EFFECT OF TURPENTINE.

The following account given originally by Rev. Canon Mosely, and cited by Prof. Tyndall in one of his lectures, will show the difficulties encountered in the use of material under the expansion and contraction caused by changes of temperature.

The choir of Bristol Cathedral was covered with sheet lead, the length of the covering being 60 feet, and its width 19 feet 4 inches. It had been laid on in the year 18\$1, and two years afterward, viz., in 1853, it had been moved bodily down for a distance of 18 inches. The descent had been going on continually from the time the lead had been laid down and an attempt made to stop it by driving nails into the rafters had failed; for the force with which the lead descended was sufficient to draw out the nails. The roof was not a steep one, and the lead would have rested on it forever without sliding down by gravity. What then was the cause of the descent? Simply this, the lead was exposed to the varying temperatures of day and night. During the day the heat imparted to it caused it to expand. Had

it lain upon a horizontal surface, it would have expanded equally all around, but as it lay upon an inclined surface, it expanded more freely downwards, i.e., in the direction of least resistance.

When the lead contracted under the lower temperature of the night it contracted also in the direction of least resistance, i.e., downward. So it pushed its lower edge downward in the day, and drew its upper edge downward at night, thus by degrees it crawled through a space of eighteen inches in two

years. Every local change of emperature, also, during the day and during the night contributed to the result; indeed, Canon Mosely afterwards found the main effect to be due to these quicker afterations of temperature.

To ascertain whether an article is made of steel or iron pour on the object to be tested a drop of nitric, acid 1.2 specific gravity, and after it has acted for one minute rinse with water. If iron, the spot will be of a whitish gray color; if steel, it will appear as a black stain.

The liability to err in mixing cement with wet and dry sand is described by M. Candlot, and an abstract of his paper given in the Journal of the Society of Chemical Industry. Feret has pointed out the possibility of serious mistakes in the proportions of mixtures of cement and sand due to a disregard of the condition of the sand—whether wet er dry. The addition of comparative little water largely increases the transfer of all proportion to the sand of all proportion to the sand of the sand of

of a cubic meter of the moistened sand to decrease 269 kilos; that is to say, 18.5 per cent. of the original weight. Such differences would cause great fluctuations, hitherto generally overlooked; in the composition of mortar mixtures intended to be of a certain strength.

Prices of Building Materials.

LUMBER.

OR	CA	BCO.	LOTS.	

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> 1924 Notre Gome Street, Montreal. October 14 + 1690

6. H. Mortiner sig. But Nanadian Architect & Builder. and Contract Record.

I have to inform you, that, the following resolution was unanimously adopted, at the First Ammal meeting of the Frontier of Quebec Association of Architect held in Mortical on 10-4 1 inst!:

Morethy Ne the Architects of the Province of Eusbec now accembled in consecondishy:

1. Demlop. Canadian Contract Record affords
us a direct communication with
the contractors. Resolut: That we
please our support to it by using
its columns when calling for tender

Veore	anys,
Heavy Eastlake painted steel shingles,	
per sq Light Eastlake Painted steel shingles,	4 00
per square	3 75
shingles, per sq	6 25
gles, per sq	4 50
Terra Cotta painted steel Tile, per sq.	7 CC
Eastlake painted steel siding, per sq., Manitoba galvanized, steel siding, per	3 50
Square	4 75
Heavy Manitoba painted steel siding Light Manitoba painted steel siding	3 59
Heavy sheet steel pressed brick	3 25
Light sheet steel pressed brick	3 50
Painted crimped steel, siding or ceiling	3 50
Price of Copper shingles according to weig	ght.
Hayes Patent Metallic Lathing.	c
Broad Rib Roofing, galvanized, per sq. painted, per sq	\$ 5 25
Northwestern Steel Siding, painted,	3 75
per sq	3 25
Canada Galvanizing & Steel Roofin	g Co.:
Corrugated Iron, galvanized, 26 W.G.,	-
Corrugated Iron, galvanized, 28 W.G.,	5 cts.
Corrugated Iron, painted, 26 W. G.,	5%
per square	4 00
Broad Rib Roofing, galvanized, per	3 50
Broad Rib Roofing, painted	5 50
Westlake shingles, steel, galvanized,	4 00
per square	5 00
Westlake shingles, steel, painted Standard shingles, "Valter's patent,"	3 50
galvanized, per square	5 50
Northwestern steel siding, patented, per square	4 00
per square	3 50
Metallic Finish Brick, per square	3 25
Finish Clapboard, per square	3 50

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YARD QUOTATIONS.		
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Keg oak	30 00	40 00
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White ash, No. 2 and 2.	70 00 25 00	#5 OG
Basswood, No. 1 and 2 Cherry, No. 1 and 2 White ash, No. 2 and 2 Black ash, No. 2 and 2 Dressing stocks. Picks, American inspection Three uppers American inspection	16 00	30 ∞
Picks, American inspection Three uppers, American inspection		40 00 50 00
BRICK—V M		30 00
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Good Facing		\$7 50
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		\$18 00
Plain brick, f. o. b. at Milton, per M and quality, per M		14 00 10 00
Hard Building		R con
Roof Tiles	33 10	34 00
Diamond locking the		16 00
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