Avoiding and Fixing Woodworking Mistakes

To paraphrase Sir Winston Churchill, all woodworkers make mistakes, but only wise ones learn from their mistakes. While most can agree that it’s better to avoid workshop blunders altogether, it’s not always possible. The following are some prevention strategies and some ways of dealing with slip-ups should they occur.

Avoidance Strategies
Here are some suggestions to help prevent common types of errors.

Lumber Woes: Many woodworkers pride themselves on being frugal, but sometimes choosing lumber based on price alone can be false economy. Wastage from defective boards and the effort you spend on fixing their defects can be high hidden costs. In general, avoid buying warped, severely crooked or cupped boards, which are also more difficult to work from a safety point of view.

Measurement Mistakes: In addition to “measure twice and cut once”, here are two helpful habits to have.

1. To paraphrase Sir Winston Churchill, all woodworkers make mistakes, but only wise ones learn from their mistakes. While most can agree that it’s better to avoid workshop blunders altogether, it’s not always possible. The following are some prevention strategies and some ways of dealing with slip-ups should they occur.

2. Don’t measure if you don’t have to. Use set-up blocks or the actual parts to transfer the measurements. For repetitive cuts, use a story stick. My tipster friend Serge Duclos of Quebec devised a clever storyboard method for when measurements are too close to each other to read or to mark on a stick. For every fence set-up, after cutting the actual piece(s), he makes the same cut on a hard board as he does on the storyboard, thereby creating a permanent record for reuse of all the set-ups for the project. Unlike the stick, a board has four sides (say, A, B, C and D) on which measurements can be marked. If, for example, side A is full of markings already, the additional markings can be put on side B instead of being squeezed on with the other markings on side A. Under the memory board approach, the actual saw kerfs, not markings, are used to set the fence/cuts.
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Machinery and Tool Mistakes: Using a machine that’s not properly set up can create and compound mistakes. When a rip fence is not parallel to the blade, for example, the mistakes are usually not apparent until you are at the late assembly stage. At this point, a quick fix will be almost impossible as all the mating pieces have been cut. You can prevent most of these unnecessary slips by performing regular tune-ups and using scraps to test the critical set-ups or cuts.

Cutting Blunders: Many unintentional cuts are due to carelessness, rushing through a job or marking errors. Set aside ample time for a project, break a big project into smaller ones and cut the parts in stages. Learn how to mark your pieces in their proper orientation. For example, always shade or mark the waste side of the line with cross-hatches. Finally, plan for unintended cuts.

- Start with the longest/widest pieces. If they are erroneously cut, they can be used again to cut shorter or narrower parts.
- Cut extras for critical parts or for when the machine set-up for the cuts is complex.
- Save your offcuts and scraps, even sawdust, until the project is completed, as you may need them for repair work.
- Build and use jigs for complex or repetitive cuts.

The Perfection-Obsession Mistake: Learn to accept the limit of your woodworking skills and make an effort to resist the urge to improve a project “just a little more”. Something that is good, but not perfect, is always better than fancy firewood.

Woodworking Fixes
Sometimes, good craftsmanship is about knowing or finding the right remedy. Here are some useful fixes worth knowing.

Flattening a Cupped Board: If you flatten a cupped board using a jointer and a thickness planer, you could remove too much of the board. Consider this alternative approach. First rip the board into, say, three narrower pieces, joint the edges, turn the centerpiece over and edge glue them. Finally, face-joint and thickness plane the board after the glue has cured.

An alternative approach for flattening a cupped board
Maximizing the Width of a Crooked Board: Jointing or ripping off the bad edges of a long crooked board will significantly reduce its width. If you crosscut it into shorter, usable pieces before jointing them, you'll end up with wider boards.

Stretching Wood: If you crosscut a piece by too much, a potential fix is a scarf joint, provided the piece is wider than necessary. To “lengthen” the piece, first saw it diagonally and glue the two pieces back to form a narrower but longer piece.

Fixing Loose Mortise-and-Tenon Joints: If a mortise-and-tenon joint wiggles, fix the tenon, not the mortise. Cut two thin patches/shims, orient the grain and glue them to the sides of the tenon. After the glue has cured, cut the tenon again for a perfect fit.

Handling Hand-Cut Dovetail Mishaps: When you learn how to cut dovetail joints, also learn how to fix unintentional cuts. For example, to repair a tail that isn’t perpendicular, pinch the tail with the thumb and index finger at the cut-line. Press the saw blade against the anchoring fingers as the cut is made on the waste side of the drawn line to form the new kerf.
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Enlarging a Hole: If you, for example, routed out a circle for a grandfather’s clock and inadvertently cut the opening 1/2 " too small in diameter, I recommend this two-step trick.

1. Chuck a 1/4" rabbeting bit and rout along the existing hole to enlarge the top edge by 1/2" (the enlargement is equal to twice the width of the rabbet).

2. Replace the rabbeting bit with a pattern bit and rout to remove the bottom material with the bit bearing riding in the rabbet.

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Further Reading