

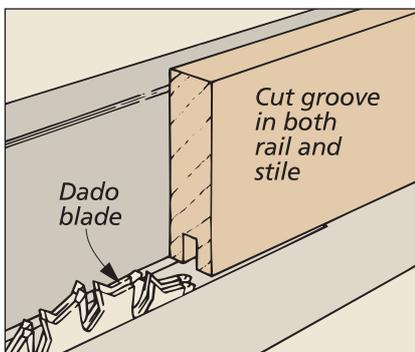
## Haunched Mortise & Tenon

In the frame and raised panel article in issue No. 27, we showed how to build a stub tenon and groove door. This is a quick, easy-to-build frame if you've got relatively small doors, like those on the bookcase.

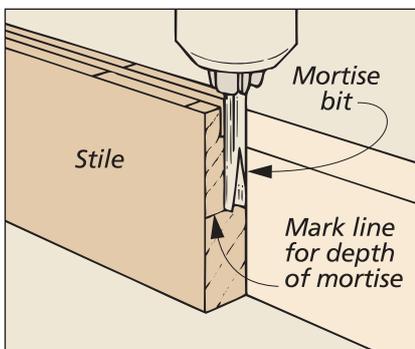
However, if the doors are fairly large (especially if the panel is glass), then you're better off with a stronger frame. And in this case, a "haunched mortise and tenon" is a good choice. With this joint, there's a haunch "built into" the tenon to fill the grooves in the stiles. This way, you don't end up with any gaps at the top and bottom of the door.



When making a haunched mortise and tenon joint, there's nothing unusual about creating the grooves or the mortises (Steps 1 & 2). Just make sure that the mortises are sized to match the width of the grooves. The tenons are pretty much the same as a traditional tenon too (Steps 3-6). The only difference is the extra shoulder (haunch) on the outside edge.



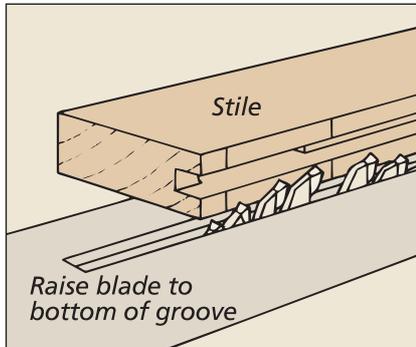
**1** Use a dado blade to cut a centred, 6mm-wide groove on the edge of each rail and stile of the door.



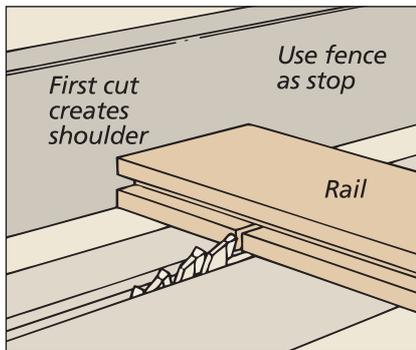
**2** After setting the depth of the mortise, drill out the waste and clean up the sides and ends with a chisel. (The width of the mortise should be identical to the width of the groove.)

(Steps 3-6 continued on page 2)

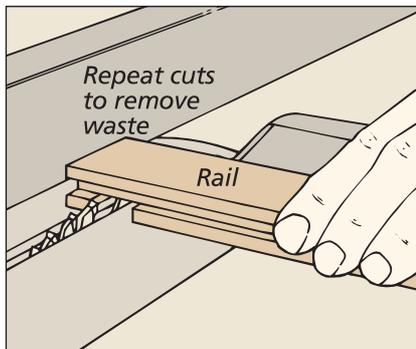
Haunched Mortise & Tenon - (continued from page 1)



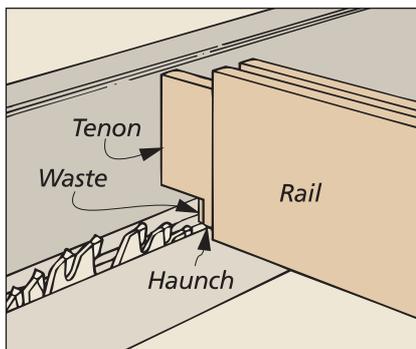
**3** To set the blade height for making the shoulder cut of the tenon, raise the blade to the bottom of the groove cut in the door stile.



**4** To make the shoulder cuts in the pieces, support the workpiece with the mitre gauge and use the rip fence as a stop.



**5** Remove the waste from the cheeks of the tenon by making a series of passes over the saw blade.



**6** The inside shoulder of the tenon can be cut even with the tenon cheeks. But to create the haunch on the outside shoulder, raise the blade and nibble away the waste, starting at the end. Sneak up on the final length of the haunch.