



CHERRY LEG
WITH EBONY
FOOT



Often add decorative, contrasting feet to furniture legs. While they aren't suited to every style of furniture, they can add a lot of visual interest and refinement to tables, chairs, cabinets, chests, and beds.

I tend to apply feet to legs with four-sided tapers. The tapers begin partway down the leg, leaving a square section at the top that makes the leg easy to attach to the piece. So I'll focus on tapered legs in this article.

The feet take two main forms. The most



Add Elegant Feet

Whether veneered or solid, decorative

Solid feet are the simplest

If the leg is thick enough to accommodate a sturdy dowel (at least $\frac{3}{8}$ in. dia.), and the foot material isn't too pricey, you can simply add solid blocks of wood to create feet. These go on while the leg is still square, then the leg and foot are tapered as one piece.



Mark centers. The foot blank is smaller than the leg blank, saving some of the expensive wood used for some feet. Connect corners to mark centers.



Drill for dowels. Move the drill-press table to one side and clamp on a square block as shown to hold the parts vertically. Drill at least $1\frac{1}{2}$ in. into each part.



basic is a solid wooden block, attached to the bottom of the leg blank with a dowel joint. The two parts are then shaped as a single piece, making it easy to create tapers or curves that flow from leg to foot. The other form is cuffs, which are applied veneers that look exactly like a solid foot.

While solid feet are quicker and easier to attach, the cuff approach opens the door to decorative woods that would be prohibitively expensive in solid form. I also choose

veneered cuffs when a solid foot would be too narrow to accept a durable dowel joint.

Whether the feet are solid or veneered, I often add decorative details to enhance the appeal. The simplest is a small V-groove routed into a solid foot. Another is a band of inlay, glued into a routed groove, often placed at the transition between leg and

foot, which has the added benefit of hiding any gap there. The banding can range from thin stringing to more complex store-bought designs, but the techniques are similar for either.

Read on, and you'll find that there's nothing preventing you from adding beautiful feet to your next set of furniture legs.



to Tapered Legs

feet are easier than you might think

BY CRAIG THIBODEAU



Spread glue and assemble. Squirt some glue into the holes, spread it with a small stick, and spread some on the end grain and dowel as well.



Align and clamp. Align the corners of the foot with the crossed lines on the leg, and clamp the joint with a single bar clamp. Position the clamp carefully so the foot goes on straight.



Taper the leg and foot. Use a sled-type jig and remember to reposition the stops after the second taper is cut.

Proud veneered cuff

Another approach is to apply thick (just under $\frac{1}{8}$ in.) veneers to the leg, creating a contrasting foot that stands a little proud of the leg. After the glue dries, bevel the top of this veneered cuff to align the top edges and refine the look.



Two at a time. Mark a line $\frac{1}{8}$ in. above the top of the foot (so you can erase it later). Then spread glue on the leg and tape veneers on opposite sides, with their edges overhanging the leg slightly.

MAHOGANY LEG WITH WALNUT FOOT

Solid feet are the simplest

The most straightforward approach for adding decorative feet to your furniture is joining a solid-wood foot to the bottom of the leg. I connect the parts with a sturdy dowel—at least $\frac{3}{8}$ in. dia. and 3 in. long.

To make sure the lines flow smoothly from leg to foot, I do all of the leg shaping after the foot is attached. You can cut the leg and foot tapers (or curves) beforehand, but I've found that there's often a very slight misalignment between the two no matter how precise the layout and drilling have been. It's much easier to drill accurate dowel holes while the parts are still square.

To drill accurate dowel holes into the end grain of the leg and foot blanks, I clamp the parts upright in the drill press, with the help of a 90° block that I clamp to my drill-press table (see p. 44). I like to drill at least $1\frac{1}{2}$ in. into each part.

Cut the dowel $\frac{1}{4}$ in. short to leave space for excess glue to collect, so the joint is sure to come together, and be sure to dry-fit at least one joint before applying glue and assembling all four.

There are a number of table-saw jigs—both shopmade and store-bought—for making four-sided tapers. The best are sleds,



Cork-lined cauls. Thibodeau uses $\frac{3}{4}$ -in. plywood cauls with a thick layer of cork glued on to help spread the clamping pressure evenly. Keep the glue away from the top edges of the veneer to prevent squeeze-out there.



Shave the edges flush. Make light paring cuts with a chisel or block plane until the overhanging edges are flush with the leg. Pivot the chisel or plane toward the leg to prevent splintering as you pare.



Add the last two veneers. The process is the same for these, but check that the top edges of all four veneers are aligned as well as possible.



Bevel the top edges. Trim the overhanging veneer, and then apply tape along the top edges to protect the leg. Bevel those edges with light paring cuts, correcting any misalignment at the same time.



WALNUT LEG WITH HOLLY FOOT



Rabbet two faces at first. Using a miter gauge on the router table, cut rabbets on two opposite faces, a hair shallower than the veneer. The router-table fence acts as a stop to set the height of the rabbets.

Flush veneered cuff

If a leg is too thin for a dowel joint, or the foot material is too rare or expensive to be used in solid form, you can create a flush cuff by pressing veneers into shallow rabbets.



Adjust the miter gauge. The router table's miter gauge is set to 1.25° here, to match the taper of the leg, ensuring that the top edges of the rabbets will line up. To figure out the angle of a tapered leg, you can use a "right-triangle calculator" online.

with a base that carries the leg over the saw, like the one Tom McLaughlin presented in *FWW* #268 (May/June 2018). The photo on p. 45 illustrates using a tapering jig like this.

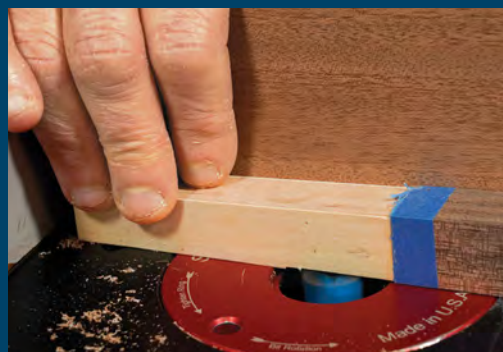
If you're adding any decorative details to the leg (covered later in this article), finish-sand the legs and feet so all of the mill marks have been removed and the legs are at their final shape.

Try a proud veneered cuff

Another way to add feet is to glue thick, shopsawn veneers to the outside of the leg, creating a contrasting cuff that stands slightly proud of the leg. I use this approach when I think a piece needs a stronger-looking foot.



Apply two veneers at a time. Spread glue in the rabbets, tape the two opposite veneers in place (left), and use cork-lined cauls to even out the clamp pressure.



Rout the last two rabbets. This step also trims the overhanging edges of the first two veneers. Start these rabbeting cuts at the top of the foot, and then work your way toward the end of the leg.



Apply the last two pieces. After the glue dries, trim the overhanging edges with a chisel and sanding block. Then sand the veneers flush with the rest of the leg, using a hard block.



Banding groove. Match the router bit to the width of your banding (Thibodeau recommends $\frac{3}{8}$ in.). A down-cutting spiral bit will make the cleanest cuts. Once again, make sure to match the miter-gauge angle to the leg taper.

Three decorative details

Here are three great ways to elevate the look of contrasting feet like these. Consider the look and style of the rest of the piece when choosing details like these.

INLAID BANDING (WENGE LEG WITH ANIGRÉ FOOT)

Legs with veneered cuffs are prepared in a different order than legs with solid, glued-on feet. Here the leg blank needs to be fully shaped and sanded to the final grit before the cuff veneers are added. All of the sanding should be done with hard blocks, to keep the surfaces flat and uniform, and no softening of the edges should

be done until after the cuffs are added.

Pencil a layout line around the leg blank a little above where you actually want the top of the cuffs to be, so you have room to erase the line after applying the veneers. Then, when applying the cuffs, simply eyeball their alignment with the line. If they end up a little wonky, you can remedy that with the chisel work that comes later.

Resaw the thick veneers as you like. I typically use a bandsaw and then remove the saw marks with my drum sander. You can also cut these small slices cleanly on the table saw.

After applying the veneers, use a wide chisel to add a decorative chamfer along the top edges. This little bevel makes a big difference in how the foot is perceived, and it lets you correct any misalignment at the same time.

I sometimes clamp on a little angled block to guide the chis-

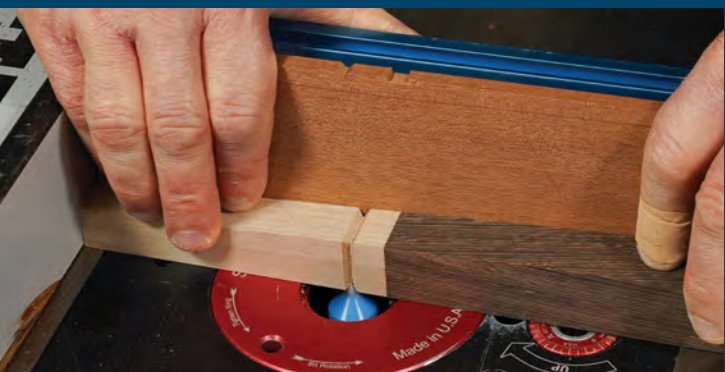
el—with some sandpaper and an end stop added to the back to keep the block from shifting—but more often than not, I simply bevel the top edges by eye.

Flush cuff expands the possibilities

To create a flush foot that looks just like a solid one, you can rabbet the lower section of a solid leg and apply veneers. Whether the veneers are commercial or shopmade, this approach puts a new world of woods at your disposal.

To get the top edges of the rabbets to line up on a tapered leg, you'll need to run the leg over the router table at an angle slightly off 90° (by the amount matching the angle of the taper, which is 1.25° for the legs I'm making here). A miter gauge is best for this. There are lots of online calculators that will convert the width and length of a taper to a specific angle (look for a "right-triangle calculator").

V-GROOVE (WENGE LEG WITH ANIGRÉ FOOT)



Same router-table setup. Use the same router-table setup shown earlier to rout $\frac{1}{8}$ -in.-deep grooves, using a 90° V-groove bit. Remember to angle the miter gauge to match the leg taper, and add a backer board to prevent blowout at the back edge.



Miter the banding. Use a handsaw and a simple angle block to cut the miters, and fine-tune them with a small sanding block.



Dry-fit is a must. Tape each piece into place, and use it to mark the length of its neighbor. Make sure all four fit together perfectly.



Tape acts as a clamp. Line up the backs of all four pieces and apply a strip of tape to them. Then wrap them around the leg.



Wrap it up tight. Make sure each piece is fully seated in its groove, and wrap the end of the tape around the leg to close the last joint. Feel free to wrap more tape around the leg if needed.

Be sure to attach a backer piece to the miter gauge fence to prevent blowout on the back edge of the rabbets. If you don't have a high-quality miter gauge, or don't have a miter slot to run it in, you can support the leg with a large, angled block that runs against the router table's fence. You'll also need a straight router

bit that's at least $\frac{1}{2}$ in. dia.; a $\frac{3}{4}$ -in. bit will produce an even cleaner cut.

There are a number of details you can add to these furniture feet to add visual appeal or to hide problems at the foot joints. For banding, I tend to use commercial material that is $\frac{3}{8}$ in. or 8mm wide, using the same-size router bit to

cut its grooves. And I almost always go with $\frac{3}{8}$ -in.-wide stringing, using a $\frac{3}{8}$ -in. carbide down-cut inlay bit (\$32 from StewMac.com) to rout grooves for it. The banding and stringing is all roughly $\frac{1}{16}$ in. thick. □

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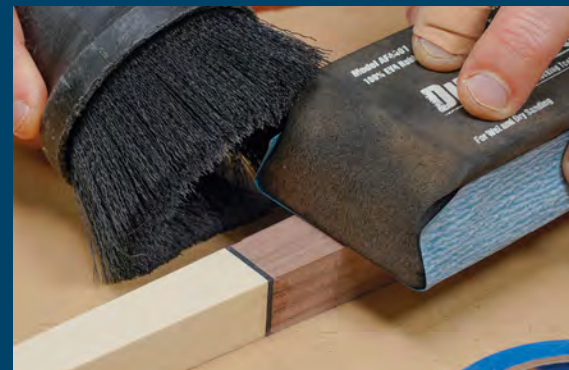
INLAID STRINGING (WALNUT LEG, EBONY STRINGING, AND HOLLY FOOT)



One at a time. Cut the grooves with a $\frac{3}{8}$ -in. bit and the same router-table setup covered earlier. Glue the pieces one at a time, with butt joints. Hold each down briefly, then add tape.



Trim the ends flush. Each piece of stringing will have one overhanging end. Trim those flush with a sharp chisel, pushing slightly toward the leg to prevent breakage.



Sand the inlay flush. Sand the veneered feet and inlay flush with the leg using a hard block. Use continuous suction to keep dark dust out of light woods.