

of visiting card thickness, or if the current to be carried is comparatively large, two thicknesses may be used. The combined gaps should, if possible, be computed to equal the amount given in the table.

The dimension of the window in these stampings is 2 5-16 by 3/16 in., and allowing for spool ends, centre, and taping, a space measuring 2 by 1/4 is available for the winding, and this will be taken as 1 1/4 sq. in. This space will accommodate turns of enamelled

These stampings are what is known as "shell," as the core is divided, half passing round each side of the coil, forming two windows. As compared with the "core" pattern with only one window, the "shell" is slightly better for a transformer, but the difference is small. The stampings are sold in lots of half a gross of each, T's and U's, and this quantity allows of the core being built to 1 1/8 in., so that it may then be used for choke purposes as a one-inch square core. For the pro-

chokes to support the outer ends of the spool in some way that will withstand the pressure of the turns. A square of wood with a hole to slip over the spindle and small nails in the latter will answer the purpose. Upon referring to the table of gap chokes, we find that 6250 turns of 30's can be put upon this core to make a 20 henry smoothing choke with one-third of .05 in each gap, which is 1-64th in each. D.C. resistance, 250 ohms. When using these stampings it is best to see that the window was fairly well filled if possible and in some

Choke Coils with Gaps—Stalloy Cores												
Henrys	Core $\frac{1}{2} \times \frac{1}{2}$			$\frac{3}{4} \times \frac{3}{4}$			1 x 1			$1\frac{1}{4} \times 1\frac{1}{4}$		
	Turns	Gap	Mils	Turns	Gap	Mils	Turns	Gap	Mils	Turns	Gap	Mils
15	10000	.05	55	6900	.05	80	5200	.05	110	4200	.05	140
	8000	.03	42	5300	.03	55	4000	.03	85	3150	.03	110
20	12000	.05	48	7900	.05	70	6250	.05	90	4800	.05	120
	9300	.03	37	6200	.03	48	4700	.03	70	3750	.03	90
30	14600	.05	37	10000	.05	57	7400	.05	75	5800	.05	100
	11500	.03	30	7500	.03	45	5700	.03	50	4500	.03	70
50	19000	.05	30	12700	.05	45	9500	.05	60	7500	.05	75
	15000	.03	23	9800	.03	35	7300	.03	45	5900	.03	58
100	21000	.03	16	17500	.05	30	13400	.05	42	10200	.05	55
				13400	.03	25	10400	.03	37	8200	.03	40
Carrying Capacity of Wire (s.w.g.)												
mils 200	130	100	80	50	32	20	mils					
Gauge 28	30	32	34	36	38	40	Gauge					

wire according to the gauge as follows:—

S.W.G.	Turns.	S.W.G.	Turns.
26	3,100	34	13,000
28	5,000	36	19,000
30	6,300	38	34,500
32	9,400	40	54,000

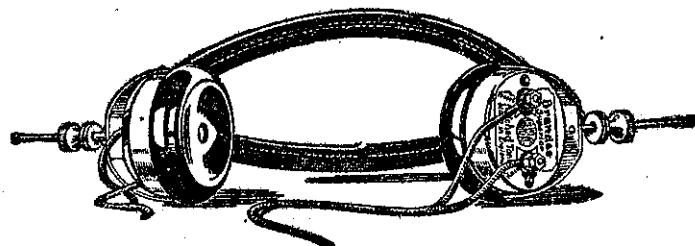
Or d.c.e. wire as follows:—

S.W.G.	Turns.	S.W.G.	Turns.
18	420	26	1,600
20	550	28	2,160
22	840	30	2,500
24	1,190		

cess of winding, a wooden former should be made 2 1/2 in. long and 1 1/8 by a shade over 15-16 in. to allow the centre strips to slip in easily. On this former a spool is built with 1-8 in. ends, and 2 in. wide inside. The spool ends will be 2 1/2 in. square, and should be of strong material, as in choke winding, not in layers, there is a continually increasing outward pressure as the wire is wound on, and the heavier the gauge, the greater is this outward pressure, which will curve outwards any but the strongest material. It is therefore necessary when winding any

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