

Fig. 2- An indoor loop antenna for those early BC sets.
are the ones most worthy of heating up. We're not talking here of Atwater Kents. I had a 1938 Crosley with a.m. plus 3 SW bands, rear apron connections for phono and even one labeled "television," which I foolishly junked years ago, as we foolishly threw out the Tiffany lamp over the dining room table. Who would've thought. . . ?

If you can find such a gem of purest ray serene, first give it a smoke test on a fused line. If nothing smells or touches hot, then clean, clean, clean. Restring dial cord. Clean dial and window. Tweak condenser trimmers and i.f. transformers. Check the possibility of substituting "Tubesters" (solidstate plug-in replacements for tubes) where available. Replace small tuning knob with the largest spinner that will fit.

Then wire up an improved r.f. section as in fig. 1, using a little International Crystal or Digitrex preamp. Run the longest long wire, suitably light-ning-protected, to the farthest point in the backyard you can reach. (If you don't have at least 130', forget it... use an indoor loop or ferriloopstick.)

## Small AC-DC Sets

These were DANGEROUS. The chassis is above ground! An isolation transformer is mandatory (see fig. 3). Make sure an on-off switch is in the hot side of the primary lead. Don't turn the set's volume control on-off. Leave it on.

These little sets were all built to
what was called the "All American Five" circuit, regardless of manufacturer. Bill Halligan at Hallicrafters marketed one. They had 5 tubes: 12AV6, 12BA6, 12BE6, 50C5, 35W4. The best and one of the last made, if you can find it, was the Zenith chassis no. 5FO5. It is capable when juiced up as per figs. 3 and 4 of amazing night-time DX reception and can be tuned to a DX station only 10 kc away from a local without QRM.

After buying a Miller \#2000 antenna coil, remove the back cover with its glued-on loop and save it. The nowopen back will permit proper cooling.

Remove the 3 wires, usually white, black and green, from the condenser and loop. Take off the condenser, clean and lube it. Discard the insulating spacers and remount the condenser directly on the chassis. Replace weak tubes (or see "Tubesters" above). Radio Shack still sells a 5 -tube package for these sets. Add a ground post to the rear apron.

Reconnect the r.f. wires as shown. Don't fool with the oscillator section (small rotors) of the condenser. Mount the Miller through a hole drilled in the cabinet top, away from metal such as the capacitor can. Tune the slug for max at about 800 kc using non-ferrous alignment tool.

Mount the old back with loop on a piece of $1 \times 1$ and to the cabinet. Connect the inner end of the loop to coil terminal 1. Leave the outer end free. This is now not a directional loop. It merely adds capacitance and signal


COIL AND HOOKUP
Fig. 4- How to install the Miller \#2000 antenna coil.
strength. Signal pickup will be omnidirectional.

So we now have two ways of BC DXing, on the old living room floor model or the bedside bantam. Who needs a $\$ 1000$ commmercial receiver? Some day the old radio you fixed up for a few bucks may be worth almost that! By the way... if you run across an RCA model ACR-111, send me a mailgram.


CIRCLE 7 ON READER SERVICE CARD

