My Kitchen Table

A knockdown design for a man on the move

by Tim Gilchrist

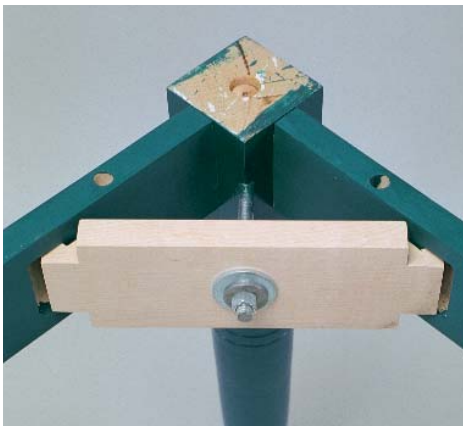
I built my first kitchen table a number of years ago when I was still in college. My intent was to create a stylish yet indestructible platform capable of withstanding all potential abuse. I also wanted a piece of furniture that I could take apart and move at the end of the school year. That solid red oak structure bears its battle scars well. The table could support seven full kegs of beer at once, withstand the deeds of careless roommates and then be taken apart and moved with ease.

Now that I have a real job, a house and drink beer out of bottles, I decided to build a new table. I wanted something more stylish but with the same stalwart presence and convenient mobility of my trusty red oak table. I spent some time in furniture stores looking at tables for design inspiration before I found a style I was happy with.

Let your lumber supplier do some of the work

I work in a really small basement space. The dominant feature of the workspace is a large cast-iron oil burner, so I don't have room for a lot of equipment. I do all my work on a Shopsmith combination tablesaw, bandsaw, lathe and drill press. Because I don't own a jointer or a planer, I buy most of my lumber already surfaced. It

Photos: William Duckworth



This table was made to be taken apart. *The author wanted sturdy and easily transportable furniture. A solid maple top and a knockdown design answered those needs.*

costs a little more, but I don't have any other choice, short of dressing it all by hand.

For this table, I chose 5/4 maple for the top and the apron, dressed to a full 1 in. thickness. For the turned legs, I got a good deal on some 8/4 Eastern white pine, clear as a winter's day. So I had it dressed to a finished 1¼ in. thickness and laminated each leg from three thicknesses for a full 3¾ in. dimension. I'd never turned pine before. With this job, I learned that you have to keep your turning tools extra sharp to cut the pine cleanly.

Knockdown joints

My job may require me to relocate from one coast to the other, so I wanted to be able to take this table apart easily for the move. I've seen the stamped metal corner braces held in with wing nuts on hanger bolts on a lot of mass-produced furniture, but they looked too flimsy for my taste. So I designed a wooden corner gusset that would do the same thing. The ends of all four gussets and all four apron pieces were cut into tenons. The gussets fit into mortises cut into the inside of the apron pieces. The apron tenons slip into regular blind mortises cut into the legs (see the drawing on p. 68).

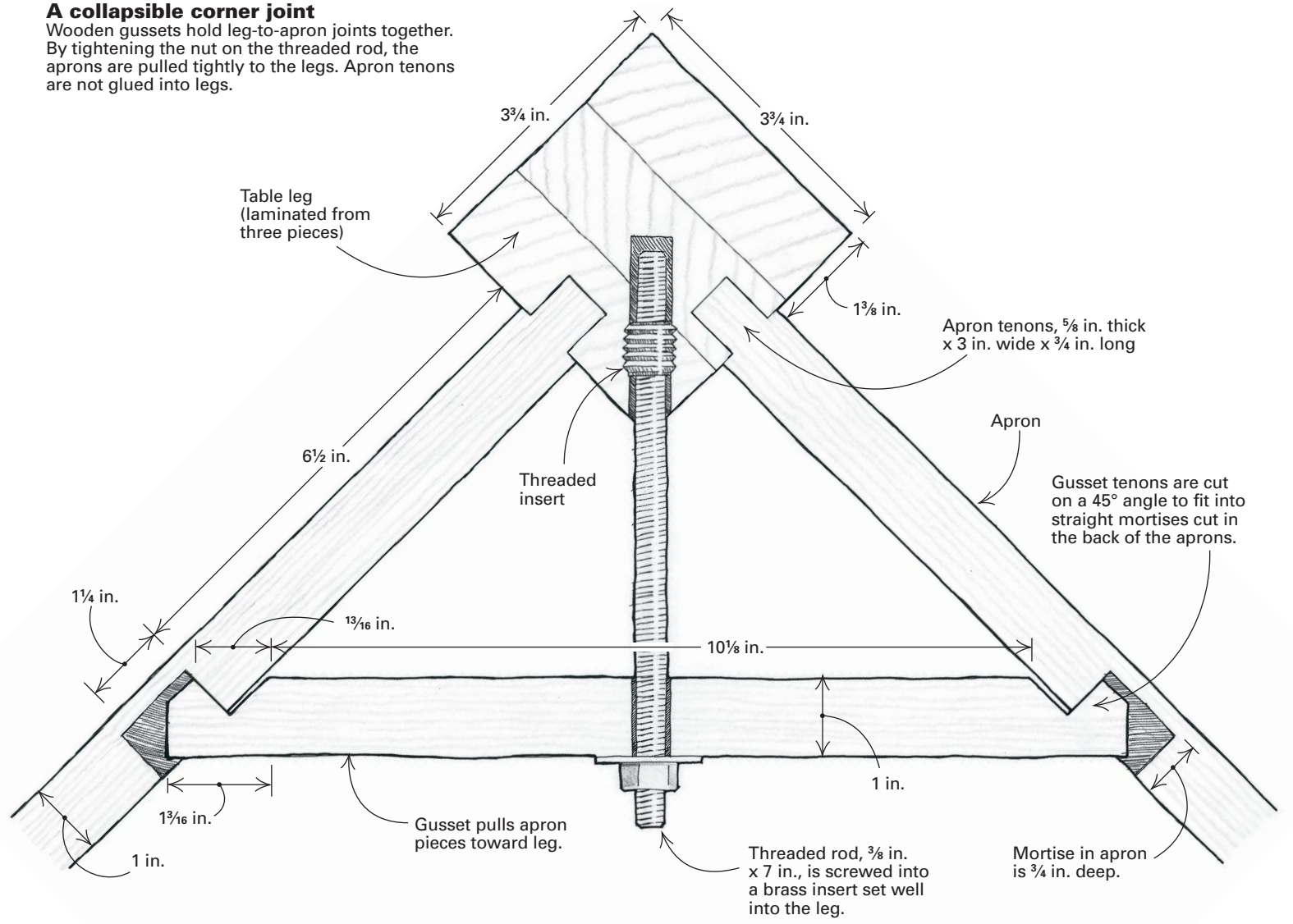
I cut all my mortises the same way, using the drill press. First I drilled a series of holes with a flat-bottomed bit, and then I cleaned them out by hand with a chisel (see the photo at right on p. 68).

I cut the tenons for the ends of the apron pieces with my miter gauge on the tablesaw, making all the necessary adjustments first on a scrap of the same thickness. I don't own a dado blade, so I just made a lot of repetitive cuts with a regular sawblade and cleaned up the tenons with a chisel.

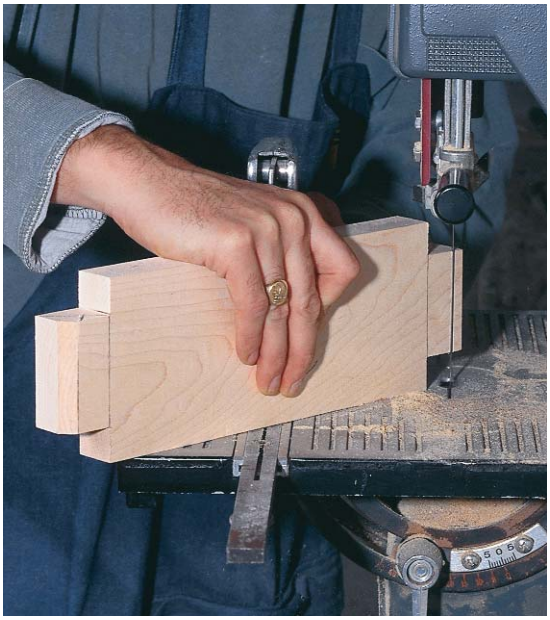
Tenons for the gussets were a little more complicated because the corners had to be cut on an angle. That way, the gussets draw the apron pieces tightly into the corner joint with the leg. I made all the cuts for the gusset tenons with the bandsaw. I started by marking all the corners with a pencil, using a combination square, and then cutting the tenons to shape with the gussets held flat on the saw table (see the photo at left on p. 68). After that, I turned each piece on edge and made the angled cuts for the tenons (see the center photo on p. 68).

In place of the hanger bolt on the stamped

A collapsible corner joint
Wooden gussets hold leg-to-apron joints together. By tightening the nut on the threaded rod, the aprons are pulled tightly to the legs. Apron tenons are not glued into legs.



Tenons for the gussets, *cut to size and shape with the bandsaw, pull the apron pieces tightly to the legs.*



Angles in the tenons*, marked in pencil, are cut freehand to the right profile. The gussets are held on edge to make the cuts.*

Gusset mortises*—After boring holes on the drill press, the author cleans out the mortises by hand.*

Drawing: Michael Pekovich

metal corner braces, I used a length of ⅜-in. threaded rod screwed into a brass threaded insert driven deep into the corner of each leg. I used the drill press to make the pilot hole for the threaded insert. Once I'd marked and drilled a hole for the threaded rod in the first gusset, I used that one as a master. I made a mark for the holes in the other gussets by placing them underneath the first one and twisting a brad-point bit through the existing hole.

Turned legs—copy the first one

The legs were turned from laminated blanks, 3¾ in. sq., cut to length at 28 in. Even in pine, this size was asking a lot of my little lathe, so I ripped some waste off the corners with the bandsaw before doing any turning. I made a jig to cradle the stock as I trimmed it on the bandsaw. The jig consists of several plywood scraps cut in a V-shape in the tops and held together with two lengths of ⅜-in. dowels.

Because of the length of these cuts, I clamped a scrap of wood over the bandsaw tabletop to serve as a temporary extension. That way, the jig could move in one even and continuous run. To indicate where to stop the cuts, I marked the tops of the legs with a pencil.

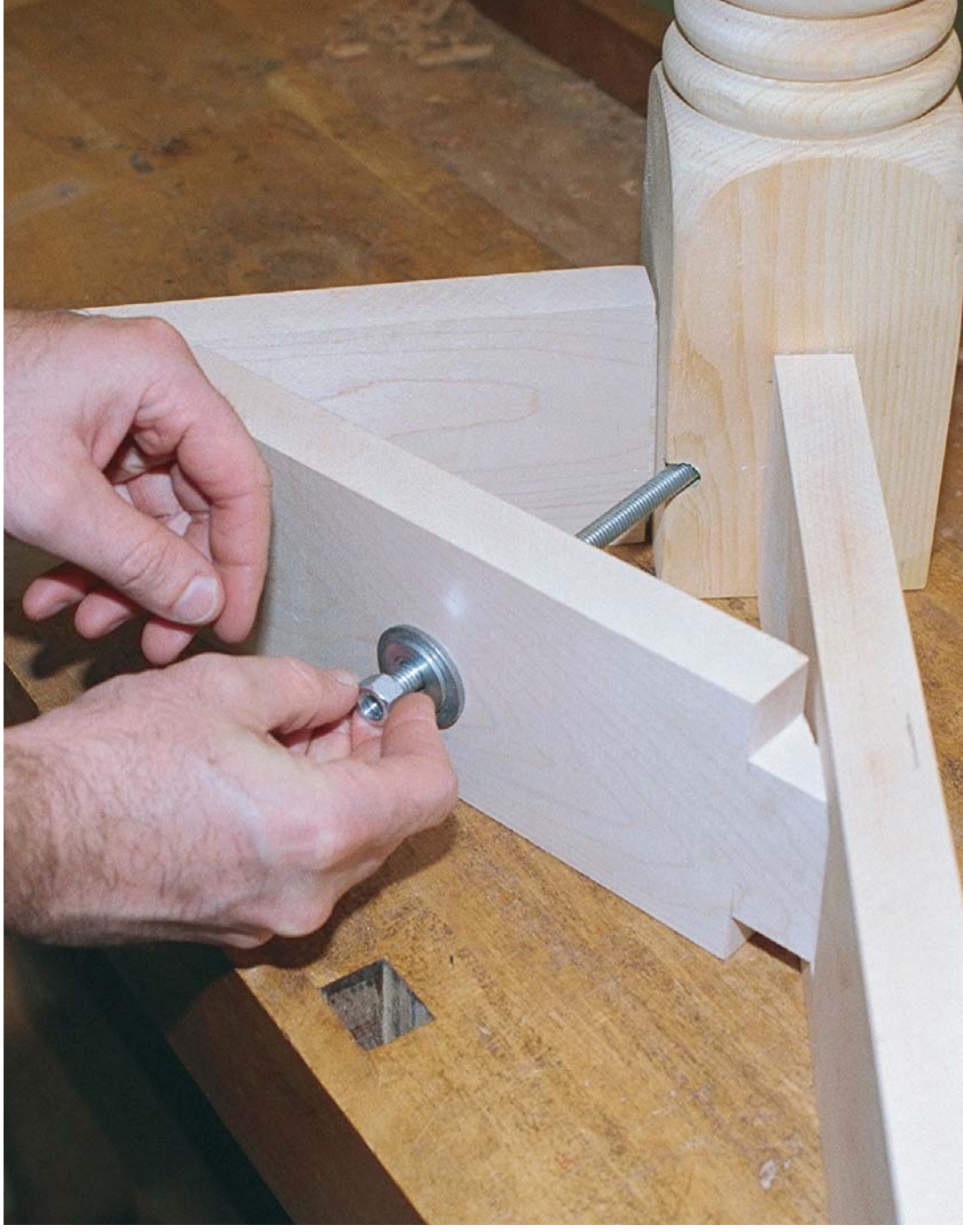
To give me a good idea of the profile, I laid out the turned shape in pencil on one edge of the first leg. Then I scribed pencil lines for all the reference points that defined the shape—grooves, beads and so forth. When I was happy with the way the leg looked once it was turned, it became the master for the others.

A solid top built to take abuse

Because of my limited shop space, I had to use the floor to lay out and mark all the pieces for the top. I used six boards ripped to three different widths to arrive at a finished width of 32 in. for the tabletop.

I usually work alone, and I don't own a biscuit machine. So when I have to join a lot of boards, I glue up one joint at a time—it's easier to maintain control over the results. Even then, with this top, there were several joints in which one board sat 1/32 in. or so proud of another. That didn't bother me. I planed those areas out by hand and sanded the surface to clean them up a little. A little gouge or a mark from a handplane can give character to a country-style design like this one.

To join the top to the apron, I drilled and countersunk pilot holes through the bottom edges of the apron pieces. After fitting the top in place, I marked for threaded inserts in the underside. The holes through the apron were drilled out larger than the screws that would hold the table in place, to make some room for the top to move.



Sturdy knockdown connection—*A length of threaded rod is screwed into a threaded insert in the leg to provide a post for the gusset. When a nut is tightened against the outside face of the gusset, the table aprons are cinched tightly against the leg.*

Finishing up

I chose to prime and paint the legs and the apron pieces with a good quality oil-based paint because I knew that it would stand up well to the rigors of daily use. I picked the hunter green color because it seemed to go so well with the clear maple top. For the top, I used several coats of Homer Formby's tung oil mixture. After about a week of drying time, I waxed the top for additional protection.

I was happy with the results—a rugged table I can take with me if I'm forced to make a career move—a table I can use to pay bills, fix odds and ends around the house, even prepare and eat food. As my college buddy from Memphis would say, "That dog can hunt." □

Tim Gilchrist works as a marketing consultant and builds furniture for fun in Simsbury, Conn.