
Turned and Pierced Potpourri Box



Wood turning, cutting delicate frets with a scroll saw, and whittling are three of my favorite wood-working activities. The problem, when I first started thinking about this project, was how could I incorporate the three techniques to create a single unique item? After a good deal of thought I came up with the notion for this project—a turned box with a pierced lid, with a small amount of knife work in and around the piercing.

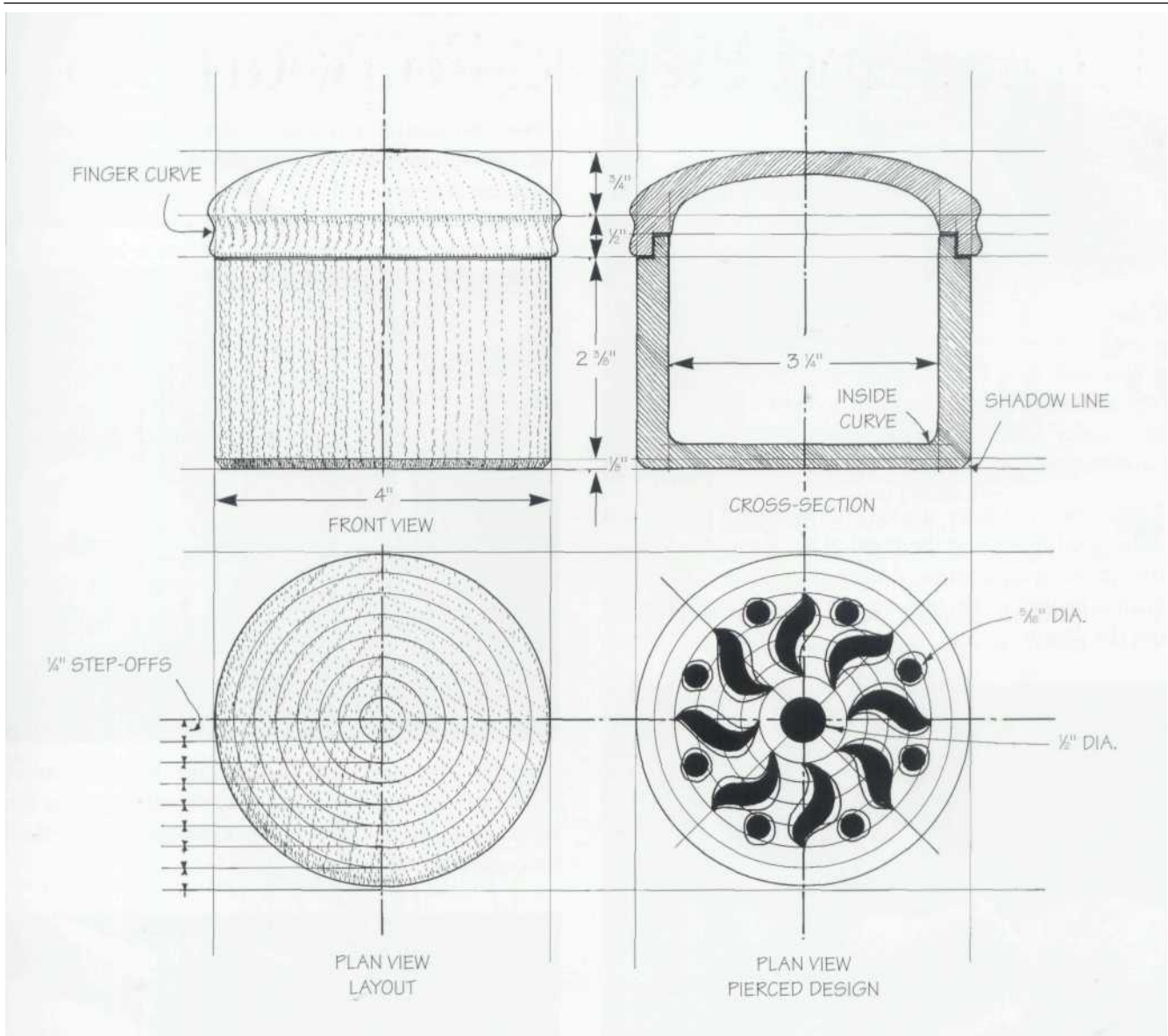
The design draws its inspiration from two of my **friends**, one a wood turner and the other a general wood-worker. However, they both needed a fresh angle to spark off their talents. Well, to cut a long story short, Gill came up with this great idea that they combine their talents so as to halve their workshop expenses and double their money-making potential. The good news is that they now

make the most beautiful turned and pierced containers, and they are both scooping up the rewards!

TURNING THE BOX

Though there are any number of ways of turning a small lidded box of this type and character, the best way is to use the four-jaw chuck technique. The procedure is wonderfully simple and direct. Having mounted the wood in the chuck, you start by turning the wood down to a 4"-diameter cylinder, and parting off the tailstock end of the cylinder for the lid. This done, you hollow turn the box and cut the step on the rim, then take the surface to a good finish and part off.

The next step is perhaps slightly tricky. You remount the lid section on the lathe and start by hollowing out the



lid and cutting the rim to fit the base. Then you remove the lid from the chuck, turn it over so that the expanding jaws of the chuck fit the **inside** of the rim, and finish up by turning the top of the lid. Don't forget to set the **lid** out with the 1/4" step-off lines to help later when you set **out the** design.

SPECIAL TIP: SCROLL SAW LIMITS

If you like the idea of this project but are planning to change the shape of the turned box, or even change the placing of the pierced holes, be mindful that the overall design is more or less governed by the use of the electric scroll saw. For example: As the saw is unable to cut wood thicker than about 1/4", the lid can't be high and/or domed. Also, the saw can't be used to fret a pierced design

around the box.

All that said, if you are keen to change the pierced design and/or the shape of the lid, you could possibly use a jeweler's piercing saw or perhaps a fine-blade hand fretsaw. It needs a bit of thinking about.

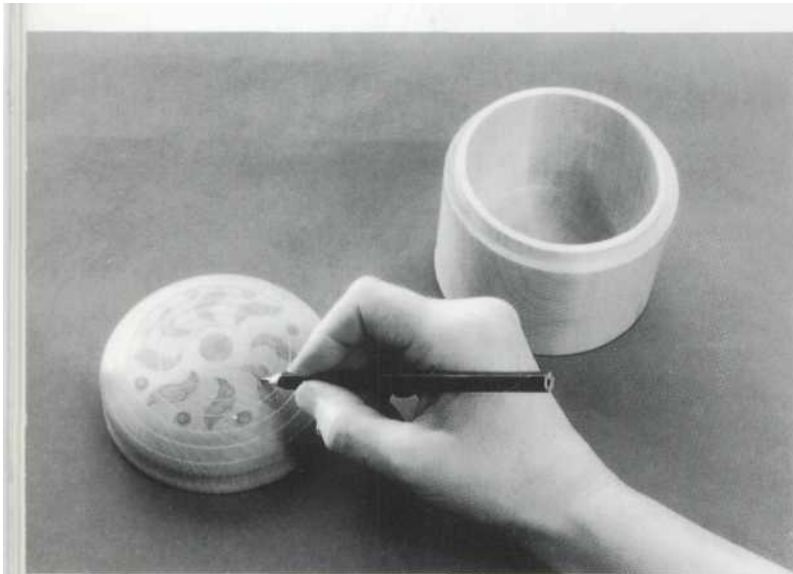
FRETTING, PIERCING AND WHITTLING THE LID

When you have made the turned box, with the lid nicely set out with the 1/4" guidelines, it's time to fret out the design. Pencil-press transfer the design through **to** the wood, bore out round holes with appropriate size bits, drill small **pilot** holes through the "windows" of the design, and fret out the shapes on the scroll saw. Finally, use the point of the knife to trim back the sharp edges of the piercings.

1 When you have sanded and smoothed the lid to a



good finish, use the point of the skew chisel to set the lid out with a series of rings. Space them about 1/4" apart. The idea is that you can use them as a guide to lay out the design.

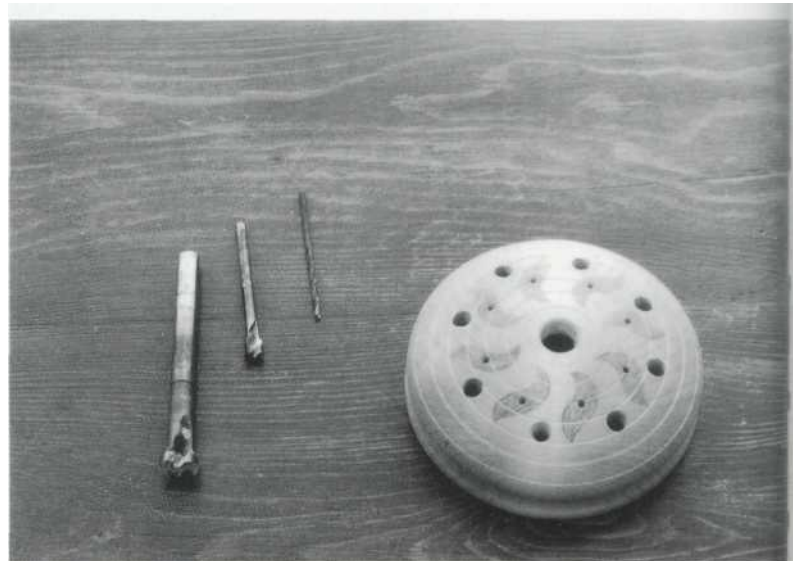


2 Shade in the pierced areas so that there is no doubt about the line of cut. If you are worried about the pencil smudging, then it's a good idea to give the whole lid a quick spray with pencil fixative as used by illustrators.

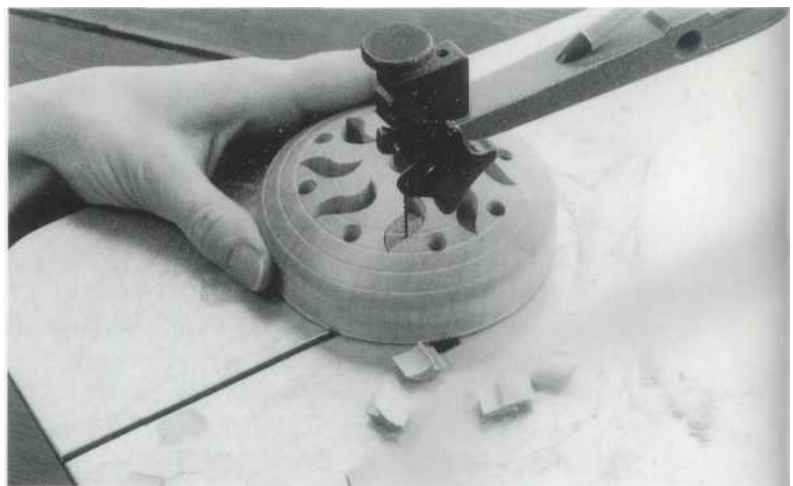
MATERIALS LIST

A Board (1) 4 1/2" x 4 1/2" x 6"

Note: Because we were a bit short of wood, we decided to laminate two pieces to make the 4 1/2" x 4 1/2" x 6" section.



3 It's most important that you use Forstner bits for the large holes that make up the design. I say this because they are the only bit types that guarantee **perfect**-every-time holes.



Take two cuts for each end of the little curved shape. Work from the central pilot hole and down toward the point so that the point is crisp and sharp.

USING THE LATHE AND THE FOUR-JAW CHUCK

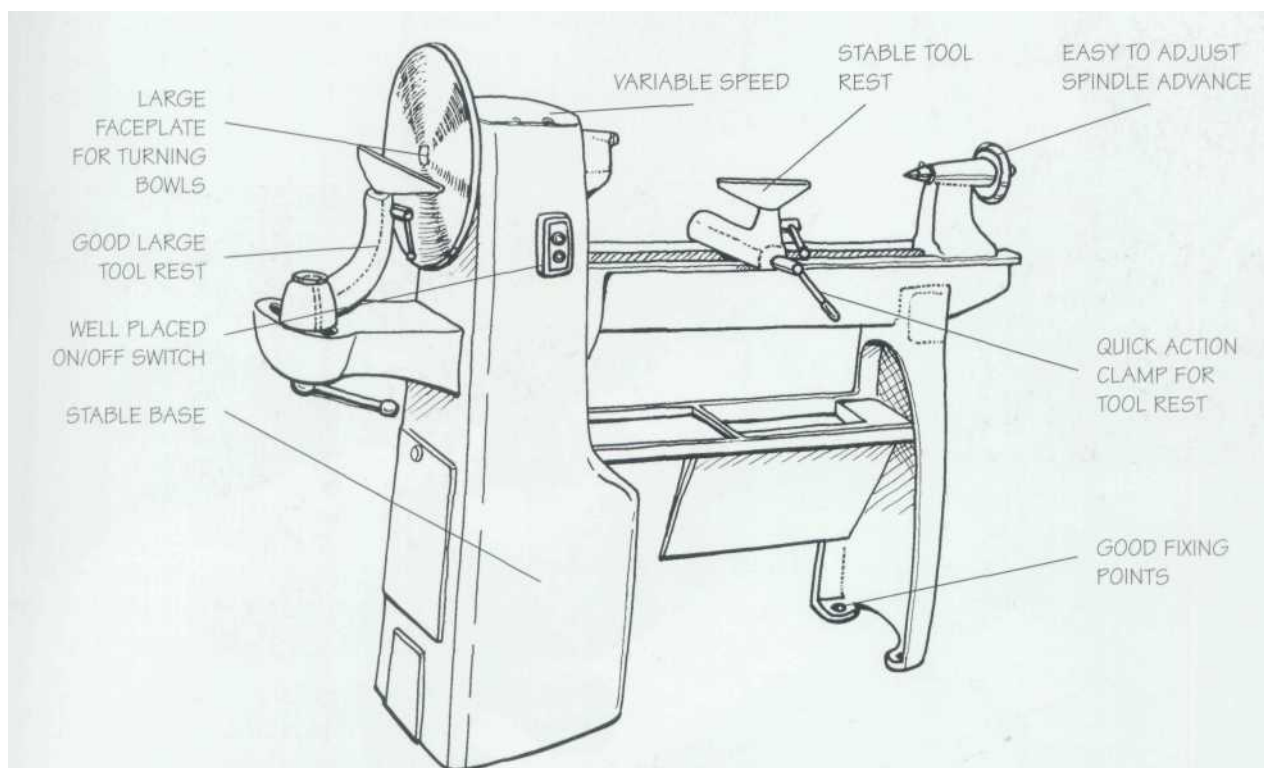
Though wood turning is one of the most important wood-working activities—vital for making just about everything from chair legs, stair balustrades, and bedposts, to boxes, candlesticks and bowls—it is also one of the most misunderstood of all the woodworking techniques. What happens **with** most beginners is that they purchase an "amateur" machine and a set of "starter" tools, and then become disenchanted when they can't make anything more exciting than small spindles. The problem, of course, is that small machines tend to wobble and shake, and the pronged center and the fixed tailstock center that are supplied **with** most small machines are totally inadequate and almost useless. As a result, many beginners soon get disillusioned and decide to give up wood turning. The **pity of it is** that the majority of these disillusioned beginners heap blame on themselves. Of course, what these beginners simply can't know is that turning is the one area of woodworking where the old adage "a poor workman always blames his tools" is a load of bunk! In the context of wood turning, the boring old adage ought more rightly read "poor results are nearly *always* the result of poor tools." All this adds up to the inescapable fact that exciting and varied wood turning can only really be

achieved if you have top quality tools and equipment.

So there you go. If you are a beginner looking to get started, the following pointers will show you the way.

Lathe

In essence, a lathe is a woodworking machine used for cutting and shaping wood into a round section. The wood is pivoted and spun between centers and/or held **in** a chuck, while at the same time handheld chisels or gouges are used **to** make the cuts. Though there are many lathe types—small ones, large ones, very long ones, some dedicated to making spindles, some dedicated to making bowls, some with fancy multispeed controls, and so on—experience tells me that a large traditional lathe, with a big motor and a heavy cast-iron frame, is by far the best option. I say this because while a miniature lathe might well be superb for making small items like lace bobbins, it can't be used to make larger pieces like bowls and chair legs. A large lathe, on the other hand, can be used to make everything from lace bobbins to bedposts. As for the cast-iron frame of a large lathe, there's no rust, no vibration, no nothing—it just sits there and does the job! I have a large old English lathe called a Harrison Jubilee, made about 1940. It is a wonderful machine.



LATHE ANATOMY

If the notion of wood turning appeals to you, then be sure to invest in the biggest, best quality lathe that you can afford.

HEADSTOCK AND TAILSTOCK

The headstock, the power-driven unit at the left-hand side of the lathe, carries the bearings in which the spindle revolves. The spindle has an external screw for chucks and **faceplates** and an internal taper for the pronged center. The tailstock, the movable unit at the right-hand side of the lathe, holds a pointed center. The distance between **the** headstock and the tailstock can be adjusted by winding the tailstock center in or out.

TOOL REST

The tool rest, sometimes called T-rest, is the unit that moves left or right along the bed on which the tools—meaning the gouges and chisels—are rested. Being mindful that the rest is a fulcrum for the levering action of the tools, it is essential that it can be swiftly and easily moved and put in place.

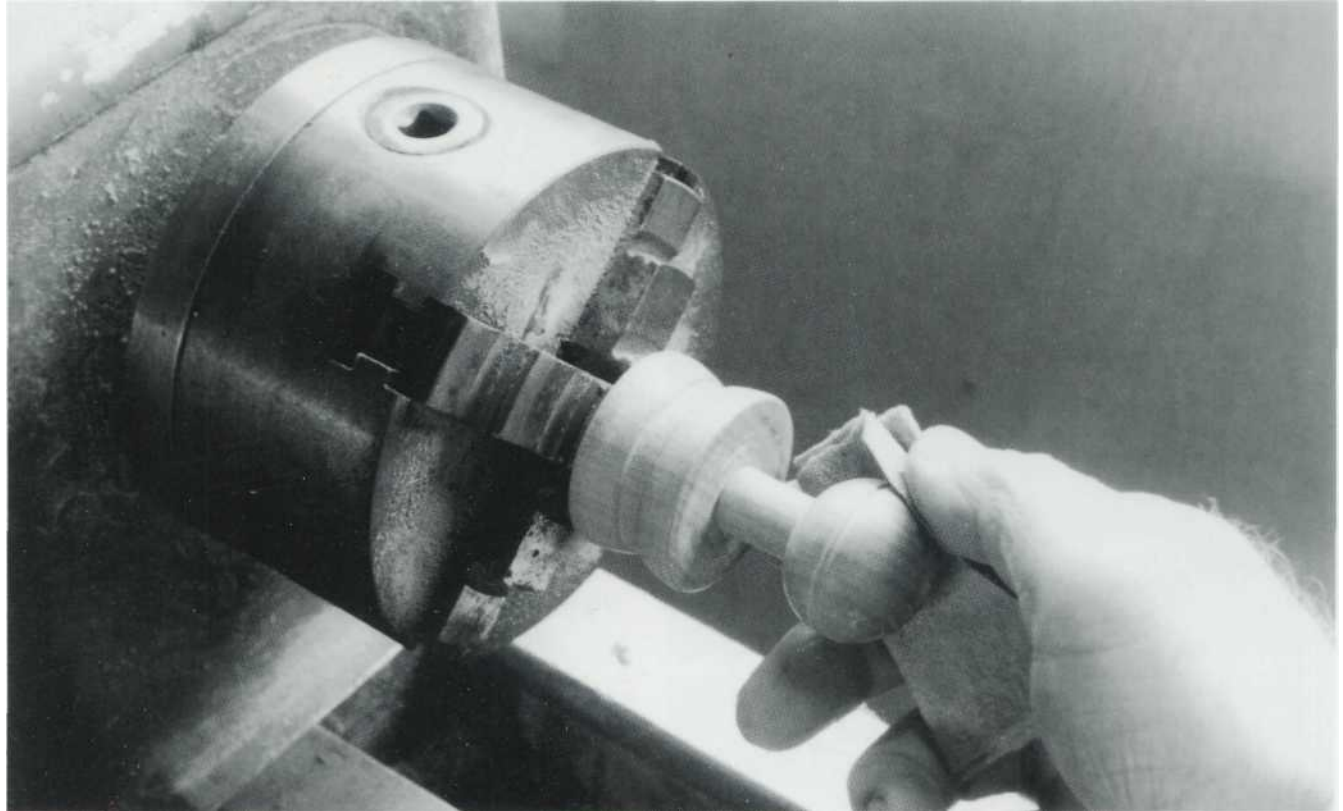
THE BED

The bed is the metal track, rods or rails that link the headstock to the tailstock, upon which the tool rest slides. Since it is vital that you are able to swiftly and easily move the tool rest, it is best to avoid narrow-slot, round-section bar beds that easily get clogged up with dust and shavings.

Four-Jaw Chuck

The four-jaw chuck is a mechanism used to hold the workpiece; it is a device that replaces the pronged center and all manner of other centers. Operated by a chuck key, the four jaws can be opened and closed in unison in such a way that they grip square sections. To my way of thinking the four-jaw chuck is essential. Okay, so four-jaw chucks are expensive—mine cost one-quarter the price of my secondhand lathe—and they do need to be fitted with a guard. But they grip wood without the need to turn it down to a round section—a huge time-saver—and once the wood is in the chuck, you can be confident that it's going to stay put.

When I said at the beginning that you can make just about everything you care to imagine on a large lathe, I should really have added the proviso: but only if you use a four-jaw chuck. You should see me at my lathe. I don't mess around with pronged centers or faceplates. I threw them away long since. I simply mount everything on the four-jaw chuck and get straight into the job. As well as holding square sections without the need for preparation, the jaws are good for other uses, such as holding rings and containers, holding a large screw—instead of using a screw center—and gripping round sections.



FOUR-JAW CHUCK

The *advantage* of the four-jaw chuck is that you can draw the tailstock center out of the way and approach the workpiece head-on.