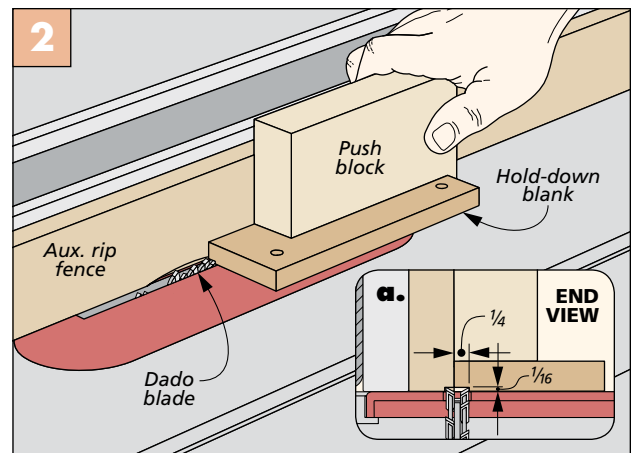
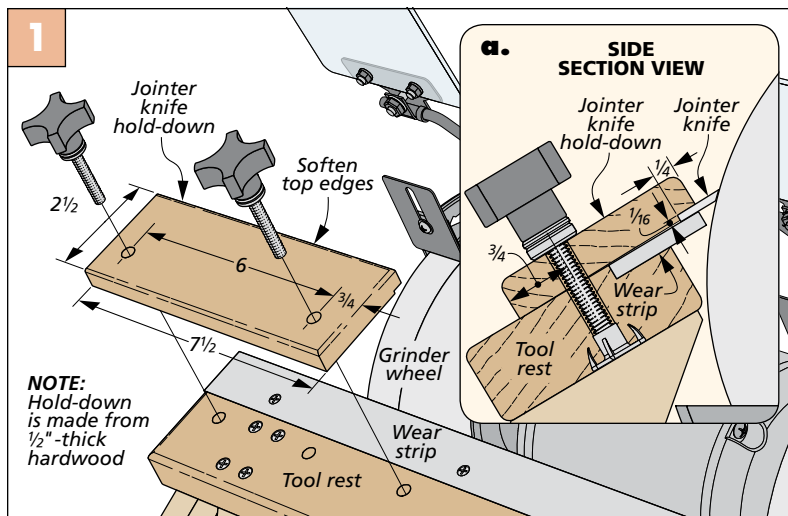


## sharpening station Tool Hold-Downs

The sharpening station featured in *Woodsmith* No. 231 turns an ordinary bench grinder into a multi-purpose sharpening workhorse. The addition of a couple more tool hold-downs increases its usefulness.

**JOINTER KNIFE HOLD-DOWN.** While the tool hold-down shown in the original article is sized to accommodate most widths of hand plane irons and other flat blades, the hold-down featured in the left photo

above is designed to hold jointer knives up to 6" long. The shallow rabbet on the underside provides a square shoulder to register the jointer knife against. Figures 1 and 2 provide the details.

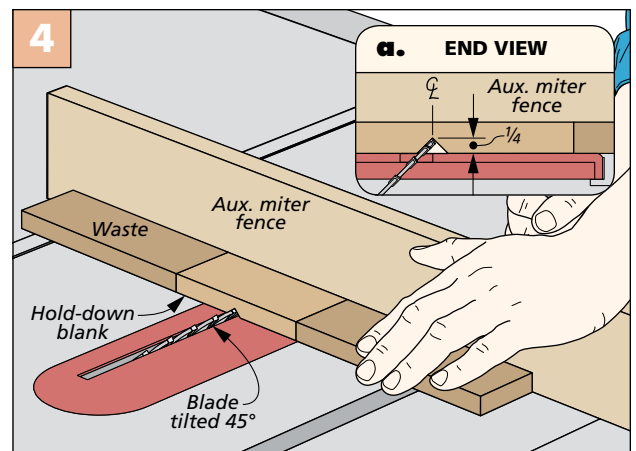
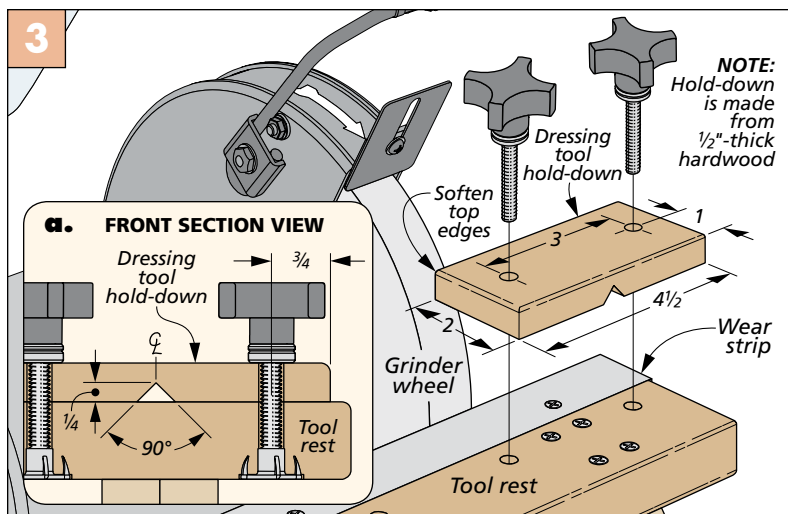


**Jointer Knife Rabbet.** Bury a dado blade in an auxiliary rip fence to create the rabbet for the jointer knife.

**DRESSING TOOL HOLD-DOWN.** From time-to-time it's necessary to "true-up" a grinding wheel to ensure that it's flat, clean, and sharp. This task is easy to accomplish with

a dressing tool like the one shown in the right photo above. This tool hold-down has a V-notch to grip the round handle of a standard dressing tool. The left box below

provides the dimensions you'll need to make this hold-down. Figure 4 shows the method I used to form the V-notch at the table saw using an oversized blank.



**Table Saw Notch.** With the table saw blade tilted 45°, make two passes to create the notch in a wide blank.

## USING THE SHARPENING STATION


Most of the adjustments on the sharpening station are intuitive, so I'll just point out a couple of things here. Whether sharpening a plane iron or a jointer knife, be sure to pick the correct tool hold-down for the job. Then secure the blade between the tool rest and the hold-down by tightening the hold-down knobs.

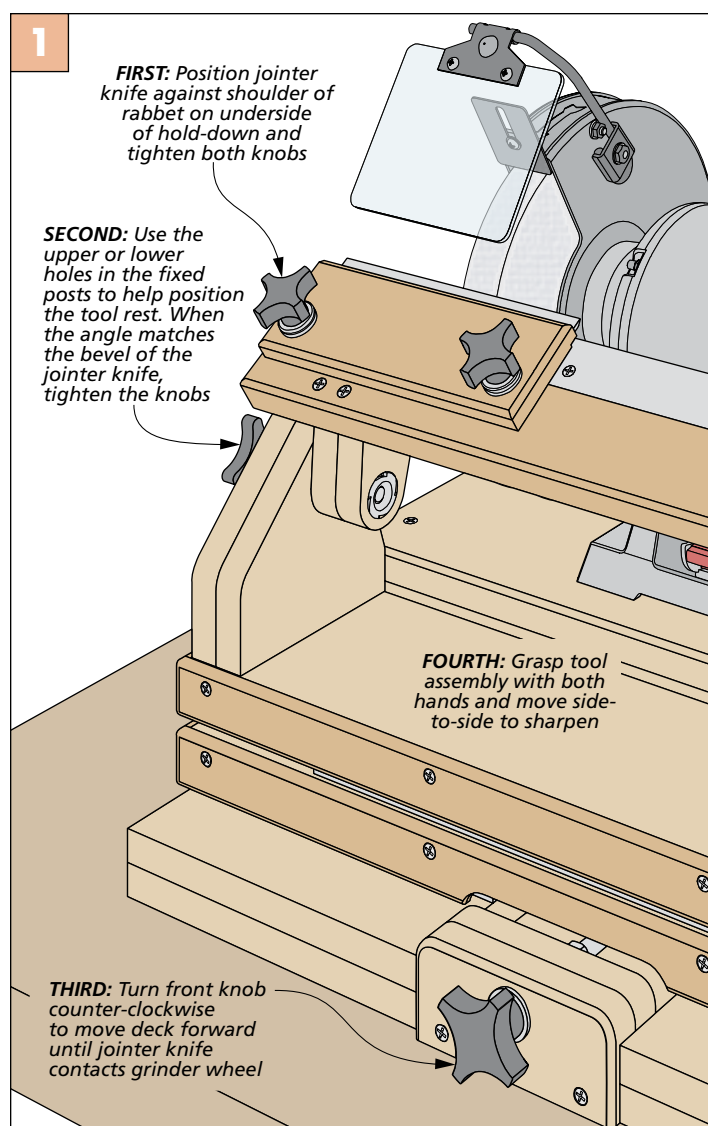
**STANDARD & JOINTER KNIFE HOLD-DOWNS.** As shown in Figure 1a on the previous page, the jointer knife should be positioned

against the shoulder of the rabbet on the underside of the hold-down. For maximum support, only a small portion of the knife should extend past the front of the aluminum wear strip. This distance will vary depending on the size of the jointer knife.

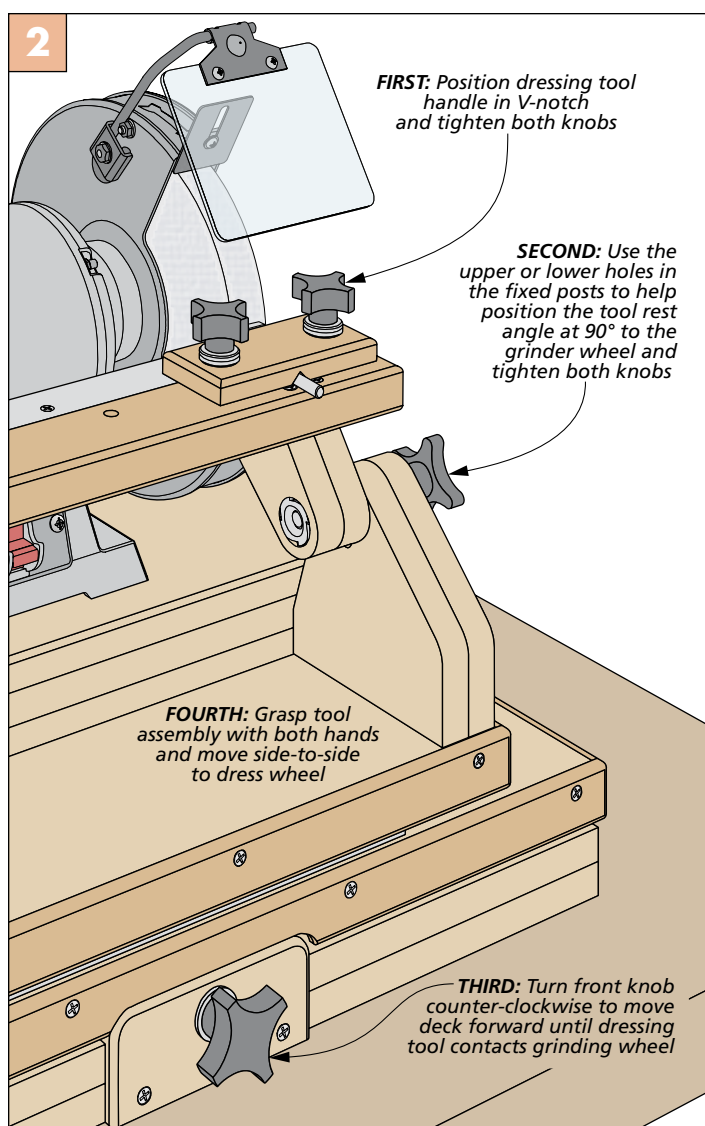
The knob at the front of the station allows the tool rest assembly to move front-to-back. The two knobs on either side of the posts loosen the tool rest. Turn the front knob and pivot the tool rest to achieve the correct position of the knife

or blade against the wheel as shown in Figure 1 below. Now, tighten the outside knobs and slowly move the tool rest assembly side-to-side to run the blade over the wheel.

**DRESSING TOOL HOLD-DOWN.** The process for using the dressing tool hold-down is essentially the same. The only difference here is that the tool rest should be positioned 90° to the wheel (Figure 2). Run the dressing tool over the wheel until the desired flatness is achieved. 



**Jointer Knife Hold-Down Setup.** The steps above show the process for setting up and using this hold-down. The process for using the standard hold-down is the same.



**Dressing Tool Hold-Down Setup.** The main difference when using the dressing tool hold-down is that the rest needs to be at a 90° to the grinding wheel. The steps above provide the details.