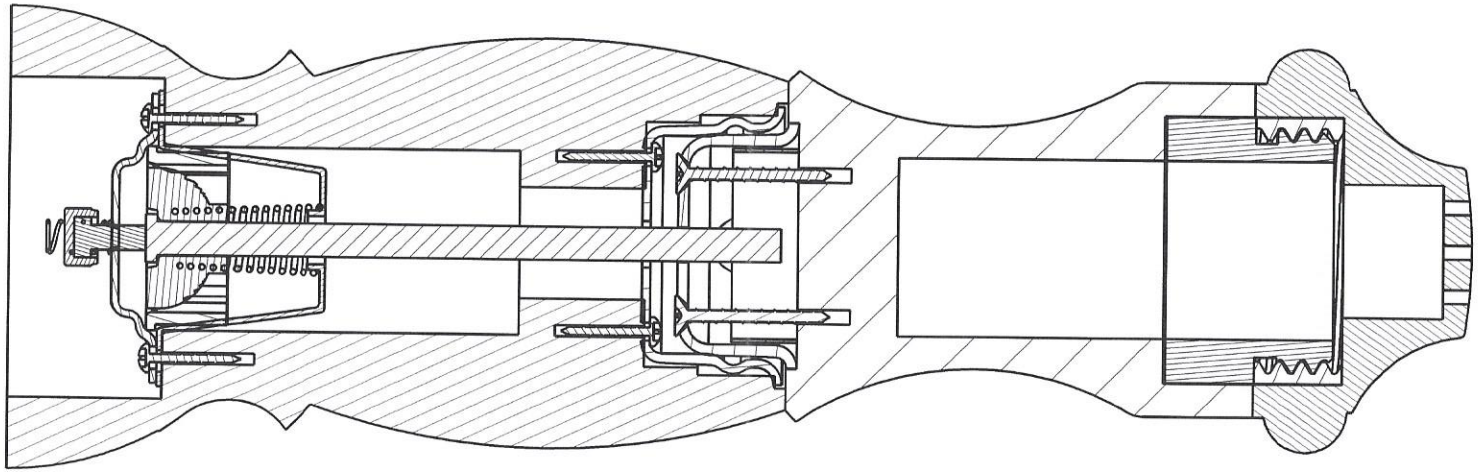
Arizona Silhouette

Distributor for
Backgate Industries

Combination Salt Shaker and Peppermill Instructions

You do the outside: *We do the inside. Perfect.*

REV 08/10/15



SECTION B-B

Arizona Silhouette

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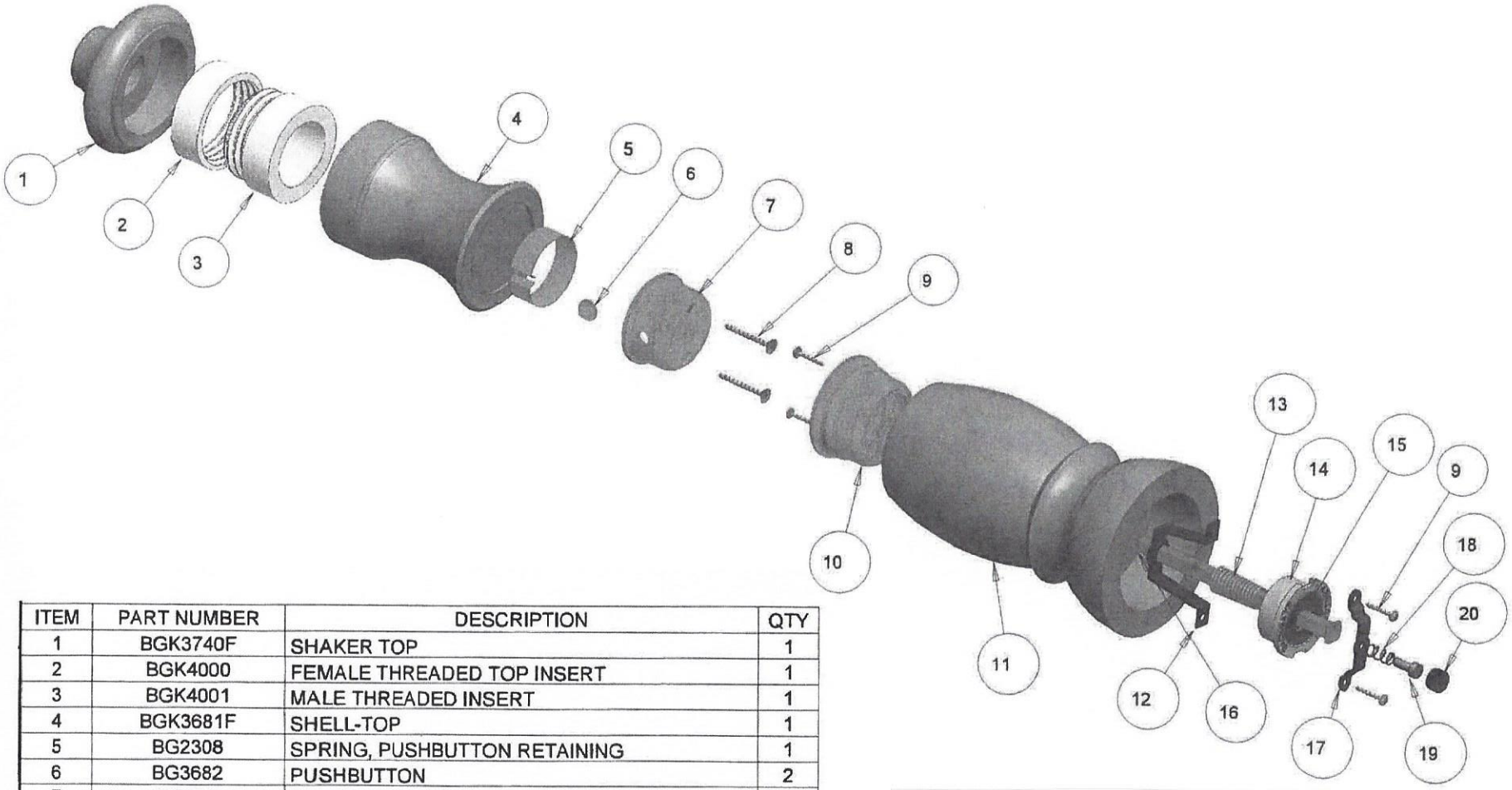
REV 08/10/15



ITEM	PART NUMBER	DESCRIPTION	QTY
1	BGK3740F	SHAKER TOP	1
2	BGK4000	FEMALE THREADED TOP INSERT	1
3	BGK4001	MALE THREADED INSERT	1
4	BGK3681F	SHELL-TOP	1
5	BG2308	SPRING, PUSHBUTTON RETAINING	1
6	BG3682	PUSHBUTTON	2
7	BG2310	CUP-TOP SHELL	1
8	BG3688	#4X1" FLAT HEAD, PHILLIPS TYPE AB, SS	2
9	BG3685	#2X1/2" PAN HEAD, PHILLIPS TYPE AB, SS	4
10	BG2314	RETAINER CUP	1
11	BGK3684F	BODY, LOWER PEPPERMILL	1
12	BG3729-3	SPRING BAR GUIDE	1
13	BG3729-2	GRINDER ASSEMBLY SPRING	1
14	BG3729-4A	CUTTER RING	1
15	BG3729-4B	GRINDER	1
16	BG3729-5	SHAFT	1
17	BG2318	PLATE, ADJUSTING	1
18	BG3686	SPRING, ADJ. SCREW LOCK	1
19	BG3687	6-40 ADJUSTING SCREW	1
20	BG3689	SHEAR-LOC KNURLED KNOB	1

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Backgate Industries

SALT & PEPPERMILL ASSEMBLY

#BGK96004 B

PATENT U.S. 8,622,329 B1

REV 08/10/15

SALT SHAKER / PEPPERMILL

This project makes a combination salt shaker and peppermill. This peppermill will require 3 sections instead of the standard 2. The lower part becomes the peppermill. The upper two parts make the salt shaker and it's top. This section turns the grinder in the lower part. Please check square (❑) to be sure all parts are included. This kit provides the following:

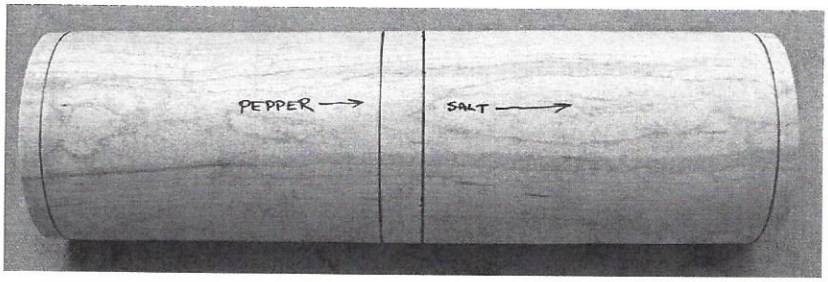
ITEM	PART NUMBER	DESCRIPTION	QTY	✔
1	BGK3740	SHAKER TOP	0	
2	BGK4000	FEMALE THREADED TOP INSERT	1	❑
3	BGK4001	MALE THREADED INSERT	1	❑
4	BGK3681	SALT SHAKER BODY	0	
5	BG2308	SPRING PUSHBUTTON RETAINING	1	❑
6	BG3682	PUSHBUTTON	2	❑
7	BG2310	CUP-TOP SHELL	1	❑
8	BG3688	#4X1" FLAT HEAD PHILLIPS TYPE AB SS	2	❑
9	BG3685	#2X1/2" PAN HEAD PHILLIPS TYPE AB SS	4	❑
10	BG2314	RETAINER CUP	1	❑
11	BGK3684	BODY LOWER PEPPERMILL	0	
12	BG3729-3	SPRING BAR GUIDE	1	❑
13	BG3729-2	GRINDER ASSEMBLY SPRING	1	❑
14	BG3729-4A	GRINDER/CUTTER RING	1	❑
15	BG3729-4B	GRINDER	1	❑
16	BG3729-5/XX	SHAFT	1	❑
17	BG2318	PLATE, ADJUSTING	1	❑
18	BG3686	SPRING, ADJ. SCREW LOCK	1	❑
19	BG3687	6-40 ADJUSTING SCREW	1	❑
20	BG3689	SHEAR-LOC KNURLED KNOB	1	❑

LAYOUT

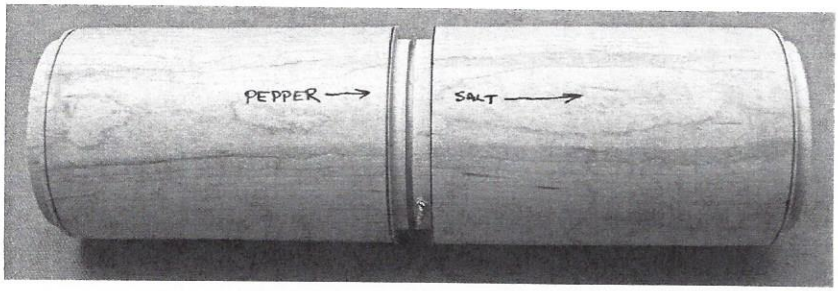
A salt shaker / peppermill can be made in any size. The salt shaker is approximately 4" tall and can be made taller. The shaft provided will make a combination with a 4" salt shaker that is approximately 10" tall. If you want to make a taller combination, cut off as shown in the instructions. The size and design of the combination is up to your creativity.

PREPARATION

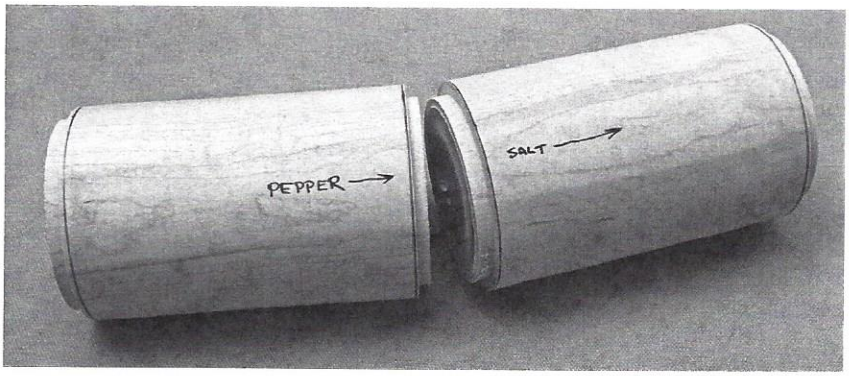
After you have decided on the length of your blank, mount it between centers and turn it to a cylinder. Mark your layout lines. Make sure to mark the parts if you want the grain to match.



Turn a shallow tenon on each end and at the dividing point. These small (1/4" wide) tenons should just fit your chuck at its max opening. The depth of these tenons will be the max diameter of the finished project. The dividing point tenon should be approximately 2 tenons wide plus the width of your narrow parting tool (roughly 5/8"total) and the same depth as the end tenons. If you want to have the grain match be sure to mark the parts before parting off. You see in the picture above that the peppermill and salt shaker have been marked and the arrows point towards the top of the finished project.

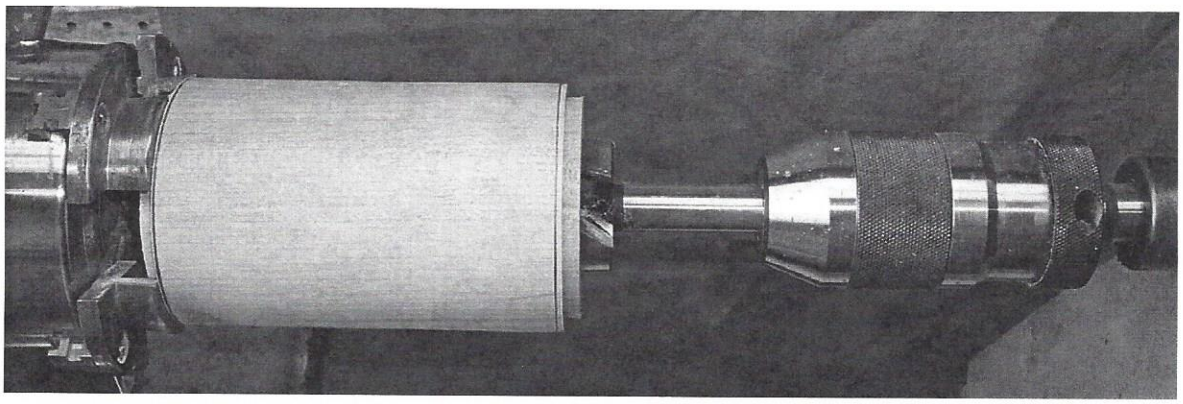


Part the peppermill blank from the salt shaker blank leaving a tenon on each side of the parting tool. There will be a tenon on each end of each piece.

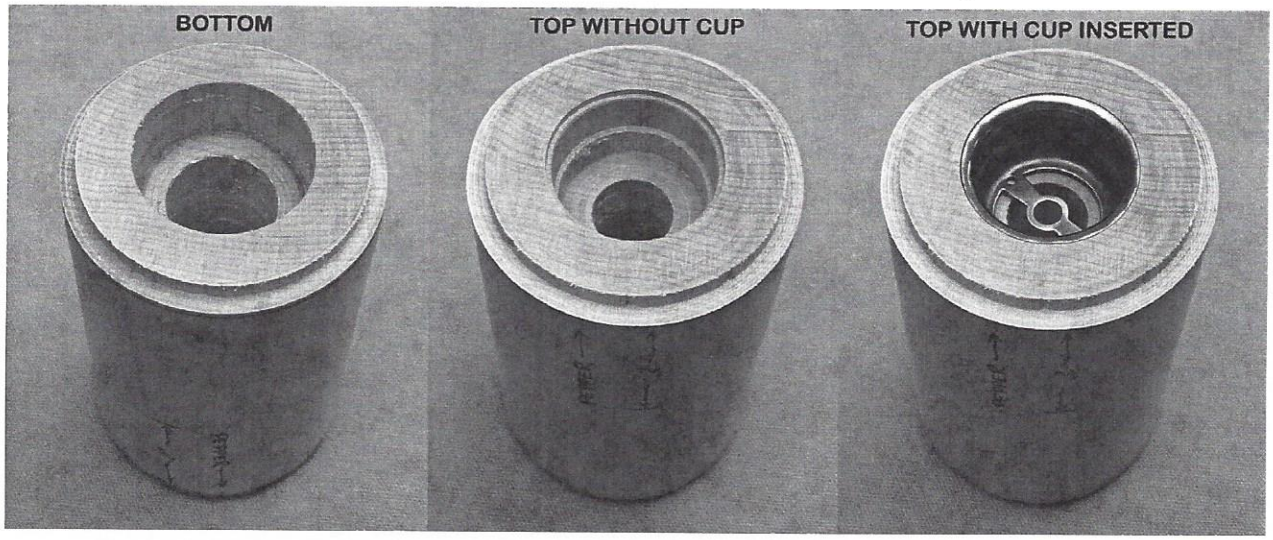


PEPPERMILL INSTRUCTIONS

1. Mount the peppermill blank in the scroll chuck with the bottom towards the tail stock.
2. Using a spindle gouge or a skew flatten the bottom.
3. Mount the drill chuck with a 1-3/4" forstner bit in the tail stock.

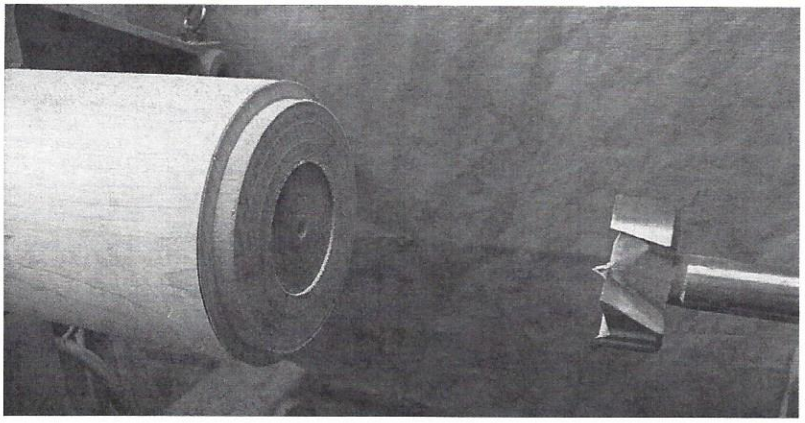


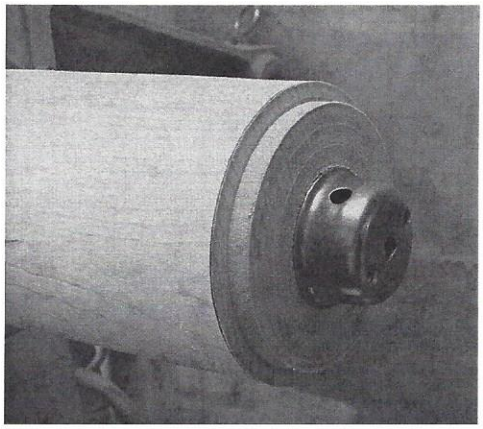
4. Drill a 7/8" deep hole.
5. Change to a 1-1/16 forstner bit and drill leaving approximately 2" of material in the bottom of the hole.
6. Reverse the peppermill blank.
7. Change to a 1-3/8" forstner bit and drill a 13/16" deep hole.
8. Change to a 5/8" forstner bit and drill all the way through.
9. Break pepper cavity corner no more than 1/16" as specified in BG4003-B.
10. Remove the bit and drill chuck from the tail stock.
11. With the sq. end scraper, the bedan, or the point of the skew open the 1-3/8" hole to fit the peppermill cup. Don't forget to turn a shallow recess to fit the lip and break the corner so the cup fits flush.



SALT SHAKER INSTRUCTIONS

1. Mount the salt shaker blank in the chuck with the bottom towards the tailstock.
2. Using a spindle gouge or a skew flatten the bottom.
3. Using a 1-3/8" forstner bit drill a recess approx 1/16" deep for the rim of the top cup. Open the drilled hole 1-3/8 + 1/64 -0 until the BG2310 fits comfortably. Change to a twist drill and drill a pilot hole for the screw you will use to attach the removable tenon, DO NOT DRILL DEEPER THAN 1/2".

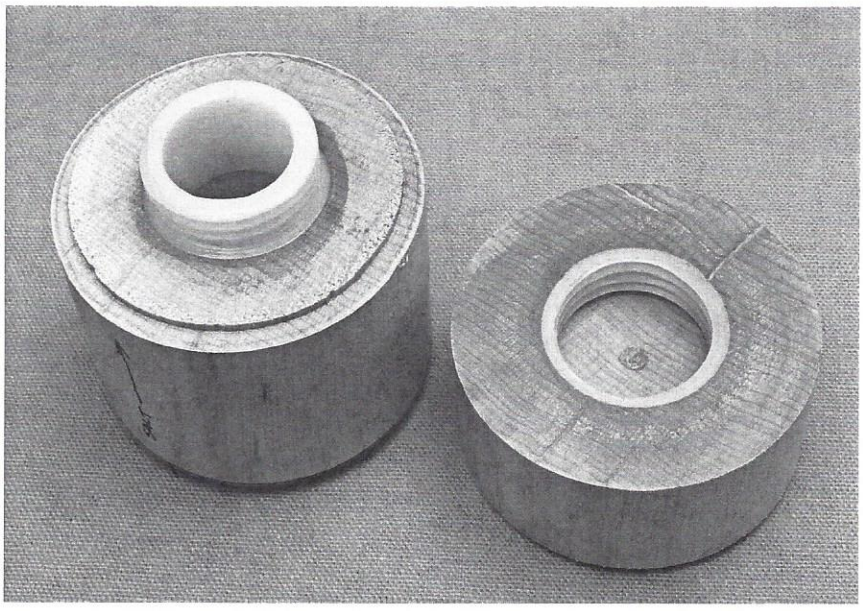




4. Reverse the blank and part off what will become the salt shaker lid. If you want to have the grain to match be sure to mark the parts before separating.
5. With a 1-1/2" forstner bit drill a hole 1/2" deep for the male threaded part.
6. With a 1-1/16" forstner bit drill a hole leaving at least 3/4" of material in the bottom of the hole.
7. Remove the salt shaker body from the lathe and chuck up the salt shaker top'
8. With a 1-1/2" forstner bit drill a 1/2" deep hole for the female threaded part.
9. Rough up and glue in the top and bottom threaded parts.

9a. If using Titebond or Epoxy apply glue to the parts and press in place. Clean off any squeeze out and while the glue is wet screw the parts together and align the grain. The parts will slip before the glue sets up. Carefully, without changing the grain alignment, unscrew the top a little so the parts won't be accidently glued together.

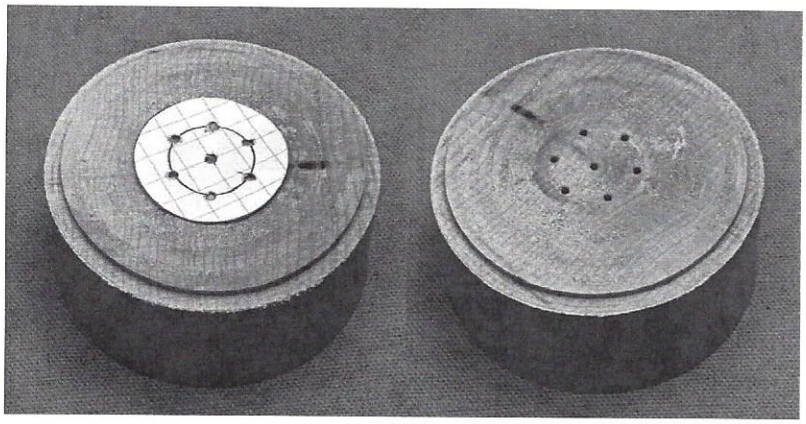
9b. **If using C/A glue***, apply glue to the male threaded part and press into the salt shaker body. Carefully wipe up any squeeze out and wait until male part is dry. Screw the female part all the way on and apply glue to the wood part.
Then with the grain aligned press the parts together. Carefully, without changing the grain alignment, unscrew the top a little so the parts won't be accidently glued together.

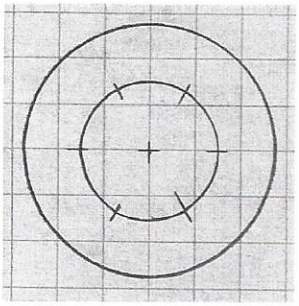


10. Set aside until completely dry.

* *use glue suitable to a plastic and wood bond (CA recommended).*

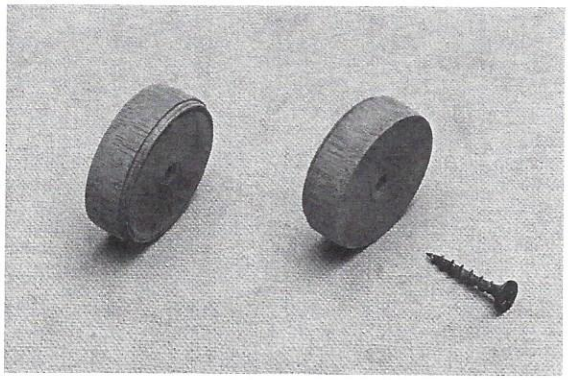
11. At this point, while the lid is still flat, you may want to drill the 1/16" holes for the salt shaker. You can use the template below or make up your own pattern and hole size.

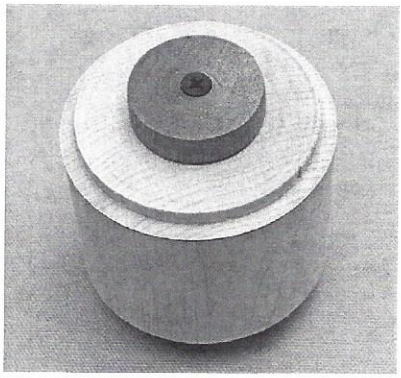




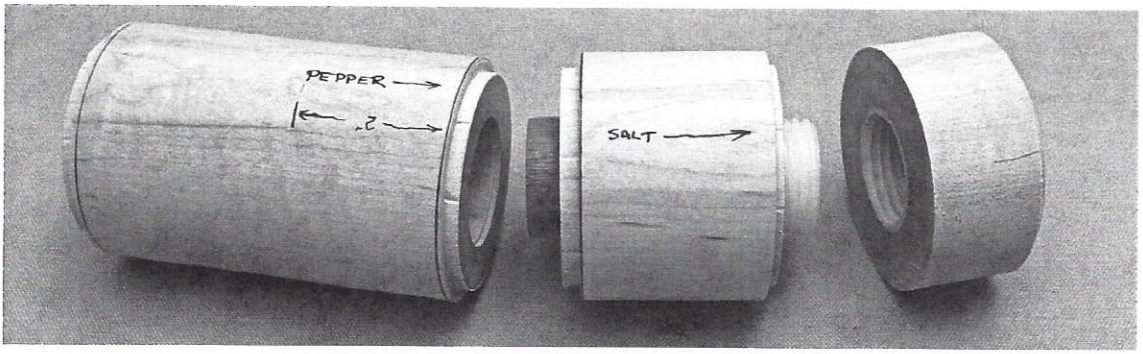
FINAL TURNING

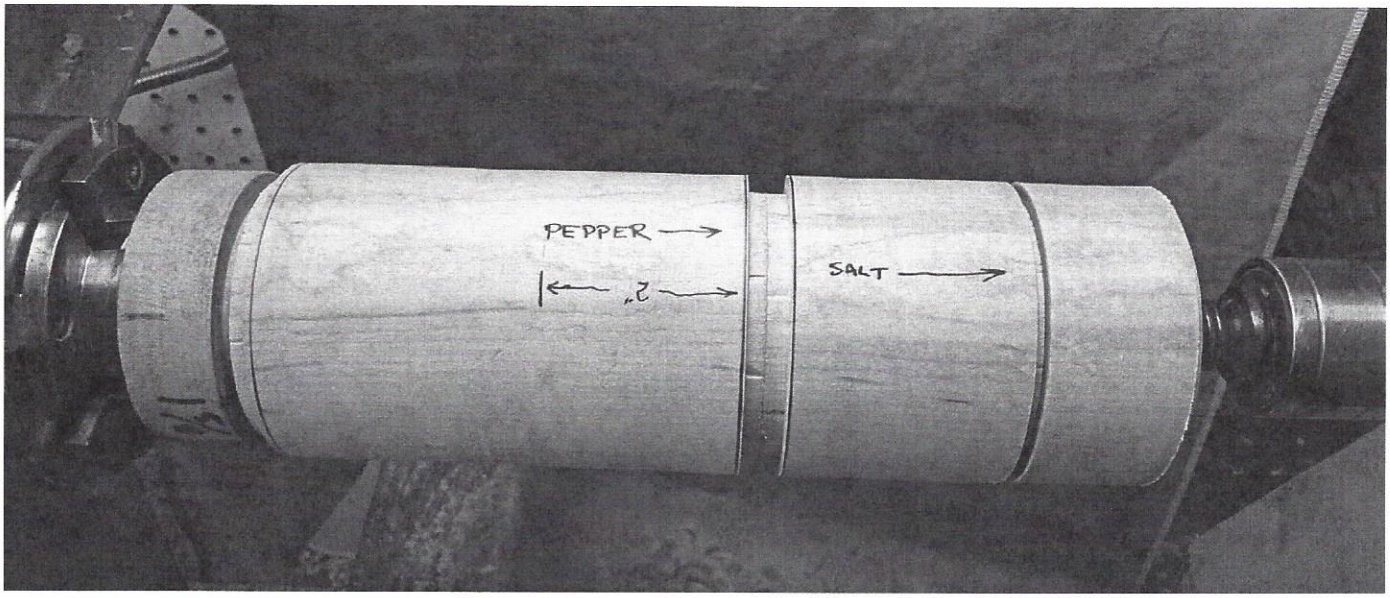
1. From a piece of scrap turned round to approx 1-1/2" turn a removable jam chuck.
2. Turn a tenon on the end 1-3/8" in diameter to fit snugly into the 1/16" deep recess in the bottom of the salt shaker.
3. Turn the next approximately 3/4" to act as a jam chuck to fit into the upper end of the peppermill.
4. With an appropriate sized twist drill in the tail stock make a hole in the center of the jam chuck.
5. Part off the blank to approx 3/4" overall.





6. Remove from lathe and screw to bottom of salt shaker. **Don't drill or screw through the bottom or the salt will leak out.**
7. Screw the unfinished lid to the salt shaker body and press the bottom of the salt shaker into the top of the peppermill.

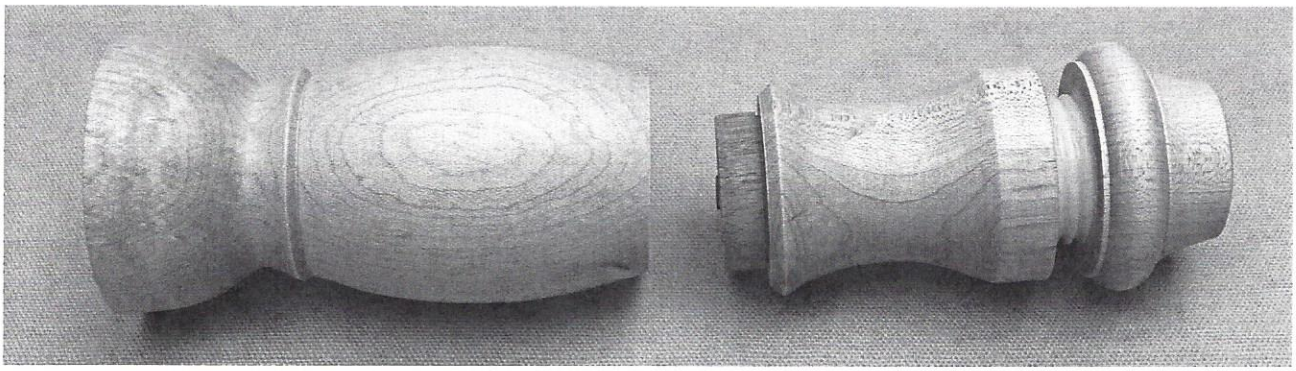




8. Using a 1-3/4" jam chuck (standard size for regular peppermills) in the head stock put the assembled parts in the lathe bring up the tailstock and turn the parts to their final shape and sand.

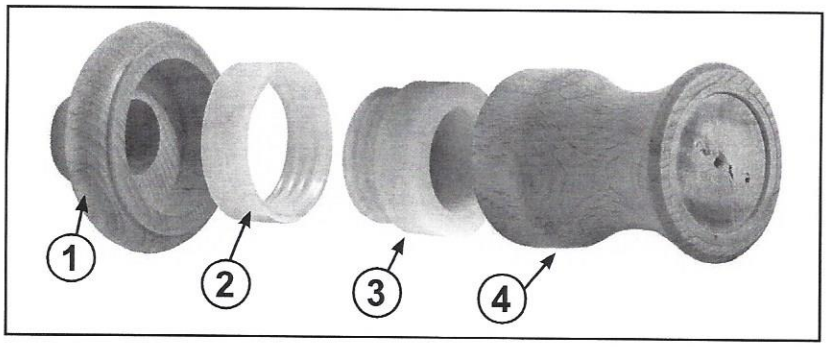
9. Part off the waste from the salt shaker lid.

10. Remove the peppermill body from the salt shaker. With the removable tenon still attached use that tenon to hold the salt shaker in the scroll chuck. Carefully finish turning the top, using very light cuts, and gently sand the salt shaker top.



11. Finish wood parts using the finishing material of your choice.

SALT AND PEPPERMILL DRIVE ASSEMBLY INSTRUCTIONS

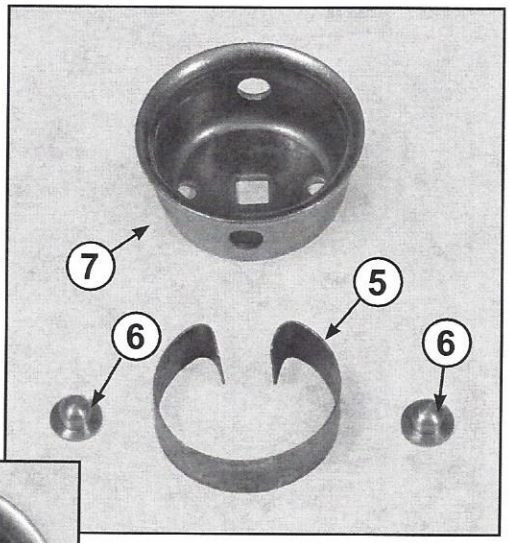


Picture #1

Step 1.

Shaker Top Assembly: Take item #1 (Shaker Top), using a CA Type* glue, and glue item #2 into the shaker top #1. Take item #3 and glue into item #4 (Shell-top). See Picture #1.

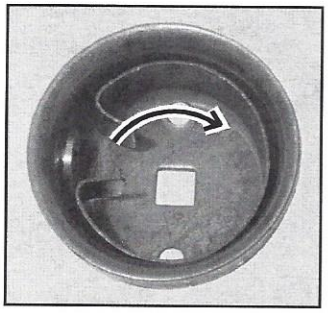
** use glue suitable to a plastic and wood bond (CA recommended).*



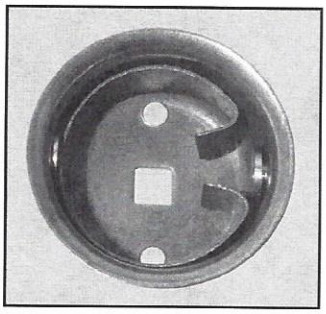
Metal Cup Top Shell Parts

Step 2.

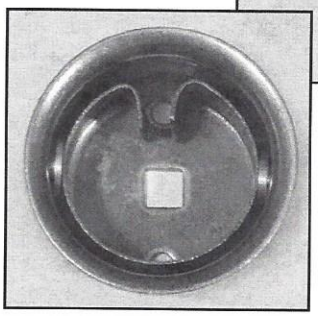
Shell Top Assembly: Take item #7 (Metal Cup Top Shell), insert item #5 (Spring, Pushbutton Retainer) and align gap with one of the holes. Take (1) of the item #6 (Pushbutton) and insert into exposed hole (Picture #2). Rotate the flat spring 180 degrees to align gap with the second hole. Drop in the second button (Picture #3). Rotate the flat spring 90 degrees, that will have both buttons ready to snap in the lower shell item #10 (Picture #4)



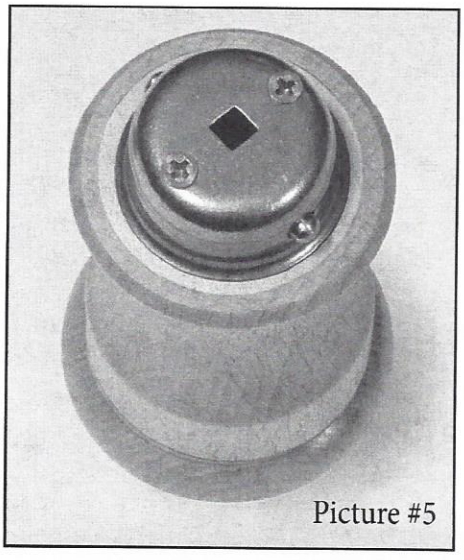
Picture #2



Picture #3



Picture #4



Picture #5

Step 3.

Mount the assembled item #7 to the bottom of the shell top item #4 using the item #8 Flat Head, Phillips screws (2)- #4x1"). Line up screws in predrilled holes. (Picture #5). #1 Phillips screwdriver required.

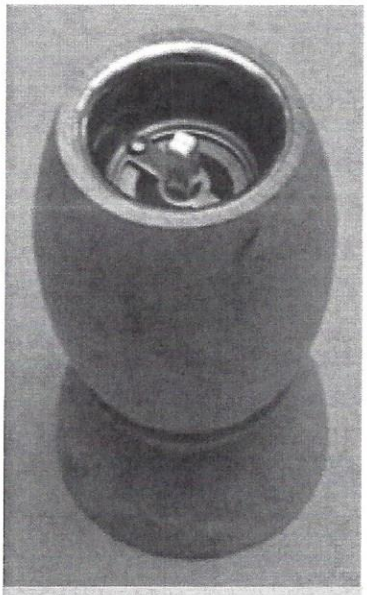
Picture #6

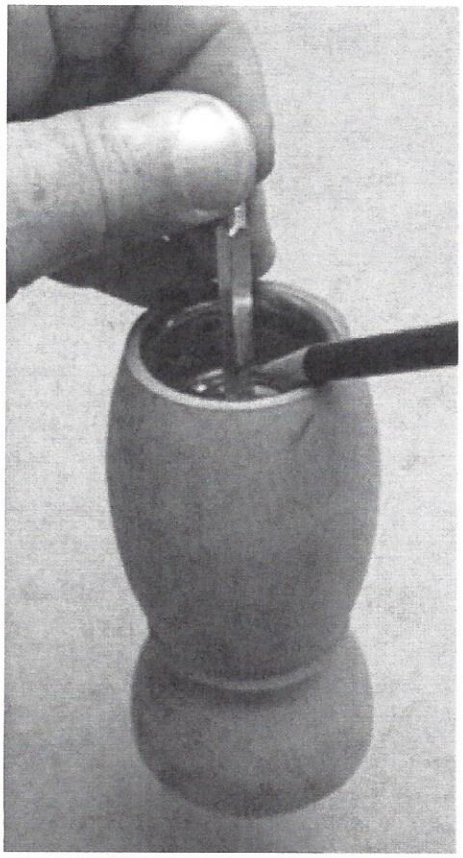
Step 4.

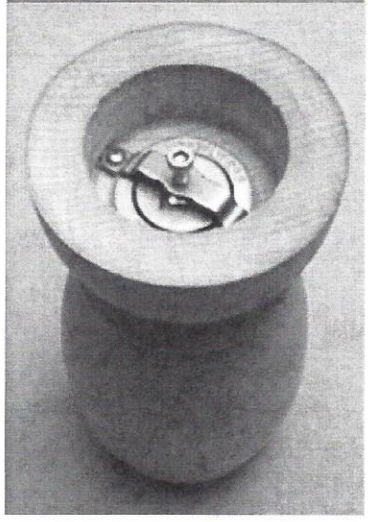
Lower Peppermill Body Assembly:
Take Item #10 (Retainer Cup) and insert into the lower pepper body item #11 and use item #9 (2) #2x1/2" Pan Head, Phillips screws to assemble. #1 Phillips screwdriver required.

Step 5.

Hold the shaft and grinder parts in place with one hand and mark the shaft with a pencil in the other hand. The shaft should be marked about 1/4" below the rim of the cup.

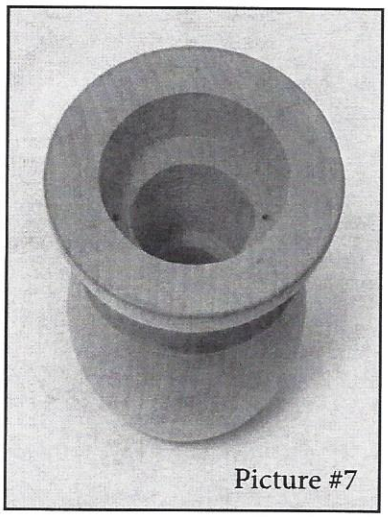




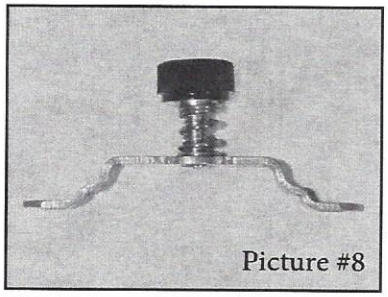


Step 6.

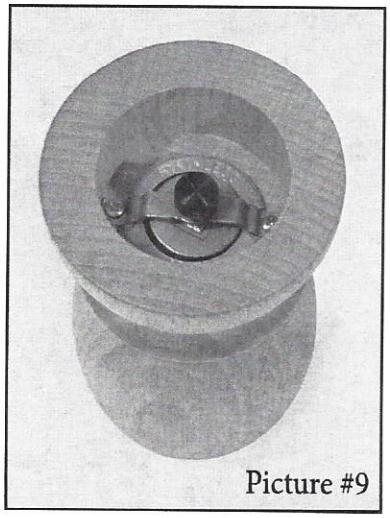
Working from the bottom (Picture #7), insert item #12 (Spring Bar Gide with the assembled Spring Bar Guide (items 13,14,15) into the base of the Lower Peppermill Body (item #11 – picture#7). To complete assembly of the lower grinder hardware, take the assembled adjusting plate (items 16,17,18,19) Picture #8 and align the pre-drilled holes in the Lower Peppermill body with the holes on item #16 (Adjusting Plate) and attach with item #9 (2) #2x1/2) pan head Phillips screws.(Picture #9)



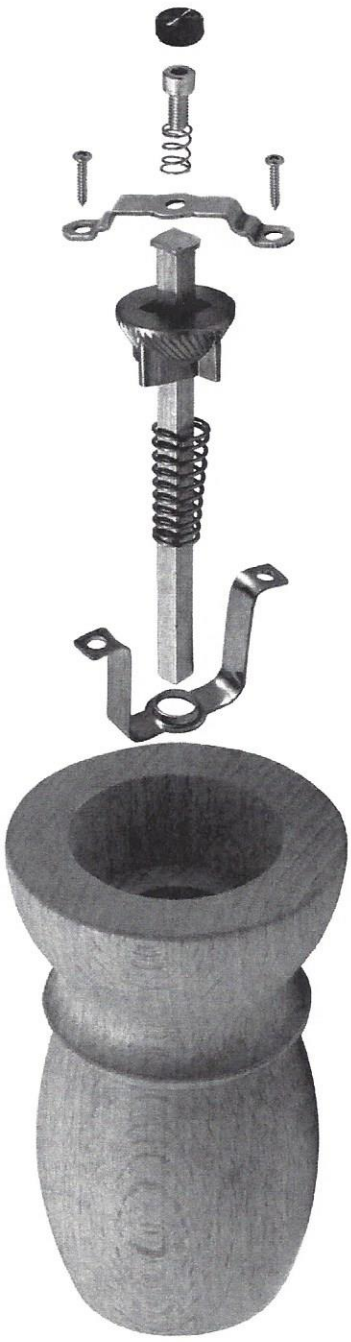
Picture #7



Picture #8



Picture #9



Shaft Assembly

Step 7.

(As stained)

Snap on the salt shaker and you have a finished project.