

HOW TO CUT THREADS

WITHOUT A SCREW-CUTTING LATHE OR THREAD-CHASING TOOL.

by John Bergstrom.

The ordinary way to cut a thread by hand is to use a thread-chasing tool, with the number of teeth per inch wanted. The difficulty in chasing a thread is in the starting. It takes a great deal of practice, and even then a "drunken" thread may be the result.

The accompanying illustrations show how this can be done in a very simple way and yet give an absolutely true thread.

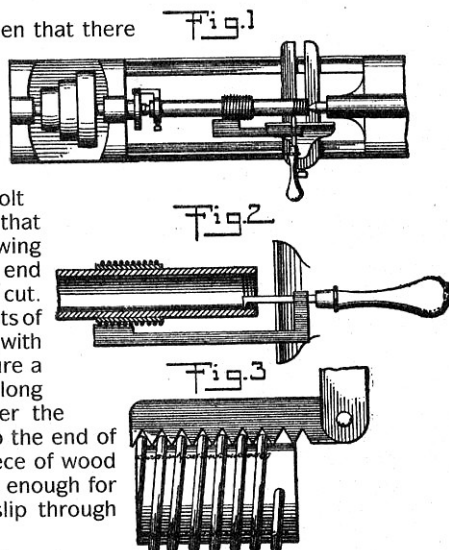
If a number of screws are to be cut the best way to proceed is as follows: Take thin piece of tubing that will just fit over the bar or bolt to be threaded. In one end drill a small hole, into which fasten the end of a spring brass wire, preferably by soldering. Then wind the wire around the tube half a dozen or more turns. Now take a thread gage. Select the number of threads per inch wanted and place it lengthwise of the tube, bringing one turn of wire in each notch, after which pull the free end of the wire and keep it tight. Solder the coils to the tube, using only the corner of the soldering iron; then move the gage one-third of a turn around the tube and repeat the soldering, and finally move the gage again an equal distance and solder.

It will now be seen that there is a perfect thread or spiral around the tube, which we will call the master thread. This master thread must be slipped on the bar or bolt to be threaded, so that it will not turn, allowing enough room at the end for the threads to be cut. The cutting tool consists of an ordinary hand tool, with only one point. Procure a small piece of wood, long enough to reach over the master thread and to the end of the bolt. Into this piece of wood drill a hole just large enough for the cutting tool to slip through and fit snugly.

In operation the cutting tool is held in the right hand, in the usual way. Then with the left thumb press the piece of wood against the master screw and start up the lathe. The master screw will feed the cutting tool the right pitch. As soon as a good start is obtained the tool will feed itself without the aid of the master screw.

When the thread is finished the master screw may be removed and slipped over another bolt to be threaded. The spiral may be wound right or left, according to the direction wanted. Any number of threads may thus be formed. That is to say if a triple or quadruple thread is wanted, it is only necessary to wind three or four wires around the master thread and proceed as before described. This arrangement is also very handy in starting a thread when the ordinary chaser is used, as it will always insure a straight thread. It is not necessary to nick or mark the wooden block, as it readily takes the impression of the thread from the master screw.

Fig. 1 illustrates a plan view of an ordinary lathe, ready to cut a thread. Fig. 2 shows how internal threads may be cut and Fig. 3 shows the master thread.



SCREW-CUTTING ATTACHMENT FOR LATHES.