



SEVENTH EDITION
(WITH APPENDIX)

If from any Cause an
Intending Purchaser
is unable to procure

Lysaght's Iron

in his own district, the
name of the nearest
merchant who stocks it
will be forwarded ON
APPLICATION TO
THE PUBLISHER—

Metal Trades' Referee
c/o Box 52, Stock Exchange
MELBOURNE

The Metal Trades' REFEREE

7th EDITION.

*Being a general guide for Ironworkers,
Storekeepers, Country Residents, etc., con-
taining tables of Weights, Measurements,
Average Rainfall, Postal and other useful
Information.*

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THE SPECIALTY PRESS PTY. LTD.
189 Little Collins Street, Melbourne.

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

CALENDAR—1912

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

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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SEVENTH 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 printers's or other's errors which may have inadvertently crept in. Communications may be addressed to P.O. Box 52, Stock Exchange, Melbourne.

The Best is the Cheapest. Quality is

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	10½	12½	14	16	18¾	21 lbs.
24	13½	16½	18¾	21½	25½	28 "
22	17	20	23½	27	30½	34 "
20	21	25½	30	34	38	42½ "
18	26½	32	37	43	48	53 "

REMEMBERED 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.

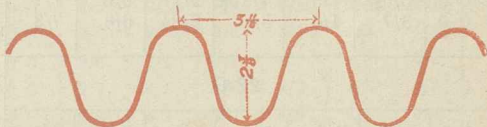
The following are also supplied to order,
viz. :—

$1\frac{1}{2}$ 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 :—

$3\frac{1}{8}$ 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

“ORB” GALVANIZED IRON has an established

Galvanized Iron—Corrugated.

Approximate Price per sheet based on given rates per ton.

20-G

Price per ton £	5	6	7	8	9	10	feet
14 0 0	2/6	3/-	3/6	4/-	4/8	5/1	For sheets per case see page 8.
15 0 0	2/8	3/8	3/9	4/3½	5/-	5/5½	
15 10 0	2/9¼	3/4½	3/10½	4/5	5/2	5/7½	
16 0 0	2/10½	3/5½	4/-	4/7	5/4	5/9¾	
16 10 0	2/11½	3/7	4/1½	4/8½	5/6	6/-	
17 0 0	3/0½	3/8	4/3	4/10	5/8	6/2	
17 10 0	3/1½	3/9½	4/4½	5/-	5/10	6/4	
18 0 0	3/2½	3/11	4/6	5/2	6/-	6/6½	
18 10 0	3/3½	4/0¼	4/7½	5/3½	6/2	6/8½	
19 0 0	3/4¾	4/1½	4/9	5/5	6/4	6/11	
19 10 0	3/5¾	4/3	4/10½	5/7	6/6	7/1	
20 0 0	3/7	4/4	5/-	5/8½	6/8	7/3	

22-G

14 0 0	2/2	2/6	3/-	3/4	3/10	4/3
15 0 0	2/3½	2/8½	3/2¼	3/7¼	4/1¼	4/6½
15 10 0	2/4½	2/9½	3/3½	3/8¾	4/3	4/8½
16 0 0	2/5	2/10½	3/4¾	3/10¼	4/4½	4/10
16 10 0	2/6	2/11½	3/6	3/11½	4/6	5/-
17 0 0	2/7	3/0¾	3/7½	4/1	4/7¾	5/2
17 10 0	2/8	3/1¾	3/8¾	4/2½	4/9¾	5/3½
18 0 0	2/9	3/3	3/10	4/4	4/11	5/5½
19 0 0	2/10¾	3/5	4/0½	4/7	5/2½	5/9
19 10 0	2/11½	3/6	4/2	4/8½	5/4	5/11
20 0 0	3/0¾	3/7¼	4/3	4/9¾	5/5¾	6/0¾

reputation of more than half a century.

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.
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 "ORB" Brand on a sheet of

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.
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	

GALVANIZED IRON stands for PERFECTION.

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
£									
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	2/5	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

Every Sheet of LYSAGHT'S GALVANIZED

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			Gauge	Width		
	24	30	36		24	30	36
12 g.	22	18	15 shts.	16 g.	32	40	48 lbs.
14 g.	29	23	19 "	18 g.	25	29	36 "
16 g.	37	29	24 "	20 g.	20	25	29 "
18 g.	46	36	30 "	22 g.	17	19	23 "
20 g.	60	48	40 "	24 g.	12	16	19 "
22 g.	72	57	48 "	26 g.	9	12	14 "
24 g.	89	71	59 "	28 g.	8	11	13 "
26 g.	120	97	80 "				
28 g.	187	110	90 "				



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 IS GUARANTEED. Beware of Imitations.

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

Every Sheet of "ORB" IRON advertises itself.

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 $\frac{1}{4}$	.94	1.17	1.40	1.64	1.87	2.34	2.81	3.28	3.75
1 $\frac{1}{2}$	1.04	1.30	1.56	1.82	2.08	2.60	3.12	3.64	4.16
1 $\frac{3}{4}$	1.14	1.43	1.71	2	2.29	2.86	3.43	4.01	4.58
1 $\frac{7}{8}$	1.25	1.56	1.87	2.18	2.50	3.12	3.75	4.37	5
1 $\frac{1}{2}$	1.35	1.69	2.13	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 $\frac{1}{4}$	1.77	2.21	2.65	3.09	3.54	4.42	5.31	6.19	7.08
2 $\frac{1}{2}$	1.87	2.34	2.81	3.28	3.75	4.68	5.62	6.56	7.50
2 $\frac{3}{4}$	1.97	2.47	2.96	3.46	3.95	4.94	5.93	6.92	7.91
2 $\frac{7}{8}$	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 $\frac{1}{4}$	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
4	3.33	4.16	5	5.83	6.66	8.33	10	11.66	13.33
4 $\frac{1}{4}$	3.54	4.42	5.31	6.19	7.08	8.85	10.62	12.39	14.16
4 $\frac{1}{2}$	3.75	4.68	5.62	6.56	7.50	9.37	11.25	13.12	15
4 $\frac{3}{4}$	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

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

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	6.423
$1\frac{1}{2}$	5.890	7.500	6.008	7.750
$1\frac{5}{8}$	6.913	8.802	7.051	8.978
$1\frac{3}{4}$	8.018	10.208	8.178	10.412
$1\frac{7}{8}$	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

out the world, universally admitted "THE BEST"

STEEL JOISTS—British Standard Sections.

Dimensions in inches.

A	B	C	D	Weight lbs. per foot-run.	Safe Load Tons distributed for Spans of						20 ft.	30 ft.
					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	—	—	—	—	—
4½	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	—	—	—
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	7·9	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	—	—	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
16	6	0·55	0·928	75·0	—	64·0	53·0	40·0	32·0	—	—	21·0
18	7	0·60	1·01	89·0	—	83·0	69·0	52·0	41·0	—	—	27·0
20	7½	0·60	1·07	100·0	—	102·0	92·0	69·0	55·0	—	—	36·0
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.

Every Sheet of LYSAGHT'S "ORB" and

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
$\frac{1}{2}$	1.10	.83	.71	.60	.54	.48
$\frac{5}{8}$	1.38	1.04	.89	.74	.68	.60
$\frac{3}{4}$	1.66	1.25	1.07	.89	.82	.71
$\frac{7}{8}$	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
$1\frac{1}{8}$	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
$4\frac{1}{4}$	19.19	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)

“QUEEN'S HEAD” IRON branded in blue.

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	20·117	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

Zinc Sheets.

Gauge No.	Approx. Weight per sq. ft.	Thousands 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	21 $\frac{1}{4}$	·004	2 10	427	—	—	—	—	41
2	31 $\frac{1}{4}$	·006	3 13	294	—	—	—	—	38
3	33 $\frac{1}{4}$	·007	—	—	4 15	227	—	—	37
4	43 $\frac{1}{4}$	·008	—	—	6 4	180	—	—	34
5	53 $\frac{1}{4}$	·010	—	—	7 9	148	—	—	31
6	63 $\frac{1}{4}$	·011	7 14	142	8 14	126	10 2	111	30
7	73 $\frac{1}{4}$	·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 $\frac{1}{2}$	·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

from Hardware Houses and Timber Merchants.

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

“ORB” IRON has lasting qualities,

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					

and is the 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	1.03	0.79	0.58	0.44	0.32	0.24	0.17	0.12
1 1/8	1.32	1.04	0.78	0.60	0.44	0.34	0.25	0.18
1 1/4	1.61	1.28	0.97	0.76	0.56	0.44	0.32	0.23
1 1/2	1.90	1.52	1.17	0.92	0.68	0.53	0.39	0.29
1 3/4	2.19	1.76	1.36	1.07	0.80	0.63	0.46	0.34
2	2.48	2.00	1.55	1.23	0.92	0.73	0.54	0.40
2 1/8	2.77	2.24	1.75	1.39	1.04	0.82	0.61	0.45
2 1/4	3.06	2.49	1.94	1.55	1.17	0.92	0.68	0.51
2 1/2	3.35	2.73	2.13	1.70	1.29	1.02	0.75	0.56
2 3/4	3.64	2.97	2.33	1.86	1.41	1.11	0.83	0.61
3	3.93	3.21	2.52	2.02	1.53	1.21	0.90	0.67
3 1/8	4.22	3.45	2.71	2.17	1.65	1.31	0.97	0.72
3 1/4	4.51	3.70	2.91	2.33	1.77	1.40	1.04	0.78
3 1/2	4.80	3.94	3.10	2.49	1.89	1.50	1.12	0.83
3 3/4	5.09	4.18	3.29	2.65	2.01	1.60	1.19	0.89
4	5.38	4.42	3.49	2.80	2.13	1.69	1.26	0.94
4 1/8	5.67	4.66	3.68	2.96	2.25	1.79	1.33	1.00
4 1/4	5.96	4.91	3.88	3.12	2.38	1.89	1.41	1.05
4 1/2	6.25	5.15	4.07	3.28	2.50	1.98	1.48	1.10
4 3/4	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

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

TUBES

Internal Diam. in Inches	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
Tubes, 2 to 14 ft. long, per ft.	-3 1/2	-4	-5	-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	-23 1/2	-24 1/2	-25 1/2	-26 1/2	-27 1/2	-28 1/2	-29 1/2	-30 1/2	-31 1/2	-32 1/2	-33 1/2	-34 1/2	-35 1/2	-36 1/2	-37 1/2	-38 1/2	-39 1/2	-40 1/2	-41 1/2	-42 1/2	-43 1/2	-44 1/2	-45 1/2	-46 1/2	-47 1/2	-48 1/2	-49 1/2	-50 1/2	-51 1/2	-52 1/2	-53 1/2	-54 1/2	-55 1/2	-56 1/2	-57 1/2	-58 1/2	-59 1/2	-60 1/2	-61 1/2	-62 1/2	-63 1/2	-64 1/2	-65 1/2	-66 1/2	-67 1/2	-68 1/2	-69 1/2	-70 1/2	-71 1/2	-72 1/2	-73 1/2	-74 1/2	-75 1/2	-76 1/2	-77 1/2	-78 1/2	-79 1/2	-80 1/2	-81 1/2	-82 1/2	-83 1/2	-84 1/2	-85 1/2	-86 1/2	-87 1/2	-88 1/2	-89 1/2	-90 1/2	-91 1/2	-92 1/2	-93 1/2	-94 1/2	-95 1/2	-96 1/2	-97 1/2	-98 1/2	-99 1/2	-100 1/2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
Pieces 12 to 33 1/2 in. long (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	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6	32/6

Fifty years in use, and still leads.

Trade Price-List of Water and Steam Fittings

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

FITTINGS

Internal Diam. in Inches	$\frac{3}{8}$ & $\frac{1}{2}$	$\frac{3}{4}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	1 $\frac{3}{4}$	2	2 $\frac{1}{4}$	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4	4 $\frac{1}{2}$	5	5 $\frac{1}{2}$	6
Socket or pipe union each	2/-	3/-	4/-	5/6	6/9	8/-	9/-	10/-	15/-	17/6	20/-	22/6	27/6	35/-	48/-	105/-
Elbows, square	-8 $\frac{1}{2}$	-9	-10	1/4	1/10	2/5	3/-	3/10	6/3	9/-	11/6	14/-	22/6	28/-	75/-	130/150/
Do. round	-9 $\frac{1}{2}$	-11	1/-	1/6	2/1	2/7	3/6	4/6	6/9	10/-	13/-	17/-	25/-	32/-	75/-	130/150/
Tees	-9	-10	1/2	1/5	2/-	2/6	3/2	4/3	6/6	9/6	12/6	16/6	24/-	30/-	78/-	135/155/
Crosses	1/4	1/6	1/11	3/-	4/-	4/10	6/-	7/9	14/-	21/4	28/-	40/-	56/-	66/8	175/220/	280/330/
sockets, plain	-2	-2	-3	-4 $\frac{1}{2}$	-6 $\frac{1}{2}$	-8 $\frac{1}{2}$	-11	1/1	1/9	2/6	3/-	3/6	5/-	6/-	10/-	15/-
Do. sockets, diminished	-3	-4	-5	-6	-7	-11	1/2	1/4	2/3	3/3	4/-	5/-	7/-	9/-	25/-	45/-
Flanges	-9	-10	1/-	1/2	1/4	1/9	2/-	2/3	2/9	4/3	5/-	6/9	8/6	10/-	11/6	16/-
Caps	-3 $\frac{1}{2}$	-5	-6	-8	1/-	1/3	1/7	2/-	3/-	4/4	5/3	6/-	9/9	10/6	25/-	37/6
Plugs	-3	-4	-5	-6	-8	-10	1/-	1/3	2/-	2/6	3/6	4/9	7/-	10/-	22/-	30/-
Backnuts	-2	-3	-4	-5	-6	-8	-10	1/1	1/9	2/3	3/6	4/6	6/6	8/6	14/-	18/-
Nipples	-2	-3	-4	-5	-6	-8	-10	1/-	1/9	2/3	3/-	4/6	6/6	8/6	14/-	18/-
Union bends	2/7	3/-	3/9	5/-	6/3	8/6	10/-	11/6	13/6	21/-	27/-	32/-	37/-	49/-	58/-	100/-
Main cocks	2/3/	7/-	8/9	11/6	16/-	21/6	28/-	35/-	45/-	68/-	100/-	112/125/	125/150/	150/180/	210/270/	360/420/
Do. with brass plugs	...	3/6	4/-	5/6	7/6	10/-	13/-	17/6	22/-	38/-	60/-	65/-	75/-	120/160/	...	...
Round way cocks	...	10/6	12/-	16/6	22/6	30/-	39/-	52/6	66/-	114/4	180/-	195/225/	250/300/	360/480/	...	...
Do. with brass plugs	...	1/6	1/8	2/2	2/8	3/2	3/6	4/-	4/3	4/9	6/-	7/6	9/-	12/-	14/-	19/-
Cock spanners, wrought,	...	1/-	1/4	1/8	2/-	2/4	3/-	3/6	4/-	4/9	6/-	7/6	9/-	12/-	14/-	19/-
Do. Malleable cast	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Syphon boxes, 1 quart	...	...	22/9	23/-	23/4	24/-	24/6	25/2	26/3	28/6	35/6	38/6	42/6	55/6	61/6	67/6
Do. do. 2 quarts	...	...	...	27/4	28/-	28/6	29/2	30/3	32/6	37/6	40/6	43/6	47/6	55/6	61/6	67/6
Do. (do. 3 do.	...	...	...	32/4	33/-	33/6	34/2	35/3	37/6	43/6	46/6	49/6	53/6	61/6	67/6	...
Do. (do. 4 do.	...	...	...	38/4	39/-	39/6	40/2	41/3	43/6	46/6	49/6	53/6	61/6	67/6	...	...

“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
$\frac{5}{16}$	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	”				

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

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	18	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	1338	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 JANUARY 1, 1910.**

Mesh	22 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	22 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	"
$\frac{3}{8}$ 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	$\frac{3}{8}$ 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	"
$\frac{1}{2}$ in.	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	"
"	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	2 8 0	25	$\frac{1}{2}$ 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	3 1 6	19	"
"	18	0 16 1	1 3 1	1 9 5	1 15 10	2 2 0	2 9 0	2 15 0	3 10 0	4 4 0	18	"
$\frac{1}{2}$ 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	$\frac{1}{2}$ 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 15 0	17	"
"	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 0 17	17	"
$\frac{1}{2}$ 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	$\frac{1}{2}$ 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 8 4	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	4 0 16	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	0 8	0 10	0 12	0 14	0 16	0 19	1 3	1 8	19	1½ in.
"	18	0 7	0 10	0 12	0 15	0 18	0 17	0 14	1 10	1 16	18	"
"	17	0 9	0 13	0 16	1 1	1 3	1 1	1 11	1 19	2 3	17	"
1¾ in.	16	0 11	0 16	1 1	1 5	1 10	1 15	2 0	2 10	3 0	16	1¾ in.
"	19	0 5	0 7	0 9	0 11	0 6	0 18	1 1	1 6	1 6	19	"
"	17	0 8	0 9	0 11	0 14	0 6	0 15	1 1	1 11	1 12	17	"
"	16	0 10	0 11	0 15	0 18	1 1	1 4	1 8	1 15	2 2	16	"
2 in.	19	0 4	0 6	0 8	1 0	1 6	0 12	0 14	0 3	1 2	19	2 in.
"	18	0 5	0 8	1 0	0 9	1 1	0 16	0 18	0 18	1 2	18	"
"	17	0 7	0 10	0 13	0 15	0 14	1 1	1 4	1 10	1 16	17	"
"	16	0 9	0 13	0 17	1 0	1 3	1 1	1 11	1 19	2 3	16	"
"	15	0 11	0 17	1 1	1 5	1 1	1 4	1 19	2 3	3 19	15	"
2½ in.	14	0 15	1 1	1 7	1 13	1 18	0 11	2 10	3 3	3 16	14	2½ in.
"	19	0 3	0 5	0 8	0 10	0 9	0 13	0 12	0 15	0 19	19	"
"	18	0 4	0 6	0 11	0 13	0 11	0 18	0 15	0 19	1 1	18	"
"	17	0 6	0 8	0 14	0 17	0 15	1 2	1 6	1 12	1 11	17	"
"	16	0 9	0 13	0 17	1 1	1 4	1 8	1 12	2 0	2 8	16	"
3 in.	15	0 13	0 19	0 24	0 30	0 36	0 22	0 26	0 34	0 44	15	3 in.
"	19	0 4	0 5	0 7	0 8	0 10	0 11	0 11	0 16	0 17	19	"
"	18	0 5	0 7	0 9	0 11	0 13	0 14	0 13	0 18	0 20	18	"
"	17	0 6	0 9	0 12	0 14	0 16	0 15	0 17	1 1	1 1	17	"
"	16	0 8	0 11	0 14	0 17	0 19	0 19	2 0	1 7	1 13	16	"
"	15	0 11	0 15	0 19	0 23	0 27	0 22	2 6	1 19	2 2	15	"
4 in.	14	0 15	0 21	0 27	0 33	0 39	0 28	3 5	2 3	3 10	14	4 in.
"	17	0 6	0 9	0 12	0 15	0 18	0 19	0 17	0 18	1 1	17	"
"	16	0 8	0 11	0 14	0 17	0 20	0 22	0 20	1 3	1 16	16	"
"	15	0 10	0 14	0 18	0 22	0 26	0 25	3 0	1 8	2 4	15	"
"	14	0 13	0 18	0 23	0 28	0 33	0 31	4 9	2 4	3 10	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

Discount

Per	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	0
7 $\frac{1}{2}$	—	—	0	0 $\frac{1}{2}$	0	1	0	2	0	2 $\frac{1}{2}$	0	3 $\frac{1}{2}$	0	4 $\frac{1}{2}$	0	5 $\frac{1}{2}$	0	6	0
10	0	0 $\frac{1}{2}$	0	0 $\frac{1}{2}$	0	1 $\frac{1}{2}$	0	3	0	4 $\frac{1}{2}$	0	5 $\frac{1}{2}$	0	6	0	7 $\frac{1}{2}$	0	8	0
12 $\frac{1}{2}$	0	0 $\frac{1}{2}$	0	0 $\frac{1}{2}$	0	1 $\frac{1}{2}$	0	3	0	4 $\frac{1}{2}$	0	5 $\frac{1}{2}$	0	6	0	7 $\frac{1}{2}$	0	8	0
15	0	0 $\frac{1}{2}$	0	1	0	2	0	4	0	5 $\frac{1}{2}$	0	6 $\frac{1}{2}$	0	7	0	8	0	9	0
17 $\frac{1}{2}$	0	0 $\frac{1}{2}$	0	1	0	2	0	4	0	6 $\frac{1}{2}$	0	7 $\frac{1}{2}$	0	8 $\frac{1}{2}$	0	9 $\frac{1}{2}$	0	10 $\frac{1}{2}$	0
20	0	0 $\frac{1}{2}$	0	1	0	2 $\frac{1}{2}$	0	5	0	7	0	8 $\frac{1}{2}$	0	9 $\frac{1}{2}$	0	10 $\frac{1}{2}$	0	11 $\frac{1}{2}$	0
22 $\frac{1}{2}$	0	0 $\frac{1}{2}$	0	1 $\frac{1}{2}$	0	2 $\frac{1}{2}$	0	5 $\frac{1}{2}$	0	8	0	9 $\frac{1}{2}$	0	10 $\frac{1}{2}$	0	11 $\frac{1}{2}$	0	12 $\frac{1}{2}$	0
25	0	0 $\frac{1}{2}$	0	1 $\frac{1}{2}$	0	3	0	6	0	9	0	10 $\frac{1}{2}$	0	11 $\frac{1}{2}$	0	12 $\frac{1}{2}$	0	13 $\frac{1}{2}$	0
27 $\frac{1}{2}$	0	1	0	1 $\frac{1}{2}$	0	3 $\frac{1}{2}$	C	6 $\frac{1}{2}$	0	10	1	11 $\frac{1}{2}$	0	12 $\frac{1}{2}$	0	13 $\frac{1}{2}$	0	14 $\frac{1}{2}$	0
30	0	1	0	2	0	3 $\frac{1}{2}$	C	7	0	11	1	12 $\frac{1}{2}$	0	13 $\frac{1}{2}$	0	14 $\frac{1}{2}$	0	15 $\frac{1}{2}$	0
32 $\frac{1}{2}$	0	1	0	2	0	4	0	8	0	11 $\frac{1}{2}$	1	13 $\frac{1}{2}$	0	14 $\frac{1}{2}$	0	15 $\frac{1}{2}$	0	16 $\frac{1}{2}$	0
35	0	1	0	2	0	4	0	8 $\frac{1}{2}$	1	0 $\frac{1}{2}$	1	15	1	16	1	17	1	18	1
37 $\frac{1}{2}$	0	1	0	2	0	4 $\frac{1}{2}$	0	9	1	1 $\frac{1}{2}$	1	16	1	17 $\frac{1}{2}$	1	18 $\frac{1}{2}$	1	19 $\frac{1}{2}$	1
40	0	1	0	2 $\frac{1}{2}$	0	5	0	9 $\frac{1}{2}$	1	2 $\frac{1}{2}$	1	17	2	18 $\frac{1}{2}$	2	19 $\frac{1}{2}$	2	20 $\frac{1}{2}$	2
42 $\frac{1}{2}$	0	1 $\frac{1}{2}$	0	2 $\frac{1}{2}$	0	5	0	10	1	3 $\frac{1}{2}$	1	18 $\frac{1}{2}$	2	19 $\frac{1}{2}$	2	20 $\frac{1}{2}$	2	21 $\frac{1}{2}$	2
45	0	1 $\frac{1}{2}$	0	2 $\frac{1}{2}$	0	5 $\frac{1}{2}$	0	11	1	4	1	19 $\frac{1}{2}$	2	20 $\frac{1}{2}$	2	21 $\frac{1}{2}$	2	22 $\frac{1}{2}$	2
47 $\frac{1}{2}$	0	1 $\frac{1}{2}$	0	3	0	5 $\frac{1}{2}$	0	11 $\frac{1}{2}$	1	5	1	20 $\frac{1}{2}$	2	21 $\frac{1}{2}$	2	22 $\frac{1}{2}$	2	23 $\frac{1}{2}$	2
50	0	1 $\frac{1}{2}$	0	3	0	6	1	0	1	6	2	21	2	22	3	23	3	24	3
52 $\frac{1}{2}$	0	1 $\frac{1}{2}$	0	3	0	6 $\frac{1}{2}$	1	0 $\frac{1}{2}$	1	7	2	22	2	23	3	24	3	25	3
55	0	1 $\frac{1}{2}$	0	3 $\frac{1}{2}$	0	6 $\frac{1}{2}$	1	1	1	8	2	23	2	24	3	25	3	26	3
57 $\frac{1}{2}$	0	1 $\frac{1}{2}$	0	3 $\frac{1}{2}$	0	7	1	2	1	8 $\frac{1}{2}$	2	24	2	25	3	26	3	27	3
60	0	2	0	3 $\frac{1}{2}$	0	7 $\frac{1}{2}$	1	2 $\frac{1}{2}$	1	9 $\frac{1}{2}$	2	25	3	26	3	27	3	28	3
62 $\frac{1}{2}$	0	2	0	3 $\frac{1}{2}$	0	7 $\frac{1}{2}$	1	3	1	10 $\frac{1}{2}$	2	26	3	27	3	28	3	29	3
65	0	2	0	4	0	8	1	3 $\frac{1}{2}$	1	11 $\frac{1}{2}$	2	27	3	28	3	29	3	30	3
67 $\frac{1}{2}$	0	2	0	4	0	8	1	4	2	0 $\frac{1}{2}$	2	28	3	29	3	30	3	31	3
70	0	2	0	4	0	8 $\frac{1}{2}$	1	5	2	1	2	29	3	30	3	31	3	32	3
72 $\frac{1}{2}$	0	2	0	4 $\frac{1}{2}$	0	8 $\frac{1}{2}$	1	5 $\frac{1}{2}$	2	2	2	30	3	31	3	32	3	33	3
75	0	2	0	4 $\frac{1}{2}$	0	9	1	6	2	3	3	31	3	32	3	33	3	34	3
77 $\frac{1}{2}$	0	2 $\frac{1}{2}$	0	4 $\frac{1}{2}$	0	9 $\frac{1}{2}$	1	6 $\frac{1}{2}$	2	4	3	32	3	33	3	34	3	35	3
80	0	2 $\frac{1}{2}$	0	5	0	9 $\frac{1}{2}$	1	7	2	5	3	33	3	34	3	35	3	36	3

Table.

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	20 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 $\frac{1}{2}$	1 0	
0 10	0 11	0 11 $\frac{1}{2}$	1 0 $\frac{1}{2}$	1 1	1 1 $\frac{1}{2}$	1 2	1 3	1 3 $\frac{1}{2}$	1 4	1 6
1 1	1 2 $\frac{1}{2}$	1 3	1 3 $\frac{1}{2}$	1 4	1 4 $\frac{1}{2}$	1 5	1 5 $\frac{1}{2}$	1 6	1 6 $\frac{1}{2}$	2 0
1 4 $\frac{1}{2}$	1 6	1 7 $\frac{1}{2}$	1 9	1 10 $\frac{1}{2}$	2 0	2 1	2 1 $\frac{1}{2}$	2 2	2 2 $\frac{1}{2}$	2 6
1 8	1 9 $\frac{1}{2}$	1 11 $\frac{1}{2}$	2 1	2 2	2 3	2 4	2 4 $\frac{1}{2}$	2 5	2 5 $\frac{1}{2}$	3 0
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 17 $\frac{1}{2}$	3 6
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 $\frac{1}{2}$	3 11 $\frac{1}{2}$	4 0
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 $\frac{1}{2}$	4 6 $\frac{1}{2}$	4 6
2 9	3 0	3 3	3 6	3 9	4 0	4 3	4 6	4 9	5 0	5 0
3 0 $\frac{1}{2}$	3 3 $\frac{1}{2}$	3 7	3 10	4 1 $\frac{1}{2}$	4 5	4 8	4 11 $\frac{1}{2}$	5 2 $\frac{1}{2}$	5 6	5 6
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 $\frac{1}{2}$	6 0	6 0
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	6 6	6 6
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	7 0	7 0
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 $\frac{1}{2}$	7 6	7 6
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	8 0	8 0
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	8 6	8 6
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 $\frac{1}{2}$	9 0	9 0
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	9 6	9 6
5 6	6 0	6 6	7 0	7 6	8 0	8 6	9 0	9 6	10 0	10 0
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 $\frac{1}{2}$	10 6	10 6
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 $\frac{1}{2}$	11 0	11 0
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	11 6	11 6
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	12 0	12 0
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 $\frac{1}{2}$	12 6	12 6
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	13 0	13 0
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	13 6	13 6
7 8 $\frac{1}{2}$	8 5	9 1	9 9	10 6	11 2 $\frac{1}{2}$	11 11	12 7	13 3 $\frac{1}{2}$	14 0	14 0
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 $\frac{1}{2}$	14 6	14 6
8 3	9 0	9 9	10 6	11 3	12 0	12 9	13 6	14 3	15 0	15 0
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 $\frac{1}{2}$	15 6	15 6
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 $\frac{1}{2}$	16 0	16 0

LYSAGHT'S "ORB" brand GALVANIZED IRON has an

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

established reputation of more than half a century

Tanks—Square Black Iron.

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

Tanks—Corrugated Iron.

(CIRCULAR)
Reputed Capacity

—	Height of Tank				
Diameter.	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.

Something about TANKS

CIRCULAR CORRUGATED IRON REPUTED CAPACITY			
Diam.	Height of Tank		
	4ft.	5 ft.	6 ft.
ft. in	Gall.	Gall.	Gall.
3 3	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
6 0	—	—	1050

SQUARE IRON CAPACITY	
2 ft. 8 in. sq.	100 Gall.
3 „ 3 „	200 „
3 „ 8 „	300 „
4 „ 0 „	400 „

Water. A cube foot of water contains nearly $6\frac{3}{4}$ gallons (6.2321) and weighs a fraction over 62 lbs. (62.5)

To compute the capacity of a Tank

Square or Rectangular. Multiply the length by the breadth and the product by the depth; the result multiplied by $6\frac{3}{4}$ (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 $6\frac{3}{4}$ (6.2321) will give the contents in gallons.

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 countries and other localities in which the water possesses mineral properties, the result is, however, less satisfactory, and in such cases Tanks should be made from **Lysaght's Special Blue Tank-Making Sheets**, which are largely used for this purpose in India and other tropical countries.

(See page 52 for information on tank capacity)

century. It still holds the foremost place.

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
1⅞	1800	50803	55660
1½	2083	60480	66400

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 Rrigging.	Flexible Hawsers.	Patent Cast Steel.	Plough Cast Steel.	Galv'd. B.B. Rrigging.	Galv'd. C.S. Hauser.			
6"	17"	34½	32	30	115	170	55	88	6"		
5½"	16"	29	26	26	95	142	42	74	5½"		
5"	15"	24	22	21	80	120	34	59	5"		
4½"	14"	21½	20	17	71	107	32	47	4½"		
4"	13"	17½	16	12½	57	85	26	36	4"		
3½"	12"	15½	14	11	51	75	22	33	3½"		
3"	11"	12	11	8	39	58	16	26	3"		
2½"	10"	8½	8	6	28	42	11	18	2½"		
2"	9"	7	7	5	24	36	8.55	15½	2"		
1½"	8"	6	6	4	20	29	7.4	12	1½"		
1"	7"	5	5	3	15½	23	6.35	9½	1"		
¾"	6"	4	4	2½	12½	18½	4.3	7	¾"		
⅝"	5"	3	3	2	9½	14½	3.25	5½	⅝"		
⅞"	4"	2	2	1½	7	10½	2.25	3	⅞"		
1"	3"	1½	1½	1	4½	7	1.75	1½	1"		
1"	5-16	1	1	¾	3	4½	1	1½	1"		

and even quality, is a perfect roofing sheet.

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, 1910

PIPE.

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

O. G. SPOUTING.

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

HALF ROUND SPOUTING.

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

RIDGING.

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

“ORB” IRON. You know it at once by its

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

beautiful appearance. It's bright and it lasts.

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 $\frac{1}{8}$	"	" "	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 in. 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.

“ORB” IRON is unrivalled for

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

quality, durability, uniformity, and finish.

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 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 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.

Amended Postal Rates 1911

COMMONWEALTH (As at May 1st.)

Letters, including United Kingdom, Oversea Dominions, British Colonies, and Protectorates, one penny per half ounce.

Letter cards, single, 1d. each: reply, 1d. each half.

Post-cards, single, 1d.; reply, 1d. each half.

Printed papers, other than newspapers, as prescribed, $\frac{1}{2}$ d. per 2 oz., or part of 2 oz.

Wholly Printed Matter (except the address, which may be written only on the exterior or cover of the packet), for every 2 oz., or under, up to 5 lbs., $\frac{1}{2}$ d.

Books, printed outside Australia, $\frac{1}{2}$ d. per 4 oz., or part of 4 oz.

Books, printed in Australia, $\frac{1}{2}$ d. per 8 oz., or part of 8 oz.

Newspapers, For places within the Commonwealth, or to New Zealand, Fiji, and Papua. Each newspaper (published and registered in the Commonwealth) for every 10 oz. or under, $\frac{1}{2}$ d.

(Newspapers printed or published outside the Commonwealth, when posted in the Commonwealth, are subject to Magazine Rates of Postage.)

United Kingdom: Not exceeding 8 oz., 1d. each newspaper; exceeding 8 oz., but not exceeding 10 oz., 2 $\frac{1}{2}$ d., every additional 2 oz., or fraction thereof, $\frac{1}{2}$ d.

All other places: Not exceeding 4 oz., 1d. each newspaper and $\frac{1}{2}$ d. for every additional 2 oz., or fraction thereof.

(a) **Magazines**, reviews, serials, and other similar publications printed and published in Australia, in numbers at intervals not exceeding three months, $\frac{1}{2}$ d. for 8 oz., or part of 8 oz.

(b) **Magazines**, reviews, serials and other similar publications (including newspapers), printed and published outside Australia, in numbers at intervals not exceeding three months, $\frac{1}{2}$ d. per 4 oz., or part of 4 oz.

Commercial papers, patterns, samples, and merchandise, as prescribed, 1d. per 2 oz., or part of 2 oz.

Parcels Post, Inland, 1 lb. or under 6d., each additional 1 lb., 3d.
Interstate, " " " 8d., " " " 6d.

REGISTRATION FEE. Letters, 3d.

Amended Postal Rates

(CONTINUED)

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. in 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 words, 1d.
Inter-State—16 words, 1d. 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.

Capacity of a Circular Tank.

To find the approximate capacity of a circular tank
—square diameter in inches—multiply by height in
inches—divide product by 353—result will be capacity
in gallons.

This is an easy formula for those who do not under-
stand decimals or fractions.

taken in its manufacture, is always reliable.

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.

British Weights & Measures--(Cont.) Bag of Flour

English, 280 lbs. ; Australian, 150 lbs.

A Bag of Flour for shipment from Australia to South Africa contains 98 lbs.

A Bag of Flour for shipment from Australia to England contains 140 lbs.

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

the confidence of ironworkers everywhere.

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.				Per bushel.			
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.

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 English equiv.
12	250.12—1
20	2084-4 shillings & pence 104-4 pounds & shillings

AVERAGE RAINFALL IN AUSTRALIA

*This Information is compiled from Official
Year Book of the Commonwealth*

VICTORIA

	Inches		Inches
Bairnsdale	29.01	Omeo	25.73
Ballarat	28.45	Outtrim	45.69
Bendigo	21.53	Portland	32.87
Casterton	25.60	Port Albert	25.48
Castlemaine	23.86	Sale	23.74
Cape Otway	34.15	Swan Hill	13.43
Colac	26.28	Wodonga	26.58
Echuca	17.05	Warracknabeal . .	14.68
Geelong	16.74	Warragul	39.76
Hopetoun	11.74	Warrnambool . . .	25.03
Horsham	17.30	Wilson's Promty. .	42.45
Melbourne	25.43	Yarrawonga . . .	19.98
Mildura	11.01		

TASMANIA

	Inches		Inches
Hobart	23.29	Stanley	33.17
Launceston	27.72	Waratah	84.53

NEW SOUTH WALES

	Inches		Inches
Armidale	31.85	Lismore	53.69
Bathurst	23.95	Maitland	33.79
Bourke	15.29	Moulamein	14.60
Broken Hill	9.25	Mudgee	26.26
Condoblin	17.82	Mungindi	20.45
Cobar	14.81	Manilla	26.09
Deniliquin	16.58	Moree	23.61
Delegate	26.70	Newcastle	47.33
Dubbo	22.23	Narrandera	17.45
Eden	34.45	Orange	36.71
Forbes	20.28	Parramatta	36.67
Grafton	38.62	Sydney	48.80
Goulburn	25.95	Walgett	18.88
Hay	14.50	Wagga	21.87
Hungerford	12.70	Wentworth	11.84
Kempsey	48.65	Wilcannia	10.46
Kiama	52.26		

QUEENSLAND

	Inches		Inches
Adavale	15.73	Georgetown	31.77
Brisbane	48.36	Geraldton	145.71
Burketown	29.03	Isisford	20.01
Birdsville	6.38	Longreach	17.28
Boulia	11.09	Mackay	69.42
Banana	28.50	Maryborough	46.58
Cooktown	65.92	Mein	44.33
Charters Towers	26.66	Normanton	37.97
Cloncurry	19.93	St. George	21.70
Clermont	25.99	Thursday Island	60.30
Charleville	20.32	Taroom	27.36
Fairview	38.07	Winton	14.91

value for corrugated sheets.

NORTHERN TERRITORY

	Inches		Inches
Alice Springs . .	10.78	Port Darwin . .	61.56
Charlotte Water	5.38	Tennant's Creek	15.18
Daly Waters . .	27.14		

WEST AUSTRALIA

	Inches		Inches
Broome	23.41	Laverton	10.43
Bunbury	36.56	Lawlers	8.68
Carnarvon . . .	8.81	Magnet	7.20
Coolgardie . . .	9.08	Nullagine	13.69
Derby	27.25	Northampton . .	20.74
Eucla	10.11	Onslow	8.13
Eyre	10.89	Perth	33.35
Esperance . . .	25.13	Peak Hill	10.60
Geraldton . . .	17.35	Southern Cross .	9.06
Hall's Creek . .	21.40	Walebing	18.55
Katanning . . .	17.49	Wyndham	28.08
Kellerberrin . .	11.86	York	17.05

SOUTH AUSTRALIA

	Inches		Inches
Adelaide	20.32	Port Augusta . .	9.14
Blinman	12.94	Oodnadatta . . .	4.67
Cape Borda . . .	24.80	Streaky Bay . . .	15.11
Cowell	11.70	Ororoo	13.33
Koorunga	17.64	William Creek . .	5.32
Mount Gambier	31.80	Wilgena	6.81

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

CALENDAR--1913

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

Lysaght's Trade Marks.



"ORB" Galvanised 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 maker's reputation, and may be specified by Architects and Engineers in the full confidence that it will justify their preference for British Manufactures.

Every Sheet of "ORB" Iron is its own Advertisement

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

Every Sheet of "ORB" IRON advertises itself.

Memoranda

“QUEEN'S HEAD” Flat Sheets command
Memoranda

the confidence of Ironworkers everywhere.

Memoranda

Every Sheet of LYSAGHT'S "ORB" and
Memoranda

“QUEEN'S HEAD” IRON branded in blue.

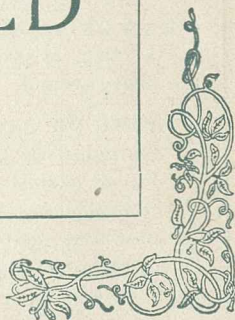
Memoranda

“Orb” Iron—maximum value—minimum cost.

Memoranda

The following appendix (for which the Publisher accepts no responsibility), has been compiled from standard sources of information—and will it is hoped prove of value to residents in country districts—who may be remote from medical aid.

FIRST AID TO THE INJURED



Wounds

Bleeding from Arteries

HEAD.—Pad and bandage the wound.

NECK.—Place thumb in wound and press backward against spine.

ARMPIT.—Press thumb into wound, second person to press main artery behind middle of collar-bone.

UPPER AND FOREARM.—Press with fingers, or apply tourniquet to inside of upper arm where pulsating. When below elbow, place pad in hollow or bend of elbow, and bend forearm against upper arm.

PALM OF HAND.—Bandage hand, closed over a piece of stick, or press arteries at front of wrist.

THIGH.—Hand pressure at centre of fold of groin, or by tourniquet on inside of thigh.

HAM OR BACK OF KNEE-JOINT.—Same as for a thigh, or press by hand or tourniquet in ham above wound.

FRONT OR BACK OF LEG.—Press by hand or tourniquet at back of knee-joint, or double the leg up against a pad placed in the ham.

A tourniquet can be made by placing a stone over the main artery, tying a handkerchief loosely over it, and then twisting it tight with a stick.

Every Sheet of "ORB" IRON advertises itself.

Blood from an artery is bright red, and flows in jets.

Blood from a vein is dark bluish, and flows slowly.

The flow in arteries is from heart to head, hands to feet.

The flow in veins is just the reverse.

INSTEP.—Pressure to the middle of front of ankle.

SOLE OF FOOT.—Bandage with pads behind inner ankle bones and middle of instep.

FOR ALL SITUATIONS.—Elevate the part and apply pad and bandages.

FLESH WOUNDS.—Wash, stop bleeding, fix parts in natural position without delay.

GUNSHOT WOUNDS OF CHEST OR BELLY.—

Place patient on wounded side with knees drawn up; give complete rest; no stimulants.

BRUISED WOUNDS.—Wash, apply wet cloths; if about head, poultices.

Broken Bones

LOWER JAW.—Bandage the lower to upper jaw with handkerchief.

COLLAR BONE.—Place pad in armpit, bandage elbow to side, sling forearm.

“ORB” IRON the universal standard of

RIBS.—Apply bandage 6 inches wide, 8 yards long, round chest.

UPPER ARM.—Bend arm and apply roller bandage to hand and forearm, splints to back and front, and sling forearm.

FOREARM.—Apply padded splints to back and front from hand to elbow, holding the arm extended with thumb pointing upwards.

HAND.—Apply splint bandage, and support in sling.

THIGH.—Apply a long splint from armpit to outside of heel, and short one from fork to knee on inside, and bandage.

LEG.—Apply splints inside and outside and bandage.

Stretcher Drill

1. Three men fall in, facing feet of injured man, and are numbered off from the right.
2. Place foot of stretcher at patient's head in a line continuous with the body.
3. Nos. 1 and 2 one at either side—locking hands underneath the shoulders and hips, raise the patient, carry him forward over the stretcher, and then lower him on to it.

4. No. 3 takes charge of the injured portion (limb or head) and steadies it with a hand on either side of the wound.
5. Nos. 1 and 2 then take their places at the head and foot of the stretcher, lift, and carry off, while No. 3 walks at side of stretcher.

Signs of Broken Bones

Motion at the part; crackling sensation on moving broken ends; alteration in shape; often shortening. Always apply splints before lifting or carrying. Dangers are of pushing the ends through flesh, blood-vessels, nerves, or internal organs (lungs).

Splints may be formed of soldiers' weapons—rifles, swords—and scabbards, umbrellas, walking sticks, broom handles, folded newspapers, etc. Bandages from handkerchiefs, sheets, and shirts. Stretchers from doors, ladders, or two rifles and a blanket.

General

AGUE.—As a preventative, give five grains of quinine every morning. As a cure, act on the bowels, give ten grains of quinine three times a day, and a vapour bath every evening.

LYSAGHT'S "ORB" IRON. Beware of

APOPLEXY.—Act on the bowels, apply wet cloths to the head, undo collar.

BITES.—Of Snakes, mad dogs. Apply a ligature (a cord) on the side nearest the heart; suck the wound, scratch the edges with a penknife, and apply caustic or carbolic acid to the wound.

BURNS.—Place the part in a natural position, and apply cloths, soaked in oil.

COLIC AND DIARRHOEA.—Give 20 drops of chlorodyne in a little brandy and water.

DYSENTERY.—A small teaspoonful of Ipecacuanha, and a powder every two hours.

DRUNKENNESS.—An emetic of a teaspoonful of mustard in water, and douch the head with cold water.

DELIRIUM TREMENS.—Act on the bowels, beef-tea every half hour, 20 grains of chloral in water as a sleeping draught.

DROWNING.—Strip the patient to the waist, open and clear the mouth and throat with the face downwards, placing one arm under the forehead; turn the patient well and instantly on the side, supporting the head, replace on the face, raising and supporting chest, turn body gently on the side and a little beyond and then briskly on the face, back again, repeat about fifteen times a

Imitations. There is nothing "just as good."

minute; each time the body is placed on the face, make uniform but efficient pressure on the back between the shoulder blades, with brisk movement; excite breathing by smelling salts or snuff. If unsuccessful within five minutes, place the patient on his back with his clothing underneath his shoulders, draw forward tongue, and keep it projecting beyond the lips, and grasping the arm above the elbows, raise them above his head for two seconds, then lower and press against the sides for two seconds. Repeat these motions fifteen times per minute for an hour if necessary. On restoring the breathing, apply warmth to the body by hot bottles, rubbing the skin, hot bath, and weak brandy and water.

EMETICS.—Substances which cause vomiting. A tablespoonful of salt, or mustard and water; an ounce of Ipecacuanha wine; 15 grains of sulphate of zinc in water.

FAINTING.—From loss of blood, weakness, or shock. Keep the body in the lying position, undo the dress, give plenty of air, sprinkle the face and chest with cold water; smelling salts to nostrils.

FITS.—Loosen the clothing about the neck; fresh air, and prevent patient from injuring himself.

FROSTBITE.—Avoid heat, and restore circulation in the part by rubbing the skin.

ITCH.—Soap and water, followed by sulphur ointment.

POISONS.—Emetics, castor or salad oil.

RHEUMATISM.—Avoid its causes; wet clothes, damp ground, liquor.

RUPTURE.—The escape of a portion of the bowel from the belly at the groin. To return it, place the patient on his back, with the knees drawn up, and apply pressure to the swelling in an upward and outward direction.

SORE FEET.—Anoint with oil or soap before marching, and harden the skin at night by washing with salt and water or spirits.

SCALDS.—Smear with a solution of lime oil, and envelope in cotton wool.

SPRAINS.—Elevate and rest limbs, apply cold water cloths.

SUNSTROKE.—Loosen dress at neck, act on bowels, cold water to head.

WATER.—Bad water may produce worms, diarrhoea, dysentery, fevers. Always use boiled or filtered water.

