BLACKENED CEILINGS.

It is generally supposed, says *Industries*, that the use of the incandescent electric lamp completely obviates the blackening of ceilings. This is a mistake, however, as incandescent lamps do to some extent cause blackening. It is probable that the blackening from a gas lamp is not due to unconsumed carbon, but to the deposition of particles from a current of hot air. The incandescent lamp causes a current of hot air, which also deposits black particles ; but, unless the lamp is near the ceiling it is not easily observed, as the current of air is, of course, smaller. It may be noticed in connection with this subject, that the mica guards and glass bells arranged over gas burners do not themselves blacken, and do not appreciably lessen the blackening of the ceiling. It is therefore probable that the deposit only takes place from hot air to a cold surface.

A PECULIAR LEAK IN A WATER-WORKS MAIN.

A peculiar leak in a cast-iron water main recently occurred at Greenville, Mich., and is described by E. H. Neff in *The Technic* for 1890.

A 12-inch main was laid across Flat River, and through the lowlands at one side it passed mostly through quicksand. Eighteen lengths of pipe were lowered by means of jack screws, and as a precaution against the springing of the joints but little yarn was used and the bell was run full of lead and thoroughly calked.

The pipe had been under a pressure of from 40 to 160 lbs. for about two months when bubbles arising near one of the banks betrayed a slight leak. Owing to press of work and the smallness of the leak immediate steps were not taken for its repair until about two weeks, when the water in the stream began to boil up furiously with a noise that could be heard for some distance. Upon examination it was found that the original leak had been through a series of blow-holes in the interior of the bell, while on the exterior was apparently perfectly sound. On reaching the outer edge the lip of the bell deflected the water, so that a stream about one-eighth of an inch in diameter struck the spigot about a half inch from the face of the bell, and this jet of water, with the sand at that point, had cut a hole in the top of the pipe about a half-inch in diameter, the pipe here being about a half-inch thick. In addition to the hole cut entirely through the pipe there was a groove about the hole some ¼ x 3½ inches. This piece was cut out and the break repaired by first inserting a cast-iron plug, and then bolting together and over the break a collar of flat iron ½-inch thick and 3-inches wide, having a recess over the hole. The lead about the small hole in the bell was cut away, the collar pressed close to the face of the bell, and finally the space in the bell and in the recess over the break were filled with lead and thoroughly calked. The repairs proved effectual.

SPECIFICATIONS FOR HARDWARE.

In view of the radical change now taking place in the character of the hardware used in all buildings of the better class, the older forms of descriptions hereto used in architects' specifications are generally inapplicable.

The practice of many architects at the present time is to stipulate in contracts that the hardware is to be properly fitted and secured in place by the contractor, but is to be furnished by the owner. It is suggested that this reservation is at present the best disposition of the matter, and that in no other way can the architect so fully insure for his client the obtaining of metal work suited in design and finish to its surroundings, and contributing its due share to the artistic effects of the building. The following form is submitted as giving effect to this suggestion :

HARDWARE. The following hardware to be furnished by the owner to the contractor, when reasonably required, viz : All locks, butts and trimmings for doors ; all sash fasts and lifts for windows ; all butts, catches, knobs and pulls for closets, cupboards, bookcases and drawers ; all fixtures for French window sashes and for transom lights, and, in general, all metal work of ornamental character required for the trimming of the woodwork of the building. All hardware that is supplied by the owner to be carefully and properly fitted and attached in place by the contractor, special care being taken to protect the finished work from injury or soiling. All other hardware required to be furnished by the contractor.

A separate specification and form of contract to cover the hardware may reasonably be required in the case of important buildings to enable the owner to have the benefit of competitive bids. A specification of this kind should be drawn by some one familiar with modern hardware and well informed as to the character and style of work desired by the owner or selected by the architect. Unless such specifications are carefully drawn, the door is opened to the substitution of inferior goods.—*The Trefoil.*

Prices of Building Materials.

LUMBER.

CAR C. CARGO LOTS.

1¼ and thicker clear picks, Am. ins..	$30 00@	$32 00
1¼ and thicker, three uppers, Am ins.		37 00
1¼ 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
1¼ 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
1¼ 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
Eastlake galvanized steel shingles, 24 W. G., per square.....		6 00
Eastlake galvanized steel shingles, 26 W. G., per square.....		50
Eastlake painted steel shingles, per sq.		4 00
Round pointed galvanized steel shingles, per sq.....		6 00
Round pointed painted steel shingles,		4 75
Round pointed, unpainted, Terne tin shingles.....		4 00
Manitoba galvanized, steel siding, per square.....		5 00
Manitoba painted steel siding, per sq.		3 50
Painted sheet steel pressed brick.....		3 50
Painted crimped steel sheeting.....		3 40
Price of Copper shingles according to weight.		

YARD QUOTATIONS.

Mill cull boards and scantling.....		10 00
Shipping cull boards, promiscuous widths.....		13 00
Shipping cull boards, stocks		14 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.....		17 00
" " 22 ft.....		19 00
" " 24 ft.....		21 00
" " 26 ft.....		23 00
" " 28 ft.....		25 00
" " 30 ft.....		27 00
" " 32 ft.....		27 00
" " 34 ft.....		29 50
" " 36 ft.....		31 00
" " 38 ft.....		33 00
" " 40 to 44 ft..		36 00
Cutting up planks, 1¼ and thicker, dry	25 00	26 00
" " board,	18 00	22 00
Cedar for block paving, per cord.....		5 00
Cedar for Kerbing, 4 x 14, per M.....		14 00

B. M.

1¼ inch flooring, dressed, F. M.....	28 00	31 00
1¼ inch flooring rough, B. M.....	18 00	22 00
·¾ " dressed, F. M....	25 00	28 00
" undressed, B. M...	18 00	19 00
" dressed.....	18 00	22 00
" undressed.....	12 00	15 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
Basswood, 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	30 00
Dressing stocks.....	16 00	22 00
Picks, American inspection.....		40 00
Three uppers, American inspection....		50 00

BRICK—₰ 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...		$17 00
" " 2nd quality, per M.....		13 00
" " 3rd " "		10 00
Hard Building.....		8 00
Moulded and Ornamental, per 100.....	$3 to	10 00
First quality, f.o.b. at Campbellville, per M		15 00
2nd " " " "		13 00
3rd " " " "		10 00
Hard Building		8 00
Ornamental, per 100.....	$3 to	10 00
Tiles		24 00
Stone.		
Common Rubble, Per Toise, delivered		14 00
Large flat " "		18 00
Foundation Blocks, " Cubic Foot..		35
Slate: Roofing (₰ *square*).		
" red.....		16 00
" purple.....		9 00
" unfading green..		9 00
" black slate.....		7 50
Terra Cotta Tile, per sq		25 00
Ornamental Black Slate Roofing..		8 00
Sand:		
Per Load of 1½ Cubic Yards.....		1 25

PAINTS. (*In oil, ₰ lb.*)

White lead, Can..	6 25	6 50
" zinc, Can.....	6½	7 50
Red lead, Eng.....	5½	6½
" venetian.....	1 60	1 75
" vermillion.....	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.....	25	25
Oil, linseed, raw (₰ *Imp. gallon*)... .	68	70
" " boiled	72	75
" " refined, "	78	80
Putty.....	2¼	2½
Whiting, dry.....	75	1 00
Paris white Eng., dry	90	1 25
Litharge, Am.....	6½	8
Sienna, burnt.....	15	20
Umber, "	8¼	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.....	2 80	3 00
" Thorold, "		1 50
" Queenston, "		1 50
" Napanee, "		1 50
" Hull, "		1 50