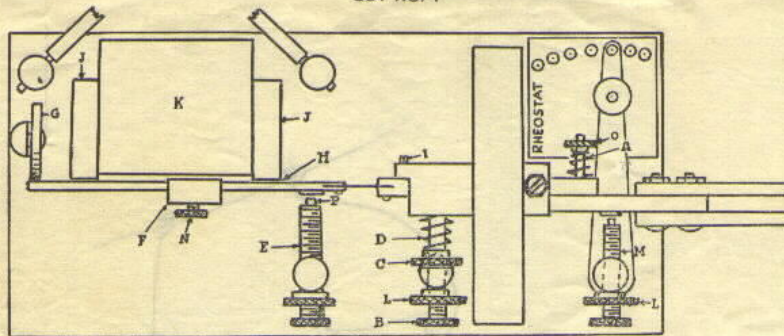


CUT NO. 1



A—Dash tension spring
 B—Reed travel control
 C—Dot tension spring carrier
 D—Dot tension spring
 E—Dot Screw
 F—Speed control weight
 G—Deadener wheel
 H—Air gap

I—Reed adjusting screw
 J—Pole pieces
 K—Electro-magnet
 L—Lock nuts
 M—Dash screw
 N—Weight screw
 O—Dash tension spring nut
 P—Dot contact plunger

DIRECTIONS

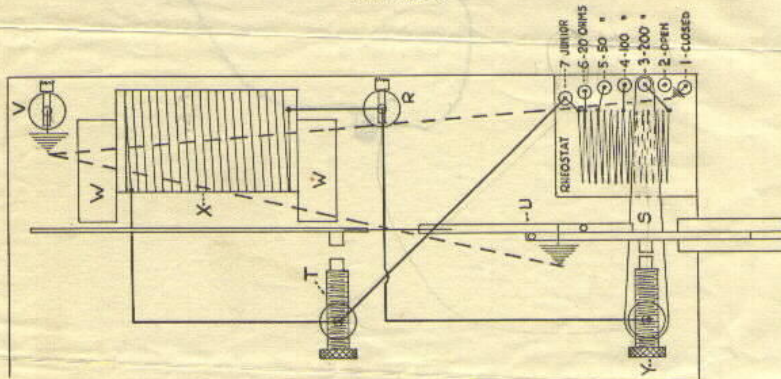
Loosen lock nut L on screw B, run B in until touch suits you. Do same with screw M; tighten L nuts.

Adjust dot screw E until dots are (right). After this, to make dots heavy or light, run screw E in or out or by very slight turn on screw B (This is the better way). To make soft or stiff in dot direction, run nut C in or out; in dash direction, nut O in or out.

IMPORTANT—Reed must rest against deadener wheel G when idle—run adjusting screw I out until it does. Rear hole through handles slotted. They can be adjusted, both up, both down or one up, other down.

Parts and adjustments except H, J, and K, apply to Electro Bug Junior also. Order parts by letter, thus: One screw E complete.

CUT NO. 2



Cut No. 2 shows wiring diagram and details of rheostat and electro-magnet.

Current enters at binding post R, splits at this point, part or all (depending on position of switch) flows through magnet to post T, balance through wire to post Y and switch S, through rheostat to post T. When dot contact closes, flows through reed U and base (shown by dotted line X) to and out at binding post V. Switch on point 1 circuit closed, on point 2, open and ready to "send", all current flowing through magnet. Point 3 current divides, 33% through rheostat, 67% through magnet. Point 4, 50% through rheostat, 50% through magnet. Point 5, 67% through rheostat, 33% through magnet. Point 6, 80% through rheostat, 20% through magnet. On point 7, magnet is shorted out entirely, converting to mechanical vibrator (Electro-Bug Junior).

Reducing amount of current flowing through magnet reduces "pull" on reed and is equivalent to adjusting the magnet itself as a relay is adjusted. This also give us the advantage of reducing the resistance of magnet (by law of joint resistance). For instance, with switch on point 6, joint resistance is 16 Ohms, with only 20% of current flowing through magnet, which meets conditions of wireless locals, low voltage duplex locals, etc.

It will seldom be necessary to use any point except No. 2, which meets average conditions of Railroad wires, but if "pull" is too hard, move on down with the switch—there is a point for EVERY condition you will encounter.

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