

Thursday, February 07, 2008

## Folding Wall-Hung Spray Booth Chapter IV: Folding Platform

Hello again,

I managed to get the folding platform built and installed today:



The work surface ('platform') is reasonably large, measuring 23.75" x 32."<sup>1</sup> It needs to be sturdy and rigid, and to *stay* flat, so I built it as a simple torsion box. This is just two sheets of 1/8" tempered hardboard spaced apart with a perimeter "frame" of scrap half-inch plywood, glued together sandwich-wise. I also added some internal blocking where I expected to drive screws. Then I clamped and weighted everything flat while it dried:

---

<sup>1</sup> It was *designed* to be exactly 24" x 32," of course. I used ready-cut hardboard "handy panels" from Home Depot. These were neither square nor to stated size, so I had to trim them a bit.



The platform folds up on simple butt hinges<sup>2</sup> attached to the bottom of the filter cabinet. The support legs fold flat against the platform when the platform is raised:



---

<sup>2</sup> I had *planned* to use a full width piano hinge for maximum strength—until I priced one at the local hardware store!

A simple spring catch retains the platform. A touch of the thumb releases it. It's oak, for "springiness" and strength:



The support legs automatically deploy as the platform is lowered (gravity takes care of that). The legs are canted five degrees forward for stability; increased weight on the platform just locks them more tightly in place:



I still have some fine tuning of the fit to do (especially the latch), but overall I'm happy with the way this subassembly came together. I have posted a dimensioned drawing at

<http://1stclass.mylargescale.com/dawgnabbit/spraybooth/platform.pdf>.

Regards,

Steve