# Clamping Panels the Easy Way

*An inexpensive vertical press saves space and makes aligning boards a snap*

by Jim Tolpin

***Large panels can be clamped easily in a vertical press.*** *Wedges along the joint keep the boards aligned. Other wedges at the top, as well as pipe or bar clamps, provide the edge-clamping pressure.*

Photo: Vincent Laurence

When I need to glue up small panels, I just gather up a few pipe or bar clamps and work right on my bench. When I have everything clamped, I take the assembly and set it against a wall, taking care not to rack it when I set it down.

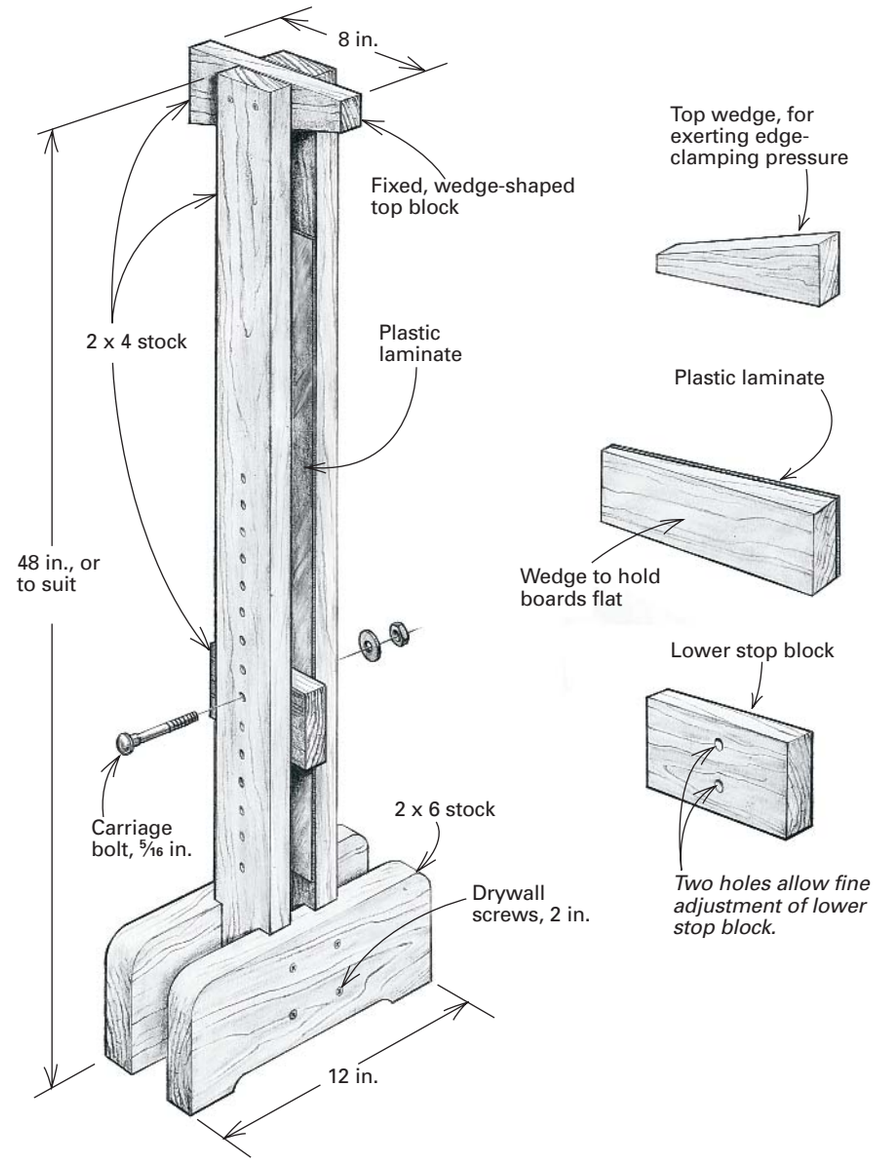
Large panels, like tabletops, and large glue-ups, like full-sized entry or interior doors, aren't so easy. Moving heavy pieces like these can be more than a little unwieldy, making racking much more likely. And leaving the whole assembly on my bench until it dries isn't a good solution either. That's why I built a vertical press (see the photo on the facing page).

Awhile back, I saw a professionally made vertical press in an industrial cabinet shop and realized that the press was the solution to my problem. But the press cost a lot more than I was willing or able to spend. So I designed my own and made it from 2x4s and 2x6s and common hardware (see the drawing at right).

Besides keeping my bench free when I'm doing large glue-ups, the vertical press virtually ensures that the panels will be flat and correctly aligned. And because the press is made from 2x stock, it's light, easily movable and priced right.

There are other advantages to my vertical press. Both sides of the assembly are readily accessible, making it easy to inspect the joints front and back and to remove any excess glue. Because the press is inexpensive, I can afford to build a number of them. And plastic laminate on the inside face of the back 2x4 of each upright keeps the boards I'm edge-gluing from becoming part of the press.

**Vertical clamping press**




## Using the press

To clamp up a panel or a flat assembly, such as a door, I start by measuring the overall width of the panel or assembly. Then I add a little space for a wedge at the top, maybe 2 in. or so. I bolt the lower stop block in place at this distance from the fixed top block.

Then I run the first board of the panel between the uprights and spread out the individual presses, spacing them from 12 in. to 16 in. apart. I tap a wedge or wedges (also faced with laminate to prevent them from adhering to the panel) between the face of the board and the front upright to hold the board in place. I apply glue to the edge of this first board as well as to the mating edge of the next board, which I then slide into the press.

Once the second board is in the press, I reposition the first set of wedges, so they're right on the joint between the first two boards. The wedges keep the boards flush. I add more near the top of the second board to hold it against the back upright.

I continue in this way to the last board and then drive wedges under the top blocks to press the lamination together. These wedges get the panel or assembly together quickly and also provide a good amount of clamping pressure.

To ensure that clamping pressure is uniform over the full length of the boards, I insert pipe or bar clamps across the boards, as shown in the photo on the facing page. I use wood scraps or clamp pads to protect the outer edges. I make sure the joints are flush across their faces and drive additional wedges wherever necessary to get the whole panel flat. □

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*Jim Tolpin is a writer and woodworker in Port Townsend, Wash.*

Drawing: Dan Thornton