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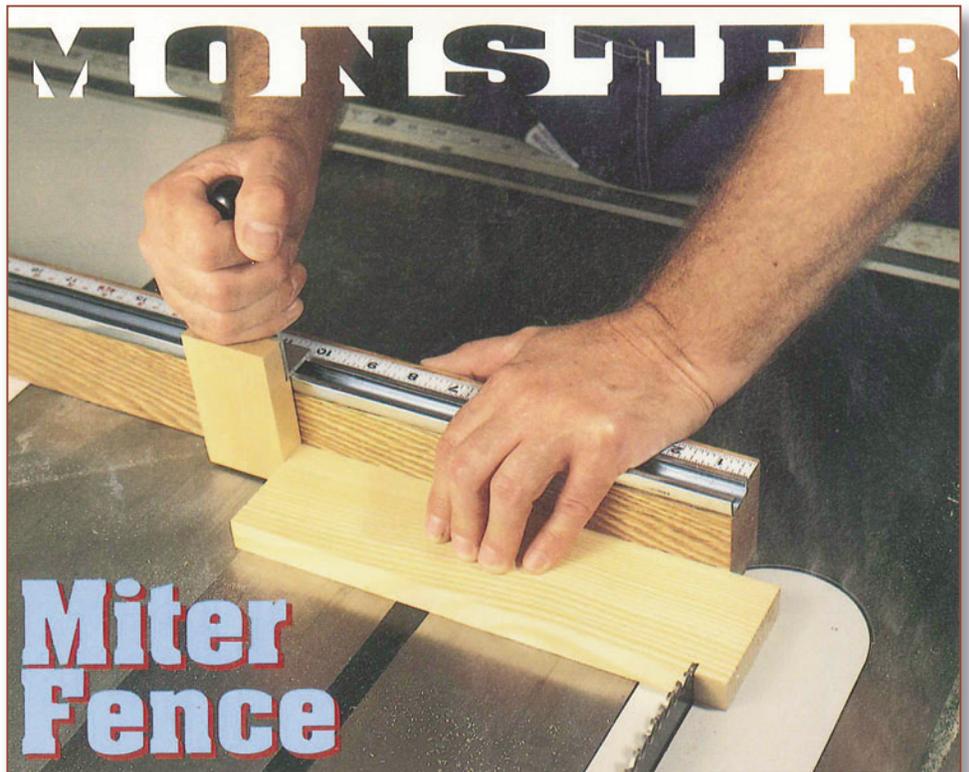


Classic Project

In this plan you'll find:

- Step-by-step construction instruction.
- A complete bill of materials.
- Construction drawings and related photos.
- Tips to help you complete the project and become a better woodworker.

Monster Miter Fence



Published in *Woodworker's Journal* November/December 1993



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WJC194



Among the hottest items in tool catalogs these days are slick aftermarket miter fence assemblies. While these items are one of the best add-ons we know of for the table saw, their price can easily exceed \$100—a figure that makes many a penny-pinching woodworker wince.

If you've lusted after one of those great aftermarket miter fences, here's your chance to build your own monster miter fence at a bargain price. For just the cost of hardware and stock, you'll have a jumbo-sized miter fence, complete right down to the handy stick-on measuring tape. Perhaps best of all, you needn't be a rocket scientist to build this fence or use it.

Choose Sides

Before you order the hardware for your miter fence, you'll need to make an important determination: on what side of the blade do you intend to use the miter fence. To take best advantage of all the miter fence's capabilities, you'll want to

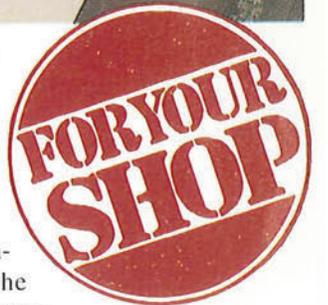
consider how your blades mount on the saw arbor (Fig. 1). If your blades mount on the arbor from the right, then work to the left of the blade and order the right-to-left reading tape. If the blades mount from the left, then work to the right of the blade and order the left-to-right reading tape. Considering how the blades mount on the saw arbor may seem like a fine point, but if you plan to make use of the miter fence's built-in measuring tape, and if you plan to use the jig in conjunction with a variety of blades and perhaps the dado head, then this point is important.

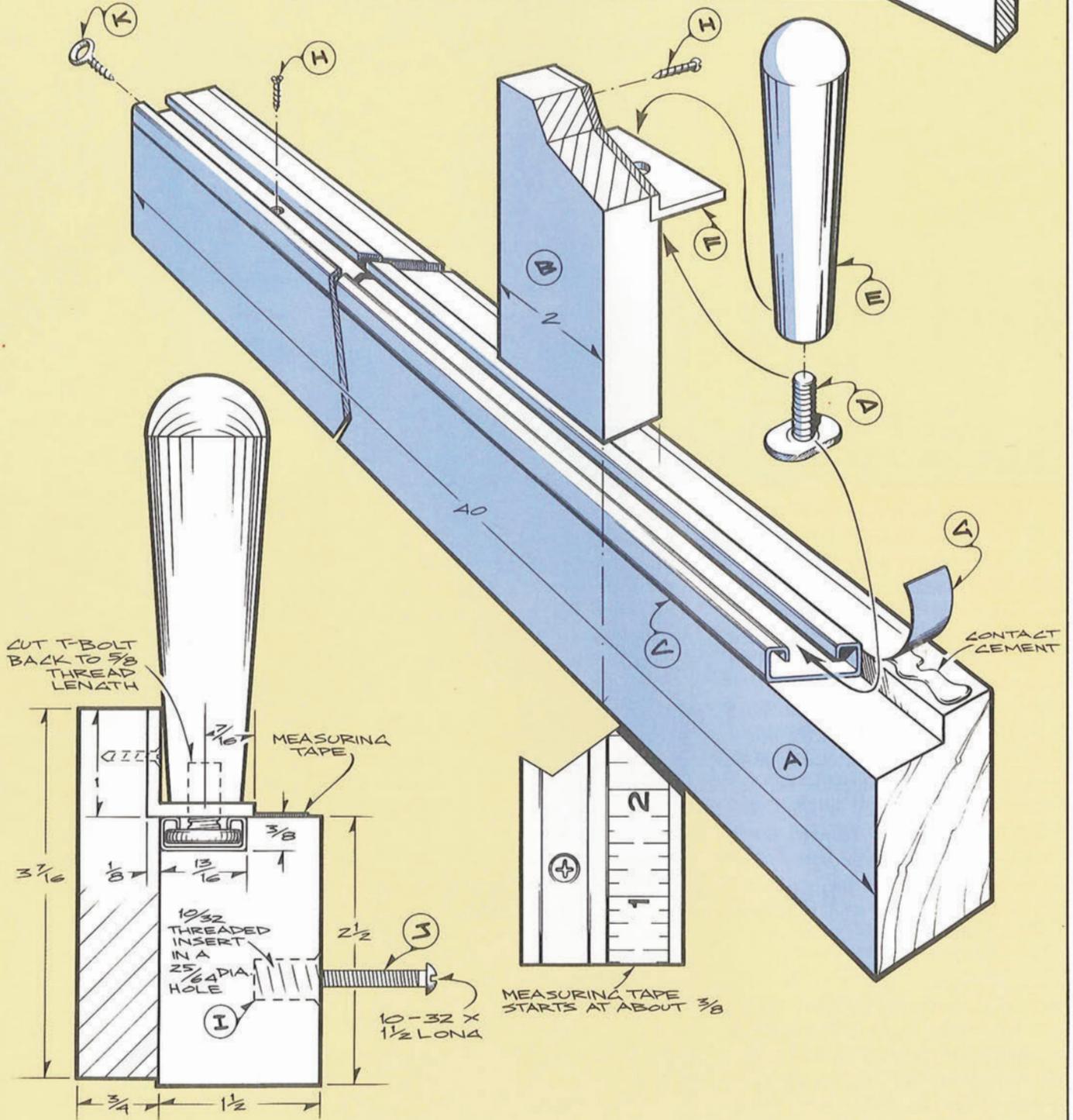
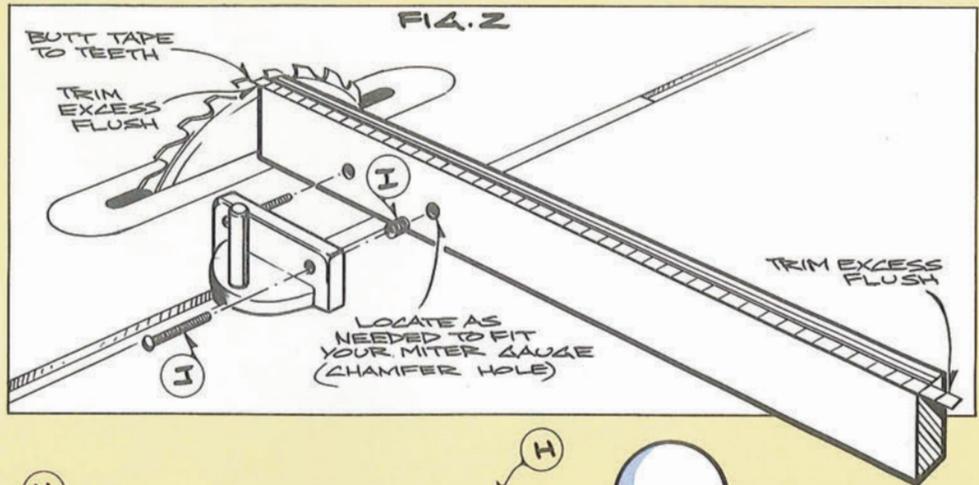
Why? Because by building the miter fence with respect to how the blades mount on the arbor, the fence will always be the same distance from the blade, no matter what the actual blade width (this is also illustrated in Fig. 1). Therefore, your tape will always read properly. Building the jig without regard to your saw arbor orientation would mean that the tape measure on the jig would only be functional with one

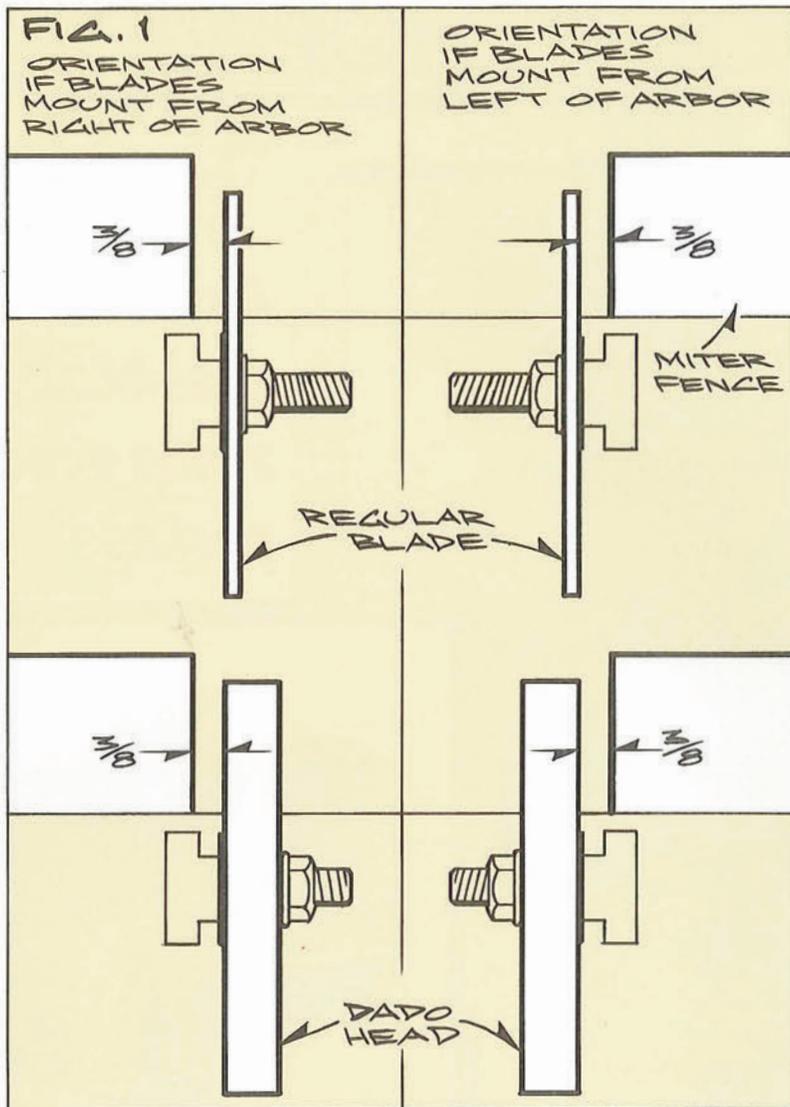
blade—the one you had in the saw when setting the original fence location on the miter gauge.

And you couldn't use a dado head in conjunction with the miter fence, since any width setting of the dado head greater than the $\frac{3}{8}$ in. that we've stepped the jig end back from the blade would result in the dado head cutting into the jig.

you'll need a straight 40 in. length of $1\frac{1}{2}$ in. by $2\frac{1}{2}$ in. stock for the fence itself (A), plus a small $\frac{3}{4}$ in. by 2 in. by $\frac{3}{16}$







Bill of Materials
(all dimensions actual)

Part	Description	Size	No. Req'd.
A	Fence	1 1/2 x 2 1/2 x 40	1
B	Stop	3/4 x 2 x 3 7/16	1
Hardware			
C	Track	13/32 x 13/16 x 40	1
D	T-bolt	5/16-18 x 1 3/4**	1
E	Post Handle	5/16-18 x 4 1/4	1
F	Angle	1 x 1 x 2	1
G	Tape	1/2 x 6 ft. long	1
H	Wood Screw	No. 6 x 5/8	7
I	Threaded Insert	10-32	2
J	Machine Screw	10-32 x 1 1/2	2
K	Screw Eye	3/4 dia.	1

** Use hacksaw to shorten threaded length of T-bolt to 5/8 in.

in. block for the stop (B). We used oak for our fence and maple for the stop. As with any project that requires hardware, we suggest you have the hardware on hand before starting.

Build the Miter Fence

Once your fence is cut to size, use the dado head to establish the 3/8 in. deep by 13/16 in. wide rabbet in the top edge. Note that the actual depth of the track (C) is 13/32 in., so the 3/8 in. rabbet depth will leave the track standing slightly (1/32 in.) proud once installed. This 1/32 in. is roughly equal to the thickness of the measuring tape (G). Drill and counterbore through the track for the five mounting screws (H), then mount the track in the rabbet.

Cut a 1/8 in. deep by 1 in. wide rabbet in the stop as shown to fit the angle (F), then drill and counterbore the angle for the pair of mounting screws, and for the T-bolt (D). Note that the length of the

stop allows a little space between it and the saw table—a feature that prevents the buildup of sawdust. Mount the angle to the stop, and shorten the threaded portion of the T-bolt to 5/8 in., enabling it to fit within the post handle (E). Add the screw eye (K) into the fence end (the screw eye is just a handy way to hang the fence on the wall), and your work on the jig itself is nearly complete.

Mount Fence to Miter Gauge

Next up is locating the fence on the miter gauge. It's best to allow about 3/8 in. between the blade and the fence end, so there's no danger of the blade contacting the fence when the miter gauge is set at an angle. A pair of threaded inserts (I) and machine screws (J) is used to make removal of the fence from the miter gauge a simple matter, once you are done using the fence. Mark for the threaded inserts by holding the fence to the miter gauge. Be sure to chamfer the

edge of the holes you drill for the inserts, to eliminate the tendency of the inserts to raise the grain as they're inserted. Although the inserts require a 3/8 in. diameter hole, we've found that drilling the hole slightly oversize eases the insertion. Don't try to use a screwdriver to mount the inserts. A hex-head bolt and ratchet are your best bet.

To mount the measuring tape accurately to the fence, raise the table saw blade so the teeth are flush with the top edge of the fence, then position the tape so that the end of the tape (G) just touches the teeth on the blade (Fig. 2). Although the measuring tape included in the hardware kit is self-sticking, we used contact cement to improve the bond.

Once the measuring tape is in place, trim the excess flush with both ends of the fence. The tape will start reading at whatever distance the fence is from the blade (about 3/8 in. on our fence). Your miter fence is ready to use!

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Thank you again for your purchase, and happy woodworking!

Matt Becker
Internet Production Coordinator