

WHEN GOOD WOOD CRACKS

Dennis Belcher

Sometimes, despite our best efforts to prevent it, wood cracks due to natural forces. In woodturning projects, cracks can be viewed as a curse—or as an artistic opportunity. To offer some encouragement toward the latter, I compiled the following gallery of differing creative solutions. In each case, I offer a short description of the technique being used. These descriptions are only intended to get you started (not to provide the entire process) and to prompt you to explore your own creativity.

LACING



Ron Kent of Kailua, Hawaii, knocked this masterful, thin-walled vessel off its pedestal by waving his arms a bit wildly at his one-man show in Santa Fe, New Mexico. The piece broke into three separate pieces. Ron's creative solution was to lace the pieces back together, creating an entirely new look. Small-diameter wire is woven into a larger strand, providing greater flexibility and allowing the separate pieces to be cinched in tight. The path of the wire from rim to base and back to rim makes this a unique example of lacing. An inspirational source of lacing patterns can be found in books on leather.

Ron Kent (with Myra Kent), *Post-Nuclear Series*, 2005,
Norfolk Island pine, 8 $\frac{7}{8}$ " × 9 $\frac{7}{8}$ " (23cm × 25cm)

Photo: Robert Fogt

Gifted to Yale University Art Gallery

Provenance: The Waterbury Collection

SPLINES

Jerry Kermode, *Natural Edge Calabash, Stitched*, 2014, Box elder, walnut, 6½" × 11" × 10½" (17cm × 28cm × 27cm)

Jerry Kermode of Sonoma County, California, has incorporated splines into his work for many years, having been influenced by early Hawaiian methods of bowl repair. He enjoys focusing on what some would consider flaws in the wood but he considers natural character. Adding splines to cracked bowls strengthens the “flaw,” while emphasizing the character. Jerry’s process involves inserting the spline while the bowl is still thick, after it has been rough-turned and dried. Then the bowl is finish-turned and the spline is turned flush with the bowl’s surface.

Jerry uses a biscuit joiner to create the slots but advises caution in exploring this technique, as a biscuit joiner is not designed to be used on a curved surface.



JOURNAL ARCHIVE CONNECTION

A full description of Jerry Kermode’s original spline process, including the use of the biscuit joiner to cut grooves in a bowl, can be found in the Summer 1999 issue of *American Woodturner* (vol 14, no 2, page 28). AAW members can access all past journal articles online at woodturner.org.



David Keller of Enid, Oklahoma, also uses splines in his work. In the piece *at left*, David accentuated the vertical ambrosia markings in the wood with horizontal splines of the same species, rather than choosing a contrasting wood. This subtle design element adds impact to the piece. Like Jerry Kermode, David cuts the grooves using a biscuit joiner. ▶

David Keller, *Untitled*, 2012, Box elder, holly, 7" × 10" (18cm × 25cm)

DUTCHMAN, OR BUTTERFLY INLAY

Sometimes I use a carryover technique from my general woodworking days as a method of dealing with cracks in my turned pieces—an inlaid butterfly, or Dutchman. With flat work, a template and a small trim router are used to create both the recess and the butterfly that span the crack and hold the wood together. This process becomes more difficult when the surface is curved, as in a bowl's profile. The key to using butterfly inlays safely is to glue the template to the curved surface with hot-melt glue and then rout out the recess, as indicated *below*.



Dennis Belcher, *Resurrection Series*, 2010,
Mineralized soft maple, padauk, 5" × 7" (13cm × 18cm)

Photo: Kevin May



REMOVE AND REPLACE

You can express your creativity by cutting the crack entirely out of the bowl and replacing it with another element—in this case, a cloth zipper. After cutting the opening, I made a groove around its edges to recess the zipper. I glued the zipper into the groove, which allows the zipper to actually function. The “stitches” were added with pyrography.

Dennis Belcher, *Smile #7*, 2013,
Hard maple, 10" × 11" (25cm × 28cm)



Joe Dickey of Davidsonville, Maryland, cuts his Dutchman inlays by hand. Starting with a dried bowl blank, he first cuts two parallel lines from the rim downward with a pull saw. The length of the cut is marked on card stock and a curved line is drawn to connect the two end points. This curve is marked on the bowl and on the wood that will be used as the Dutchman. Joe uses a coping saw to hand cut the curve on the bowl wall and the matching curve on the inlay, which is fitted into the opening with chisels and files. Joe's secret to a tight fit is the use of graphite transfer paper, which, when pressed between the inlay and the opening in the bowl, indicates where the fit needs to be refined. When glued into place, the inlay should extend beyond both the outside and inside walls of the bowl so there is sufficient wood to bring the Dutchman flush with the bowl during final turning.

Joe Dickey, *Untitled*, 2001,
Spalted holly, black walnut,
8" x 16½" (20cm x 42cm)

Scott Clark of Santa Rosa, California, uses copper plates to mend cracks in his work, placing one plate on the inside and one on the outside of the piece. He starts with a section of copper water pipe, which he cuts to size and hammers into matching plates. Each plate is bent to follow the curve of the bowl and glued to the wood. Rivets are simulated by using No. 4 cut tacks shortened and glued into pre-drilled holes. The final touch is to patina the copper for an aged effect. ▶

METAL PLATE

Scott Clark, *CU Too*, 2008,
Black acacia, copper, Danish oil,
5" x 17¾" (13cm x 45cm)



STAPLES



Staples work well for mending cracks in hollow forms that don't allow sufficient access to the interior for methods like lacing. I form my own staples from wire, as shown *above*. To use a series of staples, drill holes similar in size to the wire thickness you have selected. My preference is to cut a length of wire such that the formed staple stays inside the vessel wall and does not extend into the inside of the vessel. The key is to form a barb at each end of the staple to keep it from pulling out. As a further precaution, put a drop of glue into each hole with a toothpick. When the glue dries, it will form an additional seal above the barb and keep the staples firmly seated.

Dennis Belcher, *Infinity #4*, 2015, Sandblasted and ebonized live oak, compressed wood, staples, 9" × 5½" (23cm × 14cm)



Michael Hosaluk of Saskatchewan, Canada, makes masterful use of staples, which become part of the overall design of the vessel's embellishment. In Michael's piece *at left*, he used staples that he hand-forged from copper nails by hammering both ends to a taper and bending them to accommodate the size of the crack. His thin-walled vessels require that the staples go through to the inside and are crimped to meet in the center of the crack.

Michael Hosaluk, *Untitled*, 2014, Yellow cedar, acrylics, 7" × 8" (18cm × 20cm)

Photo: Trent Watts

CUSTOM INLAY

David Ellsworth of Quakertown, Pennsylvania, found upon turning the hollow form *at right* that a groove formed by the tip of the chainsaw remained in the shoulder. A custom inlay was needed to not only match the curve of the piece, but also twist on an axis to span the gap. This turned a misfortune into an artistic statement. David left the spline proud of the vessel's surface for a tactile element.

To create this custom repair, David first formed the inlay and then marked its shape onto the vessel by tracing it with a needle. He used a rotary tool and various burrs to cut the vessel wall, then refined the opening with knives until the inlay fit in place.

David Ellsworth, *Curved Inlay*, 2008, Red oak burl, curly maple, 7" x 7½" (18cm x 19cm)



Derrick A. Te Paske, *Desperate Measures: Spikes*, 2005, Black cherry, cherry burl, landscaping spikes, 9" x 10" x 8" (23cm x 25cm x 20cm)

DESPERATE MEASURES

For Derrick A. Te Paske of Belmont, Massachusetts, there are times when it is fun to abandon all hope and just take desperate measures. In his case, the desperate measures include using landscape spikes, bolts, straps, clamps, turnbuckles, and even barbed wire to span a crack. In *Desperate Measures: Spikes*, Derrick aligned the spikes across the hollow form by first marking the entry and exit points by eye. Then he drilled a small-diameter hole at the marked points. A test rod was inserted through the hollow form and used as a gauge while he enlarged the holes with burrs to the diameter of the spikes. Sneaking up on the final hole diameter allows for adjustment in the entry and exit points. ■

Dennis Belcher retired in 1996 from a career in financial services and devoted time to his lifelong interest in working with wood. He lives on the coast of North Carolina and is a member of the Wilmington Area Woodturners and a past member of the Central Illinois Woodturners.