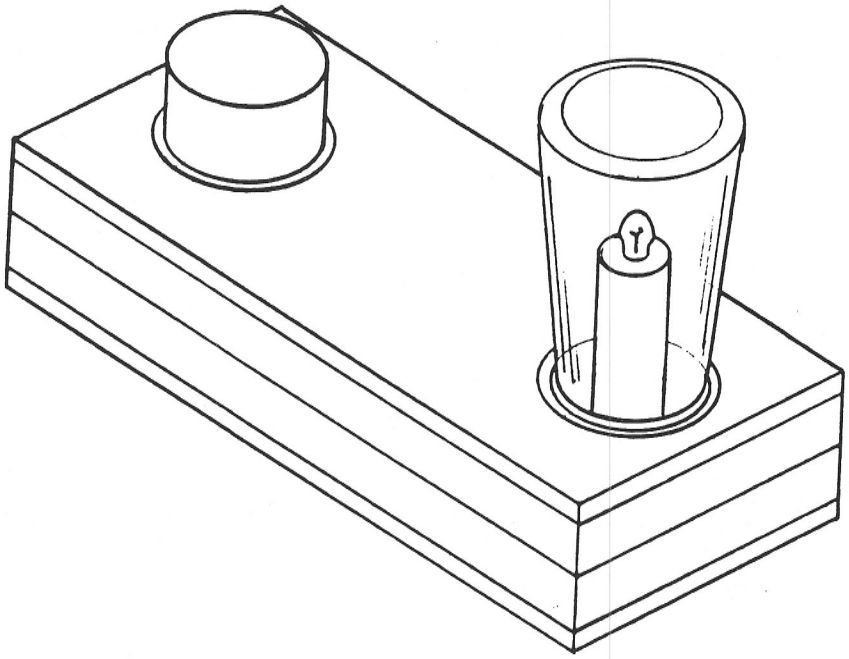
ATTENTION LIGHT WITH SWITCH

An early cause-and-effect toy, this light switch is activated with a simple push on the large button. The light stays on until the button is pushed again.



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Materials needed:

- 2 pieces 3/4" (full) x 4" x 9" pine wood
- 2 pieces 1/4" (full) x 4" x 9" pine wood (can be plywood)
- 1 dowel: 3/4" diameter x 3½" dowel
- 1 switch: Radio Shack #275-1555
- 1 battery holder for 2 "D" cells: Radio Shack #270-386
- 1 PR3 flange-base bulb - Radio Shack
- Wire: Radio Shack hook-up wire #278-1307
- Bright color "Varathane" or equivalent enamel
- 4 Phillips tapping screws: 1½" x #6
- 1 sheet metal screw: 1/2" x #6
- 4 round-head wood screws: 3/8" x #2
- 1 Gerber clear plastic 4-oz. "Nurser" nursing bottle
- 1 4" x 9" non-skid or felt
- 2 "D" cell batteries
- Sheet metal: 5/8" x 2" x 1/32" or similar
- Plastic cap from a pressure can of spray paint or shaving cream. The smaller cap (1-7/8" diameter body) is preferred.

Tools needed:

- Table saw and saber saw
- Adjustable circle cutter and drill press
- Power drill and set of drill bits
- Elmer's Carpenter's Wood Glue
- Sanding equipment
- Ruler
- Paint brush
- Soldering iron and solder
- Screwdriver, etc.

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CONSTRUCTION SUGGESTIONS

Cut wood pieces to size. On the two 3/4" thick pieces, locate and mark the square area where the battery holder will be. Drill a hole 5/8" in diameter at the corner points of the square areas. Using the saber saw, cut from hole to hole around the squares of the two pieces. Then locate the centers of the holes to be cut on each side of the battery holder opening on the two 3/4" pieces and on one of the 1/4" pieces.

On the underside of one of the 3/4" pieces, and using an adjustable circle cutter in a drill press, drill a hole 3/8" deep only and of a diameter to provide a loose fit for the plastic cap shoulder. Then adjust the circle cutter and drill the rest of the way through the 3/4" piece at a diameter to provide a loose fit for the cap body.

Glue one of the 1/4" x 4" x 9" pieces on top of the 3/4" piece just drilled and drill the adjusted diameter size hole on through this piece. Move over to the other side of the battery holder opening and make the other hole as shown on the drawing. Set the adjustable circle cutter for a 2" hole and drill this straight through.

On the other 3/4" x 4" x 9" piece locate the center point for the switch, and the center of the 3/4" diameter x 3" dowel. Drill a hole 3/4" in diameter and 1/2" deep for the dowel. Then either saw or chisel a narrow slot from the battery holder hole to the center point for the switch and the dowel hole. Drill a hole 3/8" in diameter x 1/2" deep down one end of the dowel. Then glue the other end of the dowel in the dowel hole. Make the "S" bracket from sheet metal according to the drawing, fasten the switch to the bracket, and screw the assembly in place so the switch is over its center point.

Cut and solder wires as shown on drawing.

Take the screw-on collar from the nursing bottle and drill three holes 1/16" in diameter through the collar flange. Put the collar over the wired-up dowel, and screw down onto the 3/4" x 4" x 9" piece.

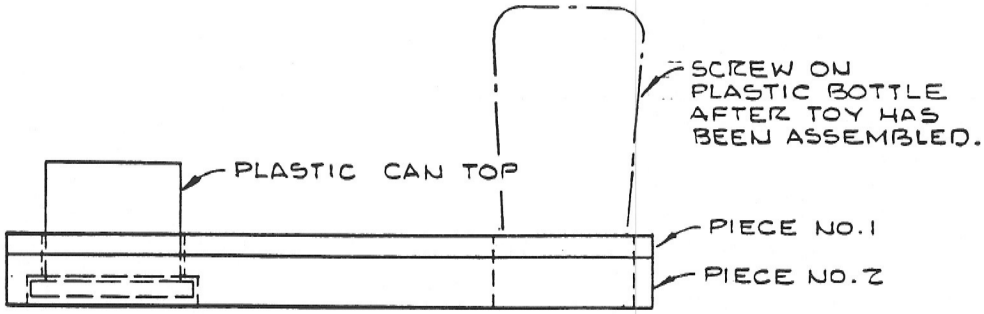
Glue the bottom 1/4" x 4" x 9" piece to the 3/4" x 4" x 9" piece.

Place the plastic cap on the switch and insert the "D"-cell batteries in the battery holder. Clamp the top on and drill a hole 3/32" in diameter in each corner from the bottom up and screw together with the 1½" x #6 screws.

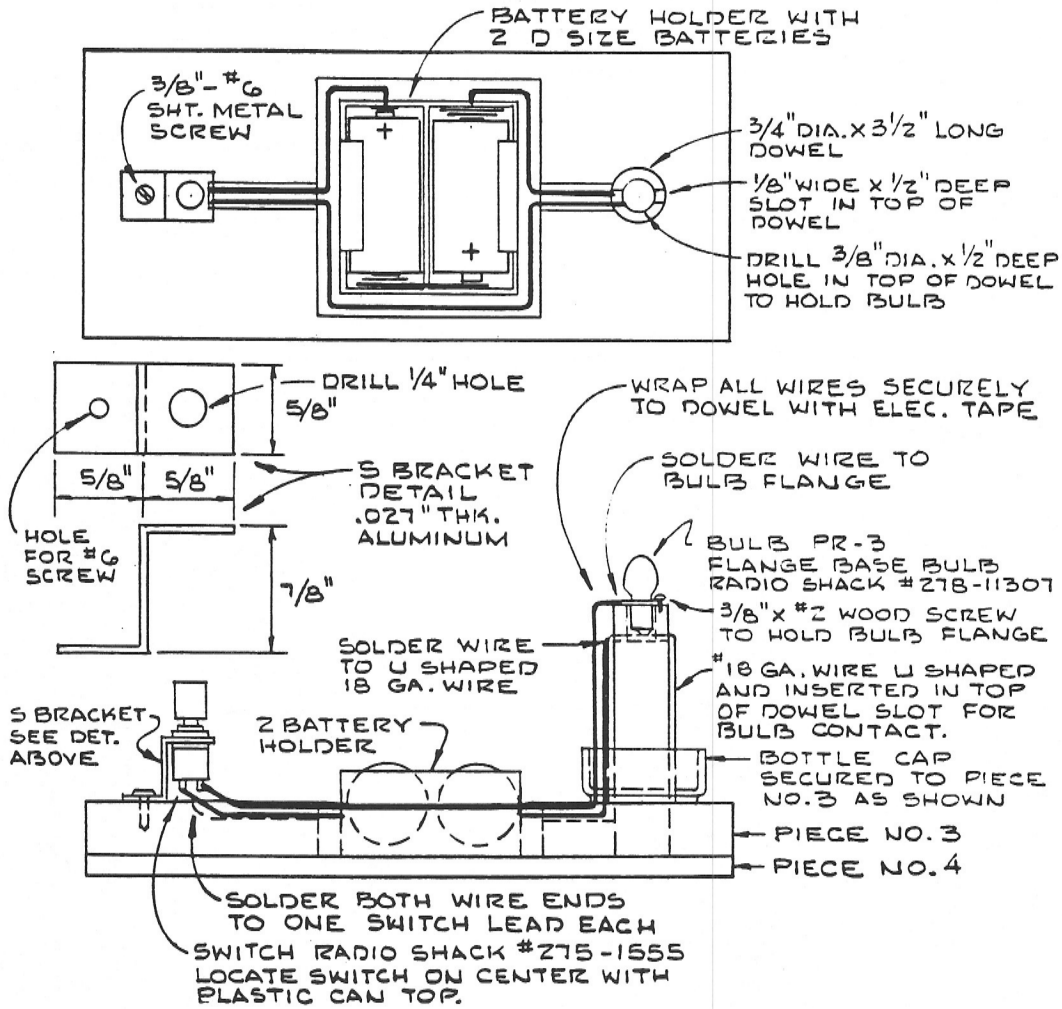
CONSTRUCTION SUGGESTIONS
Cont.

Sand overall; paint a bright color and when the paint is dry, apply either a non-skid material or felt to the bottom.

Now invert the nursing bottle over the dowel and twist it securely into the fastened collar.



SIDE VIEW OF PIECES No.1 & 2 GLUED TOGETHER



WIRING DIAGRAM
TOP AND SIDE VIEWS SHOWN WITH PIECES NO.3 AND 4 GLUED TOGETHER

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