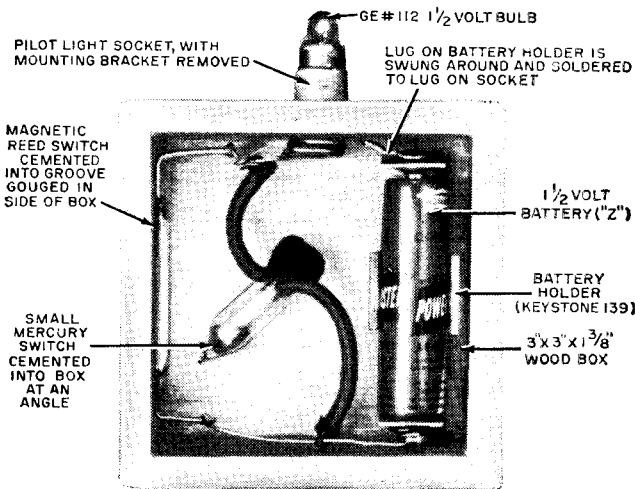


WHAT'S a "What's What Light?" As far as your friends are concerned, it can be anything; a mechanical fortune teller, a lie detector, a mystery light, or just a handy switchless flashlight—only *you* know the secret of its operation, and, "what's what."

There are no protruding switches, no holes in the case. How does it work? Simple. Just turn it on its side and the light shines brightly. "Ah-ha," someone says, "a mercury switch." Let him think he has discovered the secret, and then turn the box *upright*. Bring your hand

close to the box—without touching it—and light the bulb a second time!

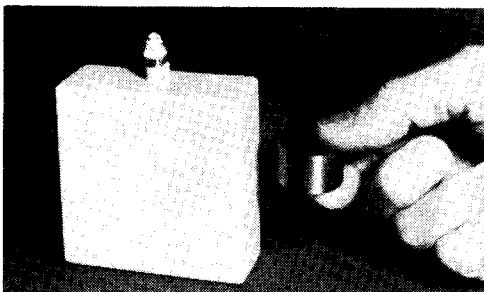
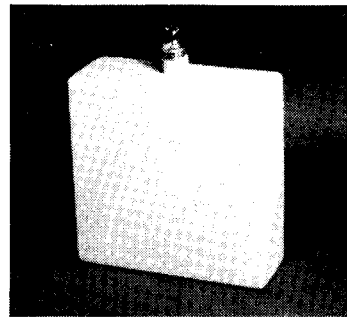
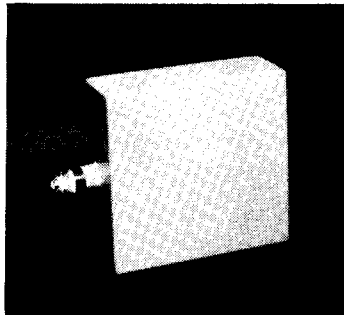
In the first case, the actuating device is, of course, a small mercury switch (Burstein-Applebee Cat. No. 17A994 or equivalent). In the second example, the switch is of the magnetic proximity type—a glass-enclosed reed switch which closes when a small magnet, hidden in the palm of your hand, is brought near the side of the box. Reed switches complete with magnets are available from several suppliers (Radio Shack Cat. No. 27K95L486 is one) for under \$2.00.



What's What Light

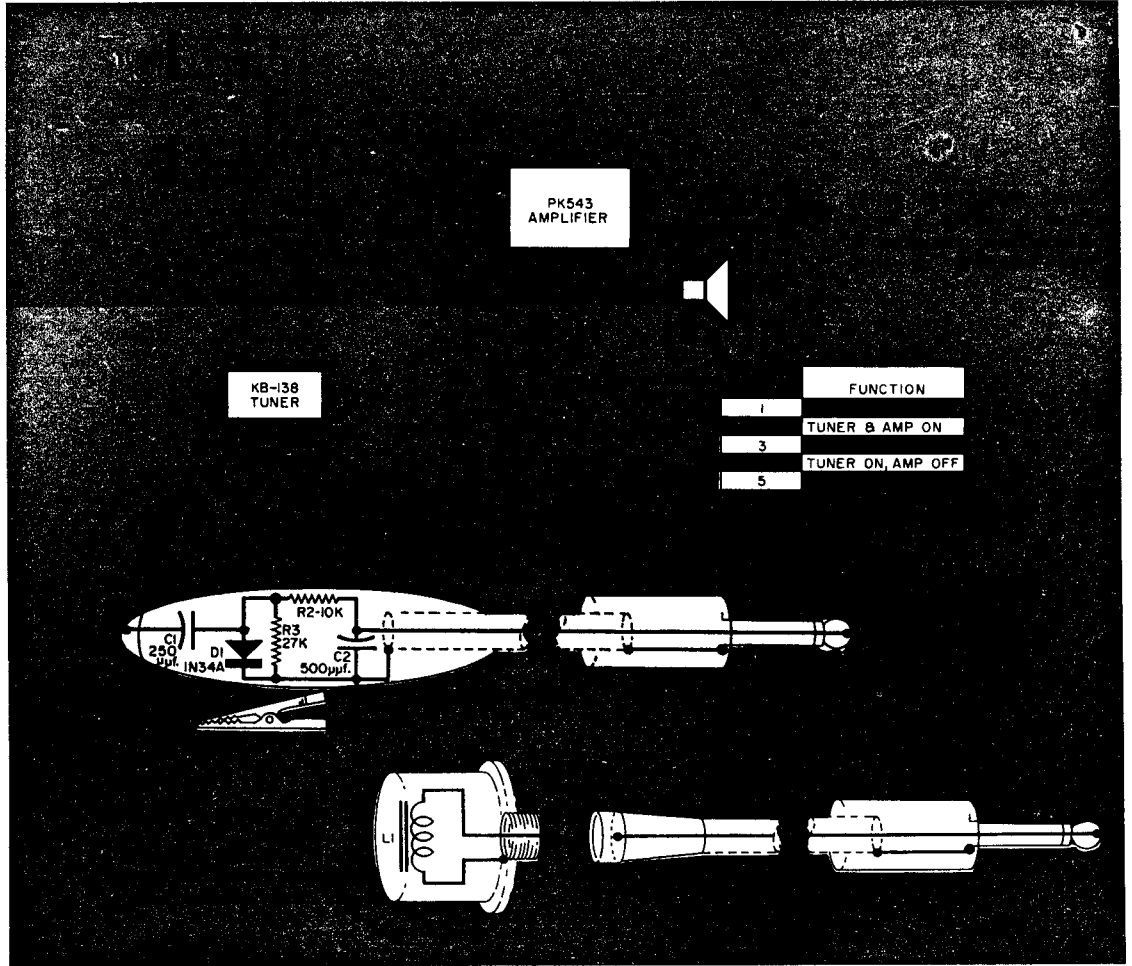
By ART TRAUFFER

The secret? Let friends try to guess, then prove them wrong. When box is placed on its side, the light shines as shown at right. When box is upright, the light remains off unless a small magnet is brought near side of box (photo below).



The light shown here was built in a 3" x 3" x 1 3/8" wooden box made of 1/4" stock, but almost any housing can be used. Gouge a groove in the side of the box for the reed switch and position the mercury switch as shown. The two switches are wired in parallel, and in series with battery and bulb. Fasten the box together with small brads, sand and finish, and you'll have your own "What's What Light."

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tively easy. The loopstick antenna with the tuner comes disconnected; this is mounted and wired in after the tuner is in place. Discard the tuner battery holder and snip off the battery leads and connector supplied with the amplifier.

The amplifier's two orange leads are meant to be connected to a volume control-mounted, on-off switch. Since a different arrangement is used, cut off the orange lead running to one of the (now disconnected) battery leads and leave the other one intact. Five amplifier leads remain: one green, one gray, one orange, and two black. The black leads are both grounds; it's convenient to use one for the speaker circuit and the other for the input and power circuits (see the schematic). The tuner has three leads (gray, red, and blue) which are con-

nected as shown in the diagram above.

Mechanical Assembly. Parts layout is not at all critical; you should have no trouble fitting everything in the case specified. Both the tuner and amplifier boards are mounted with 4-40 screws and nuts. Fiber or rubber washers are slipped over the screws to provide clearance between the circuit boards and the panel of the Bakelite case.

A grille for the speaker can be made by simply drilling a series of holes in the front panel. The author cut one large hole and covered it with a section cut from a wire mesh gasoline filtering element (available at most auto supply houses). Drill holes for the three jacks, R1, and S1, and mount them. Position the loopstick antenna near the radio;

(Continued on page 78)