

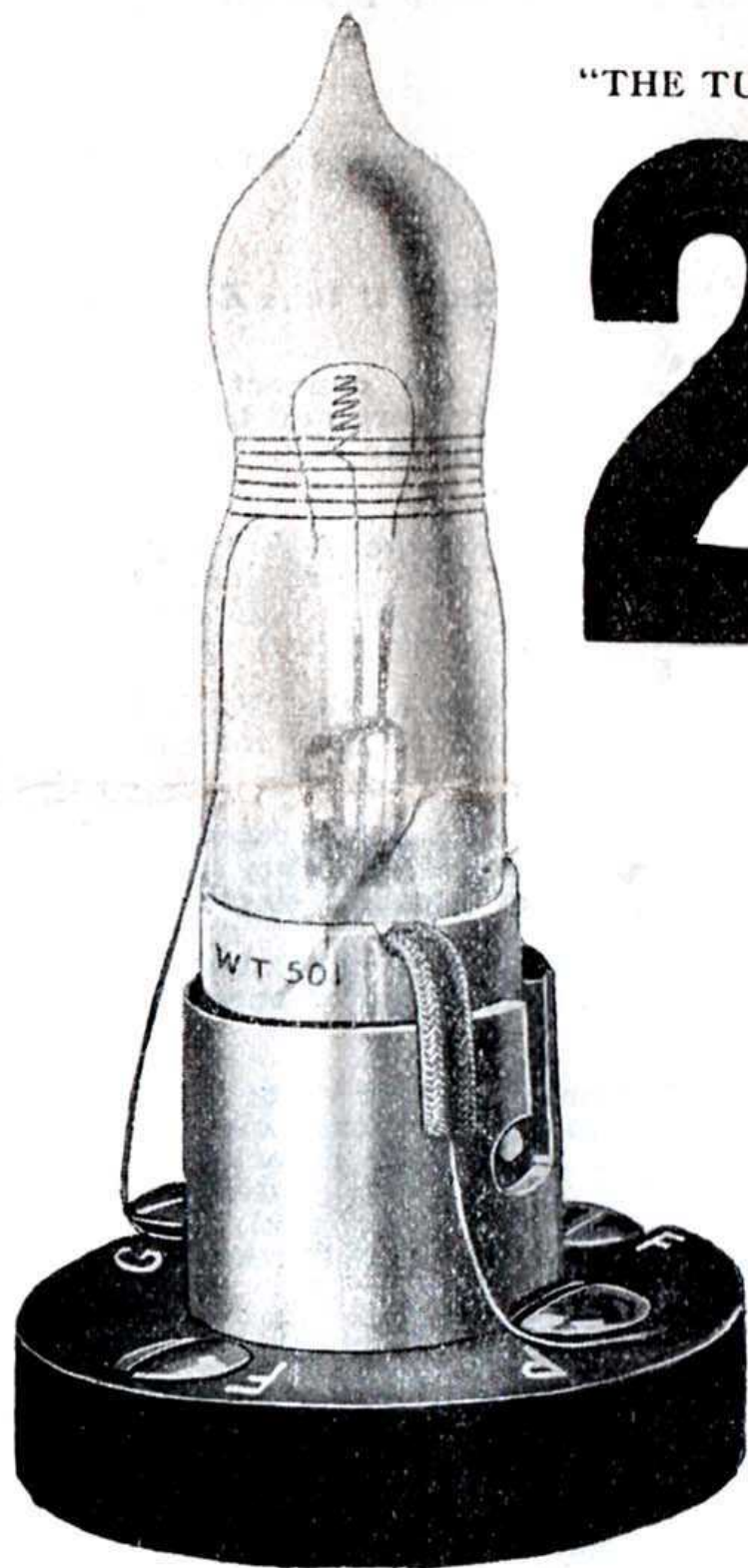
WELSH **PEANUT** TUBE

W. T. 501

"THE TUBE THAT CANNOT SQUEAL"

**2<sup>00</sup>**

Uses less than  $\frac{1}{2}$   
Amp. at 4-6 volts  
Plate voltage 16—  
22 $\frac{1}{2}$  V.

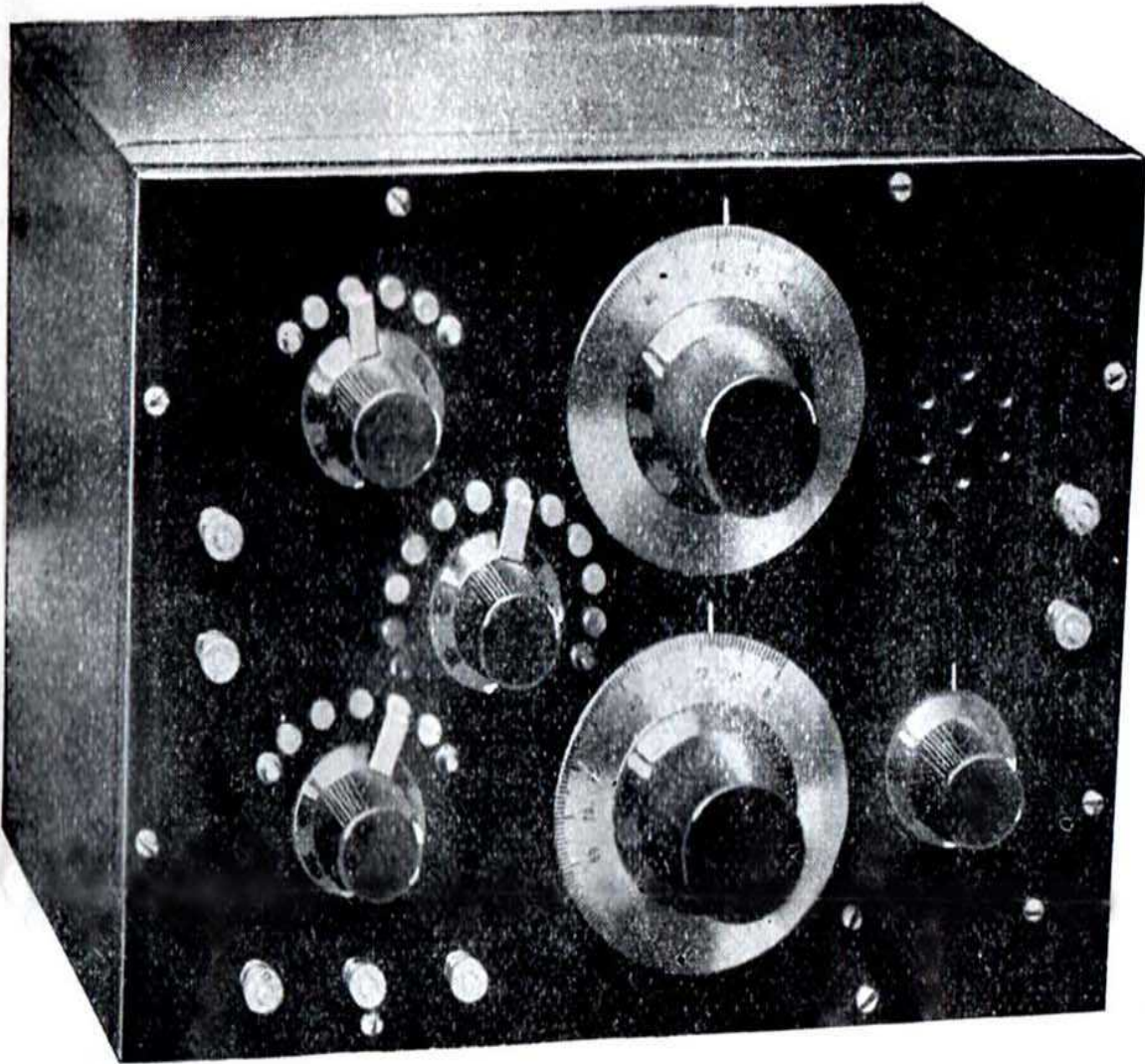


Special Socket 40 Cents Extra or Special Adaptor to fit V. T.  
Socket 75 Cents Extra.

Every W. T. 501 is carefully tested before it leaves the factory, and it works. Every tube is guaranteed against defects in material or workmanship.

**FOOTNOTES** (a) The sockets in which our tubes are tested are purposely made a little large, so if your W. T. 501 does not fit into your socket easily, DO NOT FORCE IT into place, but simply file A LITTLE off the two soldered contacts on the bottom of the tube and it will then fit into your socket with a firm, even pressure. (b) If you want to use three dry batteries (though not so good) instead of the six-volt storage A battery, connect the three dry batteries in series as follows: Carbon or centre post of the first dry battery to the zinc, or outside post of second battery; then the centre post of second battery to the outside post of third battery. This makes the outside post of the first battery the negative (—) post and the centre post of the third battery the positive (+) post of the series. (c) CAUTION: NEVER ALLOW THE CURRENT FROM THE TWENTY-TWO-VOLT B BATTERY TO PASS THROUGH THE FILAMENT OF THE W. T. 501 TUBE, as it will BURN OUT the tube, and our guarantee absolutely does NOT cover tubes ruined in this way or by other misuse. Remember only ONE wire goes from the negative (—) post of the twenty-two-volt battery to the tube, and the other wire from the positive (+) post of the twenty-two-volt battery goes to one tip of the head phones.

**REMEMBER:** You need a good aerial, a good ground, and a good tuning device to get results; ALSO don't forget that soldered connections throughout, and intelligent operation on your part will have a great effect on the results you will obtain. After you have learned how to operate your tube, mount it on a suitable wood base and place your rheostat on a neat appearing panel attached to the base and you will have a compact tube detector unit.

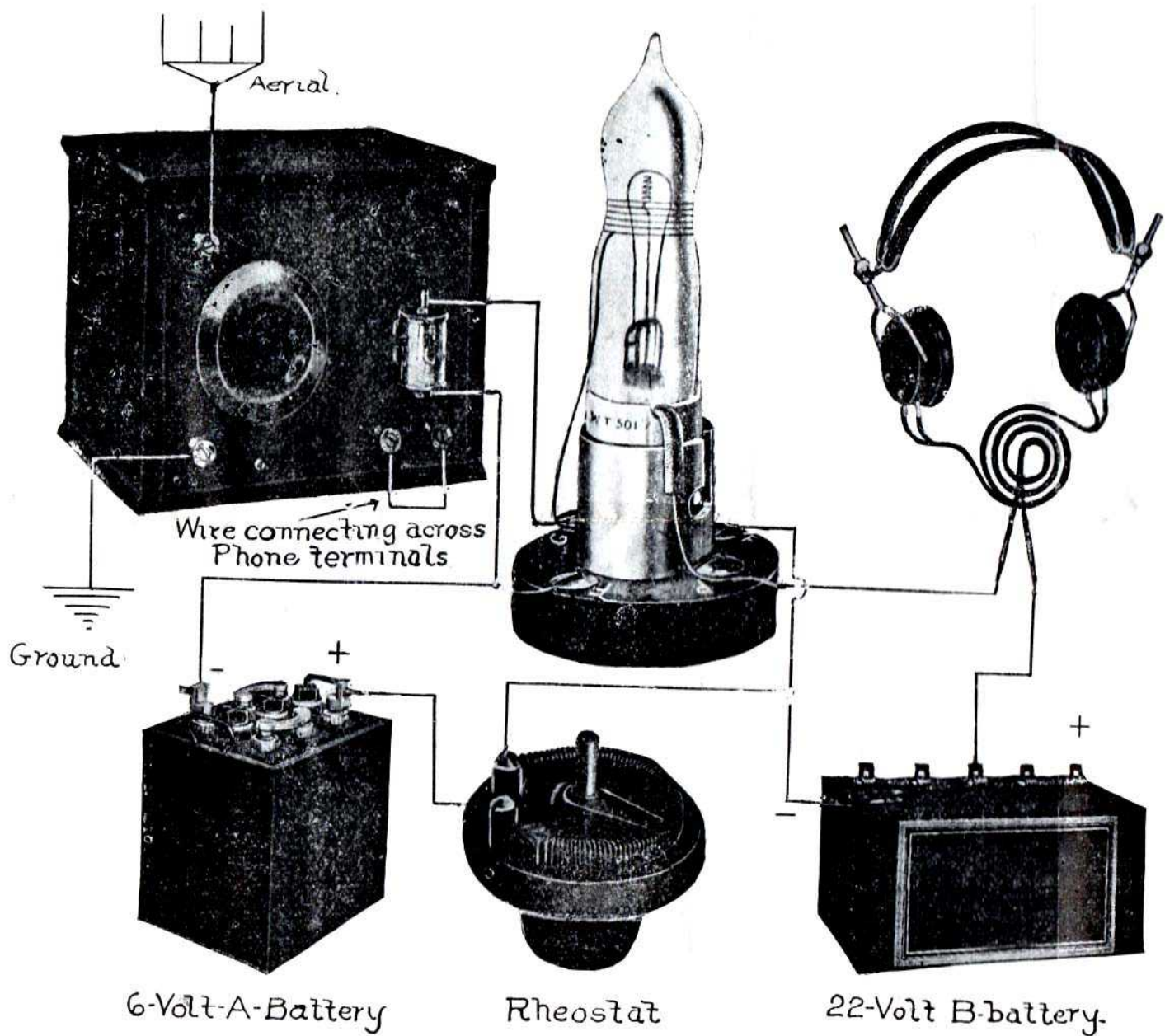


This set is a great success. We have done all the hard work for you. Diagrams and panel layout—in fact, everything you need to know—for building this most attractive set, and a detailed list of each and every part required will be sent you on receipt of 25c in coin and name of your dealer from whom you purchased your W. T. 501. Then take this accurate list of parts to your dealer and you can't go wrong. Address Advertising Department, Radio Research Guild, 9-15 Clinton Street, Newark, N. J. 38-40

## **RADIO RESEARCH GUILD**

**9-15 Clinton Street, Newark, N. J.**

**Sales Office, 38-40 Clinton St., Newark, N. J.**



## Instructions for Using the W. T. 501 with Any Crystal Set

Read Through Carefully (Including Footnotes) and Study Picture Diagram Before Starting to Hook-Up

- 1—Use insulated wire throughout.
- 2—Disconnect head phones from phone terminals on crystal set, then connect the two phone terminals on crystal set by a wire. (See diagram.)
- 3—Do not have "cat-whisker" touching the crystal.
- 4—Insert W. T. 501 Tube in our special socket. (See footnote if tube does not slip right in easily.)
- 5—Connect a wire to each side of crystal detector, then (a) connect one of these wires to the negative (—) post of the six-volt storage A battery and to one of the set screws on socket base; (b) connect the other wire from the crystal detector to both ends of the GREEN wire on the W. T. 501 Tube.
- 6—(a) Connect the positive (+) post of the six-volt storage A battery to one connection of the rheostat. (b) Turn the rheostat to "OFF" position. (c) Connect the other connection of the rheostat to the negative (—) post of the 22-volt B battery and to the second set screw on the socket base. (See diagram.)
- 7—Connect the yellow PLATE wire protruding from the side of the W. T. 501 Tube to one tip of the head phones. (A PLUG-A-POST miniature jack for phone tips is an exceedingly convenient thing to use.)
- 8—Connect the other tip of head phones to positive (+) post of twenty-two volt B battery. If you have a B battery with several positive connections, try sixteen volts first and then the others until you find the point of greatest efficiency.
- 9—See that aerial wire is connected to aerial connection of the crystal set and that the ground wire is securely connected to the ground connection of the crystal set.

You are now ready to listen in. Place the head phones to your ears; turn on the rheostat slightly until the tube lights up; then tune in with the controls on the crystal set in the usual way. When you are tuned in adjust the rheostat back and forth until you find the best results; then LEAVE IT ALONE. (Remember, the W. T. 501 Tube consumes only a very small amount of current and the less current you use the longer your batteries will last, and your tube will have a much longer filament life.)

If you want to assemble your own tube set, follow the above directions, except (2) and (3). And instead of (5) take two leads from the secondary of your variocoupler, loose-coupler, honey-comb coils or other tuning device.

If you already own a tube set, simply place the W. T. 501 in one of our special adaptors with the two binding posts and the little pin on the adaptor facing you. Attach the short yellow-covered PLATE wire of the W. T. 501 Tube to the binding post at your LEFT, and attach both ends of the GREEN wire on tube to the binding post at your RIGHT; then insert the adaptor in your regular V. T. detector socket.