

Adding a mortise bench stop to a bench

Michael T Collins explains how to incorporate a bench stop in a bench

Things you will need

- 6mm and 25mm chisel
- Brace and 16mm and 6mm spiral bits
- 4B pencil
- A bench – it will need to be at least 50mm thick

As a child, a device embedded in my father's bench always intrigued me. The device had a row of teeth that rose almost dragon-like from the bench surface and, when you were not paying attention, could bite mercilessly. Years later, when I attended secondary school, all the benches had a similar device and I still managed to draw blood on its sharp teeth when I was not paying attention.

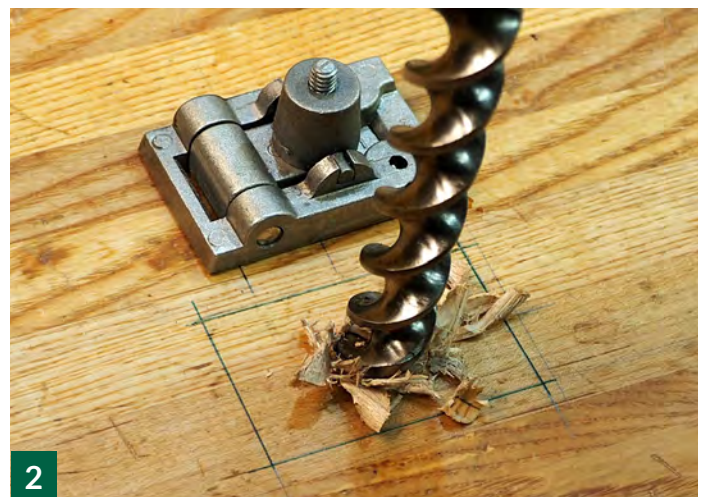
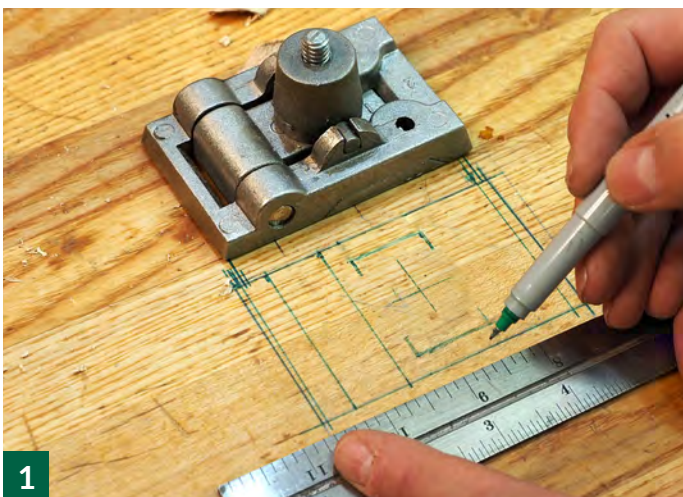
Recently, I was rummaging around an antique store in New York and

came across one of these stops/dogs. Naturally I had to buy it and install it at the end of my bench, for no other reason other than nostalgia.

1 Clear your mind of the fear of chiseling deliberately into your bench surface. Decide on the location of the dog. This is a personal choice, most of the boards I plane are 200–255mm wide and up to 2400mm long, so it's a good idea to place this dog about half the width of a typical board from the front of the bench, 125mm and far enough along the bench so you can place most of the board on the bench. Mine was 305mm from the end

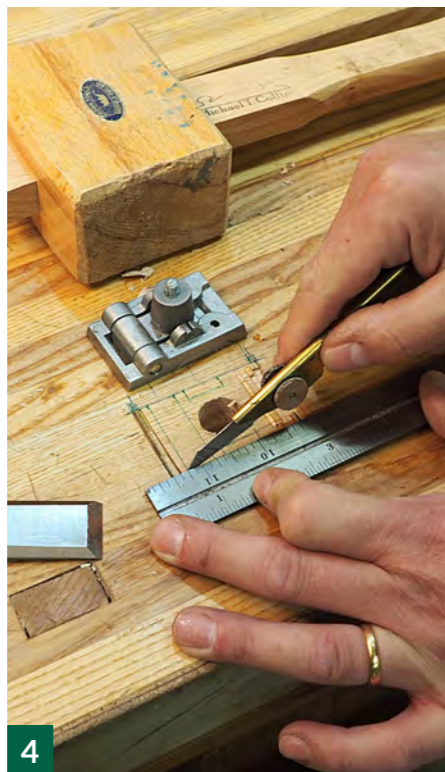
– your location will be different. If you are left-handed it needs to be placed on the right hand end of the bench. Position the stop upside down in the correct orientation, left to right (don't mix this up). Mark the outline of the dog and key locations using a square – the two pivot points and spring holder locations, as well as the bevel angles.

2 The spring holder must be able to move slightly, so drill a hole about 1mm wider than the widest diameter. Use a 16mm bit and drill to a depth of 25mm, then use a 6mm twist bit to drill an additional 6mm for the height adjuster screw. ➤





3 With a wide chisel, start to chop out the mortise. Make sure to go easy because one side of the dog is about half the depth of the other.



4 At this point, I decided to score round the outline with a marking knife to prevent chip out. It's best to do this before you start any chisel work at all.

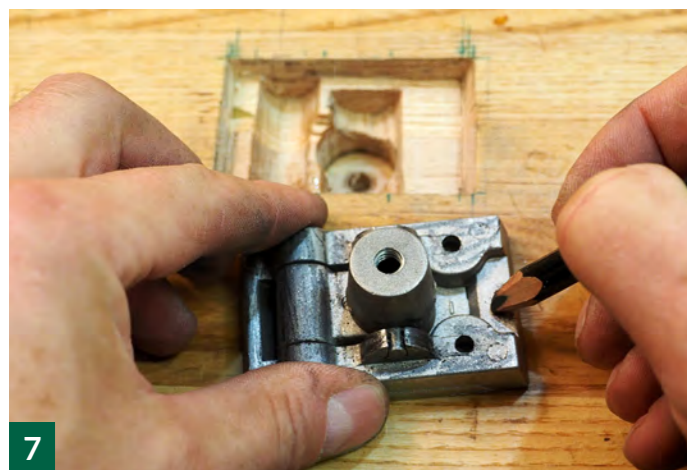


5 Work the section that will house the hinge. With the bevel down, make pivoting cuts from both sides.

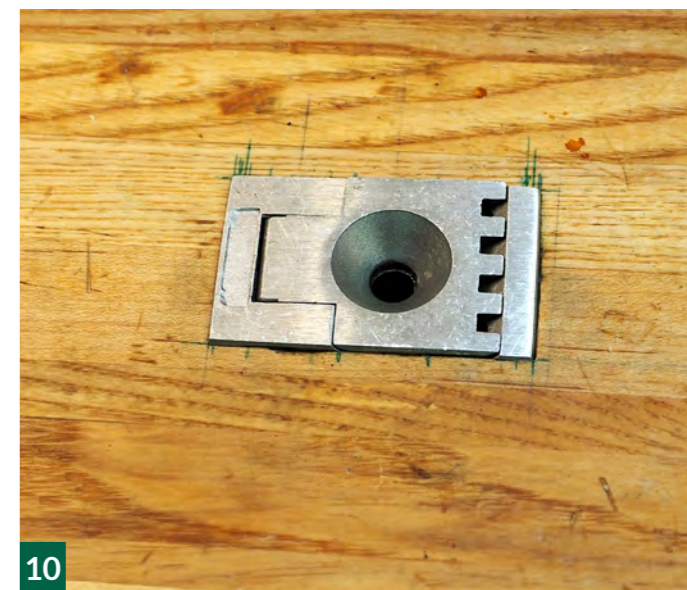
6 Switch to a narrower chisel to fine tune the recess with a shallow paring action.

7 Using a 4B pencil, scribble all over the underside of the dog.

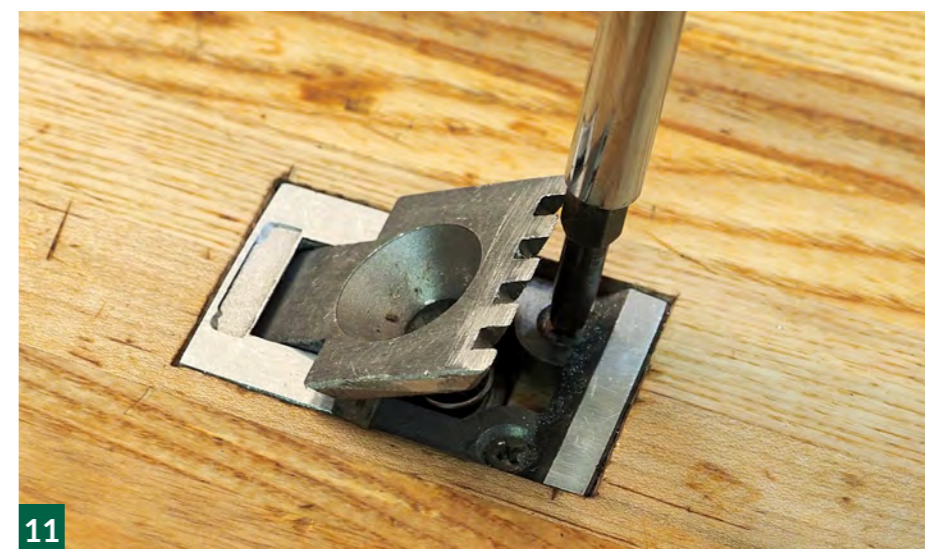
8 Place the dog in the mortise and gently tap it a couple of times with a wooden mallet, but don't pound. If your dog is made from cast metal, like mine, it can be quite brittle.



9 Remove the dog and look at where the graphite has been transferred in the mortise. These locations will indicate the proud locations and need to be pared away, initially there will be lots of graphite deposits.



10 Repeat this process slowly until the dog fits snugly into the mortise. With the memory of 'bitten' knuckles, I wanted the dog to lay just slightly below the surface of the bench, I also didn't want this coming into contact with any workpiece slid across the bench. I used a small router plane to remove the last of the waste.



11 Place the dog in the mortise and mark the location of the screw holes. Drill pilot holes – the screws need to be small enough to fit into the counter sink holes, but long enough to stop them pulling out of the bench (there will be a lot of force pushing against this dog). I opted for stainless steel screws. Finally, clean up the surface of the bench and reapply any finish you might want to use on your bench.

12 Now you have a tried and tested method of securing wood to the bench for planing, but remember to let sleeping dogs lie and watch out for their bite! ■

Tricks

Plane stops similar to the ones I bought can be obtained from: www.leevalley.com
For other tricks 'n' tips, visit: www.sawdustandwoodchips.com

