INSTALLING A Cylindrical Latchset

Shop-made and commercial jigs ensure accurate results

by Gary Katz

In my work as a finish carpenter, I'm sometimes called on to hang a new door blank in an existing opening. I described this process in a previous article ("Hanging a New Door in an Old Jamb," 8/99). Here, I'll discuss the rest of the job — drilling and mortising the latchset.

Face Bore First

In most cases, the latchset is mounted between 35 and 38 inches from the floor, but on panel doors, the latchset should be centered in the lock rail. Always drill the face bore first, then the edge bore (see Figure 1). This takes the guesswork out of the edge bore — when the bit falls into the hole, you're done.

A hole saw and a spade bit will do the job, but I prefer to use a lock boring jig, such as those made by Porter Cable, Classic Engineering (9825 Bell Ranch Dr., Santa Fe Springs, CA 90670; 866/267-3544), and Templaco Tool Co. (295 Trade St., San Marcos, CA 92078; 800/578-9677; www.templaco.com). A boring jig is fast and accurate, and it will also ensure the proper backset — either $2^3/_8$ inches or $2^3/_4$ inches, depending on the hardware. If you don't have a boring jig, lay out the face bore using a square or the paper template that came with the latchset. To prevent tearout, drill the

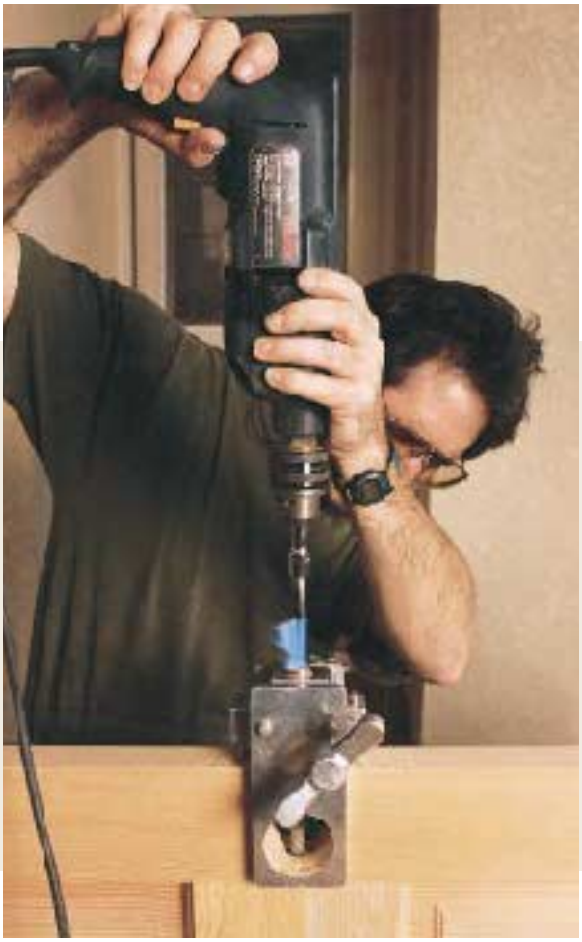

Figure 1. A lock boring jig ensures accurate hole placement. The author always drills the face bore first (above), then the edge bore (right).

Figure 2. A shop-made template (above, left) and a router (above, right) are the tools of choice for mortising the latch. The author finishes the job with a corner chisel (left).

face bore only halfway through the door, until the pilot bit just penetrates the opposite side of the door, and then finish the hole from the other side.

Mortising the Latch

I use a router and templates for all latch and strike mortising. The router is faster than a chisel, and the template ensures that each mortise will be the perfect size and depth. Most residential latches measure 1x2$^{1}/_{4}$ inches, so only one template is necessary. (Schlage makes a deadbolt with a wider 1$^{1}/_{8}$-inch latch face, though it's rarely used in residential work). Although Templaco manufactures templates along with plastic locators, I like to

Figure 3. A center marker works well for quickly locating the lock strike, but is not entirely accurate.

Figure 4. Holding the strike plate over the latch (above, left), the author marks the edge of the door onto a piece of masking tape placed on the back of the strike plate. He then closes the door and marks the centerline of the strike by eye (above, right), extending this line horizontally across the jamb. The author then lines up the vertical line on the tape with the edge of the door, centering the strike hole over the horizontal line (right) to lay out the strike plate mortise.

make my own templates and use a line scored across the center to align the template over the edge bore (Figure 2). Adjustable stops on the bottom of the template keep it centered over the edge of the door.

Before turning on the router, place it on the template with the bit inside the edge-bore hole. Cut the outside of the mortise first, then clean out the center. To avoid nicking the template, lift the router straight off the template without twisting or turning. Use a corner chisel to square up the rounded corners left by the router.

Locating the Strike Plate

Most boring jigs come with a center marker, which is the quickest way to position a lock strike. The marker is a simple steel cylinder that fits in the latch bore (Figure 3). The sharp point centered on the face makes a dimple on the jamb, which marks the spot to drill for the latch. But this method is not always exact, and I use it only if the strike plate has a thin piece of metal projecting at a right angle from the back of the latch hole. If the latch fits loosely in the strike, this tongue can be bent slightly to snug the door up against the stops.

While I use a center marker most of the time, for stain-grade jambs I prefer to install the lockset and use the latch to find the exact location for the strike. Stick a small piece of masking tape on the strike and start by placing the strike over the latch, which should just touch the shoulder of the strike. Use a pencil to mark a line down the face of the strike where it meets the face of the door. Next, shut the door and mark a line on the jamb with the pencil riding the face of the door, then mark the jamb at the horizontal center of the latch (Figure 4). Open the door and extend the horizontal mark across the face of the jamb, then hold the strike centered on that horizontal line. Finally, line up the vertical pencil marks on the strike and the jamb, and trace the outline of the strike on the jamb.

Again, I prefer to use a router and template for the strike mortise — it's cleaner and faster, and it eliminates having to hammer on the jamb, which could change the margin between the jamb and the door. If I've done everything right, the dull "thunk" of the latch falling into the strike just as the door comes up against the stop is sweet.

***Gary Katz** is a finish carpenter from Reseda, Calif., and author of* The Door Hanger's Handbook *(Taunton Press).*