BOX LID ALIGNMENT PIN

Alan Falk

An unobtrusive pin affixed at the box/lid juncture registers the lid at the correct grain orientation.

I like making lidded boxes from a single piece of wood with interesting grain or figure. Making the lid and box from the same piece of wood allows for the grain to flow continuously from box to lid, but it bothers me when the lid is rotated and the grain becomes misaligned. One simple, unobtrusive way to keep the lid aligned properly is to install a very small alignment pin where the lid meets the box. The pin is glued into a hole in either the lid or the box, depending on your lid design. When the lid is rotated, it "clicks" into place in exactly the right position.

The idea is to align the grain as you like, drill a hole centered on the joint line between the lid and base, and glue in a pin. A short length of 14/2-gauge copper wire (*Photo 1*), stripped of its sheathing, works well for the pin, though you could use skewer sticks or another type of thin cylindrical material. My copper wire measured about .080" on the digital calipers, so I drilled a 3/32" (2.4mm) hole to accept it. You'll have to size your hole according to the pin material you choose.

Drill pinhole

After you've turned your box, firmly tape the lid to the base with the grain aligned to your satisfaction. The tape keeps the grain in proper alignment and holds the lid tight against the box. The hole should be drilled straight into the box, not at an angle, so I use a V-block type jig to hold the box securely in place on the drill press table (*Photo 2*).

Align your drill bit *exactly* where the lid and box meet (*Photo 3*), so half the hole will be in the lid and half will be in the top edge of the box. Drill to a depth appropriate for your box lid design; my lid design allows me to drill about 3/4" (19mm) deep.

Affix the pin

Cut a piece of stripped wire about 1" (25mm) long. Smooth one end with abrasives to remove any sharp corners. Separate the lid from the box. Apply a bit of epoxy or cyanoacrylate (CA) glue to the hole in the lid (or box, depending on your design) and push the pin material into the hole. Allow the adhesive to cure, then trim the short length sticking out so it doesn't extend beyond the circumference of the lid, as shown in the *opening image*.

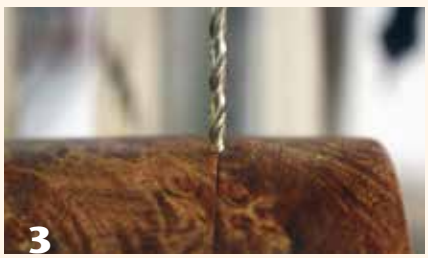
Now a simple turn of the top will "click" the lid into place with the most attractive grain pattern aligned beautifully. Someone suggested a dab of black marker to disguise the pin, but I like the look of the copper dot on the side of the box. ■

Alan Falk has been turning wood for about five years, after getting his start with a class taught by Alan Leland. His work can be seen at plusaf.com/woodshop/woodshop.htm and at a few local craft fairs. Alan, a member of the Woodturners Guild of North Carolina, is happily retired in Raleigh, North Carolina, with his wife Claudia.

Pin material

The copper core of 14/2-gauge electrical wire is a good choice of pin material.

Drill pinhole



Tape the lid to the box securely before drilling. Use a shopmade V-block to hold the round box and then drill a pinhole centered on the box/lid juncture.