

Using a nut to make a wooden faceplate or jig by Walt Thies

There are many ways to attach faceplates and jigs to a lathe. Using a metal nut as the core of the faceplate is stable and allows very close registration with repeated uses and remounting of the same project. The concept is not original with me I heard about it over 25 yr ago.

1. Obtain a nut that is treaded for the spindle or adapter you intend to use. A 1" dia x 8 tpi nut was used in the attached figures.

Figure 1

2. Grind a line around the middle of the nut to allow glue to better adhere to the nut.

3. On a piece of hard wood (do not use plywood or particle board) draw around the nut for a pattern and then using a scroll saw cut along the pattern to create a hole that loosely fits the nut.

4. Put tape across the bottom of the hole.

Figure 2.

5. Put the nut into the hole assuring that the tape adheres to the nut. This keeps the face of the nut and threads free of glue.

6. Mix an appropriate amount of two-part epoxy glue and work it between the nut and the wood. I found that 30-min epoxy is better than faster-setting formulations because it allows the glue to flow between the nut and wood before setting, results in fewer voids with a bond that survives more abuse.

7. After the glue has hardened remove the tape. Assure that the nut is flush with the wood on the tape-side. The nut can protrude on the other side which will eventually be towards the lathe.

8. Drill a larger than 1" hole 1/2" deep in a second piece of wood. Depth depends on the spindle to be used. The threaded portion of the spindle is likely longer than the nut is thick. This hole allows the spindle to protrude beyond the nut. For consistent registration it is critical that the face of the nut be against the shoulder of the spindle.

Figure 3

8. Use a good quality of wood glue to join the two pieces of wood. Center the drilled hole on the nut and orient the grain in the second piece perpendicular to the grain in the first piece.

Figure 4

9. Turn the block to fit the intended jig or application. Drill a hole along a radius into the disk (block). This hole will be used to insert a rod to get leverage for removing the block from the lathe spindle. The hole shown here is 3/8" diameter and goes nearly to the nut.

10. Note: If this block is used as a faceplate, when time to part off the work the glue line indicates the surface of the nut and should be avoided. This block can be the starting point for a variety of projects and applications. CA glue is not advisable as any sharp blow (read catch) may cause it to shatter and release.

Figure 1



Figure 2



Figure 3



Figure 4

