even superior result might be relied upon. It would, in fact, be safe to assume an output of 85 per cent. of the actual power put on to the dynamo pulley, in the shape of electrical force, and as, in the case of shop cranes, or wharf cranes, they would not be remotely situated from the generating dynamo, the loss in transmission would be small and can be stated at 1 per cent. to 2 per cent. only.

In the case of a large dock, with cranes situated at all parts, there would be greater distances to be dealt with, but even these would not exceed the limits of ordinary low-tension circuits, and the system would show a very favorable comparison in losses by transmission, as against the distribution of hydraulic power.

For all ordinary conditions, then, we may deal with the following figures:

Now take the comparative case of a steam driven crane, say of two tons power, having two cylinders each 5½ in. diameter by 8 in. stroke, running at 150 revolutions per minute. Such engines are on full work linked up to cut off steam as late as

% to ¾ of the stroke, and thus exhaust their steam at a considerable pressure. The usual boiler pressure is 70 lbs., maintained at an average of about 65 lbs., and wire drawn by pipes and connections to, say, 60 lbs. initial pressure. Under above conditions they indicate about 141/2 horse-power, but their consumption of steam is very considerable, and cannot be assumed at less than 35 lbs. per horse-power per hour. An excellent authority gave, recently, in-stances of such small high-speed engines absorbing over 40 lbs. per horse power per hour. The net effi-ciency is still further reduced by the inter-nal friction of the ma-chines, which even in

good engines would average 15 per cent., so that we arrive at a final efficiency of these engines used as motors on cranes of

not more than 60 per cent.
On all small steam cranes, however, there is a further waste in the boilers, which, being small and of the vertical type, are far from economical in taising steam, and habitually consume 5 to 7 lbs. of fuel per horse-power per hour. In practice no crane is ever continually at work, and during the periods of lowering, changing gear and stops, &c., the fuel continues to burn, and there is also the cost of fuel and labor of raising steam in the morning for the day's work.

It is customary among crane builders to construct the boilers of steam cranes a good deal smaller than would be neces-sary if the engines were in constant running; the gain in pressure during the stops and changes mentioned compensating the loss of pressure during working, and the steam gauge is consequently con-stantly on the move. Now, against these figures we should have, in the case of a direct-driven dynamo, a better engine running with an earlier cut-off, and also necessary steam more economically raised. The motor when the crane is standing wastes no power, and the dynamo may be shut down or started at short notice. The crane driver need pay no attention to the crane when standing idle, and he starts without delay in the morning, the power being derived from the shop boilers. There would thus appear to be a very decided economy in favor of electric cranes, as against steam-driven machines. In the case of overhead travellers, there is the saving due to the absence of long square shafts running in movable bearings, and which, together with the cotton or wire ropes in rope-driven cranes, ars kept contents. stantly running even when the crane is out of use.

## Prices of Building Materials.

LUMBER.

CAR	OR	CARGO	LOTS.

114 and thicker clear picks, Am. ins	\$30	000		
1 1 and thicker, three uppers, Am ins.			37	ø
1 % and thicker, pickings, Am ins			27	œ
1 x 10 and 12 dressing and better	18	00	\$0	œ
1 x 10 and 12 mill run	13	00	14	α
t x to and t2 dressing	14	00	16	œ
1 x 10 and 12 common	12	00	13	œ
1 x 10 and 12 spruce culls	10	00	11	œ
1 x 10 and 12 maple culls			٥	œ
1 inch clear and picks	28	00	30	
t inch dressing and better	18	00	20	04
r inch siding, mill run	14	00	16	ò
t inch siding, common	11		12	
z inch siding, ship culls				
t inch siding, mill culls	T'ğ	00	7.0	o
		00		ŏ
Cull scantling				
134 and thicker cutting up plank	33		25	
1 inch strips, 4 in. to 8 in. mill sun	14	00	15	۰
1 inch strips, common	11	00	12	۰

1424 Notre Dame Street, Montreal. October 14 - 1690

G. H. Mortiner Esq.

Beb Franadian Orchitect & Builder.
and Continut Record.

Dear Sir.

Share to inform you, that, the following occolution was imanimously adopted, at the Price armual meeting of the Province of Quebec accocation of Exclutects held in Montreal on 10th of 11th inst! Moved by We the Architects of the Province of Quebec now assembled in convented by:

- vention being satisfied that the A.P. Dimlop. Canadian Contract Record afford us a direct communication with the contractors. Resolved: That we moved by seconded by: The contractors. Resolved . That we pleage our support to it by using its columns when calling for tender

## Metallic Roofing Co. of Canada:

	P	er S	5qua	re.
Eastlake steel shingles (galvanized),	Şŗ	25	to \$5	75
Eastlake steel shingles (painted)	3	75	4	00
Improved Broad Rib Roofing, (gal-				
vanized)		œ		75
Improved Broad Rib Roofing (painted)		50		00
North Western steel siding (painted)		25		50
Manitoba steel siding (painted)	3	32	3	50
Metallic Finished Brick	3	25	3	50
Tower or Mansard shingles, (gal-				
vanized)				25
Tower or Mansard shingles (painted)			4	50
Metaliic Terra Cotta Tiles				00
Price of Copper shingles according to	٧. ١	veig	ght, :	and
'Haves" Patent Metallic Lathing accor	di	ng	to qu	เฉก-
ity.				
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•,,•	
Canada Galvanizing & Steel Roofing	Co.
Corrugated Iron, galvanized, 26 W.G.,	
Corrugated Iron, galvanized, 28 W.G.,	5 cts.
Corrugated Iron, galvanized, 28 W.G.,	5%
Corrugated Iron, painted, 26 W. G.,	
per square	4 00
Corrugated Iron, painted, 28 W. G.,	3 50
Broad Rib Roofing, galvanized, per	• •
square	5 50
Broad Rib Roofing, painted	4 00
Westlake shingles, steel, galvanized,	•
per causie	5 00
Westlake shingles, steel, painted	3 50
Standard shingles, "Walter's patent,"	3 3-
galvanized, per square	5 50
Staddard shingles, "Walter's patent,"	3 30
painted	4 00
Northwestern steel siding, patented,	4
er square	3 50
Me'ellic Finish Brick, per square	3 25
Metallic Finish Clapboard, per square	
recente e misi Ciapocaro, per square	3 50

D.	111.
YARD QUOTATIONS.	
Mill cull boards and scantling Shipping cull boards, promiscuous	10 00
Shipping cull boards, stocks	13,60
	3 00 13 00
" 18 ft	14 00 15 00 17 00
11 11 20 ft	18.00
11 11 24 ft 11 11 26 ft	11 00 13 00
" " 30 ft	25 00 27 00 27 00
" " 34 fl	97 00 97 00 39 50 31 00
H H 38 IL	33 00
	15 00 16 00 18 00 12 00 5 00
Cedar for Kerbing, 4 x 14, per M	14 00
1 36 inch flooring, dressed, F. M	18 00 31 00
1 % inch flooring, dressed, F. M	18 00 22 00 25 00 28 00
" diesea	18 00 10 00 18 00 22 00 12 00 15 00
Beaded sheeting, dressed	12 00 15 00 12 00 35 00 12 00
XXX sawn shingles, per M, 16 in	2 65 2 75 2 00 2 20
Dadook	30 00 40 00 15 00 45 00
Cherry, No. 1 and 2	70 00 70 00
Black ash, No. 1 and 2	75 00 25 00 20 00 30 00 76 00 22 00
Dressing stocks	40 00 50 00
BRICK-V M	
Common Walling	\$7 50 9 00
Pressed Brick:	
Plain brick, f. o. b. at Milton, per M  " " and quality, per M	\$18 00 14 00
Hard Building	8 00
Moulded and Ornamental, per 100 Roof Tiles Diamond locking the	24 00
First quality, f.o.b. at Campbellville, per	16 ∞ M 18 oo
311G	14 00
Ornamental, per 100	. \$3 to 10 00 . 24 00
Stone. Common Rubble, Per Toise, delivered	14 0
Large flat " " Cubic Foot	18 00
Slute: Roofing (V square).	•
red u purple u unlading green	18 00 9 00 9 00
black slate Terra Cotta Tile, per sq Ornaniental Black Slate Roofing	7 50 25 00
Ornamental Black Slate Roofing	8 00
Per Load of 11/2 Cubic Yards	1 25
PAINTS. (In oil, \$\psi lb.)	6 00 6 00
White lead, Can	6 25 6 50 6% 7 50 5% 6% 1 60 1 75
venetian	1 60 1 75
U Indian For	10 12
Yellow ochre	15 20 7 12
Black, lamp.  Blue, ultramarine Oil, linseed, raw (& Imp. gallon).  'boiled "refined,"	75 40 15 25 15 20
Oil, linseed, raw (or Imp. gallon)	
DOTICG	72 70
" " refined, "	72 70 78 85 21/4 21/2
refined, Putty Whiting, dry Paris white Eng., dry	72 70 78 85 274 275 75 1 00
refined, Putty Whiting, dry Paris white Eng., dry Litharge, Atn., Sienna. burnt.	72 70 78 85 214 215 75 1 00 90 1 25 615 8
Whiting, dry Paris white Eng., dry Litharge, Atn., Sienna. burnt Umber. "	72 70 78 85 214 215 75 1 00 90 1 25 615 8
Whiting, dry Paris white Eng., dry Litharge, Atn., Sienna. burnt. Umber.  CEMENT, LIME, etc. Lime, Per Barrel of 2 bushels, Grey. White	72 70 78 85 24 24 75 100 90 125 64 8 15 20 84 12
Whiting, dry Paris white Eng., dry Litharge, Atn., Sienna. burnt Umber. "  CEMENT. LIME, etc. Lime, Per Barrel of 2 bushels, Grey White Plaster, Calcined, New Brunswick	72 70 78 85 24 24 75 100 90 125 64 8 15 20 84 12
Whiting, dry Paris white Eng., dry Litharge, Atn., Sienna. burnt Umber. "  CEMENT. LIME, etc. Lime, Per Barrel of 2 bushels, Grey White Plaster, Calcined, New Brunswick	72 70 78 85 24 25 75 1 00 90 1 15 65 8 15 20 8 12 2 00 2 00 3 00 3 50
Whiting, dry Paris white Eng., dry Litharge, Atn., Sienna. burnt Umber. "  CEMENT. LIME, etc. Lime, Per Barrel of 2 bushels, Grey White Plaster, Calcined, New Brunswick	72 70 78 85 2½ 2½ 75 1 00 90 1 25 6½ 8 15 20 8½ 12
Whiting, dry. Paris white Eng., dry Litharge, Am., Sienna. burnt. Umber.  **CEMENT. LIME, etc. Lime, Per Barrel of 2 bushels, Grey. " Nova Scotia. " Nova Scotia. " Nova Scotia. " Thorold, " Queenston, " Napanee, " Hull,	72 75 78 85 21/ 21/ 75 1 00 90 1 25 61/ 8 15 20 81/ 12 40 55 55 2 00 2 00 1 00 3 00 3 50 1 50 1 50
Whiting, dry. Paris white Eng., dry Litharge, Am., Sienna. burnt. Umber.  **CEMENT. LIME, etc. Lime, Per Barrel of 2 bushels, Grey. " Plaster, Calcined, New Brunswick " Nova Scotia. " Hair, Plasterers, per bag. Cement, Portland, per bbl. " Thorold, " Queenston, " Napanee, " Hull, " **HARDWARE.	72 70 78 85 21/ 21/ 75 1 00 90 1 25 61/8 8 15 20 81/1 12 40 55 2 00 2 00 2 00 1 00 3 00 3 50 1 50
Whiting, dry. Paris white Eng., dry Litharge, Am., Sienna. burnt. Umber.  **CEMENT. LIME, etc. Lime, Per Barrel of 2 bushels, Grey. " Plaster, Calcined, New Brunswick " Nova Scotia. " Hair, Plasterers, per bag. Cement, Portland, per bbl. " Thorold, " Queenston, " Napanee, " Hull, " **HARDWARE.	72 76 78 85 27 29 75 1 00 90 1 25 69 8 8 15 2 00 2 00 2 00 3 00 3 50 1 50
Whiting, dry. Paris white Eng., dry Litharge, Am., Sienna. burnt. Umber.  **CEMENT. LIME, etc. Lime, Per Barrel of 2 bushels, Grey. " Plaster, Calcined, New Brunswick " Nova Scotia. " Hair, Plasterers, per bag. Cement, Portland, per bbl. " Thorold, " Queenston, " Napanee, " Hull, " **HARDWARE.	72 75 78 85 24 24 75 1 00 90 \ 25 64 8 15 20 20 20 20 3 50 1 50
Whiting, dry Paris white Eng., dry Litharge, Am., Sienna, burnt. Umber.  **CEMENT, LIME, etc. Lime, Per Barrel of 2 bushels, Grey.  "White Plaster, Calcined, New Brunswick Nova Scotia Hair, Plasterers', per bag Cement, Portland, per bbl  "Thorold," Queenston, "Queenston," Napanee, "Hull,"  **HARDWARE.** Cut Naties: American Pattern, 1½ inch, per keg  "1½ to 1½ inch, per keg	72 70 78 85 21/ 21/ 75 1 00 90 1 25 6// 8 15 20 2 00 2 00 2 00 3 00 3 50 1 50
Whiting, dry Paris white Eng., dry Litharge, Am., Sienna, burnt. Umber.  **CEMENT, LIME, etc. Lime, Per Barrel of 2 bushels, Grey.  "White Plaster, Calcined, New Brunswick Nova Scotia Hair, Plasterers', per bag Cement, Portland, per bbl  "Thorold," Queenston, "Queenston," Napanee, "Hull,"  **HARDWARE.** Cut Naties: American Pattern, 1½ inch, per keg  "1½ to 1½ inch, per keg	72 75 78 85 27 25 27 25 27 25 28 12 20 20 20 20 20 20 20 3 50 1 50
Whiting, dry Paris white Eng., dry Litharge, Am., Sienna, burnt. Umber.  **CEMENT, LIME, etc. Lime, Per Barrel of 2 bushels, Grey.  "White Plaster, Calcined, New Brunswick Nova Scotia Hair, Plasterers', per bag Cement, Portland, per bbl  "Thorold," Queenston, "Queenston," Napanee, "Hull,"  **HARDWARE.** Cut Naties: American Pattern, 1½ inch, per keg  "1½ to 1½ inch, per keg	72 75 78 85 24 25 75 1 00 90 1 25 65 8 8 15 20 2 00 3 00 3 50 1
Whiting, dry. Paris white Eng., dry Litharge, Am., Sienna. burnt. Umber.  **CEMENT. LIME, etc. Lime, Per Barrel of 2 bushels, Grey. " Plaster, Calcined, New Brunswick " Nova Scotia. " Hair, Plasterers, per bag. Cement, Portland, per bbl. " Thorold, " Queenston, " Napanee, " Hull, " **HARDWARE.	72 76 78 85 27 29 75 1 00 67 8 8 15 20 2 00 20 3 50 1