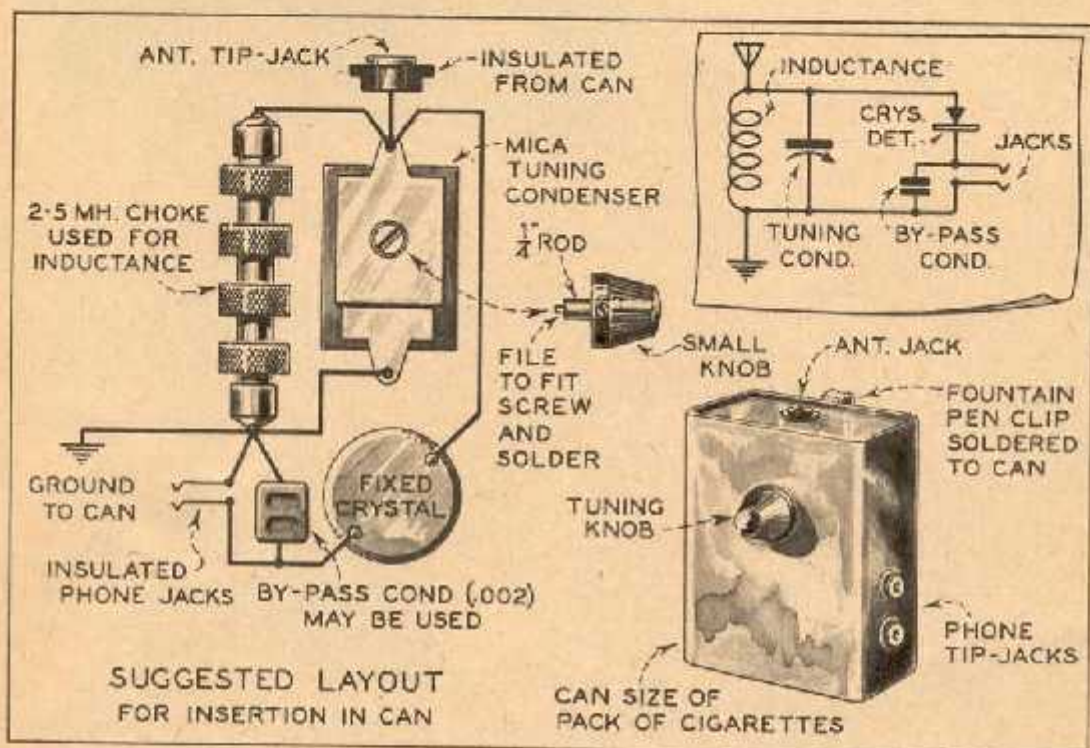


Vest Pocket Crystal Receiver

Here's a little crystal receiver which is no larger than a package of cigarettes.

by L. B. Robbins



ADJUSTABLE in tuning and carried in the upper breast pocket, this tiny receiver is held securely in place by an ordinary fountain-pen clip. With but two or three feet of antenna wire and a pair of head-phones one can clearly receive broadcasts within a radius of two or three miles, or within city limits. The can used to house the original set was one constructed to hold just one pack of cigarettes. Some dime stores sell them or they may be procured at cigar stores.

The circuit used is the simplest known and is shown in the diagram. It consists of a tuning coil in series with a fixed crystal and midget phone tip-jacks; the circuit being shunted by a suitable tuning condenser of the compression type commonly known as a padding condenser. Compactness is obtained mainly by utilizing a 2.5 millihenry choke, used in short wave work, as the tuning coil. The four pies, tuned by a condenser of about 250 mmfd.

maximum capacity, will cover most of the broadcast band quite well.

Lay out the parts on the bench in a compact form as shown in the drawing, arranging them according to their design so they will fit into the can with the condenser tuning shaft in a position to enter a suitable hole in the upper center of the can. Any parts that may come in contact with the can should be covered with bits of electricians' tape. Wire and connect the various elements together with buss wire, if possible, to gain solidity. Fit the two phone tip-jacks in the lower edge as shown, and arrange the insulated tip-jack for the antenna in the center of the bottom (used as the top). The open top (bottom) can be closed later if desired. Grounded portions can be caught to the can with a bit of solder when the assembly finally is made. When completely assembled in the can, a short piece of brass rod can be filed and fitted into [Continued on page 144]



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the condenser shaft and soldered. Then the tuning knob of binding-post size can be fitted to the shaft.

The phone condenser may be left out if desired, but will be found advantageous in improving quality. Solder a fountain-pen clip to the back side of the can, near the top, as shown.

This receiver may be carried constantly in the coat pocket. Sling a short piece of insulated wire over the shoulder, under the coat. When desired it can be plugged into the antenna jack, the phones inserted into their jacks and the receiver tuned to the station.

This is a fool-proof miniature receiver that will find a place in the office, on the street or even in an open car. There are no batteries to run down and reception will be clear and loud within a short distance of a powerful broadcasting station.
