





With Compliments

5th edition, 1908.

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Per

THE METAL TRADES'
REFEREE
AND
Storekeeper's Guide

5TH EDITION.

BEING A TABLE OF
WEIGHTS, MEASUREMENTS, AND OTHER
USEFUL INFORMATION.

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SPECIALTY PRESS
189 Little Collins Street, Melbourne.

1708

"ORB" IRON. You know it at once by its

CALENDAR

1908

JULY							AUGUST							SEPTEMBER						
S	...	5	12	19	26		30	2	9	16	23			...	6	13	20	27		
M	...	6	13	20	27		31	3	10	17	24			...	7	14	21	28		
T	...	7	14	21	28		...	4	11	18	25			1	8	15	22	29		
W	1	8	15	22	29		...	5	12	19	26			2	9	16	23	30		
T	2	9	16	23	30		...	6	13	20	27			3	10	17	24	...		
F	3	10	17	24	31		...	7	14	21	28			4	11	18	25	...		
S	4	11	18	25	...		1	8	15	22	29			5	12	19	26	...		
OCTOBER							NOVEMBER							DECEMBER						
S	...	4	11	18	25		1	8	15	22	29			...	6	13	20	27		
M	...	5	12	19	26		2	9	16	23	30			...	7	14	21	28		
T	...	6	13	20	27		3	10	17	24	...			1	8	15	22	29		
W	...	7	14	21	28		4	11	18	25	...			2	9	16	23	30		
T	1	8	15	22	29		5	12	19	26	...			3	10	17	24	31		
F	2	9	16	23	30		6	13	20	27	...			4	11	18	25	...		
S	3	10	17	24	31		7	14	21	28	...			5	12	19	26	...		

1909

JANUARY							FEBRUARY							MARCH						
S	31	3	10	17	24		...	7	14	21	28			...	7	14	21	28		
M	...	4	11	18	25		1	8	15	22	...			1	8	15	22	29		
T	...	5	12	19	26		2	9	16	23	...			2	9	16	23	30		
W	...	6	13	20	27		3	10	17	24	...			3	10	17	24	31		
T	...	7	14	21	28		4	11	18	25	...			4	11	18	25	...		
F	1	8	15	22	29		5	12	19	26	...			5	12	19	26	...		
S	2	9	16	23	30		6	13	20	27	...			6	13	20	27	...		
APRIL							MAY							JUNE						
S	...	4	11	18	25		30	2	9	16	23			...	6	13	20	27		
M	...	5	12	19	26		31	3	10	17	24			...	7	14	21	28		
T	...	6	13	20	27		...	4	11	18	25			1	8	15	22	29		
W	...	7	14	21	28		...	5	12	19	26			2	9	16	23	30		
T	1	8	15	22	29		...	6	13	20	27			3	10	17	24	...		
F	2	9	16	23	30		...	7	14	21	28			4	11	18	25	...		
S	3	10	17	24	...		1	8	15	22	29			5	12	19	26	...		

beautiful appearance. It's bright, and it lasts.

The Evolution of Galvanized Iron.

IT is interesting to note at the present day, when the use of Galvanized Iron has become so widely extended, that its introduction dates back only to 1837. Although a plain sheet was exhibited at the Great Exhibition in 1851, it was not until the application of steam power for the purpose of corrugating was brought about in 1854, that Galvanized Iron really came into practical use.

In 1857 the celebrated "ORB" Brand was first manufactured by **Mr. JOHN LYSAGHT.**

During the half-century which has since elapsed, greatly improved methods for its production, and extreme care displayed in its manufacture, have secured for **LYSAGHT'S GALVANIZED IRON** an unrivalled reputation throughout the world, and so universally has it been adopted to meet the needs of modern civilisation, that it may with truth be said that the sun is always shining on "ORB" IRON.

Consumers of Galvanized Iron are respectfully requested to note that every sheet of LYSAGHT'S "ORB" IRON has the Trade Mark stencilled thereon in blue, and is guaranteed. Beware of Imitations.

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are the **STANDARD** for the **BRITISH EMPIRE.**

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FIFTH EDITION.

The various tables contained herein have been carefully compiled from existing sources of information. No responsibility is accepted, and no originality is claimed in respect thereof. They are intended to give closely approximate information which may not always be readily accessible elsewhere.

The Publisher will be thankful to receive suggestions for further improvements, or to have pointed out any printer's or other's errors which may have inadvertently crept in. Communications may be addressed to P.O. Box 108, Stock Exchange, Melbourne.

The Best is the Cheapest. Quality is REMEMBERED

Galvanized Iron—Corrugated

Approximate number of Sheets to a Case (Ordinary Corrugations) weighing about 10 cwt.

Length.	GUAGES.					
	18	20	22	24	26	28
5 feet	47	56	65	83	115	124
6 "	39	46	55	70	96	103
7 "	33	40	47	60	82	88
8 "	29	35	41	52	72	77
9 "	26	30	36	47	64	68
10 "	23	28	33	42	57	61



LYSAGHT'S "ORB" BRAND CORRUGATED IRON usually contains sheets in excess of the numbers given in the above tables, and is made in all lengths up to 12 feet, the heavier guages to special order. Corrugations from 1 to 5 inches, those chiefly in use being 1-inch for ceilings, fences, &c., and 3-inch for ordinary purposes.

GALVANIZED CORRUGATED SHEETS.

Approximate weight per sheet in lbs.

Wire gauge	5-ft.	6-ft.	7-ft.	8-ft.	9-ft.	10-ft.
26	10 $\frac{1}{4}$	12 $\frac{1}{4}$	14	16	18 $\frac{3}{4}$	21 lbs.
24	13 $\frac{1}{4}$	16 $\frac{1}{2}$	18 $\frac{3}{4}$	21 $\frac{1}{2}$	25 $\frac{1}{2}$	28 "
22	17	20	23 $\frac{1}{2}$	27	30 $\frac{1}{2}$	34 "
20	21	25 $\frac{1}{2}$	30	34	38	42 $\frac{1}{2}$ "
18	26 $\frac{1}{2}$	32	37	43	48	53 "

long after price is forgotten.

Sections of Lysaght's Corrugations.

The Sizes stocked in Australia are:—

$\frac{1}{2}$ in. x $\frac{1}{8}$ in. 1 in. x $\frac{1}{4}$ in. 3 in. x $\frac{3}{4}$ in.

The following are also supplied to order,
viz. :—

$1\frac{1}{2}$ in. x $\frac{3}{8}$ in. 2 in. x $\frac{1}{2}$ in. $2\frac{1}{2}$ in. x $\frac{5}{8}$ in.
4 in. x 1 in. 5 in. x $1\frac{1}{4}$ in. 5 in. x $1\frac{1}{2}$ in.
 $5\frac{1}{10}$ in. x 1 in. 6 in. x $1\frac{1}{2}$ in.

Made in widths from 24 in. to 33 in.

Weight-Bearing Sections as follows:—

$3\frac{1}{16}$ in. x $2\frac{3}{8}$ in. (illustrated).



The following are the approximate weights per
sq. ft. of the above.

16 g.—5 lbs 8 ozs. 18 g.—4 lbs. 4 ozs.
20 g.—3 lbs. 12 ozs. 22 g.—2 lbs 14 ozs.
24 g.—2 lbs. 6 ozs.

Lysaghts also supply Section 4in. x 2in. if required

"ORB" GALVANIZED IRON has an

Galvanized Iron—Corrugated.

Approximate Price per sheet based on given rates
per ton.

24-G.

Price per ton. £	5	6	7	8	9	10	Feet. Sheets per ton.
	166	138	118	104	92	83	
16 0 0	1/11	2/4	2/9	3/1	3/6	3/10	
16 10 0	2/-	2/5	2/10	3/2	3/7	4/-	
17 0 0	2/1	2/6	2/11	3/3	3/8	4/1	
17 10 0	2/1	2/6	3/-	3/4	3/10	4/3	
18 0 0	2/2	2/7	3/1	3/6	3/11	4/4	
18 10 0	2/3	2/8	3/2	3/7	4/-	4/5	
19 0 0	2/3	2/9	3/3	3/8	4/2	4/7	
19 10 0	2/4	2/10	3/4	3/9	4/3	4/8	
20 0 0	2/5	2/11	3/5	3/10	4/4	4/10	
20 10 0	2/6	3/-	3/6	3/11	4/5	4/11	
21 0 0	2/6	3/1	3/7	4/-	4/7	5/1	
21 10 0	2/7	3/1	3/8	4/2	4/8	5/2	
22 0 0	2/8	3/2	3/9	4/3	4/9	5/4	
22 10 0	2/9	3/3	3/10	4/4	4/11	5/5	
23 0 0	2/9	3/4	3/11	4/5	5/-	5/7	
23 10 0	2/10	3/5	4/-	4/6	5/1	5/8	
24 0 0	2/11	3/6	4/1	4/7	5/3	5/9	
24 10 0	2/11	3/7	4/2	4/9	5/4	5/11	
25 0 0	3/-	3/7	4/3	4/10	5/5	6/-	
25 10 0	3/1	3/8	4/4	4/11	5/7	6/2	
26 0 0	3/2	3/9	4/5	5/-	5/8	6/3	

established reputation of more than half a century.

Galvanized Iron—Corrugated.

Approximate Price per sheet based on given rates per ton.

26-G.

Price per ton. £	5	6	7	8	9	10	Feet. Sheets per ton.
	236	196	168	146	130	118	
16 0 0	1/4	1/8	1/11	2/2	2/6	2/9	
16 10 0	1/5	1/8	2/-	2/3	2/6	2/10	
17 0 0	1/5	1/9	2/-	2/4	2/7	2/11	
17 10 0	1/6	1/9	2/1	2/5	2/8	3/-	
18 0 0	1/6	1/10	2/2	2/6	2/9	3/1	
18 10 0	1/7	1/11	2/2	2/6	2/10	3/2	
19 0 0	1/7	1/11	2/3	2/7	2/11	3/3	
19 10 0	1/8	2/-	2/4	2/8	3/-	3/4	
20 0 0	1/8	2/-	2/5	2/9	3/1	3/5	
20 10 0	1/9	2/1	2/5	2/10	3/2	3/6	
21 0 0	1/9	2/1	2/6	2/11	3/3	3/7	
21 10 0	1/10	2/2	2/7	2/11	3/4	3/8	
22 0 0	1/10	2/3	2/7	3/-	3/5	3/9	
22 10 0	1/11	2/4	2/8	3/1	3/6	3/10	
23 0 0	1/11	2/4	2/9	3/2	3/6	3/11	
23 10 0	2/-	2/5	2/10	3/3	3/7	4/-	
24 0 0	2/-	2/5	2/10	3/3	3/8	4/1	
24 10 0	2/1	2/6	2/11	3/4	3/9	4/2	
25 0 0	2/1	2/7	3/-	3/5	3/10	4/3	
25 10 0	2/2	2/7	3/-	3/6	3/11	4/4	
26 0 0	2/2	2/8	3/1	3/7	4/-	4/5	

The "ORB" Brand on a sheet of

Galvanized Iron—Plain.

Approximate Price per sheet, based on
given rates per ton.

—	24-G.			26-G.			28-G.		
Price per ton.	24	30	36	24	30	36	24	30	36
£	172	138	116	240	196	160	280	224	186
16 0 0	1/10	2/4	2/9	1/4	1/8	2/-	1/2	1/5	1/9
16 10 0	1/11	2/5	2/10	1/5	1/8	2/1	1/2	1/6	1/9
17 0 0	2/-	2/6	2/11	1/5	1/9	2/2	1/3	1/6	1/10
17 10 0	2/-	2/6	3/-	1/6	1/9	2/2	1/3	1/7	1/11
18 0 0	2/1	2/7	3/1	1/6	1/10	2/3	1/3	1/7	1/11
18 10 0	2/2	2/8	3/2	1/7	1/11	2/4	1/4	1/8	2/-
19 0 0	2/3	2/9	3/3	1/7	1/11	2/5	1/4	1/8	2/1
19 10 0	2/3	2/10	3/4	1/8	2/-	2/5	1/5	1/9	2/1
20 0 0	2/4	2/11	3/5	1/8	2/-	2/6	1/5	1/9	2/2
20 10 0	2/5	3/-	3/6	1/9	2/1	2/7	1/6	1/10	2/2
21 0 0	2/5	3/1	3/7	1/9	2/2	2/8	1/6	1/11	2/3
21 10 0	2/6	3/1	3/8	1/10	2/2	2/8	1/6	1/11	2/4
22 0 0	2/7	3/2	3/10	1/10	2/3	2/9	1/7	2/-	2/4
22 10 0	2/7	3/3	3/11	1/11	2/4	2/10	1/7	2/-	2/5
23 0 0	2/8	3/4	4/-	1/11	2/4	2/11	1/8	2/1	2/6
23 10 0	2/9	3/5	4/1	2/-	2/5	2/11	1/8	2/1	2/6
24 0 0	2/9	3/6	4/2	2/-	2/5	3/-	1/9	2/2	2/7
24 10 0	2/10	3/7	4/3	2/1	2/6	3/1	1/9	2/2	2/8
25 0 0	2/11	3/7	4/4	2/1	2/7	3/2	1/9	2/3	2/8
25 10 0	3/-	3/8	4/5	2/2	2/7	3/2	1/10	2/3	2/9
26 0 0	3/-	3/9	4/6	2/2	2/8	3/3	1/10	2/4	2/10

GALVANIZED IRON stands for PERFECTION

Galvanized Iron—Plain.

Approximate number of 6 feet sheets to a case. Plain Iron averaging about 10 cwt.

Approximate weight per sheet 6 feet long, in lbs.

Gauge.	Width.		
	24	30	36
16 g	37	29	24 shts.
18 g	46	36	30 „
20 g	60	48	40 „
22 g	72	57	48 „
24 g	89	71	59 „
26 g	120	97	80 „
28 g	137	110	90 „

Gauge.	Width.		
	24	30	36
16 g	32	40	48 lbs.
18 g	25	29	36 „
20 g	20	25	29 „
22 g	17	19	23 „
24 g	12	16	19 „
26 g	9	12	14 „
28 g	8	11	13 „



QUEEN'S HEAD

LYSAGHT'S "Queen's Head" Special Flat somewhat exceeds the number of sheets given in the above tables. It is also obtainable in special sizes other than the above, to order.

LYSAGHT'S "Fleur de Lis" Plain Iron is largely used for the manufacture of the lighter classes of guttering, down-pipe, ridging, &c., its smoothness of surface and freedom from buckle being conspicuous features.



FLEUR DE LIS

Every Sheet of LYSAGHT'S GALVANIZED

Iron—Black Sheet.

Weight and Thickness.

Gauge	Lbs. per square foot	Thick-ness inches	Thick-ness mm.	Gauge	Lbs. per square foot	Thick-ness inches	Thick-ness mm
$\frac{3}{16}$	7.50	.1874	4.770	19	1.76	.0440	1.118
8	6.28	.1570	3.988	20	1.56	.0392	.996
9	5.59	.1398	3.551	21	1.39	.0349	.886
10	5.00	.1250	3.175	22	1.25	.0312	.794
11	4.45	.1113	2.827	23	1.11	.0278	.707
12	3.96	.0991	2.517	24	.99	.0247	.629
13	3.52	.0882	2.240	25	.88	.0220	.560
14	3.14	.0785	1.994	26	.78	.0196	.498
15	2.79	.0699	1.775	27	.69	.0174	.443
16	2.50	.0625	1.587	28	.62	.0156	.396
17	2.22	.0556	1.412	29	.55	.0139	.353
18	1.98	.0495	1.257	30	.50	.0124	.315

Approximate Number of Sheets contained in 20 Bundles of Black Sheet Iron, averaging about 20 cwt.

Gauge	WIDTH.		
	24	30	36
12g	42	33	28
14	57	45	37
16	76	62	50
18	96	76	64
20	118	100	74
22	152	124	101
24	190	155	126
26	254	198	164
27	280	218	174
28	340	256	208

IRON IS GUARANTEED. Beware of Imitations.

Bar Iron—Flat.

Approximate Weight per Lineal Foot.

	$\frac{1}{4}$	5/16	$\frac{3}{8}$	7/16	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1
In.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.
1	.83	1.04	1.25	1.45	1.66	2.08	2.50	2.91	3.33
1 $\frac{1}{8}$	.94	1.17	1.40	1.64	1.87	2.34	2.81	3.28	3.75
1 $\frac{1}{4}$	1.04	1.30	1.56	1.82	2.08	2.60	3.12	3.64	4.16
1 $\frac{3}{8}$	1.14	1.43	1.71	2	2.29	2.86	3.43	4.01	4.58
1 $\frac{1}{2}$	1.25	1.56	1.87	2.18	2.50	3.12	3.75	4.37	5
1 $\frac{5}{8}$	1.35	1.69	2.03	2.36	2.70	3.38	4.06	4.73	5.41
1 $\frac{3}{4}$	1.45	1.82	2.18	2.55	2.91	3.64	4.37	5.10	5.83
1 $\frac{7}{8}$	1.56	1.95	2.34	2.73	3.12	3.90	4.68	5.46	6.25
2	1.66	2.08	2.50	2.91	3.33	4.16	5	5.83	6.66
2 $\frac{1}{8}$	1.77	2.21	2.65	3.09	3.54	4.42	5.31	6.19	7.08
2 $\frac{1}{4}$	1.87	2.34	2.81	3.28	3.75	4.68	5.62	6.56	7.50
2 $\frac{3}{8}$	1.97	2.47	2.96	3.46	3.95	4.94	5.93	6.92	7.91
2 $\frac{1}{2}$	2.08	2.60	3.12	3.64	4.16	5.20	6.25	7.29	8.33
2 $\frac{3}{4}$	2.18	2.73	3.28	3.82	4.37	5.46	6.56	7.65	8.75
2 $\frac{7}{8}$	2.29	2.86	3.43	4.01	4.58	5.72	6.87	8.02	9.16
2 $\frac{15}{16}$	2.39	2.99	3.59	4.19	4.79	5.98	7.18	8.38	9.58
3	2.50	3.12	3.75	4.37	5	6.25	7.50	8.75	10
3 $\frac{1}{4}$	2.70	3.38	4.06	4.73	5.41	6.77	8.12	9.47	10.83
3 $\frac{1}{2}$	2.91	3.64	4.37	5.10	5.83	7.29	8.75	10.20	11.66
3 $\frac{3}{4}$	3.12	3.90	4.68	5.46	6.25	7.81	9.37	10.93	12.50
3 $\frac{15}{16}$	3.33	4.16	5	5.83	6.66	8.33	10	11.66	13.33
4	3.54	4.42	5.31	6.19	7.08	8.85	10.62	12.39	14.16
4 $\frac{1}{4}$	3.75	4.68	5.62	6.56	7.50	9.37	11.25	13.12	15
4 $\frac{1}{2}$	3.95	4.94	5.93	6.92	7.91	9.89	11.87	13.85	15.83
4 $\frac{3}{4}$	4.17	5.20	6.25	7.29	8.33	10.41	12.50	14.58	16.66
5	4.37	5.46	6.56	7.65	8.75	10.93	13.12	15.31	17.50
5 $\frac{1}{4}$	4.58	5.72	6.87	8.02	9.16	11.45	13.75	16.04	18.33
5 $\frac{1}{2}$	4.79	5.98	7.18	8.38	9.58	11.97	14.37	16.77	19.16
5 $\frac{3}{4}$	5	6.26	7.50	8.75	10	12.50	15	17.50	20

Weight of Steel is about 2% more than Iron.

Every Sheet of "ORB" IRON advertises itself.

WEIGHT OF ROUND & SQUARE IRON & STEEL.

Size (dia.)	IRON.		STEEL.	
	Round Weight per lineal foot.	Square Weight per lineal foot.	Round Weight per lineal foot.	Square Weight per lineal foot.
$\frac{3}{16}$ In.	0.092lbs	0.117lbs	0.094lbs	0.120lbs
$\frac{1}{4}$	0.164	0.208	0.157	0.213
$\frac{5}{16}$	0.256	0.326	0.261	0.332
$\frac{3}{8}$	0.368	0.469	0.376	0.478
$\frac{7}{16}$	0.501	0.638	0.511	0.651
$\frac{1}{2}$	0.654	0.833	0.668	0.849
$\frac{9}{16}$	0.828	1.062	0.845	1.076
$\frac{5}{8}$	1.023	1.302	1.043	1.328
$\frac{11}{16}$	1.237	1.576	1.262	1.607
$\frac{3}{4}$	1.473	1.875	1.502	1.912
$\frac{13}{16}$	1.728	2.201	1.763	2.245
$\frac{7}{8}$	2.004	2.552	2.044	2.603
$\frac{15}{16}$	2.301	2.930	2.347	2.988
1	2.618	3.333	2.670	3.400
$1\frac{1}{8}$	3.313	4.219	3.380	4.303
$1\frac{1}{4}$	4.091	5.208	4.172	5.312
$1\frac{3}{8}$	4.950	6.302	5.049	6.428
$1\frac{1}{2}$	5.890	7.500	6.008	7.750
$1\frac{3}{4}$	6.913	8.802	7.051	8.978
$1\frac{7}{8}$	8.018	10.208	8.178	10.412
2	9.204	11.719	9.388	11.953
$2\frac{1}{8}$	10.472	13.333	10.681	13.600
$2\frac{1}{4}$	11.82	15.05	12.06	15.35
$2\frac{3}{8}$	13.25	16.87	13.52	17.21
$2\frac{1}{2}$	14.77	18.80	15.06	19.18
$2\frac{7}{8}$	16.36	20.83	16.69	21.25
$2\frac{3}{4}$	18.04	22.97	18.40	23.43
$2\frac{7}{4}$	19.80	25.21	20.19	25.71
$2\frac{7}{8}$	21.64	27.55	22.07	28.10
3	23.56	30.00	24.03	30.60
$3\frac{1}{4}$	27.65	35.21	28.21	35.91
$3\frac{3}{8}$	32.07	40.83	32.71	41.65
$3\frac{3}{4}$	36.82	46.87	37.55	47.81
4	41.89	53.33	42.73	54.40
$4\frac{1}{4}$	47.29	60.21	48.23	61.41
$4\frac{1}{2}$	53.01	67.50	54.07	68.85
$4\frac{3}{4}$	59.07	75.21	60.25	76.71
5	65.45	83.33	66.76	85.00
$5\frac{1}{2}$	79.19	100.83	80.78	102.85
6	94.25	120.00	96.13	122.40

Table Shewing Weight in Pounds

OF VARIOUS AREAS OF

Iron Plates of Different Thickness

Area in feet.	THICKNESS IN FRACTIONS OF AN INCH.									
	$\frac{1}{8}$	$\frac{1}{4}$	5/16	$\frac{3}{8}$	7/16	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1
1	5	10	12.5	15	17.5	20	25	30	35	40
2	10	20	25.0	30	35.0	40	50	60	70	80
3	15	30	37.5	45	52.5	60	75	90	105	120
4	20	40	50.0	60	70.0	80	100	120	140	160
5	25	50	62.5	75	87.5	100	125	150	175	200
6	30	60	75.0	90	105.0	120	150	180	210	240
7	35	70	87.5	105	122.5	140	175	210	245	280
8	40	80	100.0	120	140.0	160	200	240	280	320
9	45	90	112.5	135	157.5	180	225	270	315	360
10	50	100	125.0	150	175.0	200	250	300	350	400
11	55	110	137.5	165	192.5	220	275	330	385	440
12	60	120	150.0	180	210.0	240	300	360	420	480
13	65	130	162.5	195	227.5	260	325	390	455	520
14	70	140	175.0	210	245.0	280	350	420	490	560
15	75	150	187.5	225	262.5	300	375	450	525	600
16	80	160	200.0	240	280.0	320	400	480	560	640
17	85	170	212.5	255	297.5	340	425	510	595	680
18	90	180	225.0	270	315.0	360	450	540	630	720
19	95	190	237.5	285	332.5	380	475	570	665	760
20	100	200	250.0	300	350.0	400	500	600	700	800
30	150	300	375.0	450	525.0	600	750	900	1050	1200
40	200	400	500.0	600	700.0	800	1000	1200	1400	1600
50	250	500	625.0	750	875.0	1000	1250	1500	1750	2000
60	300	600	750.0	900	1050	1200	1500	1800	2100	2400
70	350	700	875.0	1050	1225	1400	1750	2100	2450	2800
80	400	800	1000	1200	1400	1600	2000	2400	2800	3200
90	450	900	1087	1350	1575	1800	2250	2700	3150	3600
100	500	1000	1250	1500	1750	2000	2500	3000	3500	4000

STEEL JOISTS—British Standard Sections.

A = Depth
B = Width of Flange,

C = Thickness of Web.
D = Thickness of Flange.

Dimensions in inches.

Weight
lbs. per
foot-run.

Safe Load Tons distributed for Spans of

A	B	C	D	cus. per foot-run.	6 ft.	10 ft.	12 ft.	16 ft.	20 ft.	30 ft.
3	1½	0.16	0.248	4.0	0.92	0.55	0.46	—	—	—
3	3	0.20	0.332	8.5	2.0	1.2	1.0	—	—	—
4	1¾	0.17	0.24	5.0	1.5	0.91	0.76	—	—	—
4	3	0.22	0.336	9.5	3.1	1.9	1.6	—	—	—
4¾	1¾	0.18	0.325	6.5	2.4	1.4	1.2	—	—	—
5	3	0.22	0.376	11.0	4.5	2.7	2.3	1.7	—	—
5	4½	0.29	0.448	18.0	7.6	4.5	3.8	2.8	—	—
6	3	0.26	0.348	12.0	5.6	3.4	2.8	2.1	—	—
6	4½	0.37	0.431	20.0	9.6	5.8	4.8	3.6	—	—
6	5	0.41	0.520	25.0	12.0	7.3	6.0	4.5	—	—
7	4	0.25	0.387	16.0	9.4	5.6	4.7	3.5	2.8	—
8	4	0.28	0.402	18.0	11.0	7.0	5.8	4.3	3.5	—
8	5	0.35	0.575	28.0	18.0	11.0	9.0	7.0	5.5	—
8	6	0.44	0.597	35.0	23.0	14.0	11.0	8.6	7.0	—
9	4	0.30	0.460	21.0	15.0	9.0	7.5	5.6	4.5	—
9	7	0.55	0.924	58.0	42.0	25.0	21.0	16.0	12.0	—
10	5	0.36	0.552	30.0	24.0	14.0	12.0	9.0	7.2	—
10	6	0.40	0.736	42.0	35.0	21.0	17.0	13.0	10.0	—
10	8	0.60	0.970	70.0	53.0	34.0	28.0	21.0	17.0	—
12	5	0.35	0.550	32.0	30.0	18.0	15.0	11.0	9.0	—
12	6	0.40	0.717	44.0	40.0	26.0	22.0	16.0	13.0	—
12	6	0.50	0.883	54.0	52.0	31.0	26.0	19.0	15.0	19.0
14	6	0.40	0.698	46.0	43.0	31.0	26.0	19.0	15.0	10.0
14	6	0.50	0.873	57.0	59.0	38.0	31.0	24.0	19.0	12.0
15	5	0.42	0.647	42.0	47.0	28.0	24.0	18.0	14.0	9.5
15	6	0.50	0.880	59.0	62.0	42.0	35.0	26.0	21.0	14.0
16	6	0.55	0.847	62.0	73.0	45.0	38.0	28.0	22.0	15.0
18	7	0.55	0.928	75.0	—	64.0	53.0	40.0	32.0	21.0
20	7½	0.60	1.01	89.0	—	83.0	69.0	52.0	41.0	27.0
24	7½	0.60	1.07	100.0	—	102.0	92.0	69.0	55.0	36.0

Span should not exceed 20 x A, or deflection will be excessive.

world, universally admitted "THE BEST."

Hoop Iron.

Weight of a Ten-foot Length in Pounds.

	16 W G	18 W G	19 W G	20 W G	21 W G	22 W G
1 inch thick	1.10 1.38 1.66 1.80	.83 1.04 1.25 1.35	.71 .89 1.07 1.16	.60 .74 .89 .97	.54 .68 .82 .88	.48 .60 .71 .77
	10 W G	12 W G	14 W G	16 W G	17 W G	18 W G
1	4.68	3.65	2.60	2.08	1.81	1.55
1 $\frac{1}{8}$	5.26	4.10	2.92	2.34	2.04	1.75
1 $\frac{1}{4}$	5.85	4.56	3.25	2.60	2.27	1.93
1 $\frac{3}{8}$	6.43	5.01	3.57	2.86	2.49	2.13
1 $\frac{1}{2}$	7.02	5.47	3.90	3.12	2.72	2.32
1 $\frac{3}{4}$	8.15	6.35	4.55	3.60	3.15	2.70
2	9.36	7.30	5.20	4.16	3.63	3.10
2 $\frac{1}{4}$	10.53	8.20	5.85	4.68	4.08	3.50
2 $\frac{1}{2}$	11.71	9.12	6.50	5.20	4.54	3.87
2 $\frac{3}{4}$	12.87	10.03	7.15	5.72	4.99	4.26
3	14.05	10.95	7.80	6.25	5.45	4.65
3 $\frac{1}{4}$	15.10	11.80	8.40	6.70	5.80	5.00
3 $\frac{1}{2}$	16.30	12.70	9.10	7.20	6.30	5.40
3 $\frac{3}{4}$	17.50	13.60	9.70	7.70	6.70	5.80
4	18.73	14.60	10.40	8.33	7.26	6.20
4 $\frac{1}{4}$	19.90	15.50	11.05	8.84	7.70	6.60
4 $\frac{1}{2}$	21.07	16.40	11.70	9.36	8.17	7.00
4 $\frac{3}{4}$	22.23	17.33	12.35	9.88	8.62	7.36
5	23.42	18.25	13.00	10.41	9.08	7.75
5 $\frac{1}{2}$	25.75	20.07	14.30	11.45	9.98	8.22
6	28.10	21.90	15.60	12.50	10.90	9.30

(Galvanized Hoops slightly exceed these weights.)

Every Sheet of LYSAGHT'S "ORB"

Various Metals.

The Comparative Weight of a Superficial Foot.

Thickness in Inches.	Wrought Iron.	Cast Iron.	Steel.	Copper.	Brass.	Lead.	Zinc.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1/16	2·526	2·344	2·552	2·891	2·734	3·708	2·344
1/8	5·052	4·687	5·104	5·781	5·469	7·417	4·687
3/16	7·578	7·031	7·656	8·672	8·303	11·125	7·031
1/4	10·104	9·375	10·208	11·563	10·938	14·833	9·375
5/16	12·630	11·719	12·760	14·453	13·672	18·542	11·719
3/8	15·156	14·062	15·312	17·314	16·406	22·250	14·062
7/16	17·682	16·406	17·865	20·234	19·141	25·958	16·406
1/2	20·208	18·750	20·417	23·125	21·875	29·667	18·750
9/16	22·734	21·094	22·969	26·016	24·609	33·375	21·094
5/8	25·260	23·437	25·521	28·906	27·344	37·083	23·437
11/16	27·786	25·781	28·073	31·797	30·078	40·792	25·781
3/4	30·312	28·125	30·625	34·688	32·813	44·500	28·125
13/16	32·839	30·469	33·177	37·578	35·547	48·208	30·469
7/8	35·635	32·812	35·729	40·469	38·281	51·917	32·812
15/16	37·801	35·156	38·281	43·359	41·016	55·625	35·156
1	40·417	37·500	40·833	46·250	43·750	59·333	37·500
Gauge.	Iron.	Copper.	Brass.	Gauge.	Iron.	Copper.	Brass.
30	·48	·550	·527	15	2·88	3·298	3·161
29	·52	·595	·579	14	3·32	3·801	3·644
28	·56	·641	·615	13	3·80	4·351	4·170
27	·64	·733	·702	12	4·36	4·992	4·785
26	·72	·824	·790	11	4·80	5·496	5·268
25	·80	·916	·878	10	5·36	6·137	5·883
24	·88	1·008	·966	9	5·92	6·778	6·497
23	1·00	1·145	1·097	8	6·60	7·557	7·248
22	1·12	1·282	1·229	7	7·20	8·244	7·902
21	1·28	1·466	1·405	6	8·12	9·297	8·912
20	1·40	1·603	1·536	5	8·80	10·076	9·658
19	1·68	1·924	1·844	4	9·52	10·900	10·448
18	1·96	2·244	2·151	3	10·36	11·862	11·370
17	2·32	2·656	2·546	2	11·36	13·007	12·468
16	2·60	2·977	2·853	1	12·00	13·740	13·170

and "QUEEN'S HEAD" IRON branded in blue.

Zinc Sheets.

Gauge No.	Approx. Weight per sq. ft.	Thousandths of an inch.	7' x 2' 8"		7' x 3'		8' x 3'		Nearest Wire Gauge.
			Approximate Weight per sht.	No. of shts. in 10 cwt.	Approximate Weight per sht.	No. of shts. in 10 cwt.	Approximate Weight per sht.	No. of shts. in 10 cwt.	
	oz.		lb. oz.		lb. oz.		lb. oz.		
1	2 $\frac{1}{4}$	·004	2 10	427	—	—	—	—	41
2	3 $\frac{1}{4}$	·006	3 13	294	—	—	—	—	38
3	3 $\frac{3}{4}$	·007	—	—	4 15	227	—	—	37
4	4 $\frac{3}{4}$	·008	—	—	6 4	180	—	—	34
5	5 $\frac{3}{4}$	·010	—	—	7 9	148	—	—	31
6	6 $\frac{3}{4}$	·011	7 14	142	8 14	126	10 2	111	30
7	7 $\frac{3}{4}$	·013	9 1	124	10 3	110	11 10	96	29
8	9	·015	10 8	107	11 13	95	13 8	83	28
9	10	·017	11 11	96	13 2	85	15 0	75	27
10	11 $\frac{1}{2}$	·019	13 7	83	15 2	74	17 4	65	25
11	13	·021	15 3	74	17 1	66	19 8	57	24
12	15	·025	17 8	64	19 11	57	22 8	50	23
13	17	·028	—	—	22 5	50	25 8	44	22
14	19	·031	—	—	24 15	45	28 8	39	21
15	22	·036	—	—	28 14	39	33 0	34	20
16	25	·041	—	—	32 13	34	37 8	30	19
17	28	·046	—	—	36 12	30	42 0	27	18
18	31	·051	—	—	40 11	28	46 8	24	—
19	35	·059	—	—	45 15	24	52 8	21	17
20	39	·065	—	—	51 3	22	58 8	19	16
21	43	·072	—	—	56 7	20	64 8	17	15

Tin Plates.

The Principal Denominations and Sizes with their Equivalent Thicknesses in Millimetres.

Strength or Gauge.	Size.	Sheets per Box.	Weight per Box.	Thicknesses of Sheets.	
				Mm.	Inch.
IC	Inches 14 x 10	225	lb. 108	0·313	0·0123
IX	"	"	136	0·395	0·0155
IXX	"	"	156	0·453	0·0179
IXXX	"	"	176	0·511	0·0201
IC	20 x 14	112	108	0·315	0·0123
ICL	"	"	100	0·292	0·0114
ICL	"	"	95	0·277	0·0109
ICL	"	"	90	0·262	0·0103
ICL	"	"	85	0·248	0·0097
ICL	"	"	80	0·233	0·0091
IX	"	"	136	0·396	0·0155
IXX	"	"	156	0·455	0·0179
IXXX	"	"	176	0·513	0·0201
IXXXX	"	"	196	0·571	0·0223
IC	28 x 20	"	216	0·315	0·0124
IX	"	"	272	0·396	0·0156
IC	"	56	108	0·315	0·0123
IX	"	"	136	0·396	0·0155
IC	20 x 10	225	154	0·313	0·0123
IX	"	"	194	0·394	0·0155
IC	14 x 18 $\frac{3}{4}$	124	110	0·309	0·0122
IC	14 x 19 $\frac{1}{4}$	120	110	0·311	0·0122
IC	30 x 21	112	243	0·315	0·0124
CL	"	"	224	0·290	0·0114
CLL	"	"	190	0·246	0·0097
CLLL	"	"	176	0·228	0·0090
CLLLL	"	"	160	0·207	0·0081
DC	17 x 12 $\frac{1}{2}$	100	94	0·404	0·0160
DX	"	"	122	0·525	0·0206
DXX	"	"	143	0·615	0·0242
DXXX	"	"	164	0·706	0·0278
DXXXX	"	"	185	0·796	0·0313

from Hardware Houses and Timber Merchants.

Tin Plates.

Thickness of Tinplates by Gauge.

Tinplate.			Gauge.	Tinplate.			Gauge.
IC	..	..	30	DXXXX..	..		22
IX	..	..	28	DXXXXX	..		21
IXX	..	..	27	DXXXXXX	..		20
IXXX	..	..	26	S D C	..		28 full
IXXXX	..	..	25	S DX	..		25 easy
IXXXXX	..	..	24	S DXX	..		25 full
IXXXXXX	..	..	22 easy	S DXXX	..		24
DC	..	..	28 full	S DXXXX	..		24 full
DX	..	..	26	S DXXXXX	..		22 easy
DXX	..	..	25	S DXXXXXX	..		22 full
DXXX	..	..	24				

LEAD.

Weight per Super Foot.

Inch.	Lbs.	Inch.	Lbs.	Inch.	Lbs.
1/16	3.7	7/16	25.9	3/4	44.7
1/8	7.4	1/2	29.5	13/16	48.3
3/16	11.1	9/16	33.2	7/8	5.0
1/4	14.8	5/8	36.9	15/16	55.1
5/16	18.5	11/16	40.6	1	59.4
3/8	22.2				

LEAD.—Sheet.

Weight per Roll—30 feet x 7 feet 9 inches.

		C.	Q.	L.			C.	Q.	L.
3 lbs.	..	6	0	14	5 lbs.	..	10	1	14
3½ "	..	7	0	20	6 "	..	12	1	0
4 "	..	8	1	0	7 "	..	14	2	0
4½ "	..	9	1	0					

"ORB" IRON has lasting qualities.

ALUMINIUM.

Gauge.	Weight per square foot in lbs.	Weight of Sheet 24 in. x 96 in. in lbs.
12	1 406	11½
16	.906	7½
18	.687	5½
20	.25	4

A cube foot of Aluminium weighs 166 lbs.

SOLDERS.

For Lead ... 1 part Tin, 2 parts Lead
 For Brass ... 2 parts Brass, 1 Part Zinc.
 Hard Solder ... 2 parts Copper, 1 part Zinc.
 Soft Solder ... 2 parts Tin, 1 part Lead.

FLUXES—For Soldering.

Tinned Iron ... Resin or Spirits of Salts.
 Copper and Brass ... Sal. Ammonia or Spirits of Salts
 Zinc ... Spirits of Salts.
 Lead ... Resin.

Fusing Temperature of Metals.

	Degrees Fahr.
Solder	330
Tin	426
Lead	630
Zinc	800
Brass	1650
Silver	1830
Copper	2192
Gold	2280
Cast Iron	2912

and is cheapest in the end.

EXPANSION OF METAL.

A comparison between the common metals at 32° Fahr. and 212° Fahr. showed the following results :—

Lead expands 1 part in 349				Block Tin expands 1 part in 403			
Zinc	„	1	„	322	Cast Iron	„	1 „ 901
Copper	„	1	„	581	Wrought Iron	„	1 „ 846
					Brass	„	1 „ 584

It would be observed that in expansiveness lead is only beaten by zinc

Sheet Copper — Weights of.

No.	Per Square Foot	No.	Per Square Foot
1	14 lbs. 0 oz.	16	3 lbs. 0 oz.
2	13 „ 0 „	17	2 „ 12 „
3	12 „ 0 „	18	2 „ 4 „
4	11 „ 0 „	19	2 „ 0 „
5	10 „ 2 „	20	1 „ 12 „
6	9 „ 8 „	21	1 „ 8 „
7	8 „ 8 „	22	1 „ 6 „
8	7 „ 10 „	23	1 „ 3 „
9	7 „ 0 „	24	1 „ 0 „
10	6 „ 4 „	25	0 „ 14 „
11	5 „ 8 „	26	0 „ 13 „
12	5 „ 0 „	27	0 „ 11½ „
13	4 „ 8 „	28	0 „ 10 „
14	4 „ 0 „	29	0 „ 9 „
15	3 „ 8 „	30	0 „ 8 „

Gauges of Copper Sheets.

48 in. x 24 in. x 8 lbs. = 24 W G

„	10 „ „	23 „ full
„	12 „ „	21 „
„	14 „ „	20 „
„	16 „ „	19 „
„	18 „ „	18 „
„	24 „ „	16 „

LYSAGHT'S "ORB" IRON. Beware of

Weight per Lineal Foot of Seamless Drawn Copper Tubes.

Imp. St'd Gauge.	Thickness of Copper.							
	6	8	10	12	14	16	18	20
Inch's	0.192	0.160	0.128	0.104	0.080	0.064	0.048	0.036
Inside Diam. Inch's	Weight of a Lineal Foot in Pounds.							
1/4	1.03	0.79	0.58	0.44	0.32	0.24	0.17	0.12
3/8	1.32	1.04	0.78	0.60	0.44	0.34	0.25	0.18
1/2	1.61	1.28	0.97	0.76	0.56	0.44	0.32	0.23
5/8	1.90	1.52	1.17	0.92	0.68	0.53	0.39	0.29
3/4	2.19	1.76	1.36	1.07	0.80	0.63	0.46	0.34
7/8	2.48	2.00	1.55	1.23	0.92	0.73	0.54	0.40
1	2.77	2.24	1.75	1.39	1.04	0.82	0.61	0.45
1 1/8	3.06	2.49	1.94	1.55	1.17	0.92	0.68	0.51
1 1/4	3.35	2.73	2.13	1.70	1.29	1.02	0.75	0.56
1 3/8	3.64	2.97	2.33	1.86	1.41	1.11	0.83	0.61
1 1/2	3.93	3.21	2.52	2.02	1.53	1.21	0.90	0.67
1 5/8	4.22	3.45	2.71	2.17	1.65	1.31	0.97	0.72
1 3/4	4.51	3.70	2.91	2.33	1.77	1.40	1.04	0.78
1 7/8	4.80	3.94	3.10	2.49	1.89	1.50	1.12	0.83
2	5.09	4.18	3.29	2.65	2.01	1.60	1.19	0.89
2 1/8	5.38	4.42	3.49	2.80	2.13	1.69	1.26	0.94
2 1/4	5.67	4.66	3.68	2.96	2.25	1.79	1.33	1.00
2 3/8	5.96	4.91	3.88	3.12	2.38	1.89	1.41	1.05
2 1/2	6.25	5.15	4.07	3.28	2.50	1.98	1.48	1.10
2 3/4	6.53	5.63	4.46	3.59	2.74	2.18	1.62	1.21

To ascertain the weight of a Seamless Tube of other metal, multiply the weight of a similar Copper Tube by 0.9626 for Brass (70 & 30 alloy)—by 0.86 for Wrought Iron—by 0.81 for Cast Iron—or by 1.28 for Lead.

The above weights are theoretically correct, but in practice a slight deviation from the theoretical weights must be expected.

Imitations. There is nothing "just as good"

Lead Pipe—Water and Gas.

Inside Dia.	Strength.	Weight per Yard.	Average Length.	Inside Dia.	Strength.	Weight per Yard.	Average Length.
Inch.		Lbs.	Yards.	Inch.		Lbs.	Yards.
$\frac{3}{8}$	Thin	$3\frac{1}{2}$	35	$1\frac{1}{4}$	Thin	10	17
"	Middle	4	32	"	Thin	11	16
"	Strong	$4\frac{1}{2}$	28	"	Middle	12	14
"	Strong	5	24 or 48	"	Middle	$12\frac{1}{2}$	13
"	Strong	$5\frac{1}{2}$	22 or 44	"	Strong	14	12
$\frac{1}{2}$	Thin	3	39	"	Strong	16	11
"	Thin	$3\frac{1}{2}$	35	$1\frac{1}{2}$	Thin	12	14
"	Middle	4	32	"	Thin	14	12
"	Strong	$4\frac{1}{2}$	28	"	Middle	$15\frac{1}{2}$	11
"	Strong	5	48	"	Strong	$17\frac{1}{2}$	9
"	Strong	6	38	"	Strong	21	8
"	Strong	7	33	$1\frac{3}{4}$	Thin	15	11
"	Strong	8	29	"	Middle	17	10
$\frac{5}{8}$	Thin	$4\frac{1}{2}$	28	"	Strong	19	9
"	Middle	5	24 or 48	2	Thin	19	9
"	Strong	6	38	"	Middle	23	7
"	Strong	7	33	"	Strong	26	7
"	Strong	8	29	"	Thin	19	12-foot Length.
$\frac{3}{4}$	Thin	5	24	"	Middle	23	
"	Thin	6	20	"	Strong	26	
"	Middle	7	25	"	Strong	30	
"	Strong	8	22	$2\frac{1}{2}$	Thin	26	
"	Strong	$8\frac{1}{2}$	20	"	Thin	27	
"	Strong	9	19	"	Middle	30	
"	Strong	10	17	"	Strong	33	
"	Strong	11	16	3	Thin	36	
"	Strong	12	14	"	Middle	42	
1	Thin	7	25	"	Strong	44	
"	Thin	8	22	$3\frac{1}{2}$	Thin	45	
"	Middle	9	19	"	Middle	49	
"	Middle	$9\frac{1}{2}$	18	"	Strong	52	
"	Strong	10	17	4	Thin	48	
"	Strong	11	16	"	Middle	57	
"	Strong	12	14	"	Strong	61	
"	Strong	14	12	5	Thin	73	
"	Strong	15	11	"	Strong	84	
				6		68	

Trade Price-List of Gas, Water, and Steam Tubes

Issued Sept. 1st, 1907, cancelling all other Lists.

TUBES.

Internal Diam. in Inches	$1\frac{1}{8}$	$\frac{3}{8}$	$\frac{1}{2}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{4}$	$2\frac{3}{4}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6
Tubes, 2 to 14 ft. long, per ft.																	
Pieces 12 to $23\frac{1}{2}$ in. long (each)	-.3 $\frac{1}{2}$	-.4	-.5	-.9	1/-	1/4	1/8	1/10	2/6	2/9	3/3	4/3	4/9	5/6	6/-	6/9	7/6
Pieces 3 to $11\frac{1}{2}$ in. long (each)	-.9	-.10	1/1	1/4	2/6	3/4	4/3	4/9	6/9	8/-	9/-	10/-	13/6	15/6	21/-	24/-	28/6
Long screws, 12 to $23\frac{1}{2}$ in. long (each)	-.5 $\frac{1}{2}$	-.6	-.8	1/2	1/6	2/-	2/7	3/-	4/3	5/3	6/-	6/9	9/8	10/9	15/6	18/-	21/9
Long screws, 3 to $11\frac{1}{2}$ in. long (each)	-.10	-.11	1/2	2/-	2/8	3/7	4/8	5/3	7/6	9/-	10/-	11/6	15/6	17/-	23/-	26/6	31/6
Barrel nipples (each)	-.6 $\frac{1}{2}$	-.7	-.9	1/3	1/8	2/3	3/-	3/3	4/8	6/3	6/7	8/-	10/9	12/3	17/-	20/-	24/-
Bends (each)	-.5	-.5	-.6	.9	1/-	1/4	1/8	1/9	2/6	3/-	3/6	4/-	6/-	7/-	10/-	12/6	15/-
Springs, not socketted (each)	-.7	-.8	1/-	1/6	2/6	3/-	4/-	5/-	8/6	12/-	15/-	18/-	25/-	32/6	80/-	105/-	135/-
	-.5	-.6	-.7	1/1 $\frac{1}{2}$	1/11 $\frac{1}{2}$	2/3 $\frac{1}{2}$	3/1	3/11	6/9	9/6	12/-	14/6	20/-	26/6	70/-	93/-	120/-

Trade Price-List of Water and Steam Fittings

Issued Sept. 1st. 1907, cancelling all other Lists.
FITTINGS

Internal Diam. in Inches	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3	3 1/2	4	4 1/2	5	5 1/2	6
Socket or pipe union each	2/-	3/-	4/-	5/-	6/9	8/-	9/-	10/-	11/-	12/-	13/-	14/-	15/-	16/-	17/-	18/-	19/-	20/-	21/-	22/-
Elbows, square	-8 1/2	-9	-10 1/2	-11 1/2	-12 1/2	-13 1/2	-14 1/2	-15 1/2	-16 1/2	-17 1/2	-18 1/2	-19 1/2	-20 1/2	-21 1/2	-22 1/2	-23 1/2	-24 1/2	-25 1/2	-26 1/2	-27 1/2
Do round	-9 1/2	-10 1/2	-11 1/2	-12 1/2	-13 1/2	-14 1/2	-15 1/2	-16 1/2	-17 1/2	-18 1/2	-19 1/2	-20 1/2	-21 1/2	-22 1/2	-23 1/2	-24 1/2	-25 1/2	-26 1/2	-27 1/2	-28 1/2
Tees	-9	-10	-11	-12	-13	-14	-15	-16	-17	-18	-19	-20	-21	-22	-23	-24	-25	-26	-27	-28
Crosses	-1 1/4	-1 1/2	-1 3/4	-2	-2 1/4	-2 1/2	-2 3/4	-3	-3 1/4	-3 1/2	-3 3/4	-4	-4 1/4	-4 1/2	-4 3/4	-5	-5 1/4	-5 1/2	-5 3/4	-6
Sockets plain	-1 1/4	-1 1/2	-1 3/4	-2	-2 1/4	-2 1/2	-2 3/4	-3	-3 1/4	-3 1/2	-3 3/4	-4	-4 1/4	-4 1/2	-4 3/4	-5	-5 1/4	-5 1/2	-5 3/4	-6
Do. diminished	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12	-13	-14	-15	-16	-17	-18	-19	-20	-21	-22
Flanges	-9	-10	-11	-12	-13	-14	-15	-16	-17	-18	-19	-20	-21	-22	-23	-24	-25	-26	-27	-28
Do. diminished	-3 1/2	-4 1/2	-5 1/2	-6 1/2	-7 1/2	-8 1/2	-9 1/2	-10 1/2	-11 1/2	-12 1/2	-13 1/2	-14 1/2	-15 1/2	-16 1/2	-17 1/2	-18 1/2	-19 1/2	-20 1/2	-21 1/2	-22 1/2
Flanges	-3 1/2	-4 1/2	-5 1/2	-6 1/2	-7 1/2	-8 1/2	-9 1/2	-10 1/2	-11 1/2	-12 1/2	-13 1/2	-14 1/2	-15 1/2	-16 1/2	-17 1/2	-18 1/2	-19 1/2	-20 1/2	-21 1/2	-22 1/2
Plugs	-3 1/2	-4 1/2	-5 1/2	-6 1/2	-7 1/2	-8 1/2	-9 1/2	-10 1/2	-11 1/2	-12 1/2	-13 1/2	-14 1/2	-15 1/2	-16 1/2	-17 1/2	-18 1/2	-19 1/2	-20 1/2	-21 1/2	-22 1/2
Backnuts	-2 1/2	-3 1/2	-4 1/2	-5 1/2	-6 1/2	-7 1/2	-8 1/2	-9 1/2	-10 1/2	-11 1/2	-12 1/2	-13 1/2	-14 1/2	-15 1/2	-16 1/2	-17 1/2	-18 1/2	-19 1/2	-20 1/2	-21 1/2
Nipples	-2 1/2	-3 1/2	-4 1/2	-5 1/2	-6 1/2	-7 1/2	-8 1/2	-9 1/2	-10 1/2	-11 1/2	-12 1/2	-13 1/2	-14 1/2	-15 1/2	-16 1/2	-17 1/2	-18 1/2	-19 1/2	-20 1/2	-21 1/2
Union bends	-2 1/2	-3 1/2	-4 1/2	-5 1/2	-6 1/2	-7 1/2	-8 1/2	-9 1/2	-10 1/2	-11 1/2	-12 1/2	-13 1/2	-14 1/2	-15 1/2	-16 1/2	-17 1/2	-18 1/2	-19 1/2	-20 1/2	-21 1/2
Main cocks	-2 1/2	-3 1/2	-4 1/2	-5 1/2	-6 1/2	-7 1/2	-8 1/2	-9 1/2	-10 1/2	-11 1/2	-12 1/2	-13 1/2	-14 1/2	-15 1/2	-16 1/2	-17 1/2	-18 1/2	-19 1/2	-20 1/2	-21 1/2
Do. with brass plugs	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Round way cocks	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. with brass plugs	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cock spanners, wrought.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. Malleable cast	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Syphon boxes, 1 quart	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. do. 2 quarts	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. do. 3 do.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. do. 4 do.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

"Orb" Iron—maximum value—minimum cost

Composition Pipe

(INSIDE DIAMETER)

Inch	lbs.	oz.		Inch	lbs.	oz.	
$\frac{1}{4}$	0	13	per yard	$\frac{5}{8}$	3	4	per yard
$\frac{1}{2}$	1	0	"	$\frac{3}{4}$	4	4	"
$\frac{3}{8}$	1	5	"	$\frac{7}{8}$	4	12	"
$\frac{1}{2}$	1	10	"	1	5	8	"
$\frac{1}{2}$	2	2	"				

Length of Coils up to $\frac{1}{2}$ inch, usually 50 yards

$\frac{5}{8}$ inch	$\frac{3}{4}$ inch	$\frac{7}{8}$ inch	1 inch
40 yards	30 yards	25 yards	20 yards

Pipes—Cast Iron (Water)

Spigot and Faucet

NINE FEET LENGTHS

Diameter	Cwts.	Qrs.	Lbs.	Diameter	Cwts.	Qrs.	Lbs.
$2\frac{1}{2}$	0	3	2	14	9	1	26
3	1	0	10	15	9	3	26
4	1	1	16	16	10	3	6
5	2	0	14	18	14	0	25
6	2	2	0	20	16	1	20
7	3	0	20	22	17	3	2
8	3	2	14	24	22	0	0
9	4	2	10	27	24	0	21
10	5	1	0	30	27	0	0
12	7	0	0	33	32	0	0

Galvanized Piping—(Iron)

Weight per 100 feet.

Size	Per 100 Feet			Size.	Per 100 Feet		
	C.	Q.	L.		C.	Q.	L.
$\frac{1}{2}$	0	3	0	$1\frac{1}{2}$	2	3	2
$\frac{3}{4}$	1	0	5	2	4	0	6
1	1	1	22	3	6	0	8
$1\frac{1}{4}$	2	1	10				

SIZES of PIPES for WATER.

The table below gives approximately suitable diameters of pipes for passing different quantities of water. For short mains up to 200 yards long, the diameter of same, if smaller than the figures given, is not of much importance, but when they exceed 200 yds. in length the diameters given in this table are desirable.

Gallons per Minute.	Diameter of pipe in in.	Gallons per minute.	Diameter of pipe in in.
$\frac{1}{2}$	$\frac{1}{2}$	60	4
$\frac{3}{4}$	$\frac{3}{4}$	100	5
$1\frac{1}{2}$	1	160	6
3	$1\frac{1}{4}$	220	7
5	$1\frac{1}{2}$	300	8
10	2	450	9
15	$2\frac{1}{2}$	500	10
20	3	800	12
40	$3\frac{1}{2}$	1,000	14

ACETYLENE PIPE SERVICE

Number of half-foot Burners or equivalent of of other sizes, to burn at $2\frac{1}{2}$ inches or higher pres- sure at the burners.	Distance from Generat- ing apparatus if a main pipe, or distance from main pipe if a branch.	Sizes of Pipes.
2	15 feet	$\frac{1}{8}$ inch
5	30 "	$\frac{1}{4}$ "
10	40 "	$\frac{3}{8}$ "
20	50 "	$\frac{1}{2}$ "
50	100 "	$\frac{3}{4}$ "
70	130 "	1 "
100	150 "	$1\frac{1}{4}$ "
150	180 "	$1\frac{1}{2}$ "
270	250 "	2 "

Consumers of Galvanized Iron are respectfully requested to note that every sheet of LYSAGHT'S "ORB" IRON has the Trade Mark stencilled thereon in blue, and is guaranteed. Beware of Imitations.

Discount

Per cent.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
cent.	0	3	0	6	1	0	2	0	3	0	4	0	5	0	6	0	7	0
5	—	—	—	—	0	0 $\frac{1}{2}$	0	1	0	2	0	2 $\frac{1}{2}$	0	3	0	3 $\frac{1}{2}$	0	4
7 $\frac{1}{2}$	—	—	0	0 $\frac{1}{2}$	0	1	0	0	0	2 $\frac{1}{2}$	0	3 $\frac{1}{2}$	0	4	0	4 $\frac{1}{2}$	0	5
10	0	0 $\frac{1}{2}$	0	0 $\frac{1}{2}$	0	1	0	2	0	3	0	4	0	5	0	6	0	7
12 $\frac{1}{2}$	0	0 $\frac{1}{2}$	0	0 $\frac{1}{2}$	0	1	0	2	0	3	0	4	0	5	0	6	0	7
15	0	0 $\frac{1}{2}$	0	0	1	0	2	0	3	0	4	0	5	0	6	0	7	0
17 $\frac{1}{2}$	0	0 $\frac{1}{2}$	0	0	1	0	2	0	3	0	4	0	5	0	6	0	7	0
20	0	0 $\frac{1}{2}$	0	0	1	0	2	0	3	0	4	0	5	0	6	0	7	0
22 $\frac{1}{2}$	0	0 $\frac{1}{2}$	0	0	1	0	2	0	3	0	4	0	5	0	6	0	7	0
25	0	0 $\frac{1}{2}$	0	0	1	0	2	0	3	0	4	0	5	0	6	0	7	0
27 $\frac{1}{2}$	0	1	0	0	1	0	2	0	3	0	4	0	5	0	6	0	7	0
30	0	1	0	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0
32 $\frac{1}{2}$	0	1	0	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0
35	0	1	0	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0
37 $\frac{1}{2}$	0	1	0	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0
40	0	1	0	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0
42 $\frac{1}{2}$	0	1	0	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0
45	0	1	0	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0
47 $\frac{1}{2}$	0	1	0	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0
50	0	1	0	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0
52 $\frac{1}{2}$	0	1	0	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0
55	0	1	0	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0
57 $\frac{1}{2}$	0	1	0	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0
60	0	2	0	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0
62 $\frac{1}{2}$	0	2	0	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0
65	0	2	0	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0
67 $\frac{1}{2}$	0	2	0	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0
70	0	2	0	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0
72 $\frac{1}{2}$	0	2	0	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0
75	0	2	0	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0
77 $\frac{1}{2}$	0	2	0	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0
80	0	2	0	0	3	0	4	0	5	0	6	0	7	0	8	0	9	0

Table.

s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
11	0	12	0	13	0	14	0	15	0	16	0	17	0	18	0	19	0
0	6 $\frac{1}{2}$	0	7	0	8	0	8 $\frac{1}{2}$	0	9	0	9 $\frac{1}{2}$	0	10	0	11	0	11 $\frac{1}{2}$
0	10	0	11	0	11 $\frac{1}{2}$	0	11 $\frac{1}{2}$	0	11 $\frac{1}{2}$	0	11 $\frac{1}{2}$	0	11 $\frac{1}{2}$	0	11 $\frac{1}{2}$	0	11 $\frac{1}{2}$
1	1	1	2 $\frac{1}{2}$	1	3 $\frac{1}{2}$	1	3 $\frac{1}{2}$	1	4	1	4 $\frac{1}{2}$	1	5	1	5 $\frac{1}{2}$	1	6
1	4 $\frac{1}{2}$	1	6	1	7 $\frac{1}{2}$	1	9	1	10 $\frac{1}{2}$	1	10 $\frac{1}{2}$	1	11	1	11 $\frac{1}{2}$	1	12
1	8	1	9 $\frac{1}{2}$	1	11 $\frac{1}{2}$	1	11 $\frac{1}{2}$	1	12	1	12	1	12	1	12	1	12
1	11	2	1	2	3 $\frac{1}{2}$	2	5 $\frac{1}{2}$	2	7 $\frac{1}{2}$	2	9 $\frac{1}{2}$	2	11 $\frac{1}{2}$	2	13 $\frac{1}{2}$	2	15 $\frac{1}{2}$
2	2 $\frac{1}{2}$	2	5	2	7	2	9 $\frac{1}{2}$	3	0	3	2 $\frac{1}{2}$	3	5	3	7	3	9 $\frac{1}{2}$
2	5 $\frac{1}{2}$	2	8 $\frac{1}{2}$	2	11	3	2	3	4 $\frac{1}{2}$	3	7	3	10	4	0 $\frac{1}{2}$	4	3 $\frac{1}{2}$
2	9	3	0	3	3	3	6	3	9	4	0	4	3	4	6	4	9
3	0 $\frac{1}{2}$	3	3 $\frac{1}{2}$	3	7	3	0	4	1 $\frac{1}{2}$	4	5	4	8	4	11 $\frac{1}{2}$	5	2 $\frac{1}{2}$
3	3 $\frac{1}{2}$	3	7	3	11	4	2 $\frac{1}{2}$	4	6	4	9 $\frac{1}{2}$	5	1	5	5	5	8 $\frac{1}{2}$
3	7	3	11	4	2 $\frac{1}{2}$	4	6 $\frac{1}{2}$	4	10 $\frac{1}{2}$	5	2 $\frac{1}{2}$	5	6 $\frac{1}{2}$	5	10	6	2
3	10	4	2 $\frac{1}{2}$	4	6 $\frac{1}{2}$	4	11	5	3	5	7	5	11 $\frac{1}{2}$	6	3 $\frac{1}{2}$	6	8
4	1 $\frac{1}{2}$	4	6	4	10 $\frac{1}{2}$	5	3	5	7 $\frac{1}{2}$	6	0	6	4 $\frac{1}{2}$	6	9	7	1 $\frac{1}{2}$
4	5	4	9 $\frac{1}{2}$	5	2 $\frac{1}{2}$	5	7	6	0	6	5	6	9 $\frac{1}{2}$	7	2 $\frac{1}{2}$	7	7
4	8	5	1	5	6 $\frac{1}{2}$	5	11 $\frac{1}{2}$	6	4 $\frac{1}{2}$	6	9 $\frac{1}{2}$	7	2 $\frac{1}{2}$	7	8	8	1
4	11 $\frac{1}{2}$	5	5	5	10	6	3 $\frac{1}{2}$	6	9	7	2 $\frac{1}{2}$	7	8	8	1	8	6 $\frac{1}{2}$
5	3	5	8 $\frac{1}{2}$	6	2	6	8	7	1 $\frac{1}{2}$	7	7	8	1	8	6 $\frac{1}{2}$	9	0
5	6	6	0	6	6	7	0	7	6	8	0	8	6	9	0	9	6
5	9	6	3 $\frac{1}{2}$	6	10	7	4	7	10 $\frac{1}{2}$	8	5	8	10 $\frac{1}{2}$	9	5 $\frac{1}{2}$	9	11 $\frac{1}{2}$
6	0 $\frac{1}{2}$	6	7	7	2	7	8 $\frac{1}{2}$	8	3	8	9 $\frac{1}{2}$	9	4	9	11	10	5 $\frac{1}{2}$
6	4	6	11	7	5 $\frac{1}{2}$	8	0 $\frac{1}{2}$	8	7 $\frac{1}{2}$	9	2 $\frac{1}{2}$	9	9 $\frac{1}{2}$	10	4	10	11
6	7	7	2 $\frac{1}{2}$	7	9 $\frac{1}{2}$	8	5	9	0	9	7	10	2 $\frac{1}{2}$	10	9 $\frac{1}{2}$	11	5
6	10 $\frac{1}{2}$	7	6	8	1 $\frac{1}{2}$	8	9	9	4 $\frac{1}{2}$	10	0	10	7 $\frac{1}{2}$	11	3	11	10 $\frac{1}{2}$
7	2	7	9 $\frac{1}{2}$	8	5 $\frac{1}{2}$	9	1	9	9	10	5	11	0 $\frac{1}{2}$	11	8 $\frac{1}{2}$	12	4
7	5	8	1	8	9 $\frac{1}{2}$	9	5 $\frac{1}{2}$	10	1 $\frac{1}{2}$	10	9 $\frac{1}{2}$	11	5 $\frac{1}{2}$	12	1 $\frac{1}{2}$	12	10
7	8 $\frac{1}{2}$	8	5	9	1	9	9 $\frac{1}{2}$	10	6	11	2 $\frac{1}{2}$	11	11	12	7	13	3 $\frac{1}{2}$
7	11 $\frac{1}{2}$	8	8 $\frac{1}{2}$	9	5	10	2	10	10 $\frac{1}{2}$	11	7	12	4	13	0 $\frac{1}{2}$	13	9 $\frac{1}{2}$
8	3	9	0	9	9	10	6	11	3	12	0	12	9	13	6	14	3
8	6	9	3 $\frac{1}{2}$	10	1	10	10	11	7 $\frac{1}{2}$	12	5	13	2	13	11 $\frac{1}{2}$	14	8 $\frac{1}{2}$
8	9 $\frac{1}{2}$	9	7	10	5	11	2 $\frac{1}{2}$	12	0	12	9 $\frac{1}{2}$	13	7	14	5	15	2 $\frac{1}{2}$

ALL ROUND THE WORLD you will find

Iron, Copper & Brass Wires.

IRON.				100 FEET.	
S.W.G. No.	Weight of 100 yards in Avoir. lbs.	Weight of 1 Statute Mile in Avoir. lbs.	Length of 1 cwt. in Yards.	Copper Wire in Lbs.	Brass Wire in Lbs.
7/0	193.4	3,404	58	76.576	72.006
6/0	166.5	2,930	67	65.947	62.010
5/0	144.4	2,541	78	57.104	53.752
4/0	123.8	2,179	91	49.009	46.083
3/0	107.1	1,885	105	42.388	39.858
2/0	93.7	1,649	120	37.095	34.88
0	81.2	1,429	138	32.155	30.235
1	69.6	1,225	161	27.5445	25.922
2	58.9	1,037	190	23.333	21.940
3	49.1	864	228	19.451	18.290
4	41.6	732	269	16.486	15.502
5	34.8	612	322	13.768	12.940
6	28.5	502	393	11.792	10.617
7	24.0	422	467	9.4882	8.921
8	19.8	348	566	7.8414	7.373
9	16.0	282	700	6.3516	5.972
10	12.7	223	882	5.0185	4.7189
11	10.4	183	1,077	4.1217	3.8756
12	8.4	148	1,333	3.313	3.1153
13	6.5	114	1,723	2.5926	2.4378
14	5.0	88	2,240	1.9603	1.8433
15	4.0	70	2,800	1.5879	1.4931
16	3.2	56	3,500	1.2546	1.1767
17	2.4	42	4,667	0.96058	0.9324
18	1.8	32	6,222	0.70573	0.6636
19	1.2	21	9,333	0.49000	0.46083
20	1.0	18	11,200	0.39698	0.37328
21	0.795	13.9	14,199	0.21366	0.29493
22	0.609	10.7	18,418	0.24014	0.22529
23	0.448	7.8	25,070	0.17643	0.1659
24	0.376	6.6	29,835	0.14826	0.1394
25	0.311	5.4	36,100	0.12252	0.1152
26	0.252	4.4	44,568	0.099243	0.093318

LYSAGHT'S "ORB" Galvanized Iron

Weight of a Cubic Inch of

Lead	equals	.4103 lbs	Iron, cast	equals	.263 lbs.
Copper, sheet	„	.3225 „	Tin	„	.2636 „
Brass	„	.3037 „	Zinc	„	.26 „
Iron	„	.279 „	Water	„	.03617 „

Steel Wire.

Table showing quantity required per mile of fencing

Gauge.	Length per cwt	WEIGHT REQUIRED PER MILE.														
		1 Wire			2 Wires			3 Wires			4 Wires			5 Wires		
No.	YDS.	C.	Q.	L.	C.	Q.	L.	C.	Q.	L.	C.	Q.	L.	C.	Q.	L.
4	269	6	2	4	13	0	8	19	2	12	26	0	16	32	2	20
5	322	5	1	24	10	3	20	16	1	16	21	3	12	27	1	12
6	393	4	1	26	8	3	24	13	1	22	17	3	20	22	1	18
7	467	3	3	2	7	2	4	11	1	6	15	0	8	18	3	10
8	566	3	0	12	6	0	24	9	1	8	12	1	20	15	2	4
9	700	2	2	2	5	0	4	7	2	6	10	0	8	12	2	10
10	882	1	3	27	3	3	26	5	3	25	7	3	24	9	3	23
11	1077	1	2	15	3	1	2	4	3	17	6	2	4	8	0	19
12	1333	1	1	8	2	2	16	3	3	24	5	1	4	6	2	12

Iron Wire is 2 % less than Steel

Galvanized Barbed Wire Fencing

DESCRIPTION.	WEIGHT.		Length of 112 lbs.
	100 yards	1 Mile	
	LBS.	LBS.	YARDS.
2 point ordinary round, one wire only, 5 in. apart ...	19	335	598
2-point thick set, 2½ in. apart	21	370	533
4-point ordinary, 6 in. apart ...	20	352	560
4-point thick set, 3 in. apart ...	25	440	448
4-point ordinary round, both wires 6 in. apart ...	20	352	560
4-point thick set, round, both wires 3 in. apart ...	25	440	448

"ORB" IRON more than

The Galvanized Hexagon Wire-Netting List.

New Table of Prices for all Widths, per Roll of 50 Yards,

AS FROM JULY 1ST, 1906.

Mesh	Gauge	12 in. wide	18 in. wide	24 in. wide	30 in. wide	36 in. wide	42 in. wide	48 in. wide	60 in. wide	72 in. wide	Gauge	Mesh
$\frac{1}{2}$ in.	22	0 14 6	1 0 11	1 7 2	1 13 2	1 19 9	2 6 5	2 13 0	3 6 4	3 19 6	22	$\frac{1}{2}$ in.
"	20	0 17 7	1 5 3	1 12 10	2 0 0	2 8 0	2 16 0	3 4 0	4 0 0	4 16 0	20	"
"	19	1 3 6	1 13 7	2 3 9	2 13 4	3 4 0	3 14 8	4 5 4	5 6 8	6 8 0	19	"
g in.	22	0 11 0	0 15 9	1 0 6	1 5 0	1 10 0	1 15 0	2 0 0	2 10 0	—	22	g in.
"	20	0 13 8	0 19 7	1 5 4	1 11 0	1 17 2	2 3 4	2 9 6	3 2 0	—	20	"
"	19	0 18 9	1 6 9	1 14 10	2 2 6	2 11 0	2 19 6	3 8 0	4 5 0	—	19	"
$\frac{3}{4}$ in.	20	0 9 3	0 13 2	0 16 10	1 0 6	1 4 0	1 8 0	1 12 0	2 0 0	0	25	$\frac{3}{4}$ in.
"	19	0 11 10	0 17 0	1 1 6	1 6 4	1 10 9	1 15 11	2 1 0	2 11 4	2 8 1	19	"
"	18	0 16 1	1 3 1	1 9 5	1 15 10	2 2 0	2 9 0	2 16 0	3 10 0	4 4 0	18	"
1 in.	20	0 7 5	0 10 7	0 13 5	0 16 5	0 19 2	1 2 4	1 5 6	1 11 11	1 18 4	20	1 in.
"	19	0 8 10	0 12 8	0 16 1	0 19 8	1 3 0	1 6 10	1 10 8	1 18 4	2 6 0	19	"
"	18	0 10 9	0 15 5	0 19 7	1 3 11	1 8 0	1 12 8	1 17 4	2 6 8	2 16 0	18	"
"	17	0 14 5	1 0 8	1 6 3	1 12 0	1 17 6	2 3 9	2 10 0	3 2 6	3 15 0	17	"
$1\frac{1}{4}$ in.	19	0 7 1	0 10 2	0 12 11	0 15 7	0 18 0	1 1 0	1 4 0	1 10 0	1 16 0	19	$1\frac{1}{4}$ in.
"	18	0 8 8	0 12 5	0 15 9	0 19 1	0 22 0	1 5 8	1 9 4	1 16 8	2 4 0	18	"
"	17	0 11 4	0 16 4	1 0 9	1 5 1	1 9 0	1 13 10	1 18 8	2 8 4	2 18 0	17	"
"	16	0 15 3	1 1 11	1 8 0	1 13 9	1 19 0	2 5 6	2 12 0	3 5 0	3 18 0	16	"

fifty years in use, and still the Best.

The Galvanized Hexagon Wire=Netting List—Continued.

Mesh.	Gauge	12 in. wide	18 in. wide	24 in. wide	30 in. wide	36 in. wide	42 in. wide	48 in. wide	60 in. wide	72 in. wide	Gauge	Mesh.
1½ in.	19	0 5 7	0 8 1	0 10 3	0 12 4	0 14 3	0 16 8	0 19 0	1 3 9	1 8 6	19	1½ in.
"	18	0 7 1	0 10 2	0 12 11	0 15 7	0 18 0	1 1 0	1 4 0	1 10 0	1 16 0	18	"
"	17	0 9 3	0 13 3	0 16 10	1 0 4	1 3 6	1 1 7	1 11 4	1 19 2	2 7 0	17	"
18 in.	16	0 11 9	0 16 11	1 1 6	1 5 11	1 10 0	1 15 0	2 0 0	2 10 0	3 0 0	16	"
"	19	0 5 2	0 7 5	0 9 5	0 11 5	0 13 2	0 15 4	0 17 6	1 1 11	1 6 4	19	18 in.
"	18	0 6 4	0 9 1	0 11 7	0 14 0	0 16 2	0 18 10	1 1 6	1 6 11	1 12 4	18	"
"	17	0 8 3	0 11 10	0 15 1	0 18 2	1 1 0	1 4 6	1 8 0	1 15 0	2 2 0	17	"
"	16	0 10 4	0 14 10	0 18 10	1 2 9	1 6 3	1 10 8	1 15 0	2 3 9	2 12 6	16	"
2 in.	19	0 4 5	0 6 4	0 8 1	0 9 8	0 11 0	0 12 10	0 14 8	0 18 4	1 2 0	19	2 in.
"	18	0 5 7	0 8 1	0 10 3	0 12 3	0 14 0	0 16 4	0 18 8	1 3 4	1 8 0	18	"
"	17	0 7 3	0 10 5	0 13 3	0 15 9	0 18 0	1 1 0	1 4 0	1 10 0	1 16 0	17	"
"	16	0 9 5	0 13 6	0 17 3	1 0 7	1 3 6	1 7 5	1 11 4	1 19 2	2 7 0	16	"
"	15	0 11 10	0 17 0	1 1 8	1 5 10	1 9 6	1 14 5	1 19 4	2 9 2	3 16 0	15	"
"	14	0 15 3	1 1 10	1 7 11	1 13 3	1 18 0	2 4 4	2 10 8	3 8 4	4 16 0	14	"
2½ in.	19	0 4 4	0 6 3	0 7 11	0 9 6	0 10 9	0 12 7	0 14 4	0 17 11	1 1 6	19	2½ in.
"	18	0 5 2	0 7 6	0 9 6	0 11 5	0 13 0	0 15 2	0 17 4	1 1 8	1 6 0	18	"
"	17	0 6 7	0 9 6	0 12 1	0 14 5	0 16 6	0 19 3	1 2 0	1 7 6	1 13 0	17	"
"	16	0 8 5	0 12 1	0 15 5	0 18 5	1 1 0	1 4 6	1 8 0	1 15 0	2 2 0	16	"
"	15	0 10 5	0 15 0	0 19 1	1 2 9	1 6 0	1 10 4	1 14 8	2 3 4	3 12 0	15	3 in.
3 in.	19	0 3 6	0 5 0	0 6 4	0 7 7	0 8 8	0 10 1	0 11 6	0 14 5	0 17 4	19	3 in.
"	18	0 4 1	0 5 10	0 7 5	0 8 11	0 10 2	0 11 10	0 13 6	0 16 11	1 0 4	18	"
"	17	0 5 3	0 7 7	0 9 8	0 11 7	0 13 2	0 15 4	0 17 6	1 1 11	1 13 0	17	"
"	16	0 6 8	0 9 6	0 12 1	0 14 5	0 16 6	0 19 3	1 2 0	1 7 6	1 18 0	16	"
"	15	0 8 6	0 11 10	0 15 0	0 18 11	0 21 1	0 24 1	0 27 1	0 30 1	0 33 1	15	4 in.
4 in.	18	0 3 6	0 5 0	0 6 4	0 7 7	0 8 8	0 10 1	0 11 6	0 14 5	0 17 3	18	4 in.
"	17	0 4 1	0 5 10	0 7 5	0 8 11	0 10 2	0 11 10	0 13 6	0 16 11	1 0 4	17	"
"	16	0 5 3	0 7 7	0 9 8	0 11 7	0 13 2	0 15 4	0 17 6	1 1 11	1 18 0	16	"
"	15	0 6 8	0 9 6	0 12 1	0 14 5	0 16 6	0 19 3	1 2 0	1 7 6	1 19 0	15	"
"	14	0 8 6	0 11 10	0 15 0	0 18 11	0 21 1	0 24 1	0 27 1	0 30 1	0 33 1	14	"

The "ORB" Brand on a Sheet of

Wire Netting.

Estimated weight per Mile, 24 inches wide.

(Other widths may be estimated *pro rata*.)

The above is not to be regarded as a Standard, but is merely an approximate guide.

Size.	Weight.	Size.	Weight.
Inches.	cwt. qr. lbs.	Inches.	cwt. qr. lbs.
24 x $\frac{1}{2}$ x 20	18 0 26	24 x 2 x 19	6 1 21
24 x $\frac{3}{4}$ x 19	16 3 25	„ x 2 x 18	8 1 12
„ x $\frac{3}{4}$ x 20	12 2 12	„ x 2 x 17	12 0 14
24 x 1 x 19	12 2 8	„ x 2 x 16	14 0 25
„ x 1 x 20	9 3 17	24 x $2\frac{1}{2}$ x 18	6 3 8
24 x $1\frac{1}{4}$ x 19	9 3 8	„ x $2\frac{1}{2}$ x 17	9 3 17
„ x $1\frac{1}{4}$ x 18	12 0 10	„ x $2\frac{1}{2}$ x 16	11 2 15
„ x $1\frac{1}{4}$ x 17	16 2 19	24 x 3 x 18	5 1 8
24 x $1\frac{1}{2}$ x 19	8 2 14	„ x 3 x 17	7 2 16
„ x $1\frac{1}{2}$ x 18	11 1 1	„ x 3 x 16	9 2 18
„ x $1\frac{1}{2}$ x 17	14 1 10	„ x 3 x 15	13 0 14
24 x $1\frac{5}{8}$ x 19	7 0 17	„ x 3 x 14	15 0 12
„ x $1\frac{5}{8}$ x 18	8 2 7	24 x 4 x 16	7 2 22
„ x $1\frac{5}{8}$ x 17	13 1 6	„ x 4 x 15	9 2 6
		„ x 4 x 14	11 0 26

Birmingham Wire Gauge.

Comparative Sizes.

No.	1	4	7	11	16	22	gauges==
	$\frac{5}{16}$	$\frac{1}{4}$	$\frac{3}{16}$	$\frac{1}{8}$	$\frac{1}{16}$	$\frac{1}{32}$	of an inch.

Galvanized Iron Stands for Perfection.

Relative Value based on Mile Measurements.

Per Mile.	Per 100 Yards.
£40 0 0	£2 5 5
39 0 0	2 4 4
38 0 0	2 3 2
37 0 0	2 2 1
36 0 0	2 0 11
35 0 0	1 19 9
34 0 0	1 18 8
33 0 0	1 17 6
32 0 0	1 16 4
31 0 0	1 15 3
30 0 0	1 14 1
29 0 0	1 12 11
28 0 0	1 11 10
27 0 0	1 10 8
26 0 0	1 9 7
25 0 0	1 8 5
24 0 0	1 7 3
23 0 0	1 6 2
22 0 0	1 5 0
21 0 0	1 3 10
20 0 0	1 2 9
19 0 0	1 1 7
18 0 0	1 0 5
17 0 0	0 19 4
16 0 0	0 18 2
15 0 0	0 17 1
14 0 0	0 15 11
13 0 0	0 14 9
12 0 0	0 13 8
11 0 0	0 12 6
10 0 0	0 11 4
9 0 0	0 10 3
8 0 0	0 9 1
7 0 0	0 7 11
6 0 0	0 6 10
5 0 0	0 5 8

LYSAGHT'S "ORB" brand GALVANIZED IRON has an

Tanks—Square Black Iron.

100 gallon measure	...	2ft. 8in. square
200	" "	3ft. 3in. "
300	" "	3ft. 8in. "
400	" "	4ft. 0in. "

Tanks—Corrugated Iron.

(CIRCULAR)
Reputed Capacity.

— Diameter.	Height of Tank.				
	4 feet.	5 feet.	6 feet.	7 feet.	8 feet.
	gallons	gallons	gallons	gallons	gallons
3 feet 3 inches	200	250	300	...	...
3 " 6 "	240	300	360	...	...
3 " 9 "	280	350	420	...	...
4 " 0 "	310	390	470	...	...
4 " 4 "	...	...	540	...	...
4 " 6 "	...	...	590	...	...
5 " 0 "	...	...	720	840	960
6 " 0 "	...	...	1050	...	...

Tank Makers should specify LYSAGHT'S "ORB" Brand Corrugated Iron—It will stand any and every possible test in curving or otherwise, being almost as tough as copper. It is obtainable up to 12 feet in length.

established reputation of more than half a century

TANKS—and Useful Information Concerning Them.

A GOOD TANK—It is highly necessary that a **Corrugated Iron Tank** should possess lasting properties, and adaptability to withstand the climatic conditions of the locality in which it is to be used.

Thousands of Tanks are made every year from **Lysaght's Corrugated "Orb" Sheets**, the durable properties of which, in a pure dry atmosphere remote from the sea, are almost unlimited.

In tropical and semi-tropical climates, however, more particularly in coastal districts, owing to the atmosphere becoming impregnated with saline particles which are deposited on the roof of a building or other catchment area, conditions are introduced by which the life of a tank is likely to be materially shortened.

To provide for this eventuality, **Messrs. John Lysaght Limited, of Bristol**, have introduced a **SPECIAL TANK-MAKING SHEET**, at a slight additional cost, which is being used in India and other tropical countries with highly satisfactory results.

Tank-makers in such localities are strongly recommended to use these Sheets.

Square or Rectangular—Multiply the length by the breadth, and the product by the depth; the result multiplied by $6\frac{1}{4}$ (6.2321) will give the base and contents in gallons.

Circular.—Multiply the diameter into itself and deduct one-fifth from the product, then multiply the remainder by the depth, and the result by $6\frac{1}{4}$ (6.2321) will give the contents in gallons.

Water.—A cube foot of water contains nearly $6\frac{1}{4}$ gallons (6.2321) and weighs a fraction over 62 lbs. (62.5)

Coil Chain.

WEIGHT AND STRENGTH.

Nominal Diameter.	Weight per 100 feet	English Proof Test.	Best B B B Crane Chain.
	English.		
$\frac{3}{16}$	Lbs, 41½	Lbs. 898	Lbs. 900
$\frac{1}{4}$	83	1680	1500
$\frac{5}{16}$	116½	2621	3200
$\frac{3}{8}$	158	3795	4425
$\frac{7}{16}$	217	5152	6100
$\frac{1}{2}$	271	6726	7850
$\frac{9}{16}$	350	8512	9870
$\frac{5}{8}$	433	10505	12150
$\frac{11}{16}$	535	12700	14550
$\frac{3}{4}$	633	15120	17475
$\frac{7}{8}$	817	20585	23780
1	1083	26886	31200
1½	1267	34003	37300
1¾	1500	41000	46175
1¾	1800	50803	55660
1½	2083	60480	66400

century. It still holds the foremost place.

Wire Ropes—Weights and Strength.

Circumference.	Diameter.	Weight in lbs. per fathom.				Breaking strain in gross tons.					Circumference.
		Patent Steel Hoisting Ropes.	B. B. Wire Rigging.	Flexible Hawseers.	Patent Cast Steel.	Plough Cast Steel.	Galv'd. R. B. Rigging.	Galv'd. C. S. Hauser.			
6"	1 7/8"	34 3/4	32	30	115	170	55	88	6"		
5 1/2"	1 1/2"	29	26	26	95	142	42	74	5 1/2"		
5"	1 1/4"	24	22	21	80	120	34	59	5"		
4 3/4"	1 1/4"	21 1/2	20	17	71	107	32	47	4 3/4"		
4 1/2"	1 1/4"	17 1/2	16	12 1/2	57	85	26	36	4 1/2"		
4"	1 1/4"	15 1/2	14	11	51	75	22	33	4"		
3 3/4"	1 1/4"	12	11	8	39	58	16	26	3 3/4"		
3 1/2"	1 1/4"	8 1/2	8	6	28	42	11	18	3 1/2"		
3"	1 1/4"	7	7	5	24	36	8.55	15 1/2	3"		
2 3/4"	1 1/4"	6	6	4	20	29	7.4	12	2 3/4"		
2 1/2"	1 1/4"	5	5	3	15 1/2	23	6.35	9 1/2	2 1/2"		
2 1/4"	1 1/4"	4	4	2 1/2	12 1/2	18 1/2	4.3	7	2 1/4"		
2"	1 1/4"	3	3	2	9 1/2	14 1/2	3.25	5 1/2	2"		
1 3/4"	1 1/4"	2	2	1 1/2	7	10 1/2	2.25	3	1 3/4"		
1 1/2"	1 1/4"	1 1/2	1 1/2	1 1/4	4 1/2	7	1.75	1 1/2	1 1/2"		
1 1/4"	1 1/4"	1	1	1	3	4 1/2	1	1 1/4	1 1/4"		
1"	1 1/4"	1	1	1	3	4 1/2	1	1 1/4	1"		

"ORB IRON"—Owing to its extreme rigidity

MANILLA ROPE.

Approximate Weight for given Lengths :

Coils of 800 Feet.

Size in.	Weight. cwt. qrs. lbs.	Size in.	Weight. cwt. qrs. lbs.	Size in.	Weight. cwt. qrs. lbs.
$\frac{1}{2}$	0 0 14	$1\frac{1}{4}$	0 1 20	$2\frac{1}{4}$	1 1 0
$\frac{3}{4}$	0 0 18	$1\frac{1}{2}$	0 2 10	$2\frac{1}{2}$	1 1 22
1	0 1 0	$1\frac{3}{4}$	0 2 21	$2\frac{3}{4}$	1 2 20
$1\frac{1}{8}$	0 1 7	2	1 0 5	3	2 0 12

Coils of 100 Feet

Size in.	Weight. cwt. qrs. lbs.	Size in.	Weight cwt. qrs. lbs.	Size in.	Weight cwt. qrs. lbs.
$3\frac{1}{2}$	0 1 16	5	0 3 4	6	1 0 14
4	0 2 0	$5\frac{1}{2}$	0 3 22	$6\frac{1}{2}$	1 1 8
$4\frac{1}{2}$	0 2 14				

Pipe, Spouting and Ridging

Trade Price List as at January 1st, 1908

PIPE.

$1\frac{1}{2}$ in.	2in.	$2\frac{1}{2}$ in.	3in.	$3\frac{1}{2}$ in.	4in.
$1/4$	$1/7$	$1/9\frac{1}{2}$	$2/1$	$2/4\frac{1}{2}$	$2/7\frac{1}{2}$ per 6 ft. lgth.

O. G. SPOUTING.

3in.	$3\frac{1}{2}$ in.	4in.	$4\frac{1}{2}$ in.	5in.	6in.
$1/7\frac{1}{2}$	$1/9$	$1/11$	$2/1\frac{1}{2}$	$2/3\frac{1}{2}$	$2/7\frac{1}{2}$ per 6 ft. lgth.

HALF ROUND SPOUTING.

3in.	4in.	5in.	6in.
$1/6$	$1/9$	$1/11$	$2/3\frac{1}{2}$ per 6 ft. length

RIDGING.

12in.	14in.	15in.	16in.	18in.
$2/3\frac{1}{2}$	$2/7\frac{1}{2}$	$2-9\frac{1}{2}$	$2/11\frac{1}{2}$	$3/4$ per 6 ft length

and even quality, is a perfect roofing sheet

Ridging, &c. (Continued)—per Six Lengths

	12"	14"	16"	18"	
RIDGING WEIGHS	23	28	33	35	lbs.
	3½"	4"	4½"	5"	6"
SPOUTING "	18	19	23	24	29 lbs.
	2"	2½"	3"	4"	
DOWN PIPE	13	17	20	28	lbs.

BRICKS, about 800, 2 bags lime, and one load of **SAND**, are required for an ordinary **COTTAGE CHIMNEY**, and 1,500 bricks 3½ bags of lime, and 1½ loads sand to a double chimney.

About 1000 bricks, on an average, go to 3½ tons weight.

LATH and PLASTER—100 square yards requires 4 bags lime, 3 yds sand, 16 bundles 4 ft. 6 in. American Laths, 8 lbs. 1¼ in. nails, and ½ bag hair.

COLONIAL LATHS—A bundle 4 ft. 6 in. weighs about 36 lbs, and covers 5 square yards.

AMERICAN LATHS—A bundle 4 ft. 6 in. weighs about 56 lbs, and covers 6½ square yards.

OIL, per 5 gallon drum, weighs about 56 lbs.

CEMENT, per barrel weighs about 3¾ cwt.

PLASTER OF PARIS, per barrel weighs about 2¾ cwt.

COVERING CAPACITY PER SQUARE OF CORRUGATED IRON

One Ton of Galv. Corrugated Iron has an approximate covering capacity as follows :

	Sq. Feet.	Squares 10 by 10 ft
26 g. Single Lap. about	2200	Or 22 Squares
Lap and Half "	2000	,, 20 ,,
Double Lap "	1900	,, 19 ,,
24 g. Single Lap. about	1600	Or 16 Squares
Double Lap "	1400	,, 14 ,,

To ascertain the cost per Square, divide price per ton by the respective number of Squares.

Spring Head Nails.

One packet (100 Nails) is usually allowed to one square of Roofing

"ORB" IRON"—You know it at once by its

Timber, Etc.

Deals	as 9 x 3	No. of running feet to ton (20 cwt.)	350
Flooring	6 x 1 $\frac{1}{8}$	" " " "	1557
"	6 x 1	" " " "	1750
"	6 x $\frac{7}{8}$	" " " "	2000
"	6 x $\frac{3}{4}$	" " " "	2330
Matchboards	6 x $\frac{5}{8}$	" " " "	2800
"	6 x $\frac{1}{2}$	" " " "	3400
"	6 x $\frac{3}{8}$	" " " "	4800
Weatherboards, single	"	" " " "	3100
Oregon	No. of Super feet	" " " "	790
V.D.L. Hardwood	"	" " " "	450
Jarrah	"	" " " "	400
Iron Bark	"	" " " "	310
Black Butt	"	" " " "	333
Shelving (American)	12 x $\frac{7}{8}$	" " " "	1050
6 feet Tasmanian Palings (Hobart)	No. to	" " " "	650
5 "	" " " "	" " " "	800
6 "	" " (Launceston)	" " " "	400
5 "	" " " "	" " " "	500
Spruce Deals	as 9 x 3	No. of running feet to	400
Kauri	No. of super feet to	" " " "	600
Cedar	" " " "	" " " "	600
Clear Pine	" " " "	" " " "	900
Doors	6 ft. 8 ins. x 2 ft. 8 ins. x 1 $\frac{1}{2}$ in.	No. to ton	55
"	6 ft. 8 ins. x 2 ft. 8 ins. x 1 $\frac{1}{4}$ in.	"	70
"	6 ft. 6 ins. x 2 ft. 6 ins. x 1 $\frac{1}{2}$ in.	"	58
"	6 ft. 6 in. x 2 ft. 6 in. x 1 $\frac{1}{4}$ in.	"	75

Superficial Feet in a Board or Plank

is known by multiplying the length by the breadth. If the board be tapering, add the breadth of the two ends together, and take half their sum for the mean breadth and multiply the length by this mean breadth.

beautiful appearance. It's bright and it lasts

SLATES, Roofing (Approximate)

Description	Size	No. Required to Cover 100 feet super.			Weight per 1000
		Lap. 2 in.	3 in.	4 in.	
Duchess ...	24 x 12	115	120	126	2 10 0 0
Countess ...	20 x 10	168	178	189	1 10 1 14
Viscountess	18 x 10	189	202	216	1 10 0 0
Ladies ...	16 x 8	270	292	315	1 0 3 14

COVERING CAPACITY & WEIGHT OF FRENCH TILES.

127 Tiles cover 100 super feet of roof.

100 super feet of Tiling weight 635 lbs.

90 lineal feet of 2 in. x 1 in. battens to one square of roofing.

TABLE OF MEASUREMENTS FOR WALL PAPERS.

Approximate number of pieces of English Wall Paper required for any room, allowance to be made for doors and windows

Measurement in feet round walls.	Height of Room in ft. from Skirting to Cornice									
	6	7	8	9	10	11	12	13	14	15
	Number of Pieces Required.									
32	4	4	5	5	6	6	7	7	8	8
36	4	5	5	6	6	7	7	8	9	9
40	4	5	6	6	7	8	8	9	9	10
44	5	5	6	7	8	8	9	10	10	11
48	5	6	7	7	8	9	10	10	11	12
52	6	6	7	8	9	10	10	11	12	13
56	6	7	8	8	9	10	11	12	13	14
60	6	7	8	9	10	11	12	13	14	15
64	7	8	9	10	11	12	13	14	15	16
68	7	8	9	10	11	12	13	15	16	17
72	7	9	10	11	12	13	14	15	17	18
76	8	9	10	11	13	14	15	16	17	19
80	8	9	11	11	13	15	16	17	18	20
84	9	10	11	12	14	15	17	18	19	21
88	9	10	12	12	14	16	17	19	20	22
92	9	11	12	13	15	17	18	19	21	22
96	10	11	13	13	16	17	19	20	22	23
100	10	12	13	13	16	18	20	21	24	24

“ORB” IRON is unrivalled for

Hints for Reckoning.

TO FIND THE SUPERFICIAL MEASUREMENT OF TIMBER.

Multiply the breadth by the thickness in inches, divide by 12, then multiply product by the length.

TO FIND THE VALUE OF A GIVEN WEIGHT AT A GIVEN PRICE PER TON.

EXAMPLE.—Tons cwt. gr. lbs.

2 10 1 18 @ £5/10/- per ton.

Reckon the tons as pounds; cwt. as shillings; each gr. 3d. and for every 9 lbs. 1d., equals

£2 10 5 multiplied by the price
per ton = 5½ pounds sterling.

£12	12	1
1	5	2½

£13 17 3½ Answer.

TO FIND THE PREMIUM OR DISCOUNT OF ANY SUM.

EXAMPLE :—£24/10/6 @ 3½ %.

Multiply the sum named by double the rate per cent. and point off the product one to the right.

£24	10	6
Double 3½ =		7

£17·1 13 6 Answer 17 1/10th of a shilling say 17/2.

ANOTHER SIMPLE CALCULATION is to divide the discount rate by 5; and multiply the amount to be dealt with by the quotient; then by reading the pounds as shillings, and the shillings in equal proportion, the result will be the amount of discount or premium, as the case may require.

EXAMPLE :—£9 10 0 @ 40 %.

Divide 40 by 5 leaves 8; multiply

£9	10	0
by		8

£76 0 0 Answer 76 shillings.

MENSURATION.

Simple Rules.

The **Area** of a **circle** is about three-fourths of the area of a square, having a side equal to its diameter.

The **Circumference** of a circle is about three and one-seventh times its diameter.

The cubical contents of **cones** or **pyramids** are one-third that of cylinders or prisms, respectively, which have the same size base and are equal in height.

The **area** of the **curved surface** of a **cone** can be found found by multiplying the slope of the cone by the circumference of the base and dividing by two.

Drums or Pulleys.

Rules for Calculating the Speed.

The diameter of the driven being given, to find its number of revolutions :—

RULE: Multiply the diameter of the driver by its number of revolutions, and divide the product by the diameter of the driven ; the quotient will be the number of revolutions of the driven.

The diameter and revolutions of the driver being given, to find the diameter of the driven, that shall make any number of revolutions in the same time:

RULE: Multiply the diameter of the driver by its number of revolutions, and divide the product by the number of revolutions of the driven, the quotient will be its diameter.

To ascertain the size of the driver :

RULE: Multiply the diameter of the driven by the number of revolutions you wish it to make, and divide the product by the revolutions of the driver ; the quotient will be the size of the driver.

“ORB IRON” the universal standard of

Postal, Money Order and Telegraphic Information.

UNIFORM COMMONWEALTH

(As existing at July 1st, 1908.)

RATES OF POSTAGE.

“Interstate” also refers to New Zealand, Fiji, British New Guinea and New Hebrides.

“British Possessions” refers to Hong Kong (and British Agencies in China), Orange River Colony, Natal, India, Ceylon, Canada, Egypt Sudan, Transvaal, Southern Rhodesia, and Straits Settlement.

LETTERS—City and Suburban, $\frac{1}{2}$ oz., 1d; Country, $\frac{1}{2}$ oz. 2d.

(Victoria: City and Country, $\frac{1}{2}$ oz., 1d.)

(South Australia: Country and Interstate, $\frac{1}{2}$ oz., 2d.)

Interstate, $\frac{1}{2}$ oz. 2d.

United Kingdom and British Possessions, $\frac{1}{2}$ oz. 2d.

Foreign, $\frac{1}{2}$ oz. 2 $\frac{1}{2}$ d.

Registration Fee, per letter, 3d.

LETTER CARDS—Country and Interstate, each, 2d.

(N.S. W., 1 $\frac{1}{2}$ d.; United Kingdom, 2d.)

(Victoria: Country, 2 for 2 $\frac{1}{2}$ d.; Interstate, 2d.)

Foreign 2 $\frac{1}{2}$ d.

POST CARDS—City, Country, Interstate, United Kingdom, and British Possessions, 1d.; reply 2d.

Foreign, each, 1 $\frac{1}{2}$ d.; reply, 3d.

COMMERCIAL PAPERS—City, Country, and Interstate, 2 oz, 1d.

Foreign, 2 ozs., 3d.; each additional 2 ozs. up to 10ozs., $\frac{1}{2}$ d.; each additional 2oz., above that weight, 1d.

PRINTED CIRCULARS—City, Country, Interstate, and Foreign, 2ozs. 1d.

(New South Wales: City and Country, 2oz., $\frac{1}{2}$ d.)

(Victoria: City and Country, 2ozs. $\frac{1}{2}$ d.)

PACKETS AND SAMPLES—City, Country, Interstate, and Foreign, 2oz. 1d.

PRINTED PAPERS AND BOOKS—City and Country, 4oz. 1d.
Interstate, 4ozs. 1d.

(New South Wales: City and Country, 2ozs., $\frac{1}{2}$ d.)

(Tasmania: City and Country, 8oz., 1d.; each succeeding 4oz. $\frac{1}{2}$ d.; Interstate, 4ozs., 1d.)

British and Foreign, 2ozs. 1d.

NEWSPAPERS—From Publishers or Newsagents, 20ozs. 1d.

Other newspapers within the Commonwealth, 10ozs., or for each newspaper, $\frac{1}{2}$ d.

Foreign, 4ozs. or for each newspaper, 1d., each additional 2oz. $\frac{1}{2}$ d.

To New Zealand: Each newspaper not exceeding 10ozs., $\frac{1}{2}$ d.

Newspapers not printed in the Commonwealth: Magazine rates

value for corrugated sheets.

Postal and Telegraphic Information.

(Continued.)

MAGAZINES—Country and Interstate, 20zs., $\frac{1}{2}$ d.; up to 80zs., 1d.; additional 40zs., $\frac{1}{2}$ d.

Foreign, 20zs., 1d.

(South Australia—Inland, and to Victoria, New South Wales, Western Australia, Tasmania, and New Zealand only, not exceeding 80zs., 1d. each additional 40zs., $\frac{1}{2}$ d. To Queensland and British New Guinea, 40zs. 1d.)

(Victoria—To Queensland, for every 40zs., 1d.)

(Queensland—City, Country, and Interstate, 40zs., 1d.)

(Tasmania—As "Printed Papers.")

PARCEL POST—Inland, up to 11b. 6d. and for each additional 11b. 3d. Interstate (except New Hebrides) and New Zealand, 11b., 8d., and for each additional 11b., 6d.

United Kingdom, by sea, 11b. 1s., and for each additional 11b. 6d.

United States, 11b., 1s., and for each additional 11b. 6d.

From U.S.A. to Australia—6d. per lb. to be paid by the sender, and 3d. per lb. by the receiver.

Fees—Fee for registration, each article, 3d. Acknowledgment of delivery of a registered article, $2\frac{1}{2}$ d. Inquiry respecting delivery of a postal article, $2\frac{1}{2}$ d. Certificate of posting a parcel—Addressed to places in the Commonwealth, free; to beyond the Commonwealth, 3d. Acknowledgment of delivery of a parcel within the Commonwealth, 2d.

MONEY ORDERS.

Commonwealth, £5, 6d. £10, 1s. £15, 1s. 6d. £20 2s.

New Zealand and Fiji, £2, 6d. £5, 1s. £7, 1s. 6d. £10, 2s. £12, 2s. 6d. £15, 3s. £17, 3s. 6d. £20, 4s.

Foreign, 6d. in £ up to £20.

Papua, 9d. every £5.

POSTAL NOTES.

Payable throughout the Commonwealth....1s., 1s. 6d..... $\frac{1}{2}$ d 2s.
2s. 6d., 3s., 3s. 6d., 4s., 4s. 6d.....1d. 5s..... $1\frac{1}{2}$ d. 7s. 6d.....2d.
10s., 10s. 6d., 15s., 20s.....3d.

TELEGRAPHIC.

Including address and signature.

Town and Suburban—16 words, 6d. Each additional word, 1d

Country—16 words, 9d. Each additional word, 1d.

Interstate—16 words 1s. Each additional word, 1d.

New Caledonia—Per word, 9d.

New Zealand—Per word, $4\frac{1}{2}$ d.

Norfolk Island—Per word, 3d.

Suva, Fiji—Per word, 8d.

Cape Colony—Per word, 2s. 3d.

United Kingdom—Per word, 3s.

New York—Per word, 2s. 8d.

“ORB IRON”—Owing to the great care and attention

BRITISH WEIGHTS AND MEASURES.

IMPERIAL STANDARD.

Apothecaries' Weight.

Used for compounding Medical Prescriptions. The Avoirdupois Weight is used to buy and sell in quantity. The Grain, Ounce and Pound are the same as Troy.

20 Grains	=	1 Scruple	=	20 Grains Troy.
3 Scruples	„	1 Dram	„	60 „ „
8 Drams	„	1 Ounce	„	480 „ „
12 Ounces	„	1 Pound	„	5760 „ „

Apothecaries' Fluid Measure.

60 Minims	=	1 Dram		20 Ounces	=	1 Pint
8 Drams	„	1 Ounce		8 Pints	„	1 Gallon

Troy Weight.

By this weight, Gold, Silver, Platina, and Precious Stones (except Diamonds) are weighed. Diamonds and Pearls are weighed by Carats of 4 Grains each (equal only to 3·2 Troy Grains). The Troy Ounce is equal to 151½ Diamond Carats. Gold when pure is said to be 24 Carats fine; if it contains one part alloy, it is said to be 23 Carats fine, and so on.

3·17 Grains	=	1 Carat		
24 Grains	„	1 Pennyweight	=	24 Grains
20 Pennyweights	„	1 Ounce	„	480 „
12 Ounces	„	1 Pound	„	5760 „

Avoirdupois Weight.

Used for all General Merchandise.

27½ Grains	=	1 Dram		
16 Drams	„	1 Ounce	=	437½ Grains
16 Ounces	„	1 Pound	„	7000 „
14 Pounds	„	1 Stone		
28 Pounds	„	1 Quarter		
4 Quarters	„	1 Hundredweight	=	112 Pounds
20 Cwts.	„	1 Ton	„	2240 „

The Avoirdupois Pound exceeds Troy in the proportion of 17 to 14 nearly, and the Troy Ounce is greater than the Avoirdupois in the proportion of 79 to 72 nearly.

taken in its manufacture, is always reliable,

British Weights & Measures—(Continued).

Hay and Straw.

36 Pounds Straw	1 Truss	60 Pounds New Hay	1 Truss
56 „ Old Hay	1 „	36 Trusses	1 Load

The Load of Old Hay is 18 cwt., of New 19 cwt. 32 lb., and of Straw 11 cwt. 64 lb.

Measure of Surface.

144 Inches = 1 Foot	40 Perches = 1 Rood
9 Feet „ 1 Yard	4 Roods „ 1 Acre
30½ Yards „ 1 Rod or Perch	10 Chains „ 1 Acre*
16 Rods „ 1 Chain	640 Acres „ 1 Mile

* That is, 10 Chains long by 1 chain broad, or a Square whose side is 70 yards, is nearly an Acre.

The following Table has been added as a basis for estimating the approximate acreage of any given enclosed area of land:—

YARDS WIDE.	YARDS LONG.	CONTAINS.	FEET WIDE.	FEET LONG.	CONTAINS.
5 by 968		1 Acre	60 by 726		1 Acre
10 „ 484		„	110 „ 396		„
20 „ 242		„	120 „ 363		„
40 „ 121		„	220 „ 198		„
70 „ 69½		„	240 „ 181½		„
80 „ 60½		„	440 „ 99		„

Measure of Solidity.

1728 Cubic Inches	= 1 Cubic Foot
27 „ Feet	„ 1 Cubic Yard
5 „ „	„ 1 Barrel Bulk Shipping
40 „ „	„ 1 Ton Shipping
40 „ „	„ 1 Load Hard English Timber, &c.
50 „ „	„ 1 Load Foreign Fir

"QUEEN'S HEAD" Flat Sheets

British Weights & Measures—(Continued).

Geographical and Nautical Measure.

- 6 Feet = 1 Fathom
- 110 Fathoms or 660 Feet = 1 Furlong
- 6080 Feet = 1 Knot
- 3 Knots = 1 League
- 20 Leagues or 60 Geographical Miles = 1 Degree
- 360 Degrees, or 24,856 Miles, the Earth's Circumference.

Measure of Length.

- | | |
|----------------------------------|-----------------------|
| 12 Inches = 1 Foot | 4 Poles = 1 Chain |
| 3 Feet „ 1 Yard | 10 Chains „ 1 Furlong |
| 5½ Yards „ 1 Pole | 8 Furlongs „ 1 Mile |
| 1760 Yards (5280 Feet) = 1 Mile. | |

In scientific calculations and by Revenue Officers the inch is divided into tenths and hundredths. Mechanics divide it into eighths. The chain is divided into 100 links, each 7·92 inches.

Measure of Capacity.

Used for Liquids and Dry Goods generally.

- | | |
|-----------------------|---------------------------|
| 4 Gills = 1 Pint | = 34½ Cubic Inches nearly |
| 2 Pints „ 1 Quart | „ 69½ „ „ „ |
| 4 Quarts „ 1 Gallon | „ 277½ „ „ „ |
| 2 Gallons „ 1 Peck | „ 554½ „ „ „ |
| 4 Pecks „ 1 Bushel | „ 2218½ „ „ „ |
| 8 Bushels „ 1 Quarter | „ 10½ „ Feet „ |
| 5 Quarters „ 1 Load | „ 51½ „ „ „ |

A Bushel of Wheat, on an average, weighs 60 pounds; Barley, 47 pounds; Oats, 40 pounds. The gallon contains 10 pounds Avoirdupois of Distilled Water exactly.

Grain and Produce.

	Per bushel.		Average bushels per bag.		Per bushel.		Average bushels per bag.
Barley	.. 50 lb.	..	4	Oats	.. 40 lb.	..	4
Beans	.. 60 „	..	4	Peas	.. 60 „	..	4
Bran	.. 20 „	..	8	Pollard	.. 20 „	..	9
Maize	.. 56 „	..	4	Wheat	.. 60 „	..	4
Malt	.. 40 „	..	4				

A Bag of Flour:—Australian, 200 lb.; English, 280 lb.

command the confidence of Ironworkers everywhere.

Foreign Monies

And their English Equivalents.

(Subject to variation in Standard Currencies.)

ENGLISH Money	UNITED STATES and CANADA	FRANCE.	GERMANY.
£ s. d.	Dol. Cent.	Franc. Cent.	Mark. Pfen.
0 5 0	1 22	6 30	5 10
0 6 0	1 46	7 50	6 12
0 7 0	1 70	8 80	7 14
0 8 0	1 94	10 0	8 16
0 9 0	2 19	11 30	9 18
0 10 0	2 43	12 61	10 20
0 11 0	2 67	13 80	11 22
0 12 0	2 92	15 10	12 24
0 13 0	3 16	16 30	13 26
0 14 0	3 40	17 60	14 28
0 15 0	3 65	18 90	15 30
0 16 0	3 89	20 10	16 32
0 17 0	4 12	21 40	17 34
0 18 0	4 38	22 60	18 36
0 19 0	4 62	23 90	19 38
1 0 0	4 86	25 22	20 40

INDIA:—RUPEE is nominally of the value of $1\frac{1}{4}$ sterling.

SPAIN:—One PESETA ... nearly $9\frac{1}{2}$ d. „

AUSTRIA:—One KRONER ... 10d. „

JAPAN:—10 ren = 1 sen = $\frac{1}{4}$ d. 100 sen = 1 yen = $2\frac{1}{2}$.

To ascertain the ENGLISH equivalent of AMERICAN dollars and Cents, divide the same by 2, then by 12, and again by 20.

Answer—£104 4s. 4d.

EXAMPLE:—

DOL. CENT.

2 500-25 to English equiv.

12 250.12—1

20 2084-4 shillings & pence
104-4 pounds & shillings

LYSAGHT'S IRON supplied to H.M. Admiralty.

CALENDAR

1909

JULY						AUGUST						SEPTEMBER					
S	...	4	11	18	25	1	8	15	22	29	...	5	12	19	26		
M	...	5	12	19	26	2	9	16	23	30	...	6	13	20	27		
T	...	6	13	20	27	3	10	17	24	31	...	7	14	21	28		
W	...	7	14	21	28	4	11	18	25	...	1	8	15	22	29		
T	1	8	15	22	29	5	12	19	26	...	2	9	16	23	30		
F	2	9	16	23	30	6	13	20	27	...	3	10	17	24	...		
S	3	10	17	24	31	7	14	21	28	...	4	11	18	25	...		

OCTOBER						NOVEMBER						DECEMBER					
S	31	3	10	17	24	...	7	14	21	28	...	5	12	19	26		
M	...	4	11	18	25	1	8	15	22	29	...	6	13	20	27		
T	...	5	12	19	26	2	9	16	23	30	...	7	14	21	28		
W	...	6	13	20	27	3	10	17	24	...	1	8	15	22	29		
T	...	7	14	21	28	4	11	18	25	...	2	9	16	23	30		
F	1	8	15	22	29	5	12	19	26	...	3	10	17	24	31		
S	2	9	16	23	30	6	13	20	27	...	4	11	18	25	...		

1910

JANUARY						FEBRUARY						MARCH					
S	...	30	2	9	16	23	...	6	13	20	27	...	6	13	20	27	
M	...	31	3	10	17	24	...	7	14	21	28	...	7	14	21	28	
T	...	...	4	11	18	25	1	8	15	22	...	1	8	15	22	29	
W	...	...	5	12	19	26	2	9	16	23	...	2	9	16	23	30	
T	...	...	6	13	20	27	3	10	17	24	...	3	10	17	24	31	
F	...	...	7	14	21	28	4	11	18	25	...	4	11	18	25	...	
S	...	1	8	15	22	29	5	12	19	26	...	5	12	19	26	...	

APRIL						MAY						JUNE					
S	...	...	3	10	17	24	1	8	15	22	29	...	5	12	19	26	
M	...	...	4	11	18	25	2	9	16	23	30	...	6	13	20	27	
T	...	...	5	12	19	26	3	10	17	24	31	...	7	14	21	28	
W	...	...	6	13	20	27	4	11	18	25	...	...	1	8	15	22	29
T	...	...	7	14	21	28	5	12	19	26	...	2	9	16	23	30	
F	...	1	8	15	22	29	6	13	20	27	...	3	10	17	24	...	
S	...	2	9	16	23	30	7	14	21	28	...	4	11	18	25	...	

Lysaght's Trade Marks.



"ORB" Galvanized Corrugated Iron is favorably known and used throughout the world. Its uniformly reliable character is recognised by consumers everywhere. There are many imitations, but to those who compare its covering capacity with other nominally cheaper brands, its superiority in all respects is at once apparent.



"REDCLIFFE" Corrugated Iron—A brand of well established repute and in large demand, occupying a premier position in those markets in which price is a primary consideration.



"WEIGHT BEARING" Iron Lysaght's **"ORB"** brand used for building purposes, maintains the makers' reputation, and may be specified by Architects and Engineers in the full confidence that it will justify their preference for British Manufactures.

Lysaght's Trade Marks.

"ORB" Tenax Flat Sheet

Iron, for working up, is of the finest possible quality suitable for special high-class work, and is, in many instances used as a substitute for copper.



"QUEEN'S HEAD" Galvanized Tinned

Special Flat Sheets. This brand will stand the severest tests, and commands the confidence of iron-workers everywhere.



QUEEN'S HEAD

"BLACK SHEETS" of

the same brand are extensively used by manufacturers of Ventilating and other Pipes, Trunks, Stoves, Fender Bottoms, Ovens, Stamping, Perforating, &c, and the many other purposes where a reliable quality is necessary.

"FLEUR-DE-LIS" Galvanized Tinned Flat

Sheets enter largely into consumption in the lighter gauges, for that class of work in which a somewhat cheaper sheet is asked for. It will be found equal to all such requirements.



FLEUR DE LIS

Memoranda.

Memoranda.

Memoranda.

Memoranda.

Memoranda.

Memoranda.
