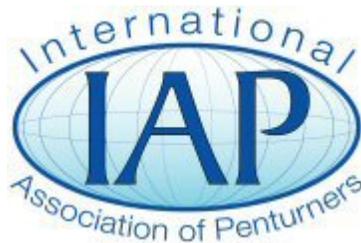


# Closed End Pen Repair Thingy

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This tutorial was downloaded from

<http://www.penturners.org>

The International Association of Penturners



pic 1; I chose this carriage bolt. (8mm thread fits through a Jr series coupler)



pic 2; In the chuck



pic 3; Use a file to remove the square part. LEFT HANDED !!!!!



pic 4; Square part cleaned off



pic 5; Measure the inside of the tube



pic 6; the end filed down to match the tube ID



pic 7; nice slip fit



pic 8; cut slots with a hacksaw. Try to keep them straight but not serious if a bit wobbly



pic 9; a layer of tape should easily hold all jaws together if the slots are long enough



pic 10; move it deeper into the chuck



pic 11; round over the outside edge of the jaws



pic 12; make sure the coupler passes over it easily



pic 13; file a flat



pic 14; measure the dia of the inner ring surface



pic 15; drill 8mm ( or equivalent) all the way through blank and 11mm about 1 inch deep in one end. Drill and tap a 6mm hole roughly as shown



finally....

Easy huh??? You can choose your own dimensions to suit the pen you want it for. But each one you make should cover a few similar sized pens.

Shouldn't take more than 2hrs to make, including coffee breaks