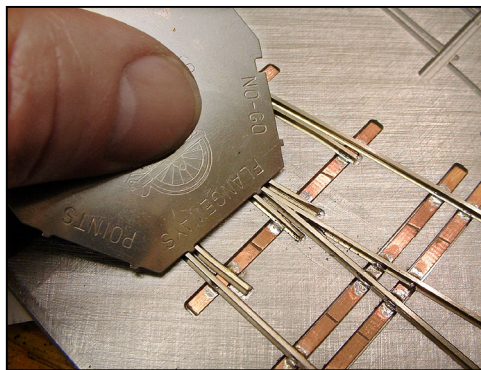


USERS' GUIDE

Building A Frog With The Frog Point Grinding Jig (UG03)



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Frog Point Grinding Jig Users Guide

This users' guide was written to help you use the Fast Tracks Frog Point Grinding Jig to create accurate frogs for your layout.

Larger, printable versions of the images in this manual are supplied with the documentation CD that is included with any track construction tools that you purchase from Fast Tracks. Look for the link under the “Additional Documentation” section of the CD menu that is displayed when you insert the CD into your computer.

The latest version of this users' guide is always available for download from the Fast Tracks website at <http://www.handlaidtrack.com/documents.html>

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How To Build A Frog Point Using The Frog Point Grinding Jig

The Fast Tracks Frog Point Grinding Jig has been designed to help you produce very accurate points quickly and easily. For best results we suggest that you carefully study this users' guide before you begin.

If you have a lot of points to construct, then I highly recommend that you invest in a bench top sander like the one shown in Image 1. This indispensable tool will not only help you produce high quality points, but will find many other uses around your workshop and will pay for itself many times over.

Alternatively you can form points using a good quality file and vise.

One of the weak points in commercial trackwork is the use of a blunt frog point. The techniques described in this users' guide along with the use of the Fast Tracks Frog Point Grinding Jig will provide a better performing point. This is achieved by forming a long sharp point that extends well into the frog, allowing the wheels to track very smoothly across gaps in a turnout or crossing.

Using the Frog Point Grinding Jig you will produce a left and a right point. These points are then placed in a Fast Tracks assembly fixture with one leading the other, as shown in image 3.

The rail of the diverging route is placed forward of the straight route rail. This will allow for the accurate placement of the frog point in an assembly fixture.

Image 1

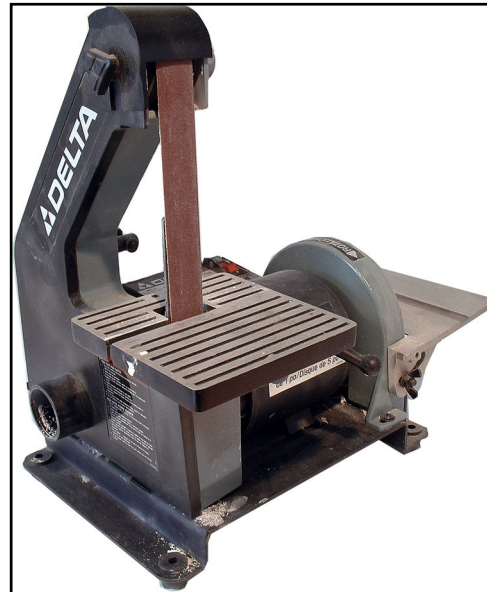


Image 2

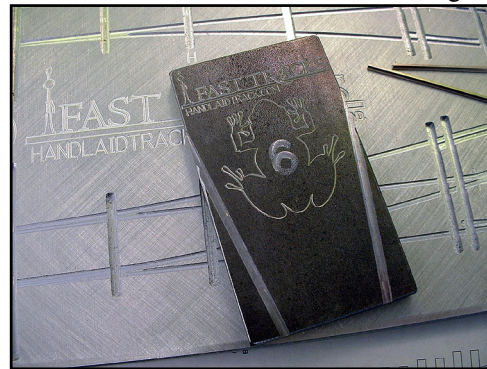
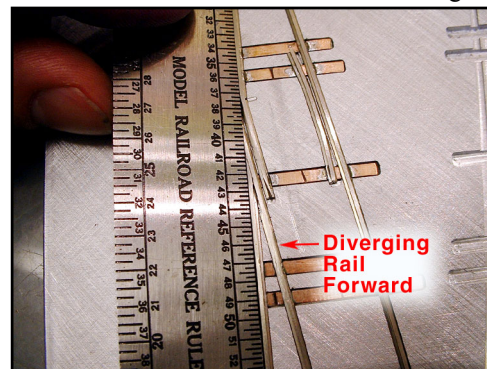


Image 3



Step 1

Place a piece of rail into the frog point grinding jig and hold it against the INSIDE EDGE of the groove as shown in image 4.

Proper placement of the rail in the jig is critical to ensure a precise angle. The rail groove in the jig is cut to accommodate all sizes of rail up to code 100, so some clearance is normal – especially with smaller code rail. This will not affect the final results.

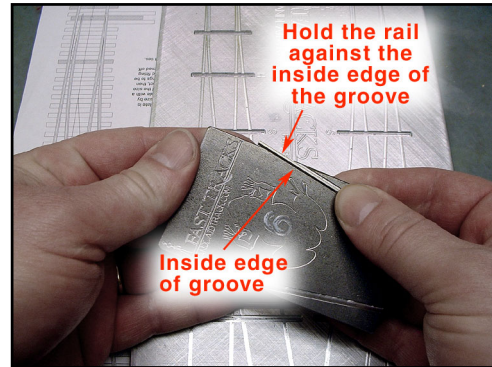


Image 4

Step 2

Using a bench top sander or a file with the frog jig in a vice, form a left and right frog point. (Images 5 & 6)

Note: To get the longest life from you frog point grinding jig sand or file along the entire length of the frog jig. This will ensure that the edge of the frog jig wears evenly, and not wear one spot on the jig prematurely.

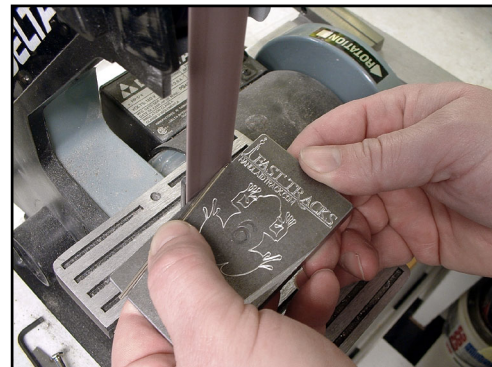


Image 5

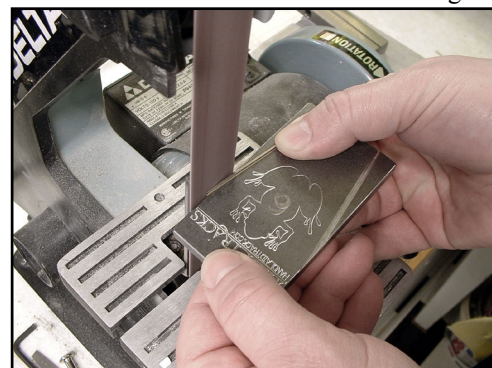


Image 6

Alternatively, you can file the points by hand by placing the rail into the jig and holding it in a bench top vice. (Image 7) Be careful not to squeeze the rail too tightly or you may deform it.

File the rail flush to the jig using even, steady strokes being sure to hold the file flat and level. (Image 8)

For some tips and suggestions on how to select and use files, check out the third issue of my newsletter, "The Care & Feeding Of Files". You will find this issue on the Fast Tracks website at handlaidtrack.com/newsletter-3.html

When you are finished sanding or filing, the rail should be completely flush to the face of the jig. (Image 9)

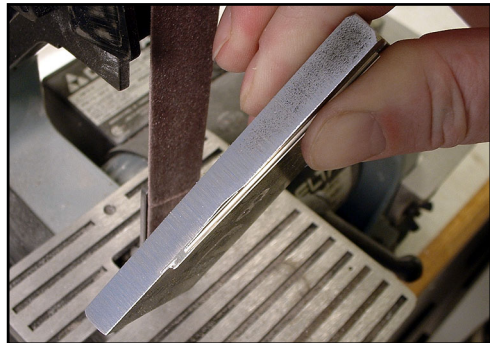
Image 7



Image 8



Image 9



Step 3

After forming the left and right point rails, they will need to be "de-burred". (Image 10)

The sanding or filing process will leave a bit of the web of the rail loose; this needs to be removed with a small, flat file. (Image 11) The bottom edge of the rail will also have a burr that needs to be removed to ensure a proper fit onto the ties.

The finished point should be clean and burr free. (Image 12)

Step 4

To ensure a proper side-by-side fit, some of the base needs to be removed from one of the rails. To do this place the two rails into an assembly fixture and using a sharp scribe or marker, mark the approximate point where the bases of the rail meet on one of the two pieces of rail, it isn't important which one. (Image 13)

Image 10

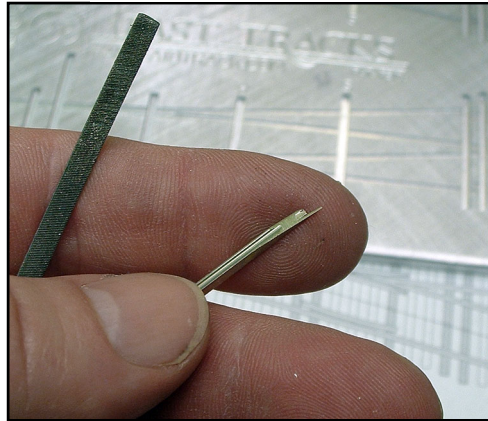


Image 11

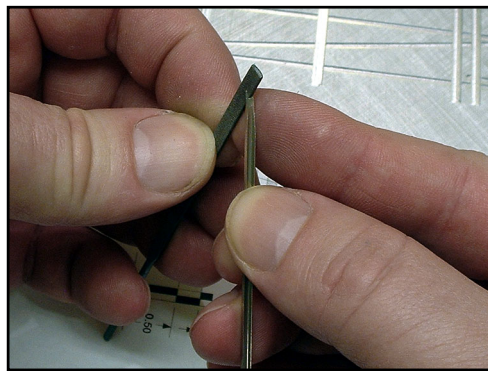
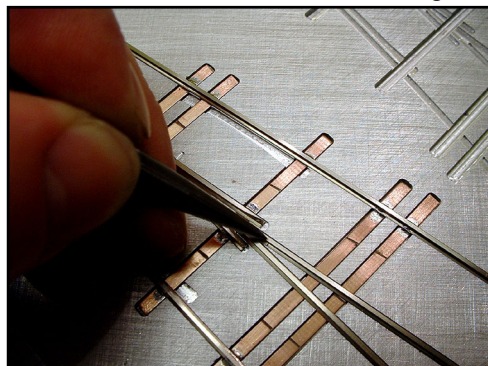


Image 12



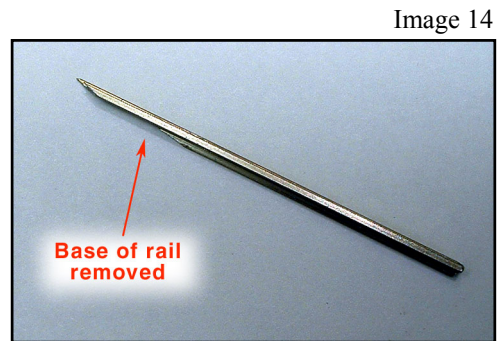
Image 13



Step 5

Using a sander or filing by hand, remove the base of the rail on the piece you marked in Step 4. (Image 14)

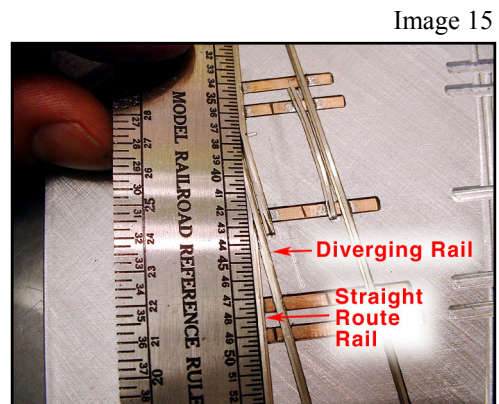
Some additional de-burring may be necessary, feel for rough spots along the base of the rail and remove any burrs with a small file.



Step 6

Place the frog point rails into an assembly fixture. Using a straight edge ensure that the diverging rail is lined up accurately with the closure rail. (Image 15)

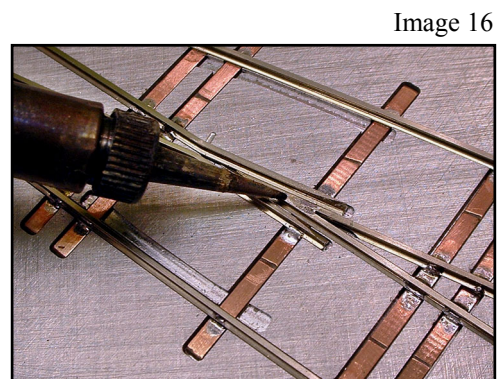
Slide the straight route rail up to the diverging rail until they fit snugly together, do not push too far or the diverging rail will be pushed out of alignment.



Step 7

Solder the frog point rails to the ties. It may be easier to just solder one spot on each rail while holding the rails in place; avoid moving the rails out of alignment while soldering. (Image 16)

Once the rails are soldered to the ties, apply some flux to the top of the rails and solder the two frog points together.



Step 8

Using a small flexible file, file the top of the frog point rails flush. (Image 17)

Finish by polishing with 400 grit sandpaper. (Image 18)

Image 17

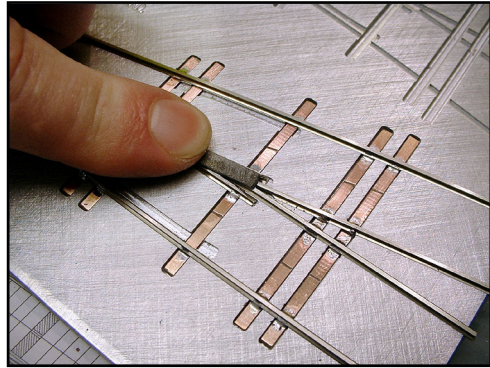
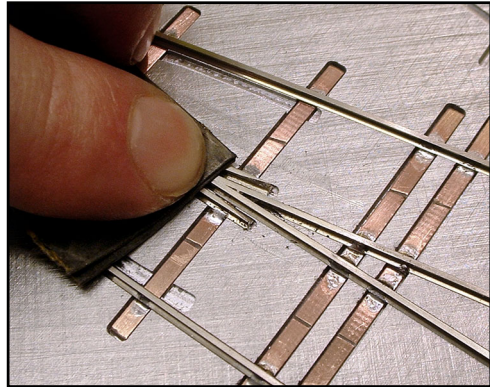


Image 18



And You Are Finished!

