# A Technique for Bending and Laying Curved Gargraves Track

Well-formed smooth curves on any model train layout are impressive. They not only look great but they also allow for a much more realistic appearance of the trains themselves. When weathered, Gargraves hi-rail track is very realistic, but there's always the issue of bending the track and installing it so that the curves are smooth and the joints between sections are smooth. The purpose of this write-up is to document one technique for doing this that I have used throughout my layout.

Below are two illustrations of curves on my layout. They have true radii of up to about 85-inches (O-170). Although these are generous curves, tighter curves also lend themselves to this technique which I have also used on my layout.
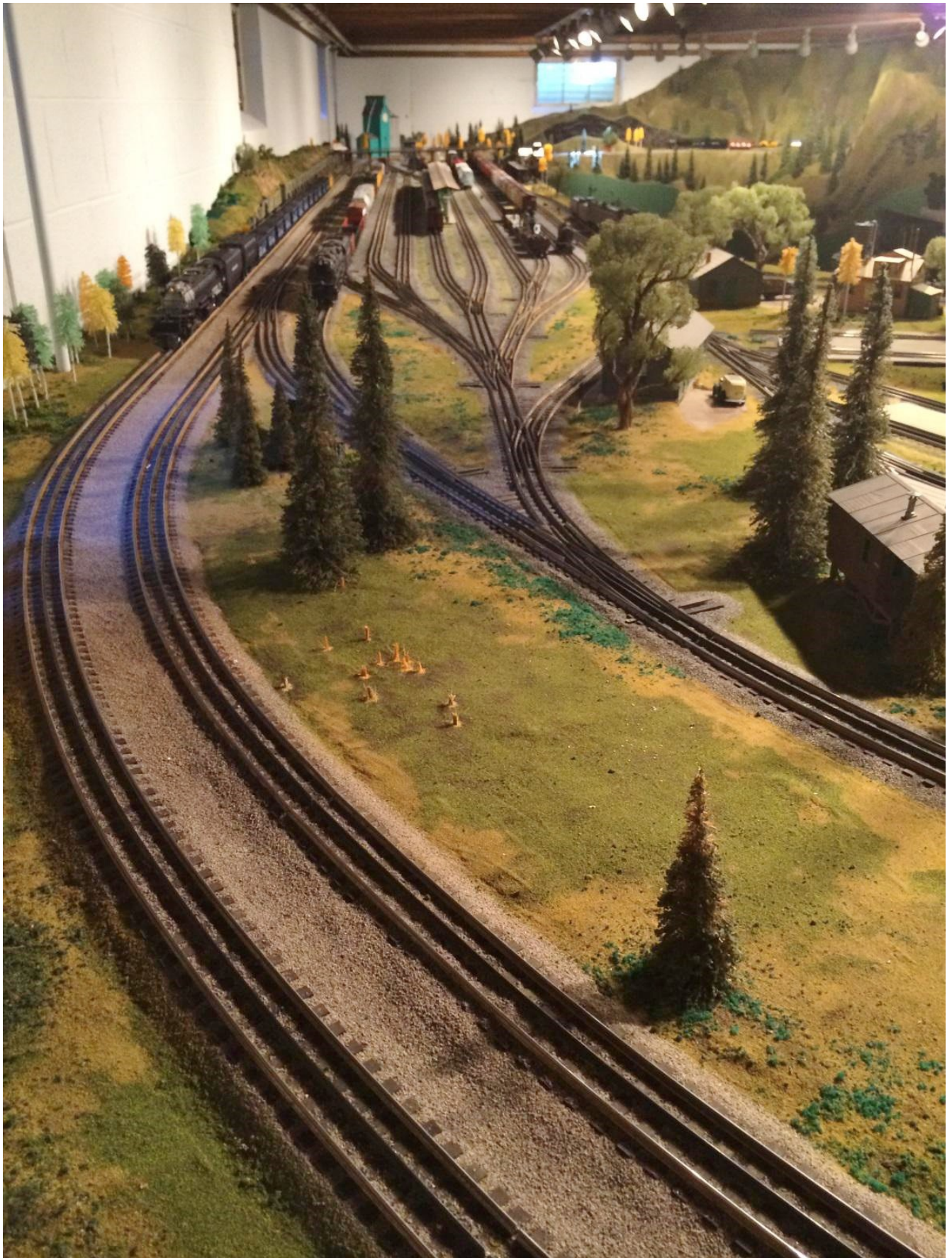
The first thing I did was to build a bending fixture which is shown below.

This fixture is made of several layers of plywood which have curves of various radii. If you are bending track to a desired 50-inch radius, you would hold the track on the layer just below it, in this case the 65-inch, and then bend the track around the 50-inch radius. The track will spring back a little so you have to take that into account. The curve will be very good except at the ends. I will explain how to fix that issue below. Once the track is bent you will need to trim the ends. The way I do that is to align one of the ties to the rail ends as a guide, and then using a cutoff wheel on my Dremel trim the ends straight. Be sure to remove any burrs as they would interfere with the smoothness of the completed joints once the various sections of track are laid.

At this point you may wish to weather the track sections. You may wish to do this using an air brush and Floquil rail-brown paint. Clean off the tops of the rails of ny

paint. You can also weather the track after it is laid which is how I did it.

Now that the track is ready to install, we get to work on the interesting part. At least for me, eyeballing the joints was not good enough to produce really smooth joints. You want your trains to go through the curves absolutely smoothly. No jiggles, no bumps.

You will need some way of magnifying any irregularities in the curves as you lay them. The way I did it was to use a crane car with the hook lowered to the middle rail. Any slight movement of the trucks on the car will be magnified at the hook. By moving the car along you can easily see how you're doing.

Start the installation by marking on your table the curve that you want to produce. If you are installing the track on already installed roadbed, that part is completed. The cork roadbed I used has a seam down the middle. That is the position for the middle rail.

Screw the first section of track in several places, aligning along the curve as noted above, but do not screw-down the end of the section of track. With track pins installed in one section of track, press the next section of track into the end of the first installed section, and screw it in place with only one screw about ten inches away from the joint. (That one screw will act as a pivot for that section of track as you finish the joint. You may have to adjust its position.) Other than at the joint, do not install any more screws until the joint is completed. Remember the crane car? Put it on the first piece of track. Screw-pilot-holes in the ties at the joint will help here, so drill them. The holes should be in say the first, third and fifth ties next to the joint in both sections of track. You may not have to use all the pilot holes, but it's easier to drill them at one time. Lower the crane car hook so that it is very close to the middle rail, and then move the car through the joint moving the joint until the car and the hook pass smoothly through the connection. Sometimes it will take a little strength to adjust the joint. Don't be

satisfied with an irregular joint, now is the time to adjust it and properly install the screws. After you are satisfied with the track joint, add additional screws to the newly installed section, but again, not at the next end. Continue as above for all your curves. Take your time…..those smooth curves will be very rewarding.