

Wood Pulls Tailored to Fit



Shop-built knobs and pulls can dress up your cabinets better than most store-bought versions

BY PETER TISCHLER

Door and drawer pulls serve two major functions. On the obviously practical side, they provide a handhold to open doors and drawers. But in a less tangible realm, they also complement the finished furniture with an important visual detail. I often incorporate wood pulls in my furniture as a focal point and as a means to harmonize the overall design. I like to use dense tropical hardwoods because they make a more durable pull, allow me to shape fine details and exhibit exotic colors and grain patterns.

Design and function are related

I learned the hard way that it's important to consider the aesthetics of pulls early in the design process, to avoid ending up with pulls that don't appear as a unifying element in the overall design of the furniture. I often attempt to shape pulls so that they'll be comfortable to open in more than one hand position, because not all people prefer the same technique. Before designing any pulls, you might find it helpful to observe people opening a variety of doors and drawers to get a better idea of how different pulls work. Whatever the final shape you end up with, it should complement the shape of the furniture.

While turned pulls are perhaps the easiest to make, I use them only when the design calls for a simple look or when a customer specifically requests a turned pull. Commercially available pulls are usually too heavy-looking for my tastes, so I turn my own using one of the tropical hardwoods (such as ebony or rosewood), most of which polish beautifully. One trick that I use to polish turned knobs, which would work equally well on store-bought pulls, is to chuck the tenon end into the drill press set at its highest speed and sand the knob with very fine sandpaper.

For an unobstructed or flush front on a piece of furniture, you may want to consider a concealed pull. In such cases, I will often notch the dividers between drawers and cut a slight finger recess into the inside bottom edge of the drawer front. The shape and size of the notch in the divider can add its own visual interest to the overall design.

Other design decisions to be made involve color and size. Do you want a color contrast that makes the pulls stand out or a similar tone to blend in with your doors and drawer fronts? And the size, like the



A GOOD VISUAL FIT

The shapes of these two-part pulls, made of rosewood and ebony, echo the shape of the feet of the dresser on which they are installed. Also, matching pairs of pulls mounted on four drawers are sized differently for each drawer.



Modeling clay as a design tool. Rather than working from drawings, the author often sculpts initial prototypes in clay, and then makes a second-stage prototype in wood.



No special tools required. A kitchen knife and a spoon are all you need to work this malleable material.

shape of the pull, should be proportional to the piece of furniture.

Blend hand and machine work

Making pulls often requires a combination of hand and machine skills. Because the parts are typically small, safety is a primary consideration. Know what length of wood can be safely jointed and planed on your machines. Use push sticks and featherboards whenever possible to keep fingers away from cutting edges. Make multiple





MOSTLY MACHINE MADE

When a project demands that you make a large number of pulls, a design such as this one that relies primarily on machine work will save you time.

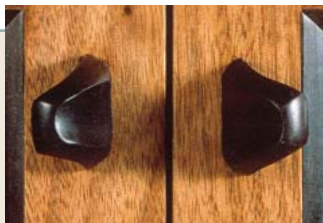
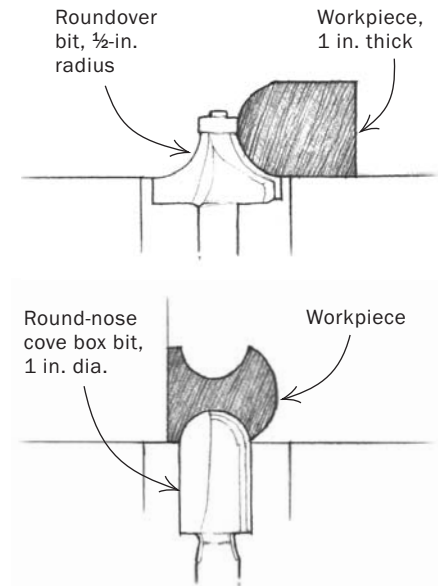


Production sequence for a lot of matching pulls. Coved sides, held down firmly with a push stick, can be cut in long lengths on the router table. After individual pulls have been cut to length, the author uses a drill bit (matched to the size of the cove, mounted in a drill press and fitted with a stop block) to cut the same coves on the ends of the pulls.



TWO BITS FOR ONE PULL

The two router bits shown below, mounted in a table, shape the convex and concave curves for this pull.



UNIQUELY HAND-CARVED

The ebonized mahogany pulls shown at left were first conceived as clay prototypes. The author made them deliberately small to maintain a low visual profile on this walnut cabinet.



Hand and machine work combine to do the job. After cutting this pull to rough shape on the band-saw, gouges, rasps and carving knives are all required to complete what is essentially a hand-carved pull.



passes, taking away only a small amount of material at a time. Sharp bits are necessary for a clean, safe cut. If you feel that something is too dangerous to cut with a machine, do it by hand.

As you can see from the examples on these pages, many of my pulls are roughly shaped first by using a router table, then refined by hand. To provide finger clearance, I often use a bullnose bit, or a coving cutter with a bearing mounted at the bottom, under the cutter. It's especially important, when working with small pieces of wood, to keep the hole (for the cutter) in the router table as small as possible. Having more table surface to bear upon will make the cutting operation safer. Also, it's sometimes necessary to make a curved fence for additional support, when you have to feed a curved blank into a cutting edge.

I often bandsaw the desired top profile, clean up the saw marks with a balloon sander, then glue the roughed-out blank to

a long scrap of wood to keep my hands away from the cutter. To separate the pull cleanly from the scrap, you can glue brown paper between them. However, I usually cut off the scrap on the bandsaw instead of bothering with the layer of paper.

After routing or bandsawing pulls to shape (it's always a good idea to mill at least a couple of extra pulls to allow for rejects), I'll complete the shaping process any number of ways. Some pulls require more machine work, using the tablesaw or a drill press. I often design more sculpted pulls in three dimensions, using synthetic modeling clay (available at any hobby or art-supply store), then shape them using a combination of rasps, chisels and gouges.

Place pulls within easy reach

After the pulls are made you must decide where to put them and how they will be attached. Place the pulls based on where they will be the most comfortable and convenient to use. Because custom-made wood pulls are often a visual focal point of a piece of furniture, you need to take care when deciding where to put them. Use double-stick tape on a paper pattern or on a mock-up of the pulls to preview what they will look like.

I sometimes use mortise-and-tenon joints to attach pulls that are fashioned entirely by hand and those that are turned. But this procedure is time-consuming and, admittedly, a bit of overkill. More typically, after I locate the pull and mark it on the drawer front or door, I drill a pilot hole using a bit slightly smaller than the diameter of the screw that I'll be using to fasten the pull. Tropical hardwoods require extra care because they seem to have a greater tendency to split. After dry-fitting, I remove the pull, add a small amount of five-minute epoxy, then reattach it, checking carefully for alignment. Excess epoxy cleans up easily with a chisel after it sets up but before it reaches a full cure.

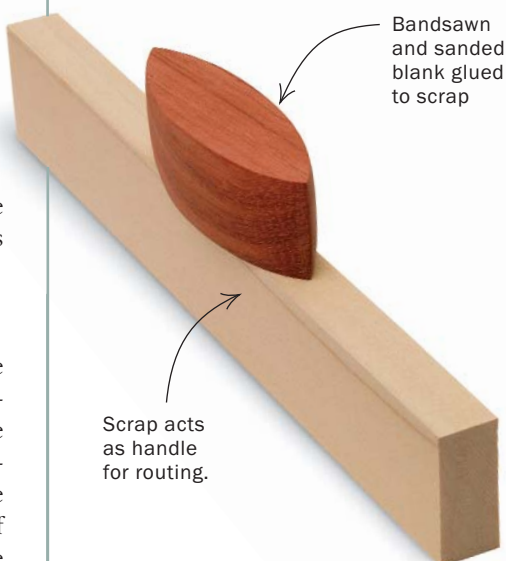
Using wood pulls enables me to embellish my furniture, functionally and artistically. I'm convinced that combining hand and machine skills is the best way to make each pull unique and harmonious to the overall feel of the piece of furniture. The possibilities are unlimited. □

Peter Tischler builds custom furniture in Pine Brook, N.J.

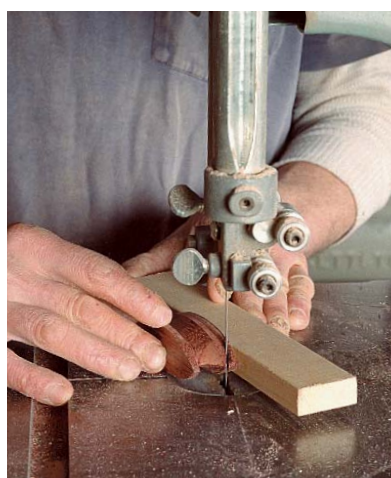


DESIGN AND FUNCTION MERGE

These pulls, shaped by a combination of hand and machine work, suit the credenza on which they're mounted. They work equally well mounted either horizontally or vertically.



Keep fingers away from blades. A scrap of wood glued to the top of a pull blank keeps fingers above the spinning cove bit on the router table.



Curved shapes are softer. After routing, the scrap is cut away on the bandsaw and sanded to a curved shape. The author uses a balloon sander.

