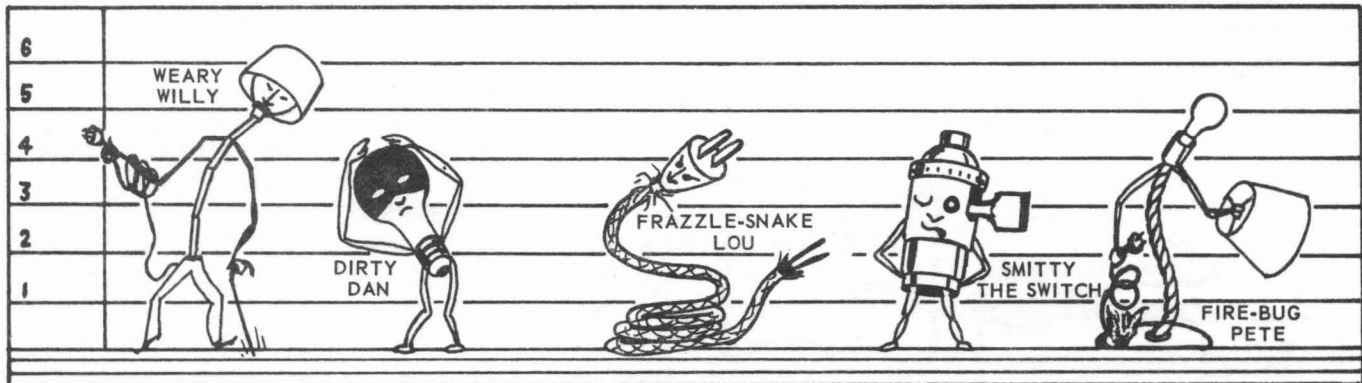


REWIRE A LAMP - BE A LAMP DETECTIVE



The Line-Up of Lamp Suspects

One of the duties of a law officer is to prevent crime. It's that way with the lamp detective. You can become one. In the average home there are lamps about to commit the crime of shocking people, starting fires, and stealing electricity. Some are refusing to do their job well and some are no-goods, sitting in closets or attics, doing nothing. You can put these lamps to working again safely and well. Become the lamp expert in your family.

What's In A Lamp?

A lamp gives light for comfortable and convenient use in the home. It consists normally of a stand, switch, cord, lampshade holder, and shade. Some lamps have diffusing bowls which reduce glare and shadows.

The most common fault found in an old lamp is in the cord, but sometimes the switch or the wiring in the lamp is bad. Look over all the lamps in your home and find the ones needing to be fixed.

WHAT TO DO: Rewire A Lamp

Somewhere around your house you can probably find a lamp that is no longer used or needs repairing. You can make it useful again and at the same time learn how to wire a lamp.

Materials Needed:

Tools: Pocket knife, small or medium screwdriver, and pliers (electrician type is best).

New Lamp Cord: For each lamp to be rewired, you'll need 6 feet of cord plus the length of wire within the lamp stand. Lamp cord wire comes in two sizes, No. 18 and No. 16 AWG (American Wire Gauge). No. 18 is smaller than No. 16, but is adequate for most lamps. Cords are made with surface coverings of several different materials: braided cotton, rayon or silk, and molded rubber or plastic. Braided cord is decorative, but rubber or plastic is easier to work with and is usually more desirable.

Switch: If the switch is bad, get a new one. Socket switches are made with push-through, turn-knob, or pull-chain controls. The pull-chain type is seldom used on modern table or floor lamps. Your lamp may have a separate push-switch in the base. In this case, get the same kind for replacement. Some switches are "3-circuit" switches for use with high, medium, and low-light bulbs.

Plug: Plugs are made of various materials, mostly hard rubber or molded plastic. Some have a shank or handle for better grasping. This type is more desirable. The plug on the old cord may be good, and if so, may be used on the new cord.

How To Do It:

1. If the plug on the old cord is good and you plan to use it, remove it from the old cord.
2. Measure and cut a new lamp cord equal to the length of the cord within the lamp, plus 6 feet.

3. Pass one end of the new cord through the center of the plug. Strip 2 inches of the fabric insulation off cord, or in case of a rubber cord, split cord back two inches. Be sure no bare wire shows in long split section (Figure 1).

4. Use knife to strip insulation off wire for $\frac{3}{4}$ " on end of each cord. Be careful. Don't cut yourself. Don't cut wires. Use a light touch, slope the knifeblade and slice with knife edge away from you (Figure 1).

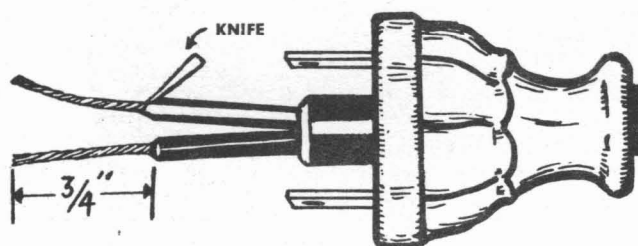


Figure 1 (Ready to Wire Plug)

5. Twist exposed strands of each wire tightly to make a good conductor, and place each conductor around its proper terminal in the direction in which the screw tightens (Figure 2).

6. Tighten screws on terminal posts. Pull cord until slack is out. Lay aside until ready to attach to lamp.

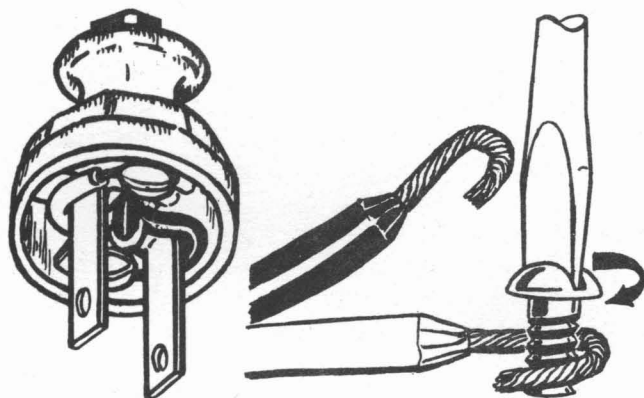


Figure 2 (Attaching Cord to Plug)

7. Remove lamp shade, shade-holder, bulb, and diffusing bowl, if there is one.

8. Separate the metal shell of socket from its cap by pressing on shell at place marked "press," and pull socket from cap.

9. Pull on socket body to get some slack in lamp cord. Loosen screws and detach cord. Pull cord out through base of lamp. You can splice new cord to the old one and use the latter to "string" the new wire.

10. Pass the new cord up through the lamp base and socket cap, tie a simple half-hitch knot in the cord to prevent strain on the terminals, and attach wires to the terminals on the socket (Figure 3). If there is likely to be any strain on cord, use an Underwriters' knot. Twist strands and attach wire in direction in which screw tightens.

11. Pull slack out of cord in lamp so that socket rests in socket cap, replace shell and reconnect cap. Be sure the fiber insulator is in the shell. You'll feel or hear a click when the notches in shell are locked to the projections in the cap.

12. Replace bulb, inspect carefully, and test. (In floor lamps where the cord runs through the center post and out under the base, the cord will last longer if it is fastened with tape so it doesn't rub edge of lamp base when lamp is moved.)

13. If the lamp has a porcelain socket, simply disconnect the wires at the terminals, remove the old wire and connect the new one.

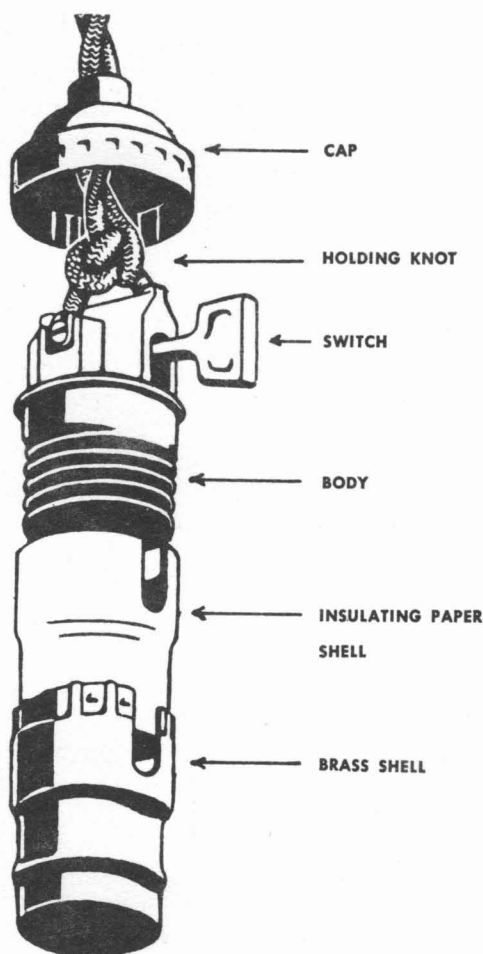


Figure 3 (Socket and Switch Assembly)

What Did You Learn?

Underline correct answers then discuss in the group. (There may be more than one correct answer.)

1. The part of the lamp that usually wears out first is (the socket) (the cord) (the plug).
2. Lamps that waste electricity are those which have (bad wiring) (frayed cords) (dirty shades or bulb).
3. To unplug a lamp you should grasp (cord) (plug) firmly and pull.
4. Wire in lamp cord usually comes in sizes 16 or 18. Size 16 is the smaller (true) (false).
5. In fastening wire around a terminal post it should go around in a (clockwise) (counter-clockwise) direction.
6. When the switch on a lamp is turned off, the electricity only goes as far as (the wall plug) (the switch).
7. An Underwriters' knot should be used (only when there is room for it in the plug) (whenever there is likely to be strain on the cord, even if you have to replace the plug with a larger one).

SUGGESTED DEMONSTRATIONS

Show how to inspect a lamp and its cord. You might tie tags on the cord and lamp at points of danger or failure - at the plug, wear points next to lamp base, bad sockets.

Demonstrate the process of repairing a lamp cord, socket and plug.

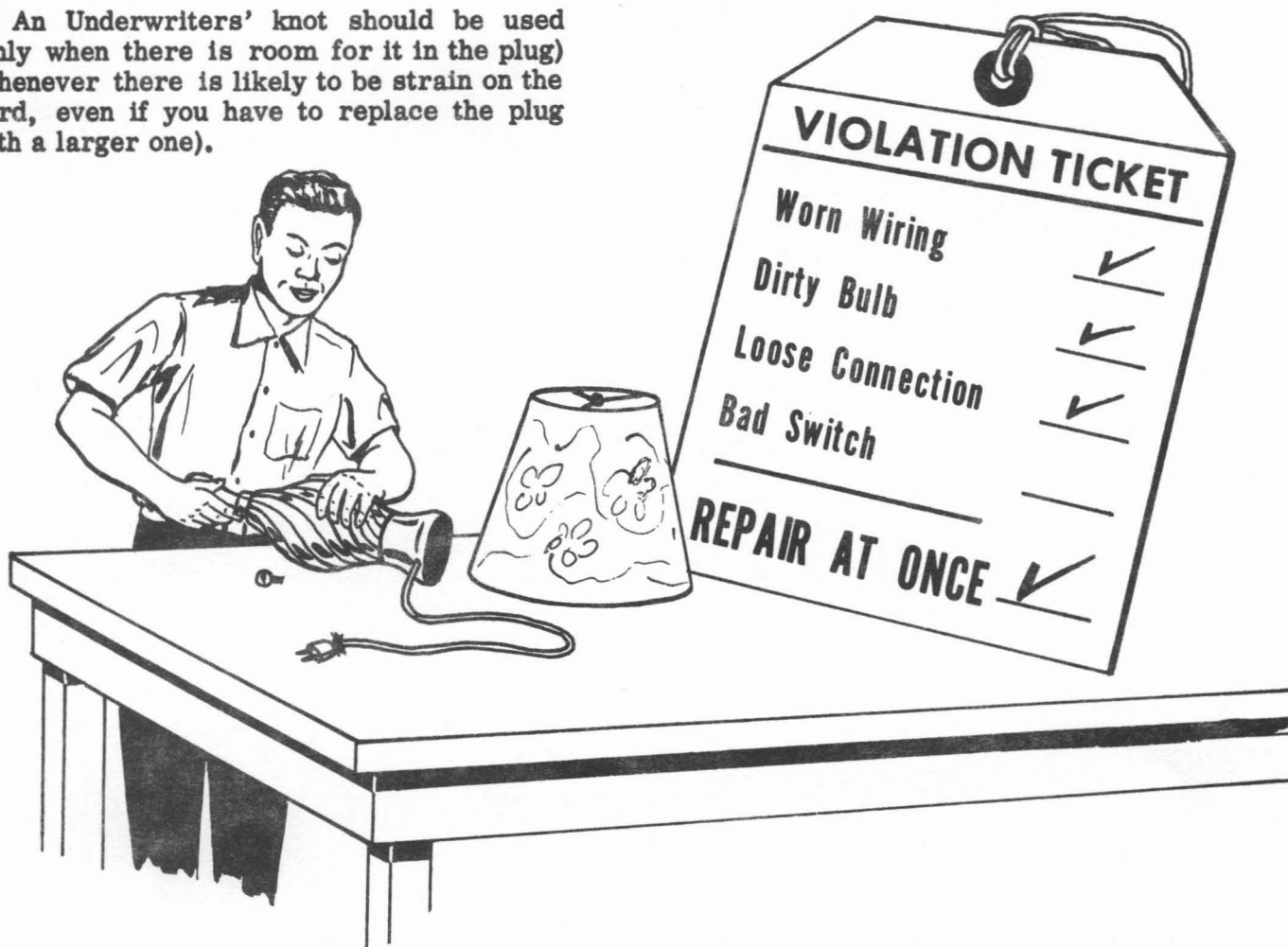
Make a board display of the parts of the lamp socket showing cord attached.

Make a display of the types of lamp cords and plugs in common use.

Using two lamps, one with clean bulb and shade, the other dusty, show how the former gives more light.

For More Information

Lamps have an interesting history. Look it up in your local library. Ask someone from your power supplier or electric dealer to talk to the club about the different kinds of lamps. Your leader has or can get additional information on lamps, if you wish.



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