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1 Mechanics Handbook Gauges

1.0.1 Am. Screw & Wire Co. AScWC

Source: Machinery's Handbook, 6^{th} edition, 1924, Page 429.

Gage	Size	Gage	Size
000 000	0.0095	14	0.0326
00 000	0.010	15	0.0345
0 000	0.011	16	0.036
000	0.012	17	0.0377
00	0.0133	18	0.0395
0	0.0144	19	0.0414
1	0.0156	20	0.0433
2	0.0166	21	0.046
3	0.0178	22	0.0483
4	0.0188	23	0.051
5	0.0202	24	0.055
6	0.0215	25	0.0586
7	0.023	26	0.0626
8	0.0243	27	0.0675
9	0.0256	28	0.072
10	0.027	29	0.076
11	0.0284	30	0.080
12	0.0296	31	0.085
13	0.0314	32	0.092

Table 1: Am. Screw & Wire Co. AScWCt

[0]AScWC.inc 10 February 2026 13:45

Plot of Am. Screw & Wire Co. `AScWCp`

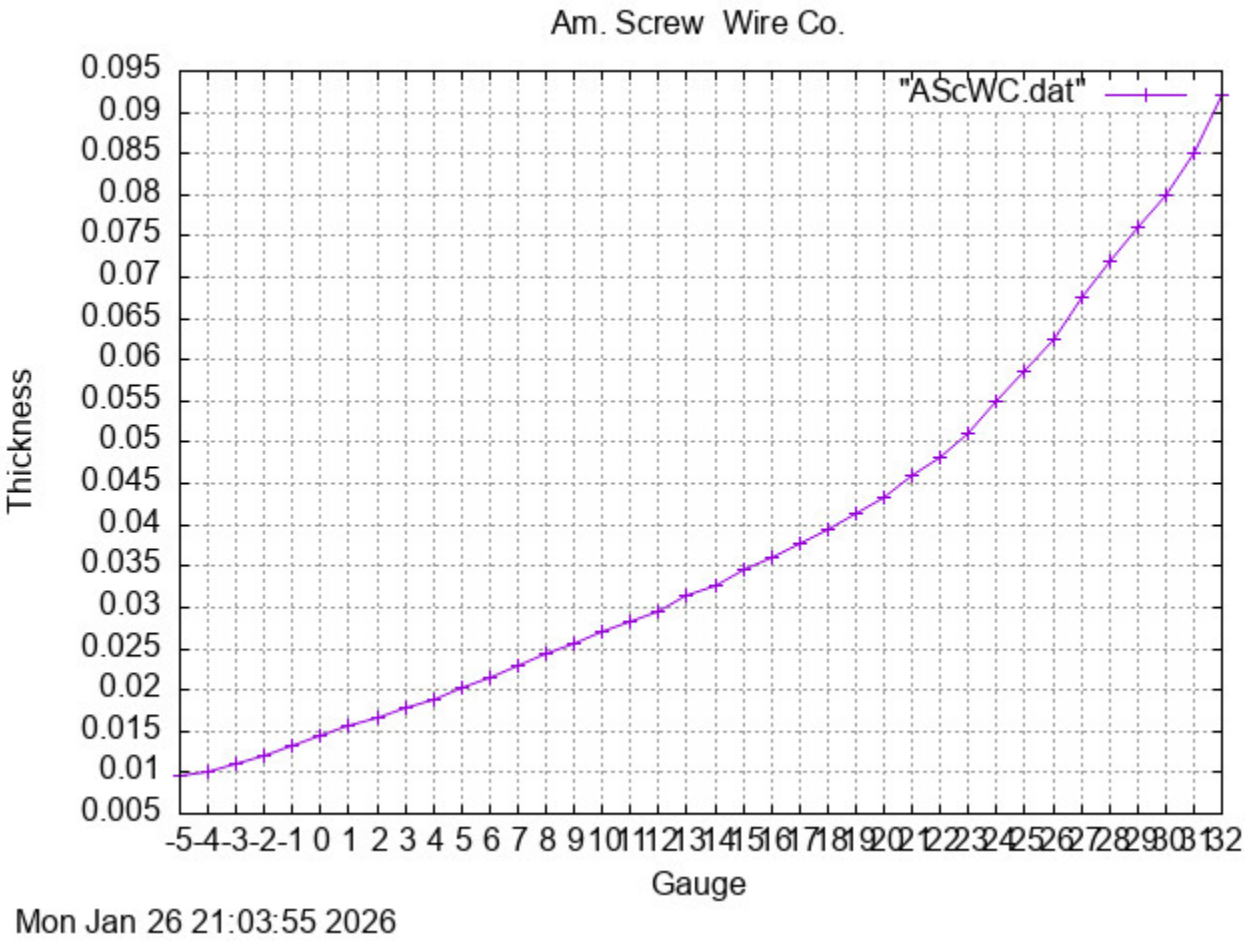

Figure 1: Am. Screw & Wire Co. `AScWC.inc`

1.0.2 English Music Wire EMW

Source: Machinery's Handbook, 6^{th} edition, 1924, Page 429.

Gage	Size	Gage	Size
2	0.0105	17	0.039
3	0.0115	18	0.040
4	0.0125	19	0.042
5	0.0145	20	0.043
6	0.015	21	0.0445
7	0.0175	22	0.047
8	0.019	23	0.049
9	0.022	24	0.053
10	0.0245	25	0.056
11	0.027	26	0.0605
12	0.0285	27	0.064
13	0.0305	28	0.0685
14	0.032	29	0.0715
15	0.035	30	0.075
16	0.036		

Table 2: English Music Wire EMWt

[0]EMW.inc 10 February 2026 13:45

Plot of English Music Wire `EMWp`

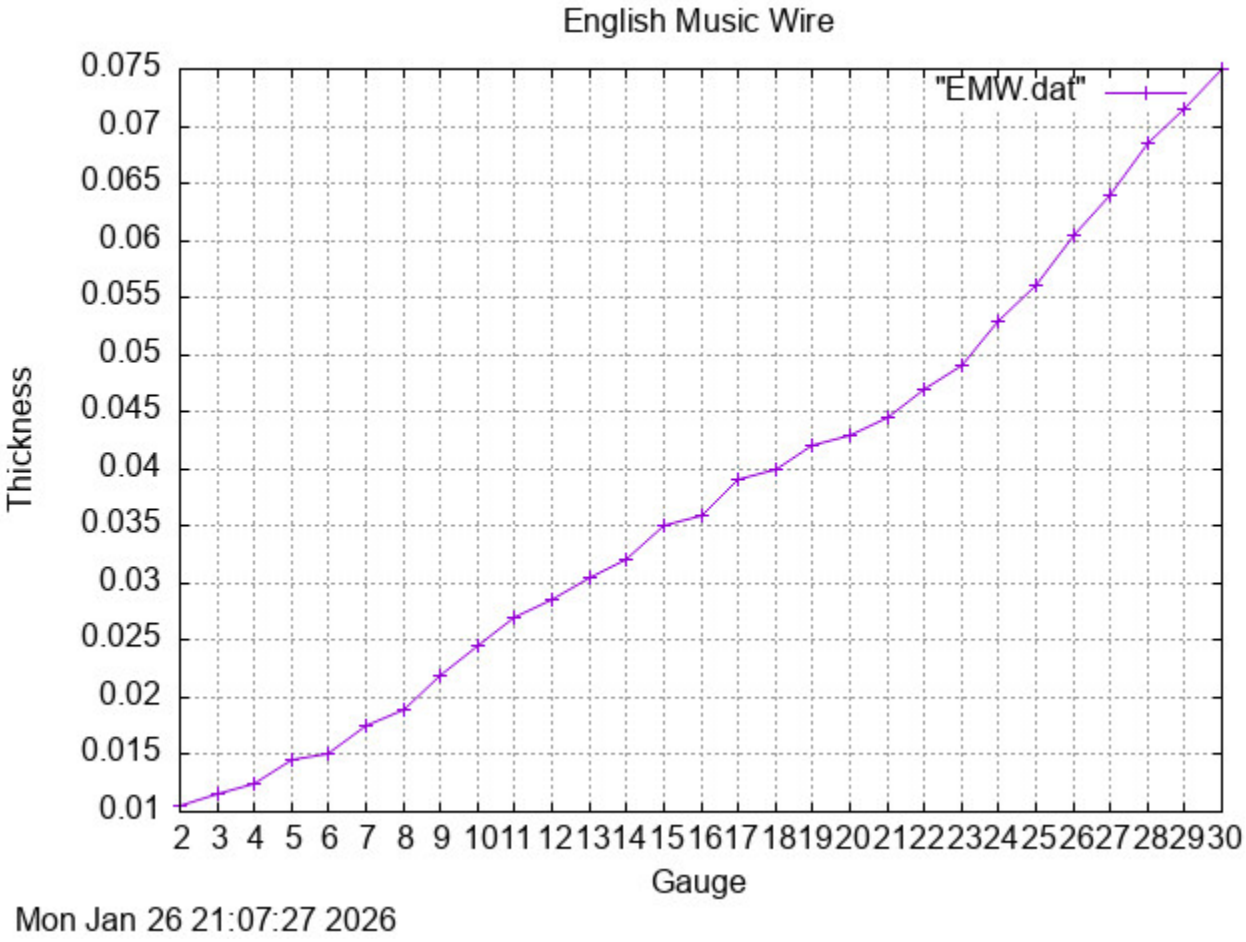

Figure 2: English Music Wire `EMW.inc`

1.0.3 Felten & Guilleanume FG

Source: Machinery's Handbook, 6^{th} edition, 1924, Page 429.

Gage	Size	Gage	Size
0 000	0.0068	15	0.0342
000	0.0075	16	0.0362
00	0.0087	17	0.0382
0	0.0093	18	0.0400
1	0.0098	19	0.0420
2	0.0106	20	0.0440
3	0.0114	21	0.0460
4	0.0122	22	0.0480
5	0.0138	23	0.0510
6	0.0157	24	0.0550
7	0.0177	25	0.0590
8	0.0197	26	0.0630
9	0.0216	27	0.0670
10	0.0236	28	0.0710
11	0.0260	29	0.0740
12	0.0283	30	0.0780
13	0.0303	31	0.0820
14	0.0325	32	0.0860

Table 3: Felten & Guilleanume FGt

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Plot of Felten & Guilleanume `FGp`

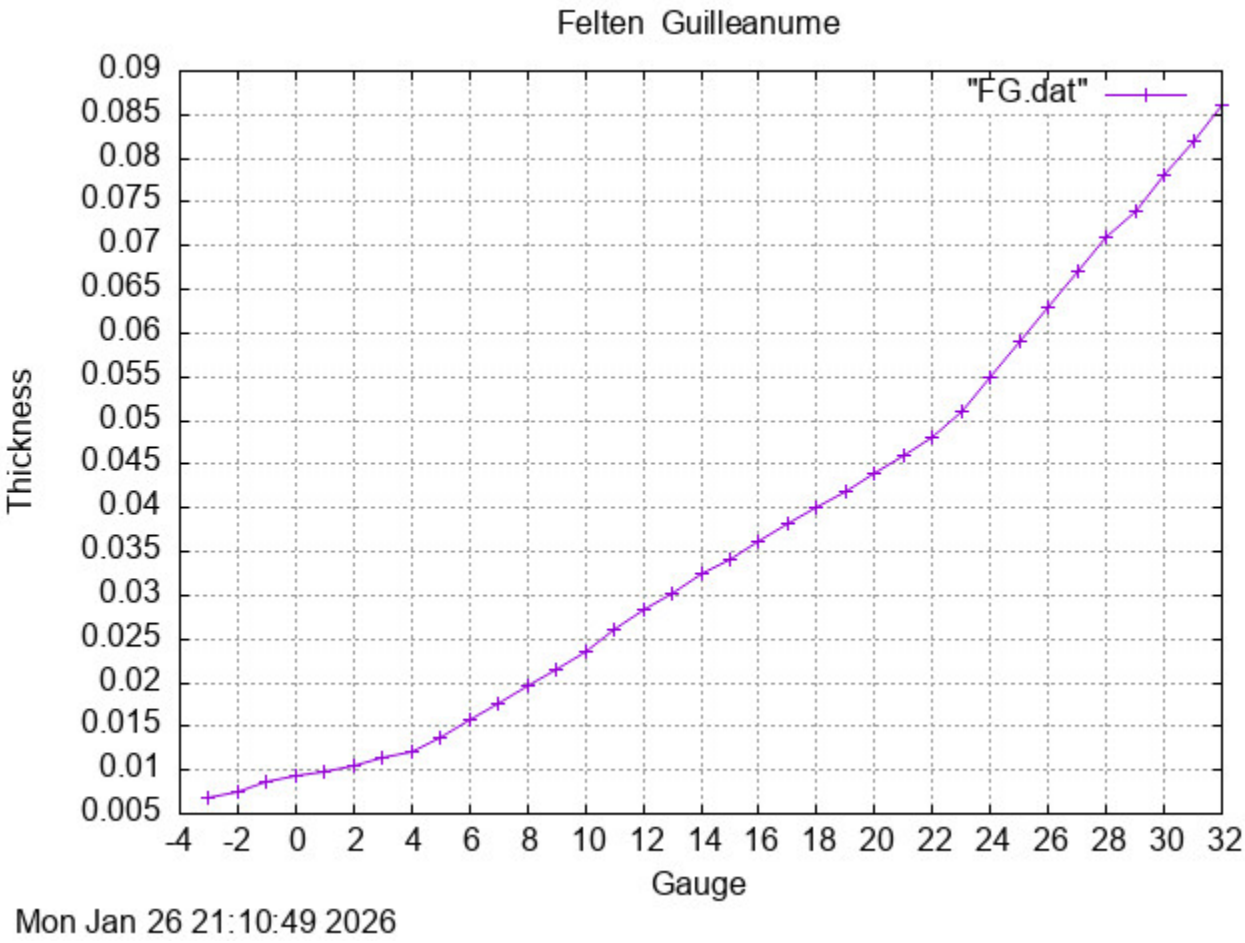

Figure 3: Felten & Guilleanume `FG.inc`

1.1 Hyprodermic Needle Dimensions HND

Source: Machinery's Handbook, 31^{st} Edition, 2020, page 2704. This is a very similar gauge to Stub's Iron Wire Gauge.

1.1.1 Hyprodermic Needle Dimensions Inside and Outside Dimentions HNDIOD

Gauge	Outside Diameter		Inside Diameter	
	mm	in	mm	in
6	5.156	0.2030	4.394	0.1730
7	4.572	0.1800	3.810	0.1500
8	4.191	0.1650	3.429	0.1350
9	3.759	0.1480	2.997	0.1180
10	3.404	0.1340	2.692	0.1060
11	3.048	0.1200	2.388	0.0940
12	2.769	0.1090	2.159	0.0850
13	2.413	0.0950	1.803	0.0710
14	2.108	0.0830	1.600	0.0630
15	1.829	0.0720	1.372	0.0540
16	1.651	0.0630	1.194	0.0470
17	1.473	0.0580	1.067	0.0420
18	1.270	0.0500	0.818	0.0330
19	1.067	0.0420	0.686	0.0270
20	0.902	0.0355	0.584	0.0230
21	0.813	0.0320	0.495	0.0195
22	0.711	0.0280	0.394	0.0155
22s	0.711	0.0280	0.140	0.0055
23	0.635	0.0250	0.318	0.0125
24	0.559	0.0220	0.292	0.0115
25	0.508	0.0200	0.241	0.0095
25s	0.508	0.0200	0.140	0.0055
26	0.457	0.0180	0.241	0.0095
26s	0.467	0.0184	0.114	0.0045
27	0.406	0.0160	0.191	0.0075
28	0.356	0.0140	0.165	0.0065
29	0.330	0.0130	0.165	0.0065
30	0.305	0.0120	0.140	0.0055
31	0.254	0.0100	0.114	0.0045
32	0.229	0.0090	0.089	0.0035
33	0.203	0.0080	0.089	0.0035

Table 4: Hyprodermic Needle Dimensions HNDt

[0]HND.inc 10 February 2026 13:45

Glitches in plots: In these gauges there are three "special" gauge values, 22s, 25s and 26s. When they are plotted I dropped the "s" and ploted these values along with the rest of the data. At the "s" points there is an otherwise unexpected, but explainable "glitch".

Needle Nominal Outside Diameter		Needle Nominal Inside Diameter
Gauge	Tolerance (in)	Tolerance (in)
7 8 9	±0.0010	±0.0030
10 12 14		±0.0020
16 17 19	±0.0005	±0.0015
25s 26 26s 27	+0.0005 −0.0000	+0.0015 −0.0000

Table 5: Hypodermic Needle Dimentions, Tolerances

Note most gauge IDs are omitted where nothing changes.

Plot of Inside vs Outside mm diameterse `HNDouinmm`

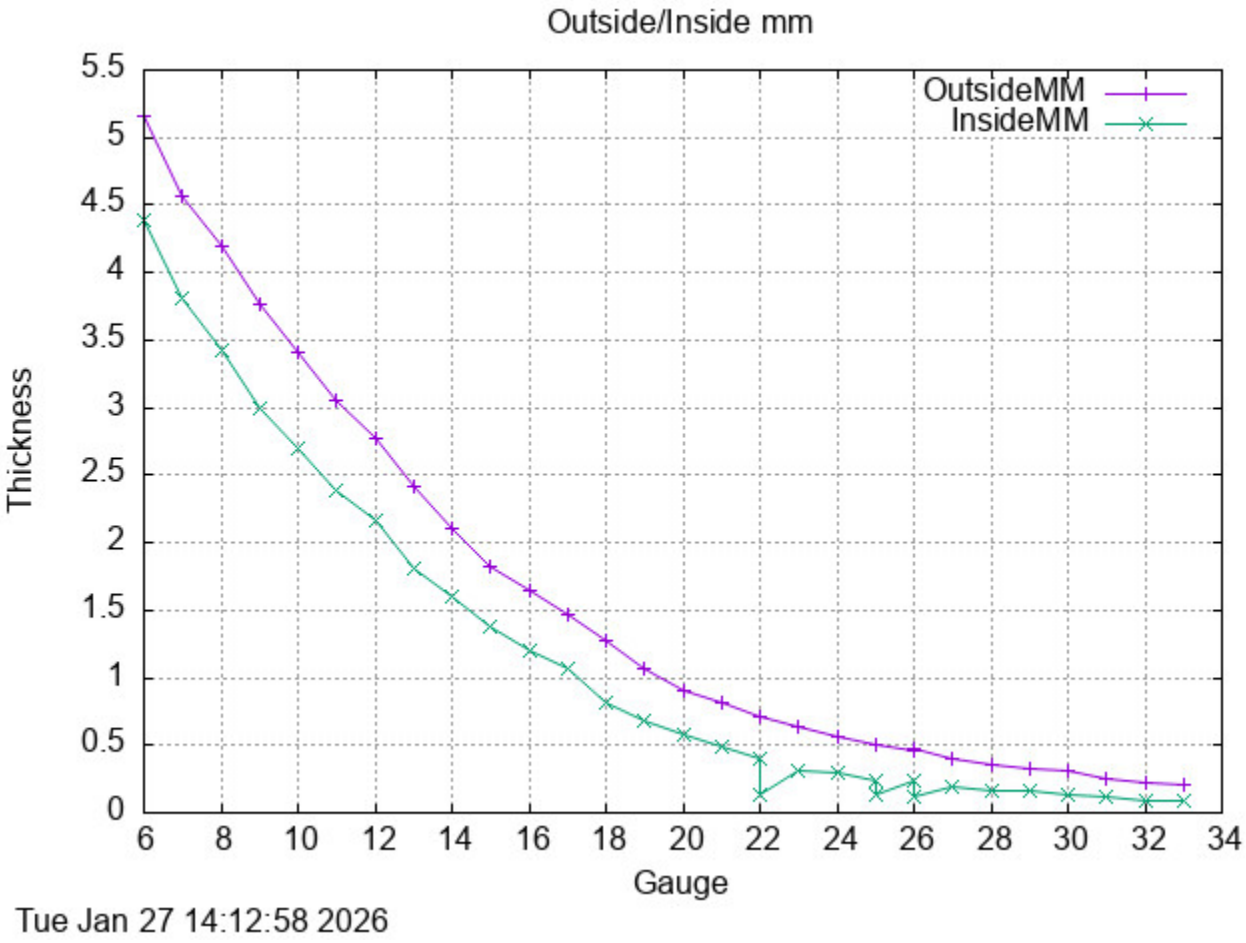

Figure 4: Inside vs Outside Hyprodermic Needle mm diameters `HND.inc`

Plot of Inside vs Outside inch diameters `HNDouinin`

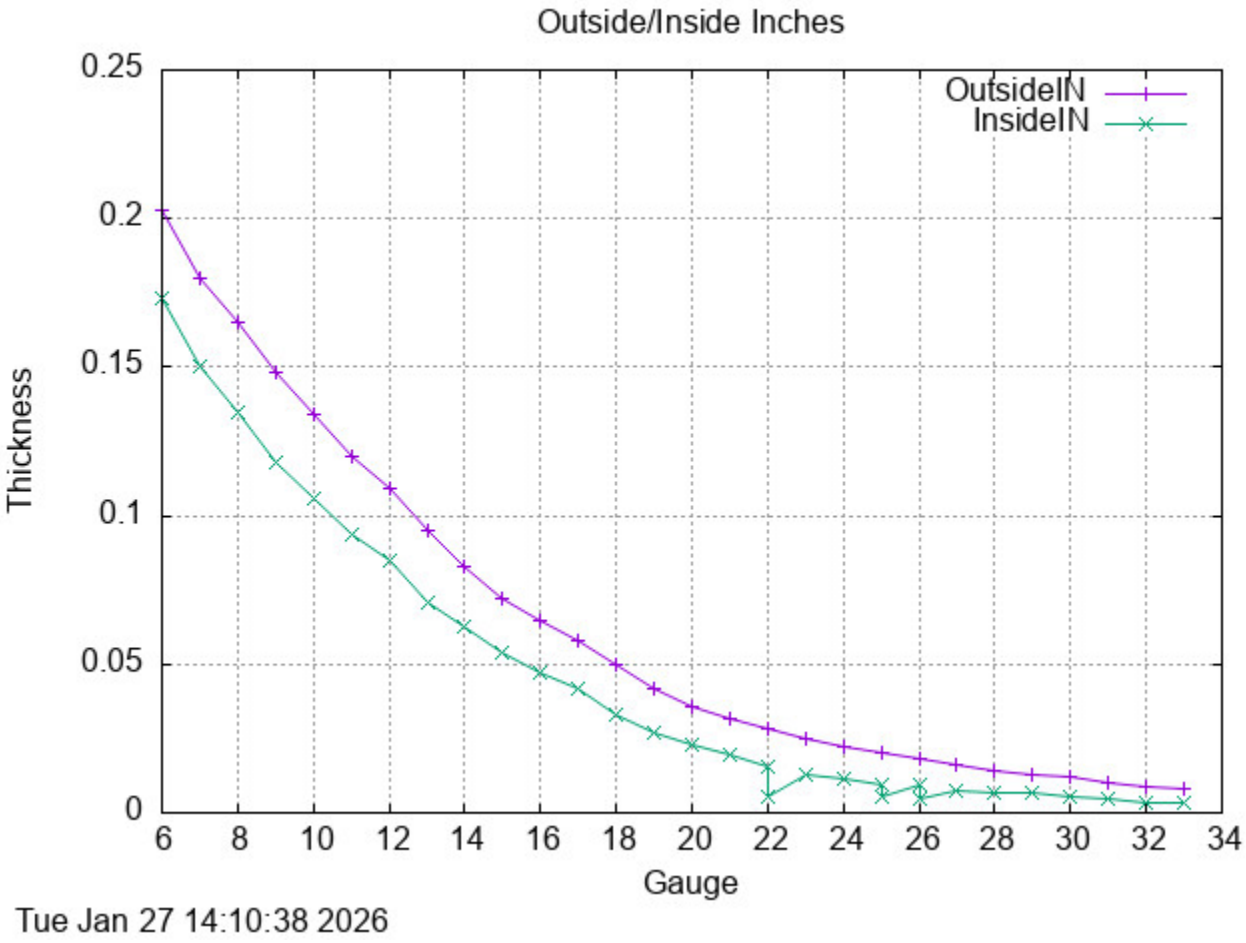

Figure 5: Inside vs Outside Hyprodermic Needle inch diameters `HND.inc`

1.1.2 Hyprodermic Needle Dimensions Outside Dimentions HYNDOD

Gauge	Outside Diameter	
	mm	in
6	5.156	0.2030
7	4.572	0.1800
8	4.191	0.1650
9	3.759	0.1480
10	3.404	0.1340
11	3.048	0.1200
12	2.769	0.1090
13	2.413	0.0950
14	2.108	0.0830
15	1.829	0.0720
16	1.651	0.0630
17	1.473	0.0580
18	1.270	0.0500
19	1.067	0.0420
20	0.902	0.0355
21	0.813	0.0320
22	0.711	0.0280
22s	0.711	0.0280
23	0.635	0.0250
24	0.559	0.0220
25	0.508	0.0200
25s	0.508	0.0200
26	0.457	0.0180
26s	0.467	0.0184
27	0.406	0.0160
28	0.356	0.0140
29	0.330	0.0130
30	0.305	0.0120
31	0.254	0.0100
32	0.229	0.0090
33	0.203	0.0080

Table 6: Hyprodermic Needle Outside Dimensions HNDOt

Plot of Outside mm diameterse `HNDoumm`

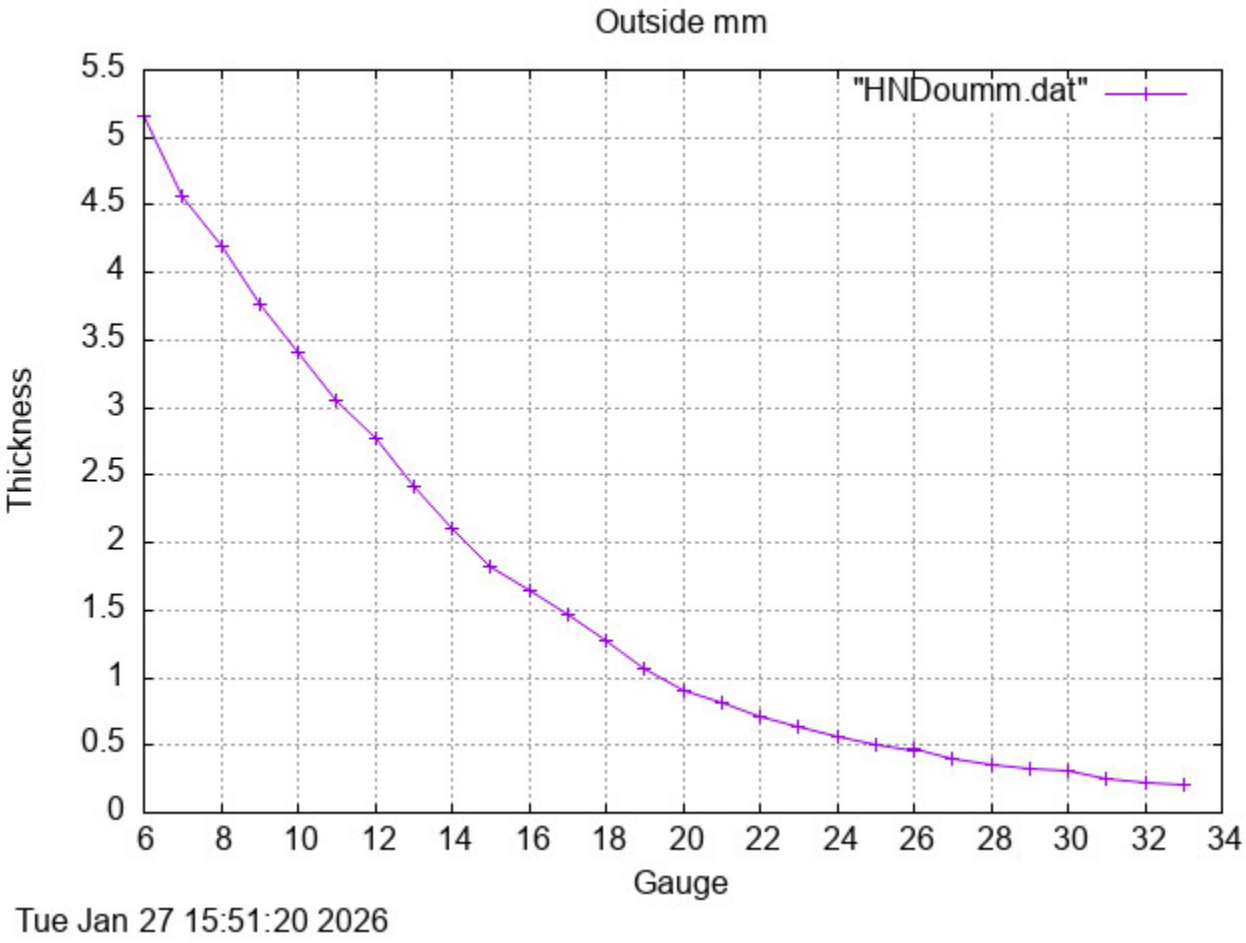

Figure 6: Outside Hyprodermic Needle mm diameters `HND.inc`

Plot of Outside inch diameters `HNDouin`

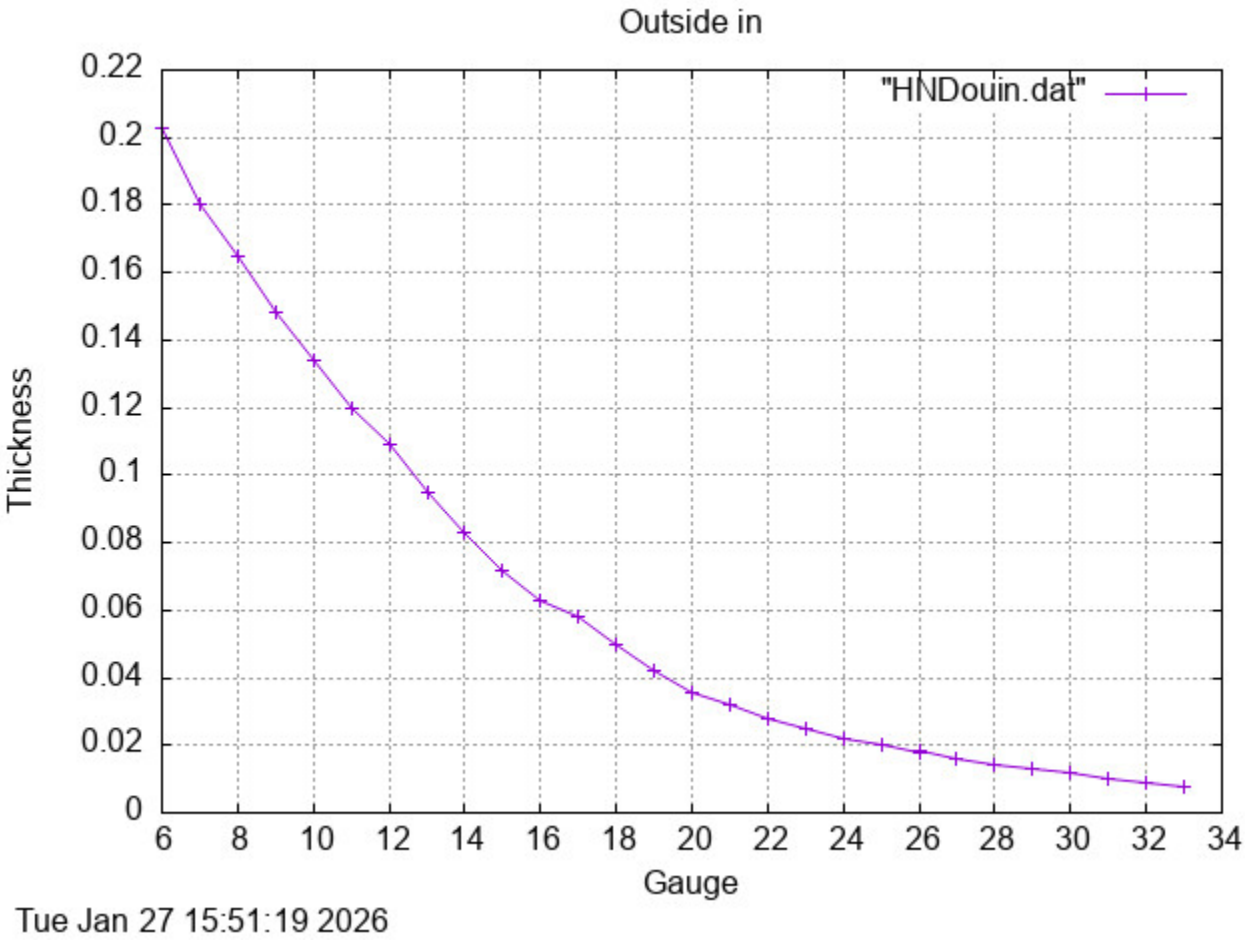

Figure 7: Outside Hyprodermic Needle inch diameters `HND.inc`

1.1.3 Hyprodermic Needle Dimensions Inside Dimensions HNDID

Gauge	Inside Diameter	
	mm	in
6	4.394	0.1730
7	3.810	0.1500
8	3.429	0.1350
9	2.997	0.1180
10	2.692	0.1060
11	2.388	0.0940
12	2.159	0.0850
13	1.803	0.0710
14	1.600	0.0630
15	1.372	0.0540
16	1.194	0.0470
17	1.067	0.0420
18	0.818	0.0330
19	0.686	0.0270
20	0.584	0.0230
21	0.495	0.0195
22	0.394	0.0155
22s	0.140	0.0055
23	0.318	0.0125
24	0.292	0.0115
25	0.241	0.0095
25s	0.140	0.0055
26	0.241	0.0095
26s	0.114	0.0045
27	0.191	0.0075
28	0.165	0.0065
29	0.165	0.0065
30	0.140	0.0055
31	0.114	0.0045
32	0.089	0.0035
33	0.089	0.0035

Table 7: Hyprodermic Needle Inside Dimensions HNDIt

Plot of Inside mm diameterse `HNDinmm`

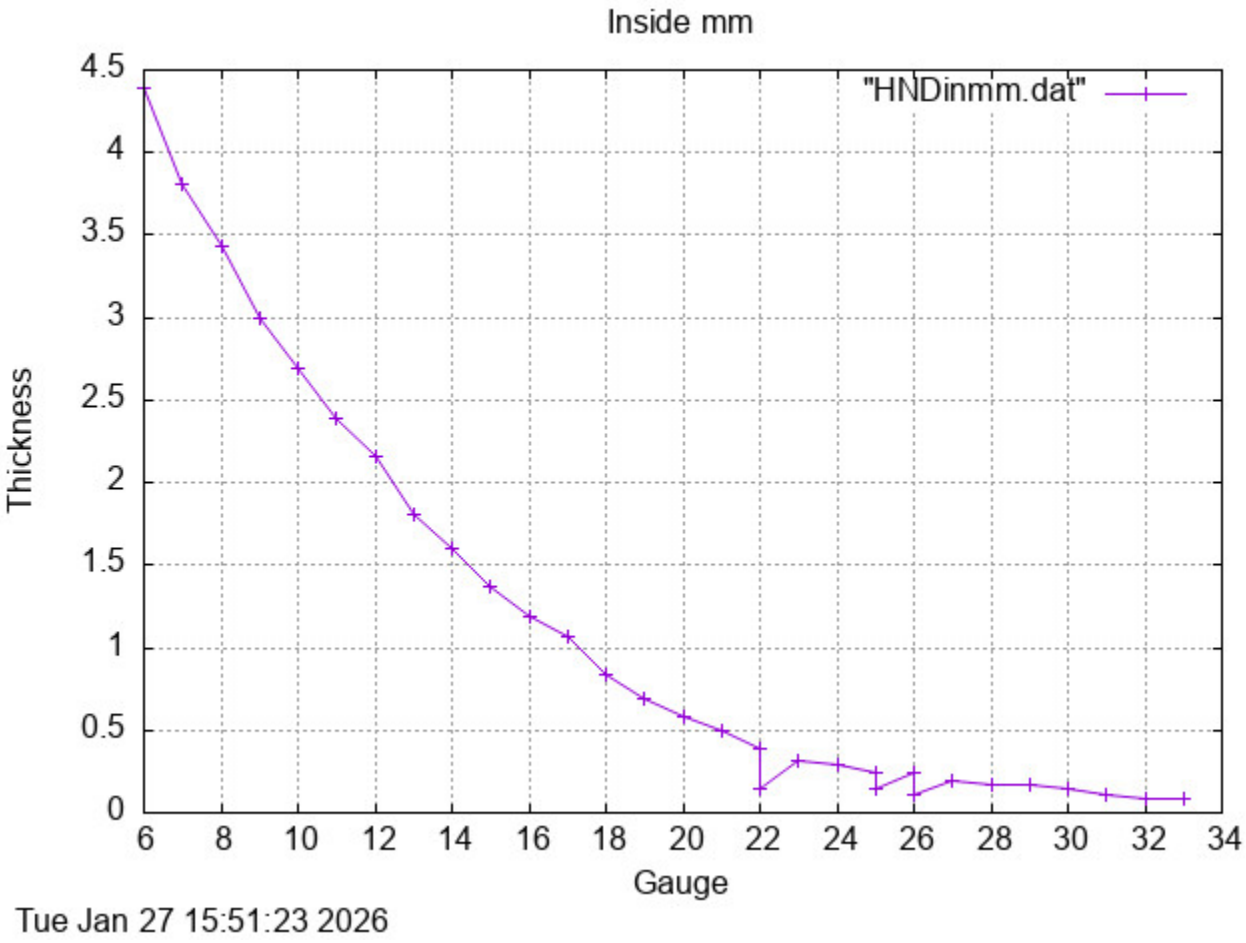

Figure 8: Inside Hyprodermic Needle mm diameters `HND.inc`

Plot of Inside inch diameters `HNDinin`

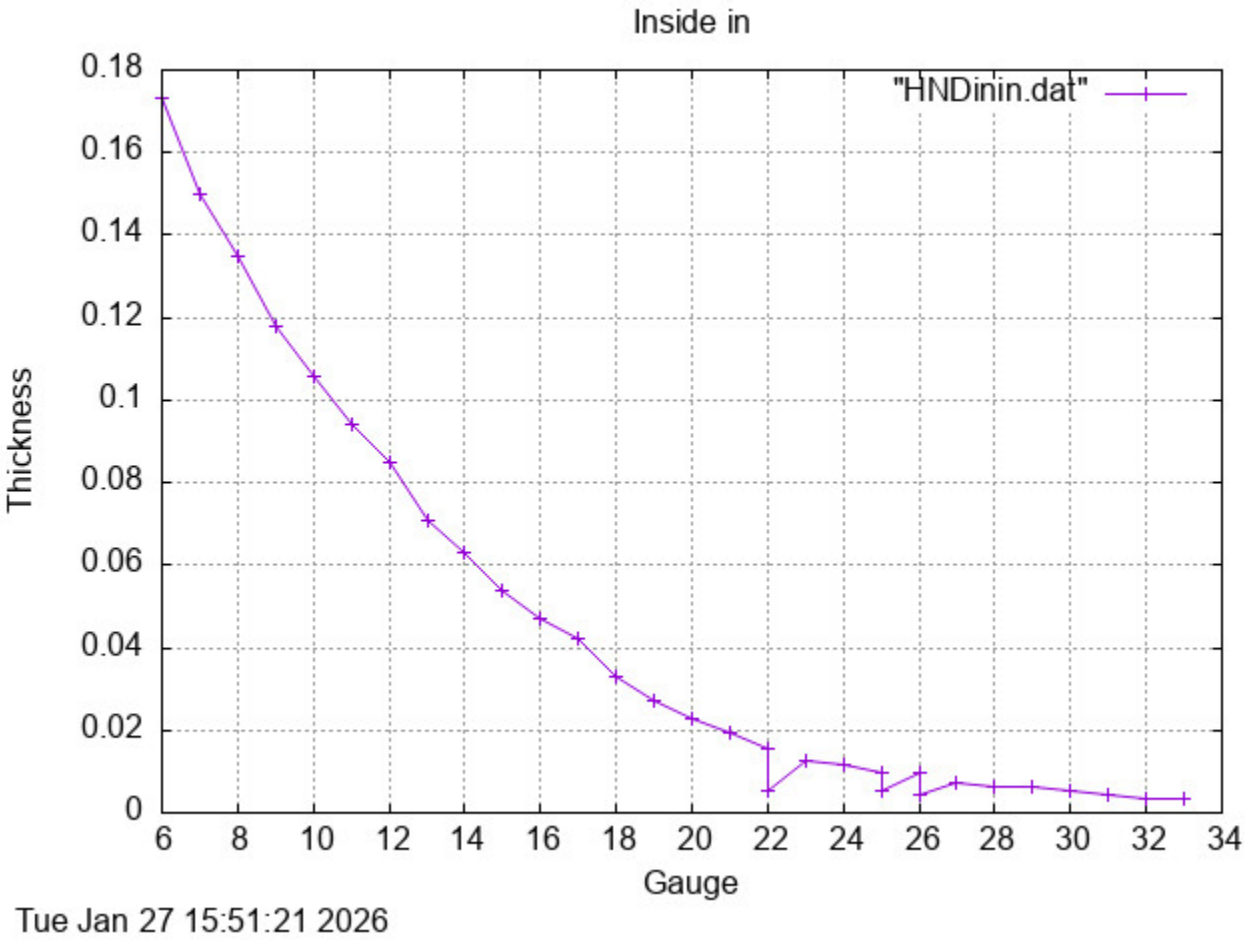

Figure 9: Inside Hyprodermic Needle inch diameters `HND.inc`

1.2 Music Wire Gauges MWG

Source: Machinery's Handbook, 6^{th} edition, 1924, Page 429.

Gage	Am. Steel & Wire Co.	Am. Screw & Wire Co.	Roebling, and Trenton Iron Co	Wright Wire Co.	Poehl-mann Music Wire	Felten & Guil-leanume	Allhof & Muller	W.N. Brun-ton Music Wire	English Music Wire
6/0	0.004	0.0095							
5/0	0.005	0.010							
4/0	0.006	0.011	0.007		0.006	0.0068			
3/0	0.007	0.012	0.0075		0.007	0.0075			
2/0	0.008	0.0133	0.0085	0.0085	0.008	0.0087	0.008	0.0085	
0	0.009	0.0144	0.009	0.009	0.009	0.0093	0.009	0.009	
1	0.010	0.0156	0.010	0.010	0.010	0.0098	0.010	0.010	
2	0.011	0.0166	0.011	0.011	0.011	0.0106	0.011	0.011	0.0105
3	0.012	0.0178	0.012	0.012	0.012	0.0114	0.012	0.012	0.0115
4	0.013	0.0188	0.013	0.013	0.013	0.0122	0.013	0.013	0.0125
5	0.014	0.0202	0.014	0.014	0.014	0.0138	0.014	0.014	0.0145
6	0.016	0.0215	0.016	0.016	0.016	0.0157	0.016	0.016	0.015
7	0.018	0.023	0.018	0.018	0.018	0.0177	0.018	0.017	0.0175
8	0.020	0.0243	0.020	0.020	0.020	0.0197	0.020	0.019	0.019
9	0.022	0.0256	0.022	0.022	0.022	0.0216	0.022	0.022	0.022
10	0.024	0.027	0.024	0.024	0.024	0.0236	0.024	0.024	0.0245
11	0.026	0.0284	0.026	0.026	0.026	0.0260	0.026	0.027	0.027
12	0.029	0.0296	0.028	0.028	0.029	0.0283	0.028	0.029	0.0285
13	0.031	0.0314	0.030	0.0305	0.031	0.0303	0.030	0.031	0.0305
14	0.033	0.0326	0.032	0.0325	0.033	0.0325	0.032	0.032	0.032
15	0.035	0.0345	0.034	0.034	0.035	0.0342	0.034	0.034	0.035
16	0.037	0.036	0.036	0.036	0.037	0.0362	0.036	0.036	0.036
17	0.039	0.0377	0.038	0.038	0.039	0.0382	0.038	0.038	0.039
18	0.041	0.0395	0.040	0.0405	0.041	0.0400	0.040	0.040	0.040
19	0.043	0.0414	0.042	0.042	0.043	0.0420	0.042	0.042	0.042
20	0.045	0.0433	0.044	0.044	0.045	0.0440	0.044	0.044	0.043
21	0.047	0.046	0.046	0.046	0.047	0.0460	0.046	0.046	0.0445
22	0.049	0.0483	0.048	0.0485	0.049	0.0480	0.048	0.048	0.047
23	0.051	0.051	0.051	0.0505	0.051	0.0510	0.051	0.050	0.049
24	0.055	0.055	0.055	0.0545	0.055	0.0550	0.055	0.054	0.053

Continued on the next page.

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Continued from the previous page.

Gage	Am. Steel & Wire Co.	Am. Screw & Wire Co.	Roebling, and Trenton Iron Co	Wright Wire Co.	Poehl-mann Music Wire	Felten & Guil-leanume	Allhof & Muller	W.N. Brun-ton Music Wire	English Music Wire
25	0.059	0.0586	0.059	0.0585	0.059	0.0590	0.059	0.058	0.056
26	0.063	0.0626	0.063	0.063	0.063	0.0630	0.063	0.062	0.0605
27	0.067	0.0675	0.067	0.067	0.067	0.0670	0.067	0.066	0.064
28	0.071	0.072	0.071	0.071	0.071	0.0710	0.071	0.069	0.0685
29	0.075	0.076	0.074	0.0745	0.075	0.0740	0.074	0.072	0.0715
30	0.080	0.080	0.078	0.078	0.080	0.0780	0.078	0.076	0.075
31	0.085	0.085	0.082	0.082		0.0820	0.082	0.080	
32	0.090	0.092	0.086	0.086		0.0860	0.086	0.086	
33	0.095		0.090	0.090			0.090	0.092	
34	0.100		0.095	0.096			0.094	0.098	
35	0.106		0.100				0.098	0.104	
36	0.112		0.105				0.102	0.110	
37	0.118		0.110					0.117	
38	0.124		0.115					0.121	
39	0.130		0.120					0.130	
40	0.138		0.125					0.140	
41	0.146		0.130						
42	0.154								
43	0.162								
44	0.170								
45	0.180								

Table 8: Music Wire Gauge `MWGt`

1.2.1 Properties of Steel Wire `Propertys of Steel Wire`

Source: Machinery's Handbook, 1924, Page 424, 426.

Wire Gages A great number of different wire gages know by numbers have been in use. In order to avoid confusion, it would be well if, in general, gage numbers could be avoided and the size of the wire required given in decimals of an inch. However, when this cannot be done, care should be taken to adhere to the gage numbers which have become practiically standard for certian classes of wire. Upon the recommendation of the Bureau of Standards at Washington, a number of principal wire manufacturers and consumers have agreed that it would well to designate the American Steel & Wire Co.'s gage which is the same as the Washburn & Moen gage, as the "Steel Wire Gage". In cases where it becomes necessary to distinguish this from the British Imerial standard wire gage, it may be called the "U.S. Steel Wire Gage". This gage applies to all steel wire.

For copper wires and wires of other metals, the gage universally recognized in the United States is the "American Wire gage", which is also known as the Brown & Sharpe gage. No confusion should arise betweemn the steel wire gage and the American wire gage, because the fields covered by the two gageds are distinct and different.

The piano wire gage, designatged as the "American Steel & Wire Co.'s Music Wire Gage" is adopted as standard for piano wire upon the recommendation of the United States Bureau of Standards.

The trend of practice in the gaging of materials is increasing toward the direct spedification of dimensins inm decimal fractions of an inch without the use of gage numbers. The United States Navty Department in 1911 ordered that all diameters and thicknesses of material be specified directly in decimal fractions, omitting all refernce to gage numbers, and the War Deparment issued a similar order for wires. This is similar to the prectice in Europe shere sizes of wire are speified directly by the diameter in millimeters.

The tariff act of 1913 provides for the use of decimal dimentions in measuring wires and rods, but the measurement of steel strips is by gage. As the particular gage was not designated in tariff act, the Teasury Department in 1914 authorized the use of the American (B&S) wire gage. Prior to this the Birmingham wire gage had been employed. The Treasury Department also directed that the measurement of sheets and plates be in decimal parts of an inch instead ofuse the standard gage.

Strength of Piano and Plow-steel Wire The strength of wire is increaed considerably be drawing. So-called piano wire has an ultimate tensile strength of from 300,000 to 340,000 pounds per square inch. The composition of this wire is a follows: Carbon, 0.57 per cent; silicon, 0.09 per cent; sulpher, 0.011 per cent; phosphours, 0.018 per cent; maganese, 0.425 per cent. This wire is made in sizes raning from 0.029 to 0.052 inch (music wire gage No. 12 to 22 inclusive). So-called "plow-steel" wire has an ultimate tensile strength of 345,000 pounds per inch for wire 0.093 inch in diameter, and 200,000 pounds for wire 0.191 inc in diameter. The elongation is only about 1 per cent. The composition is about as follows: Carbon, 0.83 per cent; Manganese, 0.59 per cent; silicon, 0.14 per cent; sulphur, 0.01 per cent; phosphorus, nil; copper, 0.03 per cent.

Wire Drawing Iron and steel wire from No. 3 to No. 18 Brown & Sharpe wire gage (from 0.229 to 0.040 inch indiameter) is drawn from wire about 1/4 inch in diameter through holes in draw plages mad of a high-grade tungsten steel. The wire is reduced at each drawing or pass by one number or step in the Brown & Sharp wire gage scale, and at each drawing operation, the wire passes throug but one hole in the die. In the wire gage scale compiled in Messrs.

indexitBrown and Sharpe, the diameters of the wires of successive numbers incrase according to geometrical ratio. The Diameter of each succeeding number can be found by multiplying the diameter of the preceding number by 1.123, this being the ratio of the geometrical progression. The basic size is No. 36 wire, which is 0.005 inch in diameter.

Fine sizes of iron, steel or alloy-steel wire (between 0.040 and 0.002 inch in diameter are drawn through diamond dies, which consist of a body made from brass in which the damond is inserted. The diamond is of he variety known as bort. In the case of these small sizes, the wire is passed through a succession of dies (up to ten or twelve) in a single drawing operation. The size of diamond for wire 0.040 inch in idameter is about 3 ro 3 1/2 carats, while one-half-catat stones will suffice for dies for drawing wire 0.010 inch in diameter. The life of the diamond die used for drawing steel wire averages only about three days, while for the copper wire it may last for six months or a year. The speed at which the wire is drawn appears to have little efect on the life of the die, but the life depends solely on the length of wire passed through it. About 200 pounds of steel wire an be drawn through a No 32 B&S diamond die, before it size is too enlarged for further use. Fifteen pounds of wire only can be drawn through holes from 0.003 to 0.005 inch in diameter. Less than one pound can be drawn through holes smaller than 0.002 inch. When the diamond dies are worn too much, they are re-drilkled for a larger gage number. In drilling the diamonds, the average time for enlarging a hole 0.001 inch in diameter is about 1 1/2 hour. For hard music wire, diamonds of comparatively large size are required; thus for holes as small as 0.005 inch in diameter4, 2 to 2 1/2 carat diamonds are used.

Copper wire is drawn through dies of chiled cast iron; the reduction for each pass is equal to one number or step on the B&S, wire gage scale, but the wire passes through a number of successive dies at one operation,

as many as ten dies often being mounted in the same wire-drawing machine.

1.2.2 Poehlmann Music Wire PMW

Source: Machinery's Handbook, 6^{th} edition, 1924, Page 429.

Gage	Size	Gage	Size
0 000	0.006	14	0.033
000	0.007	15	0.035
00	0.008	16	0.037
0	0.009	17	0.039
1	0.010	18	0.041
2	0.011	19	0.043
3	0.012	20	0.045
4	0.013	21	0.047
5	0.014	22	0.049
6	0.016	23	0.051
7	0.018	24	0.055
8	0.020	25	0.059
9	0.022	26	0.063
10	0.024	27	0.067
11	0.026	28	0.071
12	0.029	29	0.075
13	0.031	30	0.080

Table 9: Poehlmann Music Wire PMWt

[0]PMW.inc 10 February 2026 13:45

Plot of Poehlmann Music Wire `PMWp`

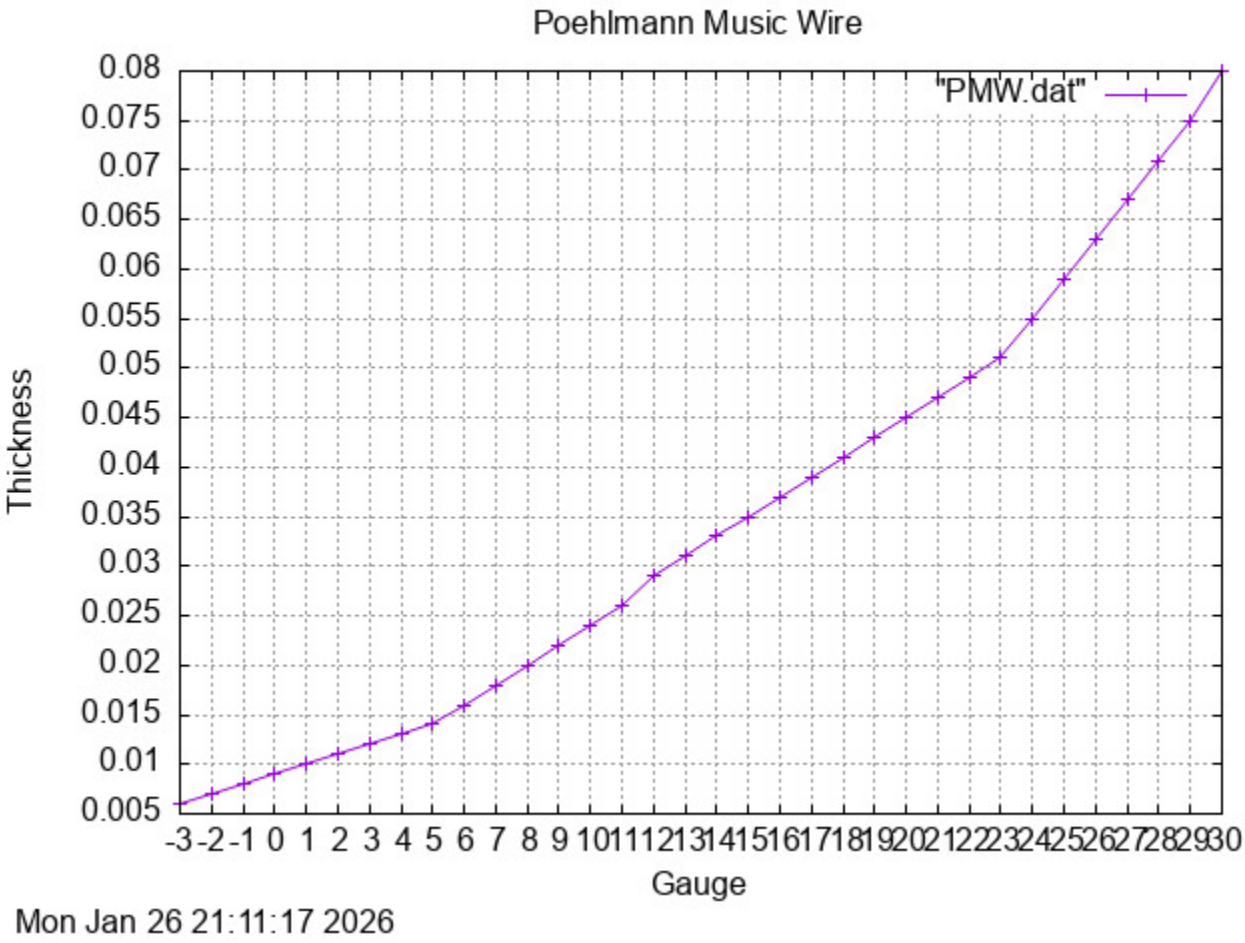

Figure 10: Poehlmann Music Wire `PMW.inc`

1.2.3 Roebling, and Trenton Iron Co. RTIC

Source: Machinery's Handbook, 6^{th} edition, 1924, Page 429.

Gage	Size	Gage	Size
0 000	0.007	20	0.044
000	0.0075	21	0.046
00	0.0085	22	0.048
0	0.009	23	0.051
1	0.010	24	0.055
2	0.011	25	0.059
3	0.012	26	0.063
4	0.013	27	0.067
5	0.014	28	0.071
6	0.016	29	0.074
7	0.018	30	0.078
8	0.020	31	0.082
9	0.022	32	0.086
10	0.024	33	0.090
11	0.026	34	0.095
12	0.028	35	0.100
13	0.030	36	0.105
14	0.032	37	0.110
15	0.034	38	0.115
16	0.036	39	0.120
17	0.038	40	0.125
18	0.040	41	0.130
19	0.042		

Table 10: Roebling, and Trenton Iron Co. RTICt

[0]RTIC.inc 10 February 2026 13:45

Plot of Roebling, and Trenton Iron Co. RTICp

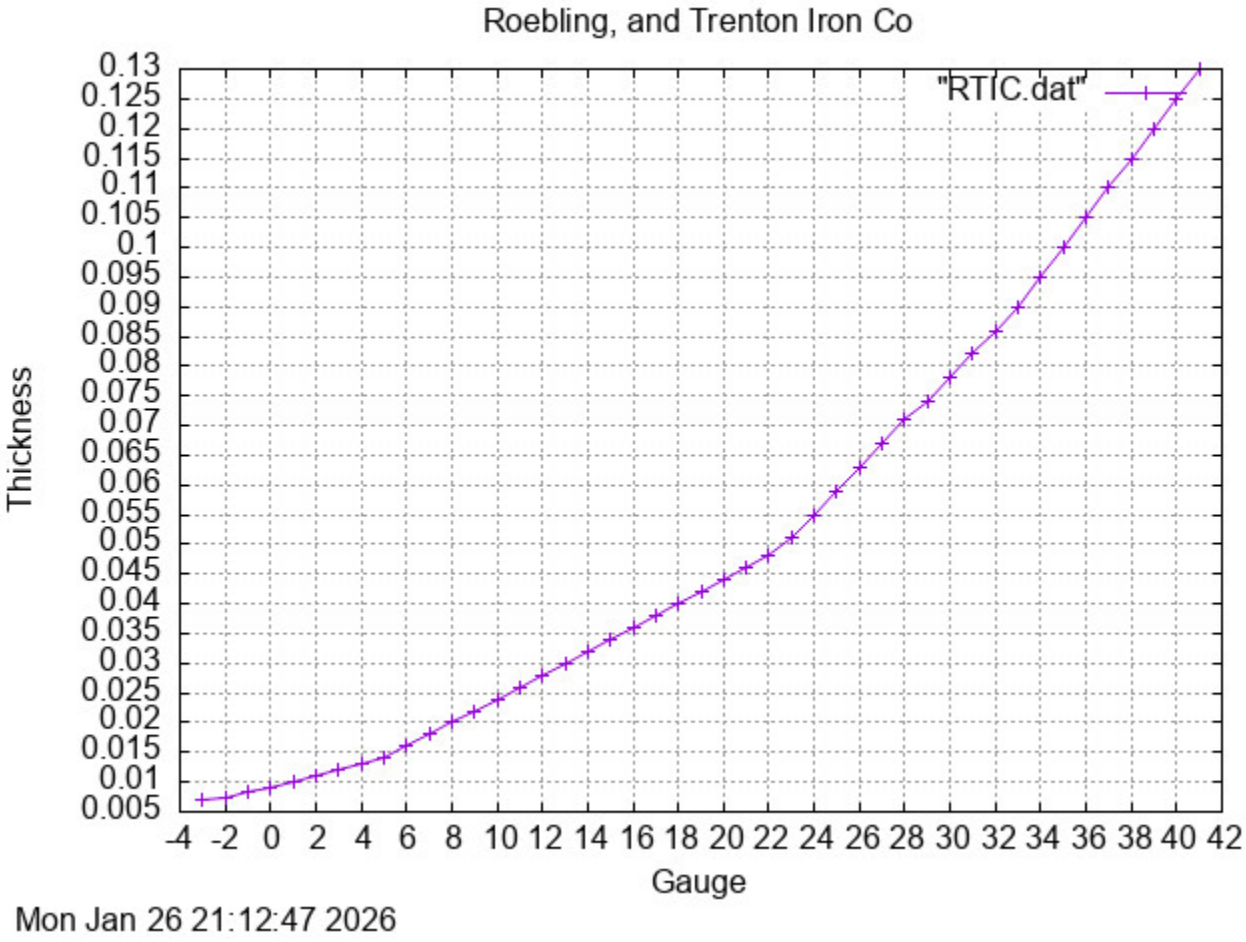

Figure 11: Roebling, and Trenton Iron Co. RTIC.inc

1.3 Trenton Iron Gauge TI

Source: catalog for 1911, Page 259 and Machinery's Handbook 6^{th} edition, for 1924 on page 425.

Gauge	Size	Gauge	Size
00 000	.45	19	.04
0 000	.4	20	.035
000	.36	21	.031
00	.33	22	.028
0	.305	23	.025
1	.285	24	.0225
2	.265	25	.02
3	.245	26	.018
4	.225	27	.017
5	.205	28	.016
6	.19	29	.015
7	.175	30	.014
8	.16	31	.013
9	.145	32	.012
10	.13	33	.011
11	.1175	34	.01
12	.105	35	.0093
13	.0925	36	.009
14	.08	37	.0085
15	.07	38	.008
16	.061	39	.0075
17	.0525	40	.007
18	.045		

Table 11: Trenton Iron TIt

[0]TI.inc 10 February 2026 13:45

Plot of Trenton Iron Co. Gauge TI

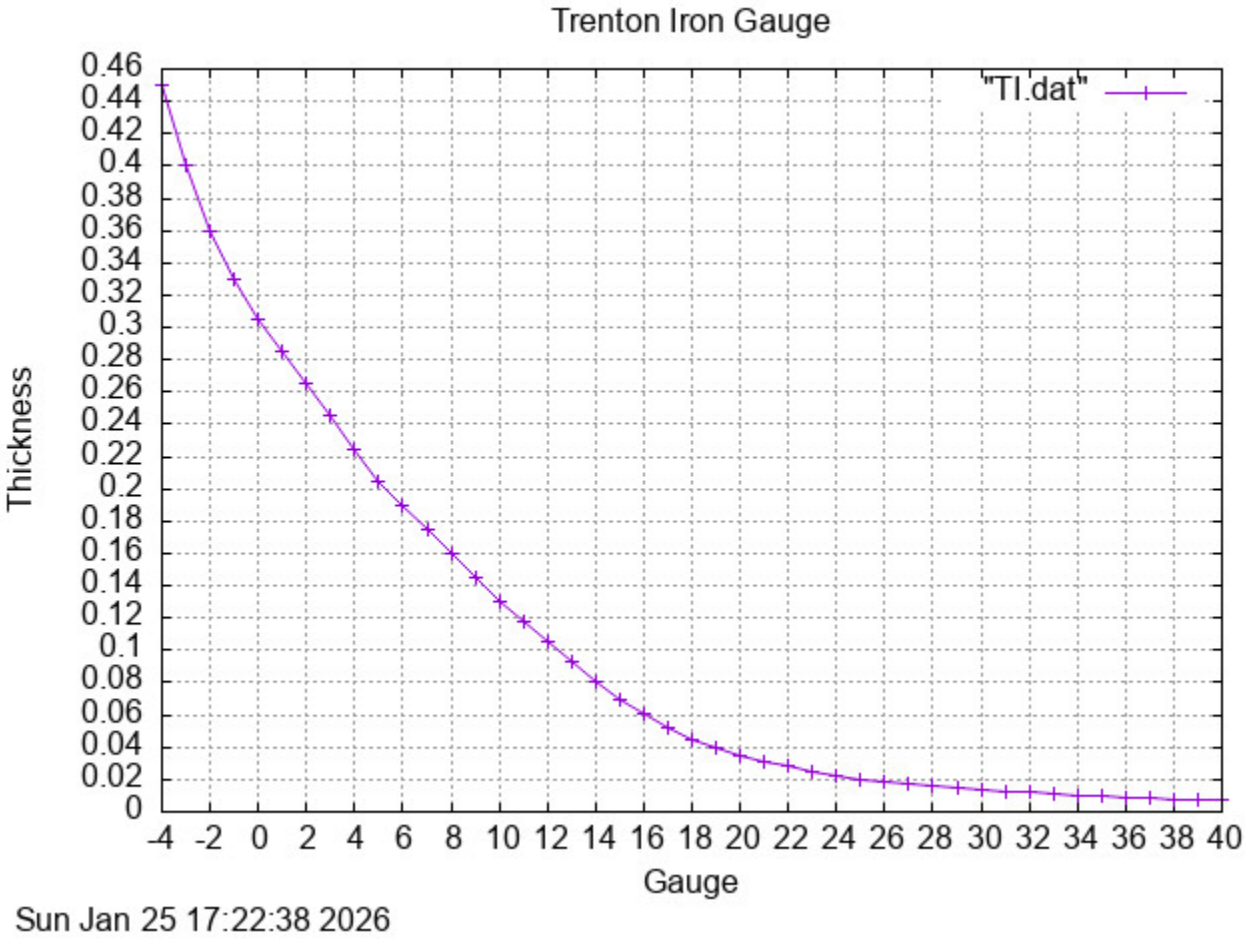

Figure 12: Trenton Iron Co. TI.inc

1.4 Birmingham Wire Gauge WMBWG

Spurce:

The Whitworth Measuring Machine, 1877 Page 80

Gauge	Diameter in inches	Gauge	Diameter in inches
0 000	.450	18	.050
000	.425	19	.040
00	.375	20	.036
1	.300	21	.032
2	.280	22	.028
3	.260	23	.024
4	.240	24	.022
5	.220	25	.020
6	.200	26	.018
7	.180	27	.016
8	.165	28	.014
9	.150	29	.013
10	.135	30	.012
11	.120	31	.010
12	.110	32	.009
13	.095	33	.008
14	.085	34	.007
15	.070	35	.005
16	.065	36	.004
17	.060		

Table 12: Birmingham Wire Gauge from The Whitworth Measuring Machine WMBWGt

[0]WMBWG.inc 10 February 2026 13:45

From The Whitworth Measuring Machine, Birmingham Wire Gauge `WMBWGp`

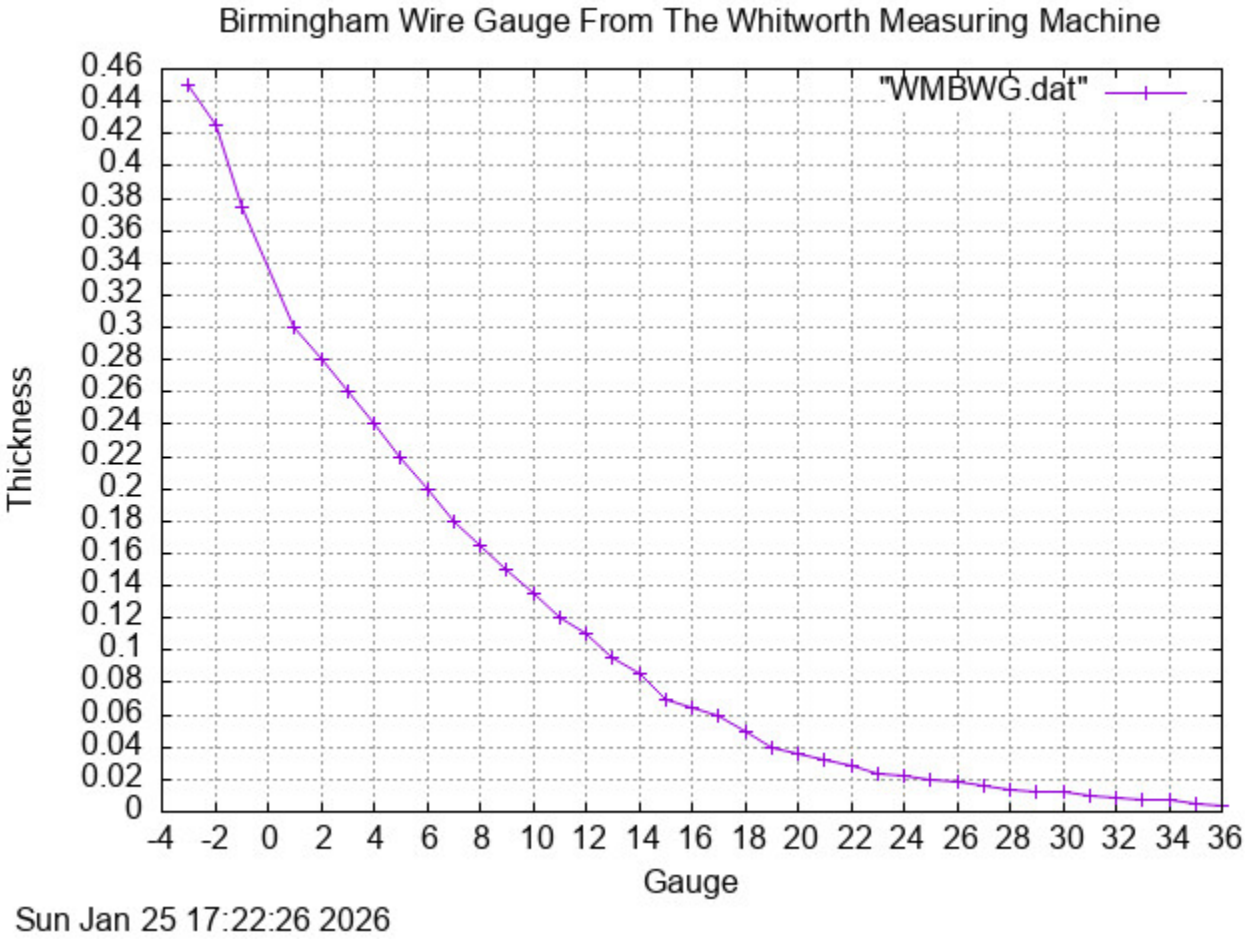

Figure 13: Birmingham Wire Gauge from The Whitworth Measuring Machine `WMBWG.inc`

1.4.1 W.N. Brunton Music Wire WNBMW

Source: Machinery's Handbook, 6^{th} edition, 1924, Page 429.

Gage	Size	Gage	Size
00	0.0085	20	0.044
0	0.009	21	0.046
1	0.010	22	0.048
2	0.011	23	0.050
3	0.012	24	0.054
4	0.013	25	0.058
5	0.014	26	0.062
6	0.016	27	0.066
7	0.017	28	0.069
8	0.019	29	0.072
9	0.022	30	0.076
10	0.024	31	0.080
11	0.027	32	0.086
12	0.029	33	0.092
13	0.031	34	0.098
14	0.032	35	0.104
15	0.034	36	0.110
16	0.036	37	0.117
17	0.038	38	0.121
18	0.040	39	0.130
19	0.042	40	0.140

Table 13: W.N. Brunton Music Wire WNBMWt

[0]WNBMW.inc 10 February 2026 13:45

Plot of W.N. Brunton Music Wire `WNBMWp`

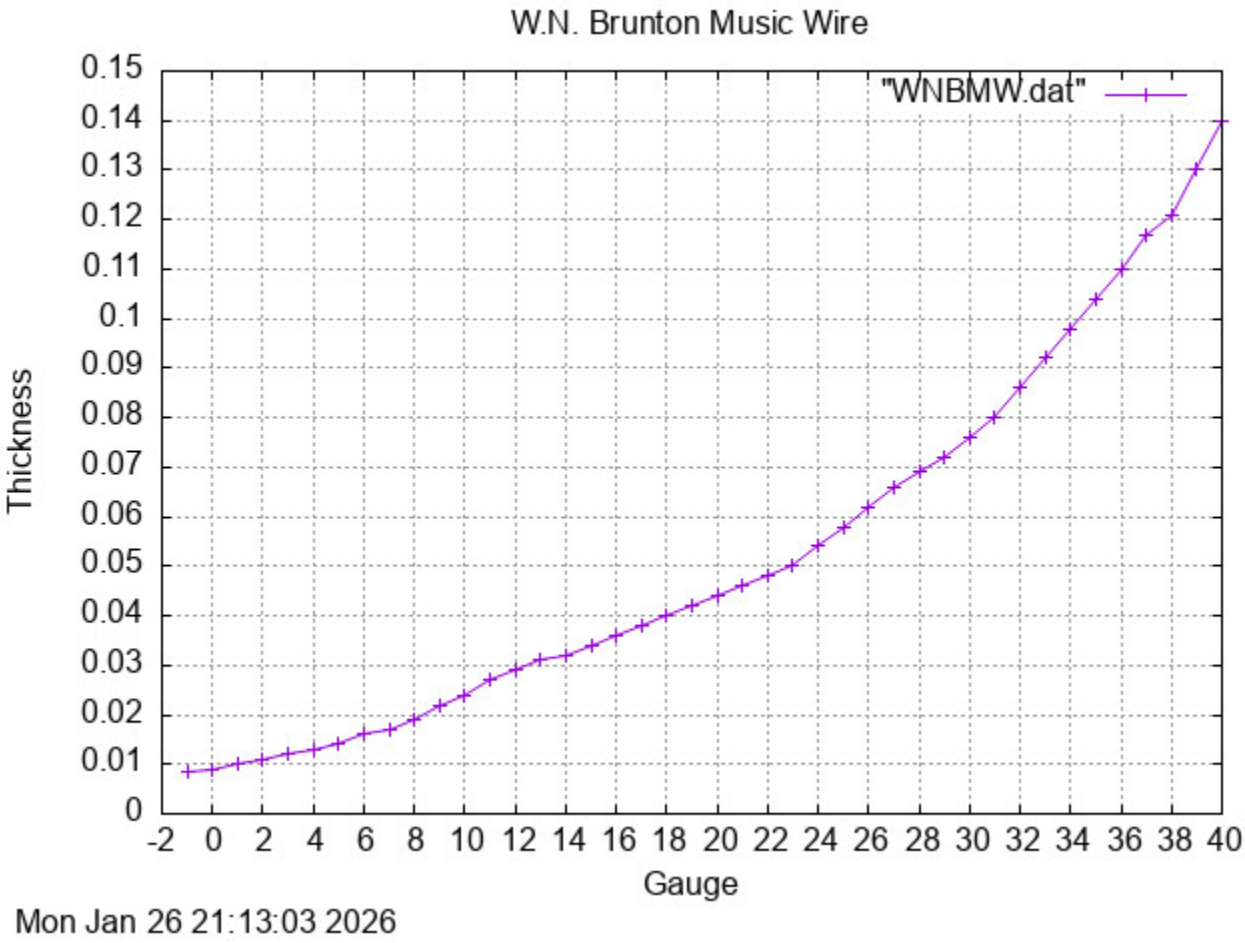

Figure 14: W.N. Brunton Music Wire `WNBMW.inc`

1.5 Wire and Sheet Metal Gauges WSMG

Updated on: 10:36 PM 2/7/2026

Source Machinery's Handbook, 13^{th} edition, 1946, page 439

Gauge	American or Brown & Sharpe	Birmingham or Stubs' Iron Wire	Washburn & Moen, Am. Steel & Wire Co. and Roebling	Stubs' Steel Wire	1914 Birmingham (B.G) Gauge for sheets, Hoopes	British Imperial Wire
0 000 000			0.4900		0.6666	0.5000
000 000	0.5800		0.4615		0.6250	0.4640
00 000	0.5165	0.500	0.4305		0.5883	0.4320
0 000	0.4600	0.454	0.3938		0.5416	0.4000
000	0.4096	0.425	0.3625		0.5000	0.3720
00	0.3648	0.380	0.3310		0.4452	0.3480
0	0.3249	0.340	0.3065		0.3964	0.3240
1	0.2893	0.300	0.2830	0.227	0.3532	0.3000
2	0.2570	0.284	0.2625	0.219	0.3147	0.2760
3	0.2294	0.259	0.2437	0.212	0.2804	0.2520
4	0.2043	0.283	0.2253	0.207	0.2500	0.2320
5	0.1819	0.220	0.2070	0.204	0.2225	0.2130
6	0.1620	0.203	0.1920	0.201	0.1981	0.1920
7	0.1443	0.180	0.1770	0.199	0.1764	0.1760
8	0.1285	0.165	0.1620	0.197	0.1570	0.1600
9	0.1144	0.148	0.1483	0.194	0.1398	0.1440
10	0.1019	0.134	0.1350	0.191	0.1250	0.1280
11	0.0907	0.120	0.1205	0.188	0.1113	0.1160
12	0.0808	0.109	0.1055	0.185	0.0991	0.1040
13	0.0720	0.095	0.0915	0.182	0.0882	0.0920
14	0.0641	0.083	0.0800	0.180	0.0785	0.0800
15	0.0571	0.072	0.0720	0.178	0.0699	0.0720
16	0.0508	0.065	0.0625	0.175	0.0625	0.0640
17	0.0453	0.058	0.0540	0.172	0.0556	0.0560
18	0.0403	0.049	0.0475	0.168	0.0495	0.0480
19	0.0359	0.042	0.0410	0.164	0.0440	0.0400
20	0.0320	0.035	0.0348	0.161	0.0392	0.0360
21	0.0285	0.032	0.0317	0.157	0.0349	0.0320
22	0.0253	0.028	0.0286	0.155	0.0312	0.0280

Continued on the next page.

[0]WSMG.inc 10 February 2026 13:45

Continued from the previous page.

Gauge	American or Brown & Sharpe	Birmingham or Stubs' Iron Wire	Washburn & Moen, Am. Steel & Wire Co. and Roebling	Stubs' Steel Wire	1914 Birmingham (B.G) Gauge for sheets, Hoopes	British Imperial Wire
23	0.0226	0.025	0.0258	0.153	0.0278	0.0240
24	0.0201	0.022	0.0230	0.151	0.0247	0.0220
25	0.0179	0.020	0.0204	0.148	0.0220	0.0200
26	0.0159	0.018	0.0181	0.146	0.0196	0.0181
27	0.0142	0.016	0.0173	0.143	0.0174	0.0164
28	0.0120	0.014	0.0162	0.139	0.0156	0.0148
29	0.0113	0.013	0.0159	0.134	0.0139	0.0136
30	0.0100	0.012	0.0140	0.127	0.0123	0.0124
31	0.0089	0.010	0.0132	0.120	0.0110	0.0116
32	0.0080	0.009	0.0128	0.115	0.0098	0.0108
33	0.0071	0.008	0.0113	0.112	0.0087	0.0100
34	0.0063	0.007	0.0104	0.110	0.0077	0.0092
35	0.0056	0.005	0.0095	0.108	0.0069	0.0084
36	0.0063	0.004	0.0090	0.106	0.0061	0.0076
37	0.0045		0.0085	0.103	0.0054	0.0068
38	0.0040		0.0080	0.101	0.0048	0.0060
39	0.0035		0.0075	0.009	0.0043	0.0052
40	0.0031		0.0070	0.097	0.0038	0.0048
41	0.0028		0.0066	0.095	0.0034	0.0044
42	0.0025		0.0062	0.092	0.0030	0.0040
43	0.0022		0.0060	0.088	0.0027	0.0036
44	0.00198		0.0058	0.085	0.0024	0.0032
45	0.00176		0.0055	0.081	0.0021	0.0028
46	0.00157		0.0052	0.079	0.0019	0.0024
47	0.00140		0.0050	0.077	0.0017	0.0020
48	0.00124		0.0048	0.075	0.0015	0.0016
49	0.001108		0.0046	0.072	0.0013	0.0012
50	0.00099		0.0044	0.069	0.0012	0.0010

Table 14: Wire and Sheet Metal Gauges `WSMGt`

Source Machinery's Handbook, 13^{th} edition, 1946, page 442

Gauge	Stubs' Steel Wire	Gauge	Stubs' Steel Wire	Gauge	Stubs' Steel Wire	Gauge	Stubs' Steel Wire	Gauge	Stubs' Steel Wire
51	0.066	57	0.042	63	0.036	69	0.029	75	0.020
52	0.063	58	0.041	64	0.015	70	0.027	76	0.018
53	0.058	59	0.040	65	0.033	71	0.026	77	0.016
54	0.055	60	0.032	66	0.032	72	0.024	78	0.015
55	0.050	61	0.038	67	0.031	73	0.023	79	0.014
56	0.045	62	0.037	68	0.030	74	0.022	80	0.013

Table 15: Overflow Stubs' Steel Wire Gauge `WSMGtt`

Source Machinery's Handbook, 13^{th} edition, 1946, page 1734

Gauge	Thick-ness	Gauge	Thick-ness	Gauge	Thick-ness	Gauge	Thick-ness
1	0.002	8	0.016	15	0.040	22	0.090
2	0.004	9	0.018	16	0.045	23	0.100
3	0.006	10	0.020	17	0.050	24	0.125
4	0.008	11	0.024	18	0.055	25	0.250
5	0.010	12	0.028	19	0.060	26	0.375
6	0.012	13	0.032	20	0.070	27	0.500
7	0.014	14	0.035	21	0.080	28	1.000

Table 16: Sheet Zinc Gage Mattheissen & Hageler Zinc Co. `SZGt`

Source Machinery's Handbook, 13^{th} edition, 1946, page 1734

Gauge	Thick-ness	Gauge	Thick-ness	Gauge	Thick-ness	Gauge	Thick-ness	Gauge	Thick-ness
7	0.015	9	0.017	11	0.020	13	0.024	15	0.027
8	0.016	10	0.018	12	0.021	14	0.025	16	0.030

Table 17: American "Russia-Iron" Gage `ARICt`

1.5.1 Wright Wire Co. wwc

Source: Machinery's Handbook, 6^{th} edition, 1924, Page 429.

Gage	Size	Gage	Size
00	0.0085	17	0.038
0	0.009	18	0.0405
1	0.010	19	0.042
2	0.011	20	0.044
3	0.012	21	0.046
4	0.013	22	0.0485
5	0.014	23	0.0505
6	0.016	24	0.0545
7	0.018	25	0.0585
8	0.020	26	0.063
9	0.022	27	0.067
10	0.024	28	0.071
11	0.026	29	0.0745
12	0.028	30	0.078
13	0.0305	31	0.082
14	0.0325	32	0.086
15	0.034	33	0.090
16	0.036	34	0.096

Table 18: Wright Wire Co. wwct

[0]WWC.inc 10 February 2026 13:45

Plot of Wright Wire Co. `WWCp`

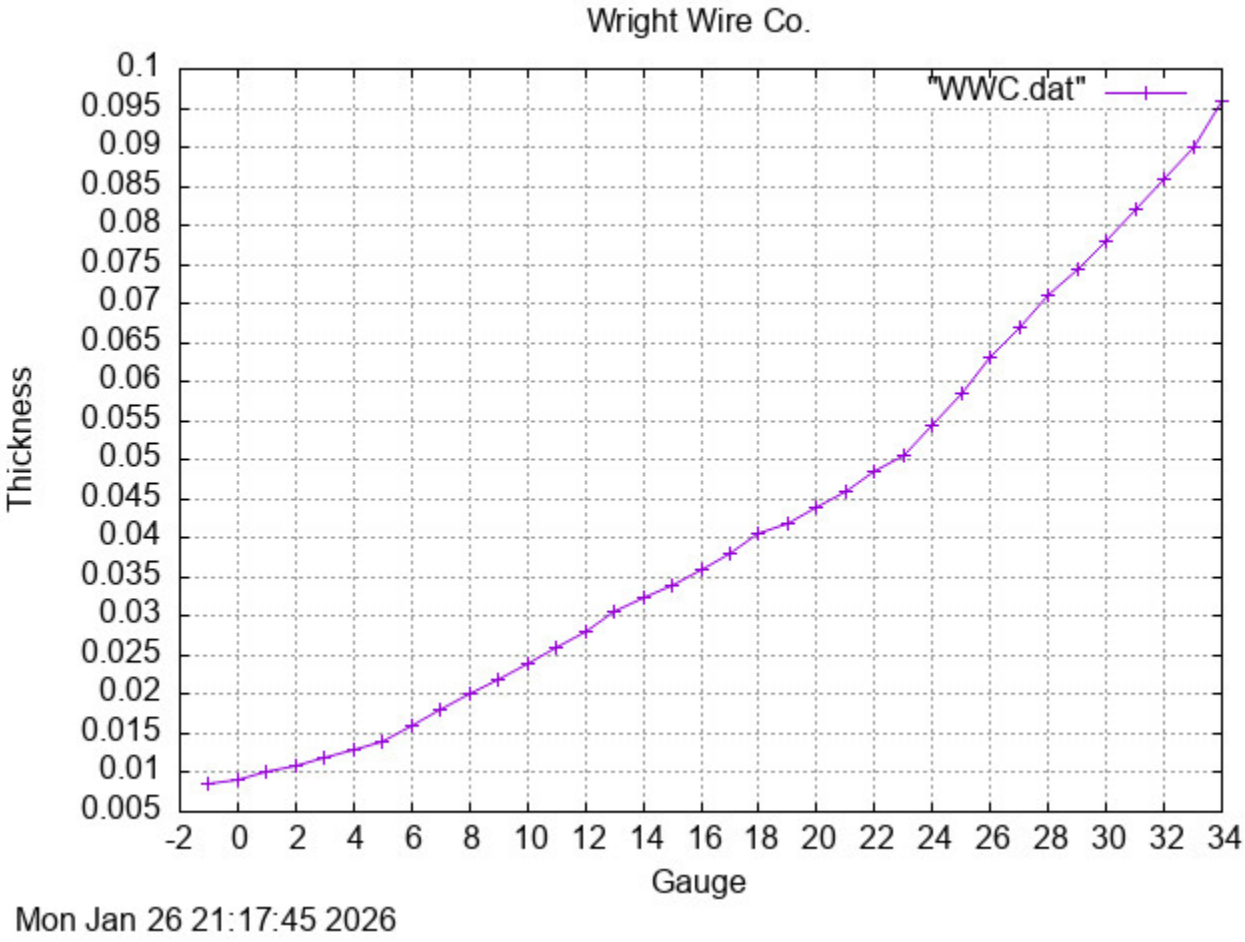

Figure 15: Wright Wire Co. `WWC.inc`

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