

1:20 scale, outside-frame boxcar

by Ted Stinson | Wiscasset, Maine

This generic, 1:20 scale, outside-frame boxcar is typical of those built in-house by a variety of narrow-gauge railroads. This one is loosely based on a Peach Bottom Railway car, but can be made to look like any number of similar cars with the addition of ladders and other details. The car scales out to a length of 24' and a width of 7'.

Construction

The model can be built from materials available from many hobby shops. As an alternative, you can cut the stripwood on a table saw. To get that weathered look so typical of this type of car, I recommend sanding and staining each piece of wood and pre-painting the metal hardware before assembly.

Begin construction with the floor. From $\frac{1}{4}$ " plywood, cut a piece $3\frac{1}{8}$ " x $13\frac{7}{8}$ ". Add the stripwood framing per the drawing. Drill $\frac{1}{16}$ "-diameter holes for the truss rods, which are made of $\frac{1}{16}$ "-diameter rod. Fit and glue the truss rods in place. On the top surface of the board, add the $\frac{3}{32}$ " x $\frac{3}{8}$ " planking.

Cut three roof beams from $\frac{3}{16}$ " stock. Using one of the beams, make up the roof frame. Set this aside for later assembly.

Make two sides, two ends (using the other two roof beams), two doors, and, if you wish, four ladders from stripwood. Assemble the car body over the floor, with the ends set inside the sides. Add the roof frame, then make up the roof from $\frac{1}{16}$ " thick, scribed wood, with $\frac{1}{4}$ "-spaced grooves. Make a roof walk from the stripwood called out in the drawing. Glue this in place on the roof.

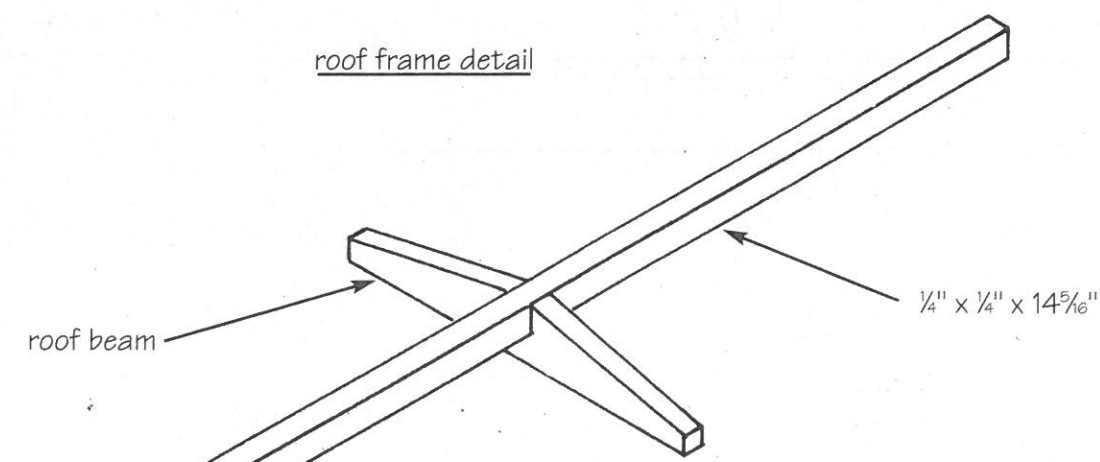
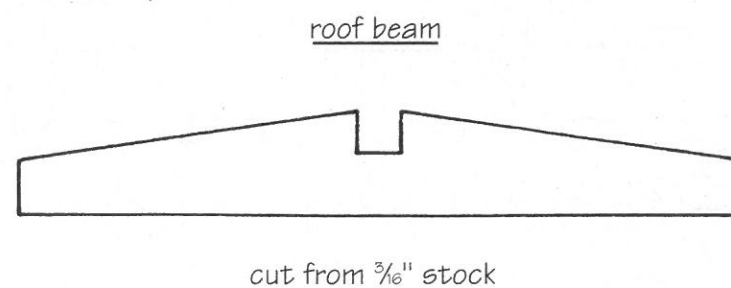
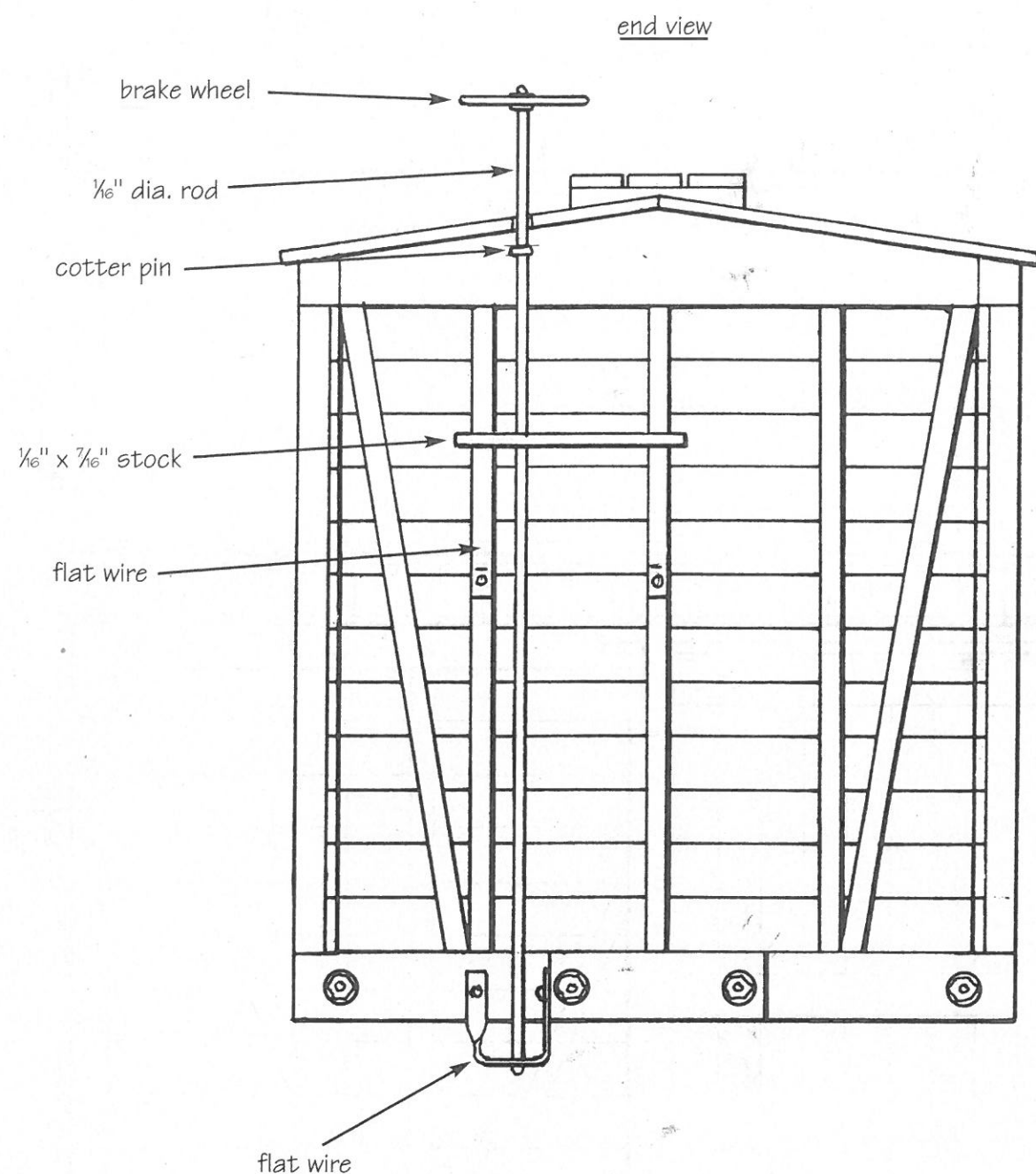
Make the brakewheel hardware and fit and glue it in place at one end of the car. Make the door hardware and fit and glue these in place, along with the doors. Give the car at least one coat of flat, spray varnish to seal and protect it.

Add trucks and couplers of your choice, and your car is finished.

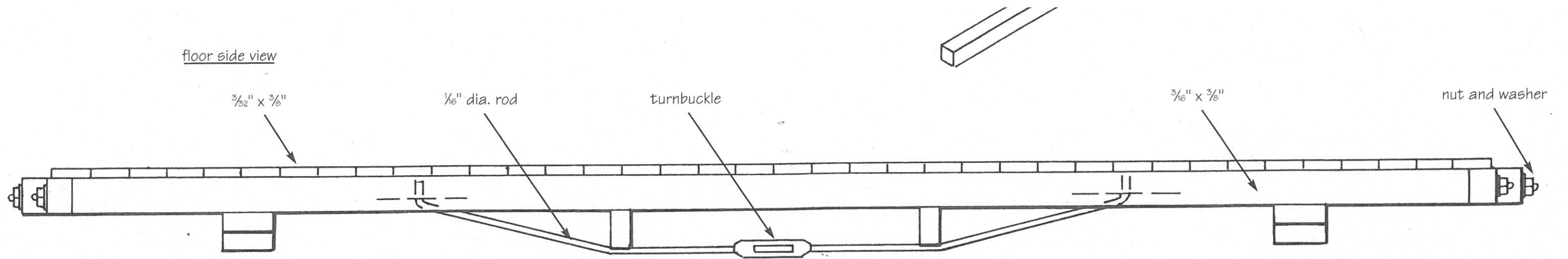
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For those not possessed of the energy or equipment, a kit of wood-and-metal parts for the boxcar, less trucks and couplers, is available for \$49.95 postpaid within the USA. Order from Northeast Narrow Gauge, PO Box 191, Wiscasset ME 04578.

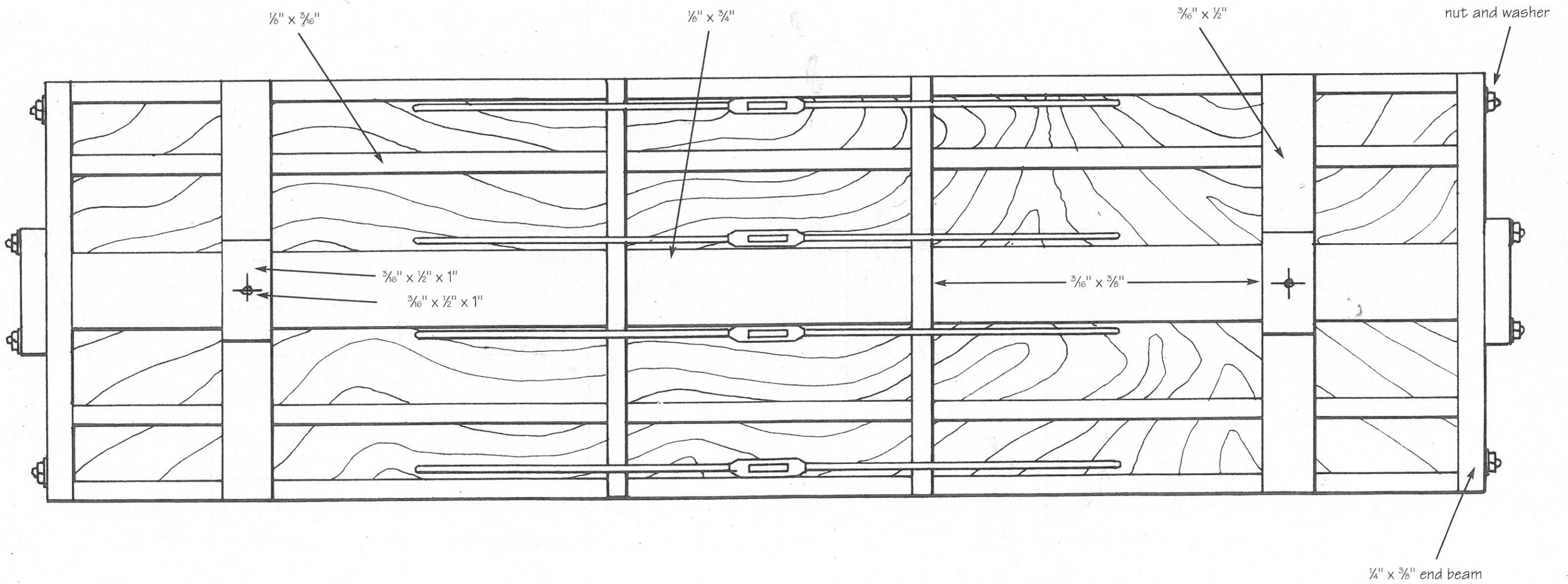
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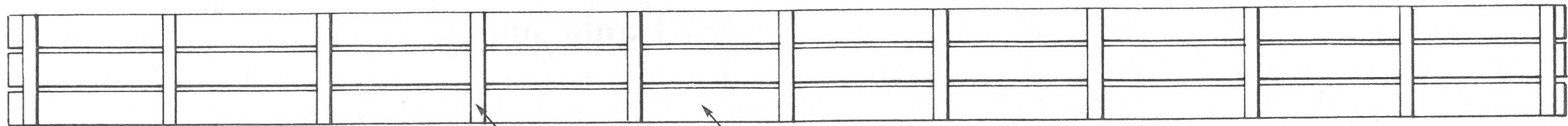


floor side view



floor bottom view



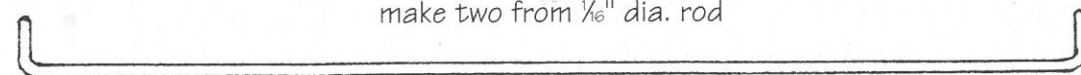


roof walk bottom view

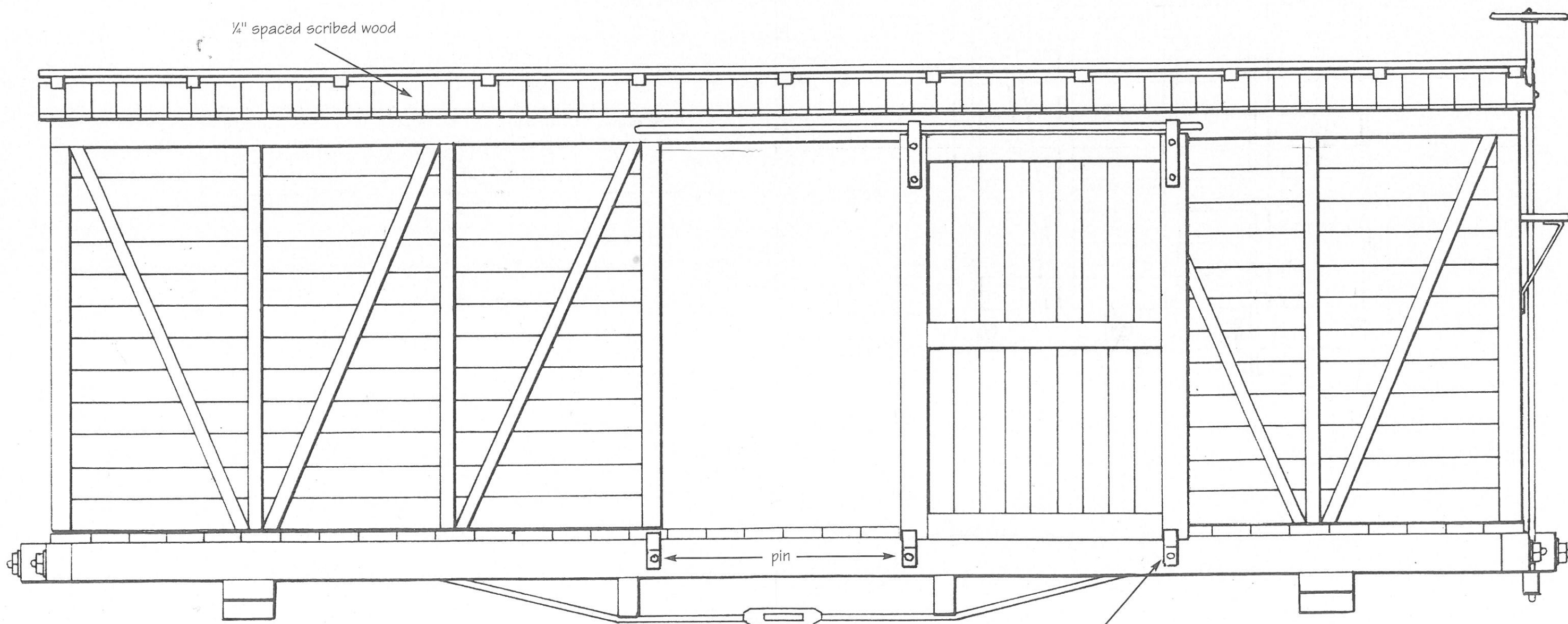
$\frac{1}{8}$ " sq.

$\frac{1}{16}$ " x $\frac{5}{16}$ "

door slide
make two from $\frac{1}{16}$ " dia. rod



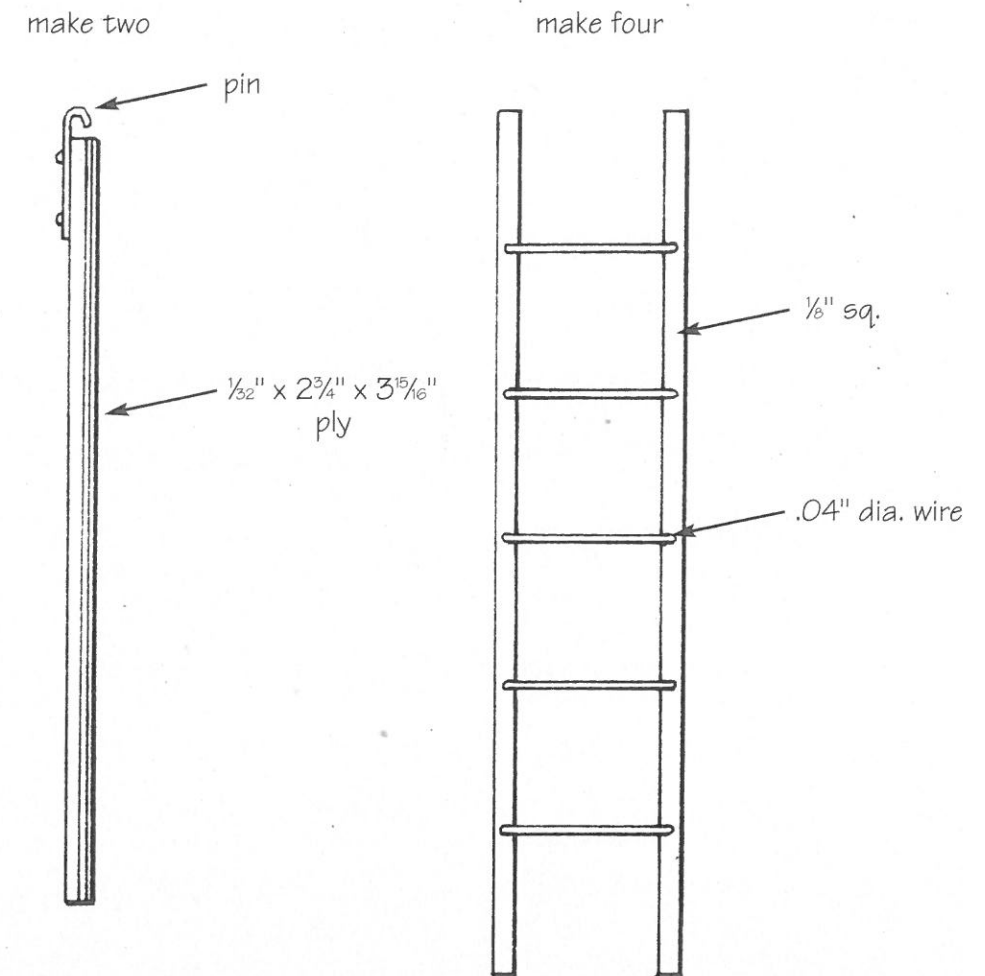
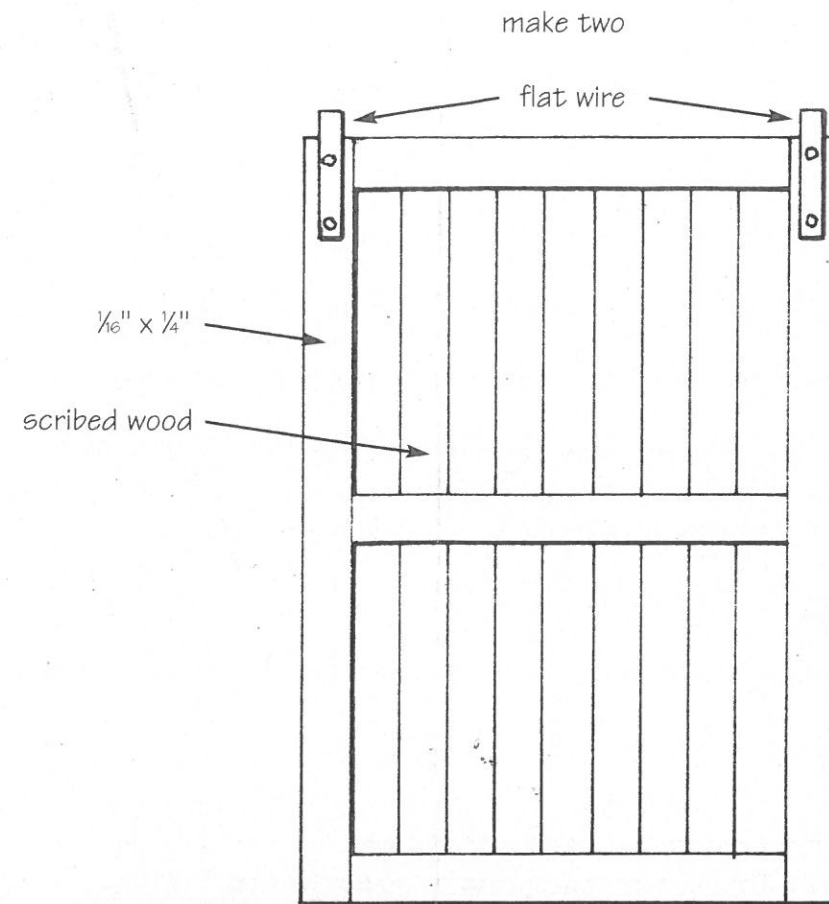
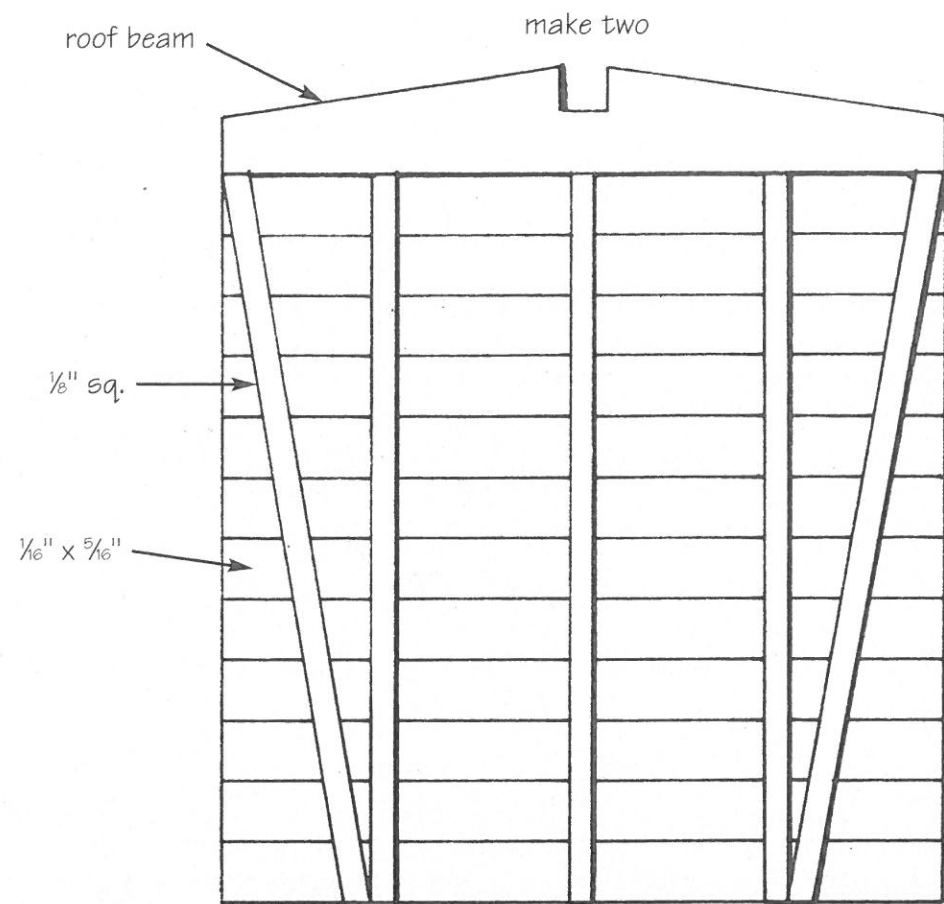
$\frac{1}{4}$ " spaced scribed wood



pin

flat wire
make six

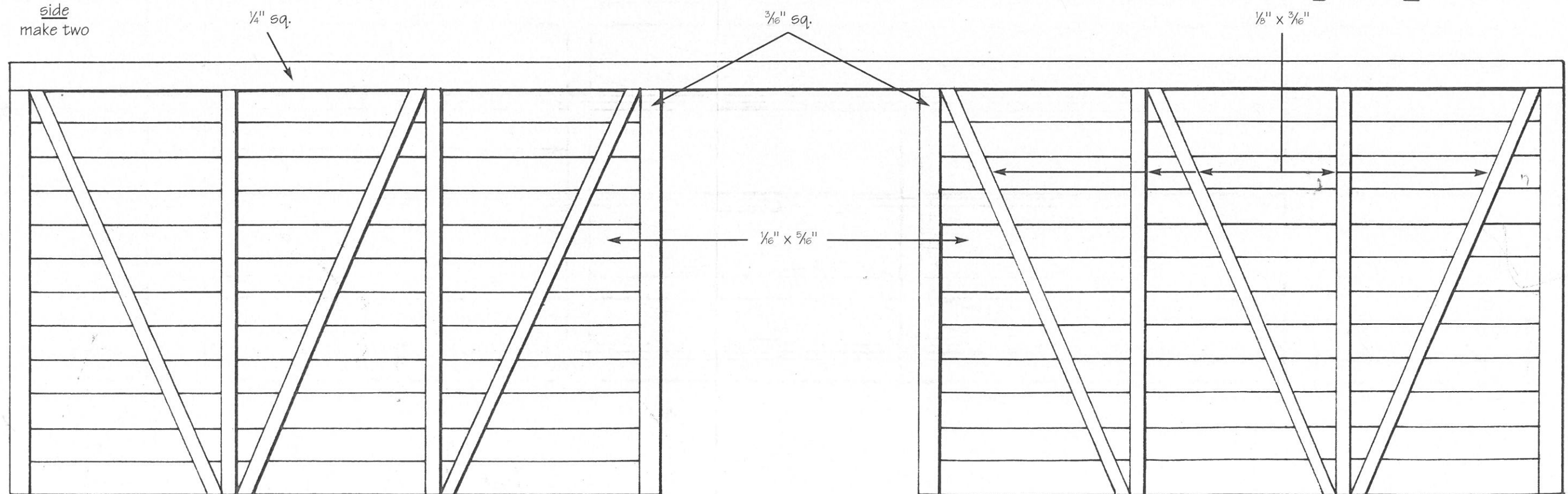




side view



side make two



Make the door hardware and in place at one end of the car. Make the door hardware and in and glue these in place, along with the doors. Give the car at least one coat of flat, spray varnish to seal and protect it. Add trucks and couplers of your choice, and your car is finished.

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