Mastering Mounting

by Chris A. Paschke
CPF, GCF, CMG

Shipping and Hinge Failure

There is a fine line between the failure of a starch hinge because of rough handling and the failure of a hinge due to weak application. A mulberry paper hinge is designed to be the weakest link in a preservation mounting procedure, and it is meant to be sacrificed by breaking to protect the art it is displaying. This could be the result of an aggressive jar to the art package, such as it falling from a wall during an earthquake or damage during shipping. Broken hinges are easily replaced with new ones and the art generally remains undamaged.

When shipped art arrives with failed hinges, is it the hinge or the packaging that is at fault?

At the 2010 PPFA International Print Framing Competition finals held in Anaheim, CA, this past February there were 36 finalists competing for money and awards. These finalists needed to win their local PPFA chapters to advance to the finals. This year's competition print was "Heart Rod Guitar" by Rod Morris, a hand-embellished monoprint on heavyweight paper with four deckled edges, which called out for float mounting.

John Gaston was one framer who placed in his local chapter competition (Photo 1). Though frames of the finalists may be hand-carried to the competition, it is preferred for them to be shipped ahead. Unfortunately, six of the final competition pieces that had been shipped—including John's—arrived with bond failure, and all had been hinged (Photo 2).

Since the pieces are not disassembled during judging, it was difficult to tell whether these were failures due to the hinges having torn during transport or if the technical application and adhesive had failed. When John examined his returned entry after the competition, he found that the hinges had broken above the glue line, meaning that the starch had not failed. In other words, the

Photo 1: This is a shot of John H. Gaston's regional award winning framing entry from New England Chapter PPFA prior to shipping.

Photo 2: John's piece arrived with a classic case of broken hinges, having done just as they were supposed to do—break above the glue line to save the art.

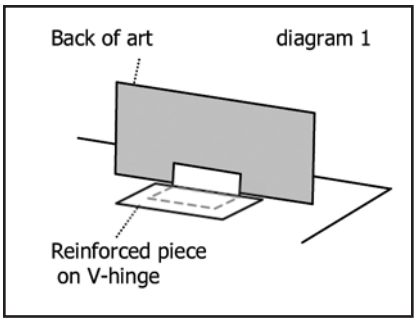
starch hinges broke under stress just as they are supposed to do.

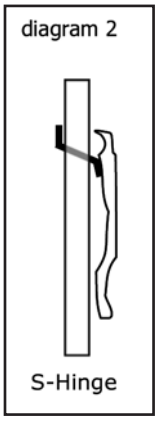
Float Hinges

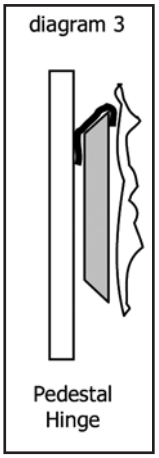
When float mounting, both V-hinges and S-hinges allow 100 percent visual exposure of all edges of the art. A V-hinge is a folded piece of Japanese paper applied to the back of the art and then to the backing board as an inverted "V". The starch is applied to the upper 1/8" to 1/4" edge of the hinge strip, allowed to lightly dry, and then aligned to the very top edge on the verso side of the art. Layer a small piece of spun polyester (Pelon) on the wet hinge, top with a dry blotter, and weight the hinge as it dries. After the hinge has dried, lay the art face down in position on the backing board, apply paste to the opposite end of the hinge, smooth the wet hinge to remove air, and feather the edges. Layer with Pelon, blotter, and weight to dry.

Gravity creates a constant pull on a folded hinge that often allows it to peel from the art or mount, so a V-hinge should always be reinforced with a crosspiece (Diagram 1). Unlike a pendant hinge, the crosspiece is often placed horizontally, with the length of the hinge pasted to the art.

S-hinge, pass-through, and suspension tab are different names for the same type of more secure hinge that allows the art to visually float in the center of a frame. This is ideal for deckled, torn, uneven, or naturally feathered art that shouldn't have its edges covered by window mats (Diagram 2). In this case, hinges are pasted on one end to the back of the art, while the other end is fed through and glued to the back of the mounting board.







Pedestal Hinge

The platform, pedestal, wrap, or float all refer to the same basic technique—a hinge that allows the artwork to be raised off the surface of a decorative backing board (Diagram 3). Bevel cut the platform smaller than the art and lightly sand the sharp edges. Paste 1/8" of hinge to the top back edge of the art, weight and dry. Wrap the dry hinge over the smoothed edge of the top to the platform and glue to the back of the pedestal.

Hinges placed at the sides or bottom should be loose enough to allow the art to move without restriction (Photo 3). The art/platform unit is then attached to the backing with PVA (white glue) or 3M #3797 TC Jet-Melt hot glue and Polygun-TC.

Photo 3: Only 1/8" of the pedestal hinge is attached to the back of the art while it doesn't matter how much is glued to the bottom of the platform. Top hinges touch the edge while the bottoms are loose.

Hinges and Shipping

Hinges are only as strong as the rice paper and the starch used. V-hinges are the weakest of float hinge options, so if rough handling or shipping is likely, then the S- or platform hinge might be a better choice. When shipping framed art, there are two considerations—the strength of the mounting and the protection of the shipping box. Since hinges are designed to tear to save the art, they may not be the best mounting method if framed art is to be shipped upon completion.

Mylar corner pockets are also known to break open at the fold if the shipping package receives a hard jarring, so they are not advised, either.

There are other preservation methods that will not infringe on the art while still likely to hold the art if the shipping box is roughly handled, but these may not allow deckled edges to be visible all around. Edge strips or side straps are a possible solution if the art is to be matted. Sink mounting is perfect if a window mat is to be used in the design.

Rigid Packages and Filler

There is a misconception that the

Photo 4: The cardboard box is lined on all sides, top and bottom with 1/4" plywood, and stacked full of sheets of 1" polystyrene making a very rigid package.

Photo 5: The thin glass art is sandwiched very solidly between layers of polystyrene foam and placed in a plywood-lined, double-strength cardboard box for shipping.

Photo 6: The paper will cushion this flat art better than some, but any impact will still be transferred to the art.

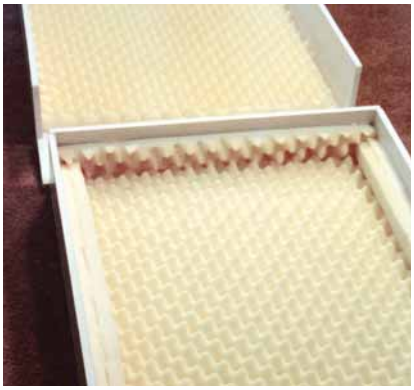


Photo 7: The lid of a drop spine box is hinged to the box bottom and lies flat when open. Egg-crate sponge for bedding has been used to line the box.

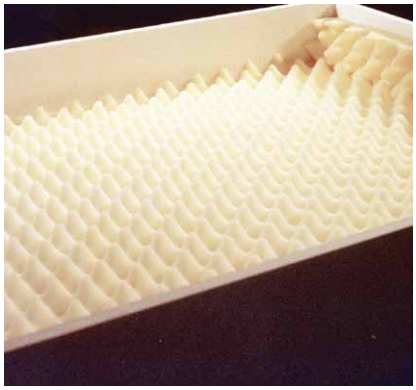


Photo 8: Foamboard has a cushion and is more forgiving than other rigid materials, making it the best choice for a shipping box. This 1/2" box is in the process of being lined all sides with bed spong

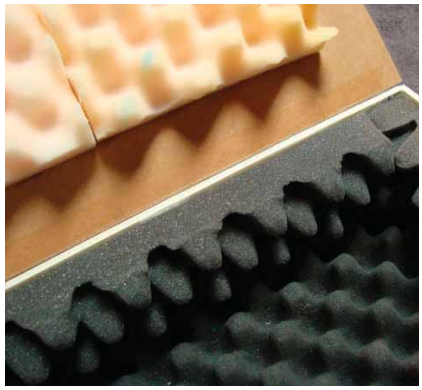


Photo 9: White (box bottom) and brown Kraft Gatorboard (top) were used for this box, which is generally too brittle. Gray commercial egg-crate insulation lines the box base while bed sponge is shown on the hinged top.

rigidity of packaging is the major element that prevents damage during shipping. When a cardboard box is lined—on all sides, top, and bottom—with 1/4" plywood and stacked full of sheets of 1" polystyrene (Photo 4), though the packaging is solid, any exterior impact will still be transferred through all the layers to the art in the center. The stained glass art in Photo 5 is lightly padded by folded layers of newsprint paper, still sandwiched snuggly between the layers of Styrofoam. Although the inner art is wrapped in multiple layers of newsprint paper, there is not enough actual cushion to prevent damage (Photo 6).

Corrugated boxes are fine for an exterior unit as long as there is adequate cushioning space surrounding the framed art being shipped. Cushioning is what actually protects fragile items from damage caused by impact and aggressive handling. UPS says there are three types of approved cushioning: small cell bubble wrap; tightly wadded 60# Kraft paper; and loose pellet fill.

Bubble wrap features encapsulated air that provides wonderful cushioning against shock and abrasion. Use multiple layers of wrap and a full 2" around the frame and from the box wall. Wadded Kraft paper is heavier and its resistance to collapsing gives an added cushion. Lightweight Kraft and newsprint is too light to use. It should be well packed so the framed art does not move within the box when shaken.

Loose fill—pellets or peanuts—are lightweight and provide decent cushioning. They are recommended most for non-fragile items like books but not for glassed frames. If packing fragile framed art with pellets, first wrap the art with bubble wrap then surround it with a minimum of 2" of polystyrene pellets. There are many negatives to using pellets for padding. They can compress and settle during shipping, allowing art to shift during transport. They also create static electricity, though antistatic pellets are available. And the

biggest problem is the mess both during packing and when unpacking. Whenever framed art is shipped and will be returned back to you, the unpacking and repacking causes a great deal of wasted time and mess.

Cushioned Boxes

Foamboard boxes are perfect for shipping. They may be custom sized to the art being shipped and are reusable. (Directions available in *Creative Mounting, Wrapping and Laminating*, pages 84-89, available at PFM bookstore.) The drop spine box in Photo 7 is a single unit that closes over the box bottom, giving the wall a double thickness and even more structure. Boxes are assembled out of 3/16" to 1/2" foamboard and should be sized to allow a full 2" sponge padding on all sides of the frame (Photo 8).

A basic hinged box takes less time and uses fewer materials, and it is a perfect, well-padded box—particularly if a commercial-grade, denser egg-crate sponge is used (Photo 9). The gray acoustic egg-crate foam, also called convoluted foam, is available in 72"x80"x2-1/2" sheets online from the Foam Factory.

The Final Hinge

It is not possible to know if the hinges on the contest art would have broken if the framed art had been packed with more cushioned shipping boxes. Cushioned boxes will bounce rather than pound, and if the hinges snapped they would have been less like to break. Had they failed in the adhesive bond, the starch recipe may need to be reviewed or application technique may need a little additional practice. Though a broken hinge is disappointing, at least it proves you know your skills. ■

Chris A. Paschke, CPF GCF CMG, mounting editor, owns Designs Ink in Tehachapi, CA, featuring custom framing, fine art/graphic design, and consulting. Specializing in mounting, matting, design, and fine art, she teaches at The National Conference. She has written four books on mounting including *The Mounting and Laminating Handbook* (third edition) and *Creative Mounting, Wrapping, and Laminating*, available from PFM PubCo. She may be contacted through www.designsinkart.com.