Pepper Mill Mechanisms

A pepper mill is an excellent project for turners and carvers alike. Made by America's oldest pepper mill manufacturer, these high-quality pepper mill mechanism kits have all the internal components necessary to produce a top-load, adjustable grind (coarse through fine) pepper mill. Made of tempered stainless steel with an aluminum shaft. Kits include a salt top and plug to produce a matching shaker. Wood is not included.

Consult **Figure 1** to make sure you have all the components. **Figure 2** shows critical measurements that will influence your design. **Figure 3** shows assembly of the mill only. It is **not** intended to be a plan for your turning.

Getting Started

The pepper mill housing itself consists of two turnings – a top and a base. For easiest assembly, bore holes as close as possible to the recommended sizes provided in **Figure 2**.

Top Assembly

Center the shaft guide over the hole located on the underside of the top. Use an awl or center punch to mark the two screw locations in the top for the two small holes in the guide. Drill pilot holes and secure the guide to the top with the two screws provided.

Base Assembly

Clamp the base upside down in a vise. Be sure to put padding on the vise jaws so the base does not get damaged.

Insert the spring bar into the inner bore, oriented as shown in **Figure 3**. Center it and use an awl or center punch to mark the two screw locations in the wood. Drill pilot holes, but do not install the screws at this time.

The two slots on the shroud are slightly chamfered at one end. Slide this end onto the spring bar, aligning the two slots with the spring bar.

Slide the core onto the threaded end of the shaft, making sure the four flutes on the core face the threaded end of the shaft.

Slide the spring (small-diameter end down) onto the threaded end of the shaft. The spring should slide down the shaft until it is against the core.

Insert the threaded end of the shaft (with spring and core mounted) down through the shroud and through the center hole of the spring bar. The large-diameter end of the spring fits over the lip of the center hole in the spring bar. The spring will prevent the core from meshing with the shroud.

Place the retainer bar over the mill assembly (oriented as shown in **Figure 1**), lining up the screw holes with those on the spring bar. Press and hold the retainer bar down with a finger and insert screws. Tighten both screws, being careful not to overtighten as this would strip out holes.

Joining the Top to the Base

Remove the base from the vise. Place the top (assembled with shaft guide) over the threaded shaft, lining up the square hole with the square shaft, and press down. Screw the finial nut onto the exposed portion of the threaded shaft, turning the finial nut until it makes contact with the top. As assembled, the pepper mill is set at the coarsest pepper grind setting.

To Fill with Pepper

Unscrew the finial nut and remove the top portion of the mill. Fill the base with pepper. Replace the top and finial nut.

To Adjust Grind

The finial nut has a grind indicator that shows which way to turn for adjustment. Turn clockwise for a finer grind, and counterclockwise for a coarser grind.

Note: *This mill is not to be used as a salt mill. A salt plug and salt top are included to make a salt shaker to match your pepper mill.*

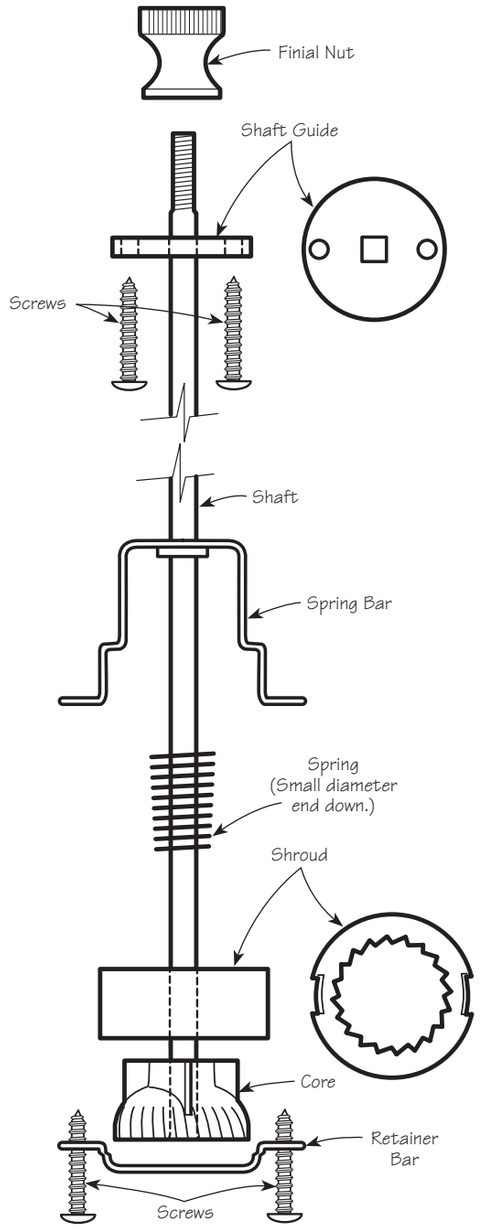

Figure 1

To Make a Salt Shaker

1. Cut a wood blank to length.
2. Drill a 1 3/4″ dia. hole, 1/2″ deep, in the bottom of the blank for the rubber stopper. This recess can also be turned on a lathe.
3. Drill a 1″ dia. hole from the bottom of the blank to within 1″ to 2″ of the top.
4. Reverse the blank and drill a 3/4″ dia. hole from the top through to the 1″ hole.
5. Mount the blank on a lathe, turn to desired profile and apply a suitable finish.
6. Glue the stainless-steel shaker top into the 3/4″ hole, using two or three small drops of epoxy or cyanoacrylate.

Once the glue has set, fill the cavity with salt and press the rubber stopper into the bottom of the shaker.

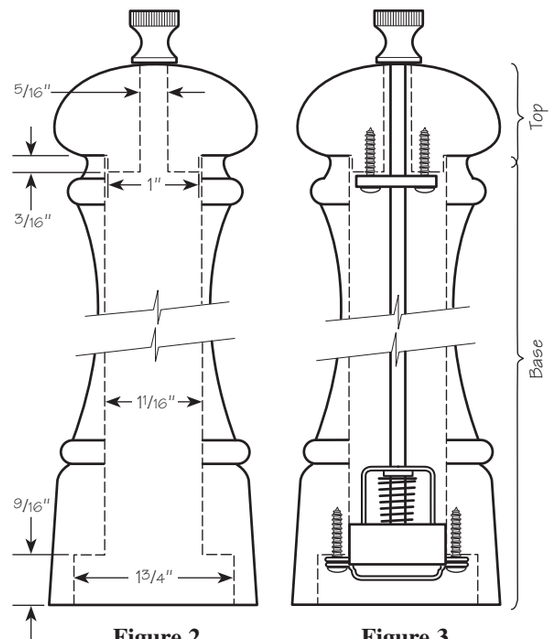

Figure 2 **Figure 3**

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