



# Door Hanger's Workbench

by Robert Brown

About ten years ago, I landed another job hanging doors and was grumbling about how much time it was taking — time that was eating up my profit. Back then, I was using carpet-topped sawhorses and a traditional door buck. The old contractor I was working for looked at these and commented, “You know, my regular door hanger (who for some unknown reason was no longer with him) does everything from the bench.” The idea began to grow on me, until I decided to design and build a door bench that would save me time and motion. It took several years’ worth of designs and redesigns before I came up with the final version shown below.

## Dream Bench

I had once seen a “cabinetmaker’s fantasy” of a door bench. It was beautiful, but impossibly heavy and unwieldy. Since I work a lot of short jobs, my dream bench had to be maneuverable enough to move easily

around site (try wheeling it around a corner into a tight hallway). I also wanted the bench to fold up and to be light enough to lift in and out of the truck, so I could haul it home each day and store it in my garage. The bench had to support different-width doors on edge, leaving the edge to be worked at waist height. (I’d learned that planing a 24-inch door that’s sitting in a door buck is not so good for the spine.) But the bench also had to be stable enough to resist the side force of cross-boring for locksets. Occasionally, I also have to lay the door flat, so the ends can be cut and planed.

To accomplish all this, I started with a basic bench: a 76½-x20-inch plywood top with a set of legs at each end made from a rectangular 2x4 frame. These legs swing down on 3½-inch butt hinges. A footboard joins each leg set at the bottom. To help settle the bench on uneven floors, the footboards have a small

relief along the bottom edge, which leaves short bearing pads on the ends. I cut the footboards 25 inches long — this is long enough to resist the bench tipping over but short enough that I don’t trip over them. For storage and transit, the folded legs are held snug against the underside of the bench with elbow catches — another secret to quick setup and take down.

To add stability, each set of legs is braced by a diagonal made of two overlapping 2x2s, held tightly together by a ¼-inch carriage bolt. To get sufficient leverage to tighten this bolt, I fashioned a large T-knob (wing nuts were a dud). The ends of the braces fold on T-hinges. When the legs are collapsed, the braces fold at the pivot and nest in flat against the underside of the benchtop. Be forewarned: It takes time and care to locate the correct pivot point for the braces so they nest properly and won’t flail around in space when the legs are folded in.

## Bench Details

Once the basic bench was assembled, I added three key details: the cradles, truck, and cross arms.

**Cradles.** Carpeted cradles hold the door on edge at a comfortable working height. These pop on and off with double-pin bed-rail hardware. I used two receiving plates so I could adjust the height. The upper position holds 24-inch doors. The lower position — used for 90% for my work — accommodates 26- to 48-inch doors.

The cradles are made of three pieces of 2x4, to form a pocket into which the edge of a 1¾-inch door can fit, with clearance for the carpet. (I have cradled 2¼-inch-thick doors, although the fit is very tight.) A rounded lip on the front of each cradle helps to guide the door as it’s being lowered in (blindly, if it’s a wide door).

To hold the door in the cradle position, I use a quick-closing clamp. This clamp is bolted to a piece of ply-



**Door hanger's bench.** Robert Brown wastes little time mortising for hinges and boring for locksets with this simple, elegantly designed workbench. His rig also serves as an easy-to-transport saw stand and work table.



**Figure 1.** The crossarms on top of the bench are designed to support a door lying flat. When used as a miter saw stand, the crossarms serve as stock supports.



**Figure 2.** Wheels make it easy for Brown to move the bench in and out of the truck.

wood that serves as the base for the cross arms.

**Cross arms.** To support a door lying flat on top, I made two 32-inch-long cross arms, using carpet-covered 2x2s on a wider plywood base. These are long enough to support 36- or 42-inch doors. The arms are also offset, so one end on each serves as a padded bumper for the door when it's in the cradle position.

To attach the cross arms to the bench top, I used a single captive  $\frac{5}{16}$ -inch bolt in the plywood that threads into a steel insert on the bench top. I also used a short  $\frac{1}{2}$ -inch dowel as an index pin, so I can quickly align the hole and tighten the bolt (see Figure 1). A second indexing hole allows me to swing the cross arms parallel to the length of the bench top when moving the bench around the job site without completely removing the arms.

**Truck assembly.** This otherwise cumbersome bench "floats" around the job site on 8-inch-diameter wheels mounted on a short, 10-inch axle. The wheel assembly is support-

ed by plywood (Figure 2), and is attached with a single bolt, similar to the ones that hold the cross arms in place.

The bench steers best when pushed rather than pulled. I found that placing the assembly about two-thirds of the way down the edge of the bench seemed to work best. The overhang at the far end helped counter some of the weight in my hand.

As a trim carpenter, I do more than hang doors. But the bench serves equally well for other tasks. Stripped of its cross arms, the bench makes a 6-foot-long scaffold, which can be moved by one person. With the crossarms, I frequently use the bench as a miter saw stand. The crossarms are at the right height for Makita and Hitachi saws, while the overhanging portions of the arms serve as a ready-made staging platform for long pieces of base or crown. For me, fewer trips to the ground means more energy at the end of the day. ■

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