#### USEFUL HINTS.

It is difficult, says a Belgian journal, to distinguish between iron and steel tools. They have the same polish and workmanship; use will commonly show the difference. To make the distinction quickly, place the tool upon a stone and drop upon it some diluted nitric acid (four parts of water to one of acid). If the tool remains clean, it is of iron; if of steel, it will show a black spot where touched with the acid. These spots can be easily rubbed off.

A number of steel girders in the Baltimore & Ohio tunnel, extending from Callowhill street to Parish, in Philadelphia, have corroded to such an extent during the five years in which they have been exposed to the smoke, gases and dampness in the tunnel, that it has been found necessary to take some means to prevent a further loss of strength from this cause. Each girder is, therefore, being thoroughly scraped and all of the rust has been removed, and is being covered by fire brick, which is so carefully placed in position that the girders are to all intents and purposes hermetically sealed from any outside agency which would tend to corrode them. This work is being carried on without interfering with the usual traffic through the tunnel.

The high service brick supply aqueduct of Vienna, which is nearly 55 miles long, and is carried in many places by series of stone or brick arches, gave considerable trouble formerly by becoming "wet" on the soffit of the arches and sides of the wails. On carefully investigating the matter it was found that the difference in temperature between the inside and outside of the aqueduct caused extremely small cracks to occur in the Portland cement lining, through which the water slowly escaped. For some years it was customary to replace the worst portions of the lining every fall, the local conditions preventing any extensive repairs taking place simultaneously. According to the Wochen schrift des oesterr Ingenieur-Vereines, a preparation is now used which can be laid over the cement and is elastic enough to stretch without showing cracks. This preparation was invented by Herr Johann Bosch, who has called it "boschin." Its principal ingredients are said to be asphalt, India rubber and mineral tar, and it costs about 21/2 florins per sq. m., or about 95 cents per sq. yd. The material has been subjected to very exhaustive tests of its adhesion to cement, its impermeability and harmless character with regard to the water supply, and is reported to have proved satisfactory in every respect. - Engineering News.

In constructing the foundations for the Fair buildings in Chicago, the architects have resorted to a practice now becoming quite common in that city. The difficulty in getting a solid foundation on that soft soil has been a source of great embarrassment to builders. Heretofore the practice has been to use piles, but these have not always succeeded, and a combination of concrete and steel rails, alt transversely to the other, is now extensively used. A bed of concrete is first laid in the excavation; then a layer of steel rails; then another layer of shorter steel rails transversely to the first layer, and so on until the desired height is reached, when the interstices are filled with concrete, and the whole smoothly covered with cement, The rails make the bearing general over the whole space they cover, while piles are likely to sink where the soil is softest. The experience so far with this class of work is more satisfactory than with pile work, and the system is looked upon by many as a solution of the problem of making foundations for large structures on vielding soils.

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#### Prices of Building Materials. LUMBER.

CAR OR CARGO LOTS.				
134 and thicker clear picks, Am. ins	\$30	S	Ä32	00
1 % and thicker, three uppers, Am ins.	-		37	00
1 % and thicker, pickings, Am ins			27	00
1 x 10 and 12 dressing and better	18	œ	30	ω
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z inch siding, mill culls		00		00
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11/2 and thicker cutting up plank	22	00		00
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Metaine Rooning Co. of Cana	ada :	
<b>_</b>	Per Square.	
Eastlake steel shingles (galvanized),	\$2 25 to	ō\$5 73
Eastlake steel shingles (painted) Improved Broad Rib Roofing, (gal-	3 75	4 00
vanized)	500	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, (gal-	3 -3	3 79
vanized)		6 25
Tower or Mansard shingles (painted)		4 50
Metallic Terra Cotta Tiles		7 00
Price of Copper shingles according to "Hayes" Patent Metallic Lathing accor-	weigh ding to	a. and
ty.		

#### Canada Galvanizing & Steel Roofing Co.:

Corrugated Iron, galvanized, 26 W.G.,	
_ per lb	5 cts.
Corrugated Iron, galvanized, 28 W.G.,	51/4
Corrugated Iron, painted, 26 W. G.,	
per square	4 00
Corrugated Iton, painted, 28 W. G.,	3 50
per square Corrugated Iton, painted, 28 W. G., Broad Rib Roofing, galvanized, per	
Broad Rib Roofing, painted	5 50
Broad Rib Rooting, painted	4 00
Westlake shingles, steel, galvanized,	
per square	5 ∞
Westlake shingles, steel, painted	3 50
Standard shingles, "Walter's patent,"	
galvanized, per square	\$ 50
Standard shingles, "Walter's patent,"	
painted	4 00
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Metallic Kinish Claphaged and course	
merenie i men erepoonto, per square	3 40
Metallic Finish Brick, per square Metallic Finish Clapboard, per square	3 40 3 50 3 20

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YARD QUOTATIONS. Mill cull boards and scantling.	10 00
	13 00 1 00 11 00 13 00 11 00 13 00
Scantling and ioist, up to 16 ft	13 UO 14 00 14 00
9 9 20 ft 9 9 22 ft 9 9 24 ft	17 00 19 00 11 00 23 00
" " 26 ft " " 28 ft " " 50 ft	23 00 25 00 27 00
1 13 16 1 1 13 16 16 1	25 00 27 00 27 00 29 50 31 00 33 00 36 00
Cutting up planks, 1% and thicker, dry board,	30 00 18 00 26 00 18 00 22 00 5 00
Cedar for block paving, per cord Cedar for Kerbing, 4 x 14, per M B. M.	14 00
134 inch flooring, dressed, F. M 134 inch flooring rough, B. M. 134 dressed, F. M undressed, B. M dressed, B. M	28 00 31 00 18 00 22 00 25 00 28 00 28 00 19 00 18 00 22 00
Beaded sheeting, dressed Clapboarding, dressed XXX sawn shingles, per M. 16 in	22 00 35 00 22 00 35 00 12 00 2 61 2 78
Sawn lath. Red oak White Basswood, No. 1 and 2 Cherry, No. 1 and 2 White ash, No. 1 and 2 Black ash, No. 1 and 2.	2 00 2 20 30 00 40 00 15 00 45 00 18 00 20 00 70 00 70 00
White ash, No. 1 and a Black ash, No. 1 and a Dressing stocks. Picks, American inspection. Three uppers, American inspection	40 00
BRICK—V M Common Walling Good Facing Sewer	. 900
Pressed Brick  Plain brick, f. o. b. at Milton, per M  " and quality, per M  " grd  Hard Building  Moulded and Ornamental, per 100	\$18 00 14 00 10 00
Hard Building Moulded and Ornamental, per 1000 Roof Tiles Diamond locking tile	8 00 \$3 to 10 00 24 00 16 00
Ornamental, per 100	\$3 10 10 00
Stone.	·
Common Rubble, Per Torse, delivere Large flat " " Cubic Foot	18 00
Sinte: Roofing (V square)	. 18 00
untading green. black slate Terra Cotta Tile, per sq Ornamental Black Slate Roofing	9 50
Sand: Per Load of 11/2 Cubic Yards	
PAINTS. (In oil, \$ 16.)	)
White lead, Can.  "zinc, Can Red lead, Eng. "venetian "vermillion.	6 25 6 50 634 7 50 535 636 1 60 1 75 90 1 00
" Indian, Eng. Yellow ochre. Yellow chrome. Green, chrome " Paris. Black, Jamp.	10 12 5 10 13 20 7 12 25 40
Black, lamp. Blue, ultramarine. Oil, linseed, raw (& Imp. gallon). boiled	25 40 15 25 15 20 65 68 68 71

verminion	90	10
Indian, Eng	10	1
Yellow ochre	5	
Yellow chrome	73	2
Green, chrome	7	1
Green, chrome Paris	25	4
Black, lamp	75	2
Blue, ultramarine	15	21
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