

ADVICE TO PLUMBERS.

Mr. J. J. Hamblin, in an address before the Master Plumber's Association, of Chicago, gives the following practical advice: "I might ask how many of you young men know that what is called a thirty-gallon boiler, contains thirty gallons? Is it by hearsay or by having handled so many of them, and they being called a thirty-gallon boiler, that you take it for granted such is the fact? Now I would advise you to measure it and figure out to see if such is the fact. That would show what you know and how you know it. I might again ask you what is the water pressure of this city? and you would say about twenty pounds to the square inch. Do you know it for a fact, or have you heard some one say so? How high would the water stand in a perpendicular pipe at twenty pounds pressure? By figuring it out would show what you know and how you know it. I should say it would be better for you to know why you do a certain thing, than to know how to do it; but better still to know why you do it, and how to do it. I might ask you an indefinite number of just such questions and I am afraid very few of you would be able to answer them, therefore, why not look them up and be posted? Can any of you tell me what a pump is and its uses? To what elevation can you lift water? What is the weight of air to the square inch? What is syphon? What is capillary action? What effect does it have on traps? If you should prevent a trap would it prevent capillary action?"

The United States standard weight for water is 62½ pounds to the cubic foot, and we find in one cubic foot 144 columns of 12 inches. If we should stand one column over the other we would have a column of 144 feet in height, which would weigh 62½ pounds. Now, if we should divide it, we would find one foot equal to .434 or about 7 oz., and as the pressure is twenty pounds, we will solve the problem thus:

20 x 16 divided by 7 = 45 5-7.
Now, if the opening is higher from the level of the water in the well than this, the water will not run. A boiler 12 inches in diameter and 60 inches in length is called a thirty-gallon boiler and is solved thus:
12 x 12 x 7854 x 60 divided by 231 = 26 86-231.

USEFUL HINTS.

For darkening wood, particularly in matching shades, bichromate of potash is a convenient and efficient agent. It can be used in different degrees of strength,

all of which may be prepared from a mother liquid of a strength of one ounce to a pint of water. This may be diluted by the addition of an equal or double quantity of water to the tint desired. Raw linseed oil, colored with Brazil wood dust (red oil) is used to darken mahogany and rosewood. The oil is prepared by pouring the oil over the dust which yields some of its color to the oil.

Investigations of fires show us that porous terra cotta bricks and blocks best resist fire, water and frost; next to these in the order of fire-resisting qualities being the various concretes, or some of them, and burned clay work. In the best building work now done the iron part is encased in porous terra cotta, tile or brick work in roof, floor and tile construction; the hollow tiles are faced with vitreous tile, slate or any good weather-proof coating, or with a single thickness of brick. Incased in fire-proof materials, iron and steel work is claimed to give the best results.—Exc.

*174, Notre Dame Street,
Montreal, October 14, 1890*

G. H. Mortimer Esq.

*Sub-Canadian Architect & Builder,
and Contract Record.*

Dear Sir,

I have to inform you, that, the following resolution was unanimously adopted, at the First Annual Meeting of the Province of Quebec Association of Architects held in Montreal on 10th & 11th inst.:

*Moved by:
M. Perrault.
Seconded by:
A. J. Dumlop.*

The Architects of the Province of Quebec now assembled in convention being satisfied that the Canadian Contract Record affords us a direct communication with the contractors. Resolved: That we pledge our support to it by using its columns when calling for tenders.
*(Signed truly
G. Bliff
Secretary)*

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.	28 00 30 00
1 inch clear and picks.	18 00 20 00
1 inch dressing and better.	14 00 16 00
1 inch siding, mill run.	11 00 12 00
1 inch siding, common.	\$10 00 @ 11 00
1 inch siding, ship culls.	8 00 9 00
1 inch siding, mill culls.	8 00 9 00
Cull scantling.	22 00 25 00
1½ and thicker cutting up plank.	14 00 15 00
1 inch strips, 4 in. to 8 in. mill run.	11 00 12 00
1 inch strips, common.	14 00 15 00
1½ inch flooring.	14 00 16 00
1½ inch flooring.	20 00 22 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.	5 00
Eastlake painted steel shingles, per sq.	4 00
Round pointed galvanized steel shingles, per sq.	6 00
Round pointed painted steel shingles.	4 25
Round pointed, unpainted, T. & C. 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
" " " " 34 ft.	29 00
" " " " 36 ft.	31 00
" " " " 38 ft.	33 00
" " " " 40 to 44 ft.	35 00
Cutting up planks, 1½ and thicker, dry board.	25 00 26 00
Cedar for block paving, per cord.	18 00 22 00
Cedar for Kerbing, 4 x 14, per M.	5 00
	14 00
B. M.	
1½ inch flooring, dressed, F. M.	28 00 31 00
1½ inch flooring rough, B. 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
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.	30 00 30 00
Dressing stocks.	16 00 22 00
Picks, American inspection.	40 00
Three uppers, American inspection.	50 00
BRICK—P 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
First quality, f. o. b. at Campbellville, per M.	18 00
2nd " " " "	13 00
3rd " " " "	10 00
Hard Building.	8 00
Ornamental, per 100.	\$3 10 10 00
Tiles.	24 00
Stone.	
Common Rubble, Per Toise, delivered.	14 00
Large flat " " "	13 00
Foundation Blocks, " Cubic Foot.	
State: Roofing (P square).	
" red.	16 00
" purple.	9 00
" unslating green.	9 00
" black slate.	7 50
Terra Cotta Tile, per sq.	25 00
Ornamental Black Slate Roofing.	5 00
Sand:	
Per Load of 1½ Cubic Yards.	1 5
PAINTS. (In oil, P 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.	5 20
Green, chrome.	7 12
" Paris.	25 40
Black, lamp.	15 25
Blue, ultramarine.	15 25
Oil, linseed, raw (2 Imp. gallons).	68 70
" " boiled.	72 75
" " refined.	78 80
Putty.	2½ 2½
Whiting, dry.	75 1 00
Paris white Eng., dry.	90 1 25
Litharge, 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.	3 00
Cement, Portland, per bbl.	2 150 3 00
" Thorold.	1 50
" Queenston.	1 50
" Napanee.	1 50
" Hull.	1 50
HARDWARE.	
Cut Nails:	
American Pattern, 1½ inch, per keg.	4 15
" " " " 1½ to 1¾ inch, per keg.	3 40
Canadian Pattern, 1½ inch, per keg.	3 65
" " " " 1½ to 1¾ inch, per keg.	3 25
" " " " 2 to 2½ inch, " "	3 15
" " " " 2½ to 3 inch, " "	2 90
" " " " 3 inch and larger.	2 65
Steel nails 10c. per keg extra.	
Finishing nails, 1 inch, per keg.	5 75
" " " " 1½ inch, " "	5 05
" " " " 1¾ " " "	4 50
" " " " 1¾ " " and larger.	3 15