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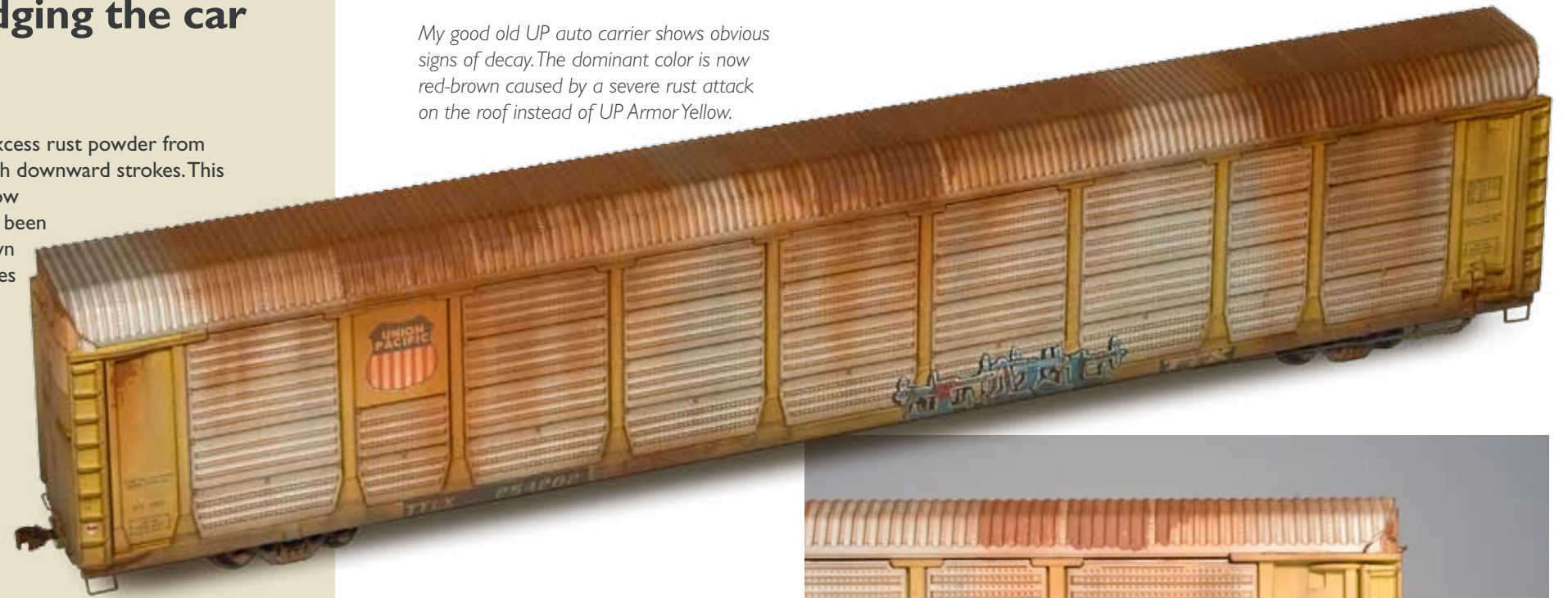
## Smudging the car body

I brushed excess rust powder from the roof with downward strokes. This simulates how the rust has been washed down the car's sides by rain.



The dominant weathering powder on this car is rust, but some brown and black powders are also applied to the sides and to the roof.

The underside and lower area received the usual coat of thinned Model Master Dark Skintone, and after that, the entire body received a sealing coat of flat varnish.



*My good old UP auto carrier shows obvious signs of decay. The dominant color is now red-brown caused by a severe rust attack on the roof instead of UP Armor Yellow.*



*This close-up shows the molded steps on the ladders have been carved away and replaced with wire. The plastic stirrup steps have been cut off and new ones were made from flat brass bar. I also added a brake chain and rod to the car.*



*Here's another auto carrier that received a treatment similar to the one described on these pages, except for the modifications of the ladders and steps.*



## Loading a gondola with stainless steel pipes made from aluminum tubes

You can find all kinds of loads in gondolas. I spotted this stainless steel pipe load on one of my recent railfan trips (see photo on page 13), and I had to have one rolling on my HO layout.

I had a hard time finding the right tubes for such a load, but at last I found them in a hobby shop specializing in model airplanes. They had all kinds of light-weight building materials and amongst them were 3mm (1/8") aluminum tubing. Not only were they the perfect size, they could also be used as they were. The aluminum looked pretty much like stainless steel and no painting was necessary.

### Cutting the tubes

The tubes came in one meter (3.3-foot) lengths. I needed a total of 60 pipes, each 34 scale feet long.

Aluminum is soft, and I found that the easiest way to cut the tubes was with a very sharp knife. I placed the blade on the tube with a moderate pressure and rolled the tube back and forth till it separated.

I sanded the ends of the tubes by holding them lightly against a rotating cutting disk. To make the pipes look more realistic I widened the holes in the ends with a high-speed cutter.

### Assembling the load

The pipes are not just tossed in the gondola but stacked carefully and supported by wood and straps. I made two wood braces as support for the pipes from pieces of stripwood.

Each brace consisted of two horizontal



beams and six vertical posts—three on each side.

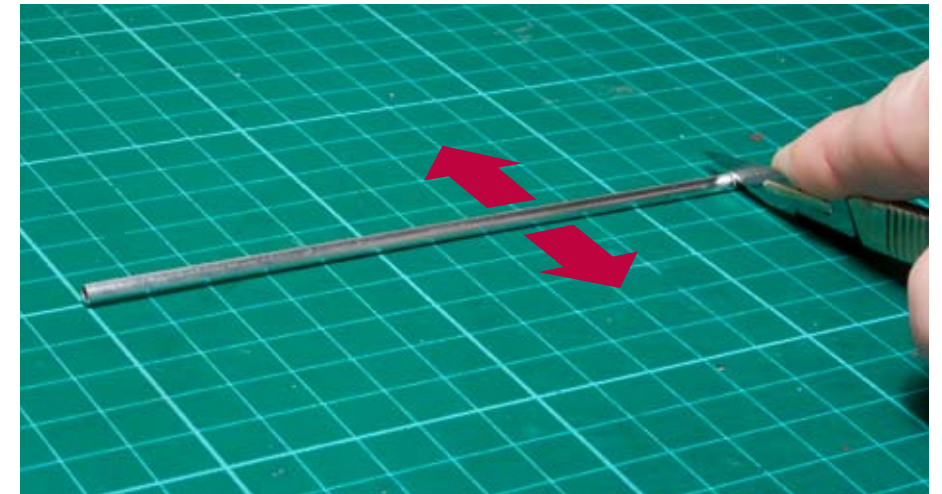
I stacked the pipes between the posts and glued down eight pipes, which formed the first layer, to the horizontal beams on which the entire load will be resting.

I then placed seven pipes on the first layer. Then, I put eight pipes on top of the seven and so forth until I reached a total of eight layers. Each layer was glued to the pipes below.

Both ends of the pipe stack were wrapped with three thin strips of black tape. I secured the tape below the load with super glue.

The load was fastened with six straps glued to the vertical wood posts. For the straps, I used the heavy version of EZ Line, which was glued to the posts with super glue.

I placed the load in one of my Athearn gondolas. However, I did not glue it to the freight car as it seemed heavy enough not to shift, without being glued. A couple of test runs put my mind at ease about it.



The aluminum tube can be cut with a sharp knife. Press the knife blade against the tube and roll it back and forth till it separates.



The ends of the pipes are sanded smooth by holding them lightly against a rotating disk cutter.



Widening the pipe openings with a high-speed cutter thins the material and gives the pipes a more realistic appearance.



## Easy-to-make removable loads for your open hoppers

One of the easiest freight car loads to make is a load for an open hopper. And the most common type of loose-material load is probably coal. Others are ballast or rock, also easy to model.

It seems most hopper models come with plastic loads nowadays, so why bother to make your own? The problem is that the loads just didn't look realistic enough for my taste. Plastic will always look like plastic.

One thing to watch for is that the load is removable. This is handy if you also want to run the hopper empty.

The easiest way to make a better-looking coal load is to simply apply a new load on top of the plastic load. That way you still have a removable load, but one that's better looking than the plastic version.

This one took less than five minutes to complete, which you'll appreciate if you need to model an entire coal train consist. All you need for the job is a bag of model coal and some white glue. Various manufacturers of scenery products offer coal in different sizes.

I used Woodland Scenics Mine Run Coal for this Athearn hopper load. I brushed the top of the plastic load with a

layer of slow-drying glue, and then sprinkled coal on the wet glue until the surface was completely covered. After a couple of hours when the glue had dried, I shook all loose material off the load and placed it back in the hopper.

I make loads for my ballast hoppers the exact same way. Instead of gluing coal, I just use some ballast left over from when I ballasted my track.

## Making a coal load

I removed the hopper's plastic load and brushed a layer of white carpenter's glue on the top surface, being careful not to get any glue on the sides.



Then I poured a layer of Woodland Scenics coal on the wet glue. I gently pressed the coal into the glue with the tip of my finger. After the glue had dried, I held the load in a vertical position while I tapped it a couple of times on the back side to knock off any loose material.



What could be simpler? This Athearn hopper looks so much better than it would with a plastic load.

