Article: Approaches to Moving Glass Plate Negatives
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Approaches to Moving Glass Plate Negatives

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General Principles

1) Intact plates should be moved in their storage orientation, that is, resting vertically on one long edge. Plates should be housed in individual enclosures if they are not faced with a protective cover glass bound along all edges, as with lantern slides.

2) Plates should fit snugly against each other within a storage box so that side-to-side movement of individual plates is eliminated. Corrugated cardboard filler pieces which are cut to the dimensions of the plates can be inserted into the box to fill out the container and keep plates supported upright. The same procedure to "snug up" plates should be followed with plates stored inside drawer compartments. Warped plates may crack when compressed against each other or other flat plates. Therefore, warped plates should be interleaved with thin polyethylene foam which can conform to plate surface irregularities and minimize stress on the plate. An alternative to standard boxes is a custom crate constructed with an interior foam lining and rigid dividers spaced several inches apart. Plates can be filed between the dividers either with or without foam interleaving between plates (see attached diagram of this design).

3) Broken plates should be stored flat in protective sinkmat enclosures made from corrugated board (see diagram). In order to prevent further chipping, glass fragments should be separated from each other with small squares or circles of matboard glued to the base of the sinkmat. Sinkmat enclosures can be stacked inside a shallow print storage box. Alternatively, plate fragments can be aligned and stored sandwiched between rigid paperboard or corrugated board

inside a four-flap paper enclosure. While glass sheets traditionally have been used to sandwich glass fragments together, this technique can add considerably to the weight load of containers and promote glass deterioration.

4) Boxes (or drawer compartments) can be loaded onto sturdy cart shelves which have been padded out with moving blankets or foam. Small boxes can be grouped into larger corrugated boxes (double- or tri- wall) which have been padded out at the bottom with polyethylene foam or similar cushioning material. Boxes (or drawer compartments) should *never* protrude outside of the cart. Carts must be constructed to bear the weight load of glass (several hundred pounds).

5) Carts should be wrapped with protective plastic, such as stretch wrap, for protection against water or relative humidity extremes in situations where the plates are to be transported outside of a building.

6) Carts for moving glass plates should have pnuematic, air-filled tires instead of common utility casters which are made of hard rubber and plastic. Pnuematic tires will cushion the ride and minimize vibration as the cart is rolled down hallways and into trucks. Pnuematic tires will help cushion truck rides to a certain degree. Tires must be adjusted for the full weight load. Carts can be fitted with tip and vibration/shock sensors to monitor the move.

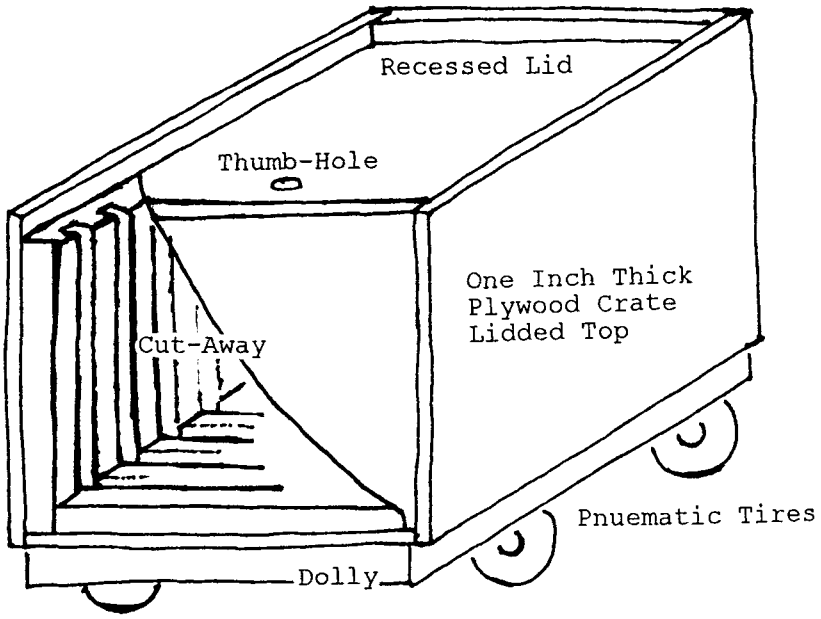
7) Carts should be loaded onto trucks so that the planar surfaces of the plates are parallel to the sides of the truck and to the forward motion of the truck. This orientation will minimize the rattling or vibration of plate surfaces against each other as the truck starts and stops. If the transit route entails numerous curves and sharp turns, with infrequent stops and starts, the carts should be oriented so that the plate surfaces are parallel to the front (narrow) end of the truck in order to minimize plate-to-plate vibration.

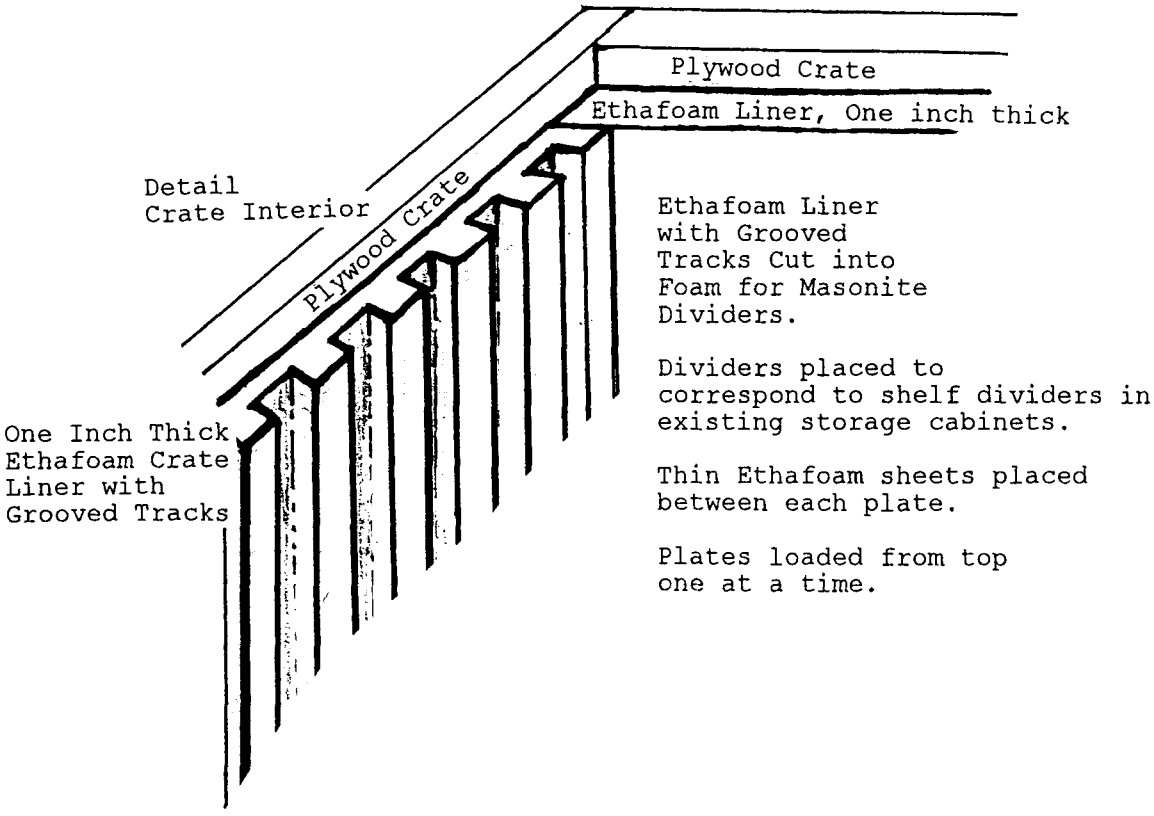
8) Trucks with air ride suspensions are preferred. Air conditioned truck beds are required during hot weather; heated truck beds are required in cold weather. Plates should not be allowed to cycle through a dew point either while being moved from storage into a truck or during truck transit.

9) It is useful to conduct a test run of the transit route using the procedures and materials proposed for moving glass plate negatives. Window glass can be used as a substitute. Tip and vibration/shock sensors are useful to determine if the route or procedures are problematic.

Special Moving Crate for the Packing and Transport of Glass Plate Negatives Stored in Cabinets without Boxes

Crate Designed
by District Movers





Ethafoam Liner with Grooved Tracks Cut into Foam for Masonite Dividers.

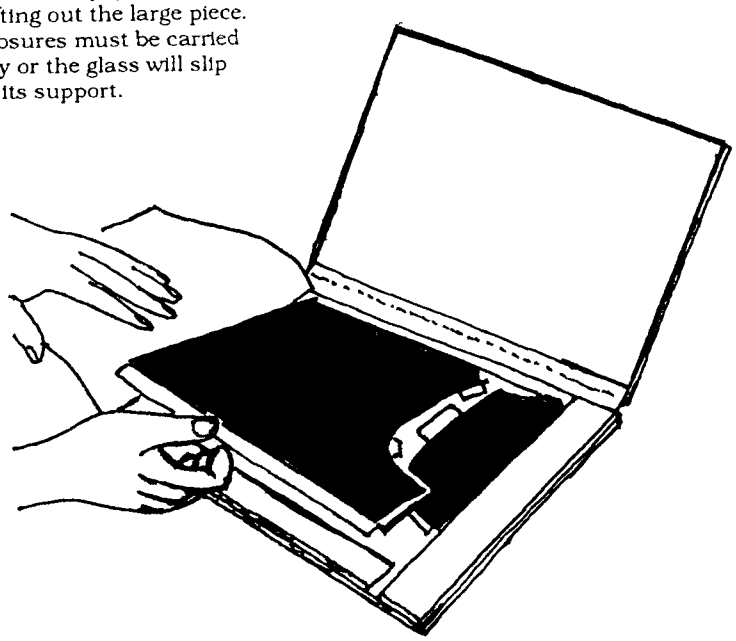
Dividers placed to correspond to shelf dividers in existing storage cabinets.

Thin Ethafoam sheets placed between each plate.

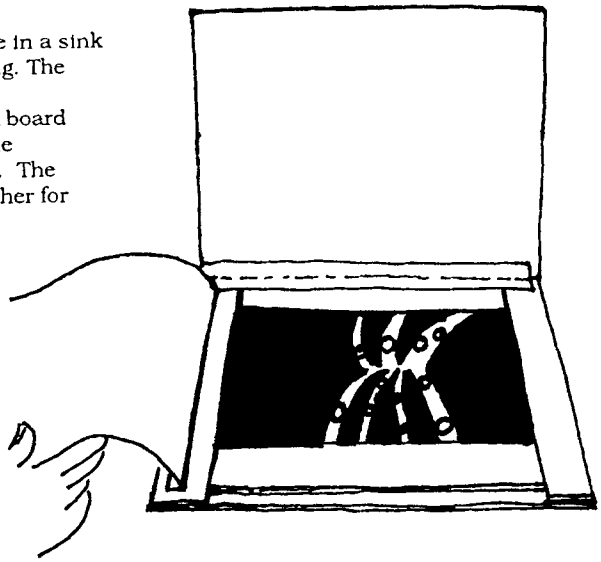
Plates loaded from top one at a time.

Sink Mat Housing for Broken Glass Plate Negatives

A broken negative housed within a custom-made sink mat constructed with a paper tab to assist in lifting out the large piece. These enclosures must be carried horizontally or the glass will slip away from its support.



A broken negative in a sink mat. No pieces are missing. The pieces are spaced with photographic-quality mat board attached to the base of the enclosure with adhesives. The negative was pieced together for duplication.



Illustrations/descriptions from examples shown in
Constance McCabe
Preservation of 19th-Century Negatives in the National Archives
JAIC 30 (1991):41-73