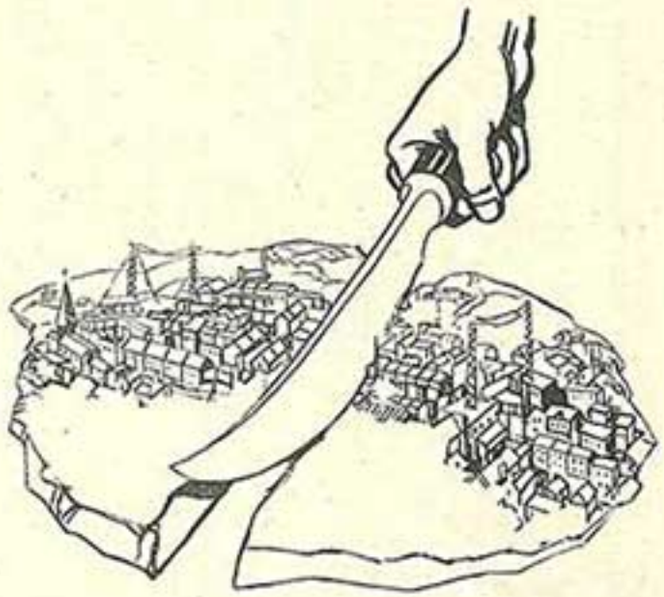


The New Cossor
Melody Maker

All Europe
on the Loud Speaker

WITH the new Cossor "Melody Maker" you are not tied to one Station. You choose your programme to suit your mood—Opera from Berlin, dance music from Paris, vaudeville from Glasgow—just a turn of the dials and one Station fades out whilst another one comes in.
Never a dull moment with a Cossor "Melody Maker."

THE new Cossor "Melody Maker" cannot be compared with any other Receiver. It stands alone—a fine testimony to a vast amount of research and experiment. Even though you are willing to pay five—ten—fifteen pounds more for a Receiving Set you'll not get better Radio. The new Cossor "Melody Maker" will bring you the pick of Europe's broadcasting—from Moscow in the east to Belfast in the west. From Aberdeen to Seville. Practically every Station worth hearing.

Never before have such amazing results been possible with only three valves—they are only possible to-day through the wonderful efficiency of the new Cossor Screened Grid Valve. For quality of reproduction—majestic volume—natural tone—ease of operation—economy of maintenance, the new Cossor "Melody Maker" is without equal. Build it according to the simple instructions given here and you'll be proud of it. In appearance and performance it will be indistinguishable from any Receiver costing three times its price.

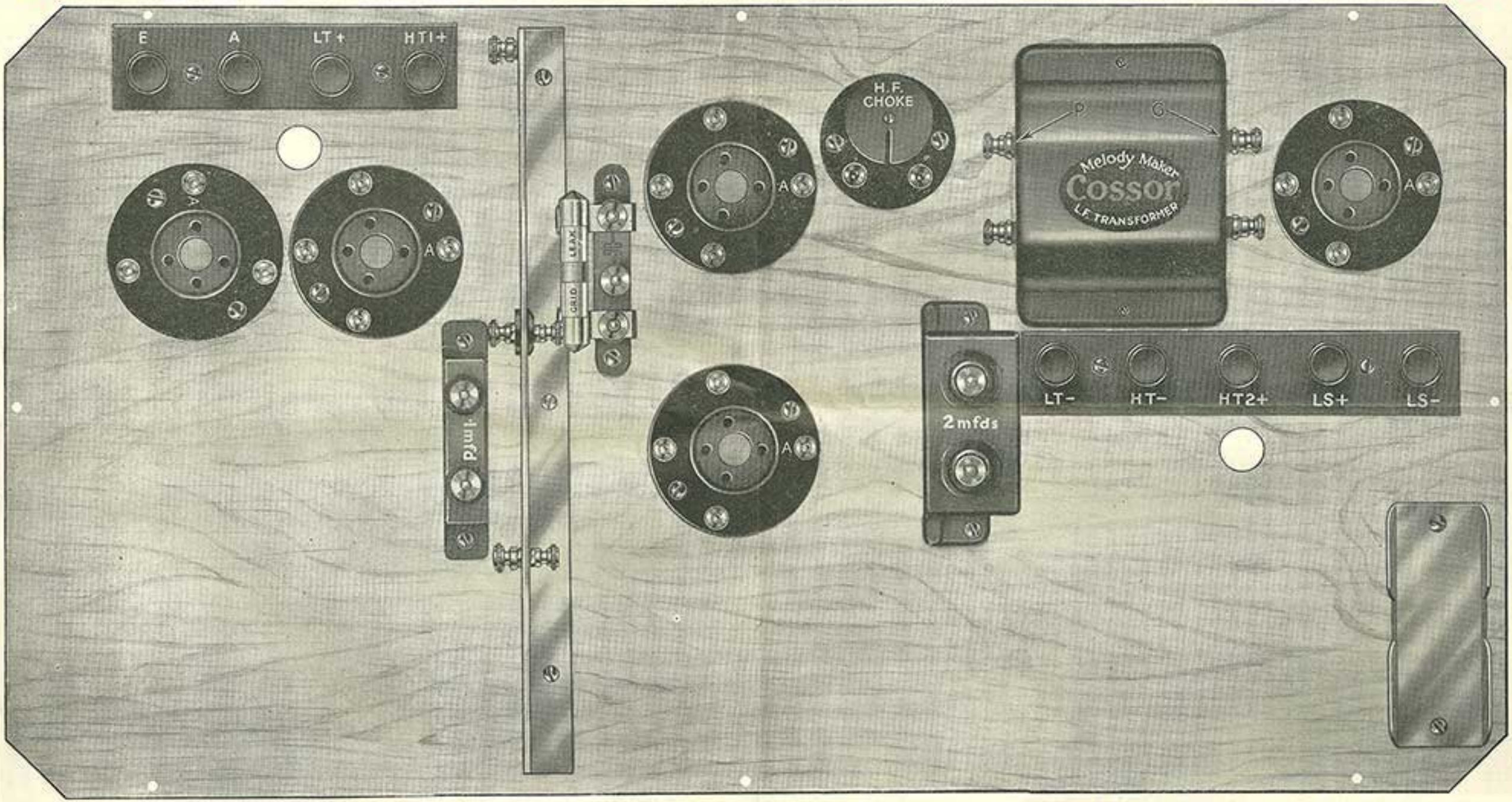
Knife-edge Selectivity

CONDITIONS are changing. The old-time Set is useless to-day. You need a Receiver which tunes sharply and brings in only the Station you need. The new Cossor "Melody Maker" has "knife-edge" selectivity. It cuts right through the local station and brings in programmes from Stations hundreds of miles away as if by magic.

Anyone can build it in 90 minutes

First Stage: Mounting the Components on the Baseboard

Time required 20 minutes



THE first stage in the assembly of the new Cossor "Melody Maker" is the mounting of the various components on the baseboard. The illustration given above is full size and shows exactly where each part is to be mounted. Special care should be taken to see that the five valve holders (two of them are used to carry the special Cossor Plug-in Coils) are mounted exactly in accordance with the photograph above. Four of them are mounted with the anode socket (marked A) towards the right, whilst the other has the anode socket towards the back of the baseboard. Notice also that the Cossor "Melody Maker" Transformer must be mounted so that the terminal marked G is facing the last valve holder.

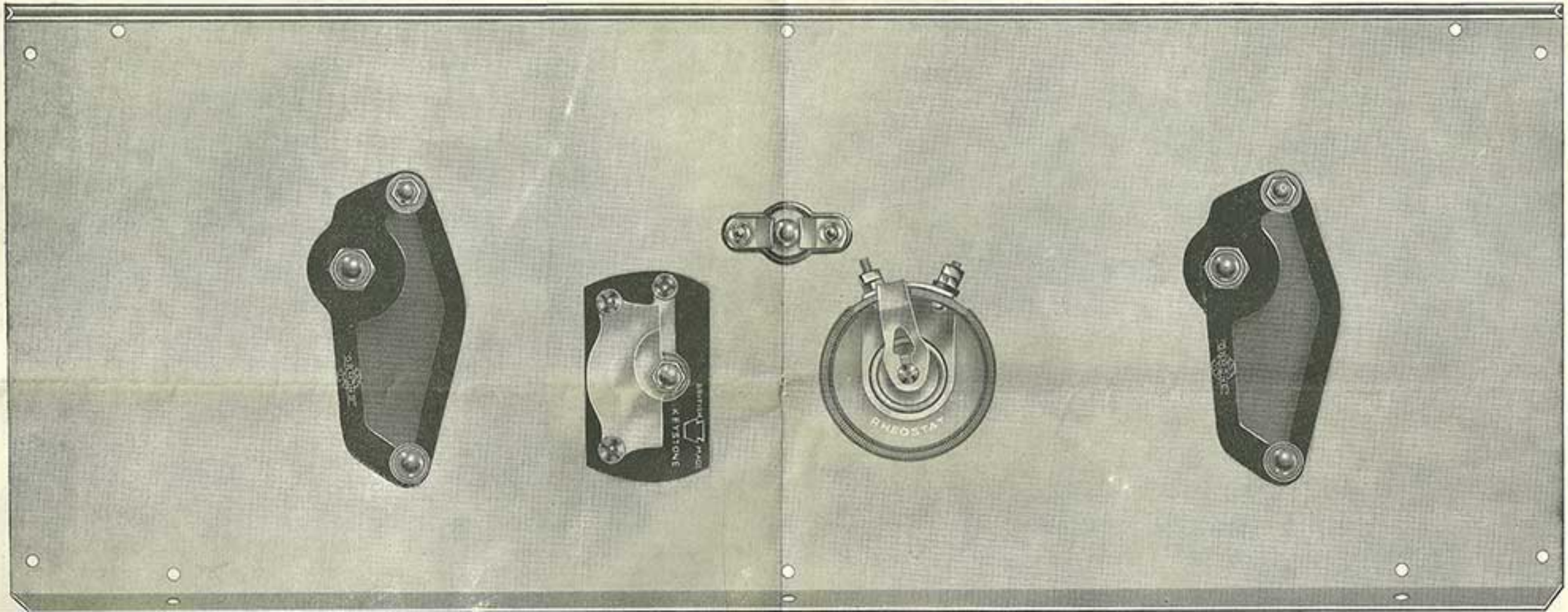
COMPONENTS SHOWN ABOVE:

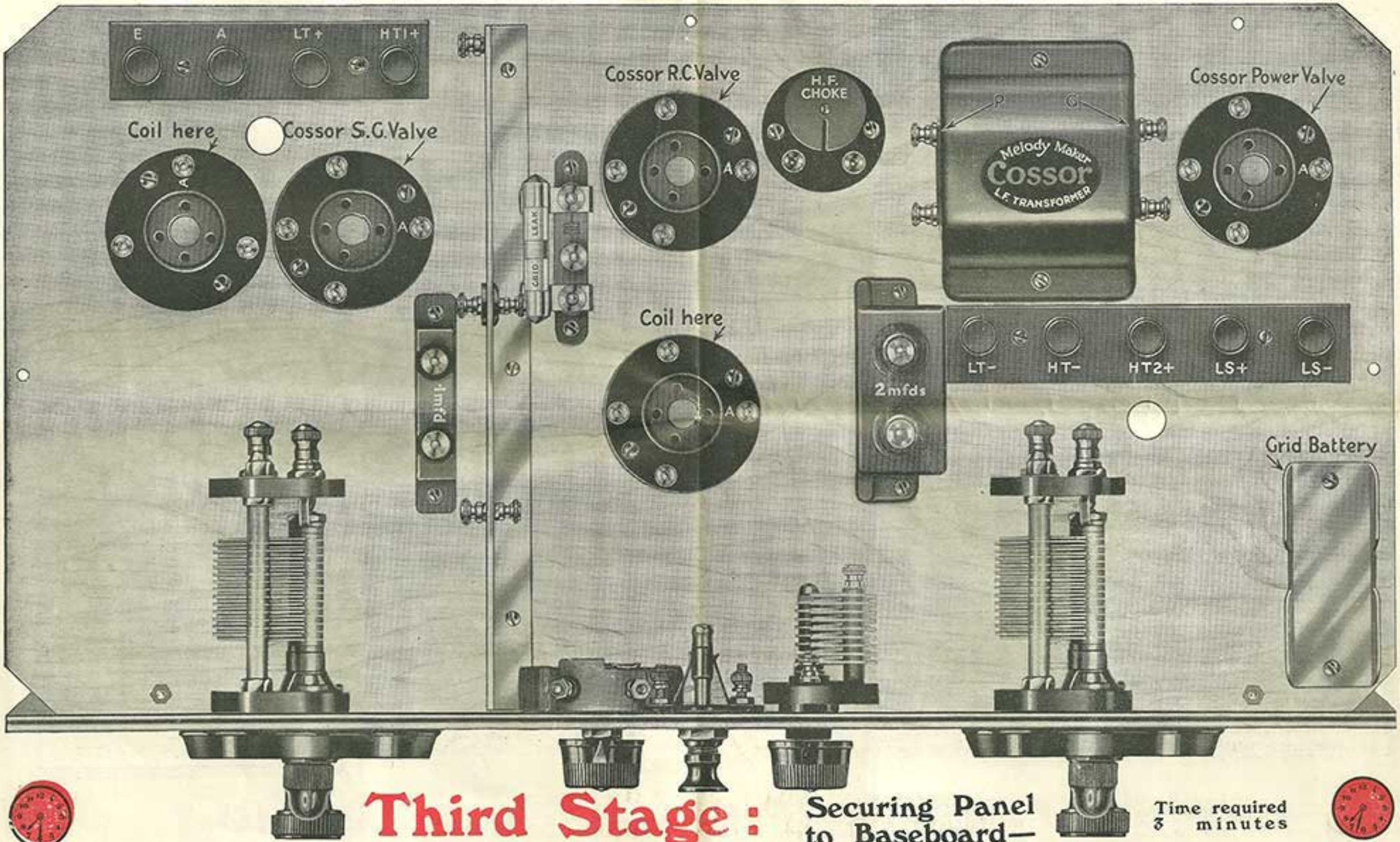
- 5 *Cossor Valve Holders.*
- 1 *Cossor L.F. Transformer.*
- 1 *Cossor H.F. Choke.*
- 1 *Metal Screen Assembly.*
- 2 *Terminal Blocks.*
- 1 *T.C.C. Condenser 2 mfds.*
- 1 *T.C.C. Condenser .1 mfd.*
- 1 *T.C.C. S.P. Condenser, .0001 mfd. (with Dubilier Grid Leak 3 megs).*
- 1 *Grid Bias Battery Clip.*

Second Stage:

Mounting the Components on the Front Panel——

Time required
10 minutes



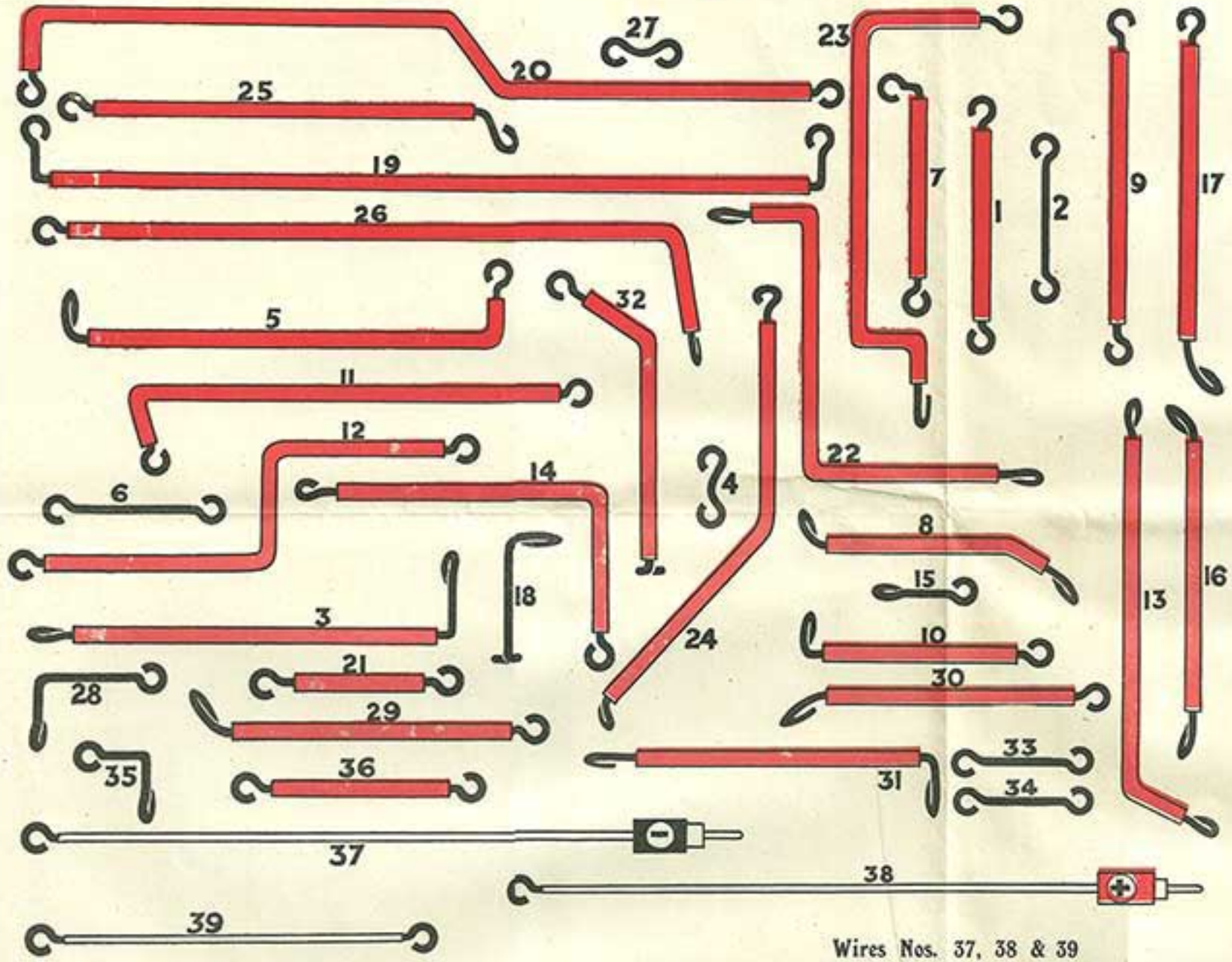


Third Stage: Securing Panel to Baseboard—

Time required 3 minutes

Fourth Stage: Cutting and bending the connecting wires

Time required
30 minutes



Note: The wires shown in Red are to be covered with the insulated sleeving supplied

Wires Nos. 37, 38 & 39

THESE wires are of rubber-covered flex. Nos. 37 and 38 should be fitted at one end with the wander plugs supplied for connecting to the Grid Bias Battery. No. 39 is for connecting the terminal on top of the Cossor S.G. Valve to the insulated terminal on the metal screen.

OWING to the fact that all the short wires are uncovered, cutting and bending is a very simple and speedy operation. In order to avoid the possibility of error it is advisable to cut and bend each wire to shape separately and to lay them, one by one, upon this full size diagram. If you do not possess a pair of round-nosed pliers, it is a simple matter to make neat loops with the aid of a large nail. Hold the end of the wire in contact with the nail and wind it once round its circumference. Withdraw the nail and a neat circular loop should result.

Most of the wires are to be covered with insulated sleeving. Cut the sleeving with a pair of scissors or a sharp knife to the correct length, and, after having made one loop on the wire, thread on the sleeving. After all the wires have been carefully bent to exact shapes shown, the wiring up of the Receiver should be undertaken. Be sure to see that each terminal is securely fastened—to obtain a good electrical contact, a pair of pliers should be used.

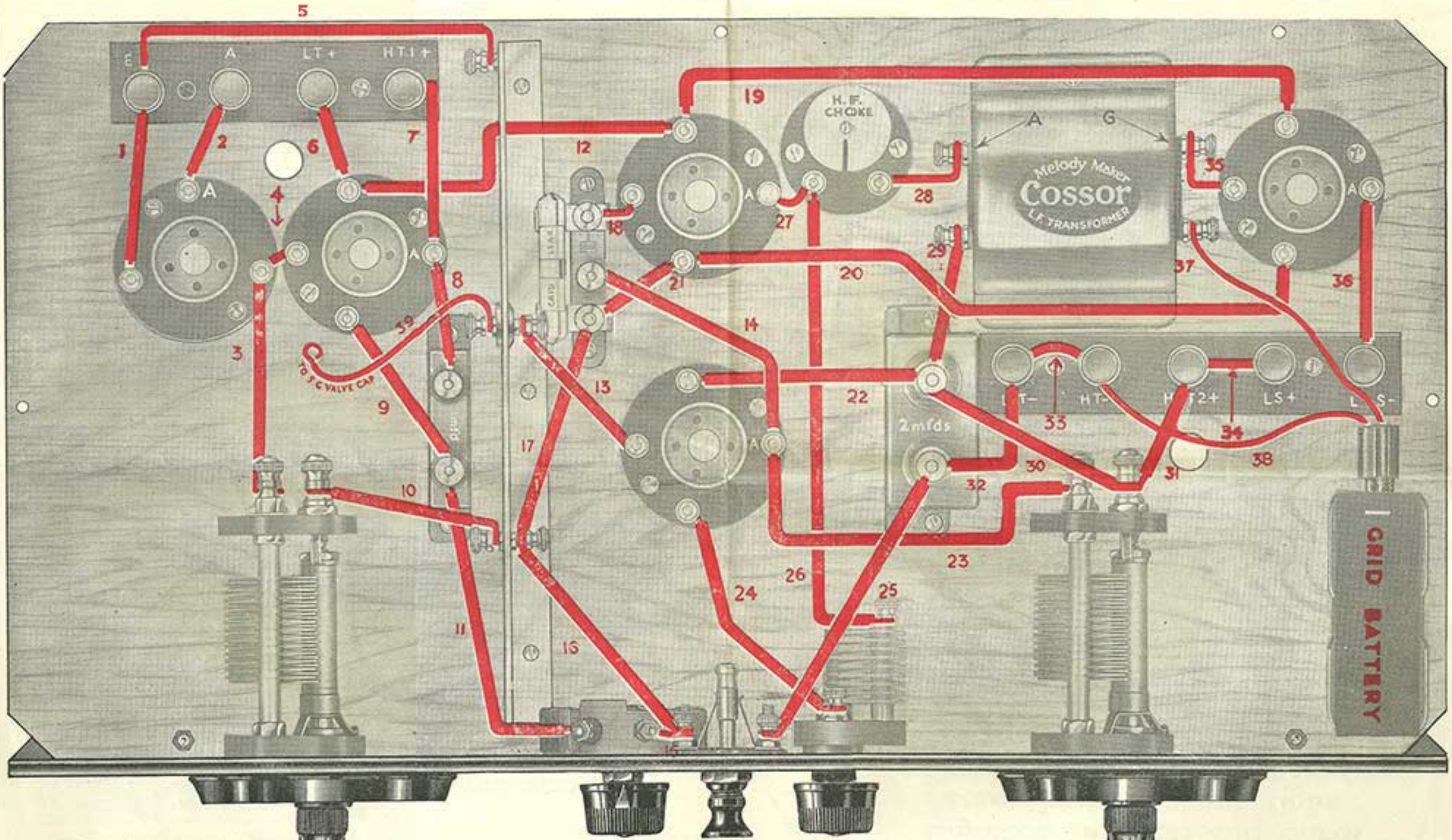
How to make loops

THE little sketch shown here indicates how easily a loop can be made with a pair of round-nosed pliers.

Point-to-point Wiring

Wire No.	Position on Set
1.	From first coil holder to E.
2.	From first coil holder to A.
3.	From first coil holder to fixed vanes on first condenser.
4.	From first coil holder to Grid terminal on first valve holder.
5.	From terminal E to metal screen.
6.	From L.T.+ to first valve holder.
7.	From H.T.1+ to terminal A on first valve holder.
8.	From terminal A on first valve holder to T.C.C. ·1 mfd. Condenser.
9.	From first valve holder to T.C.C. ·1 mfd. Condenser.
10.	From moving vanes on first condenser to terminal on screen.
11.	From T.C.C. ·1 mfd. condenser to insulated terminal on shoulder.
12.	From first valve holder to second valve holder.
13.	From insulated terminal on screen to second coil holder.
14.	From centre terminal of T.C.C. S.P. condenser to second coil holder.
15.	From terminal on shoulder to switch.
16.	From switch to terminal on metal screen.
17.	From terminal on metal screen to T.C.C. S.P. Condenser.
18.	From T.C.C. S.P. Condenser to grid of second valve.
19.	From second valve holder to third valve holder.
20.	From second valve holder to third valve holder.
21.	From second coil holder to T.C.C. ·1 mfd. Condenser.
22.	From second valve holder to T.C.C. S.P. Condenser.
23.	From fixed vanes of second Condenser to terminal A on second coil holder.
24.	From moving vanes of Keystone Condenser to second coil holder.
25.	From switch to T.C.C. ·1 mfd. Condenser.
26.	From fixed vanes of Keystone Condenser to H.F. Choke.
27.	From H.F. Choke to terminal A on second valve holder.
28.	From H.F. Choke to terminal A on Cossor "Melody Maker" Transformer.
29.	From H.T.+ terminal on Cossor "Melody Maker" Transformer to T.C.C. ·1 mfd. Condenser.
30.	From T.C.C. ·1 mfd. Condenser to moving vanes on second Condenser.
31.	From moving vanes of second Condenser to H.T.1.
32.	From T.C.C. ·1 mfd. Condenser to L.T.—.
33.	From L.T.— to H.T.—.
34.	From H.T.1+ to L.S.+.
35.	From terminal G on Cossor "Melody Maker" Transformer to grid terminal on third valve holder.
36.	From terminal A on third valve holder to L.S.—.
37.	From terminal G.B. to 9 volts negative on grid bias battery.
38.	From H.T.— to +9 socket of grid bias battery.
39.	From upper terminal on Cossor S.G. valve to insulated terminal on metal screen.

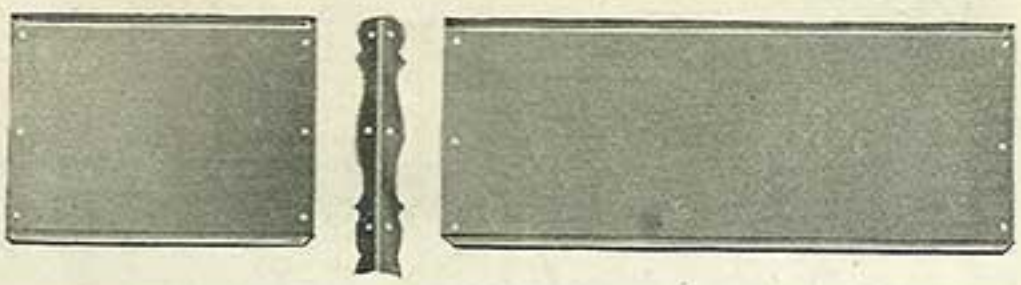
C. Mark off each one with a tick after completion



Fifth Stage: Wiring up

Time required 20 minutes

Sixth Stage: Time required 7 minutes



Left: Showing the method of joining side to back.

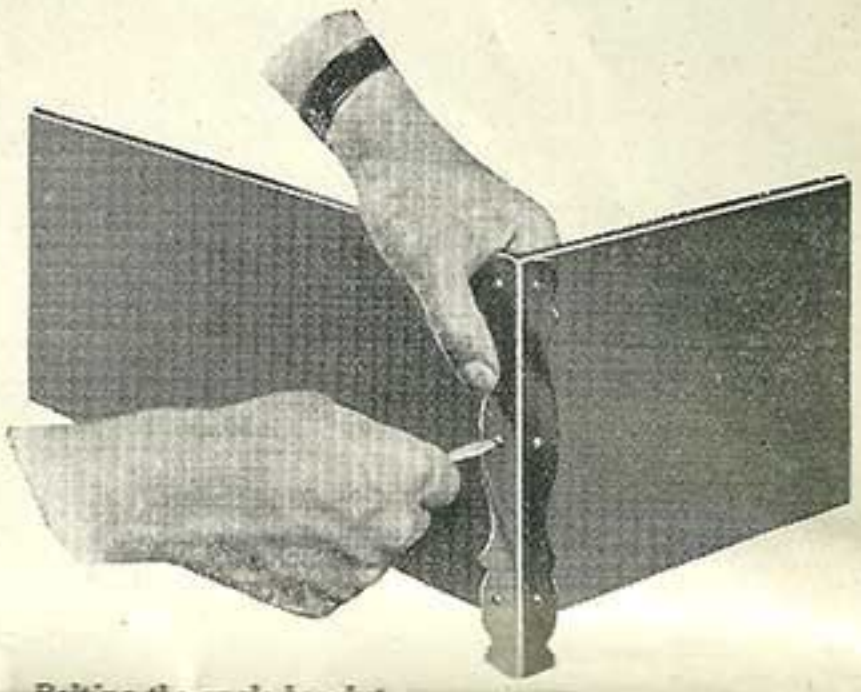
Assembling the Cabinet

THE new Cossor "Melody Maker" case is made from sheet steel. It is in four pieces, clamped rigidly at each corner by means of ornamental angle brackets.

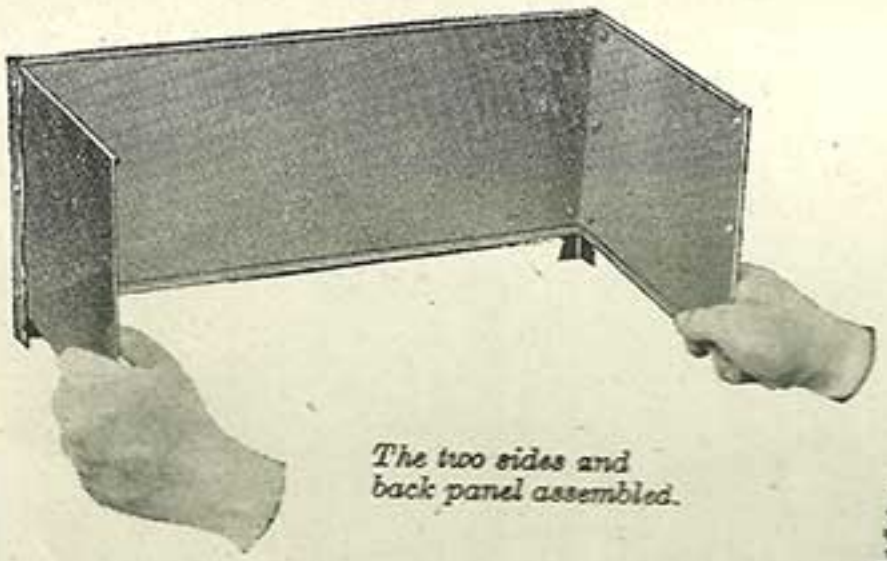
To complete the assembly of the cabinet, proceed as shown here. Attach the two sides to the back by means of the angle brackets. The heads of the bolts should be on the outside of the case. Then attach the two angle brackets to the front panel and bolt in position. Next, slide the case from the back towards the panel with the baseboard resting on the upturned flange.

Finally, bolt the sides to the angle brackets on either end of the front panel. In order to do this conveniently, it will be advisable to remove temporarily the grid bias battery and the clip holding it in position.

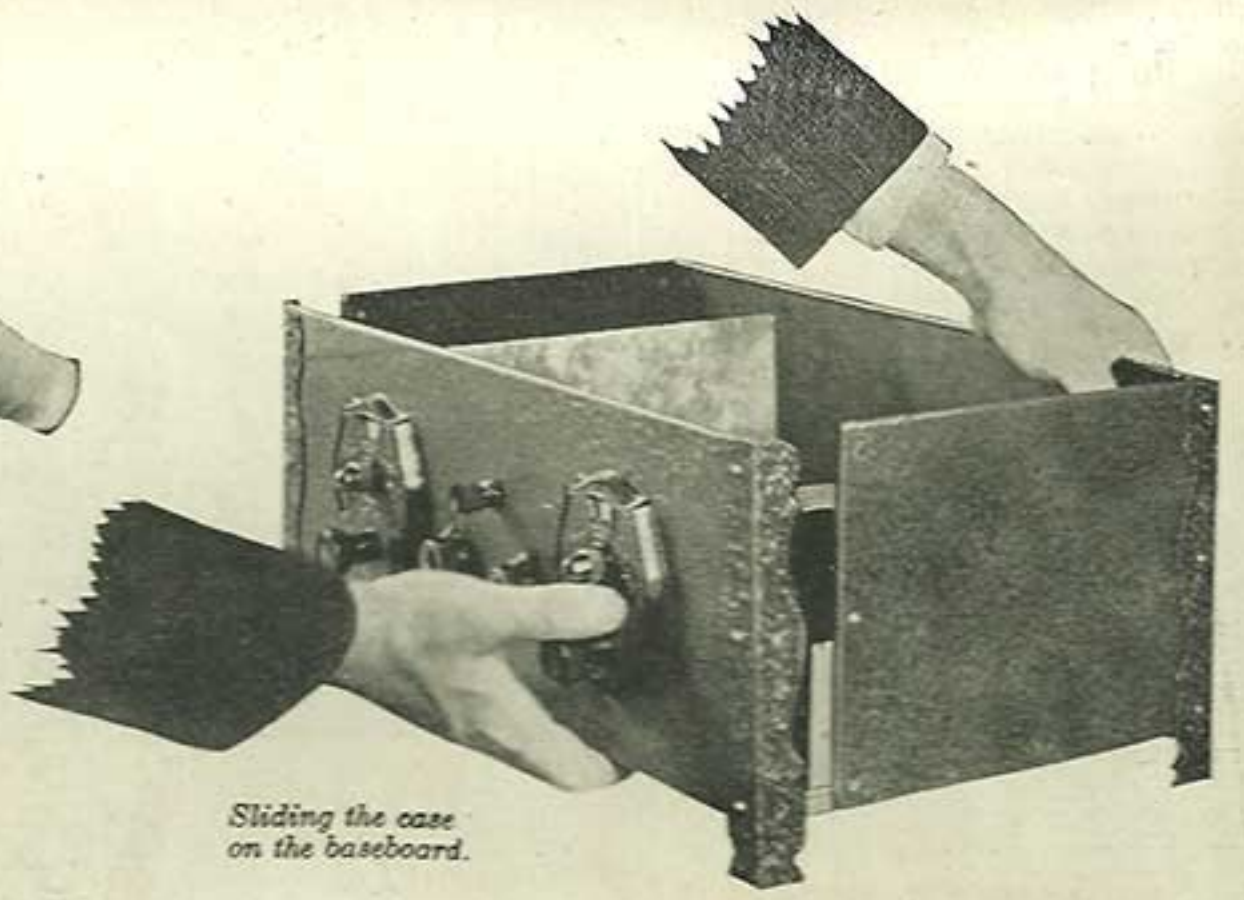
When the case is complete, the baseboard should be bolted down on the three remaining sides. Insert the bolts from below.



Bolting the angle bracket in position.



The two sides and back panel assembled.



Sliding the case on the baseboard.

¶ When building the new Cossor "Melody Maker" you'll save money by buying the complete kit

Metal looks better — wears better — does not warp

—that's why we use a metal cabinet for

the new Cossor Melody Maker

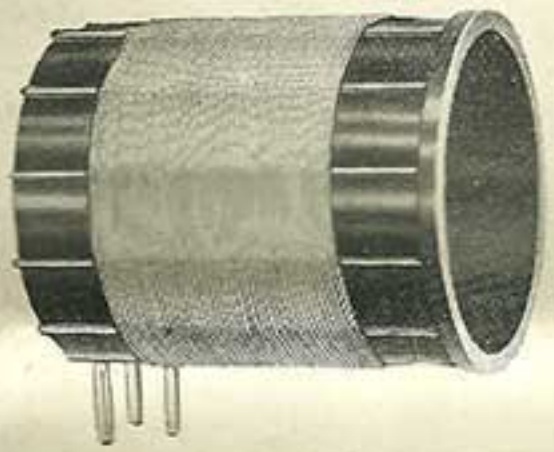
Finally—

1. Connect to Aerial and Earth
Attach battery connections
Connect to Loud Speaker

THE various leads are brought into the Receiver through the two holes in the baseboard. The Aerial and Earth should be attached to the terminals marked A and E respectively. If, however, you prefer to use the frame aerial described on page 24 of the 32-page new "Melody Maker" Booklet, these two terminals will not be used. The frame aerial should be connected to the first coil socket as illustrated in the Booklet.

The five terminals to which the leads to the Accumulator and the H.T. Battery are connected are marked L.T.+, L.T.—, H.T.—, H.T.1.+ and H.T.2.+. For the moment, however, leave the opposite ends of these leads disconnected. (See No. 4 below). The two remaining terminals are to be connected to your Loud Speaker.

2. Insert Coils



THE new Cossor "Melody Maker" uses interchangeable plug-in coils. For all wavelengths between 225 and 600 metres use the pair wound with blue-covered wire. Those wound with orange-covered wire are for all wavelengths between 900 and 2,000 metres. The coil shown on the left is to be used in the first socket (nearest the Aerial terminal) and is the aerial coil. Notice when inserting this coil that it is at right angles to the panel. The coil shown on the right is to be inserted in the second coil socket on the opposite side of the metal screen to the first one.

3. Insert Valves

First Valve

In the first valve socket insert a Cossor Screened Grid Valve (Type S.G.220). Connect the terminal on the top of the valve to the insulated terminal on the metal screen by means of Wire No. 39.

Second Valve

In the second valve socket insert a Cossor R.C. Valve (identify it by its blue band).

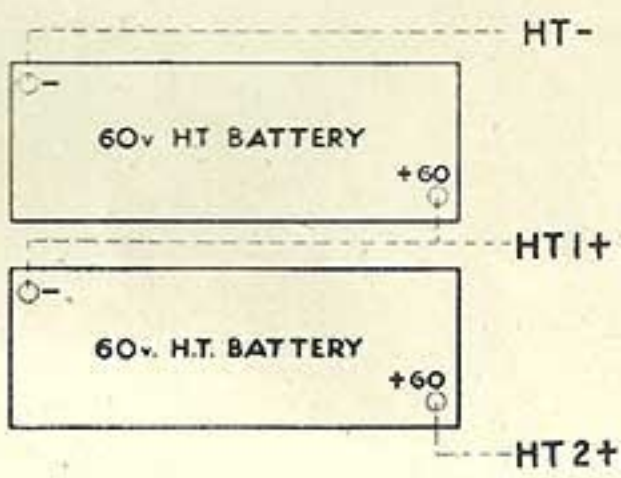
Third Valve

Into the last socket insert a Cossor Stentor Power Valve (220P. green band).

4. Connect Accumulator
Connect H.T. Supply

YOU are now ready to connect up the Batteries. Connect the end of the lead going to the terminal marked L.T.+ to the Red terminal of the 2-volt Accumulator. The other L.T. lead must be connected to the black terminal of the Accumulator. See that the switch on the front of the panel is pushed in—thus breaking the circuit.

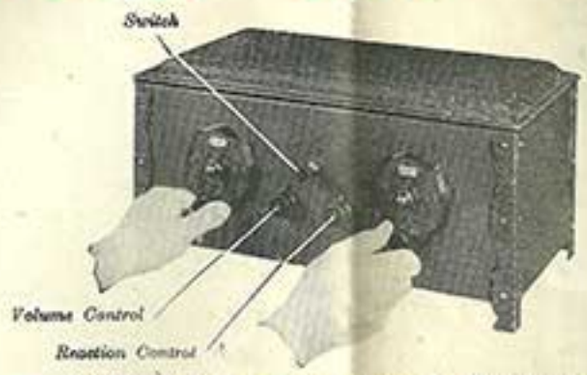
If you intend using H.T. Dry Batteries, obtain two good quality 60-volt Batteries. Connect them in series as shown here. Now connect the three leads as indicated. If your house is wired for electric light you will probably prefer to use a Cossor H.T. Mains Unit, which will give ample high tension current without the necessity of using batteries. Your Wireless Dealer will tell you about it.



How to operate the "Melody Maker"

1. Switch on the Batteries

IF you have already connected up as instructed above, you should now switch on the Set by pulling out the small central knob.



2. Tuning in your local Station

ROTATE the volume control and reaction knobs so that their pointers are directed downwards. Turn the two main dials, keeping the dial readings approximately alike, until you hear your local station. In all probability, you will hear many other stations while rotating the dials, but your local station will be easily identified by looking up its wavelength in the wireless programmes in either the "Radio Times" or your local newspaper, and comparing it with the dial readings set out below for stations of approximately the same wavelength. The main dials should be adjusted until the maximum signal strength is obtained. As the tuning is very sharp only small movements on the dials are necessary to produce this result after the approximate position for the station has been located.

3. To Control Volume and Reaction

HAVING obtained maximum volume by means of the two main dials, the volume can then be modified still further by turning the volume control knob in the desired direction. To sharpen the tuning, the reaction knob may be manipulated, but under no circumstances should this be left in a position in which oscillation occurs (as evidenced by a howl or a whistling noise in the loud speaker) as this will spoil the tone of the "Melody Maker."

4. Receiving Distant Stations

SET the volume control and reaction knobs with their pointers down. Set the main control dials to the same readings. Move the left-hand dial one division and rotate the right-hand dial three or four divisions on either side of this reading. This procedure should be continued, moving the dials step by step, swinging the right-hand dial through a few degrees on either side of the reading of the left-hand dial. At each stage the dial readings should be kept approximately alike. When a station is heard, the dials should be adjusted very slightly to obtain the greatest signal strength.

THE VOLUME can then be varied by rotating the volume control in the desired direction.

THE TUNING can be still further sharpened by turning the reaction knob. Care, however, should be taken with this adjustment to avoid oscillation. If this occurs, the reaction knob should be turned back until perfect purity is obtained. To tune in other stations, first turn the volume control and reaction pointers to the down position and then proceed as before.

It is recommended that the dial readings for the various stations should be logged for future reference.

Dial Readings

for 23 British and Continental Broadcasting Stations

LONG WAVE COILS

Station.	Country.	Wavelength.	Left Dial.	Right Dial.
Radio Paris	France	1765 metres	83	87
Daventry (5 XX) ..	England	1605 "	71	75
Moscow	Russia	1450 "	64	71
Motala	Sweden	1380 "	56	65
Koenigswusterhausen..	Germany	1250 "	50	60
Warsaw	Poland	1111 "	45	51
Hilversum	Holland	1071 "	38	47

SHORT WAVE COILS

Milan	Italy	547 metres	91	92
Munich	Germany	537 "	88	90
Brussels	Belgium	508 "	85	87
Daventry (5 G.L.) ..	England	492 "	81	83
Langenberg	Germany	472 "	77	79
Rome	Italy	449 "	74	75
Paris	France	446 "	72	74
Frankfort	Germany	429 "	64	71
Hamburg	Germany	396 "	61	65
Stuttgart	Germany..	380 "	57	63
London	England	361 "	54	59
Bournemouth ..	England	326 "	44	50
Belfast	Ireland	306 "	40	45
Cologne	Germany	283 "	30	38
Munster	Germany	250 "	23	29
Toulouse	France	246 "	20	27

Special Note: *All the above stations were received in London between 9 p.m. and 11.15 p.m. on August 23rd, 1928, on a standard aerial 100 ft. in length. All were received at Full Loud Speaker strength. The above dial readings are approximately only for your aerial but the positions of the stations on the scale will be reasonably correct.*

5. Changing the Wave Band

THE new Cossor "Melody Maker" covers all broadcasting wavelengths from 225 to 2,000 metres. To change from short waves to long, and vice-versa, merely change the coils. The coils wound with blue-covered wire are for all wavelengths between 225 to 600 metres, whilst the higher wavelengths are covered by the coils wound with orange-covered wire. Be sure to use always the coils of the same colour, and switch off the Set whilst changing coils.

Everything you need packed in a sealed Carton

[Including Valves, Cabinet & Tools]

Contents:

2 Ormond Logarithmic Variable Condensers ·0005 mfd.
2 Cossor Slow Motion Dials.
1 Keystone Reaction Condenser ·0001 mfd.
1 Peerless Rheostat 6 ohms.
1 Ormond Push-pull Switch.
5 Cossor Valve Holders.
2 Cossor "Melody Maker" Coils 225-600 metres.
2 Long Wave Coils extra if required.
1 Cossor H.F. Choke.
1 Terminal Block engraved and fitted with 5 terminals.
1 Ditto with 4 terminals.
1 T.C.C. Condenser Type S.P. ·0001 mfd.
1 T.C.C. Condenser ·1 mfd.
1 T.C.C. Condenser 2 mfds.
1 Dubilier Grid Leak 3 megohms.
1 Cossor "Melody Maker" L.F. Transformer.
1 9-volt Grid Bias Battery.
18 inches of rubber covered flex with Wander Plugs.
1 Coil of 22 S.W.G. tinned copper wire.
3 Yards of Insulated Sleeving.
1 Cossor S.G. Valve (2 volts).
1 Cossor R.C. Valve (2 volts).
1 Cossor Power Valve (2 volts).
1 Complete Screen Assembly.
1 5-ply Baseboard fully drilled.
1 Complete set of nuts, bolts, and Washers.
Also 1 complete Cabinet assembly including: — Ornamental angle brackets all drilled ready for assembly and all necessary bolts and nuts, together with spanner and screwdriver.

Cossor "Melody Maker" Kit in sealed Carton - - £7-15-0

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