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## Wood Finishing & Refinishing: Repairing

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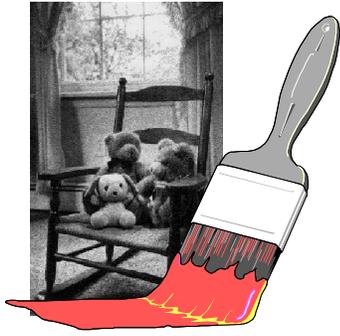
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## Wood Finishing & Refinishing

### Fact Sheet #5

# REPAIRING

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1995

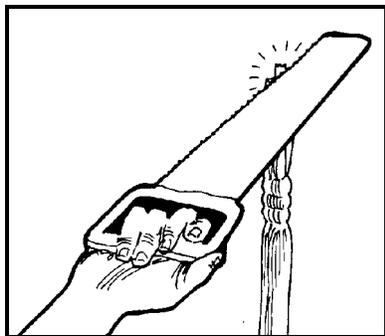
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There are some simple carpentry repairs that can be done on wood furniture. If you are not exactly sure how to repair or feel the job is too difficult, it is better to hire a professional to do the repairs for you. Experience in simple carpentry helps a great deal, but the only way that anyone ever gets experience is by doing something. Some of the most common repair jobs done by wood refinishers are fixing loose joints, tightening loose corners, repairing small cracks and other furniture breaks, repairing curled or wrinkled veneer, and fixing broken drawers.

## Loose Joints

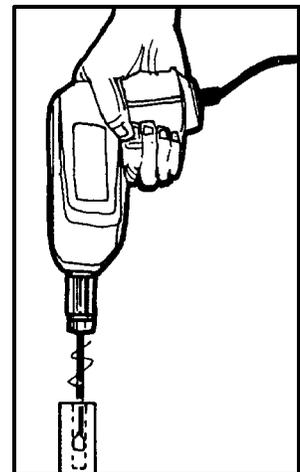
If joints are very loose, it is best to take the pieces apart. Label the parts so that they can be assembled correctly. Scrape off all the old glue with a knife or razor blade. Old glue can also be removed with steel wool and a solution of equal parts of warm vinegar and water. Rinse thoroughly. If the surfaces to be glued are very smooth, slash with a knife to give a better surface for bonding.

The most common repair job made on a chair is repairing or tightening the joints. If a dowel has broken off, the first step is to cut the broken dowel off flush with the surface. (See Figure 1, Sawing Off Broken Dowel.) Then, drill out the old dowel, using a bit which is the same diameter as the original dowel. (See Figure 2, Drilling Hole for New Dowel.) Replace



**Figure 1. Sawing Off  
Broken Dowel**

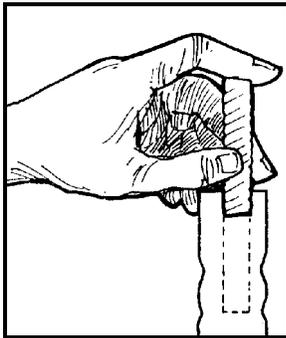
with the same sized dowel. Dowels can be purchased with a spiral groove that allows the glue to seep down and bind to the stock, or you can lightly sand the dowel with rough sandpaper so the glue can bond the length of the dowel. Before drilling, mark the exact center of the dowel with a sharp punch so you can drill exactly in the center. When drilling, go slowly and check frequently to be certain you are drilling precisely straight down. Squeeze wood



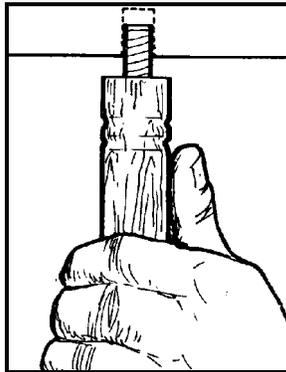
**Figure 2. Drilling  
Hole for New Dowel**

glue into the drilled dowel hole and onto the dowel. Next, insert the dowel into the hole. (See Figure 3, Inserting Dowel into Hole.) The other part that the dowel fits into should then be placed over the dowel. (see Figure 4, Placing Dowel into Other Piece.)

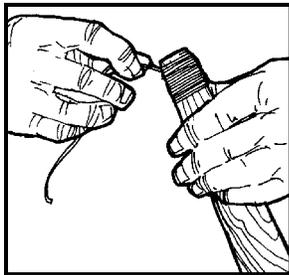
If joints are loose but still in good condition, and dowels are intact, you may not have



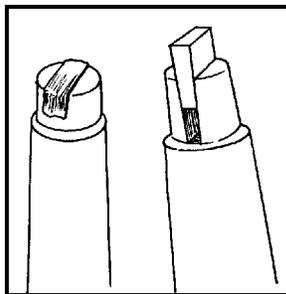
**Figure 3. Inserting Dowel Into Hole**



**Figure 4. Placing Dowel Into Other Piece**



**Figure 5. Thread Used to Tighten Joint**



**Figure 6. Cloth and Wooden Wedge Used to Tighten Joint**

to take the pieces completely apart. Pry pieces apart enough to remove the old glue the best you can, and smear surfaces of the joint and dowel with new glue, then press pieces back together. Before gluing, check to see if the pieces fit snugly. If the piece of furniture just needs to be glued, use one of these methods to make pieces fit snugly.

1. Coat sewing thread with glue and wrap it around the dowel. (See Figure 5, Thread Used to Tighten Joint.) Put more glue over the string. This may not hold as well as some of the other methods.

2. Glue one or two strips of cloth over the tenon. (See Figure 6, Cloth and Wooden Wedge Used to Tighten Joint.)

3. Saw a slot in the end of the dowel. Wedge a small piece of wood into a slot used to spread dowel apart slightly. (See Figure 6.) The end of the wooden clothespin or a piece of flat molding makes a good wedge. Trim off any excess.

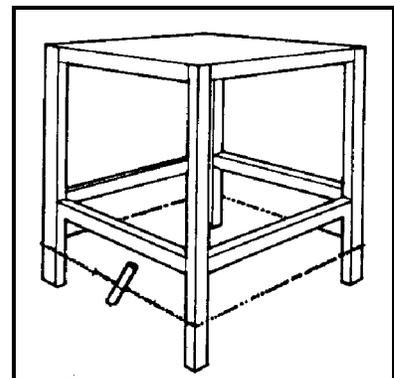
When the pieces are clean, dry, and the correct size, you are ready to reglue them. The furniture

and glue should be warm (75 to 80 degrees F). Use a good wood glue. A plastic resin glue, white glue, or aliphatic glue should give satisfactory results. If glue must be mixed with water, follow the directions on the label for mixing. Spread the glue to coat well, but be careful not to use too much.

Insert the dowel. Apply pressure with clamps or a rope tourniquet. Use cloth or cardboard padding under the clamp where it touches the wood in order to prevent damage.

To make a tourniquet, wrap rope around the glued parts. Slip a spike into the knot. (See Figure 7, Tourniquet Used to Hold Parts Together While Drying.) Tighten the rope by turning the spike around and around.

Use a pointed stick to remove excess glue from around the joints. Wipe the area with a clean, damp cloth. Allow the



**Figure 7. Tourniquet Used to Hold Parts Together While Drying**

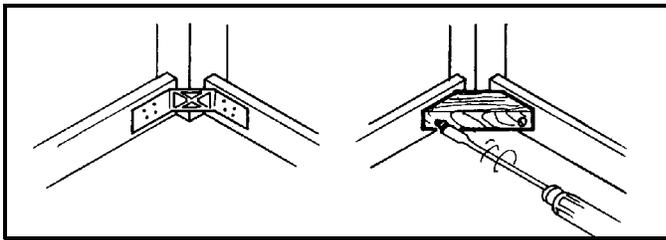
glue to dry under pressure for at least 24 hours. Some of these techniques can also be used with mortise and tenon joints.

## Loose Corners

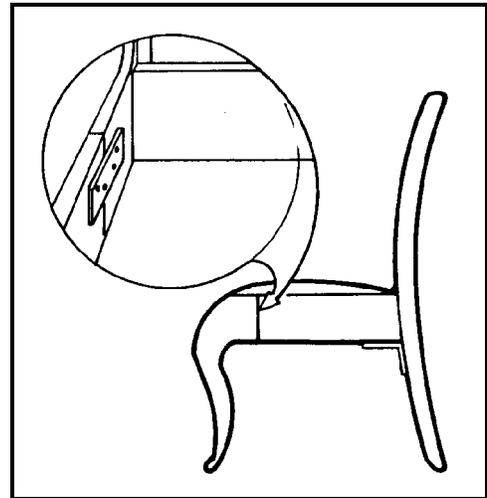
A chair or table may get wobbly if the frame to which the legs are fastened works loose. Turn the chair or table upside down to see how the legs are secured. A table may have metal braces in the corner with a nut or wing nut that locks the leg in place. (See Figure 8, Corner Braces.) A chair may have either a metal brace or a wooden corner block that serves the same purpose.

Work each leg to determine which joint is loose. Tighten all nuts, bolts, or screws. If wooden corner blocks have been glued in place, check to see if any have broken loose. If so, remove the block and scrape off the old glue. Replace it with fresh glue and long wood screws. (See Figure 9, Bracing Joint.) If necessary, add metal corner irons or braces to strengthen the joint where the frame meets the legs.

Braces can be used to give extra strength where needed. Place iron braces on the inside

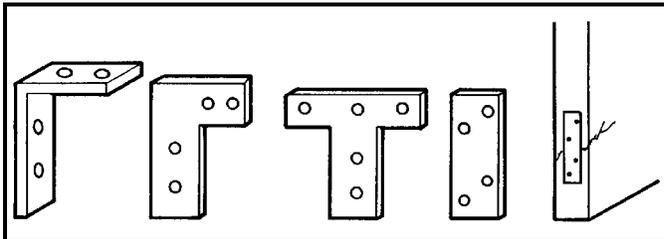


**Figure 8. Corner Braces**



**Figure 9. Bracing Joint**

of the frame to make them less conspicuous. Figure 10 shows four braces with examples of how they may be used.



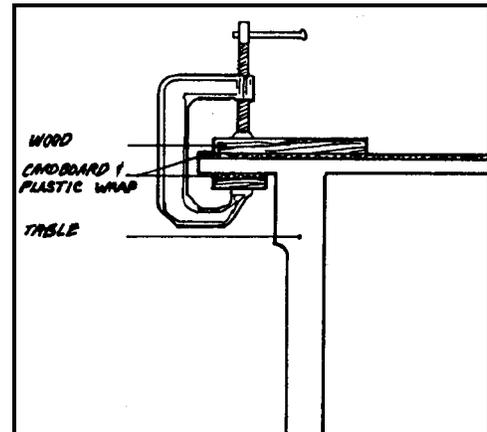
**Figure 10. Four Types of Braces**

## Small Cracks and Other Furniture Breaks

Small cracks, like those in the ends of table leaves, can be repaired with glue and wedge-shaped piece of matching wood. If possible, use a saw and saw the crack to make the inside smooth and straight. Work glue into the crack with a slim stick or small brush. Using a hammer, gently tap the point of the wedges into the crack near the edge of the board. Be careful not to make the split any larger. Apply pressure to hold the crack closed until the glue dries. Use a tourniquet or clamps.

Diagonal breaks in furniture are fairly simple to repair. Check to see if diagonal split will go together with pressure. If so, then just repair using glue and clamps to apply pressure. If the break has been glued before, the old glue must be removed before more is added. If it is a water soluble glue, use warm vinegar to dissolve the old glue. Then dry the wood thoroughly. If the glue is water resistant, then lightly sand the area to remove the old glue.

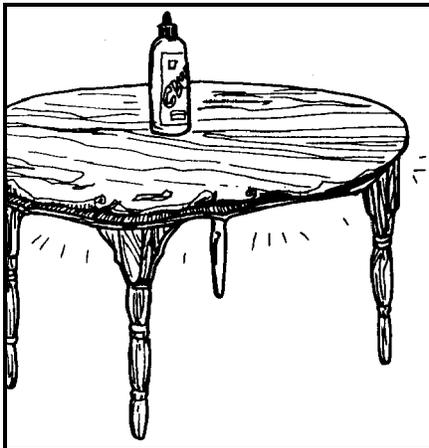
Work fresh glue into the break with a thin knife blade or spatula. Use "C" clamps to apply pressure. (See Figure 11, Clamping.) An extra board placed on top and under the break will give better distribution of pressure and prevent scratching the wood. Put a piece of plastic wrap or wax paper between the boards and the piece of furniture so they won't stick together if excess glue is squeezed out. Do not remove the pressure until the glue is completely dry.



**Figure 11. Clamping**

## **Damaged Veneer**

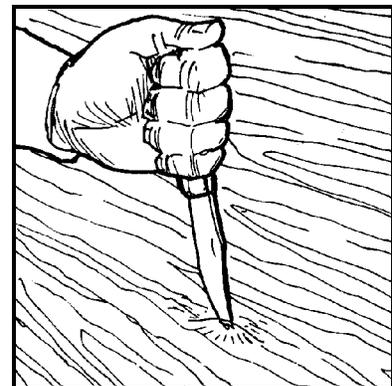
Veneer is a thin layer of wood often found on table tops. On an old table, the veneer may come loose and curl away from the solid top core. If it is badly damaged, the old veneer should be replaced with a new piece. In a great many cases, however, the simplest way to repair curled veneer is to reglue it to the table core (See Figure 12, Repairing Curled Veneer.) The first step in accomplishing this task is to remove the old glue. Water will soften veneer so that it will bend easily without cracking or splitting apart.



**Figure 12. Repairing Curled Veneer**

carefully lift the curled portion of the veneer away from the table core so that you can force glue back into the crack where the veneer is still attached to the table core. Be careful not to break the veneer. Next, place a flat piece of cardboard and wood over the veneer and clamp it down to the table core. The cardboard protects the veneer from the pressure of the wood and clamps which might otherwise damage it. (See Figure 11, Clamping.)

If there is a bubble in the veneer, it can be repaired by laying a metal straightedge or ruler across each side of the bubble and carefully making a cut through the veneer on three sides of the bubble. (See Figure 13, Repairing Bubbled Veneer.) Carefully lift the sides. Remove the old glue. Then spread wood glue on the underside. A wooden match or small scrap of wood can help you spread new glue under the sides. Lay a piece of cardboard and then wood over the glued area and clamp until it dries. If you don't have clamps, put weight on the veneer.

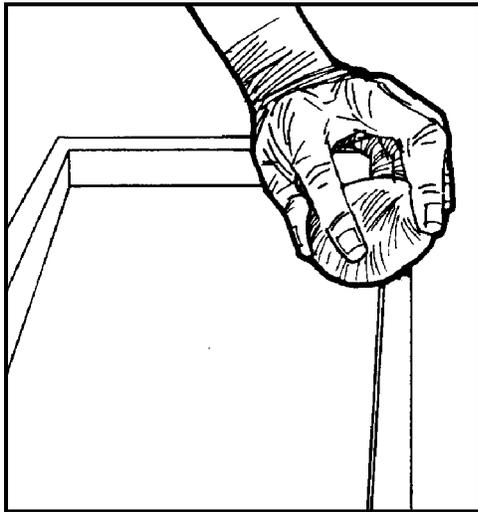


**Figure 13. Repairing Bubbled Veneer**

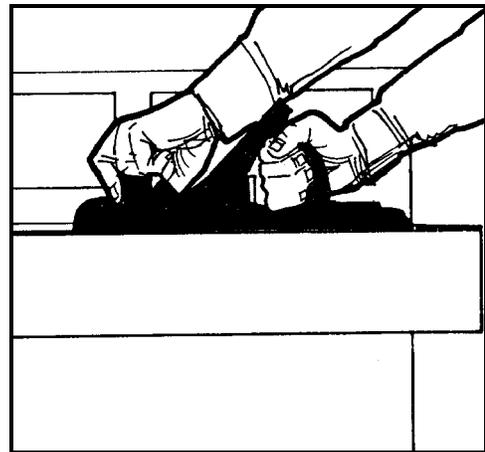
## **Broken Drawers**

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Nothing is more irritating than a drawer that sticks, or has a bottom that falls out. If a drawer snags or sticks when you slide it out, perhaps some nails have loosened and are dragging against the sides or bottom. If so, just hammer in larger nails. If your drawers do not slide easily, rub paraffin or wax on the drawer runners. (See Figure 14, Rubbing Drawers So They Do Not Stick.) If the runners are broken or worn from use, they should be replaced. The corner joints on old drawers often pull apart, weakening the drawer and causing it to bind when stress is put on it, thus allowing the bottom to fall out. This can be corrected by regluing and clamping. When the drawer has swollen or paint has built up on the front edges so it fits too tightly, plane the edges where the wear marks show. (See Figure 15, Planing Edges of Drawer.)



**Figure 14. Rubbing Drawer to Prevent Sticking**



**Figure 15. Planing Edges of Drawer**

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