



Keeping Things Closed

Paul Esterle has been building or repairing watercraft, of all descriptions, for longer than he cares to admit, from hovercraft to power and sail boats. Paul specializes in boat improvement and repair projects utilizing wood, epoxy, and fiberglass. If you have any questions about your boat project, contact Paul at pesterle@preferred.com.

by Paul W. Esterle

I found a customer in the cabinet hardware aisle at the boat store recently. After talking to him for a while, I discovered his reason for visiting that particular spot. Seems he liked to run up and down the sound, fast.

However, when he did, the drawers and lockers below would overwhelm their latches and start spreading the contents over the cabin sole. Getting tired of constantly picking things up, he wanted to upgrade his cabinet and door latches.

Knowing what isn't working is the first step in solving any problem, so I asked him what style of latches he currently had. It turned out to be several different styles. Some consisted of a small ball on a stem on the door that snapped between two metal spring leaves on the cabinet frame. Others were simple magnetic latches.

The problem with both types is that they aren't positive latches. Bouncing around on a wave or the contents falling against a door was obviously enough to overcome the latching capacity and open up the locker.

The boater had spent some time considering all the hardware on display and didn't find anything to his liking. Many were too big and didn't fit the style of his beautiful teak drawers. Others were complicated to install, requiring extensive reworking of the door, cabinet frame or both.

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Toggle Latches

The first solution requires some access to wood-working tools, mainly a table saw. The toggle latch consists of a small, "L" shaped wood block (toggle) screwed or bolted to the exterior cabinet frame. Rotated one way,

the thin leg of the "L" traps the cabinet door or drawer and prevents it from opening. Rotated 90 degrees, it allows the door to open freely.

The exact size and shape of the toggle will depend on the size and shape of the edge of the door or drawer. The toggle is best made from a hardwood, such as teak, Ipe, maple or even walnut. Since these woods are hard and somewhat expensive, it pays to develop the proper shape using a less expensive and more easily worked wood like pine or poplar. You could also cut the profile from a thick piece of cardboard. Allow

enough stock in the thick part of the "L" for the fastener. The thin part needs to be high enough to clear the edge of the door and trap it underneath.

Once you have the proper toggle configuration, volume production can begin. I used Ipe for the toggles I made for my boat. Ipe, also known as Brazilian walnut, is a very hard, dense, oily wood. In fact, it won't float and usually sinks when thrown in the water. It does polish nicely with a buffing wheel and a little furniture wax.

I ripped my toggle from a six-inch-wide, five-quarters thick Ipe plank. The first step was to form the thin end of the toggle by cutting a rabbet across the bottom end of the plank, according to the pattern developed. The next cut was across the plank to cut the blank to the proper length.

Finally, I cut the plank up into individual toggles. These pieces are small and difficult to control on a large table saw, so make sure you use proper technique. Clamp a board to the fencing, stopping it just short of the blade. Clamp another board to the miter gauge with its end close to the blade. Use a push stick for the toggle end of the blank. Hold the blank against the miter gauge and push the cut-off toggle clear of the blade with the push stick.

Drill a clearance hole for the fastener through the thick part of the toggle. I carefully rounded the edges of the toggles with a small router bit in my Dremel tool. I also used a buffing wheel in the Dremel to sand and polish the toggles.

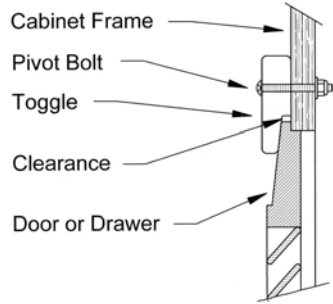
I used oval-headed stainless-steel self-tapping screws with a finishing washer in most places. In several locations, the cabinet frame was too thin to allow the use of a screw, so

I drilled through and used a machine screw and a nylock locking nut.

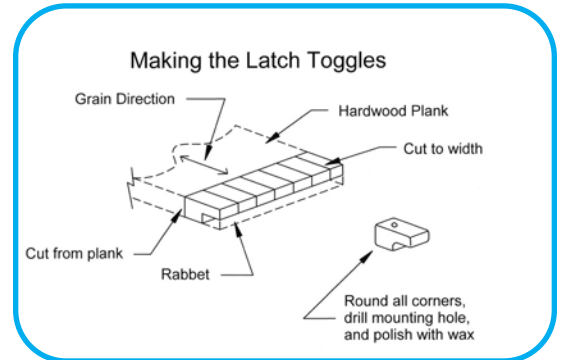
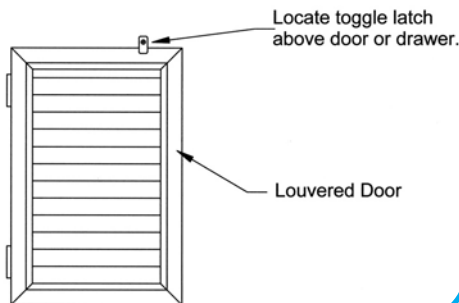
In either case, it was easy to adjust the tightness of the fastener so the toggle stayed where you put it, engaged or disengaged. As a further measure to ensure positive latching, I usually place the toggle above the door or drawer. That way, if the fastener did loosen up, the toggle would rotate downward, trapping the door.

These turned out to be an effective, unobtrusive positive latching system, whose design complemented the existing woodwork.

Cross Section of Toggle Latch



Toggle Latch Location



Elbow Latches

If you don't care for woodworking, there is another latch solution that is available off-the-shelf. It's called an elbow or "birdsmouth" latch. These latches are inexpensive and available in either black plastic, chromed bronze or bronze.

These are installed entirely inside the cabinet or drawer. They are configured so that any contents of the locker falling against the latch handle only keeps the latch more firmly

in place. It consists of two parts, the latch and the catch. The latch usually goes on the back-side of the door and the catch on the inside top or side of the cabinet.

You will need to fiddle around with the latch to find the proper location of

both the latch and the catch to make sure the "birdsmouth" will properly engage the catch. In most cases, I was able to simply screw the latch onto the wall of the cabinet. However, in a few cases I had to screw a small block inside the cabinet to properly locate the latch. I have also seen the catch installed on the cabinet side and the latch on the door. Either way, make sure the two properly engage.

There is one modification you will need to make to the door. A finger access hole needs to be cut so you can stick your finger through to pop the latch open. I cut my access holes in the wood doors with a hole saw. I cut from both sides so I didn't tear out any splinters when completing the hole. I rounded over the edges of the hole with an eighth-inch round-over bit in my router.

If you have a plastic door front or a laminate covered door, consider drilling a larger hole and installing a circular teak drawer pull to give a finished look. These are available off-the-self at most marine stores.

Finally

So there you are, two solutions to locker, drawers and doors that won't stay closed. Both are sea-tested, look good and are easy to install. There is no reason the have to keep picking up your locker contents ever again.

