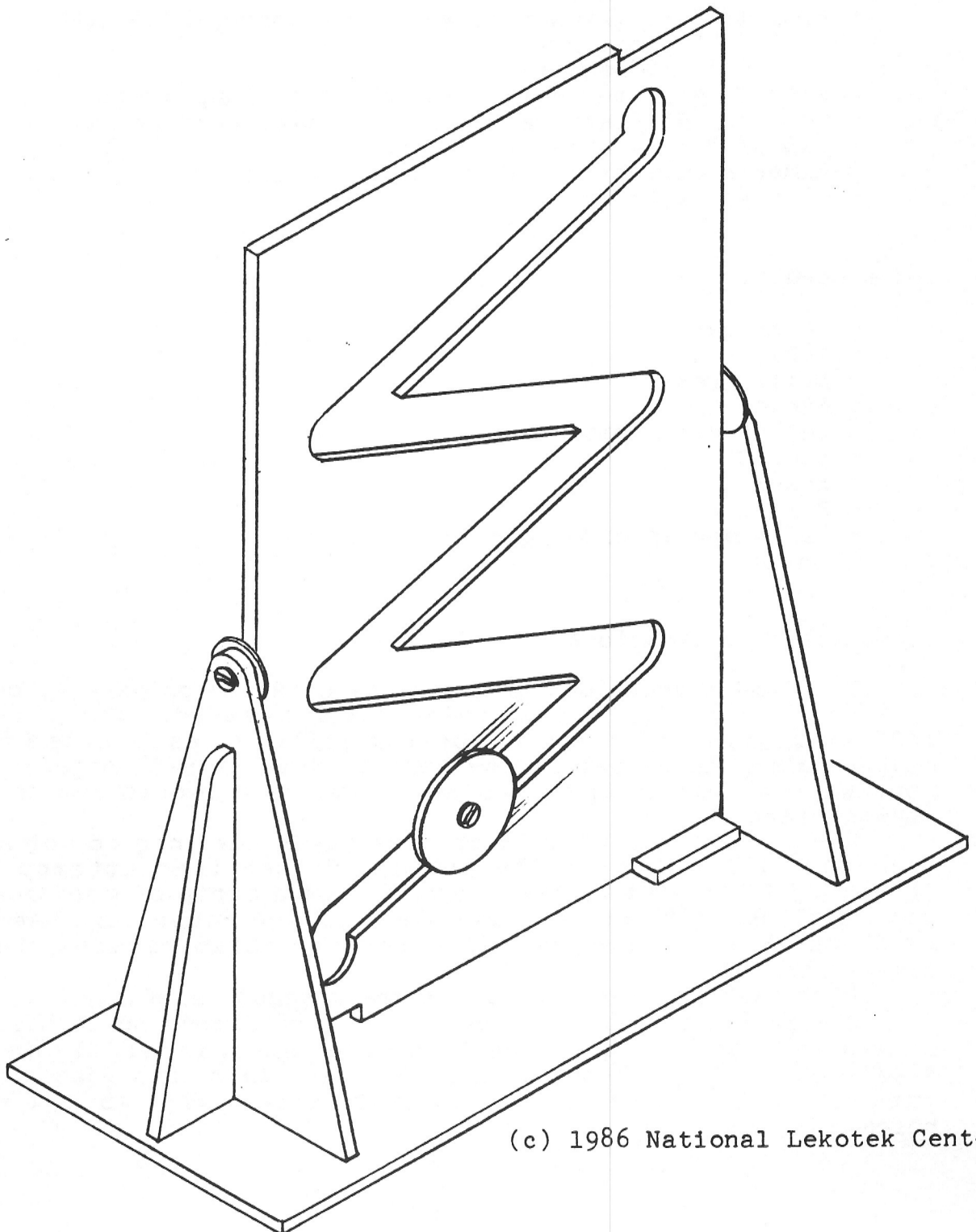


ZIG ZAG TRACKER

A colorful disk travels down the zigzag path on this upright tracker. When the disk reaches the bottom of the track, a simple push causes the board to rotate, ready to begin again.



Materials needed:

- From 3/8" thick plywood, cut the following:
 - 1 - 14" x 21 3/8"
 - 2 - 7" x 11 1/2"
 - 2 - 2 3/8" x 9"
 - 1 - 8" x 20 1/4"
 - 2 - 2 1/2" x 5/8"
- From 1/8" or thinner plywood or tempered Masonite:
 - 2 - 3" diameter
 - 2 - 1 3/8" diameter
- From 1" diameter dowel, cut one 5/8" long piece
- Two 1" x #6 flat head regular slotted wood screws
- Two 3/8" x #4 sheet metal screws
- Elmer's Carpenter's Wood Glue or equal
- 1" x #18 wire brads

Tools needed:

- Saber saw
- Table saw
- Drill press
- Sander
- Set of drill bits
- Hammer
- Ruler
- Square
- Varathane varnish (gloss) or equal
- Brush

Construction suggestions:

Draw the layout for the track, as detailed on page 4, onto a 21 3/8" x 14" piece of 3/8" thick birch plywood. Cut the 3" x 1/2" notches at top right and bottom left. At each of the eight center points developed in the layout, drill a 5/8" hole. Drill part way through from each side to assure a smooth cut on each plywood face.

Use a saber saw with 16 or more teeth per inch to cut along the line that makes up the track. Rather than attempt this freehand, it is best to make a guide from a strip of wood that is one-half the width of the base plate of the saber saw. Use this as a spacer to locate and clamp another strip parallel to the line to be cut.

With all cuts made, sand all track edges carefully.

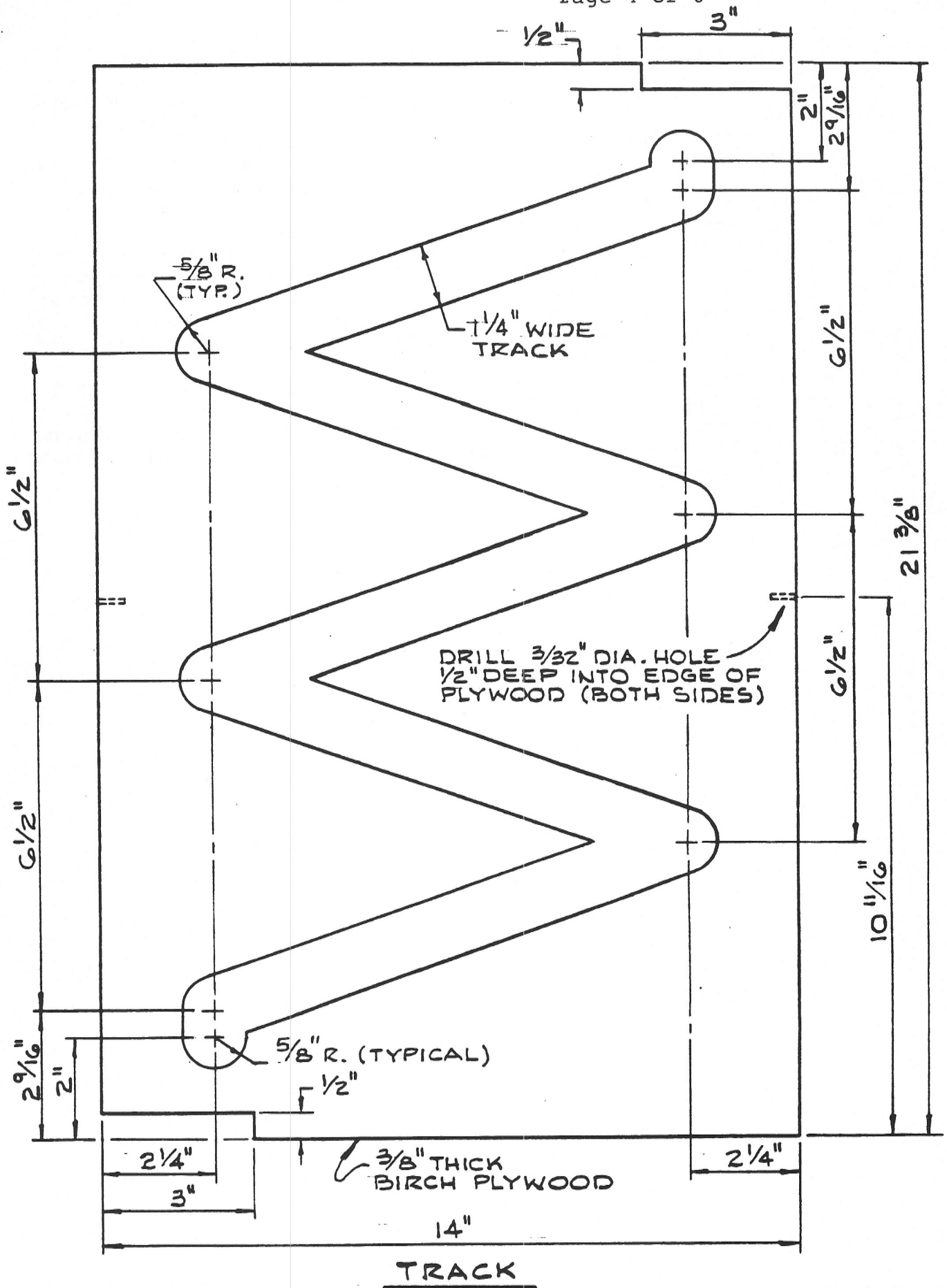
On the track board, divide the 21 3/8" dimension in half and make a mark at this point on both side edges. Carefully drill a 3/32" diameter hole about a half inch deep into each edge at each mark. The track board will pivot on the screws that go into these holes.

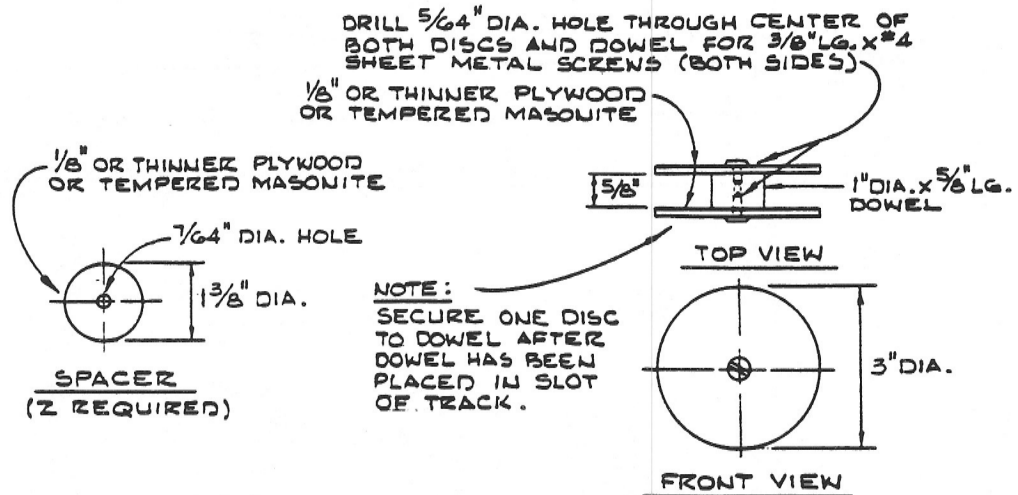
Cut out and sand all pieces shown on page 5: two discs and one roller for the track wheel assembly, two spacers, two upright track rollers, and two upright braces. Cut out and sand the two stops detailed in the top view on page 6 and the 20 1/4" x 8" track stand shown in the bottom view on page 6.

As described on page 6, assemble all the track stand pieces and the 21 3/8" x 14" cut out track, using glue and brads. Varnish the completed assembly with two coats of Varathan Gloss Varnish, or equal, sanding lightly between coats.

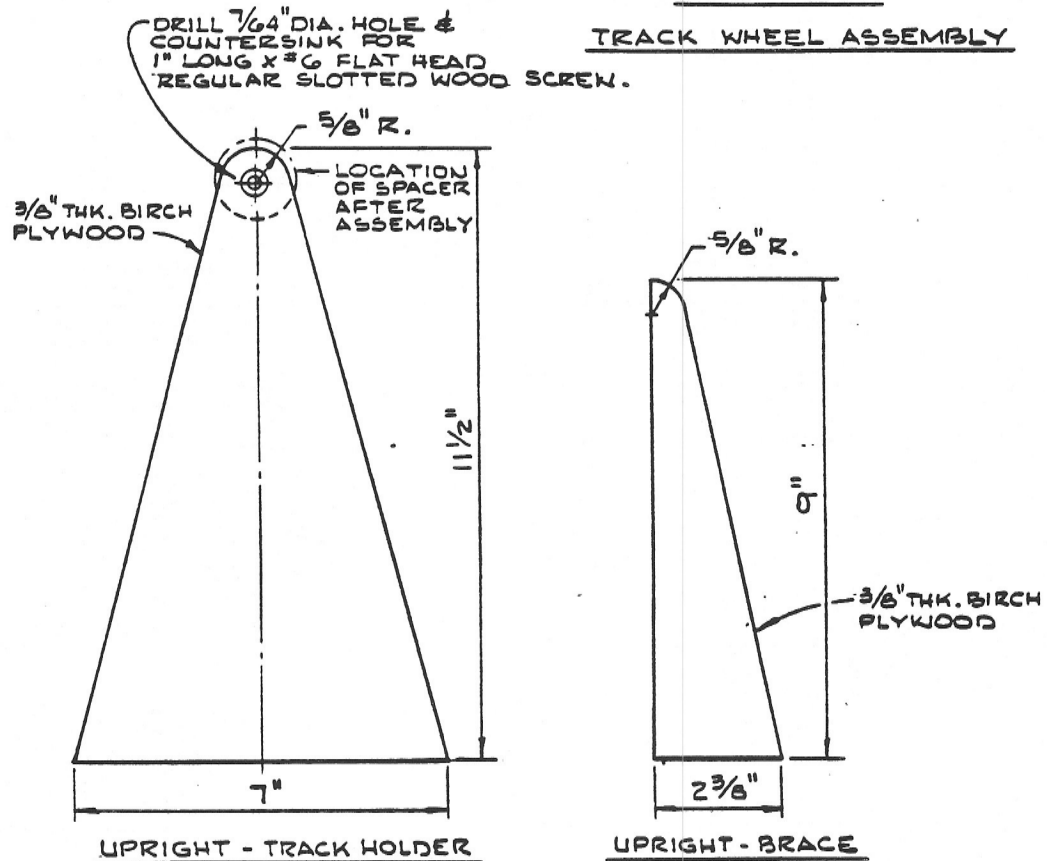
We have found that the track wheel assembly scoots down the track with a rotating and sliding motion. If a rotating motion only is desired, take the track wheel assembly apart and spray the 1" diameter x 5/16" long center dowel with the latex spray used to keep throw rugs from slipping on a bare floor ("Sta-Put" by Cling Surface Co, Inc.).

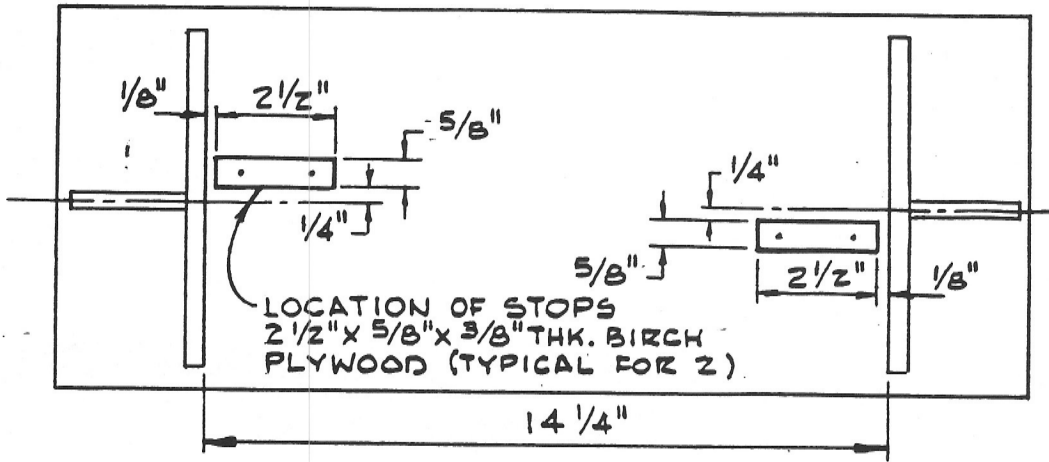
Assemble the track wheel within the track and allow it to roll down to the bottom. Then rotate the whole board until it touches the stop. The wheel will roll down the track again. Bright colors painted onto the sides of the track wheel may heighten interest.



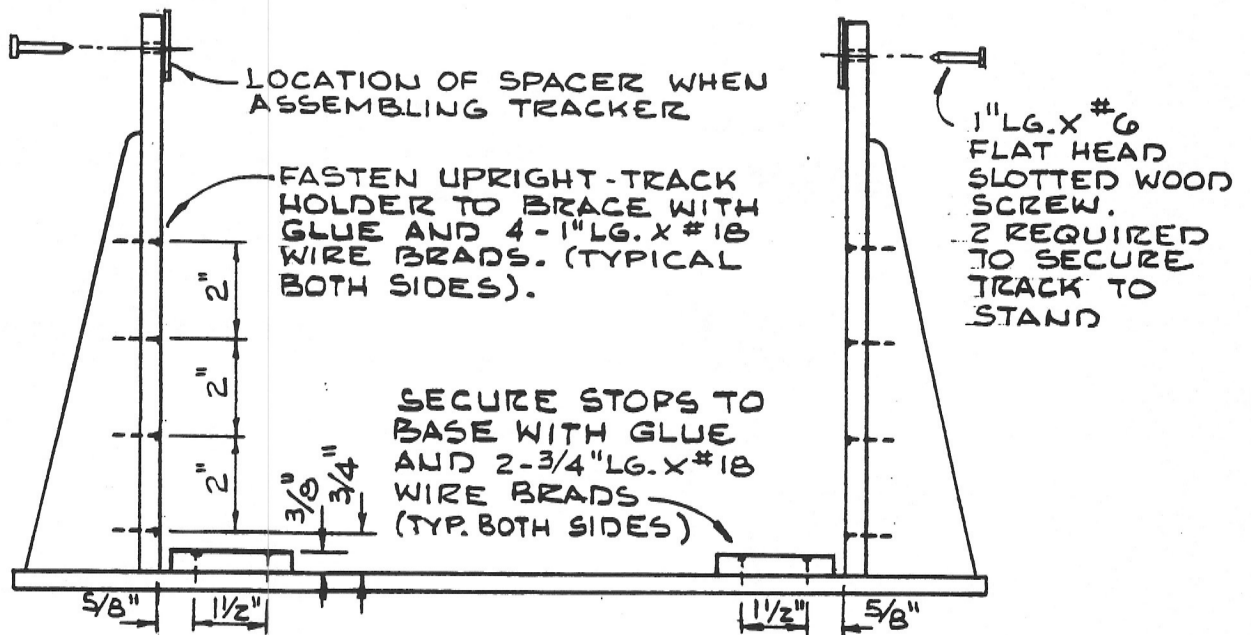


TRACK WHEEL ASSEMBLY

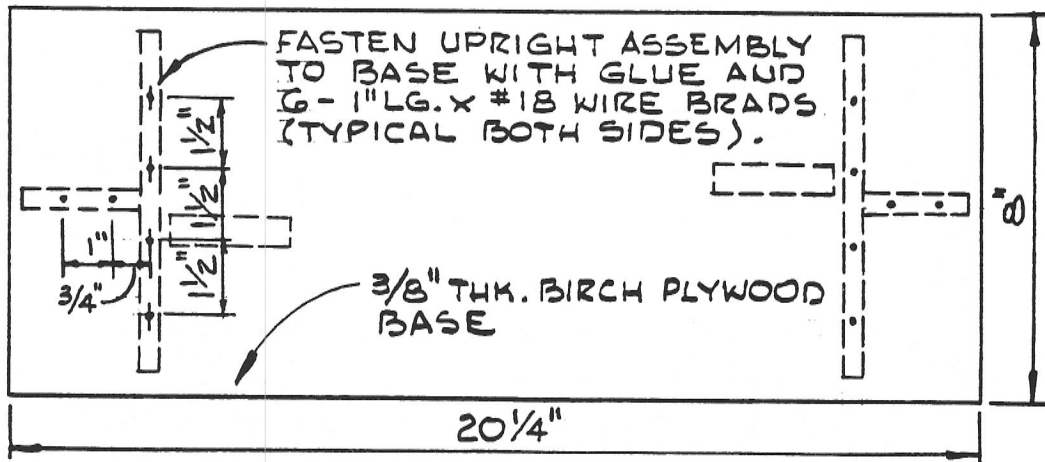




TOP VIEW OF TRACK STAND ASSEMBLY



FRONT VIEW OF TRACK STAND ASSEMBLY



BOTTOM VIEW OF TRACK STAND ASSEMBLY