

# Turning Tool Handles

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for **Thompson Lathe Tools**

See all our tools at: <http://thompsonlathetools.com/>



*3/8" detail gouge mounted in handle using a 1/2" brass coupling nut for the ferrule.*

All Thompson Lathe Tools are sold unhandled so we can bring you our top quality tools at the lowest prices possible and save you money on shipping. Our tools fit all aftermarket handles if you don't want to turn your own.

Most turners have a good supply of turning stock on hand that would be suitable for tool handles. Any North American hardwood stock that has straight grain is suitable for a tool handle. Maple is a favorite of many but I've used oak, walnut, cherry and birch—air dried and kiln dried. One of my favorite handles is salvaged from an old shovel and is hickory. Whatever stock you use make sure it

is dry. You don't want shrinkage after the tool is installed.

Start with a turning block approximately 1 1/2" square and 12" to 18" long. For larger bowl gouges you may want to use 1 3/4" to 2" square stock. The length of the handle is highly personal but here are some suggestions:

## Lengths:

- parting tools 6" to 12"
- small detail gouges 10" to 12"
- 1/2" and 5/8" bowl gouges 16" to 20"
- skew chisels 14" to 16"
- 1/2" round and square nose scrapers 12" to 14"
- 1 1/4" bowl scraper 14" to 16"

Your best bet is to select a tool you already have with a handle that "fits" your hand and copy it. Noted woodturner Alan Batty recently told a group of turners in Hawaii that when gripping the handle your fingers should just touch your palm.

Select your stock and cut it to length then mark the centers on each end. Mount it on your lathe between centers. I like to use a Stebcentre® on the headstock end and a large cone type live center in the tailstock for spindle work. The cone gives more room for shaping than conventional live centers. Mount the end that will

receive the tool in the tailstock end. **Note:** If you use a safety driver like the Stebcentre© or a cup drive you may have trouble drilling the hole for the tool so you may want to use a regular spur center or turn a tenon on the end of the handle to mount in a four-jaw chuck. The jaws would have to go down to about 1".

Turn your stock into a cylinder with a spindle roughing gouge. Continue with the gouge to do most of the shaping of the handle. Shape it to the style that you like. Sand as needed but you're not looking for a fine finish here—instead you want a good firm grip that won't slip in your hand—150 grit is fine.

Turn a tenon on the tailstock end to fit the type ferrule you're going to use. Turn the tenon with a parting tool, bedan or skew. There are many choices for ferrules. You can buy ferrules in many different sizes from catalog suppliers and they



*Left to right: 1/2" brass coupling nut, 5/8" brass coupling nut, 5/8" brass fairing nut and the Oneway Thread-Lok Ferrule™*

generally come in copper or brass; go to your local Big Box store or hardware store and buy 1/2" or 5/8" brass coupling nuts used in copper pipe plumbing or copper fittings depending on the length you decide on. Other options for re-using a handle after a tool wears out is the Thread-Lok™ Ferrules by Oneway (<http://oneway.ca/>) These are available from Oneway or any of the major turning catalogs such as <http://woodturnerscatalog.com> and <http://packardwoodworks.com/>

Once the tenon is turned to fit the ferrule you selected remove the piece and mount a Jacobs chuck on the tailstock with the appropriate size bit. A spur bit works well and helps you drill the hole straight. Mark the depth for the hole using a piece of masking or painters tape. Set your lathe speed at 500 rpm and slowly feed the bit into the stock and drill to the depth. The shanks of all our round-stock tools are turned down to fit standard sizes so drill to the depth of the shoulder where it has been turned down.

Remove the stock from the lathe and install the ferrule. If using a coupling nut turn the tenon slightly oversize and screw it on. The nut will cut its own threads. Depending on the ferrule and the fit you may want to use a little epoxy glue for "insurance." CA glue sets too quick for this application. After the glue dries remount it on the lathe and use a file to file off the ribs of the brass nut and turn it to a cylinder by holding a file on it with the lathe running about 1,000 rpm.

Add an oil finish if you like

but rub it out good with the lathe spinning.

Now you're ready to mount the tool to your new handle. The tool should be a tight fit but a few drops of epoxy glue will insure it won't come loose. Push the tool into the handle. If it won't go all the way hold the handle near the ferrule and use a dead blow hammer on the bottom of the handle to seat it all the way.



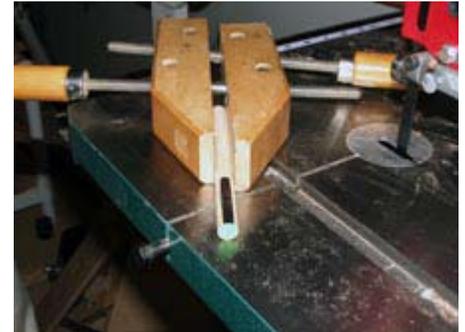
*This is a close-up view of the spindle detail gouge with a 3/8" shaft mounted to the handle with a 1/2" brass coupling nut.*

### Tools With Tangs

For tools with tangs such as skewers, scrapers, spindle roughing gouges and parting tools we have to use a different technique. All Thompson tools have a rectangular tang instead of a tapered tang which makes them easier to mount in a handle.

For this example we'll use the 1 1/4" skew which has a 1/2" tang. If we drill a 1/2" hole it won't fit due to the 5/16" thickness so we'll drill a 5/8" hole. This will leave some space we must fill in to strengthen the mounting. We'll do this by taking a regular 1/2" birch dowel from the hardware store (or you can turn your own). Cut a section about 3" long and put it in a wooden hand screw clamp.

Mark a 5/16" wide line down the middle with a black marker and take it to your band saw. Cut down the inside line on each side of the mark to about 1 3/4".



*This is a safe way to make the ripping cuts in the dowel on a bandsaw.*



*Results of the ripping cuts in the dowel. Discard the center piece and use the two half-round shims to give a good fit in the handle.*



*This is a mock-up I use to test the size of the shims I cut on the bandsaw. You may have to make several cuts to get them just right. The stock is a small piece of 1 1/4" maple dowel with a 5/8" hole drilled to a depth of 1 1/2".*

Remove it from the clamp and cross cut it so you end up with three pieces. Discard the middle piece and you're left with two half-round sections. You will glue these to either side of the tang in the 5/8" hole. See the illustration to the right. I will be using the 5/8" brass fairing nut and as I assemble everything into the handle we won't get a good view of how things go together due to the shape and size of the ferrule.



*View of the finished handle for the skew showing the half-round shims used to strengthen the handle at the ferrule. The epoxy hasn't been added so as not to obscure the view of the shims.*



*Fairing nut before filing.*



*Fairing nut after filing the shoulders off and filing it round.*

### Oneway Thread-Lok

The Oneway Thread-Lok Ferrule comes with very good instructions and comes in four different sizes from 1/4" to 5/8". You can also get a template for each size Thread-Lok that helps you cut an accurate taper for the ferrule.

You can easily cut the taper using a set of calipers to size the maximum and minimum diameter and then cut the taper between the two.

The advantage of this system is you can remove the tool for sharpening and you won't have to dodge the handle if it's long and you can easily replace the tool when it gets too short to use.

**Caution: Always use safety glasses or a full face shield when turning anything on the lathe.**



*The 1/2" bowl gouge in the Thread-Lok Ferrule.*

### Metal Handle

A cheap but effective handle can easily be made using a 3/4" galvanized nipple available at most hardware stores or Big Box home improvement stores. These come in 18" lengths and give you the option of removing the tool for sharpening, just like the Oneway Thread-Lok.

Paul Engle came up with a great way of using a brass 3/4" thread to 1/2" compression coupling to easily mount the 1/2" Thompson bowl gouge. See his tutorial at: <http://mysite.verizon.net/respwkup/stuff/id11.html>



*The 1/2" bowl gouge in the pipe handle using the 3/4" compression fitting.*

The inside diameter of the metal pipe is 5/8" and fits the Thompson 5/8" gouges perfectly. I drilled and tapped two holes for 1/4" x 20 tpi set screws.



*The 5/8" bowl gouge in the pipe handle using set screws to hold it in.*



*The metal handle with the end cap and covered with dishwasher hose. If the handle isn't heavy enough for you just add some lead shot or BBs.*