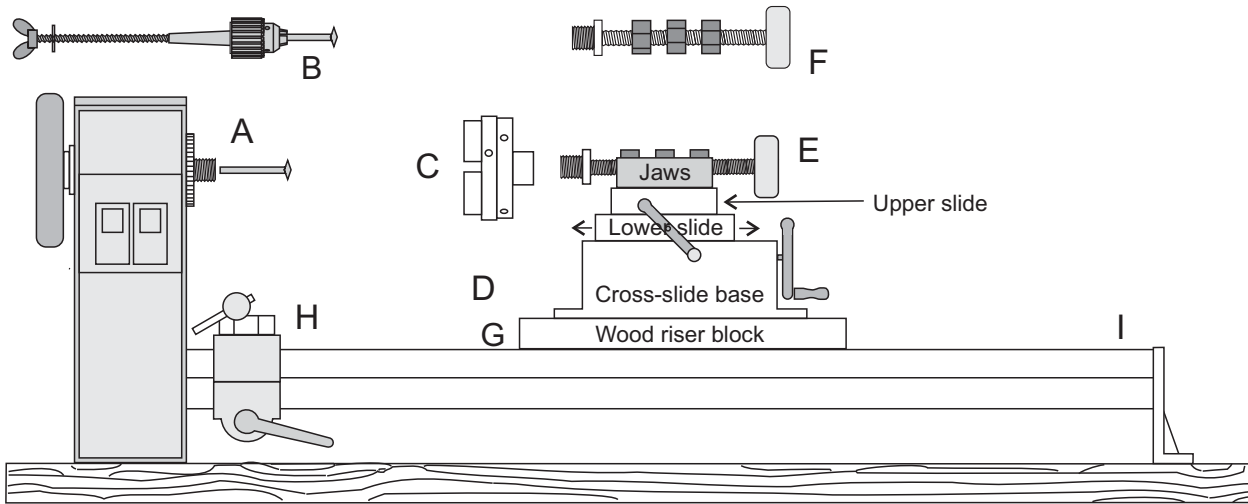




## THREADING JIG

The threading jig uses the lathe to spin a cutter while the operator rotates the shaft of the jig and thus passes the wood being threaded against the spinning cutter.



A The cutter may be any of a variety of shapes and sizes with one, two, four or more cutting points. It should be rotated at 3000 rpm or faster. Ideally it will cut a 60° groove in the wood.

B If the cutter is to be held in a Jacobs chuck then that chuck should be secured into the headstock with a tieback.

C The work to be threaded remains in the chuck that it was turned on and this chuck is attached to the threaded shaft (E or F) of the Threading Jig.

D The cross slide allows for movement of the entire wood-holding equipment in relation to the cutter. The lower slide moves in line with the bed of the lathe. The upper slide moves at right angles to the bed of the lathe. It is particularly useful when the cut depth needs to be adjusted by small across-the-bed amounts.

E Rotation of the threaded shaft in the jig moves the wood being threaded against the spinning cutter. The threaded shaft causes this movement to be both rotational and along the direction of the lathe bed. The thread pitch of this shaft causes the thread being cut in the wood to be the same as the thread of the shaft.

F For a different thread pitch make a different threaded shaft.

E and F Note the short thread on the headstock end of the threaded rod. This is the correct thread for your chuck. Immediately behind this thread is a flat face for the chuck to tighten up to. It is very important that this face is perfectly flat and exactly at right angles to the centre line of the main threaded shaft.

Note that each shaft has three nuts. If there is any slack (wobble) after the shaft is gripped in the cross-slide jaws, ease the jaws and put a packer between the centre nut and jaw face. Increase or decrease until the slack is removed and the shaft rotates freely

G For many lathes a riser block will be needed to bring the work (C and E) up to the height of the cutter (A). For most work a perfect alignment is not needed but to cut a small female thread good alignment is helpful.

H The toolrest is not needed and the toolrest holder is well out of the way.

I The tailstock is not needed and may be removed from the lathe.