our best Plywood Secrets Revealed

Here's how to get flat, square assemblies, stronger drawers, and better-looking projects with plywood.

Using hardwood plywood is a great way to save time and money over solid wood while building top-notch projects. You don't have to spend time gluing up large panels. (Not to mention dealing with the panels expanding and contracting with the seasons.) But that doesn't mean plywood is the perfect answer. Here are a few tips and techniques to help you make the most of this versatile material.

► ***Best Faces Forward.*** *You can create plywood panels that look great on both sides by gluing up two layers of thinner sheets (bottom).*

MAKE YOUR OWN

Hardwood plywood sheets have a "good" front face and often a less-attractive back face. Usually, the difference is pretty stark.

For most projects, this isn't a big deal since the back is buried inside or hidden behind doors. But you may have projects where both faces will be visible, like the cabinet you see in the photo at left. The question is, which side of the project gets the "ugly" face?

Thankfully, there's an easy solution — make your own plywood with two good faces. To do this, spread a thin, even layer of glue to prevent voids and bubbles. Then clamp the panels between several layers of MDF to apply even clamping pressure. In the margin photo at left you can see how I glued two pieces of thinner plywood back to back to make the panels.

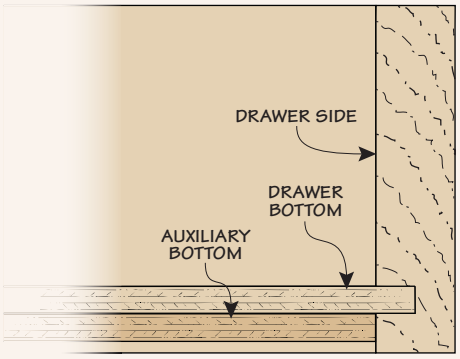
When making your own plywood panels, the important thing is to keep the pieces flat as they're glued up. It also helps to start with oversize blanks and cut them to size after the glue has dried. In the box on the opposite page, you'll find some tips on arranging the parts to get good-looking panels for your next project.

HARD-TO-FIND PLYWOOD

One of the reasons I like using plywood is it lets me avoid problems I might have when working with solid wood. For example, the drawer faces in the chest shown at the top of the page are wrapped with strips of bead molding. A solid-wood drawer front would open the molding joints as it expands and contracts with humidity changes.

Instead, I decided to make the fronts out of ½" plywood. But finding good-quality mahogany plywood can be a real challenge.

Here again, I made my own. This time, I took a different approach. I started with a base of ½" Baltic birch plywood because it's flat and stable. Next, I applied a layer of veneer, as in the detail drawing above. Best of all, I could spend a bit more on high-quality veneer to match the hardwood I used on the rest of the project.



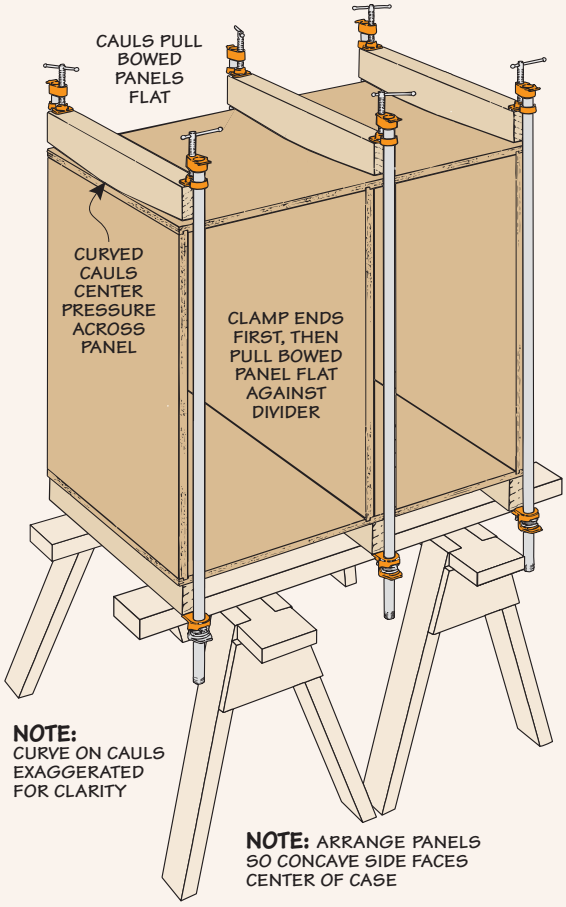
STRONGER DRAWERS

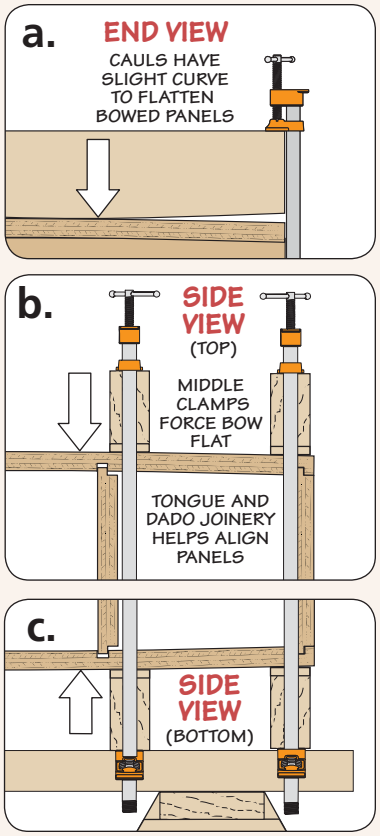
Another place where plywood comes in handy is for drawer bottoms. Unlike solid wood, I don't have to allow for wood movement. A ¼" plywood bottom can be glued into the drawer front, back, and sides. So it contributes to the overall strength of the drawer.

But if the drawers are large or will hold heavy items, the thin material can sag or even break. To beef up the drawer bottoms, I cut and assemble the drawers as usual. But then I cut an "auxiliary" bottom and glue it to the underside of the drawer bottom, as you can see in the drawing at left. This makes the bottom nearly ½" thick.

STRAIGHTEN BOWED PANELS

A lot of plywood I come across is curled and cupped like a potato chip. Of course, it pays to find the flattest sheets. But sometimes, you need to work with what have.





First, remember that breaking down the sheets into smaller parts will make the bows less severe. Then look at these tips I use to straighten out panels.

The first thing to do is arrange the bowed panels the right way. For case sides, arrange the bows so they oppose each other. If the bows face out (depending on "good" face of plywood), the clamps will pull the pieces flat when you glue up the case. If the bows need to face in, you can take a look at the setup shown in the drawing above and details 'b' and 'c.'

If the panels are bowed across the case, I use a similar strategy. I place the panel so the bowed faces will cancel each other out once the clamps are applied (detail 'a').

It doesn't take much effort to make assembly easier and your projects look better. So take some extra time up front and take your woodworking to a new level.

Layout tips for: Better Panels

Plywood cutting diagrams are designed to get the most pieces out of each sheet. But that doesn't mean the project will look its best. The photos at right give you a good idea of what I'm talking about.

In the first photo, the parts are arranged as you'd see them on a cutting diagram. One edge of the sheet is used as a reference edge for crosscutting or ripping each piece. It's economical, but the resulting parts have an unmatched and often distracting look.

The second photo shows a better arrangement. Here, I've set out the parts based on the best look for each panel. It'll take a little longer to cut out the parts. But the finished project will have a more pleasing appearance.

▲ ***Efficient Layout.*** *Cutting parts in sequence is quick and easy but often yields mismatched parts.*

▲ ***Match Grain.*** *It may mean more waste, but matching the figure improves your project's look.*