

# Modeling a Plywood-Sheathed PFE -9 Rebuild

Ted Culotta

Hindsight 20/20 12.0

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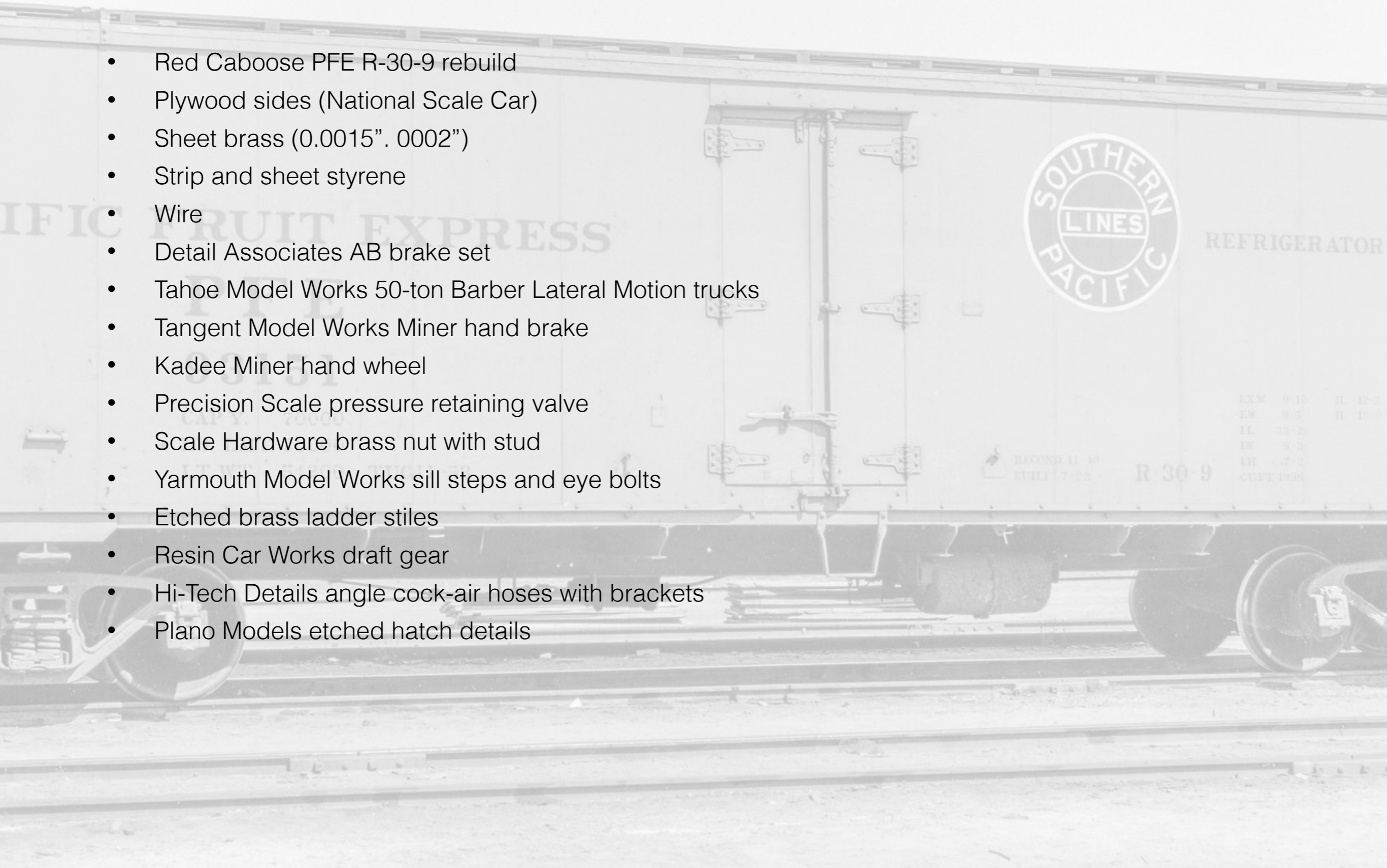
# Thank you

- Bill Welch
- Al Hoffman
- Bat Masterson
- Bob Heninger
- Dick Harley
- Tony Thompson
- Ryan Mendell



# Parts

- Red Caboose PFE R-30-9 rebuild
- Plywood sides (National Scale Car)
- Sheet brass (0.0015" . 0002")
- Strip and sheet styrene
- Wire
- Detail Associates AB brake set
- Tahoe Model Works 50-ton Barber Lateral Motion trucks
- Tangent Model Works Miner hand brake
- Kadee Miner hand wheel
- Precision Scale pressure retaining valve
- Scale Hardware brass nut with stud
- Yarmouth Model Works sill steps and eye bolts
- Etched brass ladder stiles
- Resin Car Works draft gear
- Hi-Tech Details angle cock-air hoses with brackets
- Plano Models etched hatch details

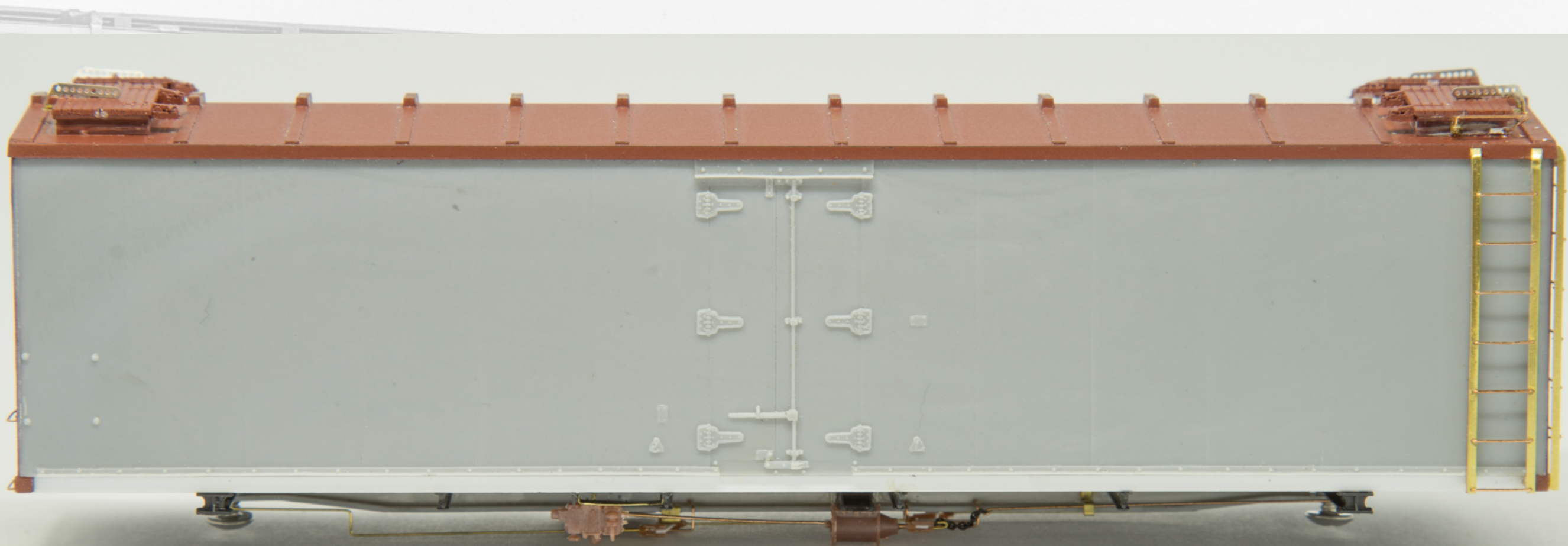


# Pacific Fruit Express - R-30/40-9



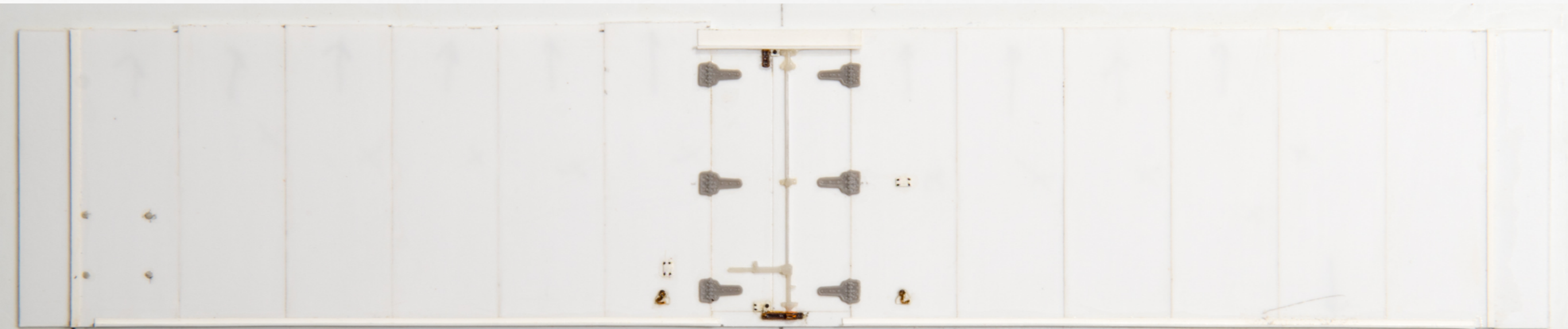
At the same time that the -24s were being rebuilt, many refurbished -9 cars required service. Numerous -9s received plywood side sheathing in the late 1940s. The ends retained tongue and groove sheathing boards. Documented car nos. include 93151 shown above, as well as 91593, 94242, 94789 (page 247, *PFE, 2nd Ed.*,) and 64771 (a -21 rebuild.) For more info, see page 148 of *PFE, 2nd Ed.*

# Modeling the Pacific Fruit Express - R-30/40-9 where we left off last time...



Note that while I will be discussing HO scale models, most of the material can be used for other scales, notably O, where a Red Caboose model exists

# Modeling the Pacific Fruit Express - R-30/40-9



0.005" styrene 6 scale inches tall

HO scale 1x3 on edge

Hardware from Red Caboose

Grandt Line details

0.010" square  
styrene strip

Grandt Line hinges

3" x 6" 0.005"  
styrene with N-  
scale Archer rivets  
(same on other side)

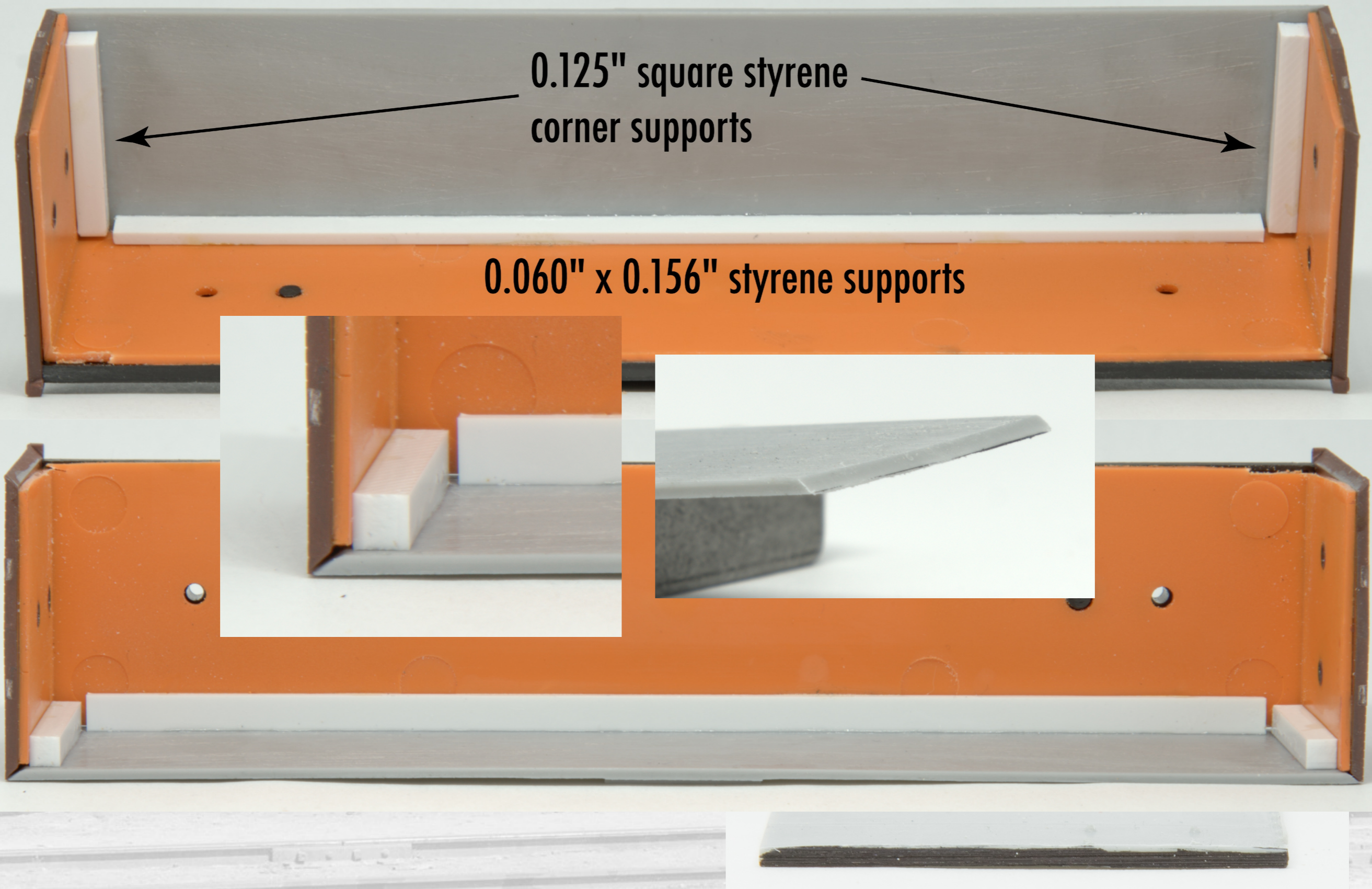
Grandt Line details

Hooks harvested from  
Red Caboose over  
0.005" styrene

Hardware from Red Caboose



# Modeling the Pacific Fruit Express - R-30/40-9

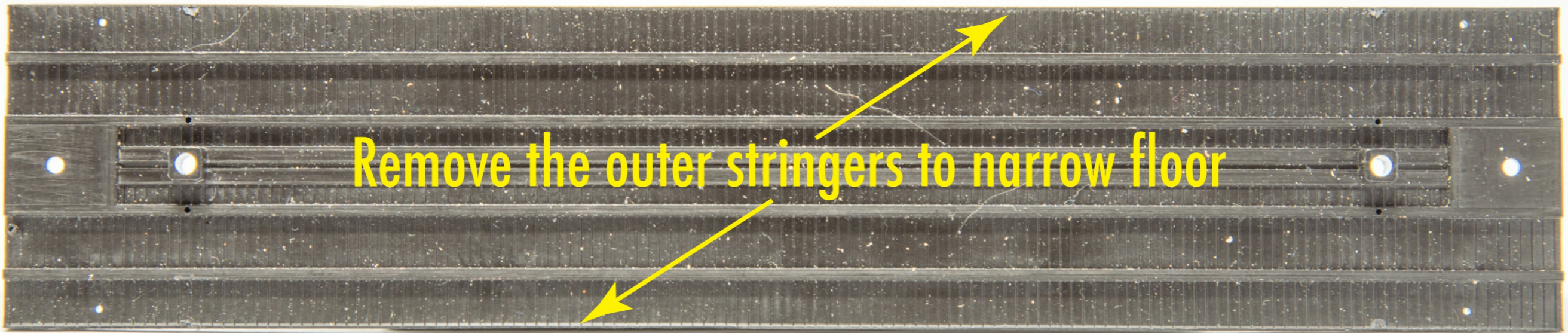


0.125" square styrene  
corner supports

0.060" x 0.156" styrene supports

The corners of the sides are mitered as on the Red Caboose kits

# Modeling the Pacific Fruit Express - R-30/40-9



Remove the outer stringers to narrow floor

The floor was narrowed to allow the addition of new stringers/side sills





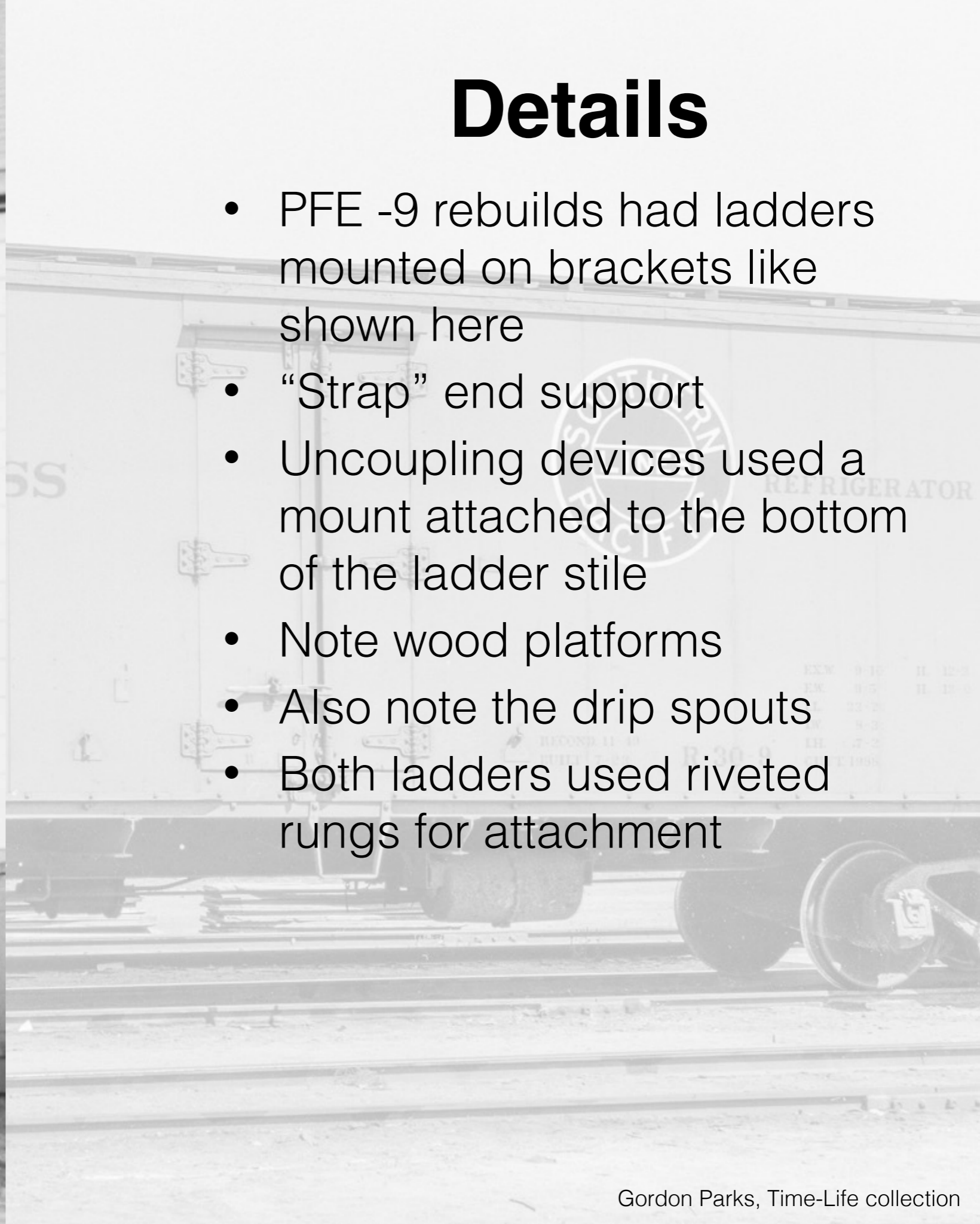


# Details

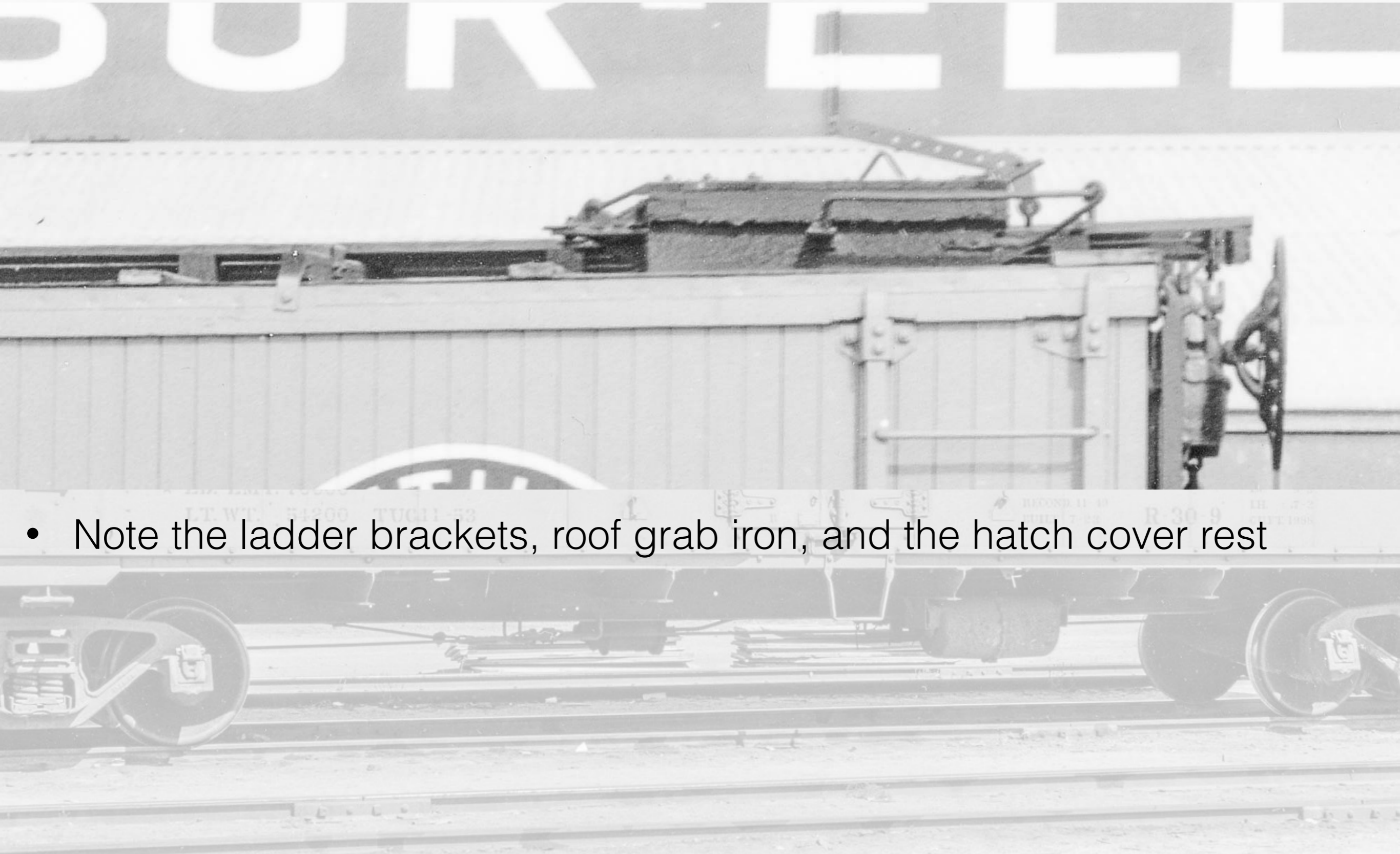
- PFE -9 rebuilds had ladders mounted on brackets like shown here
- Uncoupling devices used a mount attached to the bottom of the ladder stile
- Note hatch corner grab mounted to roof eaves; this was typical of Equipco hatch cover cars; wood hatch cover cars had the grabs mounted to the faces of the hatch openings
- Also note the drip spouts, bolster castings, and trucks

# Details

- PFE -9 rebuilds had ladders mounted on brackets like shown here
- “Strap” end support
- Uncoupling devices used a mount attached to the bottom of the ladder stile
- Note wood platforms
- Also note the drip spouts
- Both ladders used riveted rungs for attachment

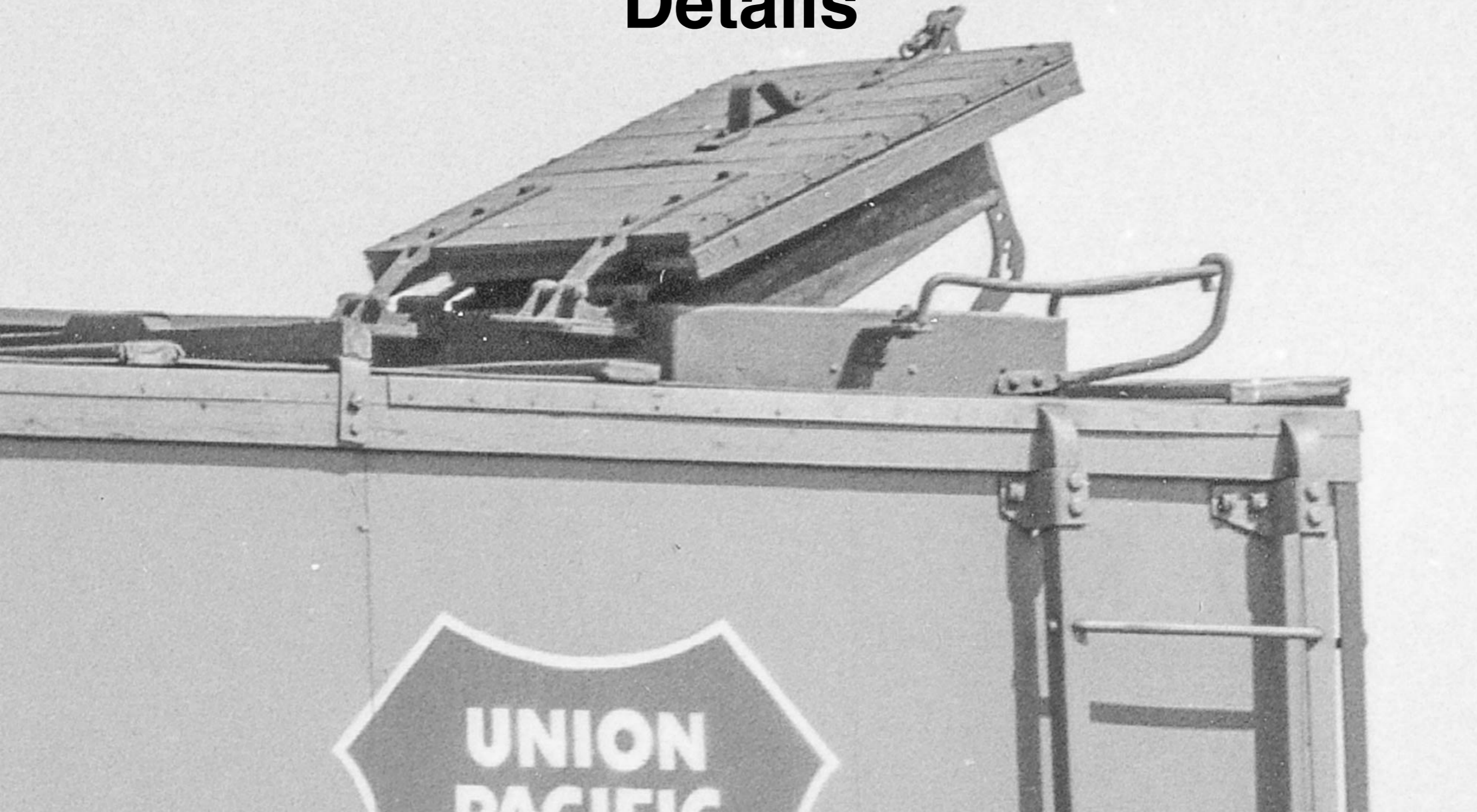


# Details



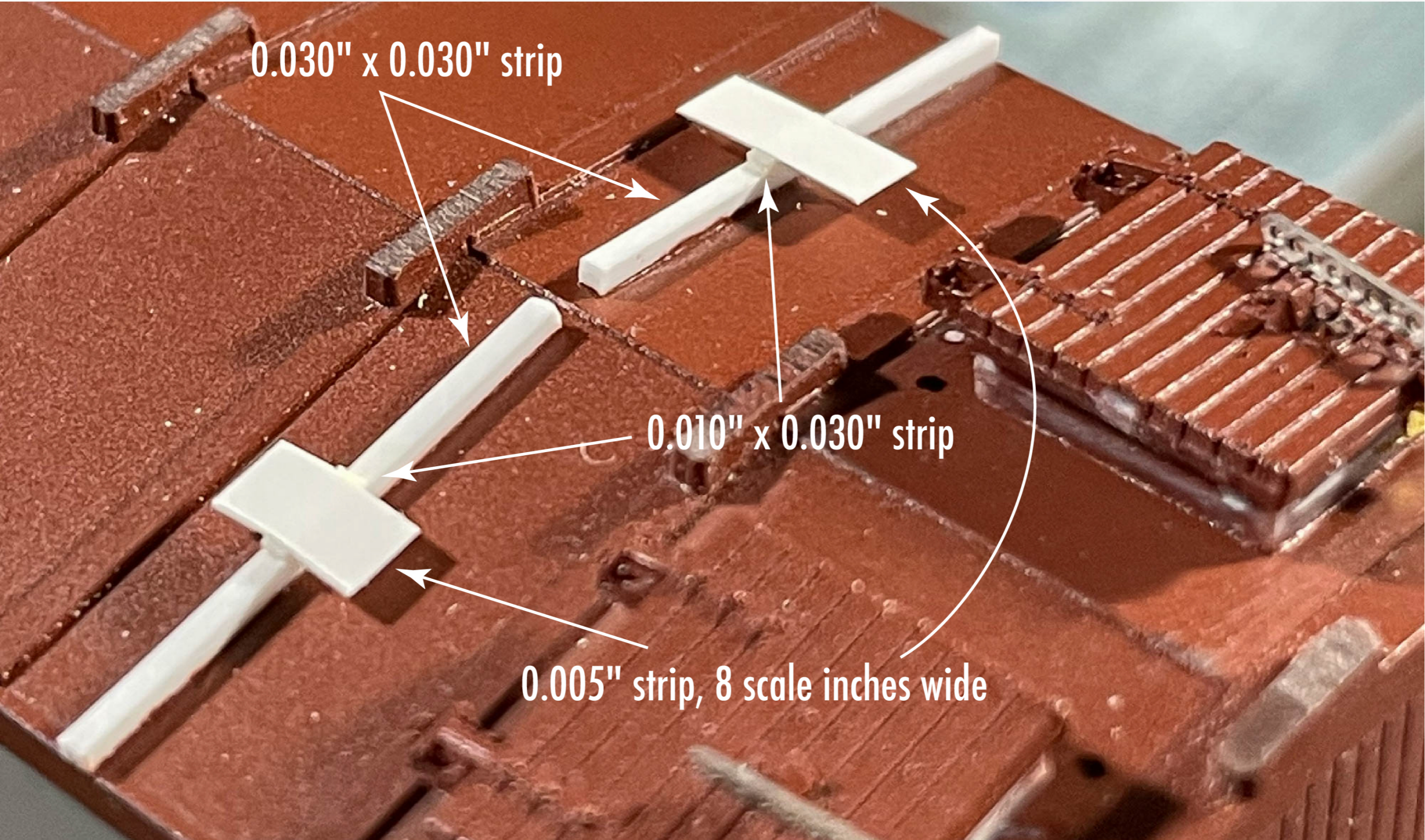
- Note the ladder brackets, roof grab iron, and the hatch cover rest

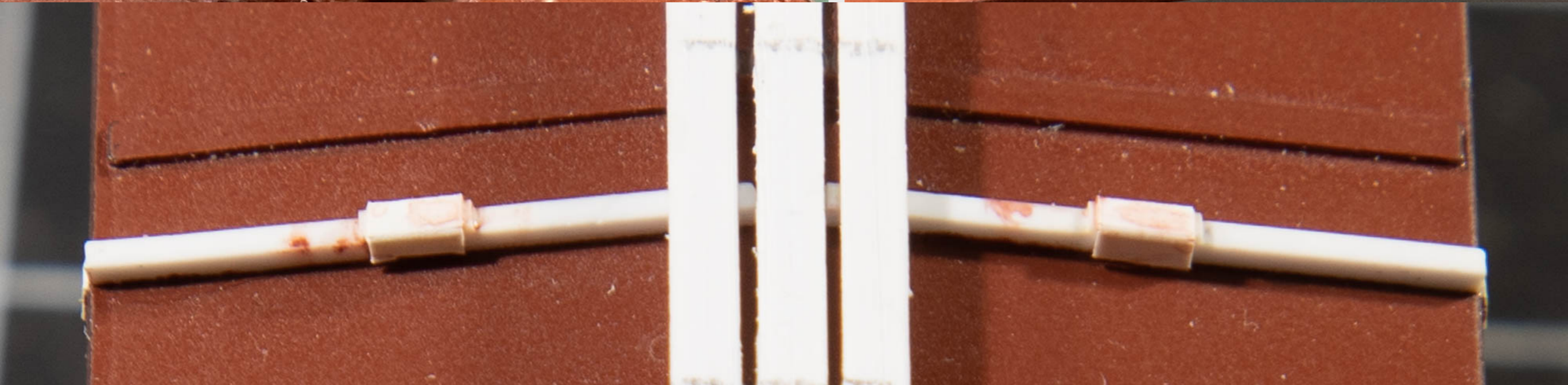
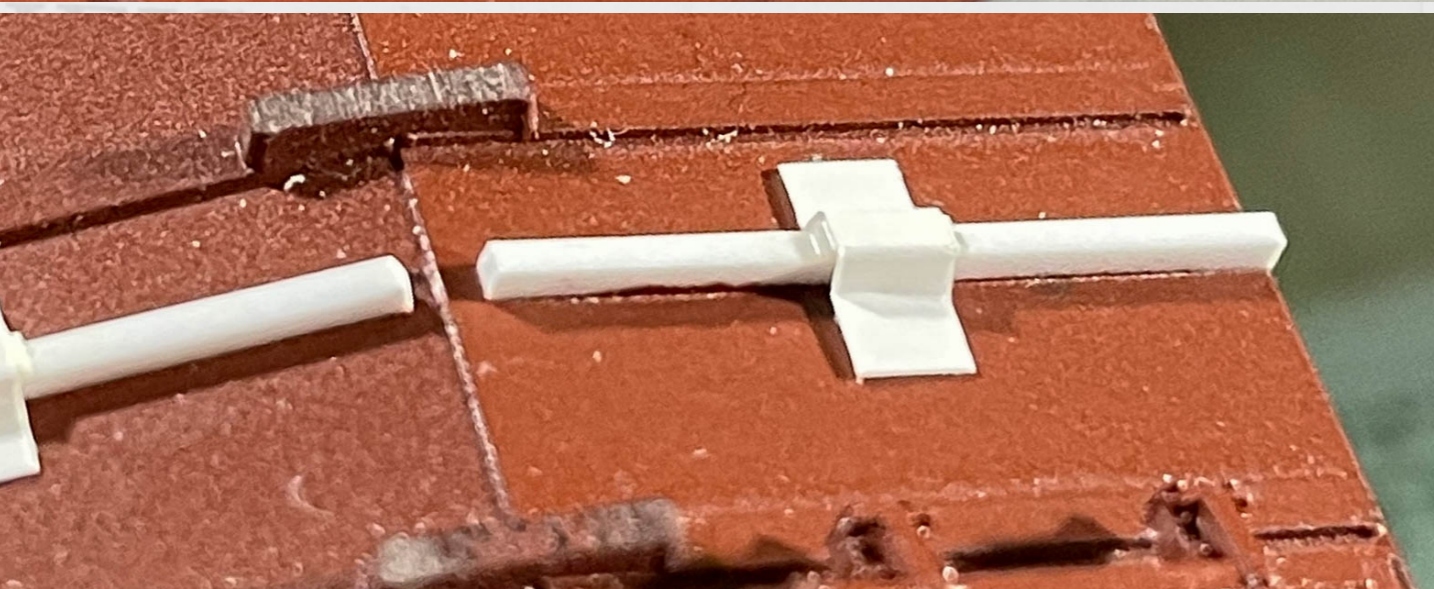
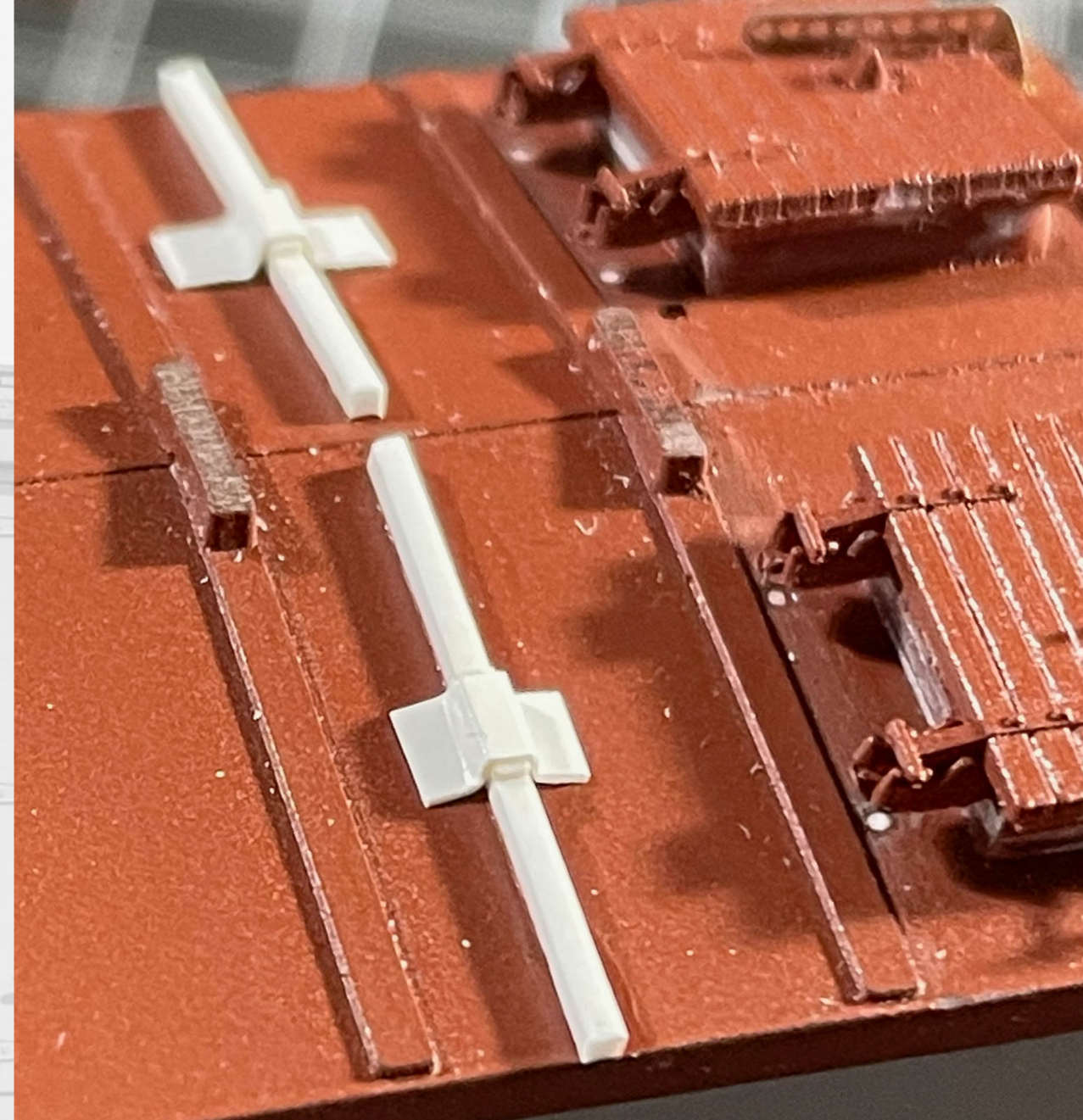
# Details

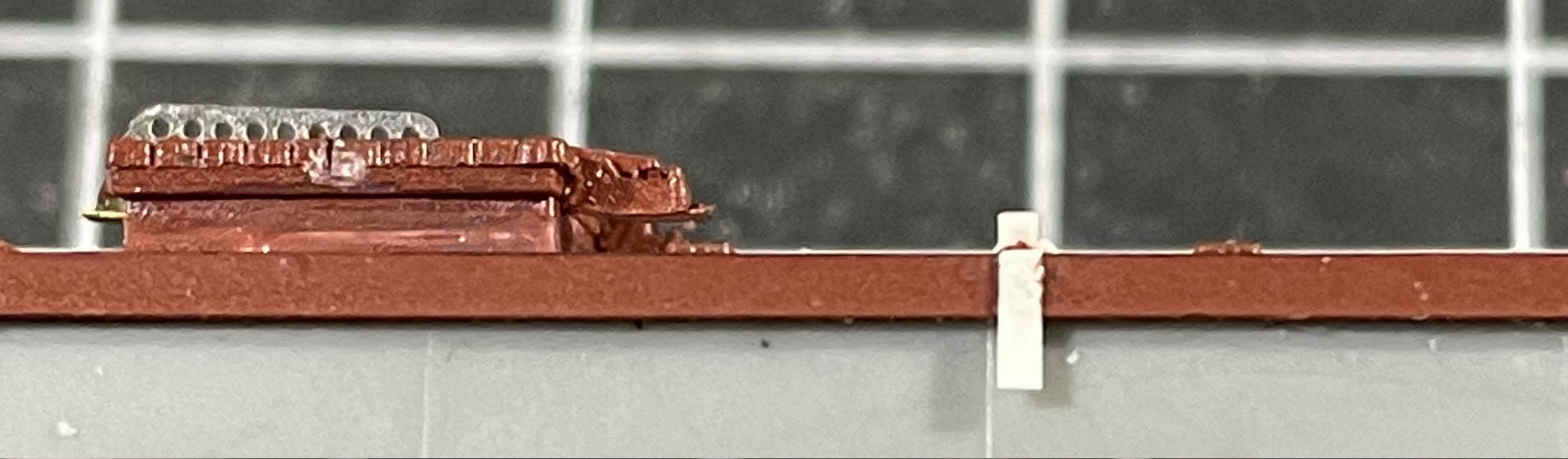


- Again, note the ladder brackets, roof grab iron, and the hatch cover rest

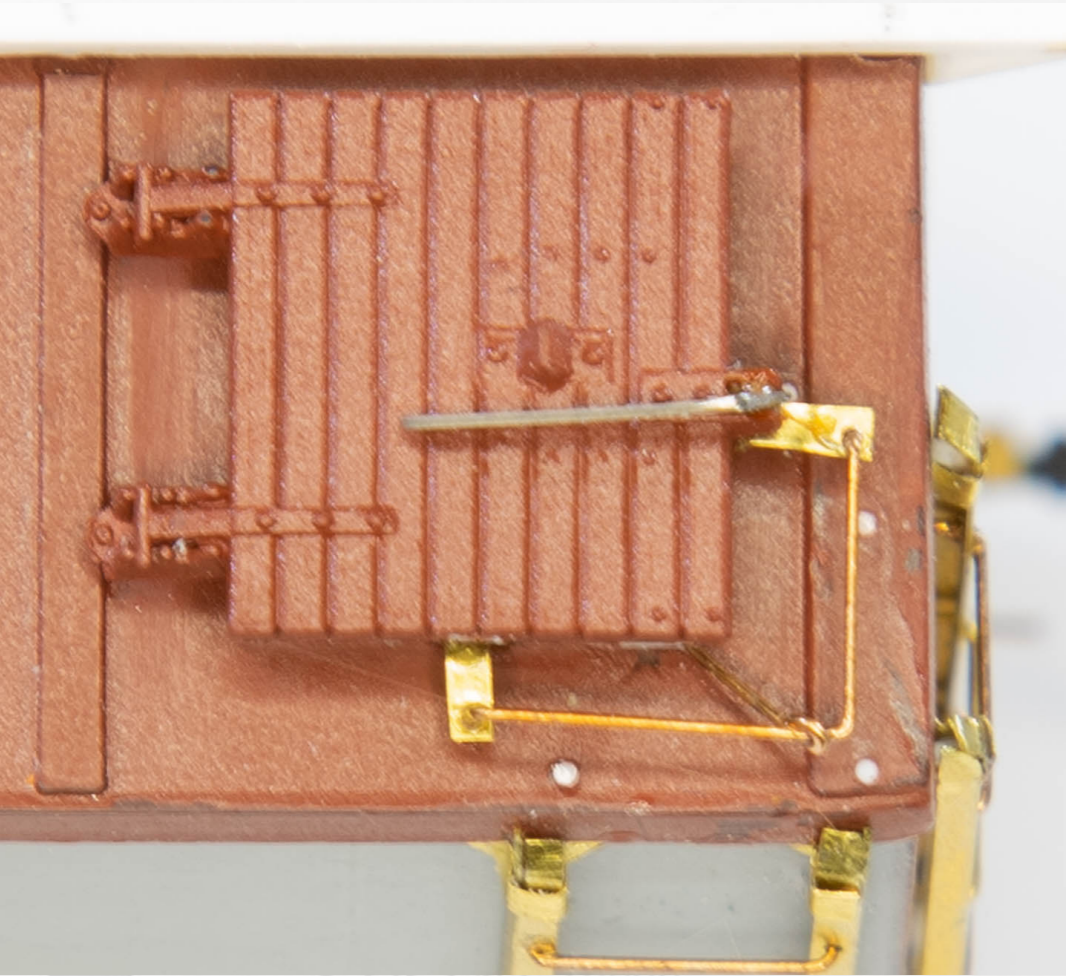
# Roof hatch rest details







# Roof corner grab irons



- Sheet brass cut into strips
- Grab bent from 0.010 wire
- Corner piece bent from 0.008 wire





# Running boards

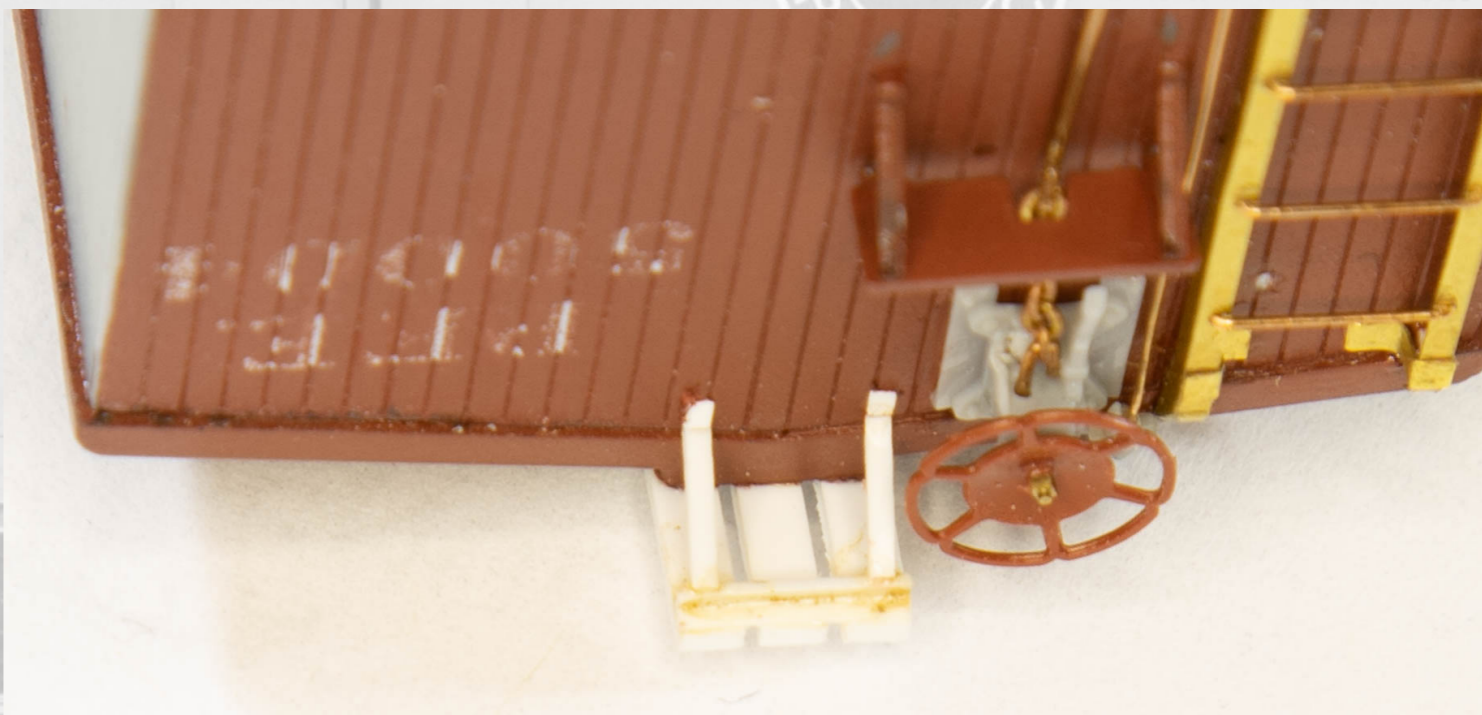


- Three strips of 0.010 x 0.060 strip styrene
- Center strip glued in place first, eyeballed to be in the center of the roof line
- Two outer strips attached using 0.015 spacers (shown in place at left portion of roof)

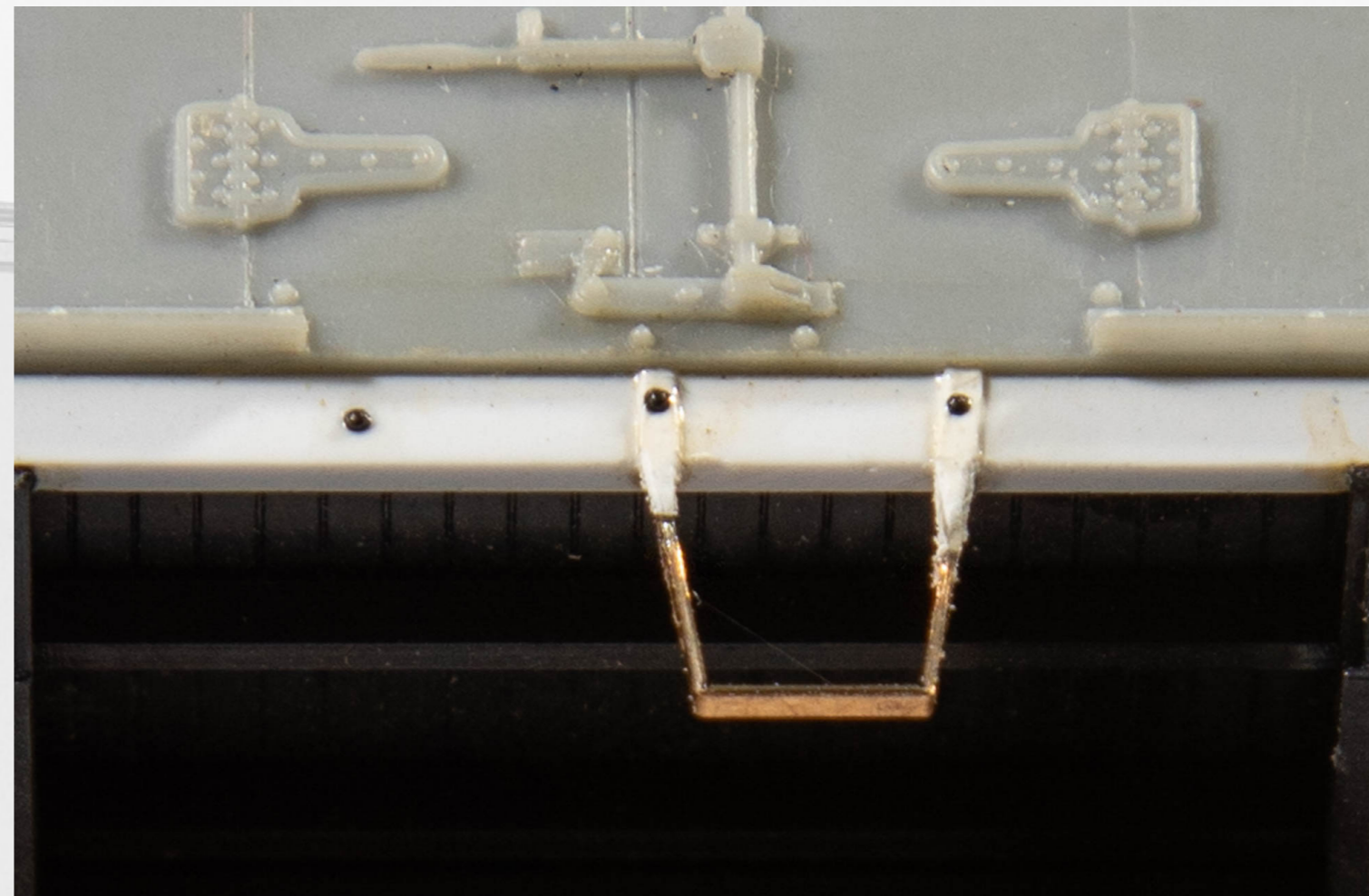
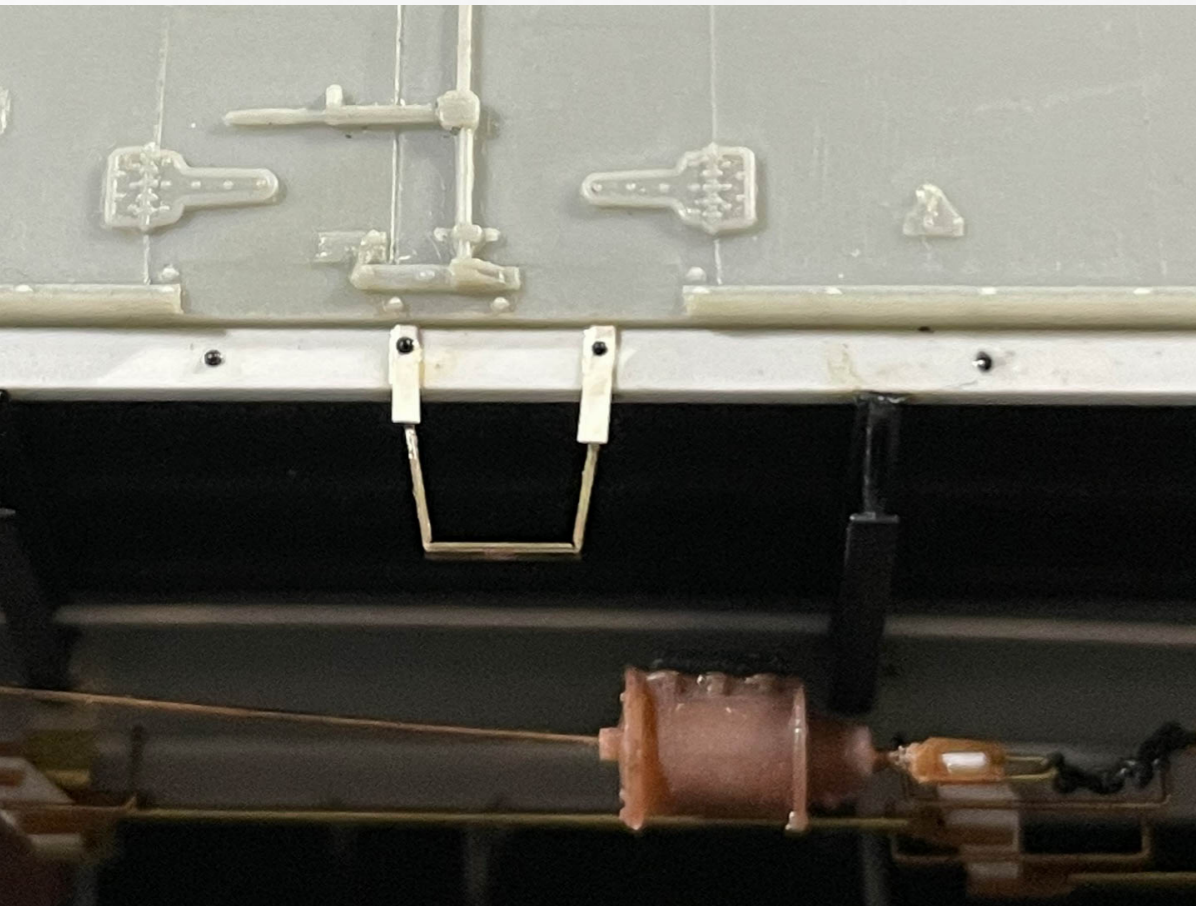
# Running boards



- Three strips of 0.015 x 0.060 strip styrene over the existing strips, lightly textured with sandpaper. Note the “breaks” in the boards, as well as the simulated bolt locations
- End supports = “angle” on underside create by 1x2 and 1x3 strips butted to create an ‘L’
- The diagonals are 0.010 x 0.030 with 0.030 wide 0.005 styrene “ends” on the car ends



# Sill Steps



- Yarmouth sill steps inserted into side sill (strip styrene)
- 0.030 wide 0.005 styrene strips
- Blended and shaped, with harvested rivets added
- Check/confirm locations with prototype photos

# Defect Card Holder



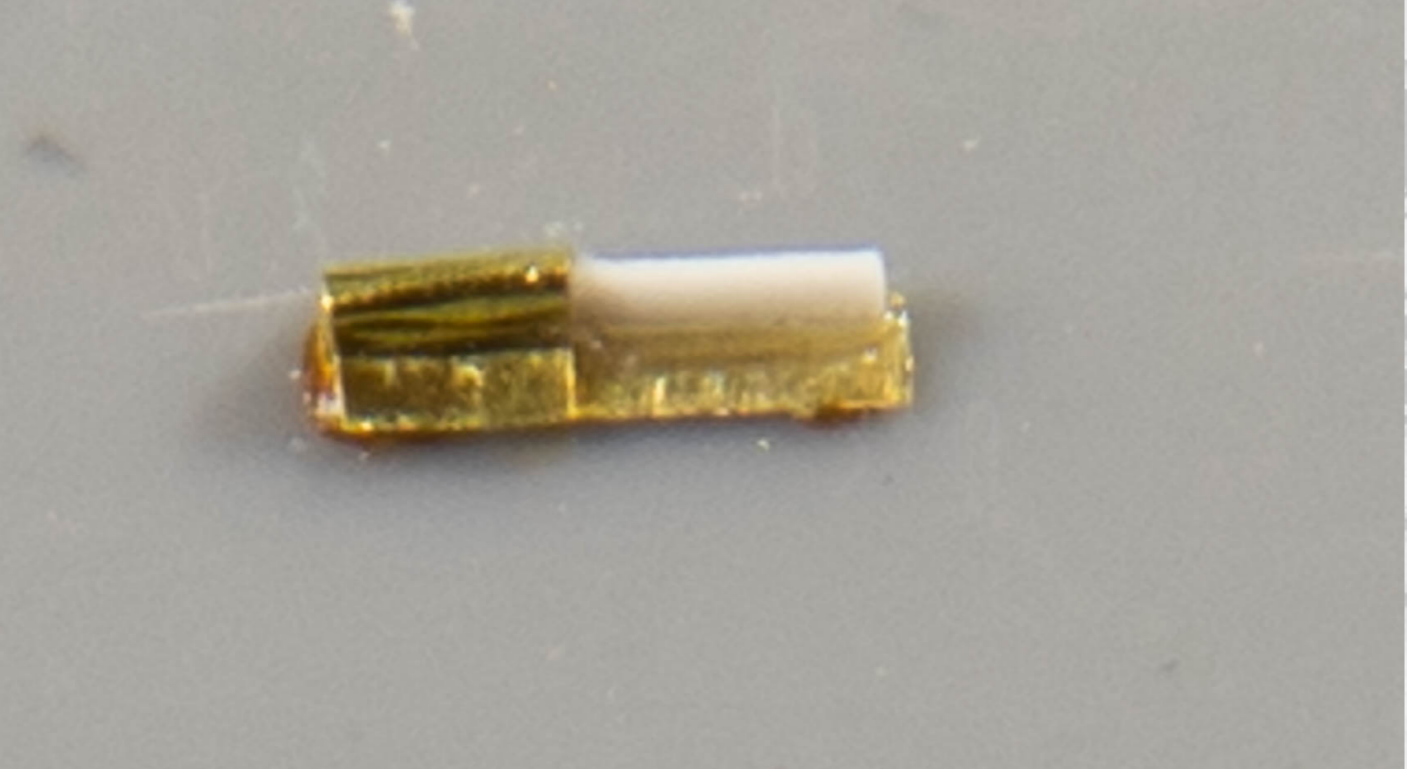
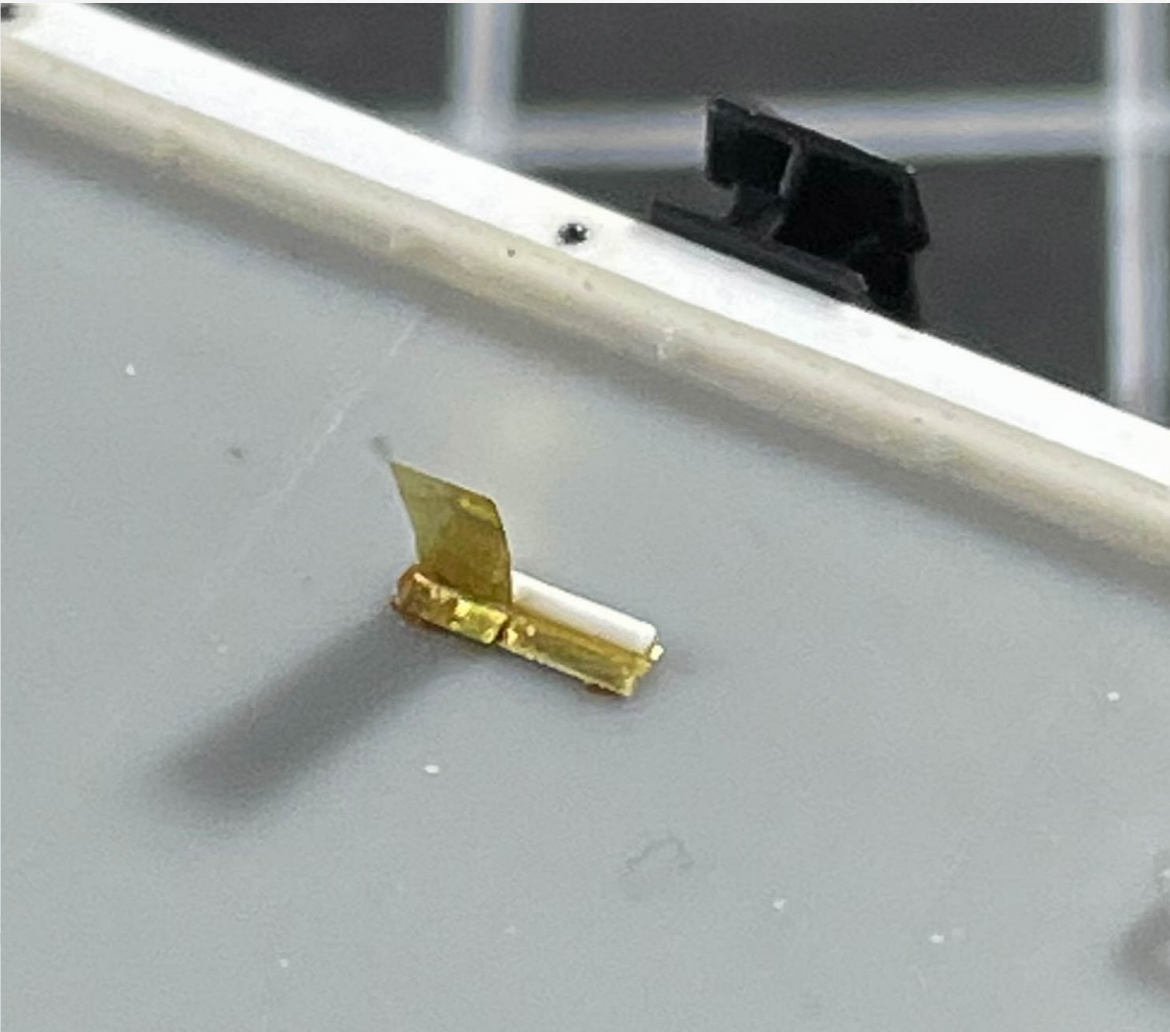
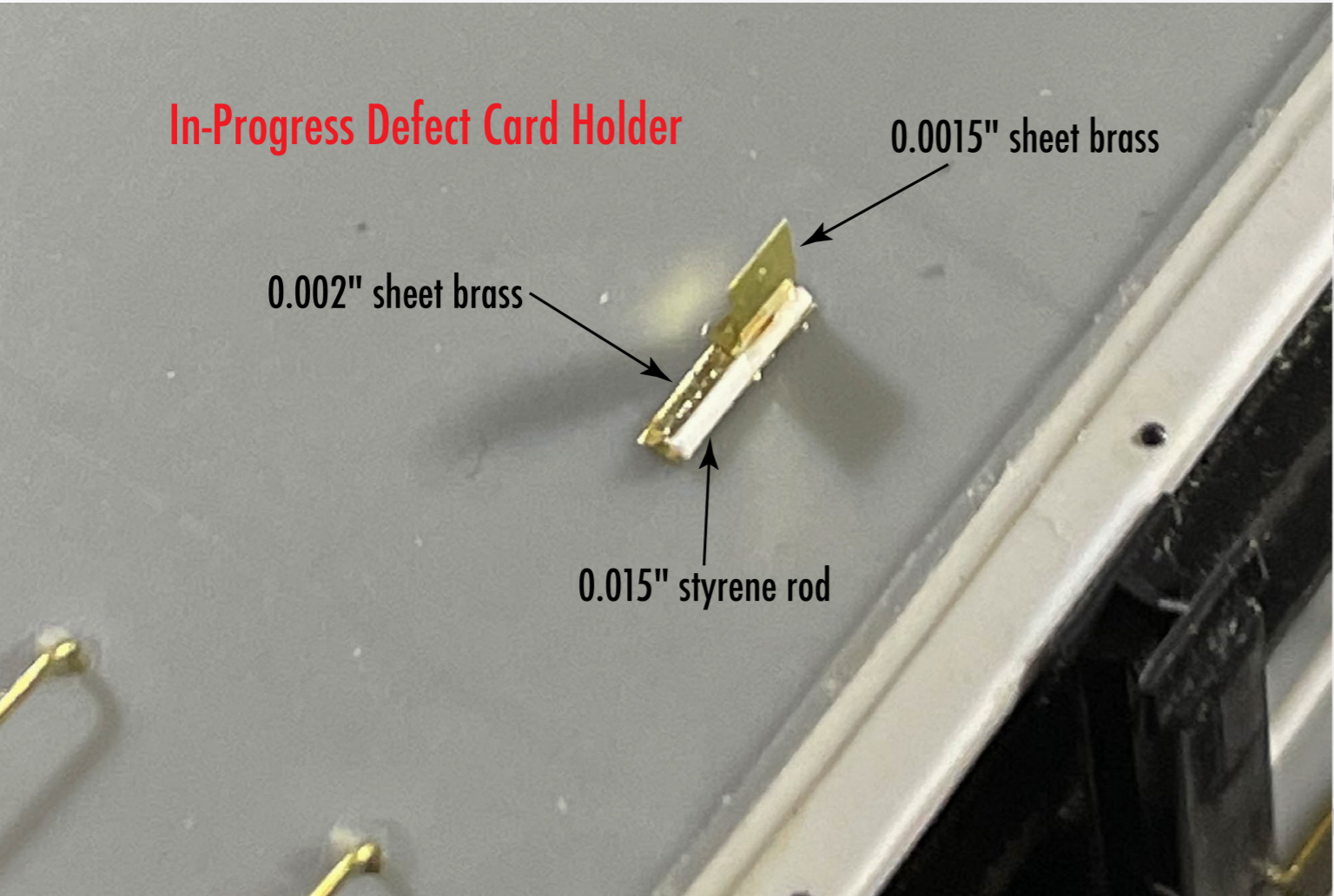
# Defect Card Holder

In-Progress Defect Card Holder

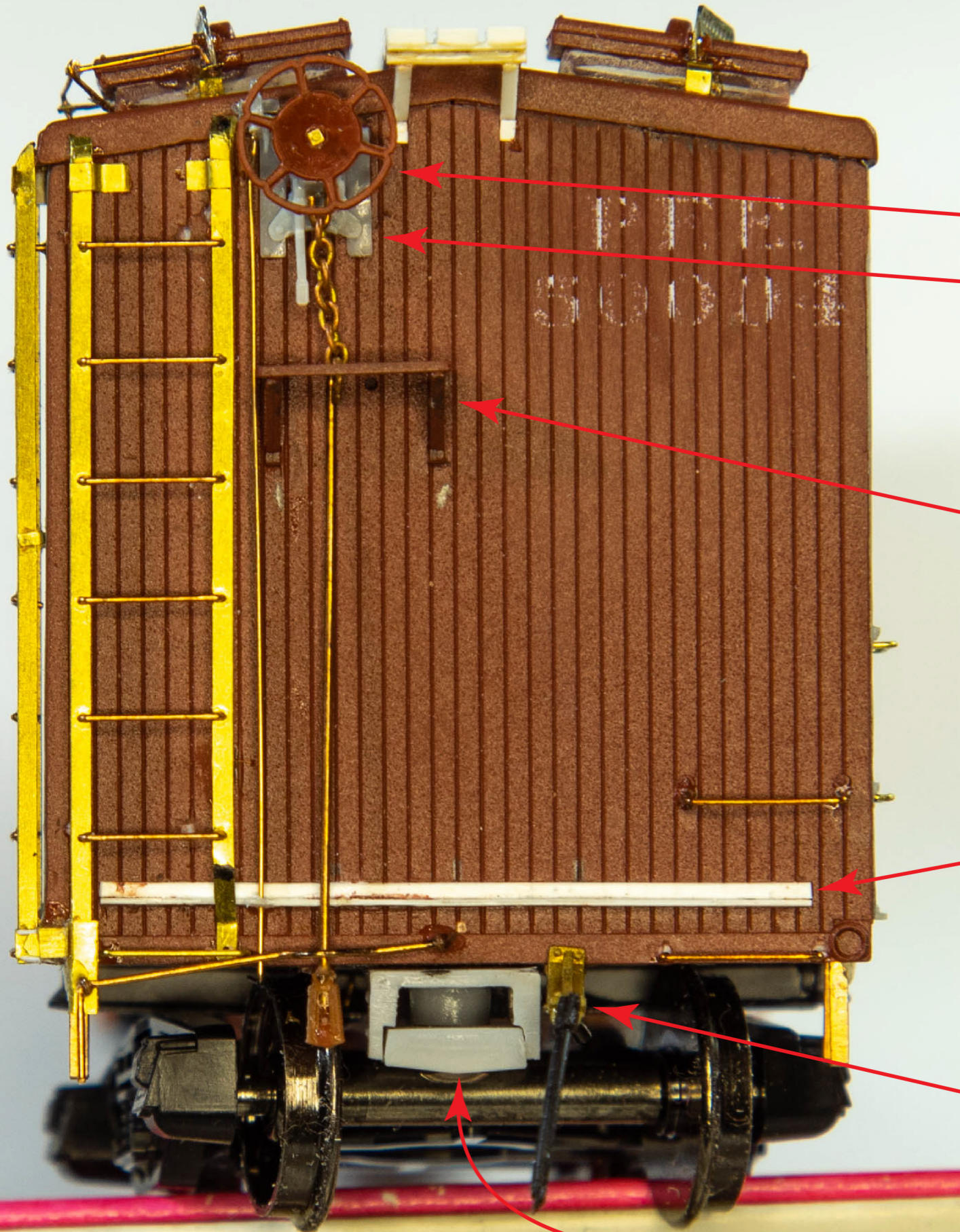
0.002" sheet brass

0.0015" sheet brass

0.015" styrene rod



# End Details



Kadee Miner hand wheel

Tangent Miner power hand brake

Kit step and supports (supports are "simplified")

End angle - 2-inch wide 0.005" strip against end and 0.010" x 2 scale inch strip on edge

Hi-Tech Models angle cock air hose plus cast bracket

Resin Car Works draft gear

Precision Scale pressure retaining valve

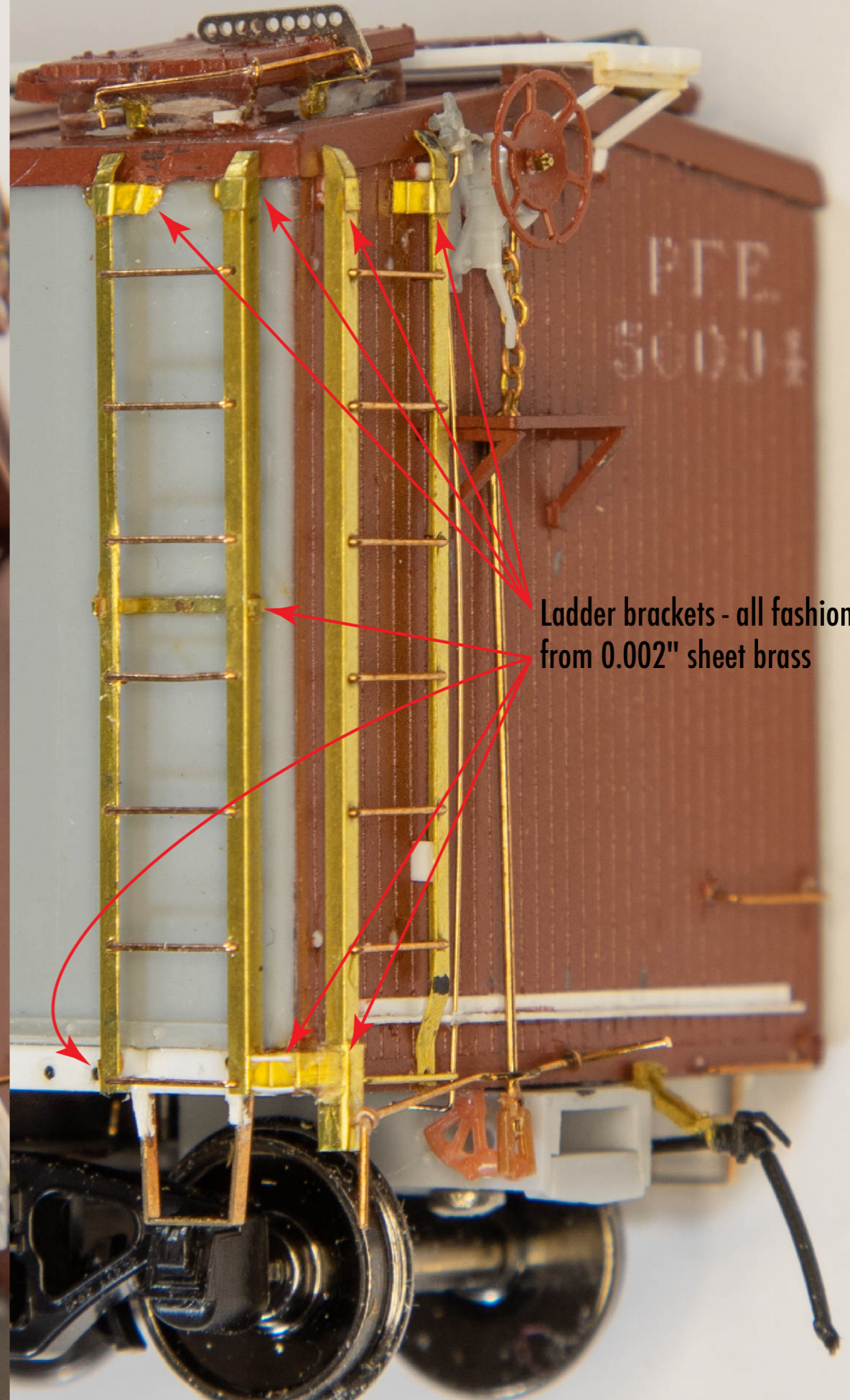
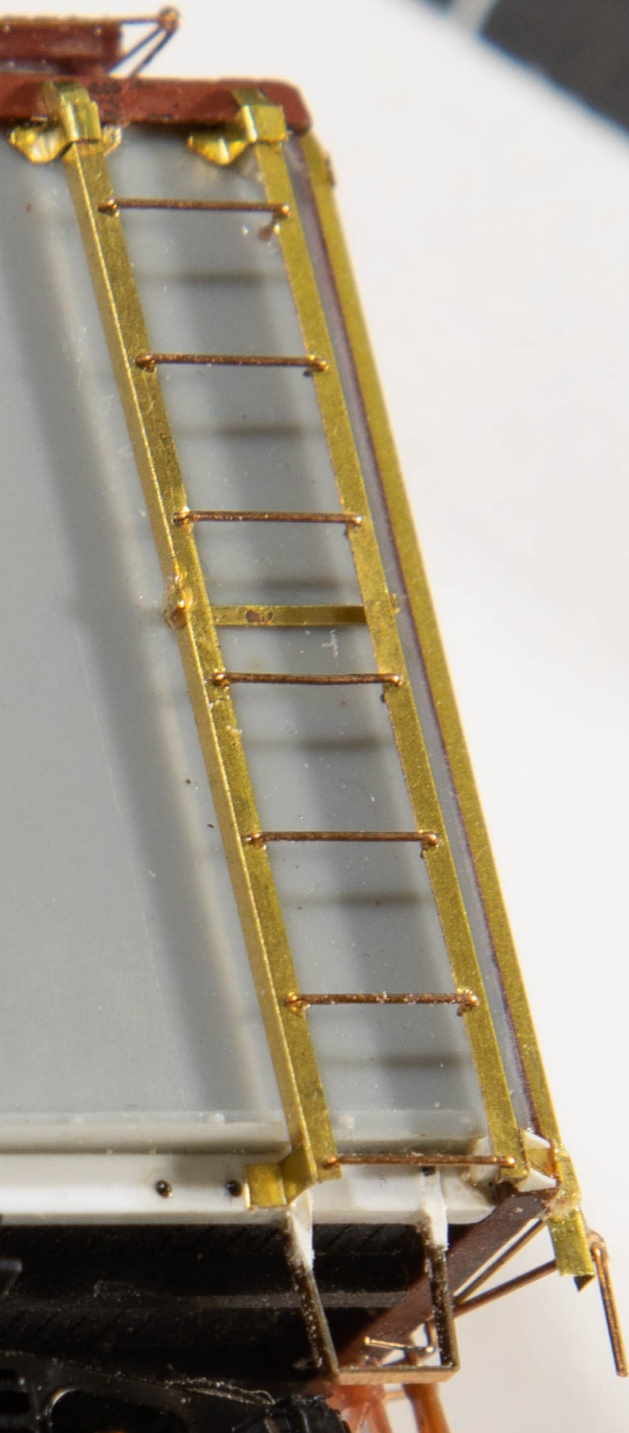
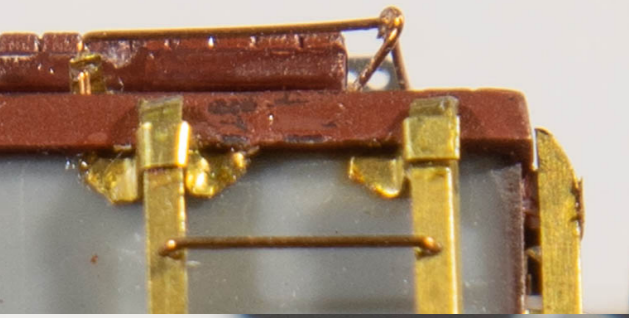
Ladder brackets - 0.002" sheet brass

Angle for uncoupling device -  
0.002" sheet brass



## End Details

# Ladders



Ladder brackets - all fashioned from 0.002" sheet brass



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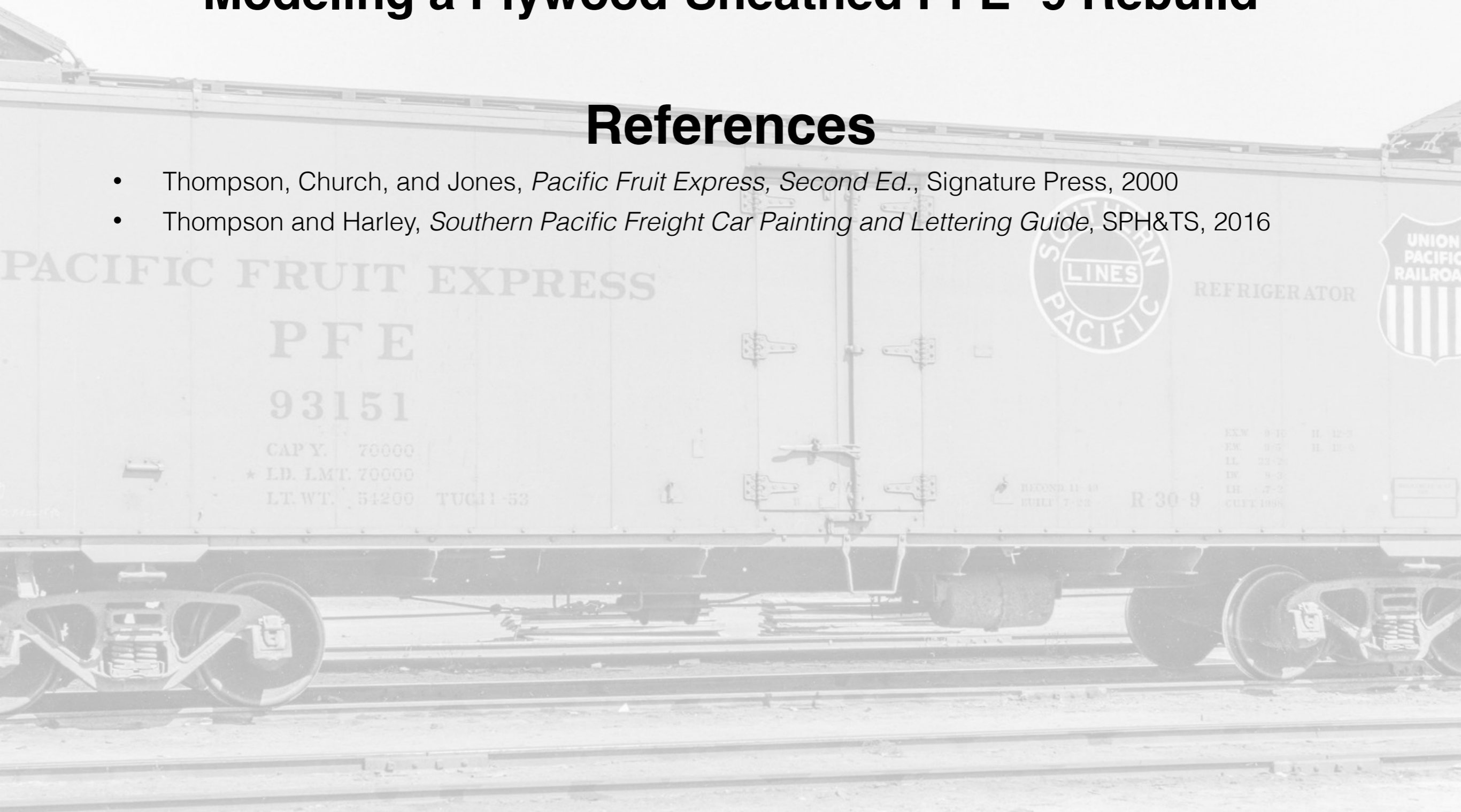
To be continued...

- Blasting
- Rivets, bolt heads, etc.
- Painting
- Lettering
- Weathering
- Results will be described and posted to my blog

# Modeling a Plywood-Sheathed PFE -9 Rebuild

## References

- Thompson, Church, and Jones, *Pacific Fruit Express, Second Ed.*, Signature Press, 2000
- Thompson and Harley, *Southern Pacific Freight Car Painting and Lettering Guide*, SPH&TS, 2016



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