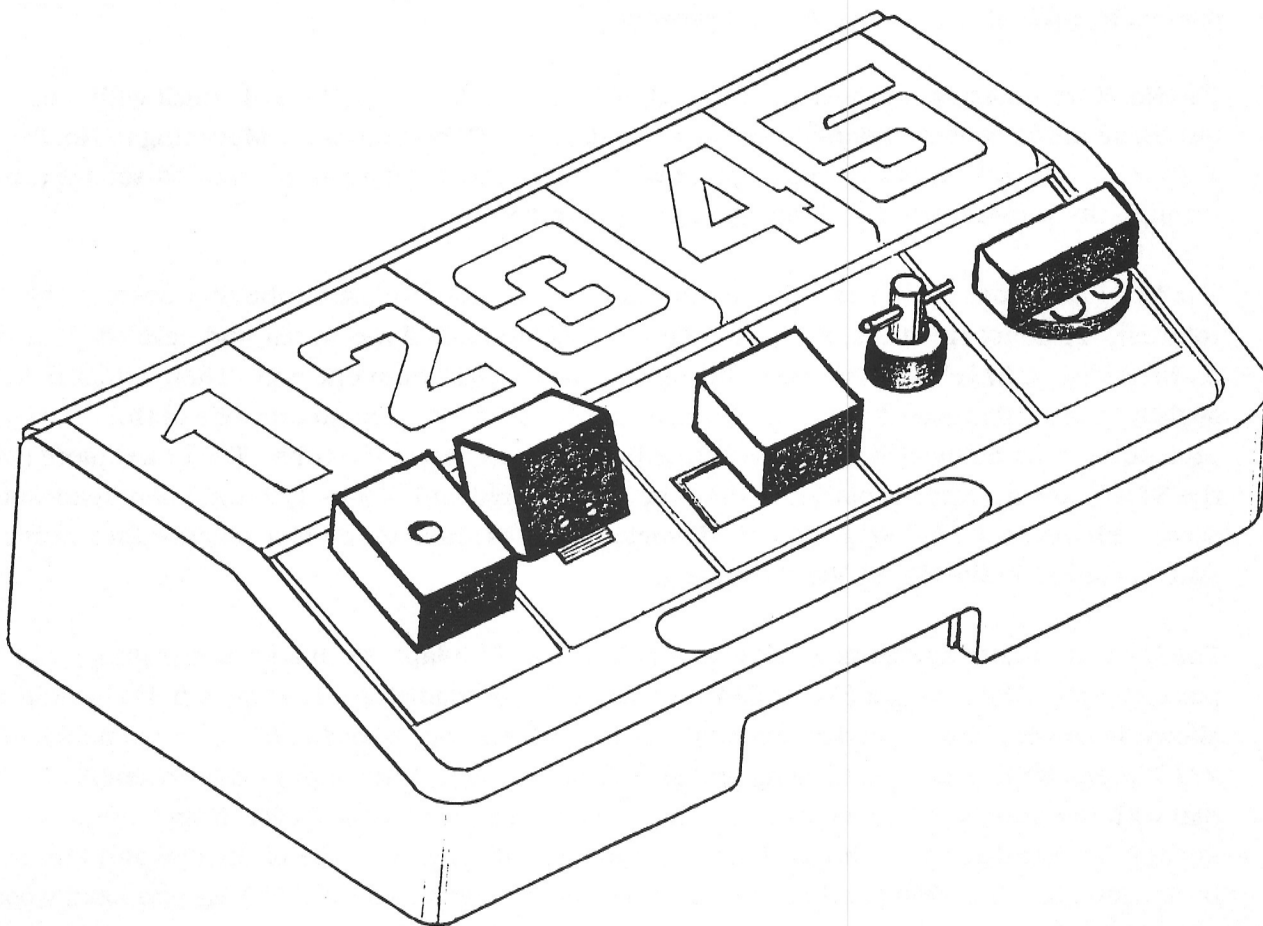


The Hasbro Busy Box has color, action, cause-and-effect and the surprise of finding a favorite friend by opening the right door. The five handles to be pushed, twisted or pulled are just too difficult for many children to grasp. By adapting the handles a bit, this toy can be more easily used by children who have special needs. Attaching the extensions and following the detailed drawings can be easily accomplished by the average handyman.

MATERIALS NEEDED

Almost any kind of close-grained wood can be used, preferably birch or maple. A harder wood, rather than soft pine, will work best.

- One 1 3/4" x 1 1/2" piece of 3/4" wood
- Two 1 1/2" x 1 1/2" piece of 3/4" wood
- One 3/4" x 2 3/4" piece of 3/4" wood
- Small amount of birch doweling of 3/16" dia. and 1/2" dia.
- One 1" #4 pan head screw
- Four 3/4" #4 pan head screws
- Three 1/2" #4 pan head screws
- Elmer's Carpenter's Glue
- Varathane spray enamel, or equal, in several bright colors



HANDLE EXTENSIONS HIGHLIGHTED

TOOLS NEEDED

- Table saw
- Vise and power drill or drill press
- Set of drill bits
- Hammer and chisel
- Screw driver
- Ruler, pencil

CONSTRUCTION SUGGESTIONS

The adapter for mounting on the No. 1 trap door opener is a wooden block 1 1/2" x 1 3/4" x 3/4" thick. A countersunk hole has to be drilled in the block shown as in the drawing, "Wood Block for Mounting to No. 1 Push-Button Trap Door". It is screwed in place on the Hasbro No. 1 push button using a #4 - 1" long pan head wood screw.

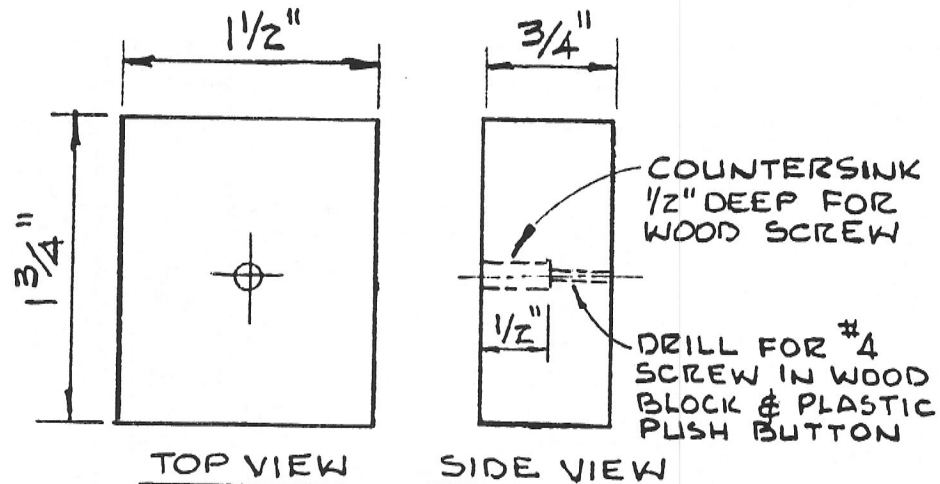
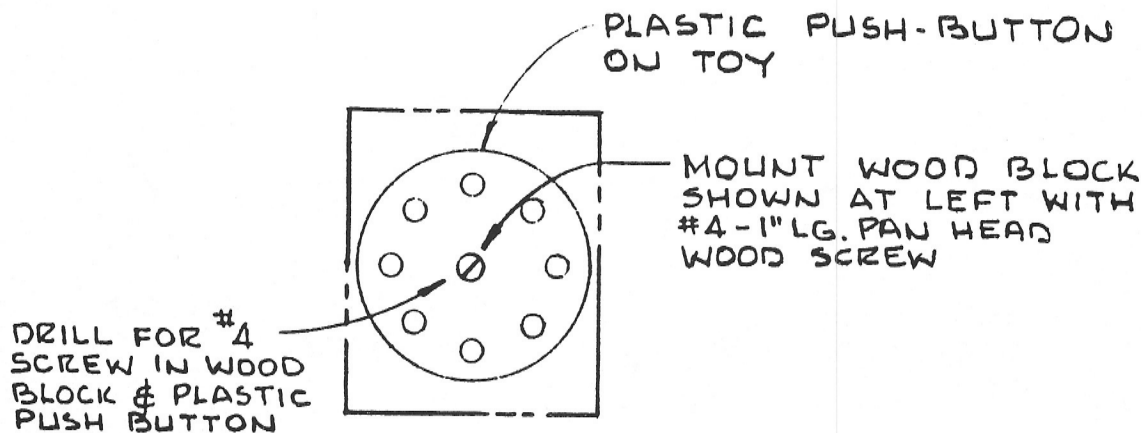
For the No. 2 trap door opener a 1 1/2" x 1 1/2" x 3/4" thick wooden block, beveled on the bottom side and with a 3/4" x 1/2" x 5/16" slot cut into the bevel, all as shown in the drawing for No. 2 trap door opener. It is screwed in place using a #4 - 3/4" long pan head screw according to the "Detail Showing Wood Block Mounting To Trap Door Opener". The trap door is opened by pulling the wooden block downward.

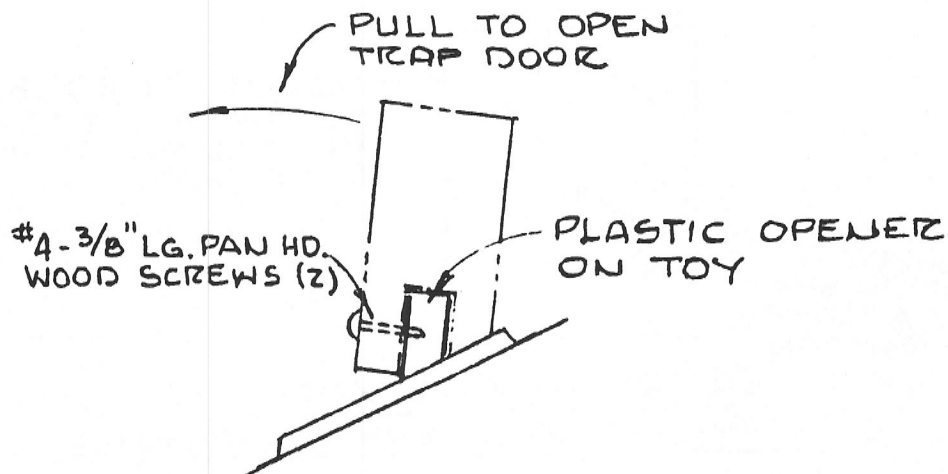
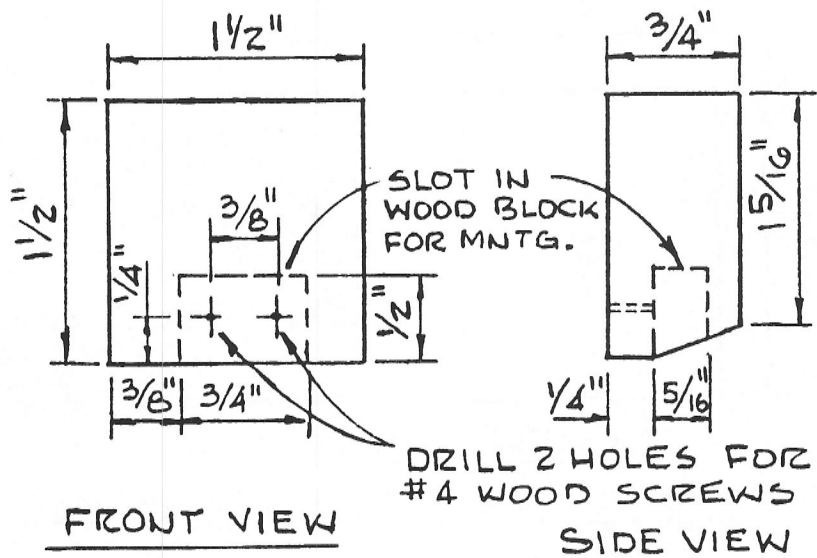
The No. 3 trap door opener is a simple block of wood 1 1/2" x 1 1/2" x 3/4" thick with a cut out made in the center-underside as shown in drawing, "Wood Block for Mounting to No. 3 Trap Door Opener". It is screwed in place with two #4 - 3/4" long pan head wood screws driven through the wooden block and into the Hasbro handle.

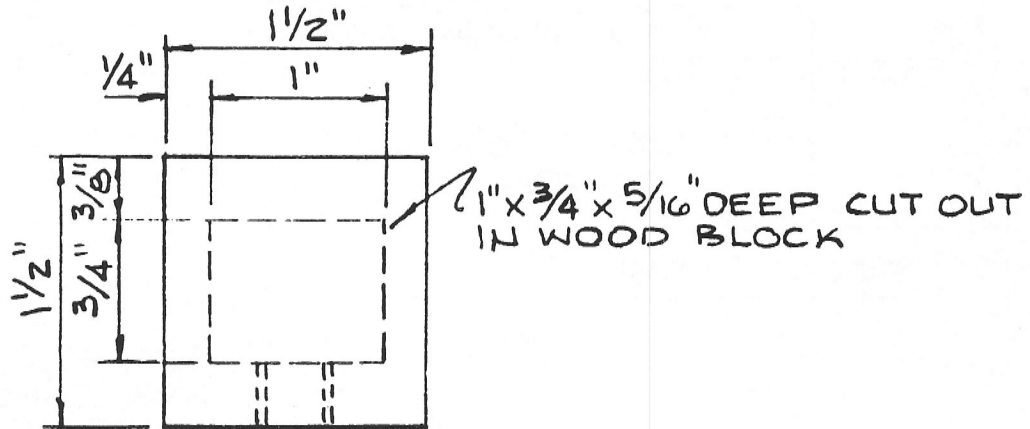
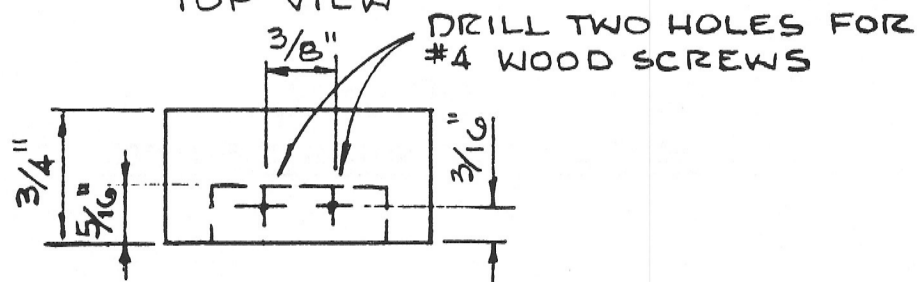
The No. 4 trap door opener on the Hasbro Busy Box is a short plastic tube that operates by rotation. To adapt this tube, a 1 1/4" length of 1/2" wooden dowel is cut and beveled slightly on the ends. A 3/16" hole is drilled through the dowel 3/8" from one end. Then a pilot hole of slightly smaller diameter than a #4 pan head screw is drilled through one side of the protruding tube half way between its inside base and the top of the tube. The dowel piece (with the 3/16" hole upward) is placed in the tube and secured with a #4 - 1/2" long pan head wood screw. Finally, a 1 3/4" long x 3 1/6" diameter dowel is glued in the hole as described above and as shown on the "Front View" drawing.

The No. 5 trap door opener is a dial with small holes. To adapt the dial for easier grasp, cut a piece of wood 2 3/8" long x 3/4" x 3/4". Drill two 7/16" diameter x 1/4" deep holes located as shown in the drawing, "Wooden Opening Device to Open Trap Door No. 5". Cut two pieces of 7/16" diameter dowels x 9/16" long and glue them in place. Then mount this assembly on the dial with the dowels in two opposite dial holes as shown in the "Top View". Using a drill of slightly smaller diameter than a #4 screw, drill a hole through the side of the dial and into one of the dowels. Then drill another into the other dowel. Screw a #4 - 1/2" long pan head wood screw into each hole, securing the adapter onto the dial.

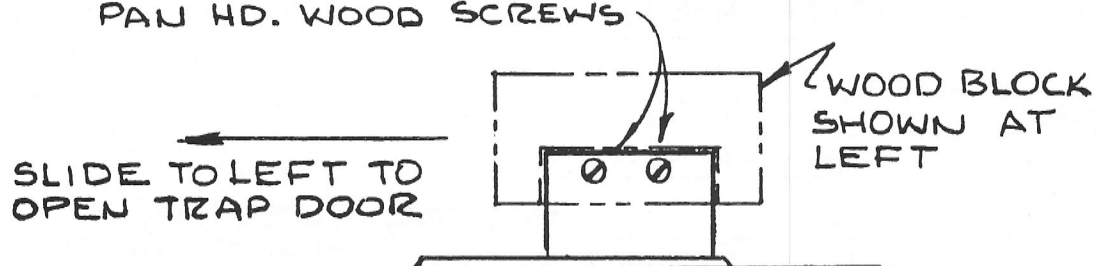
When the fitting is complete, remove the wooden adapter pieces by unscrewing them. Sand and paint two coats. Then remount the new handles and screw into place.

NO. 1 PUSH-BUTTON TRAP DOOR OPENERWOOD BLOCK FOR MOUNTINGDETAIL OF WOOD BLOCKMOUNTING (SHOWN IN PHANTOM)

NO. 2 TRAP DOOR OPENERDETAIL SHOWING WOOD BLOCK MOUNTING TO TRAP DOOR OPENER

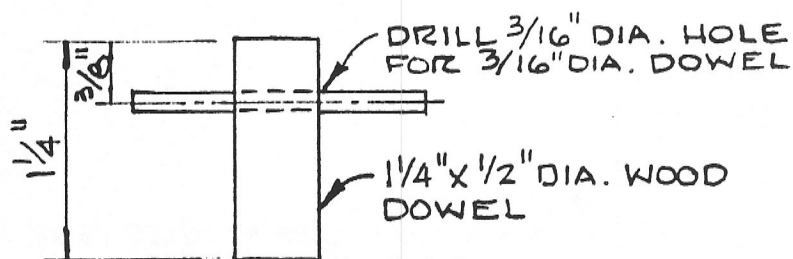
NO. 3 TRAP DOOR OPENERTOP VIEWFRONT VIEW

SECURE WOOD BLOCK TO PLASTIC
TRAP DOOR OPENER W/2 -#4 - $\frac{3}{4}"$ LG
PAN HD. WOOD SCREWS

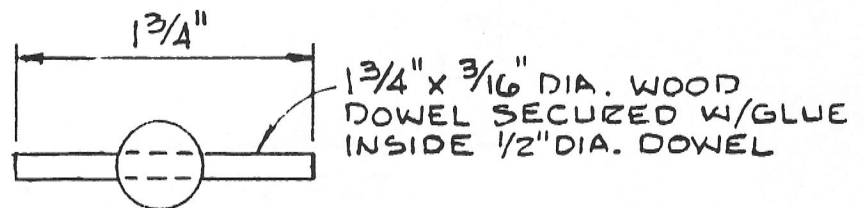


DETAIL SHOWING WOOD BLOCK
MOUNTING TO TRAP DOOR
OPENING DEVICE

TRAP DOOR NO. 4 OPENER

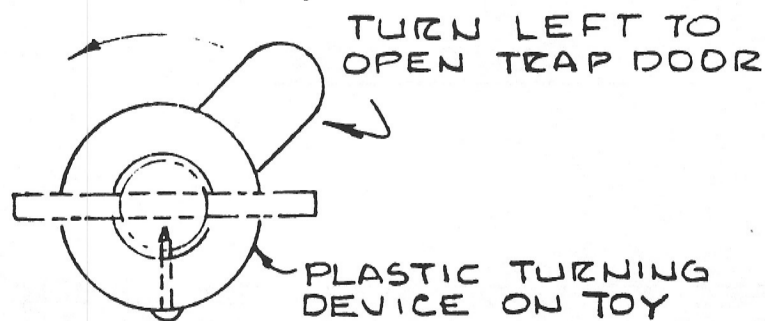


FRONT VIEW

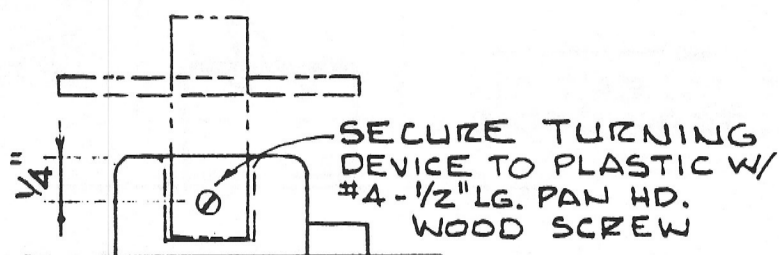


TOP VIEW

WOODEN TURNING DEVICE

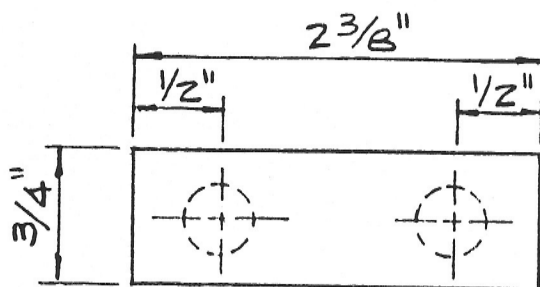


TOP VIEW

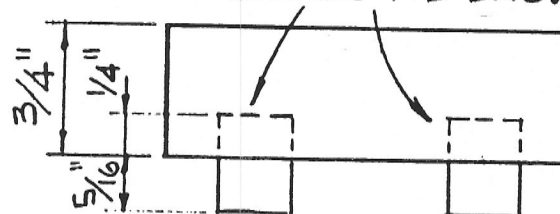
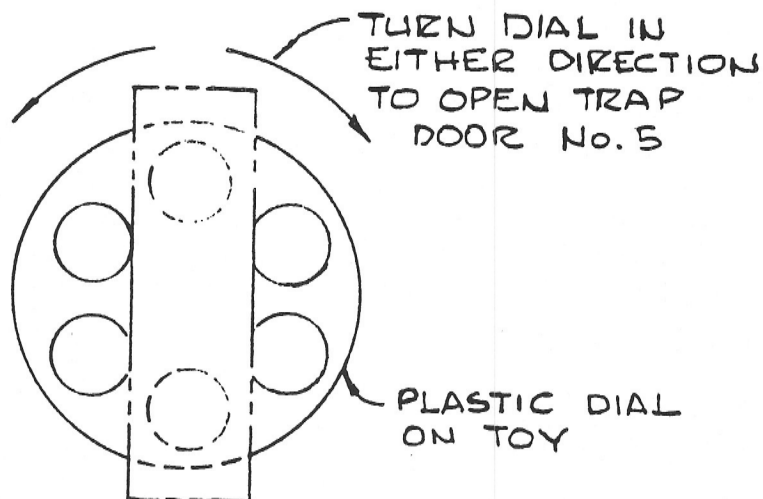
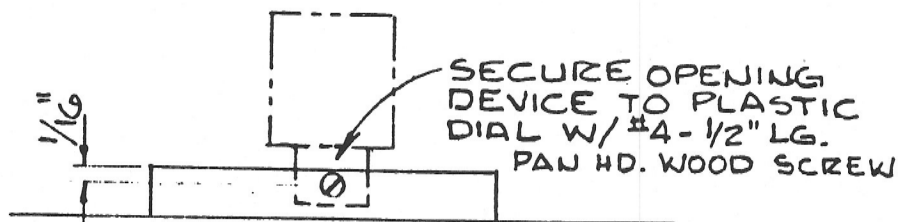


FRONT VIEW

DETAIL SHOWING WOOD TURNING
DEVICE ATTACHMENT TO TOY

NO. 5 TRAP DOOR OPENERTOP VIEW

2 - 7/16" DIA. X 9/16" LG.
DOWELS GLUED INTO
WOOD BLOCK AS SHOWN

FRONT VIEWTOP VIEWSIDE VIEW

DETAIL SHOWING MOUNTING OF
OPENING DEVICE TO DIAL