

Replacing Broken Pillar Post

Presented by Terry White

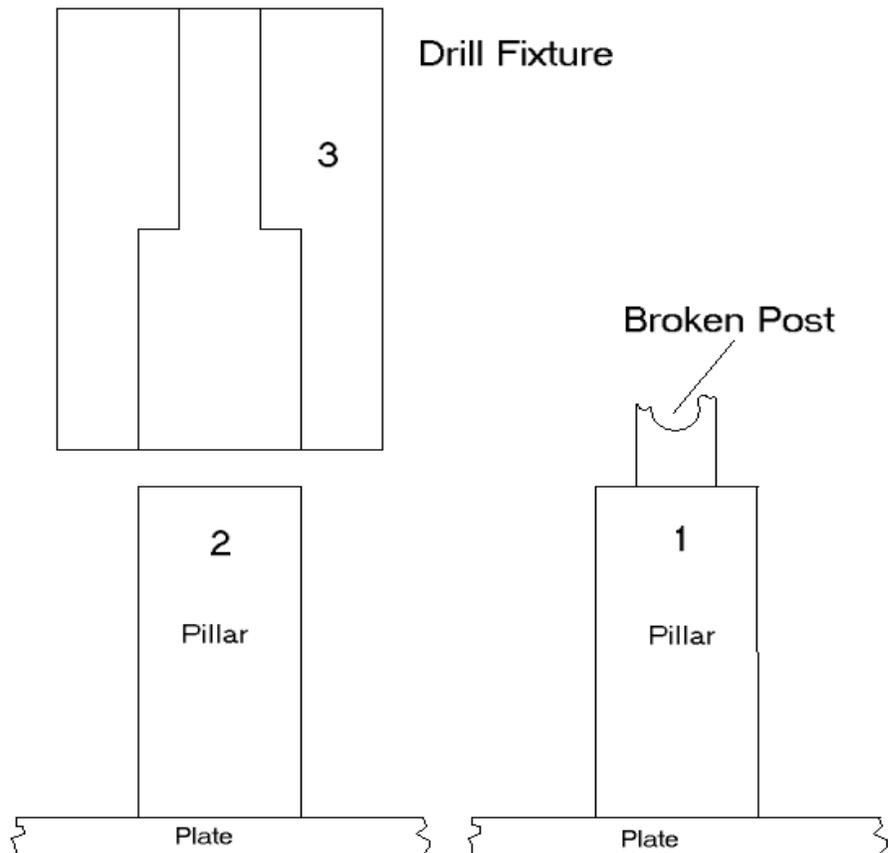
Many fine timepieces and clocks are relegated to the heap of broken but repairable items. Pillars are used to mount back and front plates together, or the dial to front plate. If, while reassembling, you apply too much pressure on the taper pin, you will blow out the hole in the pillar post. More often than not, it will simply break at the weakest point, that is, where the metal is the thinnest.

When I came upon the problem of a broken pillar post, I decided that it would be easier to repair it while I have the works torn down, than wait for the ideal opportunity for the repair. At the Saturday morning God Fathers breakfast, I asked Al Pohlpetter how best to make the needed repairs. From his suggestion, I offer the following repair hint.

In figure number 1, I have illustrated one that is completely broke off. If it is not completely broken off, then do so. Then you need to dress the pillar in one of two ways. 1. Use a jewelers saw and cut it back to the pillar shoulder, or 2., take a file and carefully file the post down to the shoulder. See illustration 2.

Next operation will use your lathe and illustrates a fixture for centering the drill bit onto the pillar and is shown in 3.

The fixture is turned out of round stock using mild steel. First, a piece is cut from the bar stock and each end faced off in the lathe. Locate a drill bit that corresponds to the pillar diameter and place into the tailstock. Drill the hole deep enough, but not allowing the fixture to rest on the plate.



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Next, locate a drill the diameter of the post, using your lathe, drill through the remainder of the round stock. The end holes can be chamfered to remove any burs created while drilling. This is also accomplished using your lathe.

Next, place the drill bit that corresponds to the post diameter either into your mill or drill press. Place the fixture over the pillar and drill to a depth of about two times the drill diameter in depth. Again, the fixture assures you that the hole is in the center of the pillar.

Use the same material that the pillar is made from, i.e. brass or steel, turn a post that is the proper diameter and that will fit snugly into the hole drilled into the pillar. When you have this accomplished, place it into the pillar hole and mark the new post height to equal the distance above the pillar shoulder, as are the others. Then, parting off the new post, use a file to round the end that is exposed above the pillar, and to match the others. Place the post into the pillar hole, put the plates together and determine the location for the hole that will hold a taper. Drill it the same diameter as the other post, and chamfer both sides when done. Remove the new post; taking a small amount of solder pieces and place into the hole, you don't need too much. Place the post back into the hole, take your torch and heat the post, melting the solder. With a thermally insulated tool, press down on the post forcing the solder around it. After you allow it to cool, remove any excess solder then dress the pillar and post.