Improving Tender Appearance on Mantua Generals
By LeBron Matthews

The locomotive Gazelle with reduced gap between locomotive and tender

1. **Deck** – Using a scrap piece of basswood, I raised the front deck to the same height as the rest of the tender frame. I fabricated a wood deck using scale 2x10 basswood strips. [Note: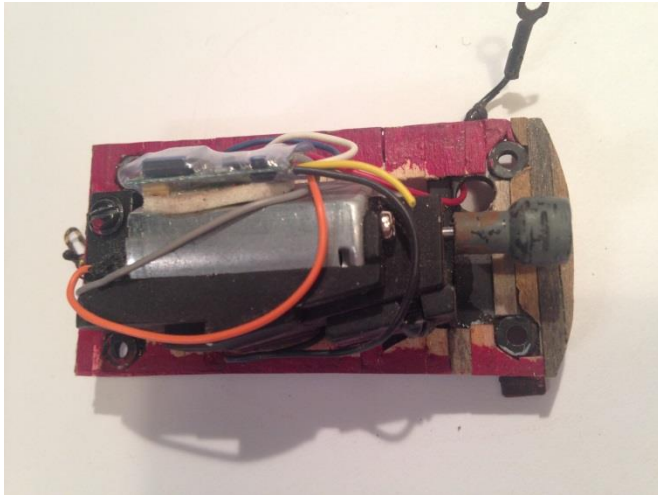 *You will need to omit deck below motor.*] Using a cutting disk in my Dremel™, I cut a triangular section off of the outside third of the front on each side. Then using a file, I rounded the front as shown in figure 1 at left. I cleaned the curve with sanding paper.

Figure 1

Note: Before adding the deck, I used a file to remove the slight "s" shape of the outside of the frame, making it vertically flat. I then distressed the metal to give a simulated wood appearance. I also drilled holes and inserted nut and washer castings. See prototype drawings or photographs for your locomotive since these differ in various locomotives.

2. **New Drawbar** – I fabricated a new drawbar from .040" thick styrene (see figure 2 below). I drilled two $^5/_{32}$" dia. holes @ ½" o.c. to fit over the nipples in the engine and tender frames.
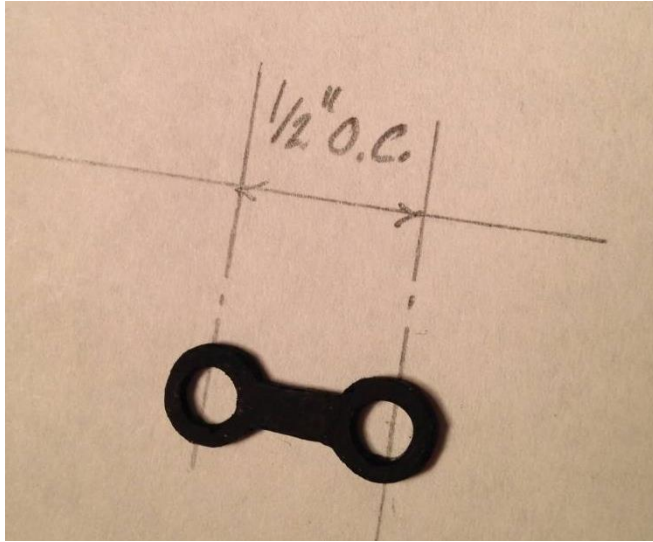

Attach to the locomotive as per manufacturer's design. Test turnouts and curves on your layout to insure the curved front gives sufficient clearance in turning. I have 15 in. curves on my layout and the locomotive shown runs fine.

Figure 2

3. **Wire Connector** – The stock connector that attaches the wire from the motor to the engine is too long. With the new drawbar it bumps wheels on the tender and the screw holding the drawbar in place. This contact causes a short that interrupts operation. Therefore I cut the metal extension in half (see figure 3 below).

4. **Assemble and Detail** – Complete the rest of the tender as desired. I cut out the raised motor housing so that I can add a prototype deck with a water hatch. I cover the motor with the wood load. I also add water valves, hooks, and other details using Precision Scale brass parts.

Figure 3