



Make 3 Great Projects for Your Home – The Easy Way!



BY MAG RUFFMAN

Lap Desk

Portable productivity with a nod to steampunk style.

The glorious thing about being self-sufficient is that you can usually figure out ways to create what you need.

My latest need arose after a bad case of Burning Thighs Syndrome, a malady caused by sitting on the couch typing on a laptop computer. With my quadriceps performing as heat sinks for the laptop's toiling battery, I had the hottest legs in Canada.

I switched to writing longhand in a thick journal that never overheated. But to raise the book to a comfortable height for writing I'd have to pile up cushions on my lap, thereby creating a new thermal emergency.

My solution was this perky lap desk, a well-ventilated little unit that adjusts to serve the user's purpose and thigh thickness.

Oaken-hearted

Start by cutting your desk surface to length with a circular saw (or Japanese-style handsaw if you want perky rear deltoids). By the way, you might be tempted to use pine, but I learned the hard way that pine turns to mush around the insert nuts and the side pieces end up with hip dysplasia. Plus if you drop it on concrete, the side pieces shatter. Just sayin'.

Using a hole saw, create a grid of holes in the surface for ventilation. To accommodate a computer mouse, leave approximately one-third of the surface unviolated by the holey grid.



Not so hot. This lap desk lets your computer (and your legs) breathe.

To make the desk surface appear thinner and more elegant, create a subtle ($1/8$ ") chamfer on the top and bottom edges of the desk using a block plane.

Get Jiggy With It

Next, cut out the side pieces using a jigsaw fitted with a scrolling blade. If you don't like my curvy design, sketch your own version right on the wood. Once you've jigsawed one half of the side piece, you can use the offcut to trace a symmetrical match for the other half.

Scrolling blades tend to scoff at perpendicularity so go slowly to prevent warbles and lumps in your finished side pieces. If you get them anyway, use a rasp to take out the wows. Or you can

create The World's Cheapest Drum Sander by gluing sandpaper to one of the cutouts from the desktop holes, and mounting it on a bolt with lock nuts. Install the stem of the bolt in a drill press or a cordless drill and watch this small sanding cylinder erase your jigsawing sins.

Use a contour-sanding flap-wheel to quickly soften all of the edges on the side pieces. A simple sanding sponge works too if you enjoy the meditative aspects of corrective sanding.

Next, sand the desk surfaces lightly, along with the inside walls of the ventilation holes.



Holey grid. Inexpensive hole saw kits are available at any home improvement store or hardware store.



Pattern. Use the offcut from the first half of your side piece to mark the matching shape on the remaining three cuts.

Then drill three height-adjustment holes in the side pieces using a drill bit that's just a hair bigger than the size of the post on your clamping knobs.

Black to the Future

Ebonize the pieces, if desired. Ebonizing is fun, cheap and permanent. And because the stain penetrates the wood fibers and creates a chemical reaction with tannins in the wood cells, it doesn't wear as easily as a surface stain.

Oak has a naturally high tannin content but you can accelerate and deepen the effect by pre-treating the bare wood with a concentrated mixture of boiled black tea (for a greenish-black cast), or red wine (for a blue-black tint).

Once the liquid has penetrated and is fairly dry, add a coat of ebonizing "rusty nail" stain (drop a handful of old steel nails, bolts and assorted trail mix – the rustier the better – into a jar of white vinegar. Let it fester for at least two days with the lid off). Enjoy the drama of chemistry as the wood instantly turns deep black. For a deeper hue, add a second coat of beverage followed by more ebonizing stain.

While you're ebonizing, make sure to treat a piece of oak moulding that you'll glue onto the desk surface later to act as a ledge that keeps books and computers from slipping off. Sand the moulding before staining to remove any goop or tool marks from the mill.

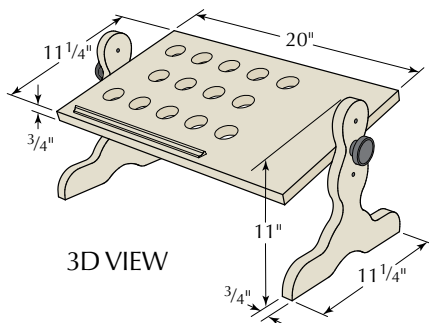
When it dries the oak grain will be hairy and splintery, so lightly sand all surfaces with #150-grit sandpaper.

Gloss-eyed

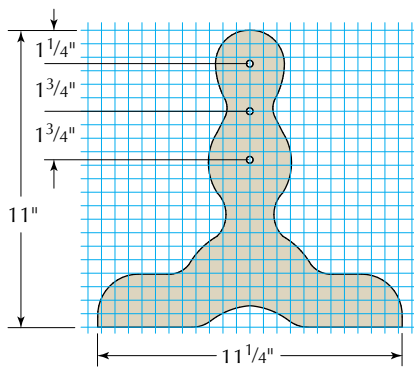
Next, give all pieces a clear coat. (I like acrylic driveway sealer because it's crazy-indestructible.)



On the cheap. Glue a piece of sandpaper around a hole cutout, then mount it on a bolt with lock nuts – instant drum sander!



3D VIEW



SIDE PATTERN

The clear coat might raise the grain again, so lightly sand after the first coat dries then apply a top coat. (Acrylic driveway sealer dries a bit shiny so I rub it with #0000 steel wool after it's cured to bring down the gloss.)

Now glue and clamp the moulding ledge onto the lower edge of the desk surface. If there's any glue squeeze-out, let it set up a bit before removing it with a scraper.

Finally, drill holes for the insert nuts using a bit diameter that matches the shaft of the insert nut (not including the threads). Drilling into end grain can be a cheek-sucking adventure in steering. Practice on scrap in a vise, attempting to keep the bit plumb. When you do it for real you might want a helper eyeballing

Supplies

Lee Valley

leevalley.com or 800-871-8158

- 1 ■ 1/4-20 insert nuts #00M90.01, \$6.90/10
- 2 ■ 1 3/4" clamping knobs (male) #00M56.11, \$2.30

Prices correct at time of publication.

Lap Desk

NO.	ITEM	DIMENSIONS (INCHES)			MATERIAL
		T	W	L	
1	Top	3/4	11 1/4	20	Oak
2	Sides	3/4	11 1/4	11	Oak
1	Moulding strip	1/2	1/2	12	Oak

the angle of your drill bit and screaming directional cues. Or not.

Finally, use a large slot-head screwdriver to screw each insert nut into the pilot hole until it's flush with the surface. Then assemble your lap desk with the clamping knobs.

You'll want to take your new lap desk everywhere including car trips, because most passenger seats lack tray tables – critical for navigational responsibilities and assembling snacks for the driver. **PWM**

Mag is a Canadian woodworker, television producer, writer, comedian and actress. Read her (very funny) blog at toolgirl.com.

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the basic operations in a step-by-step format. Visit ICanDoThatExtras.com to download the free manual.

Shaker Carry Box

Notched and nailed joints add visual interest to this simple project.

This form is typically called a Shaker silverware tray – but it comes in handy for ferrying all sorts of things hither and yon.

I got lucky at the big box store in finding some perfectly straight, flat and clear 1/2"-thick white pine with a bird's-eye-like pitch-pocket pattern.

At my home center, thin stock is available in nothing longer than 3' lengths. So to be sure I'd have plenty of that pretty "bird's-eye" for all my parts, I picked up three 3'-long and two 2'-long 1/2" x 6" boards.

A design note: The dovetailed piece that inspired this version (which can be found in the October 2007 issue of *Popular Woodworking Magazine*, #164) has half-pins at the bottom (and top) of the ends, which helps to support the sides as you lift. And for the notched construction shown here, it would arguably be a bit stronger to have the joints reversed so that notches on the ends support the front and back when you pick up the box.

But reversing the notches would mean two more shoulder cuts to bring the box ends flush with the outside faces of the front and back – technically, you would be cutting one box joint by hand at each corner (and a box joint is typically a machine joint). Those additional shoulders would make the pieces harder to fit well, and for our first handsaw cuts in the I Can Do That column, I elected to keep it simple. Besides, I'm not planning to put anything heavy in the piece; the nails will hold it together just fine.

You could also choose to simply reverse the joints and inset the ends so as to avoid a box joint – but I don't think that looks as clean (you'll find a bonus SketchUp drawing online for this approach).



Whichever approach you choose, the size of the workpieces remains constant; only the joint layout changes.

First Cuts

The ends are 5 1/2" wide – which is the actual width of 6"-wide dimensional lumber – so those two pieces need only be cut to their final 9 1/2" lengths, which I did at the miter saw.

The front and back are 16 1/2" long but only 4" wide. So before cutting them to length, mark out the cutline and use a jigsaw to cut them to width. If you have a little practice under your belt, you don't really need to set up a straightedge for this rip cut. Yes, you need the cut to be straight – but you can arrange the factory edge at the top and turn your cut to the bottom (and of course, you can quickly clean up your cut if necessary using a block plane). Now cut the front and back to length.

Joinery Layout

Set your adjustable square to 1/2" – or for more precise work, set it to the actual thickness of your wood. Put your wood face-down (or up) on your Workmate, then set the square's stock on the wood

and drop the rule down over the edge of your workpiece until it meets the table surface. Then tighten the thumbscrew to lock the rule in place.

Using that setting and a pencil, mark (or scribe with an X-Acto knife) a layout line on both faces and the top and bottom edges of both end pieces and the front and back. This is more easily accomplished with a marking gauge if you have one.

The notched cutouts are all 2" x 1/2". Reset your adjustable square for 2", then on each workpiece, mark a line from your first layout line to the edge



Pinch for precision. Just shy of your cutline, pinch with your fingers to form a guide for the cut. Slight changes in finger pressure will micro-adjust where the sawplate falls.

CONTINUED ON PAGE 62

of the piece on both faces, and across the end. It doesn't matter off which long edge you register the square for the front and back; the layout line is at the centerline of the board. On the end pieces, register off the bottom edge.

Time to Saw

We recommend a dozuki as your first handsaw, in large part because you can get a decent one at the home center. This Japanese saw cuts on the pull stroke, and the one in our kit has a back that stops short of the end of the sawplate, as you can see in the picture on the previous page. That's important, because the 2"-deep shoulder cuts can't be made if you don't have 2" of sawplate under the back—and this saw doesn't. So as I finish each long cut, I nibble away my cutline with the toe of the blade.

To make these cuts, pinch across the



Trim for precision. Hold your chisel at 90° to the work and gently pare toward the shoulder to create a flat mating surface for your joint. If you need to pare the end-grain surface, take lighter cuts—and use a sharp chisel.

work with your off-hand using the pads of your fingers to align the sawplate with your cutline. With your index finger extended toward the end of the saw, grasp the handle just enough to keep it from flying out of your grasp.

To start the cut, "hover" just barely on the work and pull the saw toward you. Align your body so that you can pull the saw straight back (and push it forward) using your shoulder to supply a locomotive-like motion. Saw straight

down to your baseline, then make the shorter cut—and on to the next one.

After all your notches are cut, dry-fit the pieces to ensure that you've sawn the mating surfaces on each one flat and straight. If necessary clean up your cuts with a sharp chisel.

Once your joints are fit, lay out the curve across the top and the handle holes on the two end pieces. Cut the top curves with a jigsaw. Then drill a hole inside the handle waste on each end piece, into which you can insert your jigsaw blade, then cut those, too. If clean-up is required, use a rasp, file and/or sandpaper.

Hammer Time

It's almost time to nail everything together. But first, cut cleats to fit inside the joined pieces, and glue and clamp them in place aligned with the bottom edge of both sides and the front and back. The notches make it easy to properly align the workpieces while you clamp them square. Drill two pilot holes through the long grain and into the end grain of each joint, then sink 5d finish nails to secure it together. Rip your bottom boards and cut them to length then drop them in place. A coat or two of clear Watco, and you're done. **PWM**

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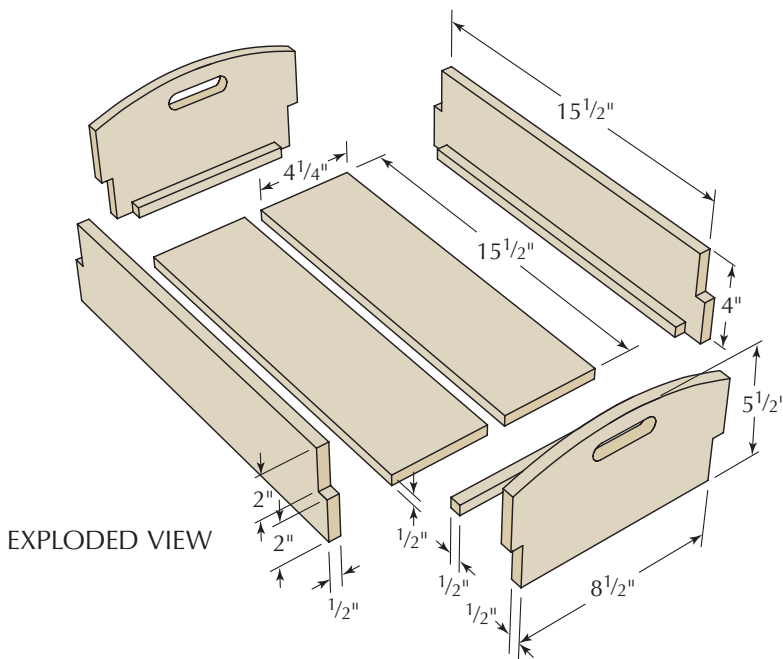
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Shaker Carry Box

NO.	ITEM	DIMENSIONS (INCHES)			MATERIAL	COMMENTS
		T	W	L		
2	Ends	1/2	5 1/2	9 1/2	Pine	
2	Front/back	1/2	4	16 1/2	Pine	
2	Bottom boards	1/2	4 1/4	15 1/2	Pine	
4	Cleats	1/2	1/2		Pine	Cut to fit

BY MEGAN FITZPATRICK

Small Bench

This simple seat is ideal for a hallway or porch.

This project is inspired by a period choir bench in my mom's dining room – but I modernized the Gothic revival design of the original with sweeping curves on the arms (instead of shelter arms), and left out the moulding and cutouts.

Panel Glueup

This bench is destined for a front porch, so to protect it from the elements, it's painted—a good thing, because the side panels are glued up from two distinctly different species of pine (one challenge of buying dimensional lumber from the home center)—and I used sticks pulled from the scrap bin for the cleat material (if you don't have suitable scrap, pick up 1x material at the home center).

The two side boards are solid panels; I glued up each from one 29"-long piece of 1x10 and one 29"-long piece of 1x8 (while you can purchase panels wide enough for the sides, I think they're insanely expensive).

So the first step is to set a stop-block 29" to the left of your miter saw blade, then cut two pieces from a 1x10 and two from a 1x8. Then, glue up your two 16½"-wide panels and set them aside to allow the glue to dry overnight.

Cut the Remaining Pieces

Usually, it's better to wait to cut your pieces until you need them, because often your actual build won't exactly match the cutlist. But for this bench, with the exception of the cleats, all the remaining pieces need to be the same



Easy seat. This simple (but good-looking) bench can be built in just a few hours' shop time.

length so set up your miter saw once and make all but the cleat cuts. Move the stop-block to 34" left of the blade, then cut the four boards for the seat and back from 1x8 stock, cut the stretcher from 1x4 stock and the shelf (which also acts as a lower stretcher) from 1x6 stock.

You can now set your stop-block to cut the two 13"-long cleats for the seat, then the two 5½"-long cleats for the shelf.

Curve Appeal

I played with a number of different curves for the arms, including no curve (which felt too boxed in) and a convex curve on the top corners to match the bottom cutouts (it still seemed bulky) before deciding on a sweeping concave curve. You should play around with it, and see what feels right to you.

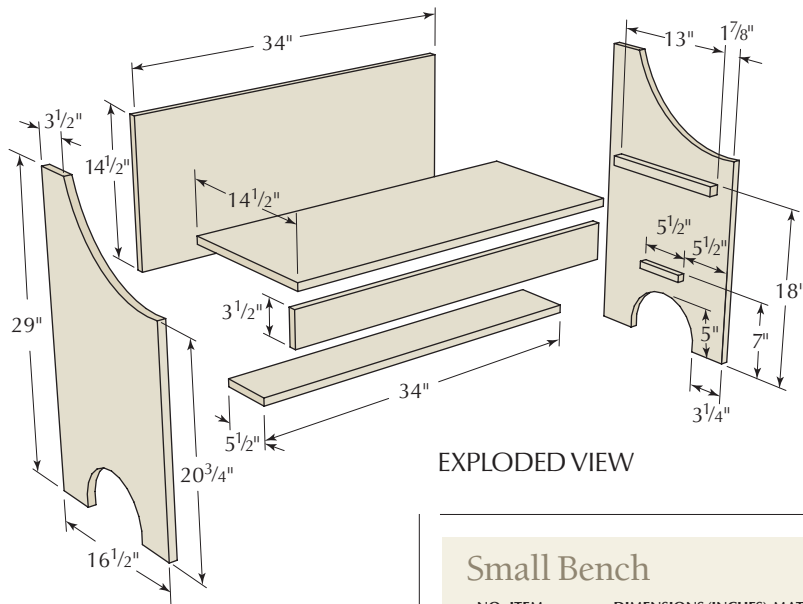
To mark the curve I used, sink a nail 3½" in from the back edge, just deep enough to stay in place, then mark the front edge 20¾" up from the bottom (or 8¼" down from the top). I used a thin, flexible offcut from the trash can, but you can use a flexible ruler or anything

that will bend neatly, and put one end against the nail, hold the other in place at your mark, then draw the curve with a pencil.

Now mark 3¼" in from the sides at the bottom, then pencil in a curve for the bottom cutout using the same method—or, if you have a large enough compass, that works, too. (The radius on the curve as shown is 5".) Be sure to leave enough meat on the ends to support a body's weight, and don't go above 6½" up with the apex of your curve; the



Mark a curve. A nail acts as a third hand while I mark the concave curve at the top of one side piece.



EXPLODED VIEW

top edge of the cleat for the shelf is 7" up from the bottom.

Use a jigsaw to remove the waste at both locations. If you've cut close to your lines, go ahead and use the first side to mark the curves on the second side. If you're way off the lines, you might want to shape the arm and base arc with a rasp and sandpaper before using it as a pattern.

Once both sides are cut, clamp them together to shape and sand the curves simultaneously so they'll match.

Start Screwing

Mark the cleat locations from the plan, drill clearance holes and countersinks, then put a line of glue on each, and screw the four cleats in place.



Plane to fit. If your backboards are slightly proud of the sides, take a few passes with a block plane at either end to curve the back pieces in to meet the sides. If the sides are proud and need planing, wet the end grain with alcohol to soften it, then plane them down to meet the backboards.

Small Bench

NO. ITEM	DIMENSIONS (INCHES)			MATERIAL
	T	W	L	
2 Sides	3/4	16 1/2	29	Pine
2 Seatboards	3/4	7 1/4	34	Pine
2 Backboards	3/4	7 1/4	34	Pine
1 Stretcher	3/4	3 1/2	34	Pine
1 Shelf	3/4	5 1/2	34	Pine
2 Seatboard cleats	3/4	3/4	13	Pine
2 Shelf cleats	3/4	3/4	5 1/2	Pine

Get someone to help hold a side in place as you drop your seatboards and shelf onto their respective cleats, then clamp across the width just tightly enough to hold things together. Now you can dismiss your helper.

Adjust the front seat board so it's 1/2" back from the front edge of the sides, tighten the clamp to hold it securely, then drill, countersink and screw through the outside into the end grain of the seatboard using #8 screws, at least 1 1/2" long (and make sure you drill straight—you have only a 3/4"-thick piece into which you're drilling; you don't want screw tips poking through into seated bottoms).

The shelf can be screwed or nailed to the cleats.

Now loosen the clamp, butt the second seat board against the first, and repeat.

The stretcher butts against the front end of the seatboard cleats. Clamp it in place and again, drill, countersink and screw through the outside of the side pieces.

It's easier to attach the bottom backboard first, because you can flip the bench on its front to position the lower backboard against the back seatboard (7 1/4" down from the top edge of the sides). Drill, countersink and screw it in place, both through the sides and into the rear seatboard. Then flip the bench back on its feet and secure the top backboard by screwing through the sides.

If your top backboard ends up proud of the sides (or the sides end up proud of the backboards), a few strokes with a block plane will solve the problem.

A Bright Finish

Fill your screw holes (if you like) with wood filler, let it dry, then sand it flush as you sand the rest of the piece up to #150 grit.

This piece is going on a front porch, so I chose bright red paint for a cheerful welcome. **PWM**

Megan is managing editor of this magazine. She can be reached at megan.fitzpatrick@fwmedia.com or 513-531-2690 X11348.

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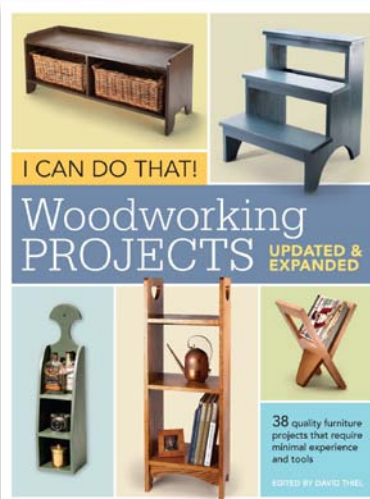


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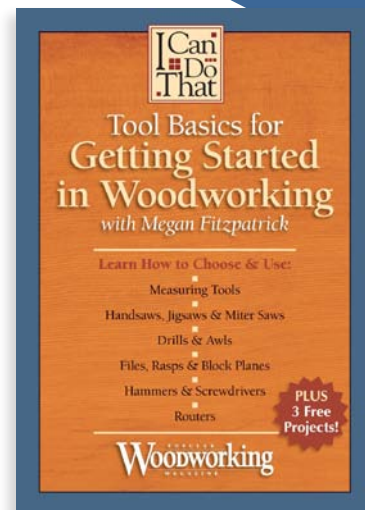
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