

Plate Rack SIDEBAR FOR THE WEB

Nails

I have the distinction of being the only furniture maker ever pictured on the cover of this magazine while driving nails, and while I should be ashamed, here I am again, reproducing an original that requires me to once again to be photographed driving nails. Although I prefer – and usually turn to – more conventional dovetail and mortise-and-tenon joinery, the fact is that many first-rate country originals – like this plate rack – were nailed together. So here are a few thoughts on the subject of nailed furniture:

1. Coated nails hold more than uncoated nails. It isn't an issue of chemistry. It's just that the roughened surfaces of coated nails do a better job of gripping the walls of the nail hole than do the slick surfaces of uncoated nails.
2. You can make your own coating by throwing a handful of nails into a bucket with a little water to get them coated with light rust before driving them into the wood. (It takes a couple weeks or more.) In order to keep the iron in the nail from staining the wood, you then need to let the nails (and rust) dry thoroughly before using those nails, but thoroughly dry rusted nails will not stain the material into which they're driven (the chemical reaction that causes rust ceases in the absence of water), and they grip much better than unrusted nails. Unfortunately, some nails—like the brads I used on this plate rack—are finished in a way that makes them all but unrustable.
3. In the case of finish nails, which are rarely coated, you can also increase the holding power by setting the bulbous head 1/16" or more. The set head creates a mechanical obstruction to withdrawal as the compressed wood above the set head expands and partially plugs

the head's entrance hole. Setting the head also allows you to fill the hole with glue-and-dust mixture, putty or colored wax which makes nailing a more attractive option cosmetically.

4. Driving nails into dry hardwood is tricky (although every species I've tried green nails easily in that condition) and requires some pre-drilling and some experimentation. In the case of this plate rack, after trying several different methods, I settled on pre-drilling the through hole in the top component with a 1/16" bit (just large enough to allow the shank of the 1" brad to be pressed through the hole with my fingers) and not drilling into the bottom component at all. This surprised me because I would have expected the thin edges of the bottom component to require pre-drilling also in order to prevent the nails from splitting that thin stock.
5. Pre-drilling of the top component should be done on the drill press because it's almost impossible to get truly perpendicular holes when drilling freehand, and holes that aren't truly perpendicular will permit the tip of the nail to break through the wall of the bottom component. When you're nailing into the edge of 3/8"-thick material, you have little margin for error. In the case of this plate rack, I drove probably 150 1" brads into the edges of the 1/2"- and 3/8"-thick stock without a single instance of breakthrough. This success wasn't a result of any special skill I have in the use of a 16 oz. hammer; it was simply a result of the accurate holes produced by a drill press.

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