

one end over the other about three inches. Spread a layer of cement between the laps and nail down. Then spread a layer over the nails and joints and stick down a strip of common muslin about three inches wide over the nails and laps. If the roof overhangs the ends of the building, cut the lengths of the roofing long enough so as to allow being turned over the ends of the roof, and fasten with wood strips or suitable mouldings.

Where there are chimneys, skylights, fire-walls, etc., fit the roofing close to and around them, but do not turn up the edge unless fastened behind weather-boards. Then take a suitable quantity of cement and mix with it any dry mineral paint to consistency of stiff mortar, and apply it around the chimneys, etc., and nail through the roofing into the roof-boards, and upon the lath spread another heavy layer of cement, and a perfectly water-tight joint is formed. A very nice finish can be made around chimneys and along fire-walls by using a triangular-shaped strip of wood.

After the roofing is all fastened to the roof-boards and the joints made secure, apply a thorough coat of cement over the whole surface of the roofing. Sanding the surface as heretofore directed may be omitted unless the roofing is to be used for walking upon, in this case the surface may be sanded when the cement is applied. In cool weather it is best to warm the cement to blood heat, as it then can be spread much more rapidly and with much greater ease.

The roofing should always be laid the same way the roof-boards run. If the boards are laid from eave to peak, run the roofing the same way, but thoroughly cement between the laps before nailing, so that there will be no possibility of the water working under the laps in driving storms.

Care should be taken to have the roofing laid smooth. See that in driving the nails they enter the board, and are not let loose in a crack. Drive the nails down solidly. Follow directions closely, and you will be well pleased with your roof.—*The Master Roofer.*

PORTLAND CEMENT.

The paper which Mr. Henry Fajja read at the meeting of the British Association at Cardiff treated of some of the peculiarities to be observed in Portland cements, and on the most advanced methods for determining their constructive values. After dealing with the manufacture of Portland cement and the materials from which it is manufactured, the author proceeded to describe in detail the proportions of lime, silica and alumina which would constitute an ordinary Portland cement, and explained that their degree of chemical affinity materially affects the quality of the cement produced. With respect to the setting properties of a cement, the speaker explained that there were two periods which might with advantage be noted when carrying out a test; the one being the "initial set," or, in other words, the time which elapsed between the addition of water to the cement and its commencing to set, and the time when

it was "set hard"; the time of "initial set" being considered the most important as it represented the commencement of an actual chemical process, and that any disturbance of the cement after the setting or crystallization had commenced would detract from its ultimate strength, whereas the time of "set hard" was only a somewhat undefinable period, and really indicated no change in the chemical process, being only one step towards the ultimate hardness and strength which the cement would attain. The test, however, which the speaker considered the most important was that by which its "soundness," or freedom from expansion or contraction, was determined, and he explained that no matter in what time the cement set, to what fineness it was ground, or what tensile strength it developed within the limited period of an ordinary test, could possibly be of any value if the cement proved an unsound one, and that in the course of time it would "blow" and destroy the work of which it was a component. The method of determining the soundness of a cement, which the speaker devised some ten years ago, was explained. It consists in submitting a freshly-made pat to a moist atmosphere of about 100 deg. F., and when set hard immersing it for some hours in water at a temperature of 115 deg. F. This treatment, he said, greatly expedites the set and hardening of a cement, and in like manner develops any blowing tendency which may exist in it, and consequently in the short time of twenty-four hours the "soundness" or "unsoundness" of a cement may be absolutely determined.

Prices of Building Materials.

LUMBER.

CAR OR CARGO LOTS.

1½ and thicker clear picks, Am. ins.	\$30 00 (\$32 00)
1½ and thicker, three uppers, Am. ins.	37 00
1½ 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.	25 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
1½ and thicker cutting up plank.	25 00 26 00
1 inch strips, 4 in. to 8 in. mill run.	14 00 15 00
1 inch strips, common.	11 00 12 00
1½ inch flooring.	14 00 15 00
1½ 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), 25 to 35	75
Eastlake steel shingles (painted).	75
Improved Broad Rib Roofing, (galvanized).	4 00
Improved Broad Rib Roofing (painted).	5 00 5 75
North Western steel siding (painted).	3 50 4 00
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 Tile.	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 lb.	5½
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 40

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
" " " 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.	17 00
" " " 22 ft.	19 00
" " " 24 ft.	21 00
" " " 26 ft.	23 00
" " " 28 ft.	25 00
" " " 30 ft.	27 00
" " " 32 ft.	29 00
" " " 34 ft.	31 00
" " " 36 ft.	33 00
" " " 38 ft.	35 00
" " " 40 to 44 ft.	36 00
Cutting up planks, 1½ and thicker, dry board.	25 00 26 00
Cedar for block paving, per cord.	18 00 20 00
Cedar for Keeling, 4 x 12, per M.	5 00 14 00

B. M.

1½ inch flooring, dressed, F. M.	28 00 31 00
1½ inch flooring rough, H. M.	18 00 22 00
1½ " " dressed, F. M.	25 00 28 00
" " undressed, B. M.	18 00 19 00
" " dressed.	18 00 22 00
" " undressed.	12 00 15 00
Headed 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
Basswood, No. 1 and 2.	18 00 20 00
Cherry, No. 1 and 2.	70 00 75 00
White ash, No. 1 and 2.	25 00 28 00
Black ash, No. 1 and 2.	20 00 30 00
Dressing stocks.	16 00 20 00
Picks, American inspection.	40 00
Three uppers, American inspection.	50 00

BRICK—W. M.

Common Walling.	\$7 50
Good Facing.	1 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
" " " "	10 00
Hard Building.	8 00
Moulded and Ornamental, per 100.	\$3 10 00
Roof Tiles.	24 00
Diamond locking tile.	16 00
First quality, f. o. b. at Campbellville, per M.	18 00
and " " " "	14 00
3rd " " " "	11 00
Ornamental, per 100.	\$3 10 00
Tiles.	24 00

Stone.

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

Slate: Roofing (½ square).

" " red.	13 00
" " purple.	9 00
" " unglazed green.	9 00
" " black slate.	7 75
Terra Cotta Tile, per sq.	25 00
Ornamental Black Slate Roofing.	8 25

Sand:

Per Load of 1½ Cubic Yards.	1 25
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PAINTS. (In oil, ½ lb.)

White lead, Can.	6 25 6 50
" " zinc, Can.	6½ 7 50
Red lead, Eng.	5½ 6½
" " 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.	15 40
Black, lamp.	15 24
Blue, ultramarine.	15 20
Oil, linseed, raw (½ Imp. gallon).	65 63
" " boiled.	68 71
" " refined.	78 81
Putty.	2½ 2½
Whiting, dry.	75 1 00
Paris white Eng., dry.	90 1 25
Litharg Am.	6½ 8
Sienna, burnt.	15 20
Umber.	8½ 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, 1½ inch, per keg.	3 50
" " 1½ to 1¾ inch, per keg.	3 10
Canadian Pattern, 1½ inch, per keg.	3 40
" " 1½ to 1¾ inch, per keg.	2 95
" " 2 to 2½ inch, "	2 90
" " 2½ to 3 inch, "	2 65
" " 3 inch and larger.	2 40
Steel nails 10c. per keg extra.	
Finishing nails, 1 inch, per keg.	5 40
" " 1½ inch, "	4 60
" " 2 inch, "	4 15
" " 2½ inch, "	3 00
" " 3 inch and larger.	3 90