BY CHRIS GOCHNOUR

# Expand your workbench with versatile bench hooks

Even in a contemporary workshop filled with power tools and timesaving devices, it often is more practical and convenient to perform some woodworking tasks, such as final fitting of joinery and detail work, at the workbench using hand tools.

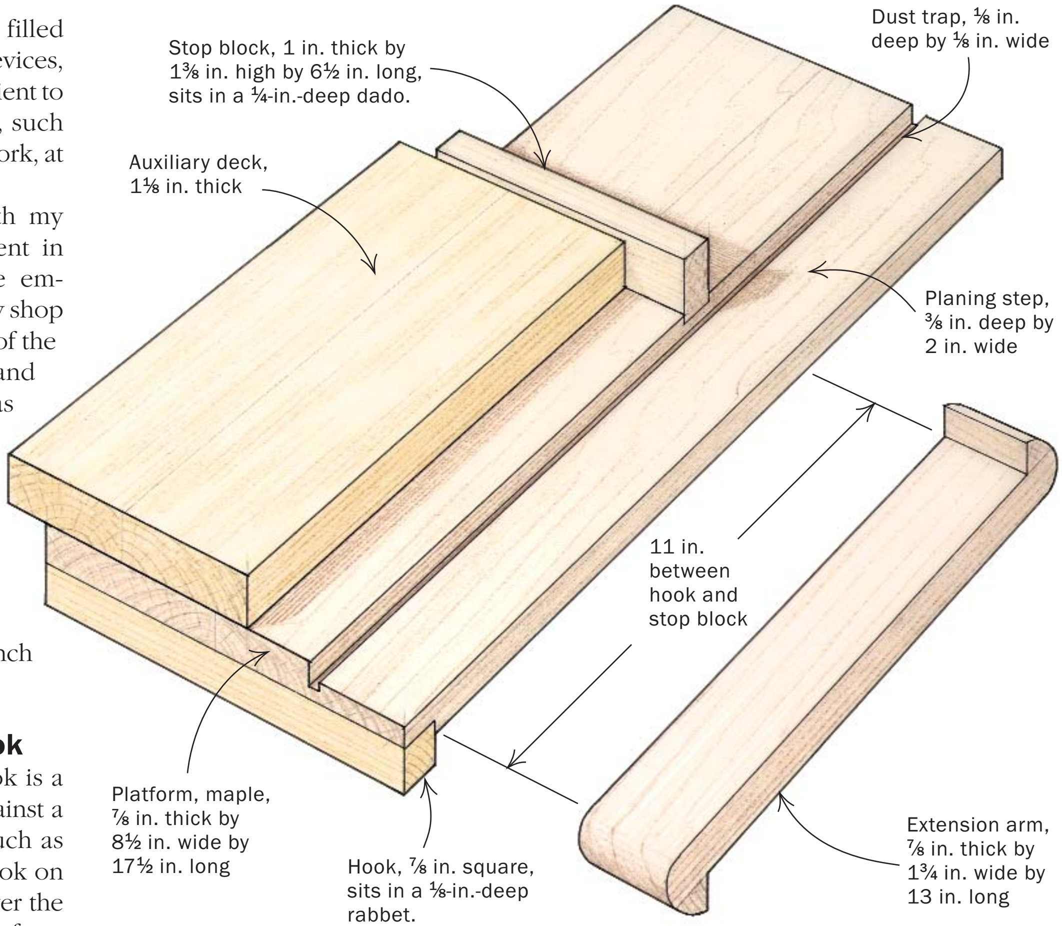
Since temporarily relocating with my family to a two-bedroom apartment in downtown Washington, D.C., I've embraced this notion to the extreme. My shop here, tucked into the corner of one of the bedrooms, consists of my bench and my most essential hand tools. Just as important is a collection of bench hooks that I draw on regularly, which are capable of performing a range of tasks, including cutting square and mitered ends as well as fine-tuning miters and ends to perfection. Even in less extreme shop conditions than mine, these bench hooks are indispensable tools.

### Beyond the basic bench hook

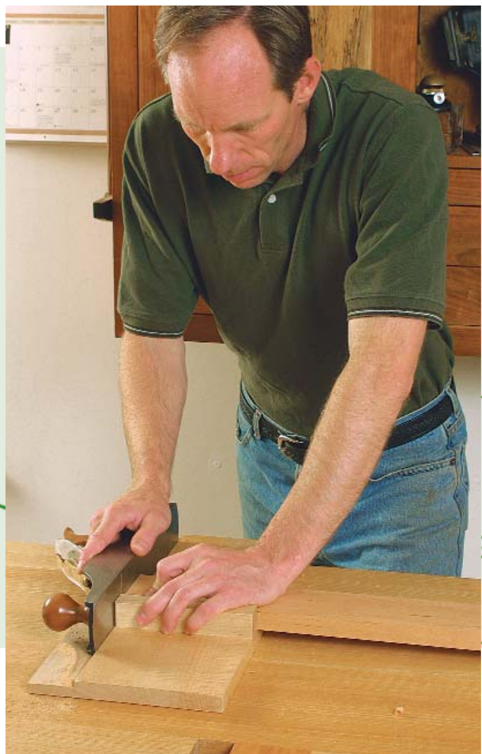
In its simplest form, the bench hook is a platform that can be held steady against a workbench for performing tasks such as crosscutting and handplaning. A hook on the underside of the platform fits over the edge of the bench and keeps the platform

## STANDARD BENCH HOOK

This bench hook excels at holding stock when crosscutting as well as handplaning. An extension arm adds support for long stock, and an auxiliary deck can be used for planing thin stock.




### TASKS FOR THE STANDARD BENCH HOOK



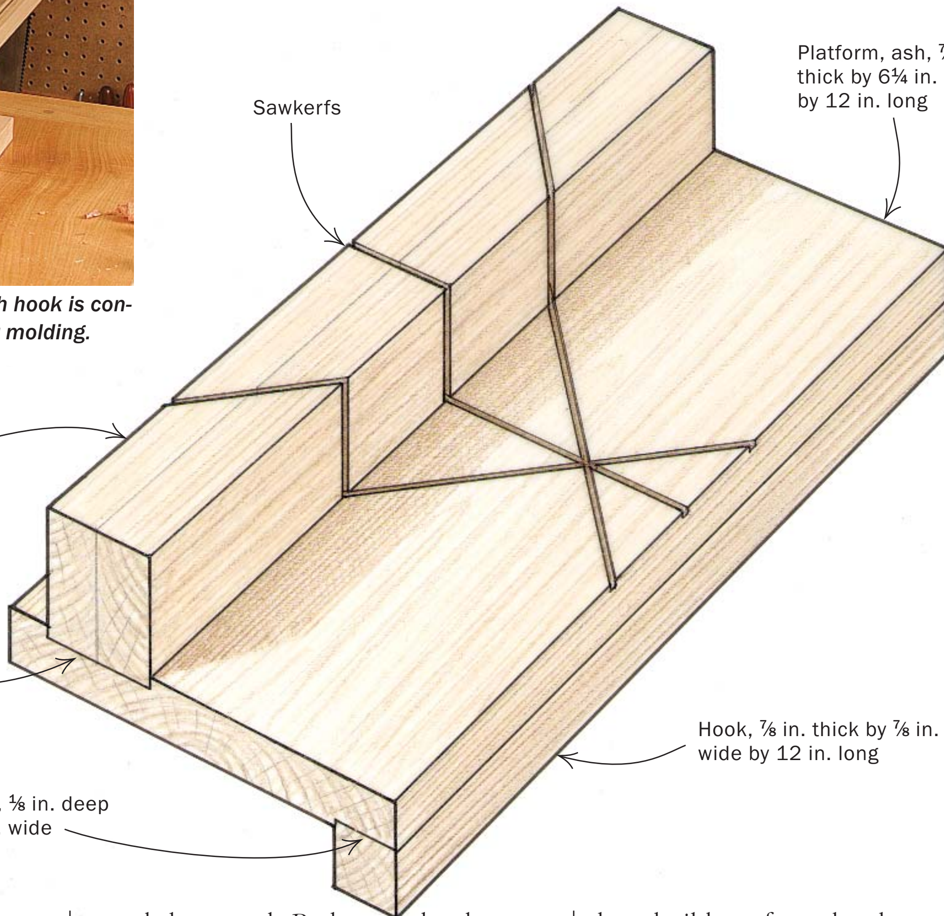
***Hook one end over the workbench.*** *The bench hook makes easy work of cutting the shoulder on a tenon (above). The step on the edge of the bench hook provides a true and square surface to guide a bench plane for trimming the end of a board (right).*

***An auxiliary deck raises thin stock.*** *A solid-maple shim reduces the height of the stop block to accommodate thin stock.*

***Rough-cut miters.*** *The miter-block bench hook is convenient for cutting small pieces of trim or molding.*

## MITER BLOCK

**Designed for rough-cutting miters, the miter block is a combination of a bench hook and a miter box. Forward pressure keeps it steady on the bench while the workpiece is held tight against the stop block, and the sawkerfs guide the sawblade.**




steady as forward pressure is applied. A stop block on top of the platform, perpendicular to the edge of the bench hook, supports the work while it's being cut or planed.

The bench hook I favor expands on this basic design. On the right side of the platform I cut a wide rabbet that serves two functions: First, it protects my workbench from being damaged when I use the jig to crosscut material with a backsaw. Second, it guides a handplane when the bench hook is used as a shooting board. I use this feature often to square and true up end grain after crosscutting.

The bench hook is handy for working tenon shoulders and cheeks, but I get further use from it with a thick auxiliary platform, which raises the worksurface to about ⅛ in. below the planing stop. In this configuration I can plane small, thin pieces such as loose tenons or splines.

I also have a second, narrow hook, which I use with the standard bench hook to steady long stock. Both hooks are the same thickness, and the stop on the narrow hook is set the same distance from the leading edge as it is on the standard hook.

**Use solid, stable materials—**Because I use the bench hook so often in my day-to-day work, I made it from ⅞-in.-thick hard maple, which is relatively stable. For larger bench hooks you might consider using thicker stock. Quartersawn lumber is ideal, if available, because it's more stable than plainsawn stock.

I also cut dadoes in the platform where the hook and the stop block attach, to ensure that they hold steady and remain perpendicular to the edge of the platform.

I find one other detail about my bench hook useful. I cut a small groove in the interior corner of the planing step to collect sawdust that accumulates when trimming with a plane. The groove eliminates potential inaccuracies that could be caused by a buildup of sawdust between the jig and the plane.

### Two bench hooks for miters

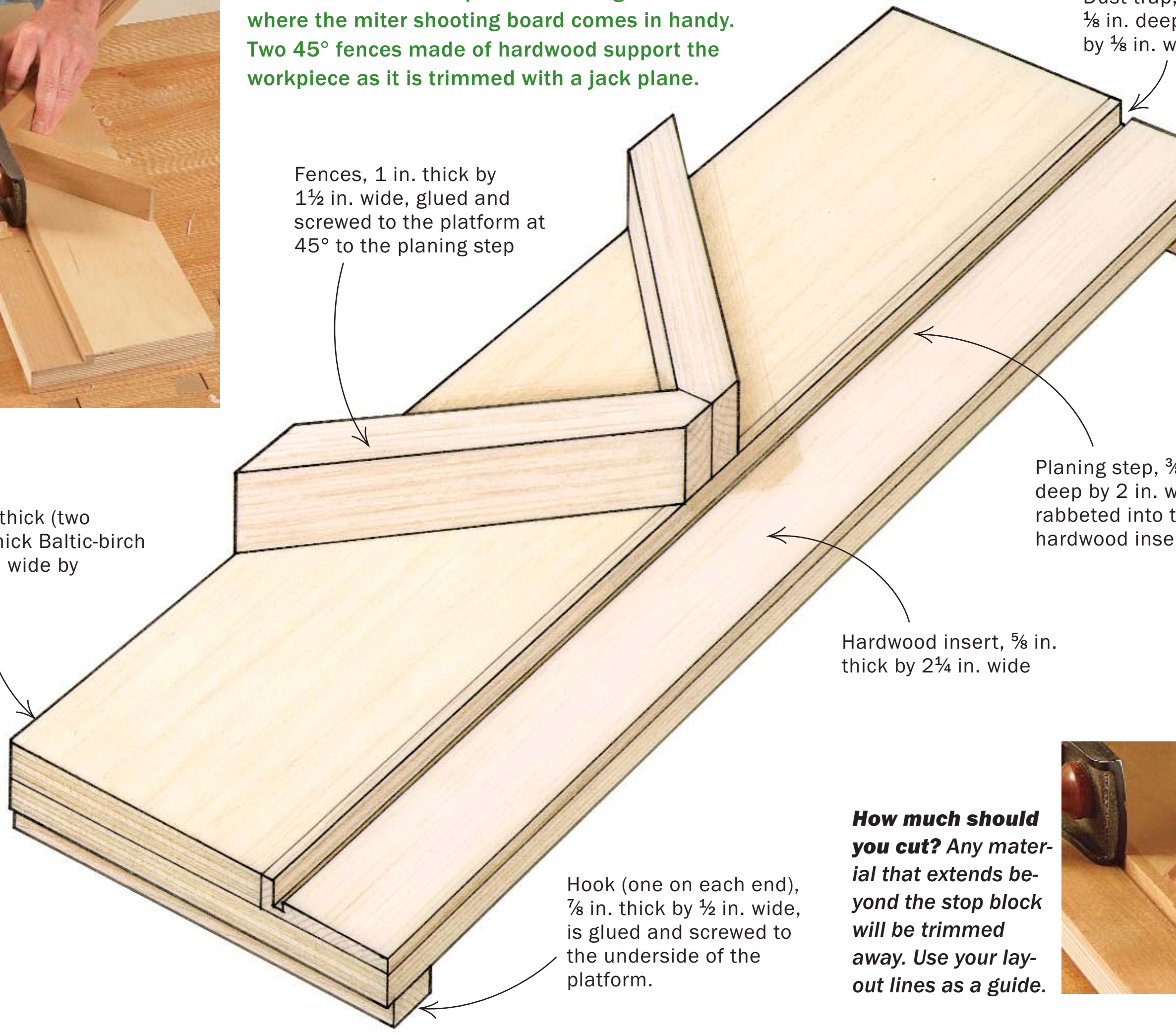
I prefer to cut and fit small bits of molding right at the bench. The precision this method affords is hard to beat: It cuts down on trips across the shop floor to the miter saw or tablesaw; and I've found it to be the safest way to handle small and fragile pieces of molding. To make perfect miters consistently, I use a pair of bench hooks: a miter block for rough-cutting, and a miter shooting board for fine-tuning.

A miter block is a version of the bench hook designed to guide a sawcut at a 45° angle in two directions. It serves as a simple version of a miter box. I made mine of solid alder. On the miter block, the hook and stop block are attached to the platform with a dado, similar to the standard bench hook.

There's only one secret to the miter block, and that's setting the 45° kerfs in the

## MITER SHOOTING BOARD

**Sawn miters often require fine-tuning. That's where the miter shooting board comes in handy. Two 45° fences made of hardwood support the workpiece as it is trimmed with a jack plane.**




***How much should you cut?*** *Any material that extends beyond the stop block will be trimmed away. Use your layout lines as a guide.*

fence to guide a backsaw. Lay out the kerfs with pencil lines and cut them by hand with a backsaw. Just make sure that the kerfs aren't any wider than the blade on the handsaw you plan to use with the jig, or sloppy miters will result.

**Miter shooting board finishes the job**—Cuts made at the miter block generally are rough. So I use a second bench hook—a miter shooting board—to tune miters to a perfect 45°. I made mine from two stacked pieces of ⅝-in.-thick Baltic-birch plywood, which is relatively stable. I glued a strip of hardwood in the location of the planing step, which allows me to true up the jig after construction without having to use a handplane on plywood.

Like my other workbench accessories, the shooting board is designed to hook the edge of the bench during use. However, it requires a hook on both ends because the jig is designed to be reversed for trimming miters in opposite directions. My shooting board sits on the bench at a tilt, which isn't a problem; however, you can make it long enough to straddle the bench.

Two fences set at 45° (together forming a 90° angle) are secured to the platform with glue and screws. Care should be taken to ensure that the fences are accurate, because they serve as a reference for all subsequent cuts made at the shooting board.

A step rabbeted into the edge of the shooting board, as on my standard bench hook, is used to guide a handplane. It also has a small groove for dust accumulation.

When using the miter shooting board, I generally align the layout line of the miter with the end of the fence on the shooting board. Any material that extends into the path of the plane will be trimmed off. Hold the stock snug against the fence, and pass the plane over the stock with repeated strokes until it stops cutting.

**Other tips for using a shooting board**—To keep a plane cutting smoothly on a shooting board, apply wax to all of the working surfaces of the plane and bench hook. It also is important that the plane's side be perpendicular to the sole and that you tune up the plane correctly for the task. Align the plane blade parallel with its sole, and adjust it for a light cut. Always make sure the side of the plane is firmly registered on the planing step.

When trimming harsh end grain, which tends to dull the blade rapidly, dampen the end grain with water prior to planing. □