

Get a grip on your work

FOR BENCHTOP CLAMPING, NOTHING BEATS THE HOLDFAST

BY JOHN PARKINSON



EASY ON, EASY OFF

A sharp hit just in front of the bend wedges the holdfast securely in the hole. Another pop with the mallet, this time on the back of the stem, releases the pressure.





Hold tight for joinery. Whether you're paring dovetails (opposite) or chopping mortises (above), a single holdfast is often enough to prevent the workpiece from moving under the force of the chisel.

Nothing more than a steel rod with a bend in it and a flattened pad at one end, the holdfast has been treasured in the woodshop for more than 300 years as a simple, quick, and effective method for holding work on the bench. All you need is a perfectly located hole in your benchtop. Drop the holdfast into the hole with the workpiece under its arm. Whack the holdfast from above to lock it in place and secure the work. Time to remove it? Knock it on the stem and it comes loose. It's that easy. I'll show you some ins and outs, along with a few examples of the holdfast's versatile workholding abilities.

A strong arm for handwork

Simplicity is part of what makes the holdfast so great. Inserted into a hole slightly bigger than the diameter of its shaft, the holdfast wedges into the hole when struck from above. Smack it on the back and it's no longer wedged. The speed and simplicity of the process encourages you to adjust the holdfast repeatedly as you're working so that you can orient the workpiece for more efficient chopping, planing, paring, or sawing.

The ideal clamp for benchwork

The holdfast's offset stem and low-profile pad allow you to get pressure close to where the work is happening without getting in the way. The key is finding the right spots to drill holes for it (see p. 84).



An extra hand for jigs. It takes more than a cleat on the underside of a sawhook or shooting board to keep it steady during use. A holdfast on top of the fence eliminates all movement.



Never in the way. Unlike clamps, holdfasts don't hang off the front of the bench, which means you can position them so that they don't interfere with the work at hand.



3 GOOD OPTIONS

There is no shortage of well-made and great-working holdfasts. Gramercy Tools makes excellent holdfasts (left), as does Lie-Nielsen Toolworks (center). You can also buy holdfasts made one at a time by blacksmiths like John Switzer at Black Bear Forge (right).

HOLDFASTS TO AVOID

Beware of inexpensive, imported cast metal holdfasts. In Parkinson's experience, they can be very weak at the bend, and a strong whack can crack the holdfast at that critical location.

Because the holdfast's stem is offset from the workpiece, it's rarely in the way of your tool. The clamping pad is low profile as well. You can place it close to the action and not worry about hitting it with a chisel or plane. Try that with an F-clamp.

For such a simple tool, the holdfast applies a tremendous amount of clamping pressure. Under its grip, a workpiece or jig simply won't move, and this makes working with hand tools easier and safer.

Now you need some holes

To use a holdfast, you need a hole through your benchtop. The key is making sure the holes are drilled square to the surface.

I've found that the easiest and safest way to drill holes for a holdfast is with another centuries-old tool, a brace equipped with an auger bit. Used in conjunction with a guide block, it drills a hole 90° to the surface of the benchtop with no trouble.

To make the guide, mill up a piece of stock at least 2 in. thick and long enough to reach more than halfway across the top's width. At the drill press, drill a hole through the guide. As I mentioned, for the holdfast to work properly, the diameter of the

PROTECT YOUR WORK

One downside to holdfasts is that their steel pads can dent the workpiece. To prevent this type of damage, put a more forgiving material, such as wood or leather, between the pad and workpiece.



Leather softens the blow. Soft enough to prevent damage but dense enough to transfer the holdfast's pressure, leather is the perfect material to cover a pad. Glue it on, and you'll never need to go looking for it.



Wood makes a good pad, too. A piece of scrap would work, but a dedicated pad stays with the holdfast and spreads out the pressure a bit.



How and where to drill

hole should be slightly larger than the diameter of the holdfast's stem— $\frac{3}{4}$ in. dia. in most cases.

Before you drill the holes, plan out where to put them. To do this, think of how you work. When you pound on a mortise chisel to clear waste from a mortise, you're working over a leg. So, you need a hole offset from the leg that allows the holdfast's pad to land on the workpiece. Put any jigs you use (shooting board, saw hook) on the bench where you use them. Locate the hole so that the holdfast can lock down the jig without being in the way. Work through all the other tasks that need a holdfast and you'll identify where to put the holes.

To drill the holes, clamp the guide to your bench, put an auger bit in your brace, and drop the bit into the guide's hole. Depending on the thickness of the top and the length of the bit, you might need to stop partway through and remove the guide to drill all the way through the top. The hole in the top serves as a guide for the remainder of the cut. □

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Be thoughtful when drilling holes in your bench for the stem. Locate them where you do most of your handwork. A brace and bit work best for drilling. An auger bit moves quickly but leaves a nice hole. A drilling guide, made at a drill press and clamped to the bench, ensures that the holes are square to the surface.

HOLES ONLY WHERE YOU NEED THEM

It's not a good idea to create holes willy-nilly in the benchtop. First identify the area on the bench where you perform a task, such as chopping mortises or shooting end grain, and drill a hole that will locate the holdfast in the best place to assist in the job.



Near a leg for mortises and dovetails



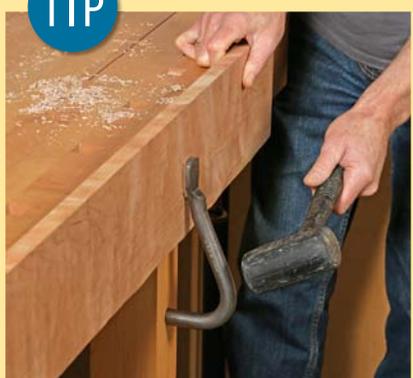
In the center for shooting boards, sawhooks, and other jigs



Along the front edge for long, narrow work, or tough-to-clamp jigs like a benchtop vise



TIP



Don't forget the front. Holes in the leg opposite the front vise allow you to stabilize workpieces that are too long for the vise alone.