

# The "Home and Country" Portable Concluding Notes

By "Cathode"

THE reaction condenser is of the mid-get type. While the capacity of this is stated as .00005 mfd., it is not at all critical and almost any panel mounting midget condenser can be used in this position. Another component which permits of quite wide variation is the resistance in the lead to the plate of the detector valve. Although this is stated to be 50,000 ohms, values up to as high as 100,000 ohms may be used equally successfully. It is important, though, that this resistance should be of the wire-wound type, as otherwise noise will inevitably ensue.

The speaker should be a "chassis" of comparatively small dimensions. There is room for anything within reason, but the larger the speaker the less is the space available for batteries. Some speaker units can be obtained with a pressed metal frame protecting their back, and one of these obviates any danger of the diaphragm being ruined by a battery bumping against it. A speaker having a diaphragm of seven or eight inches in diameter and fairly sturdily constructed is a very good choice.

The battery compartment, provided it has not been cut into too much by a giant speaker, will readily accommodate 100 or 120 volts of B battery, which, as previously explained, can be of the small-capacity type. There will also be room for a small 2-volt accumulator and a 9-volt C battery. The ac-

cumulator should be of the unspillable type, if the set is to be used as a portable, and preferably of a squat shape, so as to pack more securely. The set will be much easier to carry if the weight of the batteries is distributed fairly evenly. Once a suitable distribution of weight has been found, the batteries may be wedged into place with small wooden wedges or folded newspapers.

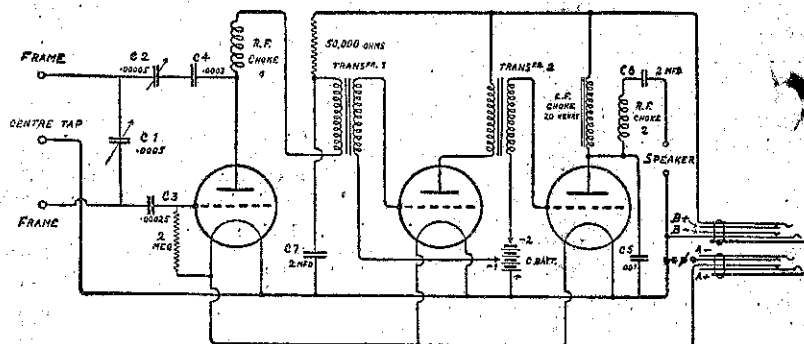
Valves will necessarily be of the 2-volt type. For the detector an H.F. or R.C. valve of 20,000 to 50,000 ohms impedance will be most successful. The first audio valve should be of the L.F. type, having an impedance of 8000 to 15,000 ohms. For the last socket, of course, a small power valve of 4000 to 7000 ohms impedance will be used.

## Possible Troubles.

IT has already been mentioned that it is very unlikely indeed that any trouble will be had with audio instability, so that the reader will not be unduly alarmed if we mention one or two remedies to provide for the remote possibility of anything in that nature occurring. The first thing to try is reversing the speaker leads. If this does not improve matters, a  $\frac{1}{2}$  meg. grid leak across the secondary terminals of the second transformer will usually effect a cure. As a last resource, reverse the connections to the secondary of one of the transformers.

It is unlikely that any regular reader of the "Record" is unfamiliar with the process of tuning a simple "Det.-L.F." receiver. Do not forget, however, that any receiver operating from a frame aerial is very sensitive as far as direction is concerned. A difference of a few degrees in direction will often make a surprising difference in the strength of signals. One is particularly apt to overlook the necessity of locating the frame edgewise to the oncoming waves when the receiver is used indoors, the more so since the direc-

tioned under these circumstances. It is worth noting, therefore, that an earth may be attached to the receiver, a suitable point to connect this being the centre tapping of the frame aerial. Similarly, signal strength from distant stations may be much increased by coupling an outdoor aerial to the frame through the medium of an extra three or four turns adjacent to the existing winding. The directional properties of the frame will then practically disappear.



tion of the waves is often distorted in such circumstances and pointing the frame toward the broadcast station does not always result in the loudest signals. A few seconds spent in experimenting will always enable the operator to obtain the best signal strength.

This receiver is quite worthy of installation indoors as a permanent receiver, particularly during the winter months. Thus any little effort spent in making a nice job of the cabinet is well repaid, the neatness and convenience of the receiver being very much appre-

The description of the "B" eliminator and charging unit for this receiver will follow this article very shortly. Although a full description will be given of the construction of the power transformer and chokes employed, it will be possible to obtain these ready-wound locally. Thus, those constructors who doubt their ability to make a success of a transformer need not hesitate to construct the receiver for fear the remaining unit will be beyond their capabilities; we can promise them it will not.

## Paderewski In America

## Empire Broadcasting

### Refuses to Broadcast

IGNACE PADEREWSKI, the world-famed pianist, recently visited America on a concert tour. When interviewed on his arrival in New York he stated that he would not permit any of his recitals to be broadcast.

He explained quite frankly that he was opposed to such broadcasting, so far as his own playing was concerned, because his one experience before the microphone in England had resulted in affecting unfavourably the attendance at his public concerts.

EXTENSIVE plans for linking up by wireless not only Great Britain with the Dominions and colonies, but the Dominions with each other were approved recently by the Dominion Premiers at the Imperial Conference. It is hoped this will be accomplished before the end of 1931 if technical difficulties can be overcome.

They include the relaying of broadcasts, for instance, from Australia to South Africa, and from Canada to the West Indies. Immediate experiments are to be made, and later a committee of technical experts will be called to discuss the possibilities and the ways and means.

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