Making a Sheraton Bed

The challenge is in the posts

by Philip C. Lowe

Turned posts are the most dramatic feature of a Sheraton bed. *The posts can be turned in one piece, as the author did here, or turned in two or more pieces, which are glued together later.*

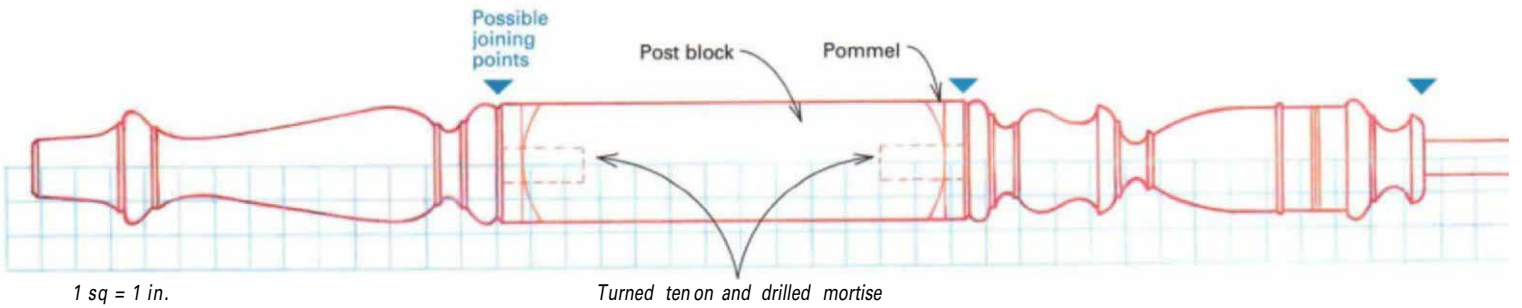
Beds often are very simple, even if they look as complicated as the Sheraton bed in the photo on the facing page. The joinery isn't complicated, and there aren't many parts. In fact, once you've made the posts for this bed, the hard work is behind you. Think about the posts as different circular-shaped moldings stacked on top of one another. The posts can be made in one piece, as I do, or made in several pieces, which are glued together later. The posts also can be made without decorative reeding, which cuts out many hours of work on the project and still results in a pleasing design.

I always make full-scale drawings for pieces that I'm about to make. For this bed, I have to draw only one of the posts, half the shape of the headboard and the joinery detail for the rail-post connection. I use the drawing to make a story stick (a scrap of wood where dimensions and profiles are marked), so laying out the bed posts is both easy and accurate.

Mounting the blank

The bedpost blanks are milled to 3½ in. sq. from 16/4 stock and rough cut to length, leaving a couple of inches at each end for mounting in the lathe. Turning the full-length blanks is no problem on my lathe, with its 10-ft-long bed. But if you don't have this luxury, you will have to turn the

Sheraton bed: *Posts can be turned from a single length of wood or made in pieces and glued together later.*



Photos: Charley Robinson; drawing: Kathleen Rushton

A Sheraton-style bed is easy to make, *despite its complicated appearance. Reeding is time-consuming, but optional, and the joinery is straightforward. On this bed, the author skipped the reeding on the less-prominent headboard posts.*

Use a story stick to lay out accurate and consistent turning details. *And the story stick is a handy reference when turning because the shape and diameter of each post section is drawn right on it.*

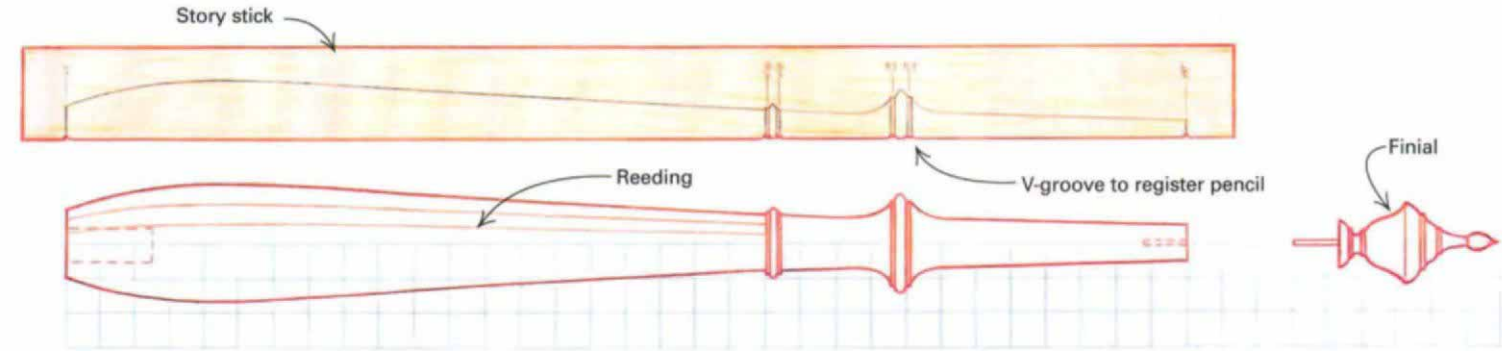
post in sections, and join them together by boring a hole in one part and turning a mating tenon on the adjoining member. The joints should be cemented with yellow glue or epoxied for extra strength. I've marked a few joining points, as shown in the drawing below. As a rule, the best place to join these parts is at a fillet above or below a cove, torus or ogee shape.

I mount the blank at the headstock end with a faceplate and plywood disc drive center, which provides a more positive drive than a spur center. This arrangement also lets me add an indexing wheel (see the box on p. 45) and makes it easy to remount the blank.

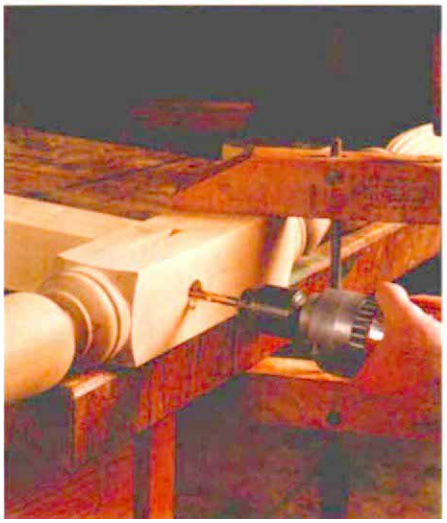
The drive center is a circular piece of ¾-in.-thick plywood screwed to the faceplate. The plywood has a square hole the size of the turning blank cut out of its center. To mount the blank, one end is slipped into the square hole, and the ball-bearing center in the tailstock is slid into position at the opposite end and locked in place.

Turning the posts

The first step is to locate the post block, which is the non-turned section of the post into which the side and end rails are mortised. I scribe shoulder lines around the post, and with a backsaw, cut kerfs on all four corners at the shoulder points. The kerfs prevent the square edges of the post



A scribe lays out evenly spaced reeds. *With a pencil set to the center of the lathe and its base riding on the lathe bed, a scribe accurately draws layout lines for reeds on the top of the bedposts.*



Drilling holes for bed bolts. *Holes bored through the bedposts serve as guides when drilling rails for the bed bolts. The nut is hidden in a mortise in the side of the rail*

block from chipping when I turn the adjacent sections. After turning the post to the largest possible cylinder above and below the post block, I lay out and turn the pommels (the curved shoulders at the top and bottom of the post block).

To lay out the elements of the posts, I make up two story sticks or rods, one for the section above and one for the section below the post block. On the story sticks, I draw half the profile of the post and mark the diameter of each design element. I cut notches into the edge of the story stick with a skew chisel to make sure the pencil references are made from the same spot when each of the four posts is laid out.

I usually hold the story stick against the revolving blank to scribe the post. Another method is to mark the post with the story stick, as shown in the photo at right on p. 43. Then turn on the lathe, and hold the pencil point at the mark to extend the reference line completely around the post.

I shape the bottom of the post first, turning the cylindrical blank down to the diameters indicated on the story stick with a parting tool. I check each blank's diameter with calipers. Then I shape the curves and hollows with skews and gouges, leaving the cove or scotia cuts for last. Because the coves create the smallest diameters, leaving these cuts until the end helps to reduce vibration while turning the rest of the post.

The upper section of the post is turned in the same fashion, except I add a steady rest, as shown in the photo on p. 42, to help prevent the post from vibrating and being thrown out of round when turning. After I've turned this section to as accurate a cylinder as possible, I locate the steady rest at the bulbous section of the reeded portion of the post. With the steady rest in place, the upper section is turned to shape, again leaving the coves till last.

Once I've turned the posts to shape, I sand them, starting with 120-grit and working up to 220-grit. Between each sanding, I wet the post and let it dry to raise the grain. I sand everything but the section of post to be carved with reeds because the sanding grit would get in the pores of the wood and dull my carving tool.

Reeding the posts

Because it takes about four hours to carve the reeds into each post, clients frequently choose to save money by eliminating the reeding entirely or by having just the posts of the footboard reeded, as shown in the photo at left on p. 43. Usually, these posts are prominently displayed near the middle of the room, and the headboard posts are generally pushed against a wall.

I've found the easiest way to lay out and carve the reeds is right on the lathe. To do this, though, you need an indexing wheel to hold the post in position for scribing the layout lines and carving the reeds. This is a standard feature on some lathes, but not mine, so I added one, as discussed in the box on the facing page.

I also made a scribe for drawing the layout lines. The scribe rides on the lathe's bed and has a pencil set to the center height of the lathe. I mark one reed, as shown in the photo above right, rotate the post and mark another until the post is completely laid out. I use a V-carving tool to carve lines into the post and a series of straight and back-bent gouges to carve the reeds to their half-round shapes. When carving is complete, I sand the reeds.

Putting it all together

After taking the post from the lathe, I drill a hole in the top of the post for a pin that will hold the finial in place and lay out and cut the mortises. There are two on each post block to accept the tenons for the rails and two more in each headboard post.

The holes for the bed bolts are staggered, so the bolt for the end rail doesn't interfere with the bolt for the side rail. These ⅜-in.-dia. holes have a 1-in.-dia. counterbore to bury the head of the bolt. I bore the holes on the drill press, starting with the 1-in.-dia. counterbore and then the ⅜-in.-dia. bolt hole, aligning the bit with the center point of the counterbored hole.

I hand drill the bolt holes into the ends of the rails, using the holes in the posts as a guide, as shown in the photo at left on the facing page. Mortises for the nuts are cut into the sides of the rails, so they intersect the bolt holes. □

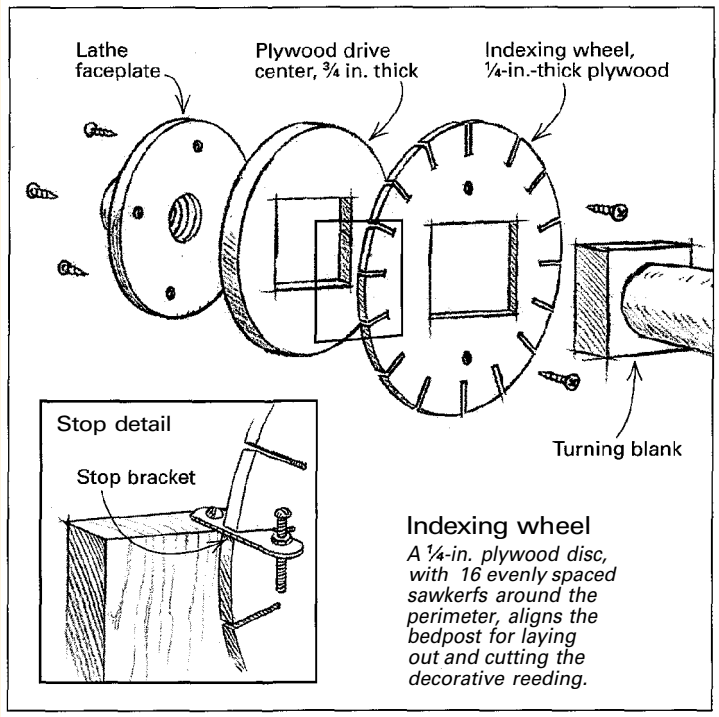
Philip Lowe designs, makes and restores fine furniture in Beverly, Mass.

Turning a bedpost

VIDEO TAKES

Philip Lowe makes a reeded post for this Sheraton bed in a 28-minute video tape (VHS only). To order, send $10 to The Taunton Press, Order #011046, P.O. Box 5506, Newtown, CT 06470, or call (800) 888-8286.

Indexing wheels for the lathe



Indexing wheel
A ¼-in. plywood disc, with 16 evenly spaced sawkerfs around the perimeter, aligns the bedpost for laying out and cutting the decorative reeding.

Accurate indexing for reeding. *A disc of ¼-in. plywood makes an indexing wheel for laying out reeding on the bedposts. The stop is a piece of bandsaw blade mounted even with the lathe center.*

The faceplate and plywood drive center that I use to turn my bedposts make the perfect mounting system for an indexing wheel. My indexing wheel is made by cutting a hole in the center of a 10-in.-sq. piece of ¼-in.-thick plywood. The hole fits the turning blank.

After laying out the required number of divisions (16 for the bedposts) on the plywood with a compass, I bandsawed the plywood into a 10-in.-dia. circle. And I cut out the center square on the jigsaw.

Around the perimeter of the disc at each division line, I made a bandsaw cut 1 in. in from the edge of the disc. The indexing wheel is now ready to be slipped over the end of the post and then screwed to the faceplate and disc drive (see the photo at left).

The stop that engages the kerfs on the indexing wheel is simply a discarded piece of bandsaw blade with the teeth ground off. This stop is held even with the centerline of the lathe by an L-shaped plywood bracket, as shown in the drawing above.

To scribe lines or carve the reeding, I pivot the stop into a sawkerf to hold the post in position. To mark or carve the next and each consecutive line, I slide the stop back and rotate the post to the next sawkerf in the wheel. I slide the stop into place and scribe or carve the next division line. —*P.L.*

Drawing: Mike Wanke