STEVE SAYS HOW TO...

STEVE JONES
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FURNITURE REPAIRS

Most furniture is assembled with glue, flush or mortised joints, screws and nails. Repairs are usually a matter of remaking joints using a method or material similar to the original, but some reinforcing is often necessary.

Mortise Joints
Any joint that depends on fitting one component into a hole in another is a mortise joint. Joints between table legs and frames are usually mortised; most wooden armchairs have some mortise joints; all legs with rungs, whether squared or turned, use mortises; and almost all traditional dining chairs use mortise joints between frames and back crosspieces, and in the seat frame.

When chair joints loosen, do not wait till stress cracks the legs around the mortise holes. Spring the frame gently with hand pressure to release the crosspiece from its mortise, then clean off the respective faces and apply a liberal coat of a strong gap-filling glue such as 308 Glue. Slip the joint back into position, and use a webbing strap around the frame to maintain an even light pressure while setting. Wipe off excess glue while wet and allow adequate setting time. A majority of repairs can be dealt with as simply as this.

If opposite joints are loose, disassemble with light blows of a rubber or a wooden mallet or use a piece of heavy corrugated card or softwood packing to avoid surface damage. Then renew all joints as before.

Always stand a chair or table on its legs with a light loading of books or bricks while glue is setting, to maintain the leg alignment.

Large Mortise Joints
Large mortise joints in beds and tables often develop cracks running into the mortise itself before the damage is noticed. Disassemble the joint with care, then open the crack with a thin wooden wedge and pour in 308 Glue. Clamp lightly till set. Then clean out mortise, glue all surfaces and replace the joint. Then, with a power drill, drill a 6 mm hole through both sides of the cracked area, either clean above the mortise or through mortise and tongue. Wipe the glue off the bit before it hardens!

Cut a 6 mm dowel stick to length, dip in glue and drive till firmly seated. Make sure the mortise is kept tightly closed throughout this operation and clamp, weight or bind till next day. This pinning operation will rescue most loose, cracked mortises if the timber is of reasonable size.

Joints Using Screws or Nails
Where furniture is assembled using screws or nails and particle board, or by attaching metal reinforcements or other components, such as in convertible day beds, the replacement of loose screws can be a problem, for they must be re-seated in the old holes.

Remove the screw or screws and clean out holes thoroughly. If the joint is not under stress fill the holes with epoxy repair cement or Araldite type product and replace screws in the wet stopping. Clamp till dry.

Where there is any stress in the joint, fill the hole firmly with epoxy cement and let set hard. Re-drill a pilot hole and replace screws. If the screws are rusted, replace if possible with self-tapping screws of the next heavier gauge if the fittings will accept these.

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Flush Joints
Flush joints, where timber is butted and glued, are weak and when repairing these it is usually best to use a combination of fasteners like nails or screws, and glue. Use wood filler to cover nail or screw heads, taking these down about 3 mm below the surface first.

Outdoor Furniture
Outdoor furniture and some heavy indoor furniture is assembled with plug-type joints, where a heavy plug, dowel or tongue is driven into a blind hole and held in with glue. These joints often loosen with contraction of the wood as a result of heat or dryness.

Using Wedges In Repairs
When repairing, a wedge can be used to tighten the mortise but this job should be tackled with care. First, a saw cut must be made in the plug, cutting centrally down the grain no more than half the depth of the plug. Do not use this method with a shallow plug in a brittle wood such as pine.

Cut a thin wedge as wide as the plug and nearly as deep as the saw cut, and no more than half as thick again. Bevel the edge with a chisel. Slip the wedge into the cut and try fit. The plug should go almost home, but not quite. Withdraw the plug, adjust the wedge if necessary, then coat the wedge with glue and insert it loosely. Coat the plug with glue and drive home. The wedge slightly expands the plug to a tight fit. Make sure that the direction of the wedge is across not along the grain of the mating piece, or expansion of the plug may crack the member into which it is inserted.