

Turn a problem into an opportunity for ornament by drawing attention to flaws with decorative filler



PHOTOGRAPHY BY THE AUTHOR

Get cracking!

Ron Hampton

deliberately cracks his bowls in order to fill the cavities with decorative silvery seams

You do not expect to hear a turner trying to talk his bowl into cracking. We spend a lot of effort trying to learn how to prevent our bowls from cracking. But trying to get my bowls to crack is exactly what I have been doing lately.

To make my bowls visually more stimulating I have been looking for wood with large flaws or cracks. Failing that, I try to make the pieces crack by subjecting the bowls to harsh, rapid drying – just the opposite of what you would do if you were trying to prevent cracks from forming.

The reason that I want my bowls to crack is so that I can fill them with a

metal glue which, when it has dried and is sanded, looks a lot like silver. The product, Lab Metal, is an aluminum-filled glue that sets by evaporation. It is used to fill gaps in broken pieces of metal which will not be subjected to high stress.

An added benefit to this technique

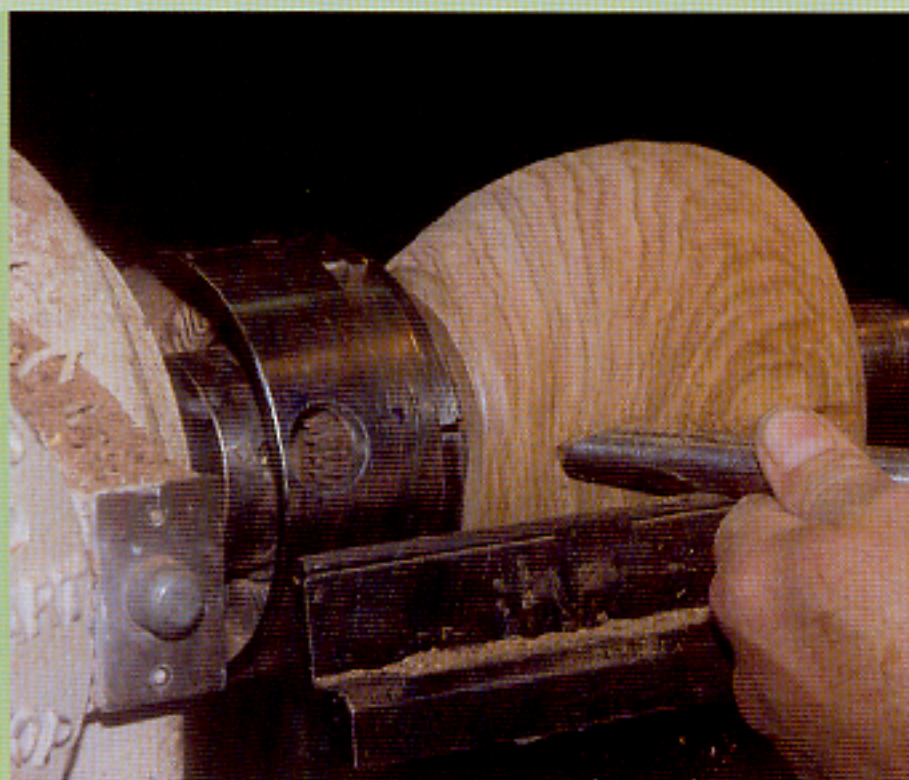
‘Attractive bowls can be made from a worm-eaten ‘ugly duckling’ piece of wood which would ordinarily be consigned to the fireplace’



1 Turn the wood round between centres



2 Turn the tailstock end flat and prepare it for your faceplate or four-jaw chuck



3 With the bowl mounted in a chuck, use a bowl gouge to start shaping the bowl



4 (left) Using the side of the bowl gouge, make fine finish cuts

5 (below) A small router fitted with a spiral bit is useful for cleaning up or creating flaws



is that attractive bowls can be made from a worm-eaten 'ugly duckling' piece of wood which would ordinarily be consigned to the fireplace. Making a beautiful bowl from such a compromised piece of wood is what we will do in this project.

Getting started

Select a piece of wood that you would like to turn, but which contains some flaws; do not, however, choose a piece that is so flawed that it is likely to come apart during turning – you must always consider safety during turning.

Place the wood – mine is

wormholed – between centres and turn round. Turn the tailstock end flat and prepare it for your faceplate or four-jaw chuck.

Remount the wood to your faceplate or four-jaw chuck, supporting the bowl at both ends with a live centre.

Using a bowl gouge, start shaping the bowl. Since my wood was supported at both ends I was able to make aggressive cuts.

With the side of the bowl gouge, make fine finish cuts.

Cleaning up flaws

Sawdust, dirt and very soft wood should be cleaned out before

applying a filler material. Many flaws can be cleaned out with a pocket knife or a sharp pointed ice pick, but I sometimes use an upward-cutting straight spiral bit with a small router to clean up or make flaws where none exist.

If using a small router be sure to wear ear protection and hold onto the router with both hands.

Applying filler metal

Lab Metal is a nice material to work, with a thick consistency that is easy to apply.

If you cannot find this product you might try making a thick paste from brass filings – key makers >



6 Lab Metal has a thick consistency that is easy to apply



7 Using a spatula, force the filler material into the flaws



10 Do some initial shaping with sandpaper before the Lab Metal has fully hardened



11 Use coarse sandpaper to get rid of excess filler without chipping

make a lot of brass grindings – and epoxy cement.

Use a piece of scrap wood as a spatula to force the filler material into the flaws of the wood; you might find that a latex glove is useful to keep the glue from your fingers.

Work your way around the bowl, filling all of the gaps.

Drying filler

If using epoxy cement and brass filings, wait three hours before returning the bowl. Lab Metal can dry fairly quickly if it is applied in thin

layers and a heat gun is applied. If you use a heat gun or hair dryer be sure to have all volatile liquids closed and removed from your work area.

Using the heat gun, gently warm the work area and then allow the material to set for about 30 minutes.

Then lightly sand the material to knock off high spots and reveal unfilled spots.

Go back and refill all remaining flaws.

Allow your final application of Lab Metal to set for 24 hours before finish turning.

If you do not use a heat source you may need to wait several hours between thin applications of material.

Between applications sand with 60-grit sandpaper. This will reveal voids or flaws that need to be refilled.

After final application of filler

wait 24 hours for the Lab Metal to set fully.

Reshaping filler

Lab metal or metal-filled epoxy may be turned with a sharp bowl gouge. Be aware that the material is quite hard once it has fully set. That is why I like to do some initial shaping with sandpaper before it has reached full hardness.

I often use coarse sandpaper to make the bowl round and smooth again or to reveal flaws that need to be refilled.

Use of coarse sandpaper quickly reduces excess filler without causing any chip in the filler material.

The bowl gouge can cause some 'chip out' if the material has not cured for 24 hours.

After sanding away the excess

Do not choose a piece that is so flawed that it is likely to come apart during turning



8 (left) Work your way around the bowl, filling all the gaps

9 (above) Lab Metal applied in thin layers dries quickly with the help of a heat gun



12 Some flaws may need deepening with the spiral cutting bit on the router

filler you may find flaws or cracks that need to be refilled. Deepen these with the spiral cutting bit on the router, while the bowl is on the lathe.

Apply more filler material to the flaw, allow the filler to dry and then re-sand it.

Cutting inside

Cut the inside of the bowl as for any other bowl. In this case I used a Forstner bit to make my initial cut.

Place the toolrest very close to your work area when hollowing out the inside, and use a bowl gouge for the initial cutting.

Finish with a round-nose scraper, frequently stopping to check wall thickness with callipers.

Finishing

Sand and apply finish while the bowl is still on the lathe. Not only does this technique save time, but any remaining flaws could be

Lab-metals and fillers

Alvin Lab-metal comes in a thick and easy to work peanut butter-like paste, in 24oz cans. However, the material will dry out very quickly in the can while you are working, so you must buy a can of Alvin Lab-solvent at the same time. Lab-solvent comes in 16fl oz cans. I have found it useful to add a small amount of solvent every other time I open the can of Lab-metal. I did not do this one time and had to spend about 10 minutes making the Lab-metal soft again by adding solvent and stirring out lumps in the material. Find Alvin's website at: www.alvinproducts.com

Alternative filler materials

Ace Lab Metal is very convenient to use because it is premixed and dries quickly. However, there are alternatives if you are not able to find this or a similar product. Cyanoacrylic glue (Superglue) or two-part epoxy cement may be used as the gluing agent.

Many different filler materials may be used with either of the above glues, such as: crushed charcoal - makes a very black filler - aluminum filings - looks like silver - brass filings, crushed turquoise, and Inlacc artificial turquoise - or other colours.

Warning

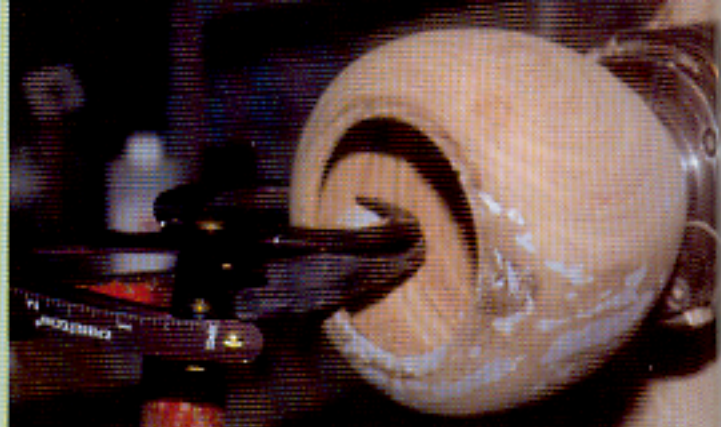
Do not use coloured sand as it is extremely hard. Your turning tools will not be able to cut the material once the glue has set. I used sand once and had to re-sharpen my cutting tools every 10 to 15 seconds of cutting time in order to reshape the filled bowl.



13 Using a Forstner bit to make the initial cut on the inside of the bowl



15 Sand and apply finish while the bowl is on the lathe



14 Frequently check the wall thickness with callipers



16 (above) Cut a couple of decorative grooves to the bowl bottom...

17 (below) ... And you have a silvery bowl

⚠ If you use a heat gun or hair dryer be sure to have all volatile liquids closed and removed from your work area ⚠

revealed while the bowl is still on the lathe and you still have the chance to do something about them.

Use a thin parting tool to part the bowl off, sand the bottom and apply finish.

Reverse-turn the bowl by remounting and turning off the bottom.

If desired, turn a couple of decorative grooves on the bottom of the bowl.

Congratulations! You have saved a rotten piece of wood from the fireplace and, in the process, learned how to turn an ugly duckling into a beautiful swan. ■

