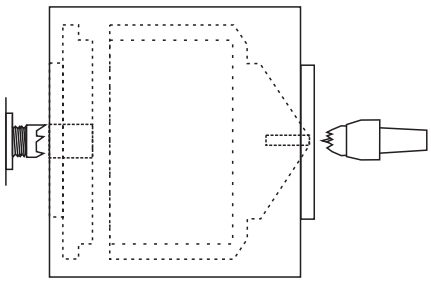
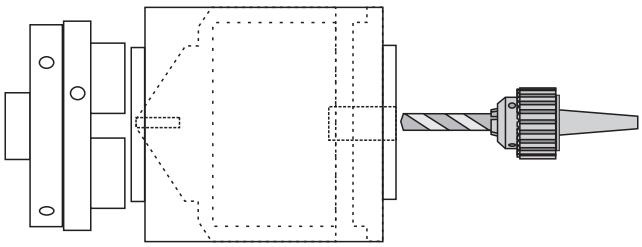
WOODTURNERS
SOUTH AUCKLAND
WOODTURNERS GUILD INC
TURNING TOMORROW'S TREASURES

Singing Spinning Top

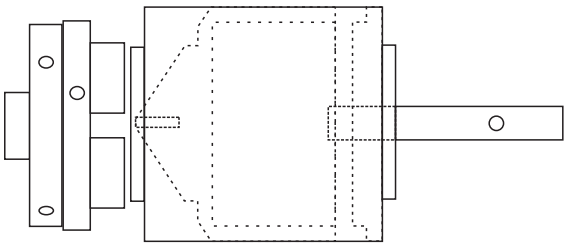
Spinning tops which hum, whistle or sing have been made in many forms. This plan is to make one on the woodturning lathe. This top needs spin quite fast so a starter handle and cord is needed. The wood in the finished top needs to be well balanced so that the top spins smoothly.



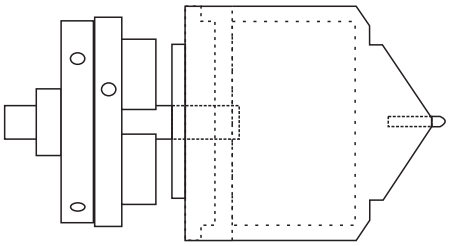
Start with a cube of wood 80 mm on all sides. Straight, even grain is desirable and the grain should run from top to bottom of the spinning top. Mark the centres on top and bottom. Mount the wood between centres and turn it almost round. Cut a spigot for a 50mm chuck on the bottom end.



Mount the wood by the spigot in a chuck. Cut it to 70mm diameter. Cut a spigot for a 50mm chuck on the top end. Drill a 10mm hole into the top end.

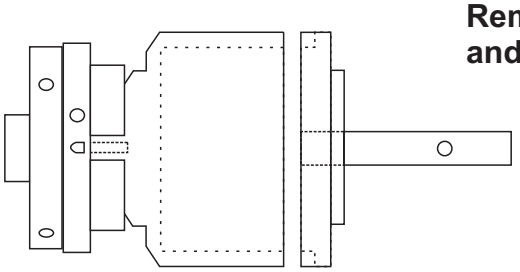


Glue a length of 10mm dowel into the top end so that it protrudes at least 50mm from the top. Drill a hole that will fit the string you plan to use about 35mm up the dowel from the top.

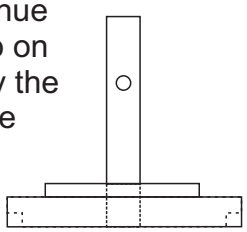


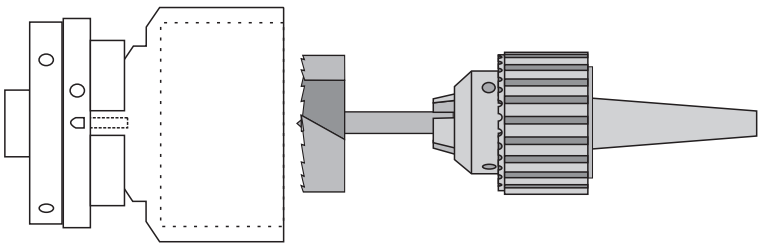
Remount the top by the upper side. Cut the bottom to shape. Not too much point as it needs to fit inside a chuck. Include a new spigot in the slope of the underside. Fit a metal centre point.

Remove the top from the lathe and test that it spins smoothly.



If the top spins smoothly, continue with the project. Mount the top on the lathe, this time holding it by the bottom end. Part the top off the spinning top and set it aside.





Drill, or drill and cut, the inside of the spinning top to achieve a 6mm even wall thickness.

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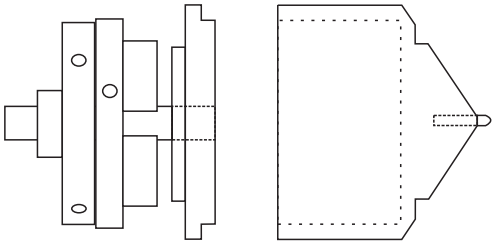
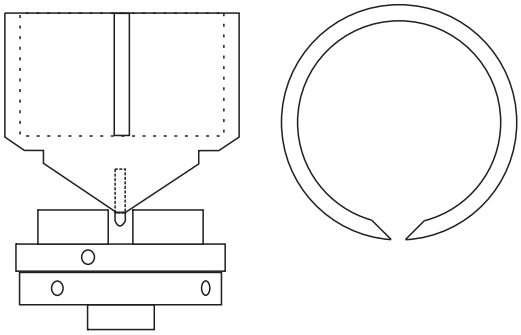


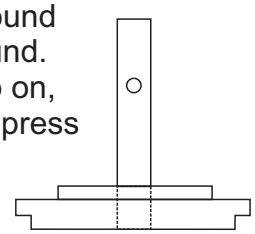
Remove the bottom part of the spinning top from the chuck and mount the upper part. Cut the outer edge of this wood so that the bottom part fits snugly on it. Fit the bottom to the top and secure it with a single layer of tape.

Remove the top from the lathe and test that it spins smoothly.

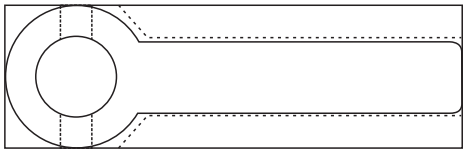
If the wood spins smoothly, you may now work to create song ports.
Recommendations are: 1. a 6mm hole angled wider to 40° each side on the inner side of the wall; Or 2. a similar hole made square, still 6mm wide and a 40° angle each side on the inner side of the wall; Or 3. a slot the full height of the wall, still 6mm wide and angled 40° each side on the inner side of the wall.
Drilled holes may be made freehand but to cut a slot, securing the spinning top in a chuck is recommended.



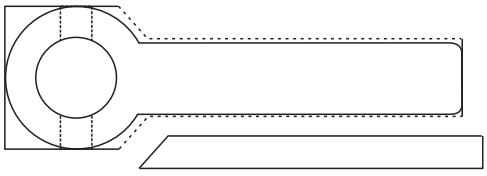
Cut a song port on one side of the top. Tape the upper side on and test again. This may work or need revision of the angles or port width. A second sound port may work or may stop all sound. When you are happy, glue the top on, add a finish of your choice and impress people with your skills.



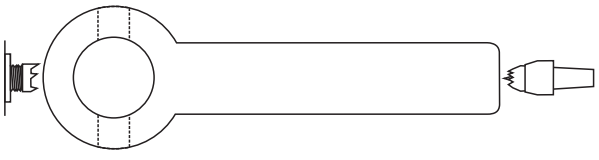
The Handle and String



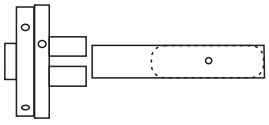
Start with wood 160 long, 50 wide and 25mm thick and 750mm of 2mm braided nylon string. While the wood is still square drill an 11mm hole across one end centred 25mm in from the end. Drill a 25 to 30mm hole through the narrower thickness centred 25mm in from the end. Mark the centres on both ends. Then mark the 25mm width of the handle on the wood.



Bandsaw the lines to create the handle. Keep one of the pieces you bandsaw off to make a handle for the string.



Mount the wood between centres. Turn the handle to round and the outer surfaces of the large end also to round. Sand these surfaces. Remove it from the lathe and hand sand the ends. Apply the finish of your choice.



Cut the piece you saved for the string handle to about 60mm long. Mount it in a small chuck. Drill a 2.5mm through it 20mm from the outer end. Turn the wood round. Sand it and part it off to be 40mm long. Glue one end of the string into the hole.