

# Build a 1:24-scale combine

Plan set #89

by Ted Stinson | Wiscasset, Maine

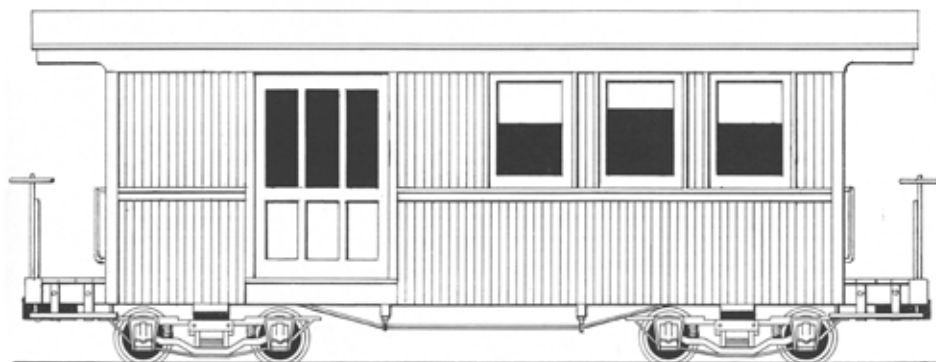
This is a generic, 1:24-scale combine. It is not based on some car from a railroad long gone. Instead, it is a car from the present. We need, and we will soon get, “light rail” transport. This will replace vehicles powered by those very expensive and inefficient internal-combustion engines. Short trips of over 15 miles (one way) will force us to use mass transit. It does not exist now, but soon will, or our economy will collapse.

Here, in Maine, where much of the population lives in semi-rural circumstances, a narrow-gauge railroad may be just the answer. It is with that thought in mind that I have developed the Wiscasset & Westport Railroad, a 30"-gauge short line to serve the transport needs of people living on Westport Island as well as Wiscasset. Since Westport is not heavily populated, it would attract some new industries—benign, I am sure, since the population would have a vote in the matter.

This car would be the first of many, which would have to use sharp curves and light rail. Many short-line, and in particular, narrow-gauge, railroads with sharp curves, have a need for shorter cars. This is such a car. It scales out to about 24' long and about 7'6" wide.

## Construction

Begin construction with the floor. Use a piece of  $\frac{1}{8}$ " ply that is  $3\frac{1}{2}$ " x  $12\frac{3}{4}$ ". Plank one



side with  $\frac{1}{16}$ " x  $\frac{1}{4}$ " stripwood. On the other side, add the stripwood framing as per the drawing. Drill holes for the truss rods, which are made from  $\frac{1}{16}$ "-diameter rod. Finally, add the handrails at the ends. The chain can be added later, when the car is more complete.

Now make up the car sides and ends. Use  $\frac{1}{16}$ "-thick sheet wood and the stripwood that is called out on the drawings to build the sides and ends. Use  $\frac{1}{16}$ "-thick scribed wood to represent the siding. Assemble the substructure according to the detail. (Although the detail does not show the scribed siding, it should be added before assembly.) This should just fit on the previously assembled floor (don't glue it at this time).

When the sides and ends are assembled to your satisfaction, the roof can be cut and glued in place. At this point, seal the inside, as well as the outside, of the car body with clear lacquer, sanded lightly after it dries. Stuff the car full of paper towels, enough to block the spray paint from reaching the inside. Now, using Krylon brand spray paint (not the type labeled “Fusion”), apply two light coats of paint. Allow to dry 48 hours before handling. The bottom of the car can

be brush-painted flat black.

All details added from this point should be prepainted before gluing in place. To complete the car, make up the steps. Add the chains and the brake wheels. You should be able to remove the body of the car from the floor. This will allow the later addition of an interior. Add trucks (NENG #20 shown), couplers (Kadee #805 shown), and lettering of your choice.

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This is an online supplement to the December 2008 issue of *Garden Railways* magazine. To purchase previously published paper plans, see the list of those available at [www.sidestreet.info](http://www.sidestreet.info)

A kit for the combine is available from Northeast Narrow Gauge for \$50 + \$7 s&h (to the US). Order from Northeast Narrow Gauge, PO Box 191, Wiscasset ME 04578. Web site: [www.nemodel.com](http://www.nemodel.com)

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## Are you working in a different scale?

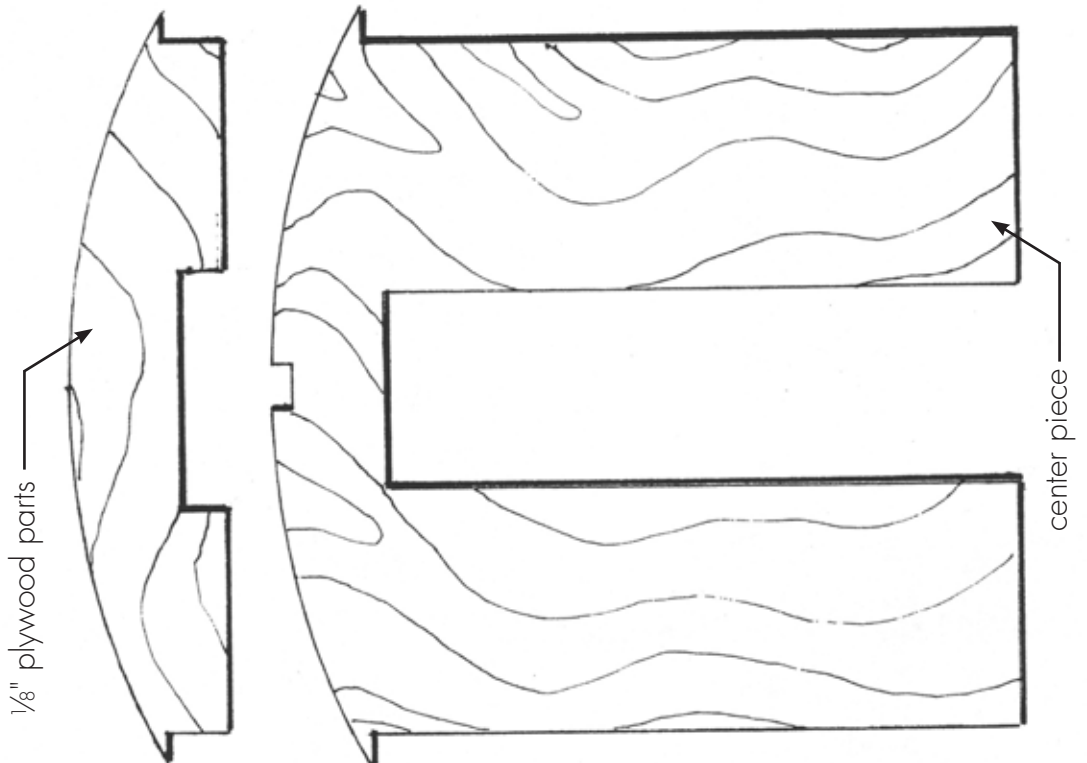
If you are working in 1:22.5 scale, enlarge these drawings to 107%.

If you are working in 1:20.3 scale, reduce these drawings to 118%.

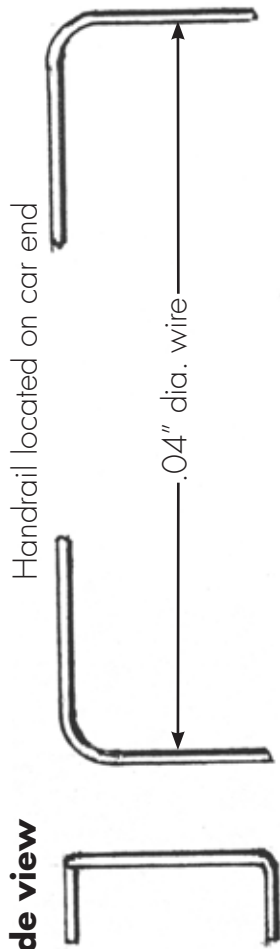
If you are working in 16mm scale (1:19), enlarge these drawings to 126%.

If you are working in  $\frac{7}{8}$ " (1:13.7) scale, enlarge these drawings to 175%.

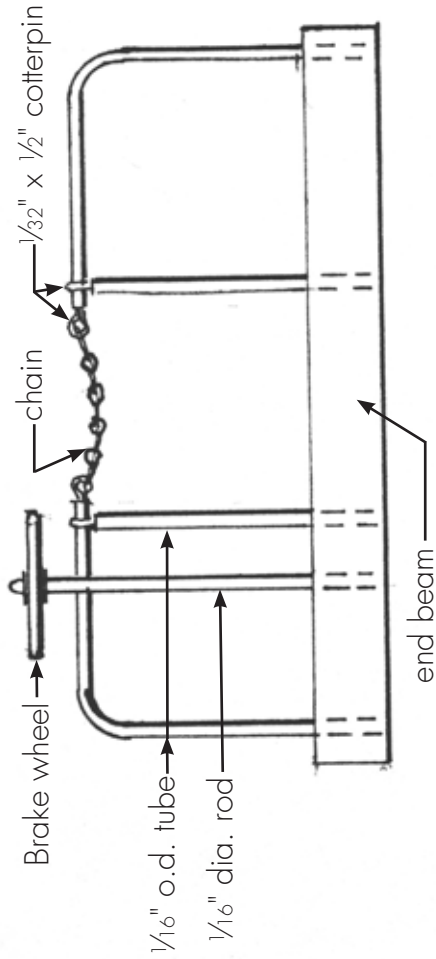
**end fascia**  
cut 2



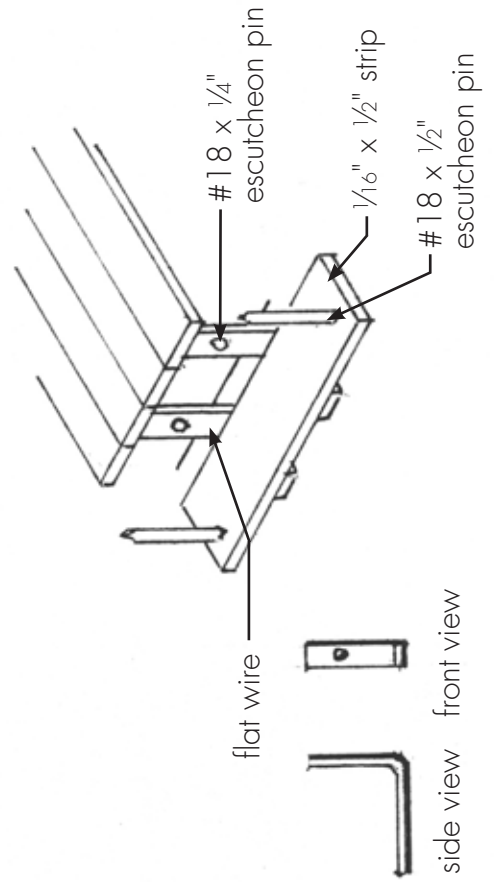
**Side view**



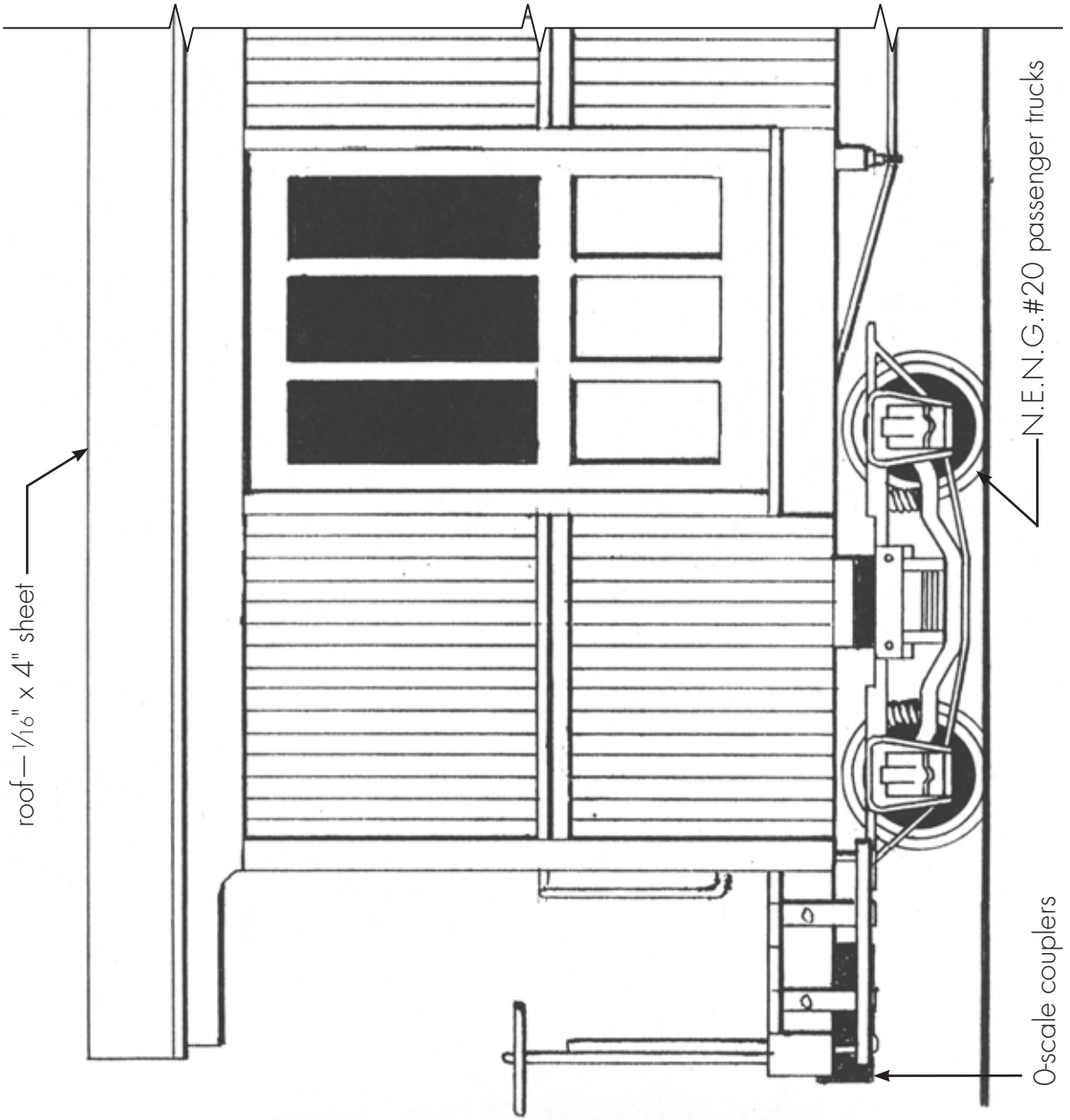
**Handrail located on the end beam**

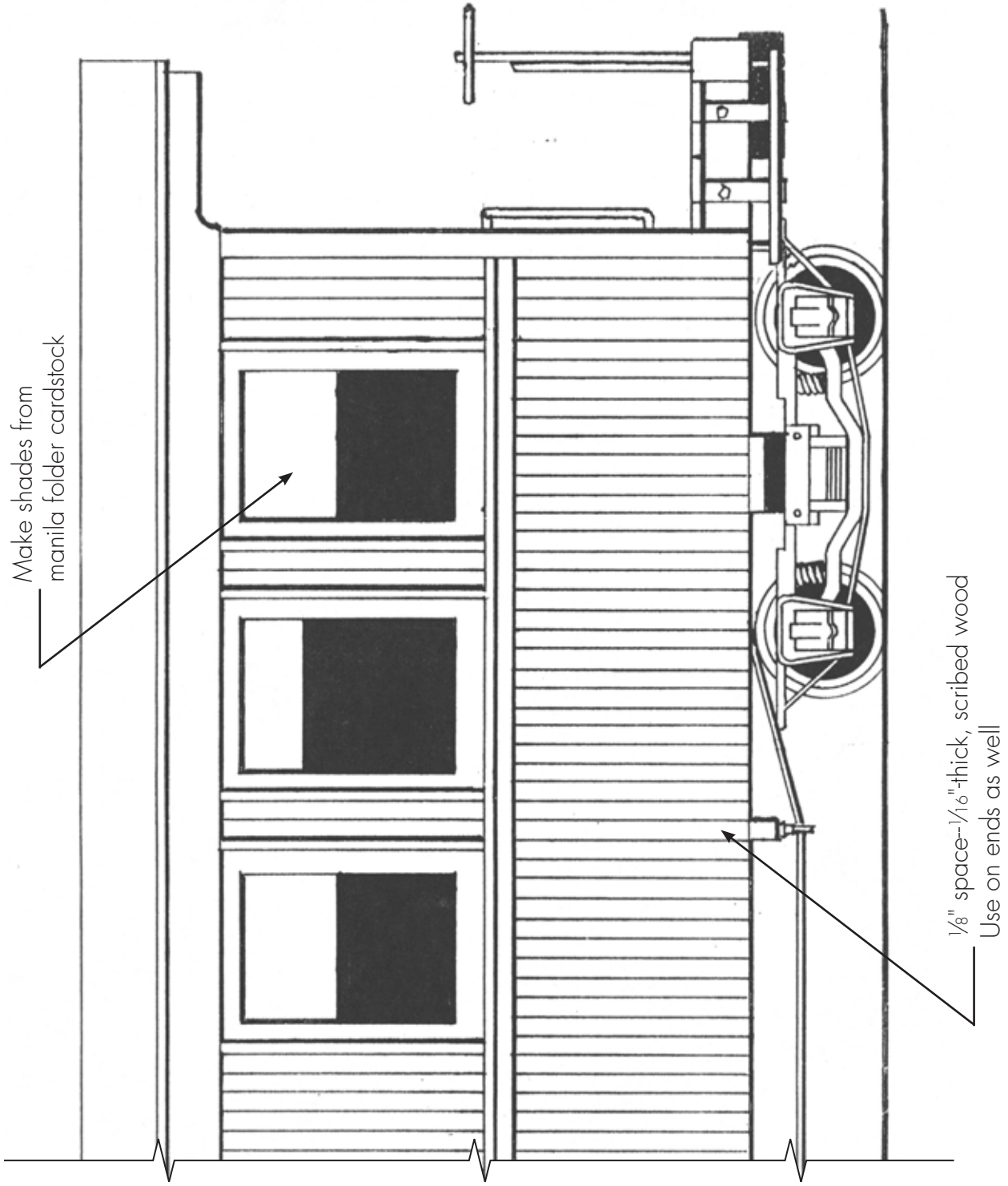


**Step detail**



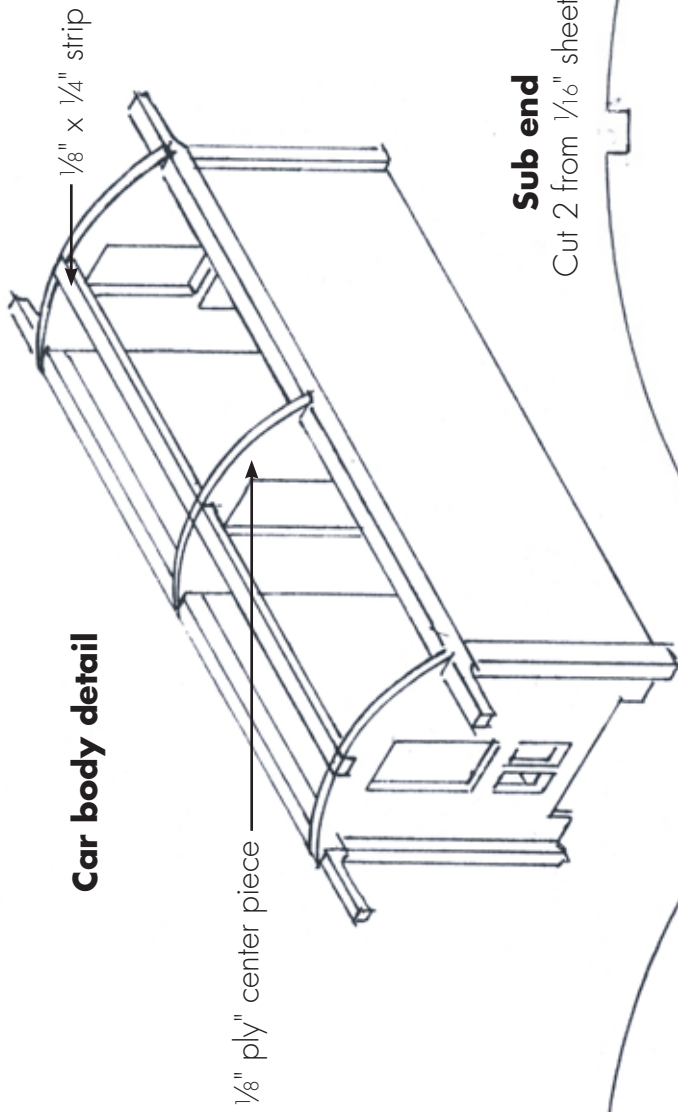
**Side view**





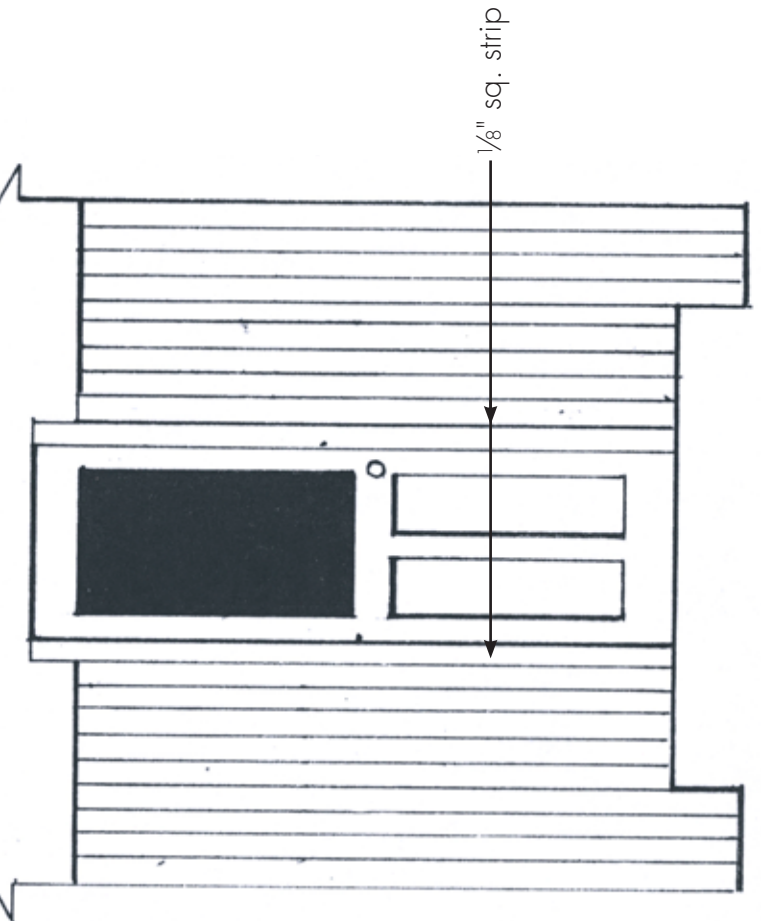
Make shades from  
manila folder cardstock

1/8" space-1/16"-thick, scribed wood  
Use on ends as well



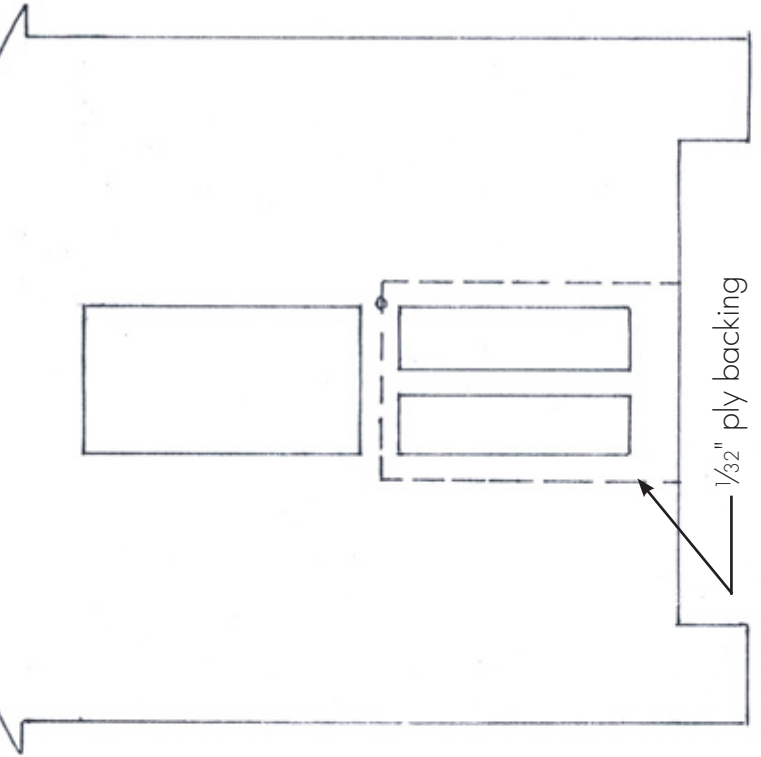
**Finished end**

1/8" ply fascia

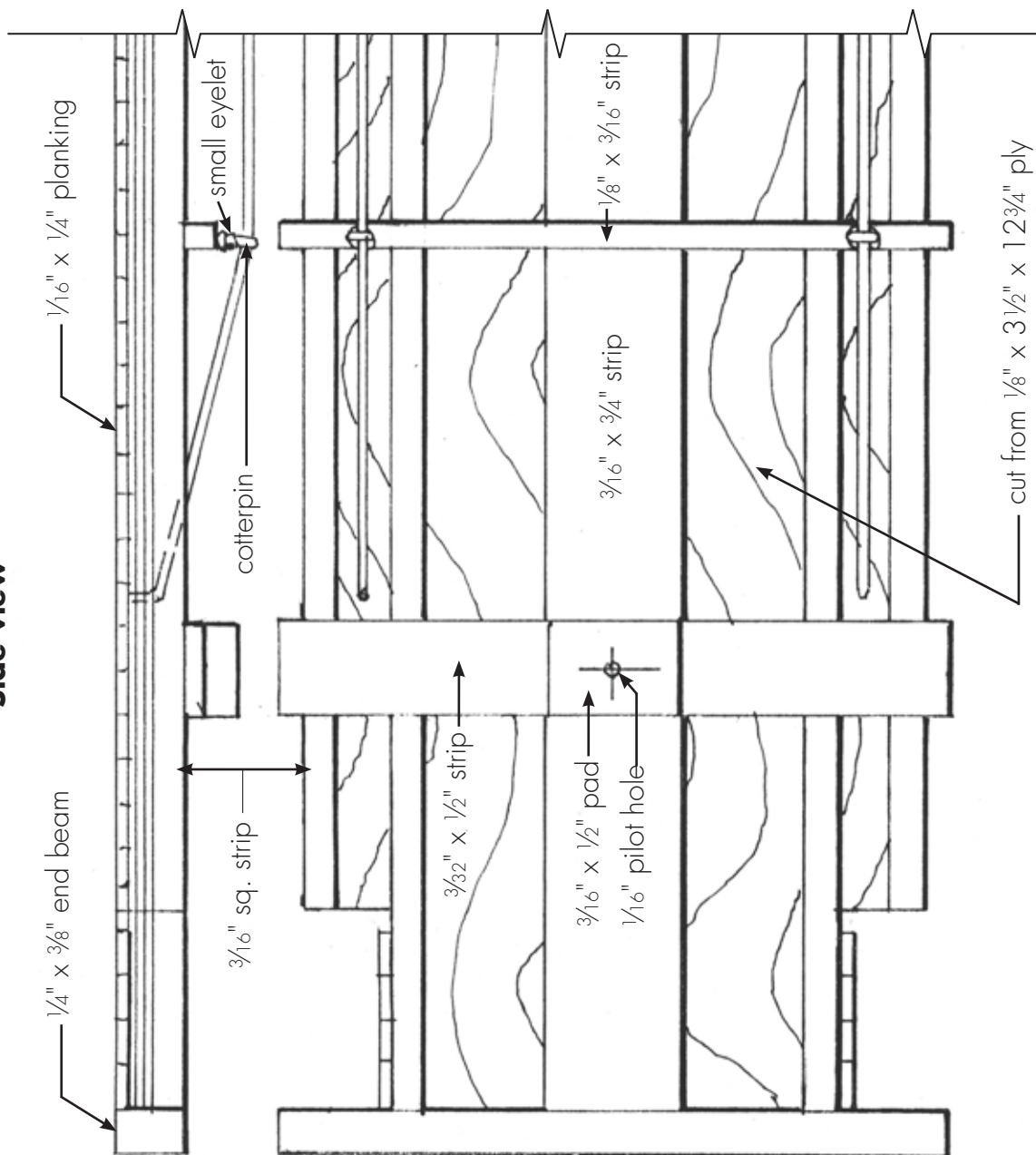


**Sub end**

Cut 2 from 1/16" sheet

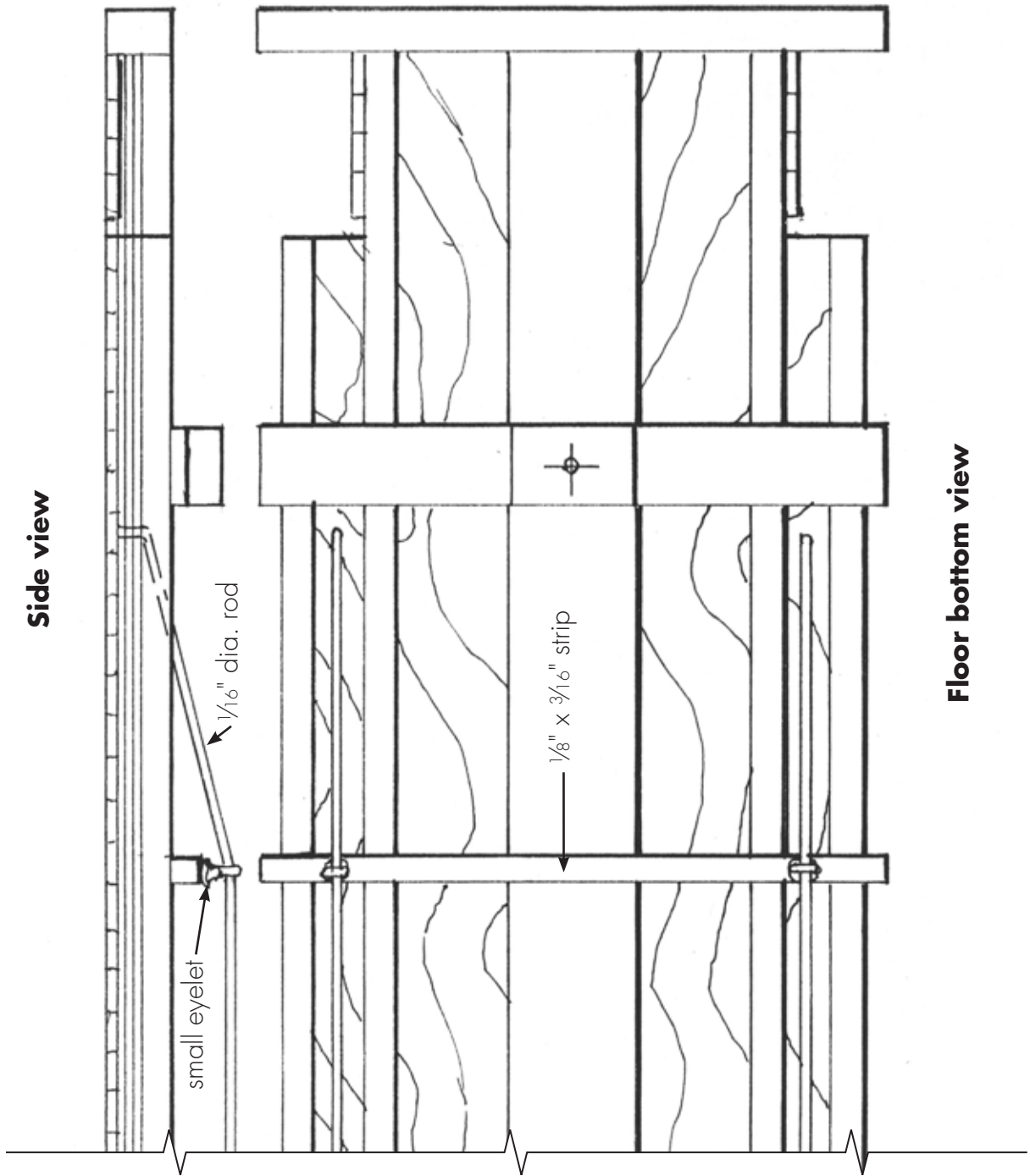


**Side view**



**Floor bottom view**

**Side view**

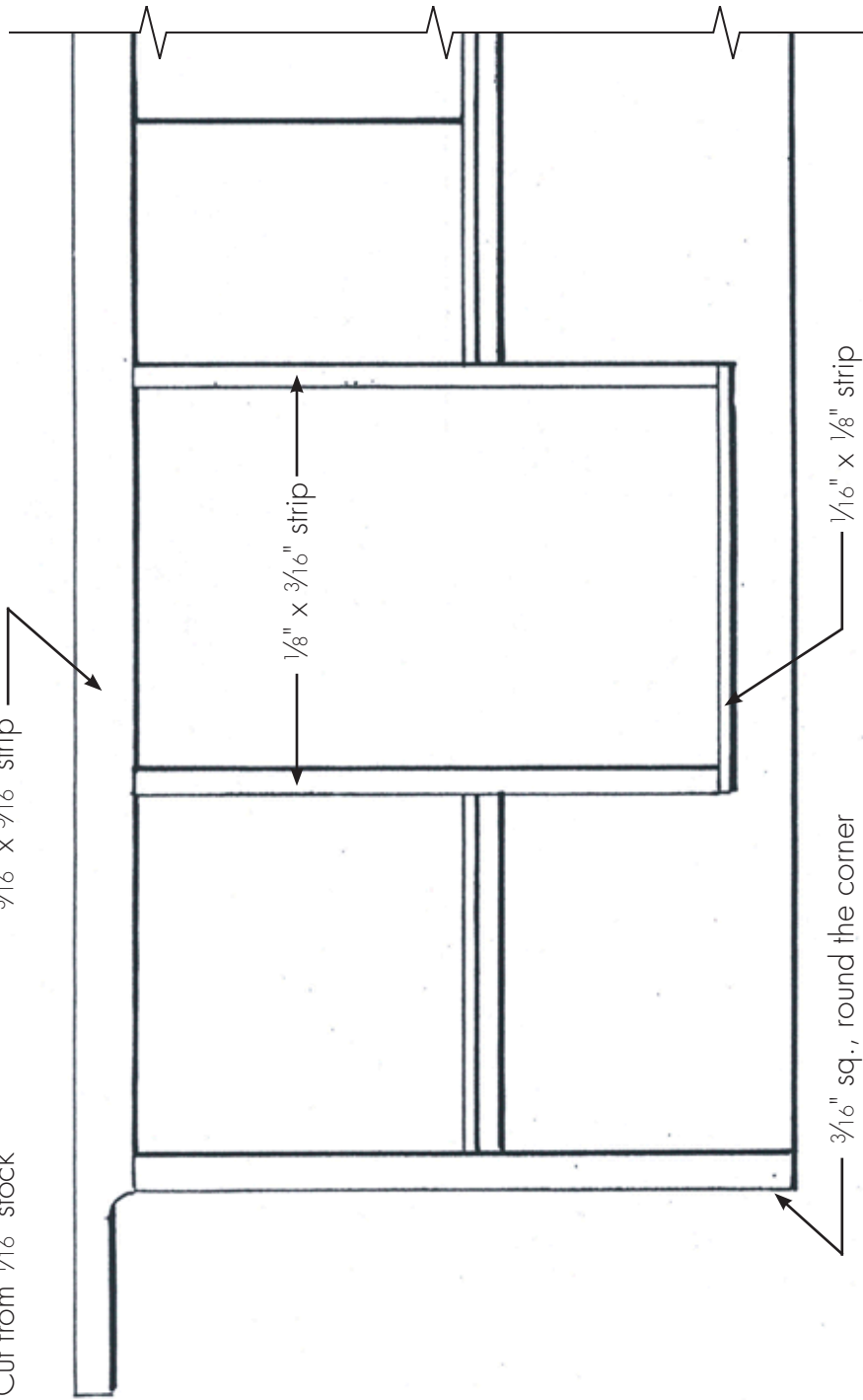


**Floor bottom view**

**Sub side**

Cut from  $\frac{1}{16}$ " stock

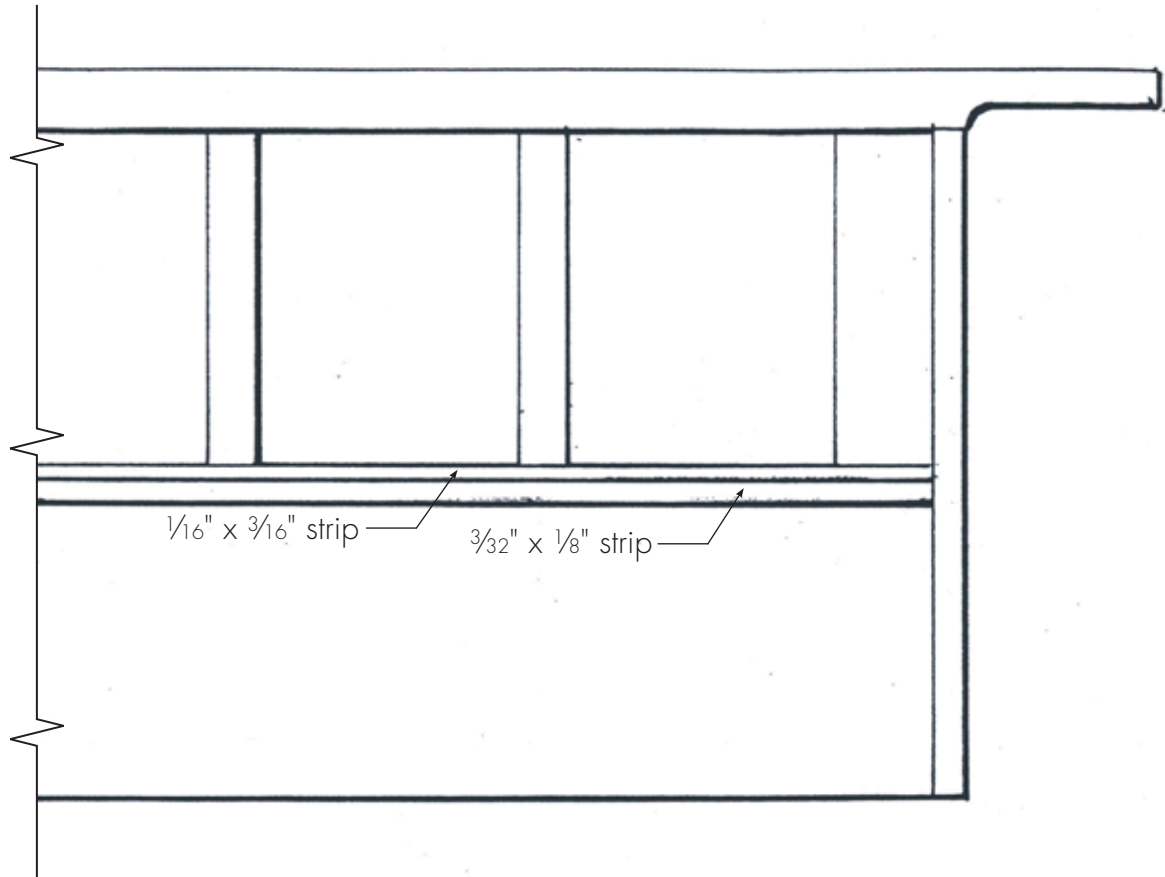
$\frac{3}{16}$ " x  $\frac{5}{16}$ " strip





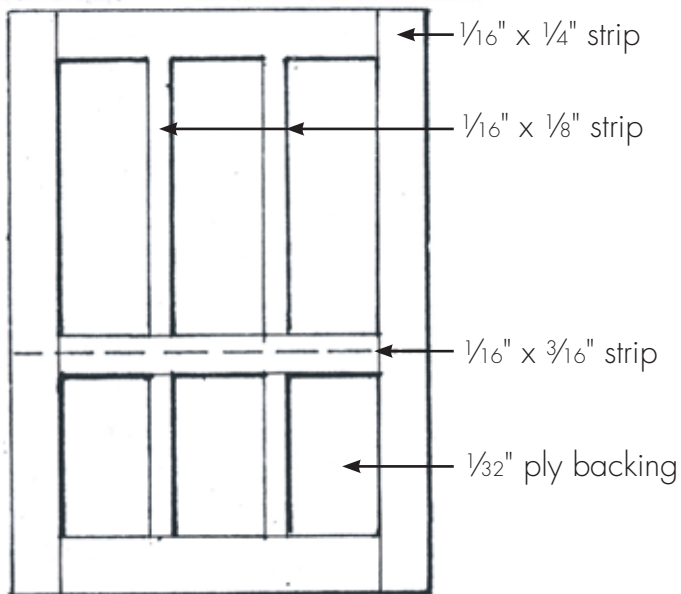
### Sub side

Cut from 1/16" stock



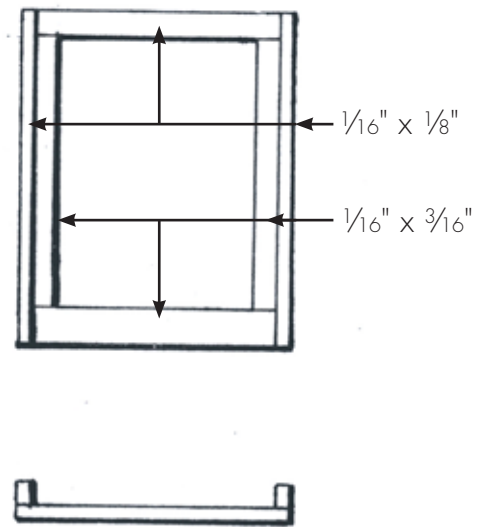
### Side door

Make 2



### Window

Make 6



End view