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By Kathleen Newton

WDDNA Communications Committee Chairman

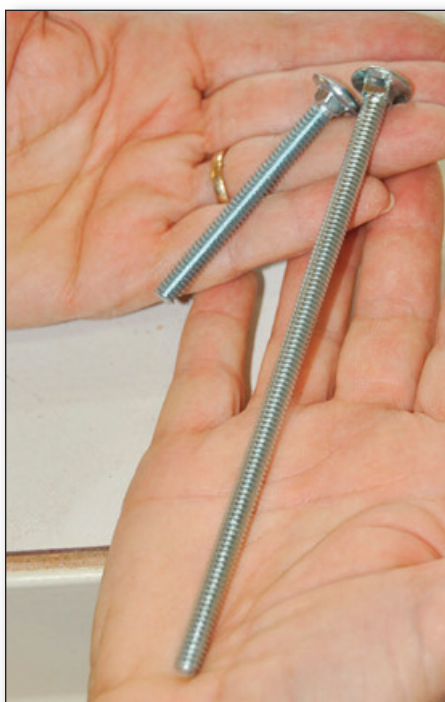
Many of us have out buildings on our properties in which we store gardening equipment, pool supplies, tools, sporting goods, etc. Very often, these are simple wooden sheds with barn-style doors. And, because we are security minded, we dutifully install nice, sturdy hasps and padlocks on the doors to keep out burglars. But what we often overlook is that most prefabricated sheds have doors attached by simple, exterior mounted hinges like the one pictured here. They are attached to the outside of the doorframe to allow the door to swing out. This means that any enterprising burglar equipped with a screwdriver could easily remove the hinge screws and get in.



Shed hinges attached by simple screws to a shed exterior are vulnerable to burglars.

How can you prevent this? Well, of course there are screws on the market that cannot be backed out once they are in place unless you have a special tool. But they are not cheap and, if you're like me, you always lose that "special tool."

However, there is an easier, low-cost way to safeguard your hinges. You can simply replace the flimsy hinge screws with good, solid, inexpensive carriage bolts. Carriage bolts have smooth, rounded tops that seat firmly over the hinge hole and cannot be removed without a very noisy electric grinder and a lot of time. And these bolts have the added advantage of going completely through the shed frame and door so a nut can be tightened down. They hold the door in place more firmly than screws, preventing a heavy door from sagging over time.



Carriage bolts (left); stepped metal cutting drill bit (above)

But carriage bolts have one problem. They are designed with a square metal fitting under the bolt cap, which is designed to bite or fit into the substrate to keep the bolt from rotating when the nut is being tightened. This metal fitting, however, is generally wider than the hole provided in most hinges. So the hole must be enlarged to allow the bolt to seat down firmly over the hinge.

Enlarging the hole is really quite easy. All you need is an electric drill and a stepped metal cutting drill bit, which you can find at any hardware store or home center.



Enlarge two or more hinge holes using a stepped metal cutting drill bit.

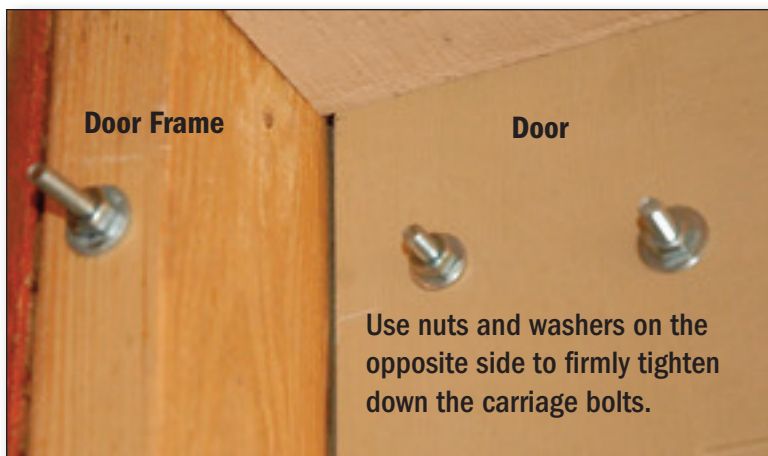
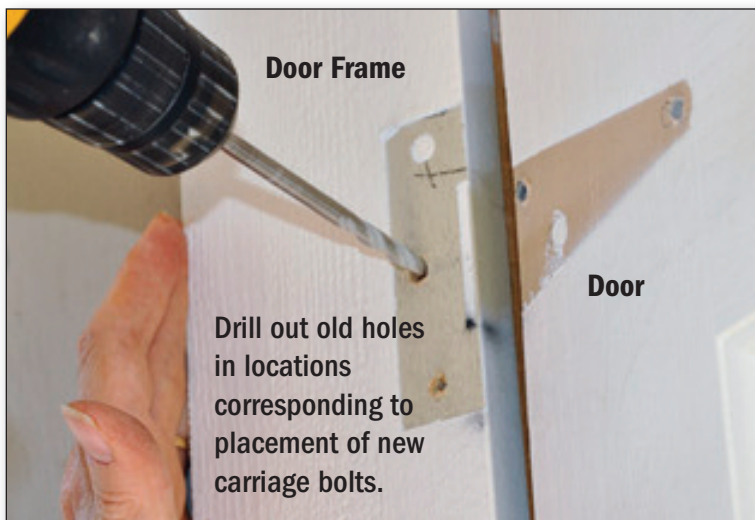
As you can see by the photos that we took while I was modifying the hinges on my own shed, I used my drill press to do the work. However, you also could use a hand-held drill. Simply clamp your hinge to the edge of a bench top or onto a solid piece of wood that has a large hole drilled in it to make room for the drill bit to penetrate unobstructed through the hinge hole. Then drill away until the diameter of the hinge hole is large enough to accept the carriage bolt fitting.

It is not necessary to do this to every hinge hole. You could do it to one hole on the frame side and one on the door side of each hinge. I chose to use two bolts on the door side. Then you need to drill holes all the way through the doorframe and the door large enough to accept the bolts. Tighten down with a nut and washer on the other side, and you are done.



Above: After hole is enlarged, carriage bolt fits flush with hinge surface.

Below: Using a long bit with a diameter slightly larger than the carriage bolt, drill through the door frame and the door to match the hole pattern on the hinge. Then run the bolts through, tighten on other side with nuts and washers. Return old screws into the hinge holes that were not enlarged. (Bottom photos)



Use nuts and washers on the opposite side to firmly tighten down the carriage bolts.

