

Figure. 2

## Turning an Artisan® Crank Top Mill

### Supplies Needed

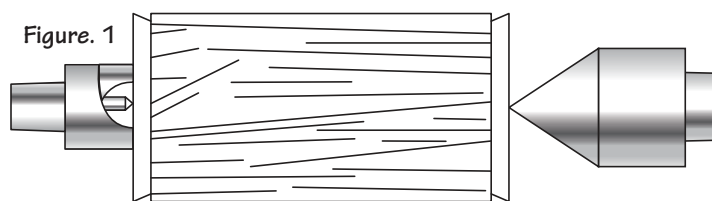
- 2-1/2" x 2-1/2" x 3-1/2" Blank
- Sandpaper/Finish
- 1-1/2" Forstner Drill Bit
- Drill or Drill Press
- 1-1/16" Forstner Drill Bit
- Eye and Ear Protection
- 1-3/16" Forstner Drill Bit

### Selecting the Blank

1. Select a 2-1/2" x 2-1/2" x 3-1/2" blank with the grain running lengthwise.

### Mounting the Blank

1. Mount the blank between centers and rough turn the blank to round.
2. True the ends of the blank making the overall length 2-7/8" long. Cut a 1/4" long dovetail tenon on each end for mounting in a 4 jaw chuck. (See Figure 1)



### Drilling the Mill Body

1. Mount the Mill Body in a chuck gripping the dovetail tenon.
2. Drill a 1-1/2" dia. hole 3/8" deep.
3. Drill a 1-3/16" dia. hole 1/8" deep.
4. Now drill a 1-1/16" hole half way through the blank.
5. Reverse the blank in the chuck and check it to make sure it runs true and tighten it.
6. Drill a 1-1/2" hole 1/8" deep.
7. Drill a 1-1/16" hole through the blank until it meets the existing hole leaving a 1-1/16" hole through the entire blank.

### Precaution:

- The hole depths must be accurately drilled or the mechanism will not work.

### Turning the Mill Body

1. Mount a 2" to 3" diameter by 2" long waste block on the lathe using a chuck or faceplate.
2. Turn a 1-1/2" long tenon to fit very snugly into the 1-1/16" dia. hole in the Mill Body. Leave a small shoulder at the base of the tenon. Test the fit of the tenon to the hole until you have the right fit.
3. Mount the blank onto the tenon and turn to your desired shape. Support the blank using the tailstock whenever possible.
4. Sand and finish the blank.
5. Assemble the mill according to figure 3.

