

The Turned Hall Tree

A great weekend project to help build your woodturning skills

Here's a relatively simple project that doubles in function and beauty. Build it this weekend and you'll soon have additional "closet space" – PLUS – a classic, traditionally-designed "piece of furniture" that blends well with practically any decorating scheme.

All you'll need are one 4" x 4" x 8' and one 2" x 4" x 6' pieces of lumber plus eight dowel pins and two double-ended dowel screws. That's it! We used redwood for its natural rich color and ease of turning....but any soft, easily-turned hardwood will work equally well.

First, decide on your design. Ours is pretty traditional and you should have little difficulty duplicating it by following the drawing. You could try a straight tapered *pencil-post* design with a Shaker flair...or a more contemporary design. The choice is yours.

Start the building process by cutting your 4" x 4" stock to length, being sure to allow an extra 1/2" on each end. Separately turn and finish sand (while on the lathe), each of the three main spindle parts (A, B, and C).

Next, resaw some 4" x 4" scrap into 1-1/8" square pieces 12" long for the six coat pegs (E). These can be most efficiently turned end-to-end, two at a time, from a single length of stock.

TIP: For added efficiency and a *dead-on* match, use Shopsmith's Lathe Duplicator.

Now, lay out the legs (D) on your 2" x 4" stock.. Start by cutting the angle for the leg tops. Drill the 3/8" dowel peg holes using the MARK V's Horizontal Boring Mode. Be sure to set up some stops so all (8) holes are drilled in the exact same relative position.

Use your Bandsaw to cut out your four legs. At this point, you can either round-over all leg edges using your Belt Sander or an inflatable, Contour Sanding Drum...or you can create more intricately shaped edges using a Router set-up, or a Shaper and the cutter profiles of your choice.

Next, set up your MARK V in Drill Press mode and bore the (8) 3/8" holes in the Bottom Spindle (C) for the Leg dowel pegs. Be sure to measure and mark the positions of these holes accurately, so they line up precisely with the mating holes in each Leg end.

The tapered Top Spindle (A) has six equally positioned holes that divide the spindle into three equal sections. Here's how to do this: Wrap a piece of paper around the turned Spindle (A) and mark the diameter of the Top. Flatten the paper out, measure the diameter and divide it into three equal sections. Transfer these marks onto your turned Spindle.

With your MARK V Worktable tilted to 30-degrees, use a shop-made V-Block jig to hold the Spindle while you drill the angled Coat Peg holes with a Forstner Bit. See Figure 1.

Prior to final assembly, drill 1-1/4" deep x 3/16" dia. pilot holes into the bottom of Spindle (A), both ends of Spindle (B) and the top of Spindle (C). These holes are for the Dowel Screws (G).

Apply a **small amount** of soap, beeswax, paste wax, or paraffin to both ends of the Dowel Screws and "test-assemble" the three-part Spindle. Take the Spindle apart and remove all traces of soap, beeswax, paste wax, or paraffin *squeeze-out*.

Apply ample glue to the end grains of all Spindles where they will join together...tighten them down...remove any glue *squeeze-out* and allow to dry overnight.

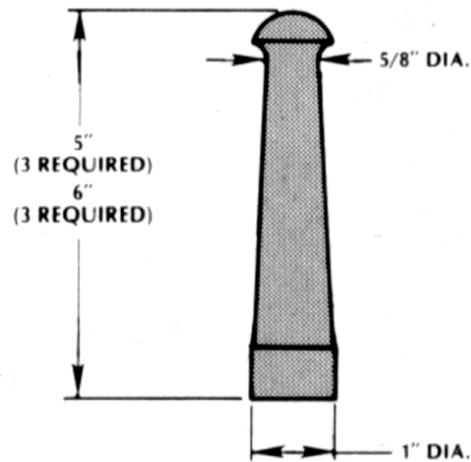
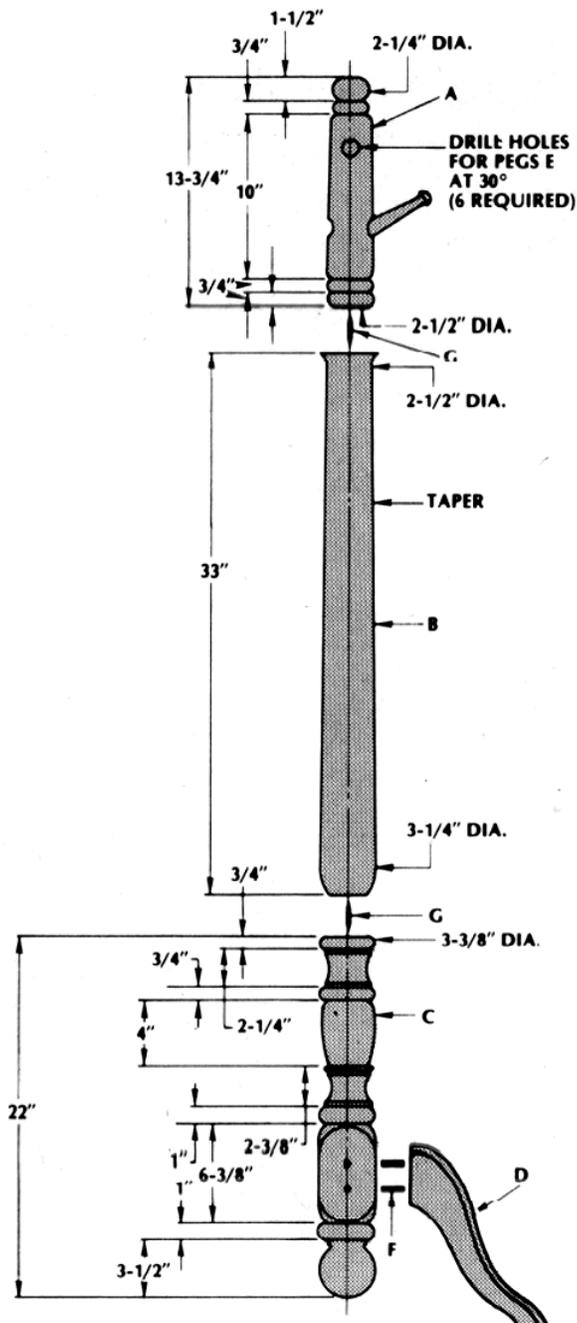
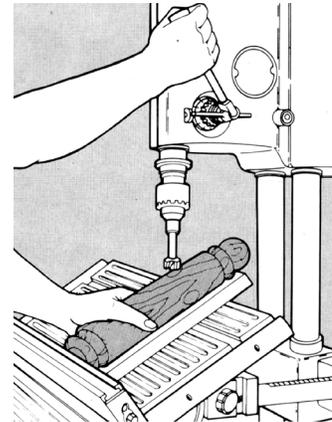
Finally, glue and dowel the Legs (D) and the Pegs (E) to the assembled Spindle and allow to dry for 24 hours before applying the finish of your choice.



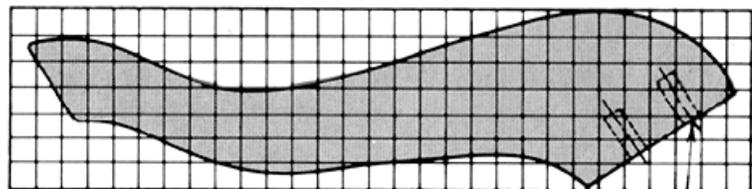
List of Materials

(finished dimensions in inches)

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|-----------|------------------|---------------------|
| A: | Top Spindle | 2-1/2 dia. x 13-3/4 |
| B: | Middle Spindle | 3-1/4 dia. x 33 |
| C: | Bottom Spindle | 3-3/8 dia x 14 |
| D: | Legs (3) | 1-1/2 x 3-1/2 x 14 |
| E: | Pegs (3) | 1 dia. x 6 |
| | Pegs (3) | 1 dia. x 5 |
| F: | Dowel Pegs (8) | 3/8 dia. x 2 |
| G: | Dowel Screws (2) | 5/16 dia. x 2-1/2 |



ONE SQUARE = 1/2"



3/8" DIA. x 1" DEEP HOLES (2 REQUIRED)