

# Microadjustable Support Stand

The extra hand you need — and one more.

My grandfather used to call them “dead men” — T-shaped stands that he placed outboard of a tool or a workbench for additional support. They were the extra hands he needed to manage large workpieces — when I wasn’t around, that is. After I was old enough to have my own shop, I built dead men topped with rollers to help support the work. These roller stands are very useful — indispensable, really, unless you have a permanent grandchild installed in your shop.

The trouble is, sometimes a board droops as it leaves the worktable. By the time it reaches the stand, it may have dropped below the roller. You need a grandchild to guide the workpiece onto the stand, which, of course, puts you right back to square one.

Because my own grandchildren are not all that useful yet (they still tend to drool on the tools), I decided to improve my roller stand by adding an extension table. This table fills the gap between the stand and the worktable, supporting the workpiece and guiding it onto the rollers. It’s an extra hand for my extra hand, if you will. When I don’t need the table, it swings down out of the way, and I can use the roller stand alone.

I made one more improvement. When using a support stand or an extension table, it’s difficult to adjust it level with the power tool. So I made this stand microadjustable. A small screw jack makes it possible to dial in the position of the stand and the table in  $\frac{1}{64}$ " increments. Pretty neat, huh? You can’t get this option elsewhere, even on the better grade of grandkids.

## Building the Support Stand

The support stand is made up of four assemblies: the base, the roller head, the extension table and the jack.

*Nick Engler is the author of over 50 books on woodworking, plus countless articles and project plans. He has two granddaughters who are currently more interested in eating sawdust than helping him make it.*

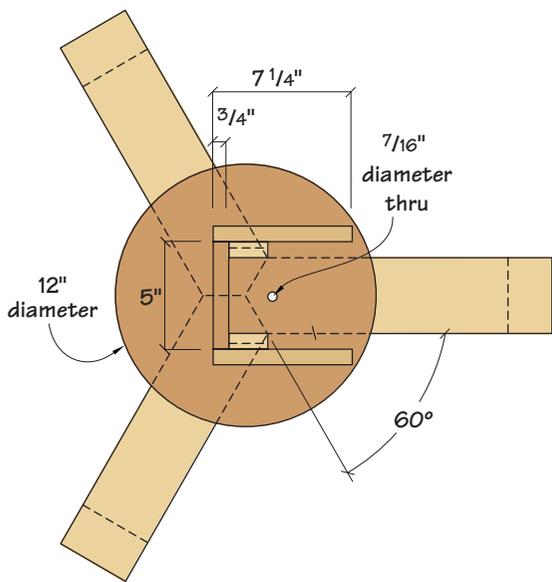


*To adjust the extension table level with the tool, lay a straightedge across them. Loosen the locking knob and raise the roller head. It’s so easy, you’re guaranteed not to curse and wake Fluffy.*

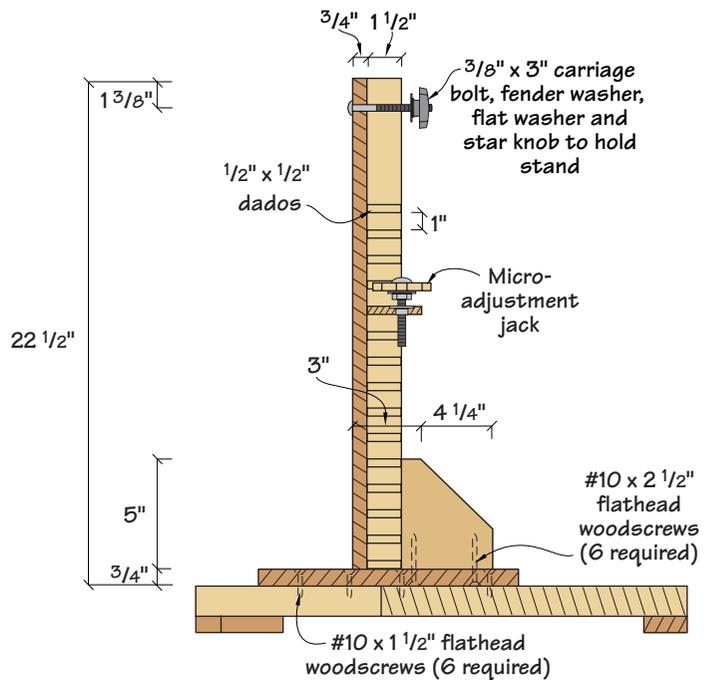
**Base** • The base rests on three feet so it will be stable, even on an uneven floor. The feet support a U-shaped channel that holds the roller head and guides it up and down. The sides of this channel are dadoed to hold the microadjustment jack.

To make the base, double-miter the adjoining ends of the legs and attach them to the underside of a round plywood plate with screws and glue. Cut dados in a board





**Plan**



**Profile**

spaced every 1", then rip the board into two strips. Use these strips for the sides of the U-shaped guide. Assemble the guide and attach it to the top of the round plate.

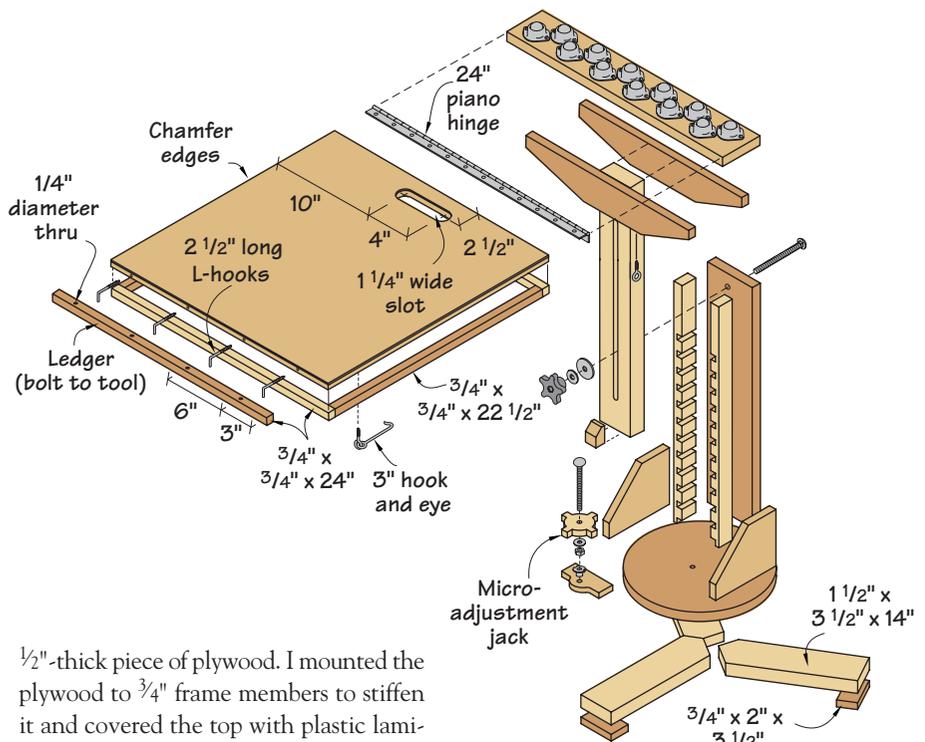
**Roller head** • To help feed the work across the stand, I used 1" roller bearings (sometimes called transfer balls). I like these doodads because they will roll in any direction. You can use them to rip, cross-cut or cut circles without having to worry about the roller pulling the work to one side if it isn't perfectly aligned with the direction of feed.

I arranged the rollers in two staggered rows on the top of a T-shaped mount. This arrangement packs the balls closer together and gives you more support when feeding narrow workpieces.

Rout a long slot down the center of the post that supports the roller head. When mounted in the base, a carriage bolt extends through the post slot and the back of the guide. A star knob and a fender washer secure the post in the guide. To adjust the height of the stand, loosen the knob.

As drawn, the support stand adjusts from 30" to 46 1/2" high — just a little lower and a little higher than the tools in my shop. If it doesn't work for your shop, you can change the height range by varying the length of the guide, post and slot.

**Extension table** • The table is just a



1/2"-thick piece of plywood. I mounted the plywood to 3/4" frame members to stiffen it and covered the top with plastic laminate to prevent the surface from wearing.

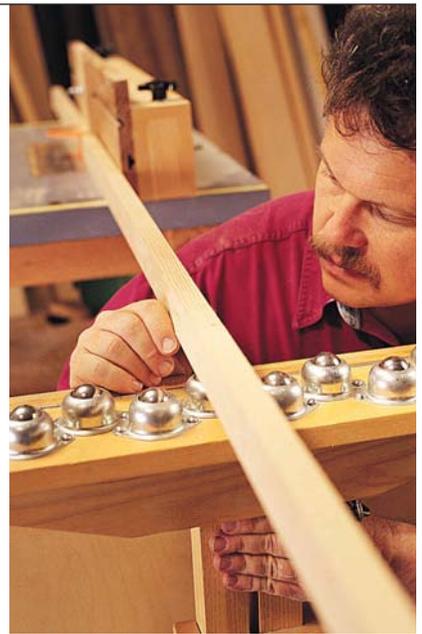
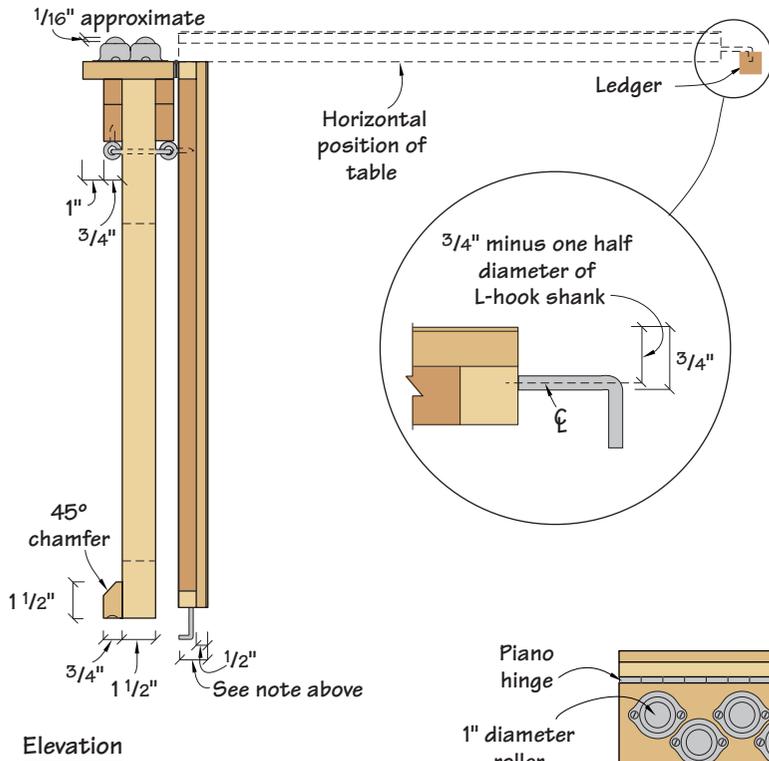
One end of the extension table is attached to the roller head with a piano hinge. Screw the hinge to the table first, then position it on the roller head. Have a grandkid hold the table out horizontal while you move the hinge until the tops of the roller bearing are 1/16" above the top of the table. Clamp the hinge to the roller head and secure it with screws.

The other end of the table hooks to a

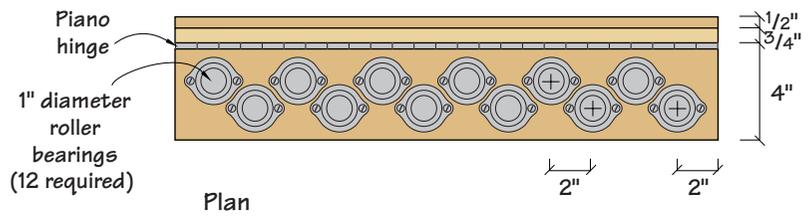
## SUPPLIES

Roller bearings  
Woodcraft  
210 Wood County Industrial Park  
P.O. Box 1686  
Parkersburg, WV 26102  
800-225-1153

# INGENIOUS JIGS



To use the roller stand alone, simply swing the extension table down out of the way.



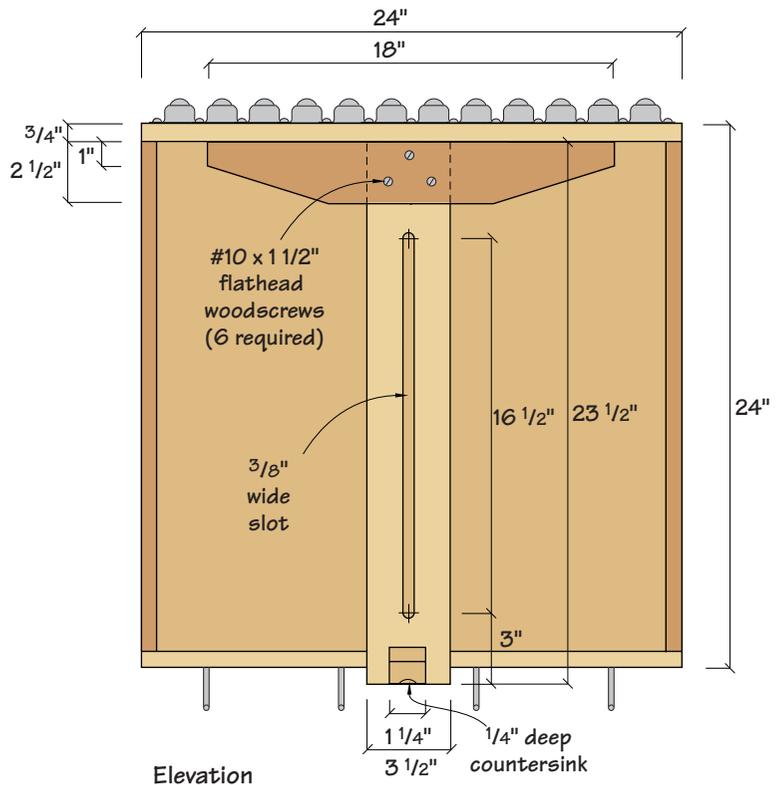
ledger. This is a one-by with a few holes in it. Bolt the ledger to the side of the machine or bench where you want to attach the support stand. The top face of the ledger should be precisely  $\frac{3}{4}$ " below the work surface. Install L-hooks in the end of the table, spaced the same as the holes in the ledger. The hooks fit in the ledger, securing the table. You can fine-tune the height of the table by bending the hooks.

I've made several ledgers and attached them to the tools where I use the support stand. I've attached two ledgers to my table saw — one for ripping and one for cross-cutting. This lets me move the stand wherever it's needed.

Cut a slot in the table to serve as a handhold to carry the stand around the shop. To keep the table from flipping up when you do this, install a hook-and-eye in the underside of the roller head and the extension table.

**Microadjustment jack** • The jack is just a carriage bolt that turns in a T-nut. The T-nut rests in a small base that's slightly wider than the post and thinner than the dadoes in the guide. This lets you slide

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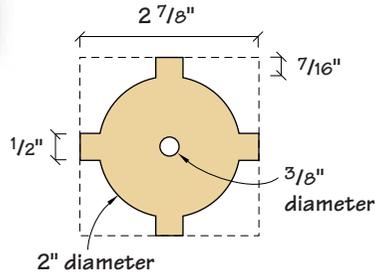
# INGENIOUS JIGS

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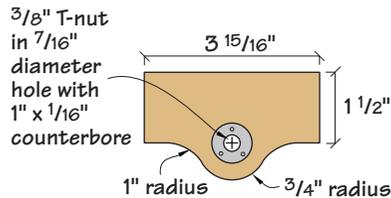
it in and out of the dadoes whenever you must readjust the height of the stand. The head of the carriage bolt is imbedded in a wooden knob with several tabs around the circumference. These tabs not only help you turn the knob, they allow you to calculate precisely how much you're raising or lowering the roller head and extension table.

The carriage bolt is  $\frac{3}{8}$ " x 16 threads — which is 16 threads per inch. Turn it just one revolution and you raise or lower the stand  $\frac{1}{16}$ ". One-quarter turn (one tab) moves the stands  $\frac{1}{64}$ ".

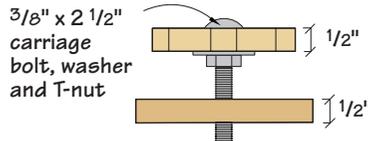
The top of the carriage bolt butts against a small wooden "finger" that is glued to face of the post, flush with the bottom. I drilled a shallow countersink in the bottom of this finger. The domed head of the carriage bolt rests in this countersink. This, in turn, keeps the bolt from wandering or wobbling as you turn the knob. **PW**



Jack Top Layout



Jack Base Layout



Jack Side View



Insert the microadjustment jack into the dado slots just below the post. Let the post drop down onto the jack, then turn the knob until you can't see any daylight between the table and the straightedge.