Reach for these clamps for the ultimate in versatility and safety in your shop.

Part of the enjoyment I get out of woodworking is finding ways to work smarter and safer. So if I find myself needing an extra pair of hands, I’ll often turn to toggle clamps. They help me concentrate on the job at hand.

Toggle clamps make your work safer by keeping parts in place without slipping. You get better control of the workpiece, especially small or hard-to-hold parts.

Their uses in the shop are unlimited. For example, I use them to make clamping jigs for gluing up projects. And they make excellent hold-down fixtures for routing, drilling, or sawing.

I also like toggle clamps because they’re easy to use. With just a quick flip, I can snap the handle into the clamping position. Releasing them is just as easy. All it takes is a gentle tug on the handle with a couple of fingers. They really do “toggle” the clamping pressure on or off.

When you first look at these clamps, it’s hard to understand how they work. But after experimenting with them, you see what makes them so powerful.

It’s really physics at work. The handle acts as a lever that transfers all the force you apply into a single point and then locks it down. It’s an ingenious design. It doesn’t take much effort to put a lot of clamping pressure on your workpiece.

Two types of toggle clamps that I find most useful are the hold-down and straight-line types.

**HOLD-DOWN CLAMPS**

Hold-down clamps apply clamping pressure vertically. They’re great for making a ripping jig (main photo above) or miter sled for your table saw. They also come in handy at the drill press. You can use them to hold small parts in position so your fingers don’t have to be close to a spinning drill bit, as shown in the inset photo above.

**Adjustability.** What I like most about these clamps is how easy they are to adjust. With the hold-down style of clamp, you can adjust the spindle both vertically and horizontally. Simply adjust the height of the threaded spindle by loosening the top and bottom nuts and turning the spindle to change...
the height. Detail ‘a’ on the opposite page shows how it works. This controls the amount of pressure applied when you push the lever down to the clamping position. It also lets you adjust for different workpiece thicknesses.

You’ll also notice that the hold-down arm is slotted to accommodate horizontal movement of the spindle. This allows you to slide the spindle along the arm to fine-tune where the pressure is applied. Detail ‘b’ on the opposite page shows this adjustment.

**STRAIGHT-LINE CLAMPS**

Straight-line clamps are a little different than hold-down clamps. They work by applying pressure horizontally. This makes them ideal for use in jigs for gluing up projects, as in the main photo above. I’ll also use a straight-line clamp on my drill press to hold a workpiece against a fence, like you see in the inset photo at right.

On a straight-line clamp, the plunger moves in or out horizontally, similar to a piston. This design only allows horizontal adjustment for the spindle. You loosen the jam nut and turn the threaded spindle in or out to change the clamping pressure (drawing below).

**CUSTOMIZED PRESSURE**

With both types of toggle clamps, you can customize the amount and type of pressure you apply. They come with rubber caps, as shown in the drawings. But you can also order other types of caps.

For more versatility, you can replace the spindle with a standard hex bolt, as illustrated in the main photo above. This lets you apply more pressure in a concentrated area than you might get using just the soft rubber caps.

**Other Choices.** One of the downsides to the metal toggle clamps shown here is that they can be a little pricey. I’ve found that plastic versions cost less and work very well. And because they’re plastic, they aren’t as likely to harm your tools if they happen to encounter a sharp cutting edge. You can read more about these in the box below. For sources for the metal and plastic toggle clamps, see page 51.

Once you start using toggle clamps, you’ll find all sorts of handy uses for them in your workshop. They make your time spent in the shop a lot more productive with better results — and they’re a whole lot safer. 

---

**Plastic Toggle Clamps**

**Economical Alternatives.** Plastic toggle clamps are surprisingly strong. For occasional clamping needs, or if you’re just wanting to give toggle clamps a try in your shop, these are good choices.