GRACEFUL AND VERSATILE STANDS

Chris Grace

I like turning a variety of items because I enjoy the challenge of designing things and working out how to make them. I also like to use interesting timber that has a story attached to it when possible. In this case, I used elm that I had acquired from a retiring cabinetmaker who never got around to using it.

Some of the elm boards were the perfect size for this relatively straightforward stand. However, the project incorporates both faceplate turning, spindle work, and a means of holding the top and base to turn away any evidence of chucking without wasting wood. These are good skills to master that can be applied to many other projects.

You can alter the dimensions and design of the stand to suit the wood you have available and the purpose you will assign to the finished item. They can be made as drink, plant, or candle stands—a set of three of different sizes works well with candles, for instance. If you use the stands for candles, make sure the candles are secure in the stand. I designed mine to make the most of the 8"- (20cm-) wide by 3"- (8cm-) thick elm board that I wanted to use (*Figure 1*).

Preparing and marking the blanks

I marked out the wood to ensure I could get all the pieces for two stands from my plank and cut the pieces to size on my bandsaw. With thick boards like this one, take care when sawing, holding them flat to the table, because if they are cupped, they can rock and catch on the bandsaw blade.

To make the initial turning quicker, easier, and safer, I cut the corners off the large square blanks (*Photo 1*), having first marked the center and the desired diameter with a compass. I find the center of larger blanks with my shopmade center-finder, a large piece of transparent polycarbonate with a hole in the middle and concentric rings.

I find the center of smaller square-ish sections with the center-finder from my combination set, marking from each corner (*Photo 2*) in case the workpiece is not exactly square. If your marks form a small square or rectangle in the middle, visually mark the center of that and carefully center punch so the endgrain does not deflect your live center when mounting the piece.

Dimensions

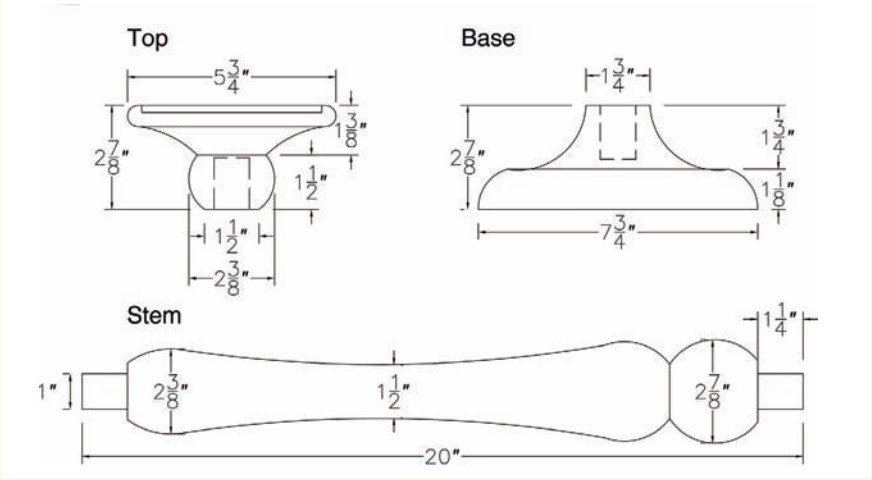


Figure 1.

Creating the top and bottom

I chose to make the top first. The same techniques are used to create the bottom.

To maximize the use of the elm, I affixed a hardwood glueblock and turned a chucking spigot on that. I pressed the blank against a cork faceplate with my revolving center and cut a tenon with dovetailed sides using a shopmade scraper ground to the angle of my chuck jaws. You should form a tenon that will fit your jaws.

With the blank held in a chuck, I turned the piece round using a bowl gouge, cutting in toward the middle from both sides to minimize tearout at the edges (*Photo 3*). I then skimmed the face of the blank, from the middle to the edge. I also trued up about 1" (25mm) of the top face of the blank by the chuck.

Using a 1" Forstner bit, drill a 1½"- (38mm-) deep hole for attaching the top/base to the stem later.

It is helpful to mark key transitions with a plunge cut from a parting tool, as it marks both position and depth. For deep parting tool cuts, always widen the cut with a second pass for clearance, especially on the face of a turning. A half-width second cut is sufficient when parting into the side of the turning. Part in just to one side of your marked line to allow a little room for cleanup or to shape the curves. In this case, I made a shallow plunge cut in the face of the blank to size the bead at the underside of the top (*Photo 4*), and in the side where the curve meets the top.

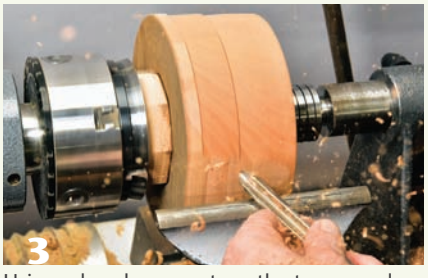
The bulk of the waste can be removed quickly with a medium-sized bowl gouge to form a spigot that will become the bead. Wood can also be removed to start shaping the ogee under the top (*Photo 5*). Once I had created sufficient access space, I marked the high point for the bead ▶

Prepare & mark blanks

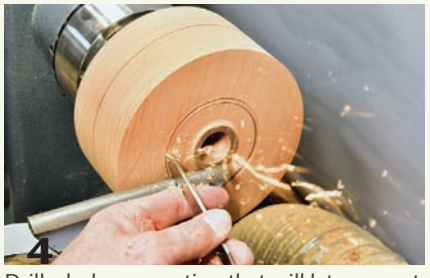
Cut the top and base blanks to size on a bandsaw and remove the corners to speed turning. Take extra care if the blank is cupped or warped.

On spindle blanks, mark the center line from all four corners, then eyeball the middle and center punch.

Rough-turn the top



Using a bowl gouge, turn the top round, cutting in from both sides to avoid tearout. Then true up both faces.



Drill a hole, or mortise, that will later accept the tenon at the top end of the stem. Mark, then plunge in with a small parting tool to indicate both the position and, where possible, the depth of key transitions.

Detail the top

Using a bowl gouge, turn a spigot from which you will create a bead. Then start the ogee shape on the underside of the top.

Mark the center of the bead, then shape the bead with a spindle gouge. Then further refine the ogee to the left.

Using the lower wing of a bowl gouge presented on its side, create the bead, or roundover, at the top's largest diameter.

and started cutting it using an acutely ground ½" (13mm) spindle gouge, taking a little material off with each cut until I arrived at the desired shape (*Photo 6*). I use a "fingernail" shaped gouge with an acute bevel, as it produces a clean cut and enables better access between beads/features.

With the bead cut, I refined the ogee shape on the underside of the top, finishing at the thickness marked by the parting tool. Once happy with the overall shape, I rounded over the edge on both sides to form the top bead. Because this is a sidegrain blank, with the grain running perpendicular to the lathe bed, I used a bowl gouge and a pull cut, with the grain, to shape this feature. I finished the shape with the bottom wing of the gouge on its side, achieving a clean, skewed scraping cut (*Photo 7*).

It's best to sand through the grits at this stage, as you will have ready access

Reverse-mount top, turn recess

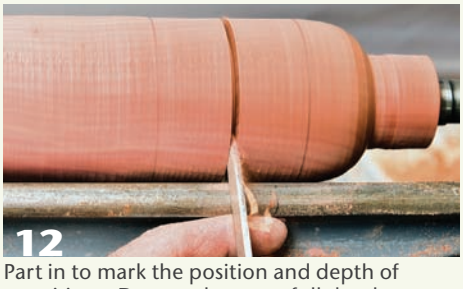
Make a chucking spigot to reverse-mount and turn the top and base. Fine-tune the spigot with abrasives for a snug fit.

Reverse-mount the top on the spigot drive, and bring up the tailstock for support. Part off the original glueblock.

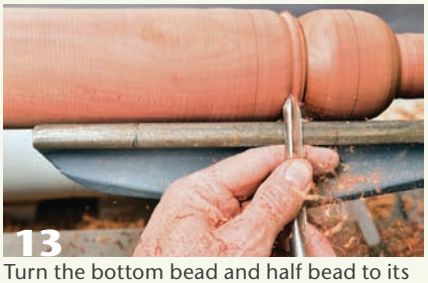
Part in to depth, then shape the recess with a gouge and scraper. Check for flatness with a small square.

Form the stem's bottom bead

Mark all transitions and rough to just over finished diameter. A partially turned bottom tenon acts as a sizing gauge when turning the bead.



Part in to mark the position and depth of transitions. Do not plunge to full depth between adjacent beads.



Turn the bottom bead and half bead to its left a little at a time until you are happy with the shape. Use a spindle gouge, working downhill from the bead's center.

Complete the stem

Mark your toolrest to indicate the center of the narrowest point on the stem, as a mark on the wood would be turned away. Rough down from both sides.

Turn the top tenon area down to the diameter of the upper half bead's edge. Then form the half bead, using the partially turned tenon as a depth gauge.

Turn the tenons to their final diameter for a snug fit in the drilled mortises.

to the whole of this side of the turning. Use good quality abrasives, discarding them as they become worn. Start at the coarsest grit necessary to remove tool marks quickly. Never skip a grit. Use 80, 120, 180, 240, 320, and 400 as appropriate on projects like this with dust extraction held as close as possible to the work. I then seal with cellulose sanding sealer, flooding it on and quickly wiping off the excess, before de-nibbing with 600 grit.

I reverse chucked the top on a shop-made parallel spigot (*Photo 8*), which allows access to the top surface of the stand. I set my digital calipers to zero in the hole drilled in the top, and used them to accurately gauge my cuts when forming the chucking spigot, stopping just before reaching zero for a test fit. If the fit is too tight, adjust it with abrasives. With the spigot gripped in my chuck and the top mounted on the spigot with tailstock support, I parted off the original chucking dovetail (*Photo 9*). The chucking block can be re-used a couple of times on other projects if you part it off carefully.

I finished the top by plunging in with a parting tool to create the edge of the top recess, then I removed the bulk of the waste to that depth with a bowl gouge. I checked that the recessed area was level with a small square (*Photo 10*) and used a large square scraper to refine the surface. Sand and seal as above.

The base is made using the same steps as the top but to a slightly different shape and with a shallow concave on the bottom (*see Figure 1*).

Creating the stem

Due to the "character" of the elm I was using, I left the stem blanks a little longer than required with the intention of choosing the exact position of the stem once the grain had been revealed following initial roughing.

I mounted the stem between centers and roughed it down to a cylinder with my spindle-roughing gouge. I nibbled away about an inch at a time towards the ends as a precaution in case any wood broke off near a crack.

Once the stem blank was round, I marked out the portion I would use for the stem, together with key transitions. I turned the key elements to their appropriate diameters, with the exception of the tenons. I initially turned these to the diameter of the edge of the bead detail to act as a guide while forming the bead—1¾" (4cm) for the bottom (*Photo 11*). I started turning at the tailstock end, where less wood needs to be removed on this design, and worked my way to the top. To create the bead detail, I parted in a short way at the transition (*Photo 12*) and then started to create a "V" between the beads for clearance. Once there was sufficient space to maneuver, I created the bottom bead and half bead using my ½" spindle gouge as before (*Photo 13*).

I moved my long toolrest so I could turn the more slender middle section in one go and marked the center point on my toolrest for reference, as the mark on the wood would be turned away (*Photo 14*). I turned this to a smooth surface using only my spindle-roughing gouge, angling it to make a skew-like cut as I got closer to the final shape and diameter.

I started the top tenon, sizing it temporarily to the diameter of the side of the half bead at the top of the stem—1½", or 38mm (*Photo 15*). Then I formed the top half bead.

Finally, I cut the tenons to their finished size using digital calipers set to zero on the holes drilled in the base and top as described previously. This facilitates the creation of tight-fitting tenons (*Photo 16*).

Sanding and finishing

I sanded and finished the spindle (stem) as described for the top above; however, as there are areas of straight grain, I also sanded by hand in line with the grain with the lathe off before moving to the next grit. I sealed the stem but left the tenons unsealed for better glue adhesion. I used cellulose sanding sealer thinned fifty percent.

The mating surfaces of the components had all been undercut slightly so as to minimize evidence of where the joins were. I applied a small amount of wood glue to the tenon and hole only (*Photo 17*), ensuring that any squeeze-out would remain within the mating undercuts.

Finally I applied a couple of coats of acrylic lacquer, de-nibbing between coats with 800-grit abrasive. I use a turntable to make it easier to achieve a consistent coat of lacquer. To give it a good luster, I then applied a little microcrystalline wax.

The design of the stand can be altered to suit your needs, but give due consideration to the diameter of the base to ensure stability. Enjoy! ■

Photos by Jean Grace.

Assemble the stand

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Apply glue to the mortise and tenon only to prevent excessive glue squeeze-out.

Chris Grace's interest in making things started with his grandfather bringing him tools and showing him how to use them. He has been turning since 2008 and is the founder and chairman of South Downs Woodturners in England. Chris sells work by commission, teaches, and demonstrates. For more, visit NotJustRound.com