and dams were worked at openings in the floors, so that in case of a fire occurring in that establishment it will be doubly protected—first, by the non-inflammable and virtually inconsumable character of properly made asphalt mastic, and second, by the ability to keep a body of water covering every floor in the building as long as the floor is unbroken. It is improbable that any fire would work downward through a floor so protected unless there was an entire failure of our water supply; and when a fire started in a lower storey it is obvious that it would not receive much aid from four or more inches of water carried on the floor above it, nor would fire easily pass upward through it if there was no water on the floor. Mr. North suggests that while building fire walls in warehouses already constructed might be so expensive that a law requiring such an alteration could not be passed, the insurance companies have it in their power to force owners of buildings to cover their floors with mastic by increasing the insurance on buildings with uncovered pine floors and decreasing it on buildings in which the floors will hold three or more inches of water.—*Architecture and Building.*

ACTION OF STEAM ON CEMENT OR MORTAR.

Whenever steam is allowed to come in contact with mortar or cement, an injurious effect is produced. In a number of cases the exhaust pipe of an engine has been led into a brick stack with no apparent effect being produced on the stack, but in such cases it has always been noticed after the lapse of time, that the mortar has become disintegrated and washed out for some depth from between the bricks. Steam has a similar action on cement, and in many cases where the exhaust steam has been led into sewers, it has eventually caused the destruction of the sewer. The same erosive effect can be noticed in old brick or stone build-

ings which have been exposed for years to the action of the elements. There it can be seen that considerable of the mortar has been washed out. The action of the steam is much more rapid than that of air and water, or water alone when in abundance, as the effect of the steam in every case is to soften the mortar and penetrate to a greater depth than water could possibly do. Some time ago it was the practice of certain engineers in New York city to run the exhaust pipe from the engine or pump to the sewers, this of course was an effectual way of getting rid of the steam so far as they were concerned, but it had a very bad effect on the sewers; so much so, that after a time a special investigation was made by the street commissioners to determine the cause of their failure in so many cases. The investigation developed the fact that the sewers had been made to serve the purpose of conduits for conveying away the steam that could not be easily disposed of otherwise. After the cause of the difficulty had been traced out and warning given that the practice must cease and no particular attention having been paid to it, they took it upon themselves to plug the ends of the offending exhaust pipes. This effectually put a stop to the evil, and in most cases other arrangements were made for getting rid of the exhaust. Hot water even has a solvent effect, though not nearly so great as steam, but yet sufficient, if continually passed through a sewer, to materially injure the cement and cause its eventual caving in.

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.	27 00
1 1/2 and thicker, pickings, Am. ins.	27 00
1 x 12 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, sawn.	14 00 16 00
XXX shingles, sawn.	7 50 @ 2 25
XX shingles, sawn.	1 30 @ 1 35

Metallic Roofing Co. of Canada:

	Per Square.
Eastlake steel shingles (galvanized), \$2	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	4 00
Corrugated Iron, painted, 26 W. G., per square	3 50
Corrugated Iron, painted, 28 W. G., per square	4 00
Broad Rib Roofing, galvanized, per square	5 50
Broad Rib Roofing, painted.	4 00
Westlake shingle, 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 Clapboard, 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.	1 00
Hemlock canting and joist up to 16 ft.	11 00 12 00
" " " " " " " "	12 00 13 00
" " " " " " " "	13 00 14 00
Scantling and joist, up to 16 ft.	14 00
" " " " " " " "	15 00
" " " " " " " "	17 00
" " " " " " " "	19 00
" " " " " " " "	21 00
" " " " " " " "	23 00
" " " " " " " "	25 00
" " " " " " " "	27 00
" " " " " " " "	29 00
" " " " " " " "	31 00
" " " " " " " "	33 00
" " " " " " " "	35 00
Cutting up planks, 1 1/2 and thicker, dry board.	25 00 26 00
Cedar for block paving, per cord.	18 00 22 00
Cedar for Kerbing, 4 x 12, per M.	5 00 14 00

R. 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 " " " " " " " "	24 00	25 00
" " " " " " " "	18 00	19 00
" " " " " " " "	18 00	22 00
" " " " " " " "	12 00	14 00
Beaded sheeting, dressed.	22 00	35 00
Clapboarding, dressed.	12 00	
XXX sawn shingles, per M, 16 in.	2 65	2 75
Sawn lath.	2 00	2 20
Red oak.	30 00	40 00
White.	35 00	45 00
Hasswood, No. 1 and 2.	18 00	20 00
Cherry, No. 1 and 2.	70 00	70 00
White ash, No. 1 and 2.	25 00	25 00
Black ash, No. 1 and 2.	20 00	20 00
Dressing stocks.	16 00	22 00
Picks, American inspection.		40 00
Three uppers, American inspection.		40 00

BRICK—R. 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
" " " and quality, per M.	14 00
" " " 3rd	10 00
Hard Building.	8 00
Moulded and Ornamental, per 100.	\$3 10 10 00
Roof Tiles.	74 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 10 10 00
Tiles.	24 00

Stone.

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

Slate: Roofing (per square).

" red	13 00
" purple	9 00
" untanning green.	9 00
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. (In oil, per lb.)

White lead, Can.	6 25	6 50
" zinc, Can.	6 50	7 50
Red lead, Eng.	5 50	6 50
" 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.	15	20
Oil, linseed, raw (per Imp. gallon).	65	68
" " boiled.	63	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
" " " " " " " "	55
Plaster, Calcined, New Brunswick.	2 00
" " " " " " " "	2 00
Hair, Plasterers', per bag.	1 00
Cement, Portland, per bbl.	3 00 3 50
" " " " " " " "	1 50
" " " " " " " "	1 50
" " " " " " " "	1 50
" " " " " " " "	1 50

HARDWARE.

Cut Nails:

American Pattern, 1 1/2 inch, per keg.	3 90
" " " " " " " "	3 12
Canadian Pattern, 1 1/2 inch, per keg.	3 40
" " " " " " " "	2 95
" " " " " " " "	2 90
" " " " " " " "	2 65
" " " " " " " "	2 40
Steel nails 100. per keg extra.	
Finishing nails, 1 inch, per keg.	5 40
" " " " " " " "	4 65
" " " " " " " "	4 15
" " " " " " " "	3 90
" " " " " " " "	3 90