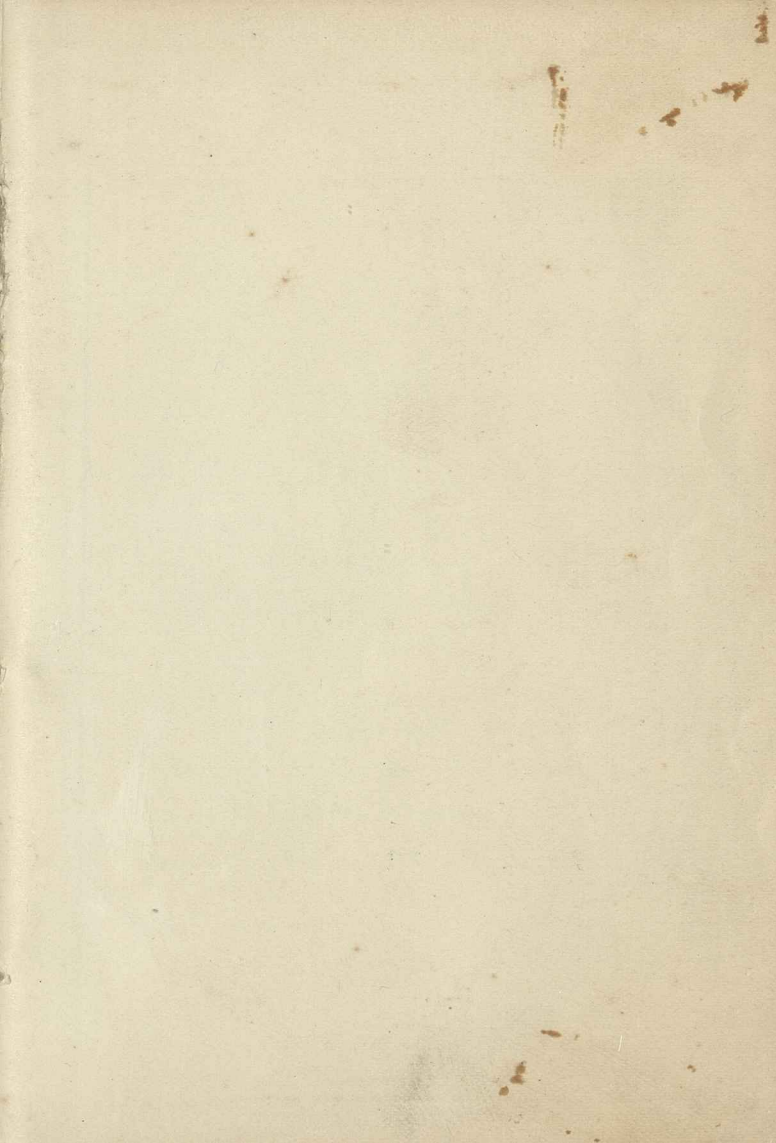
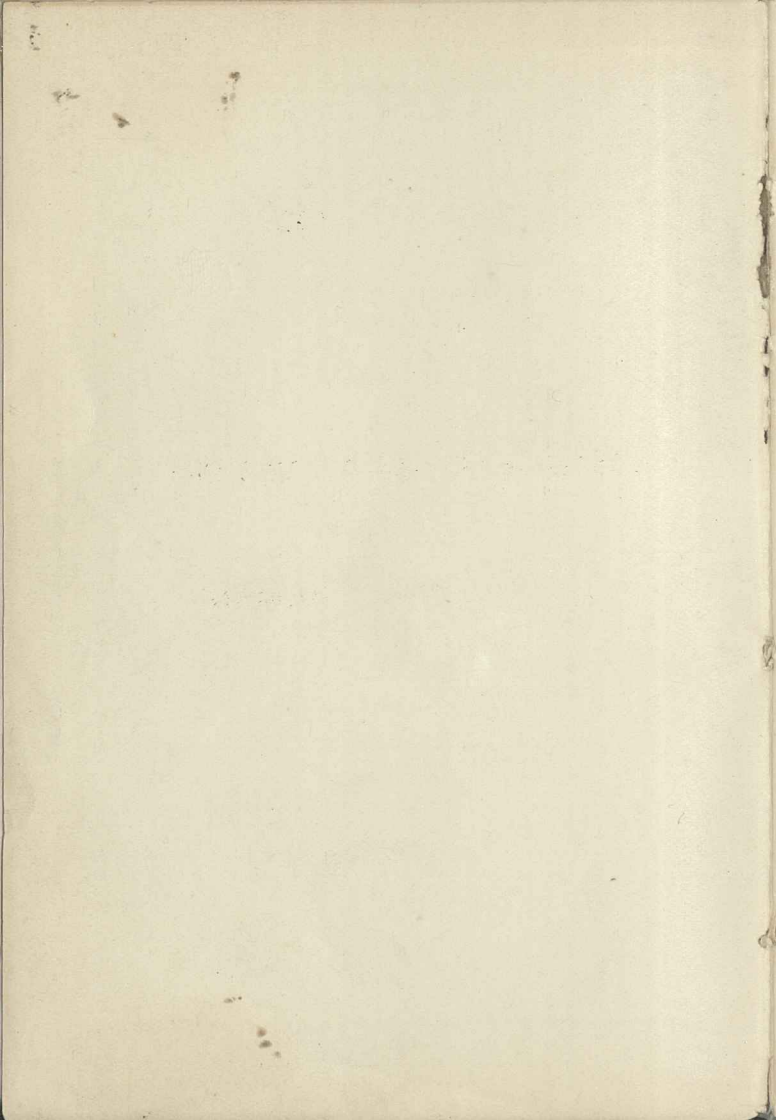








THE METAL TRADES'
REFEREE
AND
Storekeepers' Guide

4th EDITION.

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

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ANDREW SHERAR & CO.
101 & 103 ELIZABETH ST., MELB.

1208.

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

CALENDAR

1908

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

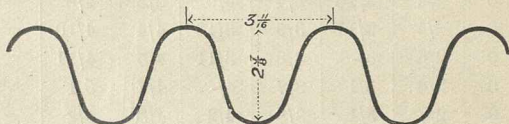
The following are also supplied to order,
viz. :—

$1\frac{1}{2}$ 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 :—

$3\frac{11}{16}$ 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 4 in. x 2 in. if required.

LYSAGHT'S "ORB" brand 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	

THE VICTORIA GALVANIZED IRON & WIRE CO.

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.
	236	196	168	146	130	118	Sheets per ton.
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.

— Price per ton. £	24-G.			26-G.			28-G.		
	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—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 „

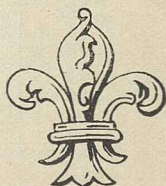
Gauge.	Width.		
	24	30	36
16 g	32	40	48 lbs.
18 g	25	29	36 „
20 g	20	25	29 „
22 g	17	19	23 „
24 g	12	16	19 „
26 g	9	12	14 „
28 g	8	11	13 „



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

Iron—Black Sheet.

Weight and Thickness.

Gauge	Lbs. per square foot	Thick-ness inches	Thick-ness mm.	Gauge	Lbs. per square feet	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.

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

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
$1\frac{15}{16}$	9.204	11.719	9.388	11.953
2	10.472	13.333	10.681	13.600
$2\frac{1}{8}$	11.82	15.05	12.06	15.35
$2\frac{1}{4}$	13.25	16.87	13.52	17.21
$2\frac{3}{8}$	14.77	18.80	15.06	19.18
$2\frac{1}{2}$	16.36	20.83	16.69	21.25
$2\frac{5}{8}$	18.04	22.97	18.40	23.43
$2\frac{3}{4}$	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
$3\frac{1}{2}$	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.									
	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	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.

Dimensions in inches.				Weight lbs. per foot-run.	Safe Load Tons distributed for Spans of					
A	B	C	D		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	1½	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	—	—	—
4	1½	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	—
7	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	0.833	54.0	52.0	31.0	26.0	19.0	15.0	10.0
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	101.0	—	102.0	92.0	69.0	55.0	36.0

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

world, and is universally admitted to be 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	1.10	.83	.71	.60	.54	.48
1 1/8	1.38	1.04	.89	.74	.68	.60
1 1/4	1.66	1.25	1.07	.89	.82	.71
1 1/2	1.80	1.35	1.16	.97	.88	.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 1/8	5.26	4.10	2.92	2.34	2.04	1.75
1 1/4	5.85	4.56	3.25	2.60	2.27	1.93
1 1/2	6.43	5.01	3.57	2.86	2.49	2.13
1 3/4	7.02	5.47	3.90	3.12	2.72	2.32
2	8.15	6.35	4.55	3.60	3.15	2.70
2 1/8	9.36	7.30	5.20	4.16	3.63	3.10
2 1/4	10.53	8.20	5.85	4.68	4.08	3.50
2 1/2	11.71	9.12	6.50	5.20	4.54	3.87
2 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 1/8	15.10	11.89	8.40	6.70	5.80	5.00
3 1/4	16.30	12.70	9.10	7.20	6.30	5.40
3 1/2	17.50	13.60	9.70	7.70	6.70	5.80
3 3/4	18.73	14.60	10.40	8.33	7.26	6.20
4	19.90	15.50	11.05	8.84	7.70	6.60
4 1/8	21.07	16.40	11.70	9.36	8.17	7.00
4 1/4	22.23	17.33	12.35	9.88	8.62	7.36
4 1/2	23.42	18.25	13.00	10.41	9.08	7.75
5	25.75	20.07	14.30	11.45	9.98	8.22
5 1/2	28.10	21.90	15.60	12.50	10.90	9.30

(Galvanized Hoops slightly exceed these weights.)

Please Note—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	17·344	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

& "QUEEN'S HEAD" IRON is 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		Approximate		Approximate		
			Weight per sht.	No. of shts. in 10 cwt.	Weight per sht.	No. of shts. in 10 cwt.	Weight per sht.	No. of shts. in 10 cwt.	
	oz.		lb. oz.		lb. oz.		lb. oz.		
1	24 ¹ / ₄	·004	2 10	427	—	—	—	—	41
2	31 ¹ / ₄	·006	3 13	294	—	—	—	—	38
3	33 ¹ / ₄	·007	—	—	4 15	227	—	—	37
4	41 ¹ / ₄	·008	—	—	6 4	180	—	—	34
5	53 ¹ / ₄	·010	—	—	7 9	148	—	—	31
6	63 ¹ / ₄	·011	7 14	142	8 14	126	10 2	111	30
7	73 ¹ / 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 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
1C	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 leading 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	51.0
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—it costs a little more.

Aluminium.

Gauge.	Weight per square foot in lbs.	Weight of Sheet 24 in. x 96 in. in lbs.
12	1.406	11 $\frac{1}{4}$
16	.906	7 $\frac{1}{4}$
18	.687	5 $\frac{1}{2}$
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

but is cheaper 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

Zinc " 1 " 322

Copper " 1 " 581

Block Tin expands 1 part in 403

Cast Iron " 1 " 901

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 "

Substance 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. Std 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
1/2	1.32	1.04	0.78	0.60	0.44	0.34	0.25	0.18
3/4	1.61	1.28	0.97	0.76	0.56	0.44	0.32	0.23
1	1.90	1.52	1.17	0.92	0.68	0.53	0.39	0.29
1 1/4	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 1/2	3.64	2.97	2.33	1.86	1.41	1.11	0.83	0.61
1 3/4	3.93	3.21	2.52	2.02	1.53	1.21	0.90	0.67
2	4.22	3.45	2.71	2.17	1.65	1.31	0.97	0.72
2 1/8	4.51	3.70	2.91	2.33	1.77	1.40	1.04	0.78
2 1/4	4.80	3.94	3.10	2.49	1.89	1.50	1.12	0.83
2 1/2	5.09	4.18	3.29	2.65	2.01	1.60	1.19	0.89
2 3/4	5.38	4.42	3.49	2.80	2.13	1.69	1.26	0.94
3	5.67	4.66	3.68	2.96	2.25	1.79	1.33	1.00
3 1/8	5.96	4.91	3.88	3.12	2.38	1.89	1.41	1.05
3 1/4	6.25	5.15	4.07	3.28	2.50	1.98	1.48	1.10
3 1/2	6.83	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 and Fittings.

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

TUBES.

Internal Diam. in Inches	1 & 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
Tubes, 2 to 14 ft. long, per ft.																			
Pieces 12 to 23 1/2 in. long	.3 1/2	-4	-5	-6 1/2	/9	1/-	1/4	1/8	1/10	2/6	2/9	3/-	3/3	4/3	4/9	5/6	6/-	6/9	7/6
(each)	-9	-10	1/1	1/4	1/10	2/6	3/4	4/3	4/9	6/9	8/-	9/-	10/-	13/6	15/6	21/-	24/-	28/6	32/6
Pieces 3 to 11 1/2 in. long																			
(each)	-5 1/2	-6	-8	-10	1/2	1/6	2/-	2/7	3/-	4/3	5/3	6/-	6/9	9/8	10/9	15/6	18/-	21/9	25/3
Long screws, 12 to 23 1/2 in.																			
long (each)	-10	-11	1/2	1/5	2/-	2/8	3/7	4/8	5/3	7/6	9/	10/-	11/6	15/6	17/-	23/-	26/6	31/6	35/6
Long screws, 3 to 11 1/2 in.																			
long (each)	-6 1/2	-7	-9	-11	1/3	1/8	2/3	3/-	3/3	4/8	6/3	6/7	8/-	10/9	12/3	17/-	20/-	24/-	28/-
Barrel nipples (each) ..	-5	-5	-6	-7	-9	1/-	1/4	1/8	1/9	2/6	3/-	3/6	4/-	6/-	7/-	10/-	12/6	15/-	20/-
Bends (each)	-7	-8	-10	1/-	1/6	2/6	3/-	4/-	5/-	8/6	12/-	15/-	18/-	25/-	32/6	80/-	105/-	135/-	150/-
Springs, not socketted																			
(each)	-5	-6	-7	-9	1/1 1/2	1/11 1/2	2/3 1/2	3/1	3/11	6/9	9/6	12/-	14/6	20/-	26/6	70/-	93/-	120/-	132/-

fifty years in use, and still the Best.

FITTINGS.

Internal Diam. in Inches	1 & 1/4	3/8	1/2	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	3
Socket, or pipe union each	2/-	2/6	3/-	4/-	5/6	6/9	8/-	9/-	10/-	15/-	17/6	20/-	22/6	27/6	35/-	48/-	84/-	105/-
Elbows, square ..	-8 1/2	-9	-10	1/-	1/4	2/10	2/5	3/-	3/10	6/8	9/-	11/6	14/-	22/-	28/-	75/-	120/-	150/-
Do. round ..	-9 1/2	-11	-11	1/8	1/6	2/1	2/7	3/6	4/6	6/9	10/-	13/-	17/-	22/-	32/-	75/-	120/-	150/-
Tees ..	-9	-10	-11	1/2	1/5	2/10	2/6	3/2	4/3	6/6	9/6	12/6	16/6	24/-	30/-	78/-	125/-	155/-
Crosses ..	1/4	1/6	1/11	2/4	3/-	4/-	4/10	6/-	7/9	14/-	21/4	28/-	40/-	56/-	66/8	175/-	280/-	350/-
Sockets, plain ..	-22	-22	-23	-3 1/2	-4 1/2	-6 1/2	-8 1/2	-11	1/1	1/9	2/6	3/-	3/6	5/-	6/-	10/-	15/-	12/-
Do. diminished	-3	-4	-5	-6	-7	-9	-11	1/2	1/4	2/3	3/3	4/-	5/-	7/-	9/-	25/-	45/-	55/-
Flanges ..	-9	10/-	1/-	1/2	1/4	1/9	2/-	2/3	2/9	4/-	5/-	6/9	8/6	10/-	11/6	16/-	23/-	27/-
Caps ..	-3 1/2	-3 1/2	-5	-6	-8	1/-	1/3	1/7	2/-	3/-	4/4	5/3	6/-	9/9	10/6	25/-	37/6	45/-
Plugs ..	-3	-3	-4	-5	-6	-6	-8	1/10	1/-	2/-	2/6	3/6	4/9	7/-	10/-	22/-	39/-	48/-
Backnuts ..	-2	-2	-3	-3 1/2	-5	-6	-8	-10	1/1	1/9	2/3	3/-	3/6	4/6	5/6	14/-	21/-	26/-
Nipples ..	-2	-2	-3	-3 1/2	-4	-6	-8	-10	1/-	1/9	2/3	3/-	3/6	4/6	5/6	14/-	21/-	26/-
Union bends ..	2/6	3/-	3/6	5/-	6/3	8/6	10/-	11/6	13/6	21/-	27/-	32/-	37/-	49/-	58/-	78/-	135/-	160/-
Main cocks ..	2/3	2/9	3/6	4/6	6/6	8/6	11/-	14/-	18/-	27/-	40/-	50/-	60/-	85/-	110/-	210/-	360/-	420/-
Do. with brass plugs	..	7/-	8/9	11/6	16/-	21/6	28/-	35/-	45/-	68/-	100/-	112/-	125/-	212/-	250/-	360/-	570/-	660/-
Round way cocks ..	..	3/6	4/-	5/6	7/6	10/-	13/-	17/6	22/-	38/-	60/-	65/-	75/-	130/-	160/-	..	..	..
Do. with brass plugs	..	10/6	12/-	16/6	22/6	30/-	39/-	52/6	66/-	114/-	180/-	195/-	225/-	360/-	480/-	..	..	..
Cock spanners, wrought,	..	1/6	1/8	2/2	2/8	3/2	3/6	4/-	4/3	4/9	6/-	7/6	9/-	12/-	14/-	16/-	22/-	24/-
Do. Malleable cast	..	1/-	1/4	1/8	2/-	2/4	3/-	3/6	4/-	4/9	6/-	7/6	9/-	12/-	14/-	16/-	22/-	24/-
Syphon boxes, 1 quart	..	..	22/9	23/-	23/4	24/-	24/6	25/2	26/3	28/6	35/6	38/6	42/6	..	..	..	..	..
Do. do. 2 quarts	..	..	..	27/-	27/4	28/-	28/6	29/2	30/3	32/6	35/6	38/6	42/6	..	..	..	..	..
Do. do. 3 "	..	..	..	32/-	32/4	33/-	33/6	34/2	35/3	37/6	40/6	43/6	47/6	55/6	61/6	..	..	..
Do. do. 4 "	..	..	..	38/-	38/4	39/-	39/6	40/2	41/3	43/6	46/6	49/6	53/6	61/6	67/6	..	..	..

“ORB” IRON—the maximum value at the minimum of cost.

Composition Pipe

(Inside Diameter.)

Inch.	lb.	oz.		Inch.	lb.	oz.	
$\frac{1}{4}$	0	13	per yard	$\frac{5}{8}$	3	4	per yard
$\frac{5}{16}$	1	0	„	$\frac{3}{4}$	4	4	„
$\frac{3}{8}$	1	5	„	$\frac{7}{8}$	4	12	„
$\frac{7}{16}$	1	10	„	1	5	8	„
$\frac{1}{2}$	2	2	„				

To $\frac{1}{2}$ inch, usually in 50 yard coils.

Above.....	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1 inch
Yards.....	40	30	25	20 „

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

Table.

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

s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	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	6	0	7	0	8	0	8	0	9	0	9	0	10	0	11	0
0	10	0	11	0	11	0	11	0	11	0	11	0	11	0	11	0
1	1	1	2	1	1	1	2	1	1	1	2	1	1	1	1	1
1	4	1	5	1	5	1	5	1	5	1	5	1	5	1	5	1
1	8	1	9	1	11	1	11	1	11	1	11	1	11	1	11	1
1	11	2	1	2	3	2	3	2	3	2	3	2	3	2	3	2
2	2	2	5	2	7	2	7	2	7	2	7	2	7	2	7	2
2	5	2	8	2	8	2	8	2	8	2	8	2	8	2	8	2
2	9	3	0	3	3	3	3	3	3	3	3	3	3	3	3	3
3	0	3	3	3	7	3	7	3	7	3	7	3	7	3	7	3
3	7	3	11	4	2	4	2	4	2	4	2	4	2	4	2	4
3	10	4	2	4	6	4	6	4	6	4	6	4	6	4	6	4
4	1	4	6	4	10	5	5	5	5	5	5	5	5	5	5	5
4	5	4	9	5	2	5	2	5	2	5	2	5	2	5	2	5
4	8	5	5	5	6	5	6	5	6	5	6	5	6	5	6	5
4	11	5	5	5	10	6	3	6	3	6	3	6	3	6	3	6
5	3	5	8	6	2	6	8	6	2	6	8	6	2	6	8	6
5	6	6	0	6	6	7	0	7	6	8	0	8	6	9	0	9
5	9	6	3	6	10	7	4	7	10	8	5	8	10	9	5	10
6	0	6	7	7	2	7	8	8	3	8	9	9	4	9	11	10
6	4	6	11	7	5	8	0	9	0	9	9	9	10	10	11	11
6	7	7	6	7	7	7	9	8	5	9	0	7	10	10	11	12
6	10	7	6	8	8	8	9	9	4	10	0	10	10	11	12	13
7	2	7	9	8	9	9	1	9	5	10	1	10	11	11	12	13
7	5	8	1	8	9	9	5	10	2	10	10	11	12	13	14	15
7	8	8	5	9	1	9	9	10	2	10	10	11	12	13	14	15
8	3	9	0	9	10	10	1	10	10	11	11	12	13	14	15	16
8	6	9	3	10	1	10	10	11	11	12	12	13	14	15	16	17
8	9	9	7	10	5	11	2	12	0	13	0	13	7	14	5	15

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 lb.	Iron, cast	equals	·263 lb.
Copper, sheet	„	·3225 „	Tin	„	·2636 „
Brass	„	·3037 „	Zinc	„	·26 „
Iron	„	·279 „	Water	„	·03617 „

Steel Wire.

Table showing quantity required per mile of fencing.

Gauge. No.	Length per cwt. Yds.	WEIGHT REQUIRED PER MILE.														
		1 Wire			2 Wires			3 Wires			4 Wires			5 Wires		
		C.	Q.	L.	C.	Q.	L.	C.	Q.	L.	C.	Q.	L.	C.	Q.	L.
4		6	2	4	13	0	8	19	2	12	26	0	16	32	2	20
5		5	1	24	10	3	20	16	1	16	21	3	12	27	1	12
6		4	1	26	8	3	24	13	1	22	17	3	20	22	1	18
7		3	3	2	7	2	4	11	1	6	15	0	8	18	3	10
8		3	0	12	6	0	24	9	1	8	12	1	20	15	2	4
9		2	2	2	5	0	4	7	2	6	10	0	8	12	2	10
10		1	3	27	3	3	26	5	3	25	7	3	24	9	3	23
11		1	2	15	3	1	2	4	3	17	6	2	4	8	0	19
12		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. YARDS.
	100 yds.	1 Mile.	
	LBS.	LBS.	
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 5	4 0 0	4 16 0	20	"
$\frac{3}{8}$ in.	19	1 3 6	1 13 7	1 10 6	2 13 4	3 4 0	3 14 8	4 5 4	5 6 8	6 8 0	19	$\frac{3}{8}$ 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	"
$\frac{1}{2}$ in.	20	0 13 8	0 19 7	1 5 4	1 11 0	1 17 2	2 2 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.	19	0 9 3	0 13 2	0 16 10	1 0 6	1 4 0	1 8 0	1 12 0	2 0 0	2 8 0	25	$\frac{3}{4}$ in.
"	20	0 11 10	0 17 0	1 1 6	1 6 4	1 10 9	1 15 11	2 1 0	3 11 4	4 4 0	20	"
"	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	2 11 11	3 4 0	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	3 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	4 4 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	1 2 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 2 8	3 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	—	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	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	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	"
"	17	0 9 3	0 13 3	0 16 10	1 0 4	1 3 6	1 7 5	1 11 4	1 19 2	2 7 0	"
"	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	"
1 in.	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	1 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	"
"	17	0 8 3	0 11 10	0 15 10	0 18 2	1 1 0	1 4 6	1 8 0	1 15 0	2 2 0	"
"	16	0 10 4	0 14 10	0 18 10	1 2 9	0 16 3	1 10 8	1 15 0	2 3 9	2 6 6	"
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	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 10 0	1 8 0	"
"	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	"
"	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	"
"	15	0 11 10	0 17 0	1 1 8	1 5 10	1 9 6	1 14 5	2 10 8	2 3 4	3 16 0	"
"	14	0 15 3	1 1 10	1 7 11	1 13 3	1 18 0	2 4 7	3 14 4	0 17 11	1 1 6	2½ in.
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	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	"
"	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	"
"	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	"
"	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	2 12 0	"
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	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	0 20 4	"
"	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 6 4	"
"	16	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	"
"	15	0 8 3	0 11 0	0 14 4	0 17 5	0 20 8	0 22 10	0 24 6	0 27 11	0 30 4	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	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	0 19 4	"
"	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 6 4	"
"	15	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	"
"	14	0 8 3	0 11 0	0 14 4	0 17 5	0 20 8	0 22 10	0 24 6	0 27 11	0 30 4	"
"	13	0 10 5	0 15 0	0 19 1	1 2 9	1 6 0	1 10 4	1 14 8	2 3 4	2 12 0	"

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 = of an inch.
	$\frac{5}{16}$	$\frac{1}{4}$	$\frac{3}{16}$	$\frac{1}{8}$	$\frac{1}{16}$	$\frac{1}{32}$	

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.		
	Lbs.	Lbs.	Lbs.
$\frac{3}{16}$ "	41½	898	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.

Circum- ference.	Diameter.	Weight in lbs. per fathom.				Breaking strain in gross tons.					Circum- ference.
		Patent Steel Hoisting Ropes.	B.B. Wire Rigging.	Flexible Hawsers.	Patent Cast Steel.	Plough Cast Steel.	Galv'd. B.B. Rigging.	Galv'd. C.S. Hauuser.			
6"	17"	34½	32	30	115	170	55	88	6"		
5½	16	29	26	26	95	142	42	74	5½		
5	16	24	22	21	80	120	34	59	5		
4½	15	21½	20	17	71	107	32	47	4½		
4	14	17½	16	12½	57	85	26	36	4		
4	14	15½	14	11	51	75	22	33	4		
3½	13	12	11	8	39	58	16	26	3½		
3	12	8½	8	6	28	42	11	18	3		
2½	11	7	7	5	24	36	8.55	15½	2½		
2½	13-16	6	6	4	20	29	7.4	12	2½		
2½	11-16	5	5	3	15½	23	6.35	9½	2½		
2	9	4	4	2½	12½	18½	4.3	7	2		
1½	9-16	3	3	2	9½	14½	3.25	5½	1½		
1½	7-16	2	2	1½	7	10½	2.25	3	1½		
1	5-16	1½	1½	1	4½	7	1.75	1½	1		
1	5-16	1	1	¾	3	4½	1	1½	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.
$1\frac{1}{4}$	$1\frac{1}{7}$	$1\frac{1}{9}\frac{1}{2}$	$2\frac{1}{1}$	$2\frac{1}{4}\frac{1}{2}$	$2\frac{1}{7}\frac{1}{2}$ per 6 ft. lgth.

O. G. SPOUTING.

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

HALF ROUND SPOUTING

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

RIDGING.

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

and even quality, is a perfect roofing sheet.

Ridging, Spouting, &c. (per Six Lengths)

	12"	14"	16"	18"
RIDGING WEIGHS	23	28	33	35 lbs.
	3½"	4"	4½"	5'
SPOUTING "	18	19	23	24
	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 1,000 bricks, on an average, go to 3½ tons weight.

LATH and PLASTER.—100 square yds. requires 4 bags lime, 3 yds. sand, 16 bundles 4 ft. 6 in. American Laths, 8 lbs. 1½ 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 3½ 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 x 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.

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 $\frac{1}{2}$	"	"	2800
"	6 x $\frac{3}{8}$	"	"	3400
"	6 x $\frac{1}{4}$	"	"	4800
Weatherboards, Single	"	"	"	3100
Oregon	No. of Super feet	"	"	790
V.D.L. Hardwood	"	"	"	450
Jarra	"	"	"	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 "	"	"	"	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 ins. x 2 ft. 6 ins. 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 weigh 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

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. qr. lbs.

2 10 1 18 @ £5/10/- per ton.

Reckon the tons as pounds; cwts. as shillings; each qr. 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 2½ =		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.

quality, durability, uniformity, and finish.

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 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.

Postal, Money Order and Telegraphic Information.

UNIFORM COMMONWEALTH

(As existing at January 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 Settlements.

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, 2ozs., 1d.

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

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

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

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

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

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

Interstate, 4ozs., 1d.

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

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

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

Newspapers not printed in the Commonwealth—Magazine rates.

Postal and Telegraphic Information.

MAGAZINES—Country and Interstate, 2ozs., $\frac{1}{2}$ d., up to 8ozs., 1d., additional 4ozs., $\frac{1}{2}$ d.

Foreign, 2ozs., 1d.

(South Australia—Inland, and to Victoria, New South Wales, Western Australia, Tasmania, and New Zealand only, not exceeding 8ozs., 1d., each additional 4ozs., $\frac{1}{2}$ d. To Queensland and British New Guinea, 4ozs., 1d.)

(Victoria—To Queensland, for every 4ozs., 1d.)

(Queensland—City, Country, and Interstate, 4ozs., 1d.)

(Tasmania—As "Printed Papers.")

PARCEL POST—Inland, up to 1lb., 6d., and for each additional 1lb., 3d.

Interstate (except New Hebrides) and New Zealand, 1lb., 8d., and for each additional 1lb., 6d.

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

United States, 1lb., 1s., and for each additional 1lb., 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.

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

Interstate and New Zealand, £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

POSTAL NOTES.

Payable throughout the Commonwealth—1s., 1s. 6d.— $\frac{1}{2}$ d. 2s., 2s. 6d., 3s., 3s. 6d., 4s., 4s. 6.—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.

273 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).

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.

LYSAGHT'S "QUEEN'S HEAD" Flat Sheets

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

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 $\frac{1}{4}$ 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 = $\frac{2}{1}$.

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 Eng ^l ish equiv.
12	250.12—1
20	2084—4 shillings & pence 104-4 pounds & shillings

CALENDAR

1909

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

Memoranda.

Memoranda.

Memoranda.

Memoranda.

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Memoranda.

THE VICTORIA GALVANIZED IRON & WIRE Co.

FREMANTLE.

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