

# Restoration

## Repairing Cracks



DiAnna Tindell is an internationally trained restoration specialist and the founder of Tindell's Restoration Studios, a school for training in restoration. She is the author of a book on restoration soon to be published. E-mail her at [tinrestore@aol.com](mailto:tinrestore@aol.com). Your comments and/or inquiries are welcome. Please write to "Restoration" c/o Antique Trader Weekly, P.O. Box 1050, Dubuque, IA 52004-1050.

by DiAnna Tindell

*Q* I have a collectible that is perfect in every respect except for an unsightly crack. Is there anything you can do to get rid of the crack?

**A** Cracks, like any other imperfection, will vary in size, shape and nature, so there are different steps to take before deciding on the best way to repair a crack.

The easiest way to start is to examine the crack under a source of light. Place a direct beam of light on the crack to ascertain how much, if any, light shows through the crack. This will give you a good idea of the severity of the crack so you can identify those critical areas that need the most attention. If the item is dirty, it may be necessary to clean the object prior to examining it under light. If no light passes through the crack, it might be wise to see if a gentle flow of water will pass through it.

If light and water will not pass through a cracked area, you may have nothing more than a minor surface crack. These are often referred to as "spider cracks" or "glaze cracks." Some of these cracks develop naturally at the time the piece is made and may not be considered damage.

Should you wish to eliminate a minor surface crack to enhance the appearance of your item, however, there are methods available which can accomplish this. It might be possible to lift out enough stain from the crack to make it fade and become almost invisible. If this doesn't work, you may need to fill the crack. Rehabilitating a minor surface crack may be as simple as filling it with a clear coat of dull or gloss glaze. This may ensure that the crack does not expand and will even out the surface of your piece. When a minor surface crack is more prominent, you might consider lightly applying a coat of matching colors with an airbrush. It is never advisable to hand paint over a crack using a brush. Your brush strokes will usually appear too heavy, making the area look worse than the crack itself.

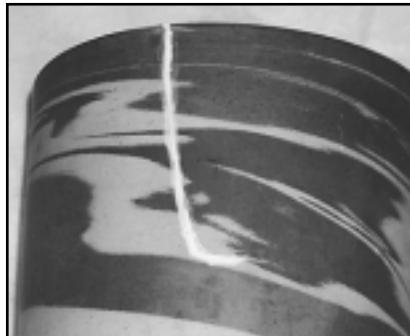
When initial light and water testing indicate something more than a minor surface crack, the cracked area will probably have to be filled. Before filling, it may be necessary to bond the crack by injecting some adhesive into it. Care should be taken to select an adhesive which will provide sufficient strength, will not shrink and will

not discolor over time. Heat, tape, clamps and other devices may be used to provide sufficient pressure while the adhesive is bonding. In some instances, a small hole is drilled in the direct path of the crack slightly beyond. This technique is thought to eliminate the chance of the crack moving beyond the drilled hole. Please note that doing this further damages the collectible by adding the hole or even causing another crack. In all cases of handling a shifting crack, exercise caution; too much applied pressure can cause further breakage.

The stress placed on a crack is a factor that should always be kept in mind. For example, when a good deal of weight is placed on a cracked area, a crack may eventually expand and break the object. For this reason, it is not always preferable to fill a crack. Sometimes, it is smarter to carefully go ahead and break the piece at the crack, so that the entire area can then be bonded back together. In most instances, this will make the repair stronger. Where balance and gravity are factors, a crack may need an outside layer of reinforcement to better control the stress placed on this area of the object.

The type of reinforcing material used will be dependent upon the makeup of the piece and whether it can be made "invisible." When the stress placed on a crack is not an overriding factor, filling the crack should be sufficient. However, fillers can be counted on to provide only a small level of support. It is important to remember that the adhesives and fillers you use must be compatible with the materials used to make your collectible. If not, you are likely to develop an adverse situation such as shrinkage or weakening. Also remember that a filler will normally have some adhesive properties.

Obviously, cracks are often "man-made" rather than the result of a natural process at the factory; accidents do happen. "It is a clean break" is an expression often used to describe parts of an object that have broken evenly. Even in the case of a clean break, however, an item that has been bonded together or has new parts attached will have some slight joint lines or cracks. Once an adhesive is applied to adjoining surfaces, a space is created that produces the joint line



or crack. If the bonding job is done well, these joint lines and cracks should be barely visible.

When a crack has been filled, sanding becomes necessary to smooth out the surface of the cracked area. Many sanding devices are available for this task. They include pencil sanders, plastic or sponge sanding devices, customized drill bits for hand sanders and, of course, sandpaper. The proper sanding device will depend on the makeup of the object being sanded. It is extremely important to sand only the area over the cracked or joined surface. If you get sloppy with the sanding, you'll damage surface area beyond the damage of the crack.

Once the crack has been stabilized and filled in smoothly, you may decide to just leave the piece as is. In most cases, though, collectors want their pieces to be as close to the original as possible. Therefore, the next step would be to prepare the rehabilitated surface of painting. A primer is used before painting because the primer will aid in a better hold of the base colors of matched paint and any detailed design work needed as final touches. This will also allow the final sealant of gloss or dull glaze to adhere properly. The primer selected must be compatible with both the



makeup of the object and the filler or adhesive used on the crack. The primer should be applied evenly over the restored area with an airbrush. As with the sanding, be sure to restrict the application of the primer to the restored area only. You don't want to have to paint more than is absolutely necessary. The primed area will vary from 1/4" to 1/2" out from the center of the crack or joint line. This will make the surface appear softer, smoother and less linear. It may take from two to five coats of primer that can be sanded down to a creamy, almost glass-like surface. Regardless of whether the restored area is painted or not, the crack or joint line should be undetectable to the touch. If other words, if you closed your eyes and ran your fingers over the restored area, you shouldn't be able to tell where the original surface ends and the restored surface begins. ✿

*These pictures on this page of Nyloak Mission Pottery's tobacco humidor illustrate cracks shown with white filler before restoration and invisible repairs after restoration.*

