

An Easily Built Wavetraps

Discriminating Between 2YA and 2ZW

WITH the opening of the new private station 2ZW in Wellington, many local listeners who possess crystal sets of the simpler type are experiencing interference between this station and 2YA.

This trouble lies solely, however, with the receivers, and not with the stations, as these operate on frequencies sufficiently remote from each other to preclude the possibility of interference on any but the most unselective of sets. And now for a cure.

Three courses are open: Firstly, adaptation of the present receiver to give greater selectivity; secondly, installing a wavetraps; and third, building a new receiver. These three remedies will be dealt with in turn.

The first, that of adopting the present receiver to give greater selectivity, is of doubtful use, for if the set is to be dismantled the listener may as well build the specially-designed crystal set to be described later. This will sharply separate the two transmissions, bringing in either with no trace of the other.

However, the effect of placing a variable or semi-variable compression type condenser of the order of .001 mfd. max. in the aerial may be tried. In localities where the interference is not very acute this will probably sharpen tuning sufficiently to allow of a clear separation of the two stations.

The next solution, that of using a wavetraps, is scarcely an economic one, for with the exception of the crystal detector the receiver is duplicated.

However, for those who have the parts on hand, or prefer to build a wavetraps rather than rebuild their sets, the following description of a simple but efficient trap is published.

Building a Wavetraps.

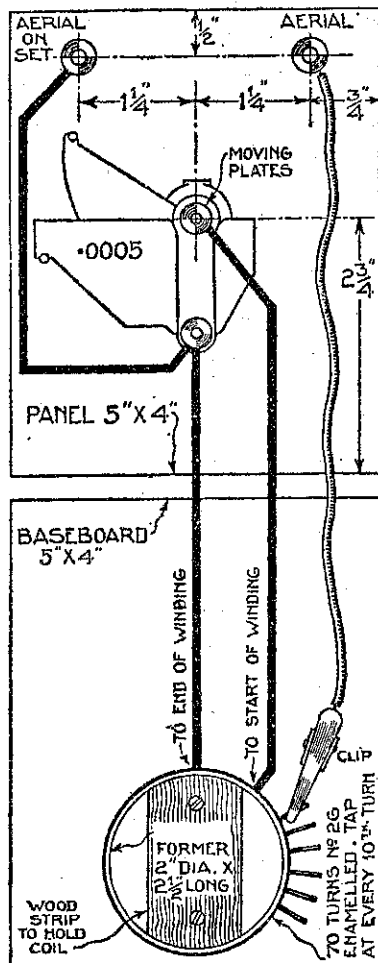
ONE of the simplest of wavetraps consists of a coil tuned by a condenser. The whole is placed between the aerial and the set (in series with the aerial lead), and the condenser

remain the same (unless they are recognised experimental stations). In other words, the station verified must have operated on the frequency shown on the verification card on or after the first day of the period. In this case, January 1. All logs for the second period must be in our possession by July 1, 1931.

5. The following stations are not included in the competition:—All New Zealand and the following Australian stations:—2FC, 2BL, 4QG, 3LO, 3AR, 2BE, 2UE, 2GB, 2NC, 3DB, 3UZ, 5CL, 6WF, 7ZL, 7LA. These Australian stations can be accepted if logged in New Zealand daylight, but the verification must clearly admit this fact. This is to prevent possible interference with the programmes that are enjoyed by non-D.X.-ers.

6. The right is reserved to add further conditions or alter existing ones as unforeseen circumstances demand.

7. The decision of the judge in all matters will be final.



It has been designed particularly to enable those owners of crystal sets who are experiencing difficulty in separating 2YA and 2ZW, to eliminate completely one or the other.

The materials needed are one variable condenser, capacity .0005, 1 lb No. 26 enamelled copper wire, 1 three-inch length of cardboard former, 2 in. in diameter, 2 terminals, 1 crocodile clip, baseboard 4 in. x 5 in., and panel (wood or ebonite) 4 in. x 5 in.

Winding the Coil.

THE coil consists of 70 turns of No. 26 enamelled wire, close wound, and tapped every tenth turn, making six tapings in all.

Commence winding operations by piercing two small holes, about 1/4 in. apart, with a bradawl or knitting needle, about 1/4 in. from the end of the coil. Thread the wire through these holes, leaving two or three inches for connecting purposes, and wind on ten turns. At the tenth, keeping the wire taut, make a twist in the wire, forming a small loop about 1/4 in. long.

Proceed thus, making a tapping at every tenth turn, until the 70 turns are wound on. The seventieth turn is, of course, not tapped, but the wire is threaded through two small holes similar to those used at the beginning, and broken off, again leaving two or three inches for connecting purposes. At each tapping scrape the loop of wire bare of enamel. The coil is now complete, and may be mounted on the baseboard, either upright by means of brackets or on its side, fastened with two wood screws to the baseboard.

Completing the Trap.

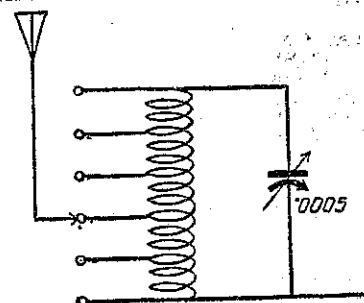
THE condenser and terminals may now be mounted on the panel, and the latter screwed to the baseboard. Everything is now ready for wiring up. This may be performed with the aid of the layout diagram, or by following these instructions.

A piece of flexible wire is attached to the terminal on the left, and a crocodile clip fastened to its free end. This clip is taken to the most suitable tapping, to be determined by experiment. One end of the coil is taken to one

terminal of the variable condenser, and the other end to the other terminal. A wire is then run from one of the condenser terminals—either is suitable—to the terminal mounted on the right of the panel. The trap is now ready for operation.

Using the Wavetraps.

TAKE the aerial off the receiver and attach to the left-hand terminal of the trap. Join with a length of wire the right-hand terminal and the aerial terminal of the receiver. Now tune to



Theoretical diagram

the loudest point of the station it is desired to eliminate. Then, by varying the wavetraps condenser and attaching the clip to different tapings in turn, a position will be found where the station signals fade into inaudibility. The trap is then left so adjusted, and the wanted station tuned in.

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