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Scratchbuilding Wooden Freight Cars —Convert Your Flatcar into a Gondola—

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SO, BY NOW I'm hoping that you've scratchbuilt a flatcar, something along the lines as described in the March-April, 2004 issue of **The Local** and dressed it up with grab irons, trucks, and some sort of creative load. But flatcars are just that—flat—and have limited appeal and utility. Fortunately, flatcars are also a good, simple starting point to build other cars and provide a base for a host of other cars to scratch-build. I know I said a boxcar was next, but that skips over the intermediate car in the development chain, a gondola, which is just an open box on your flatcar put there so your load doesn't fall off. This is probably the quickest and easiest extension from the basic flatcar, so let's get building!

Construction begins, of course, with another flatcar, but interrupt that process before adding the brake wheel, stirrup steps, and any other details; add them later so they don't get damaged. I'm working with a 38-foot car in O-scale, but you can modify dimensions to suit both choice of scale and length and width of your car. The part numbers mentioned are also the O-scale numbers. Let's build the box sides and ends first. I used eight Kappler HO-scale 4x22s cut to 32 feet for the sides. Lay these side-by-side, square, and marked

every four feet. Then glue a scale 4x4 across all eight boards every four feet and at the ends (Figure 1). You want these 4x4s to overhang by at least the width of the side sill of your flatcar. Do the same exercise with eight more boards that are as long as the width of your flatcar minus twice the thickness of your side boards. Glue a scale 4x4 across all eight boards two feet in from each end and at the ends (Figure 1). These 4x4s should be flush with the ends. Now, with your razor saw, cut the 4x4s on each assembly right in the middle so you have the two sides and the



Figure 1

two ends for your gondola's box (Figure 2). Rather than place stake pockets on the flatcar and hope to get everything aligns so you can thread the stakes in, just mount the stake pockets directly to the stakes. Square off those overhanging 4x4 stakes to the side sill width and glue on stake pockets (Grandt Line No. 53). Cut the mounting sprues off the stake pocket castings and after gluing them onto the stakes (try to put them on oriented the same way), make sure that the reverse is a nice smooth surface. By putting a drop of glue on the back of each stake, you can mount the gondola sides to the side sill centered to the car. The two ends

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should now drop in between the two sides. A little sanding may be necessary. A little glue on those two end stakes and your gondola box is both assembled and mounted. The completed assembly is shown in Figure 3.



Figure 2

Next, you can run a truss-rod or two through both ends (.022 or .018 diameter wire) with turnbuckles (Grandt Line No. 54 or equivalent). Place nut-bolt-washer castings (Grandt Line No. 23) at every intersection all around the box as well. Lastly, you can add your brake wheel, ratchet and pawl, stirrup steps, grab

irons, uncoupling levers, trucks and couplers, and what other details you'd like to finish your gondola. Now put together that load of pipe, sugar beets or turnips, or whatever you'd like to carry from point A to point B. One variation is to leave the ends off and use your car with idler flatcars on each side to carry really long items. A more sophisticated variation of our gondola



Figure 3

would be to add drop-bottom doors or side doors. Add some paint, stains, weathering (don't be afraid to carve up the tops of those side boards to simulate damage), and lettering, if desired, and you'll have a pretty good truss rod gondola. So, maybe next time a boxcar... 