

# SL-and-N construction blog

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WVFR Senior Member

06-05-2020, 02:10 PM #661

Wow, very nice Dave. This is something I don't think I would ever attempt for myself.

Chuck

deemery Senior Member

06-05-2020, 03:14 PM #662

Quote

Originally posted by user

Wow, very nice Dave. This is something I would ever attempt for myself.

Chuck

I went with these aluminum pieces because they're within my very limited metalworking skill, but still very solid and strong. You can cut them with a hacksaw or with a metal blade in a mitre saw. Everything else goes together with machine screws. Those of you who are mechanically inclined would laugh at my feeble efforts to remember which way tightens the screws, I got this wrong earlier today and had to reset the hinge on the one side of the bridge. The only real complication was the barrel latch, and you can see how I used MDF to hold the latch and to provide space for the machine screws that bolt into the aluminum pieces.

dave

Modeling 1890s (because the voices in my head told me to)

jbvb Senior Member

06-05-2020, 03:34 PM #663

My experience with gates mostly comes from the HUB Module Group's entrance drawbridge bridge. It uses an aluminum v-guide to ensure the bridge drops into a repeatable position. Painted Homasote is more stable than unpainted. I haven't used any MDF on my layout, but when I want something wood-like that is stable and abrasion-resistant, I usually use hardboard.

James

deemery Senior Member

06-05-2020, 04:58 PM #664

Quote

Originally posted by jbv

My experience with gates mostly comes from the HUB Module Group's entrance drawbridge bridge. It uses an aluminum v-guide to ensure the bridge drops into a repeatable position. Painted Homasote is more stable than unpainted. I haven't used any MDF on my layout, but when I want something wood-like that is stable and abrasion-resistant, I usually use hardboard.

It's interesting that most of my layout is done on hardboard splines, and that's where I've had expansion problems. There's a 1/4" of homabed on top of that, so I guess all the expansion could be on the homabed, and not the splines. (4" strips x 6)

dave

Modeling 1890s (because the voices in my head told me to)

railman28 Senior Member

06-05-2020, 05:20 PM #665

very interesting bridge work. it looks very durable.

Bob

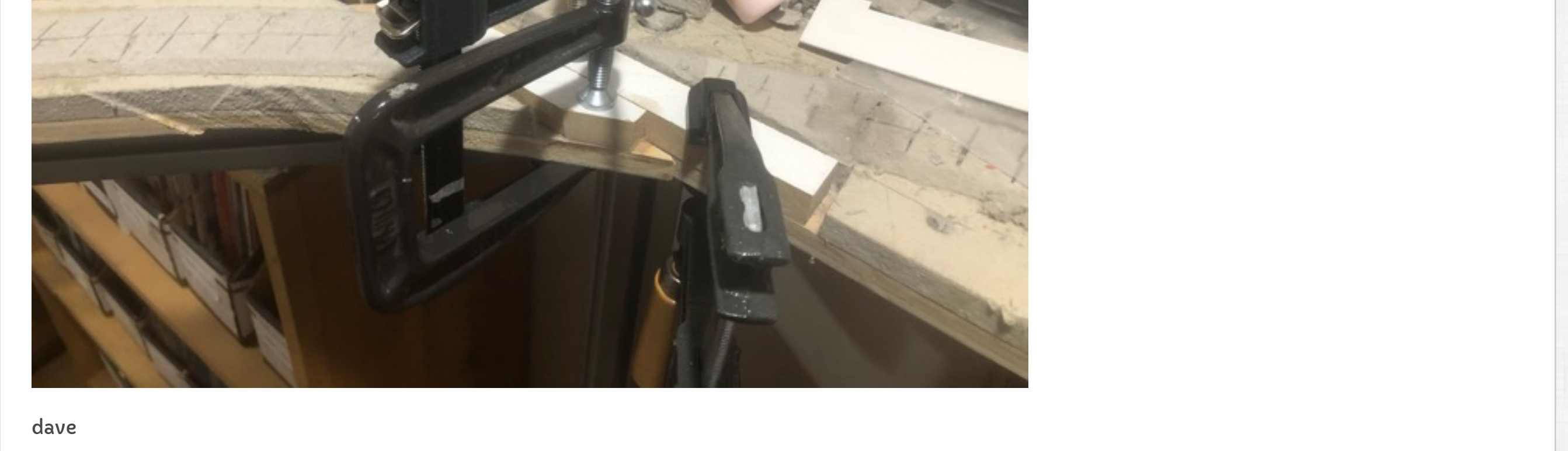
It's only make-believe

deemery Senior Member

06-06-2020, 07:58 AM #666

The MDF roadbed blocks glued in place. Shims added to keep them level with each other. The PC Boards will be glued and screwed on top of these after the gries and I double-check that they're level.

Deep throat claps are very useful!



dave

Modeling 1890s (because the voices in my head told me to)

deemery Senior Member

06-07-2020, 05:23 AM #667

I should mention the barrel latch parts are nicely machined with tight tolerances. There's no wiggle when the gate is latched (I'm guessing the play is maybe .001, if that). Sometimes I have to fiddle to get the latch engaged, but that is A Good Thing since it means I'm forcing the gate into proper alignment.

dave

Modeling 1890s (because the voices in my head told me to)

deemery Senior Member

06-07-2020, 12:31 PM #668

Today I laid the track. That's the real test for the gate, whether the track works.

First I checked the height of the MDF pieces. In one place, it was low by .020, so some Evergreen strips fixed that.

I used the old carpenter trick of scribbling over the surfaces with a pencil and then sanding until the pencil marks disappear from all of the surfaces.

Then I cut and shaped the PC Board pieces.

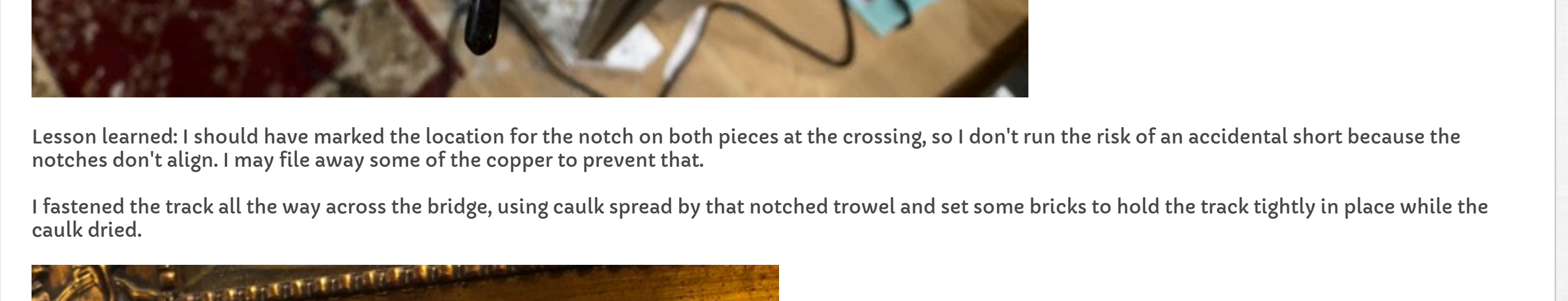
I marked the ends of the ties with a Magic Marker. The tape between the rails makes it easier to see where I have to remove the ties to solder to the PC Board.

I cut the notches in the PC Board and checked the rails, trimming plastic ties as necessary.

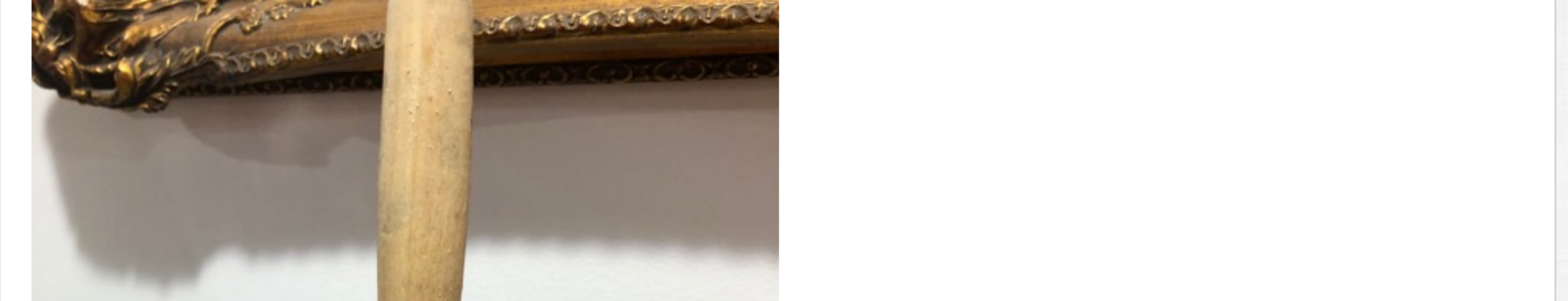


Lesson learned: I should have marked the location for the notch on both pieces at the crossing, so I don't run the risk of an accidental short because the notches don't align. I may file away some of the copper to prevent that.

I fastened the track all the way across the bridge, using caulk spread by that notched trowel and set some bricks to hold the track tightly in place while the caulk dried.

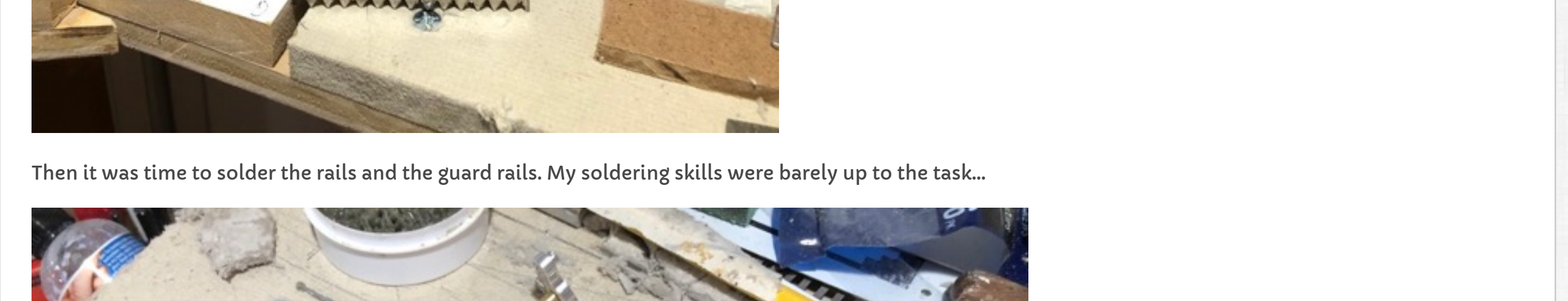


Then it was time to solder the rails and the guard rails. My soldering skills were barely up to the task...



Finally, I cut through the rails with the good old Atlas Track Saw.

I slightly rounded off and smoothed the edges of the rail, using the Fast Tracks 'point file'. Then I ran some light cars over the rail to see if they derailed. Nope.



The last task is the interim wiring. Eventually I'll do something clever, but for now I'll just put some terminals on the PC Board and hook up the wires through them when I want to run across the gate.

dave

Modeling 1890s (because the voices in my head told me to)

Michael\_Hohn Senior Member

06-07-2020, 01:12 PM #669

Fine looking job, Dave.

I was so much older then, I'm younger than that now Bob Dylan

WVFR Senior Member

06-07-2020, 02:07 PM #670

Great job, Dave. Will any of your locos have Keep Alives in them?

Chuck

George\_D Moderator

06-07-2020, 02:07 PM #671

No derailments on angled curving track. Good work.

George

Before each flight, make sure that your bladder is empty and your fuel tanks are full.

railman28 Senior Member

06-07-2020, 02:12 PM #672

Dave the bridge is looking good. I would advise that you have a way to adjust the lock/slide bolt.

Bob

It's only make-believe

jbvb Senior Member

06-07-2020, 02:27 PM #673

Good to see things are moving along!

The insulating gap misalignment shouldn't cause issues unless humidity pushes the two sides together. But it's easy to fix - open the bridge and make a couple of strokes with a small file, downward at an angle to cut the copper back from each mating edge.

James

deemery Senior Member

06-07-2020, 03:32 PM #674

Bob, I can adjust the bolt and in fact I did because it had slipped a little bit. I unscrew it from the MDF, and then loosen the machine screws to slide it up/down or back/forth in the aluminum channel.

Chuck, at this point, no keep-alives in the locos. Most, but not all the standard gauge locos have DCC. The NG locos are too small for keep-alives, and I'm not sure if I could fit decoders into them.

dave

Modeling 1890s (because the voices in my head told me to)

boomer44 Senior Member

06-07-2020, 03:59 PM #675

I would say the gate is pretty slick. James idea of beveling the edges would be an easy permanent fix.

Gordon

Rich text editor toolbar with options for font, size, bold, italic, link, etc.