1:20.3-scale Tionesta Valley Nº 111 caboose

by Ted Stinson | Wiscasset, Maine

This is a 1:20.3-scale caboose that closely follows the lines of the Tionesta Valley's Nº 111 caboose. This is the first drawing in this series to be offered exclusively on the internet. I have made a few changes in my usual construction technique. Instead of plywood, I have drawn the substructure and roof using 1/8" balsa. This material is readily available at hobby stores and can be cut with a *sharp* X-acto knife.

Construction

Begin construction with the floor. From 1/8" ply, cut a piece that is 3 13/16" x 13 1/4". On what will become the bottom side, add the stripwood framing as per the drawing. Drill holes for the truss rods, which are made from 1/16"-diameter rod. Cut and fit the end beams, drill 1/16"-diameter holes, and glue the beams in place. Add the details later. Finally, add the 1/16" x 1/4" planking on each end of the top surface.

Now make the substructure for the main body of the car. Use 1/8"-thick balsa for the subsides and subends. Assemble the superstructure with the sides outside of the ends. This should just fit on the previously assembled floor. Locate the roof beams inside this structure, about 4" from each end.

When the substructure is assembled to your satisfaction, add the 1/16"-thick fascia on each end. Now surface the exterior with 1/32"-thick x 3/16"-spaced scribed wood, then dry cut the openings for the doors and windows. Make two doors and seven windows as per the drawing. Fit and glue the windows in place, flush with the inside surface. Fit and glue 1/16" x 3/16" stripwood framing in the door openings (see the plan). The end doors have clear plastic glued to the back of the stripwood surround. Do not add the clear-plastic glazing until the car has been painted.

Now glue the doors in place. Add the roof using 1/8" sheet. The surface of the roof should be given a treatment to represent tar paper (strips of tissue lacquered in place work well). Now make the cupola sides and ends. Assemble the cupola with the sides inside the ends. Bevel the top and bottom surfaces of each side so that the cupola will sit flush on the roof. Using the cupola sides/ends as a guide, cut an opening in the roof for the cupola.

Now seal and paint the car body to your liking. Add the window glazing. Cut and fit the cupola roof in place, along with the tar-paper technique of your choice. Seal and paint the cupola. When dry, fit the glazing in the cupola windows. Finally, fit the cupola in place.

All details added from this point should be prepainted before gluing in place. Begin with the smokehead, then do the metal parts, such as grab irons, etc. Finally, add the ladders. These are glued to the end beams and the edge of the roof. Add lettering of your choice, then trucks and couplers, and you are finished.

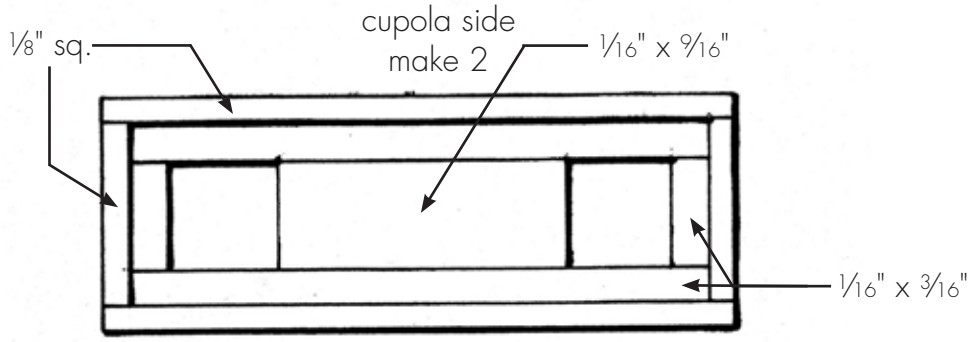
Are you working in a different scale?

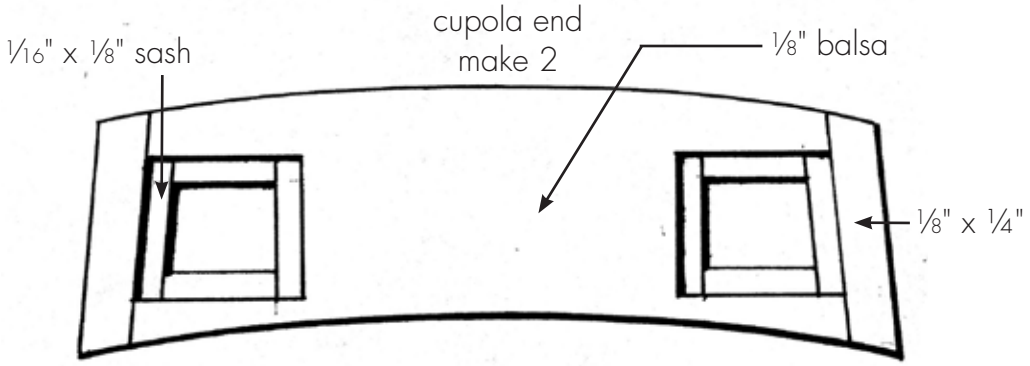
If you are working in 1:32 scale, reduce these drawings to 63%.
If you are working in 1:29 scale, reduce these drawings to 70%.
If you are working in 1:24 scale, reduce these drawings to 88%.
If you are working in 1:22.5 scale, reduce these drawings to 90%.
If you are working in 16mm scale, enlarge these drawings to 107%.
If you are working in 1:13.7 (7/8") scale, enlarge these drawings to 148%.

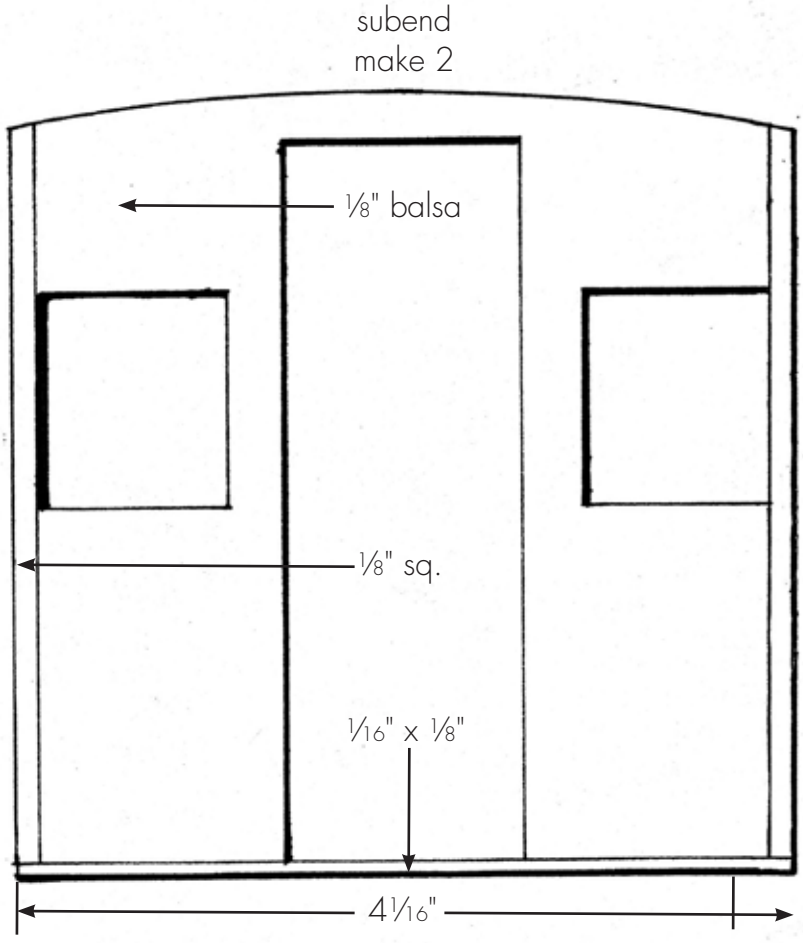
This plan is an online supplement to the December 2006 issue of *Garden Railways* magazine. To purchase previously published paper plans, see the list of those available at www.sidestreet.info

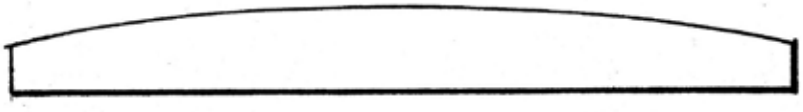
A complete kit for this project (#NNG282) is available from Northeast Narrow Gauge for $75 + $7.50 s&h. Trucks (#3A) are $50/pr. + $5.00 s&h. Kadee #830 couplers are $7/pr. Order from Northeast Narrow Gauge, PO Box 191, Wiscasset ME 04578. Web site: www.nemodel.com

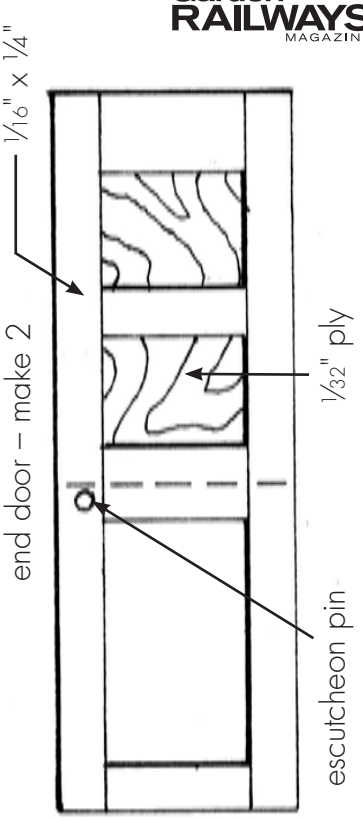
Garden RAILWAYS MAGAZINE

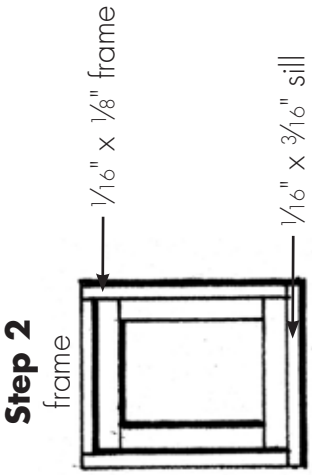


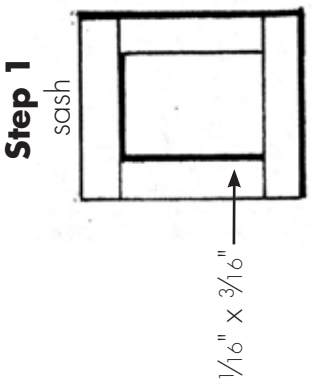




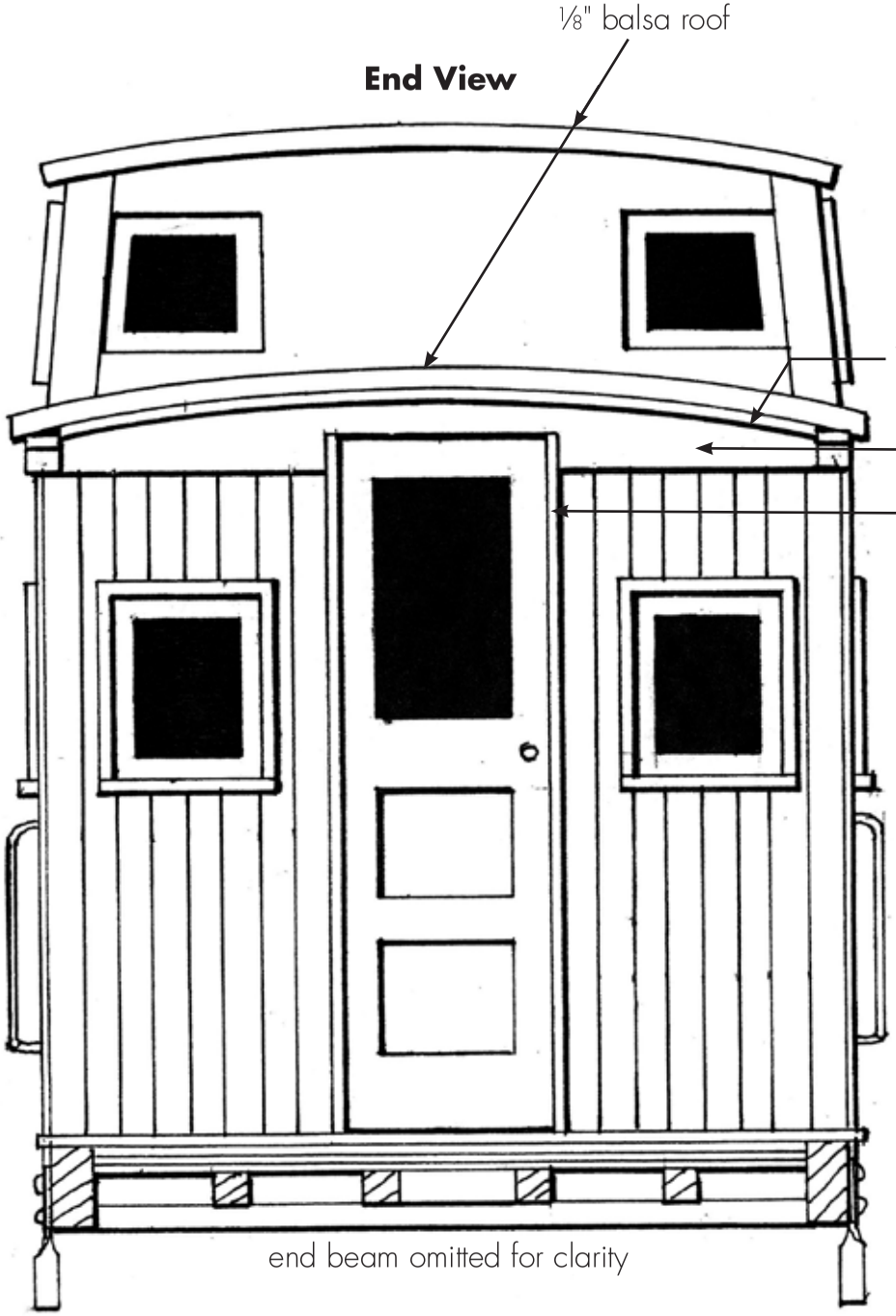


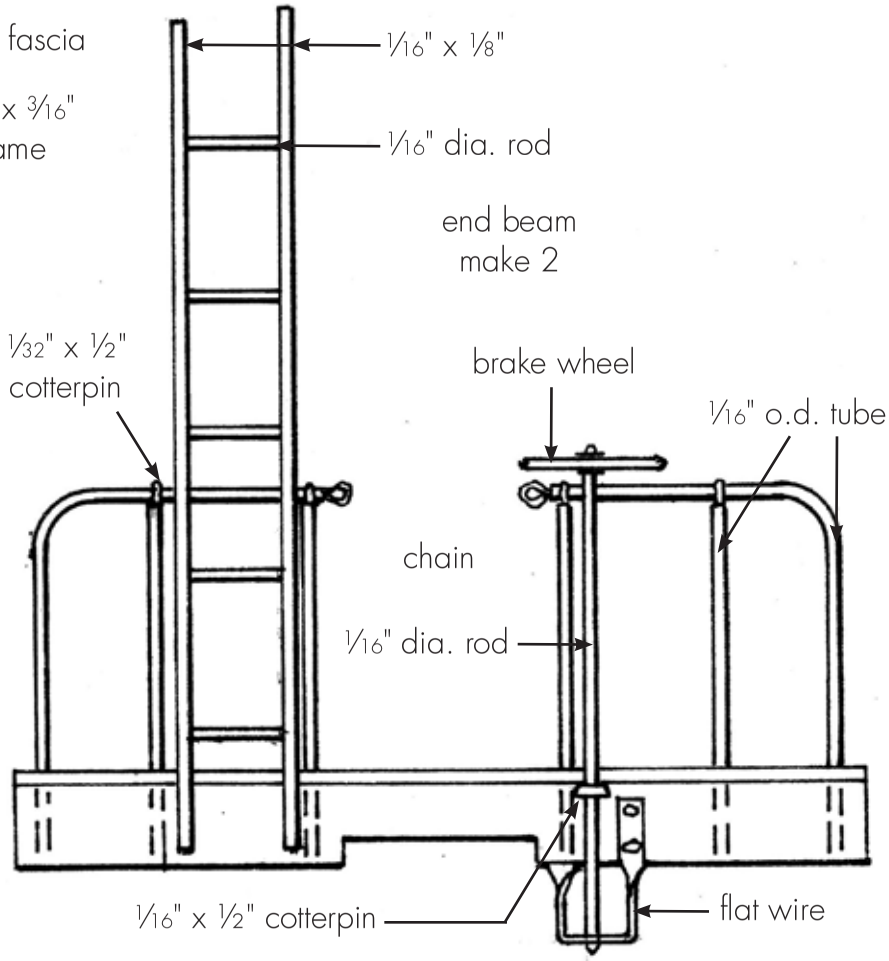


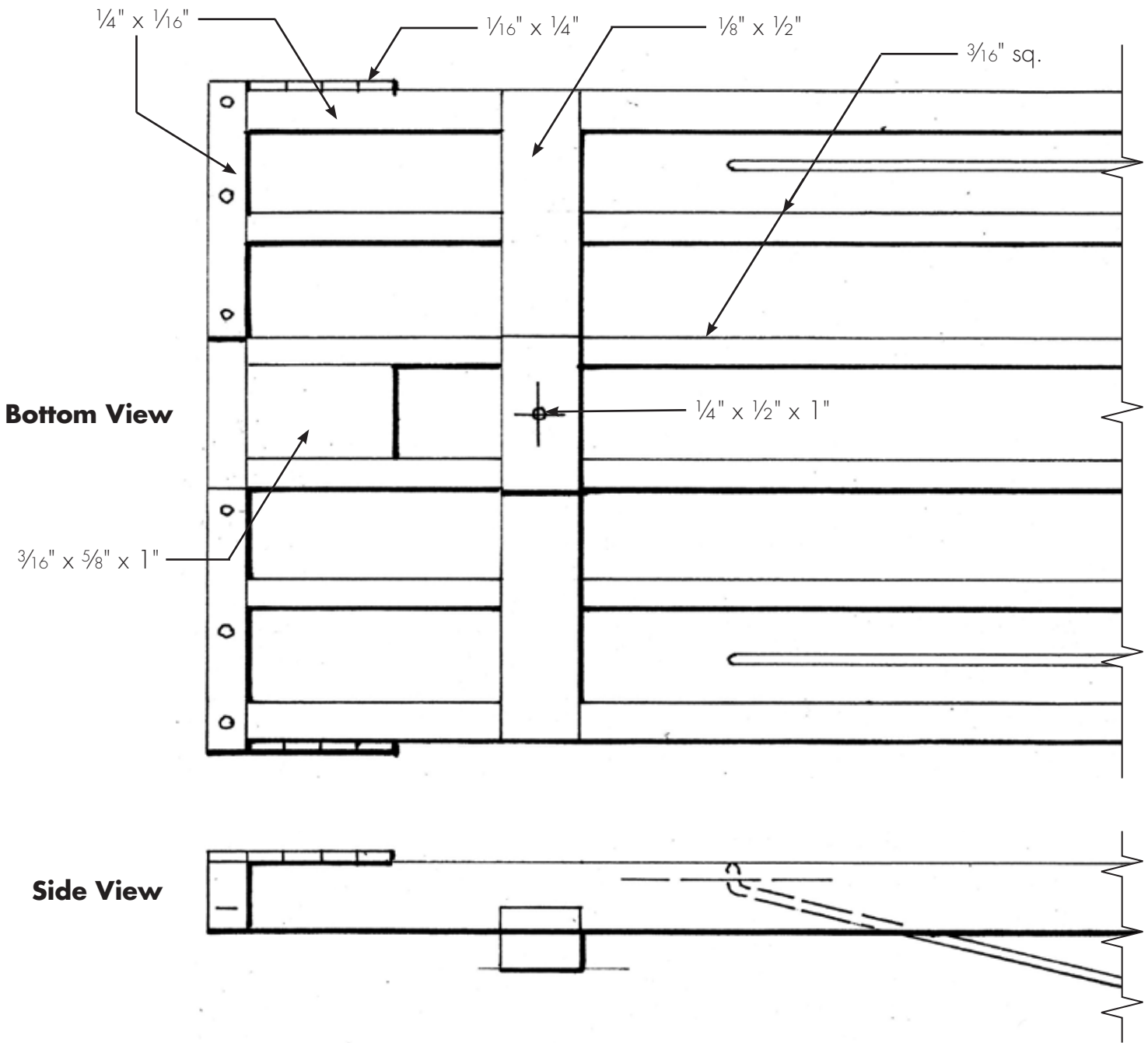




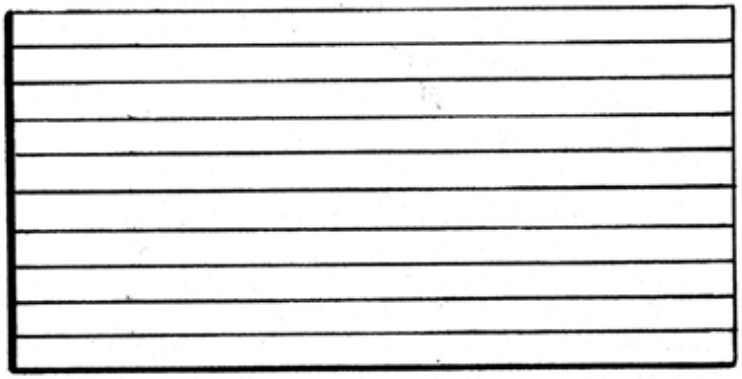
Garden RAILWAYS MAGAZINE

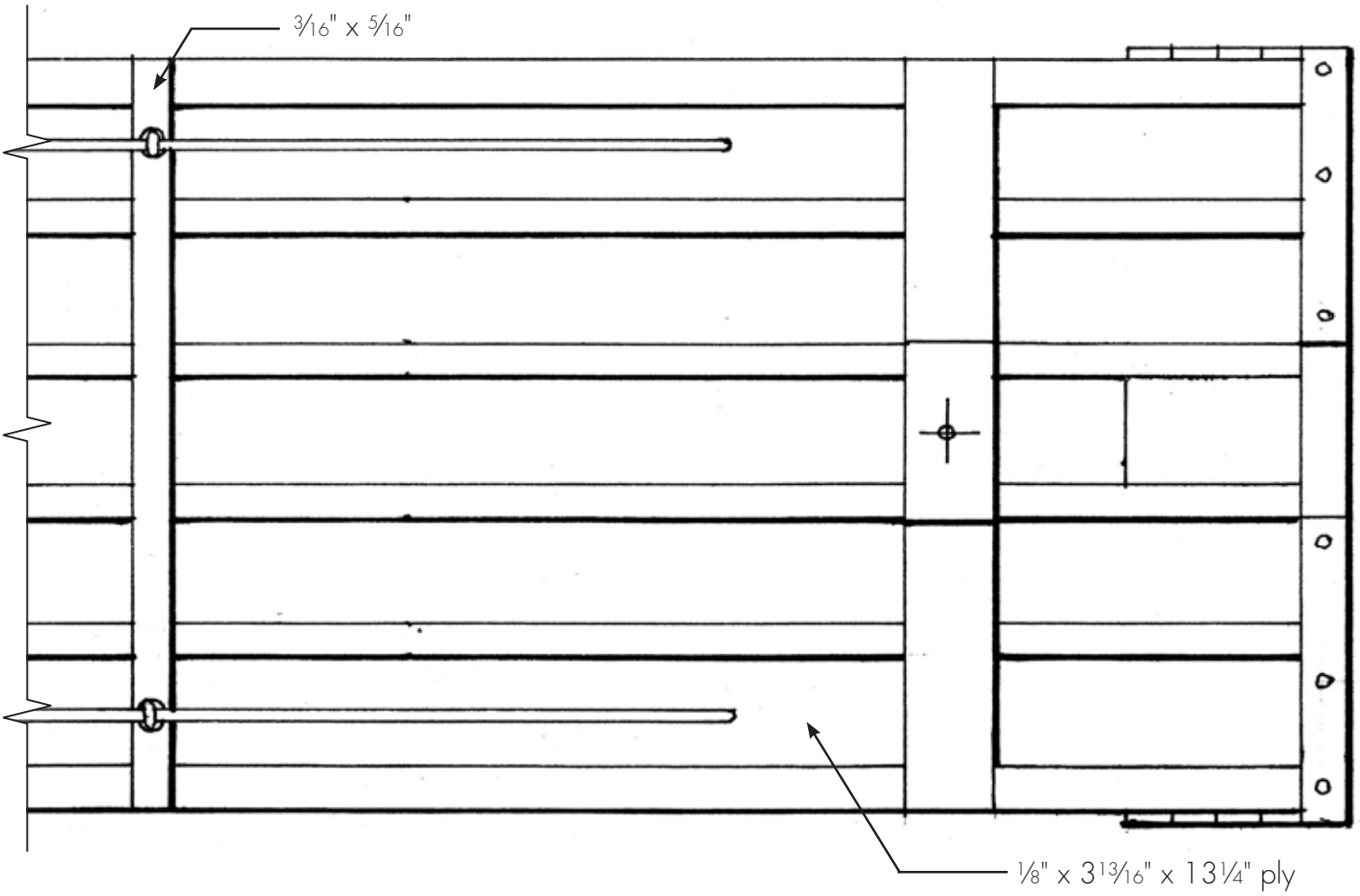


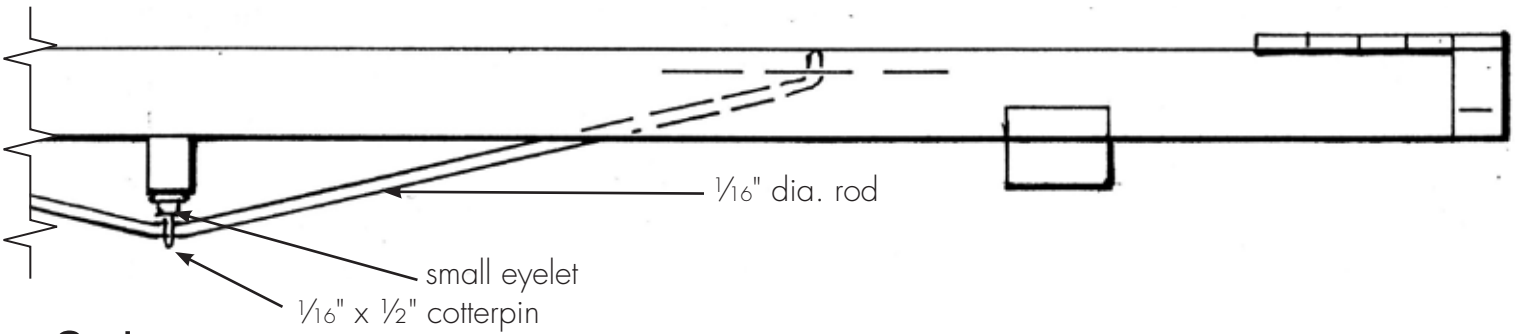




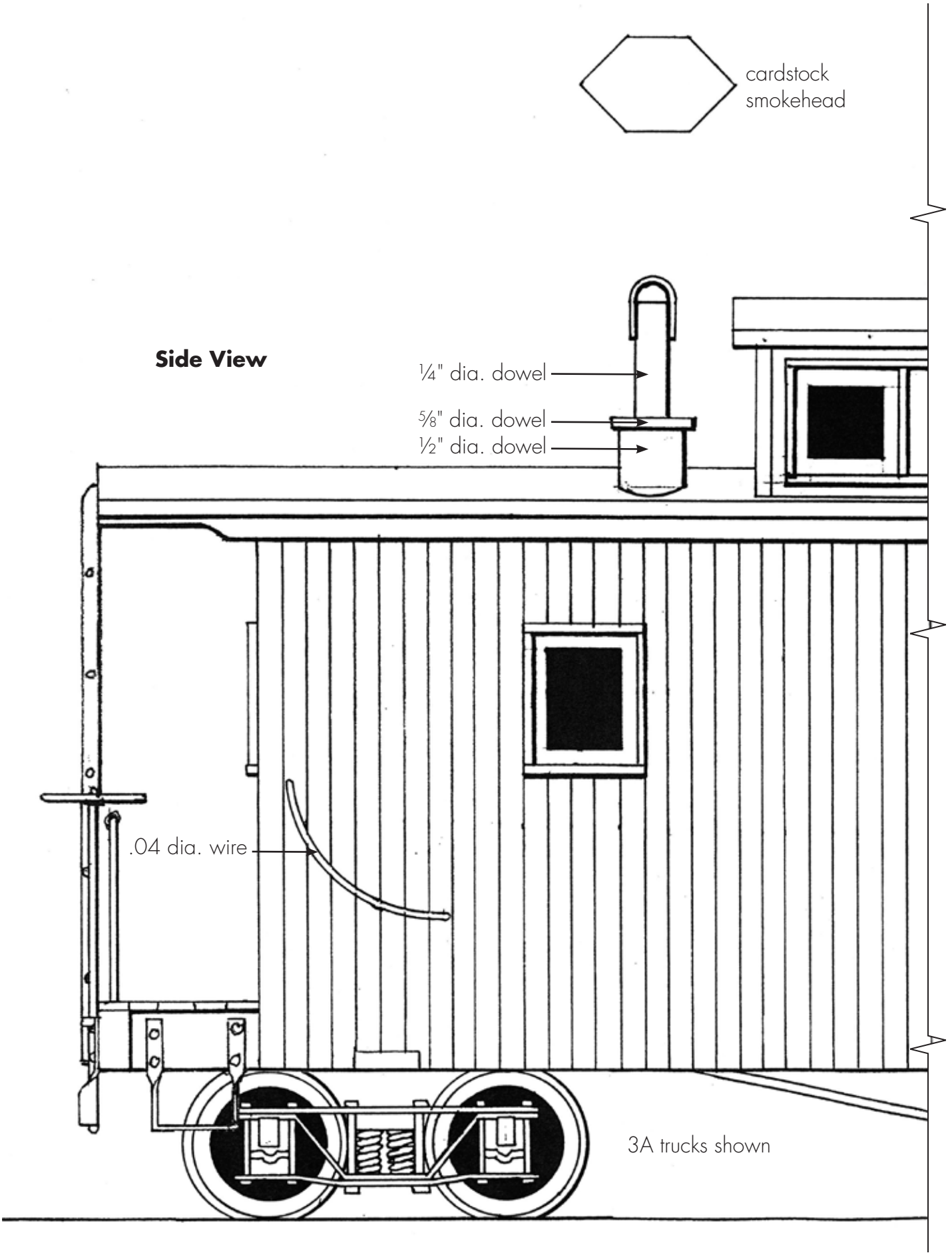
side door
make from 1/32" ply to scribed wood

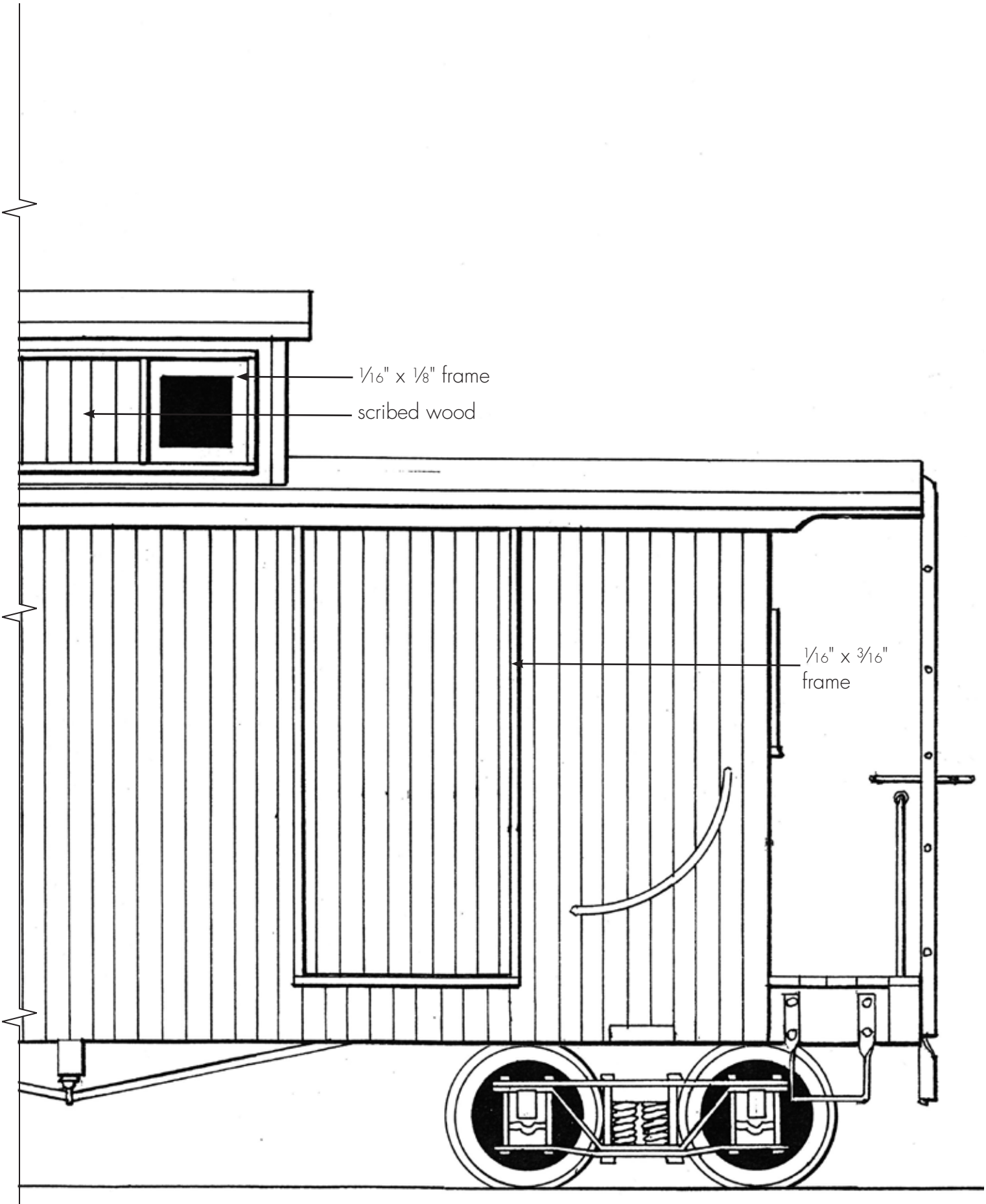




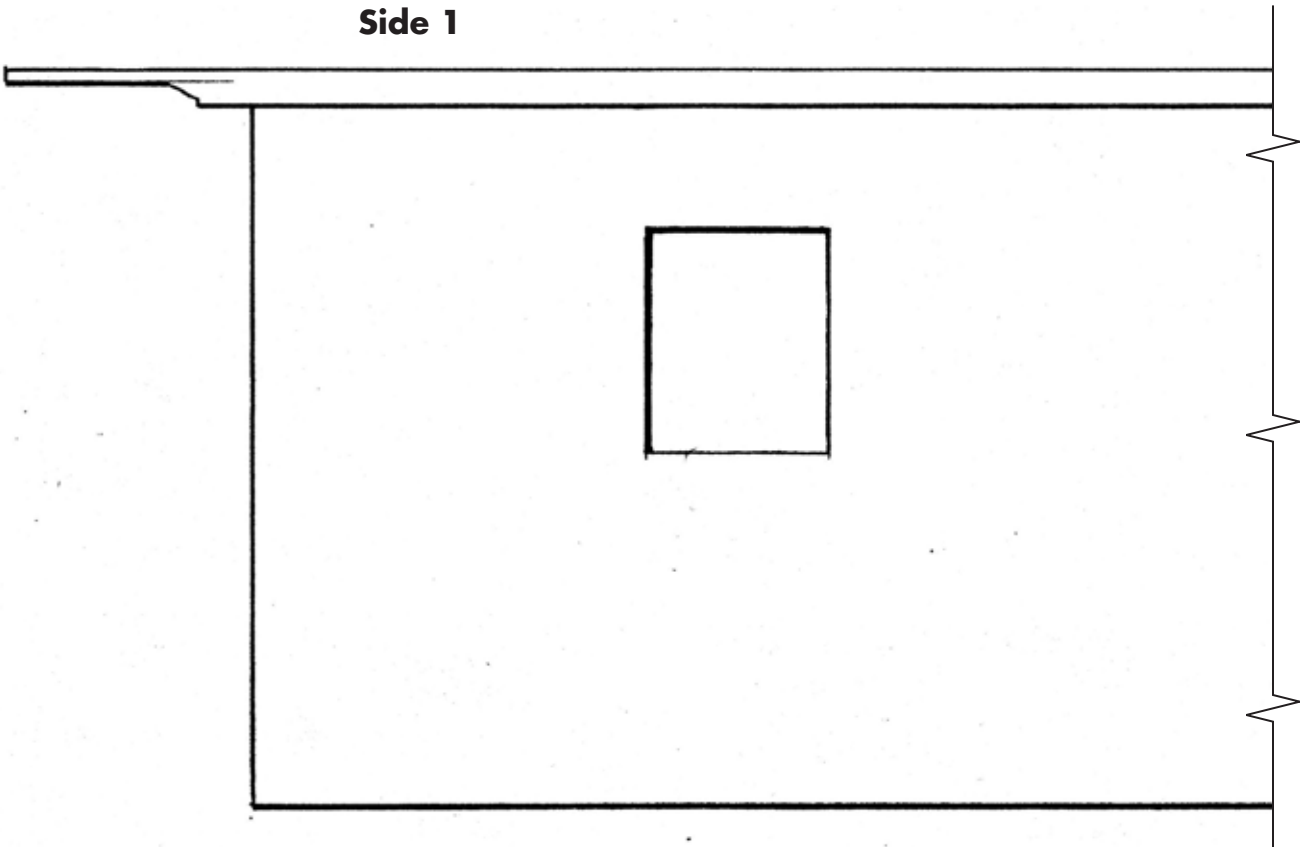


Garden RAILWAYS MAGAZINE





Side 1



Side 2