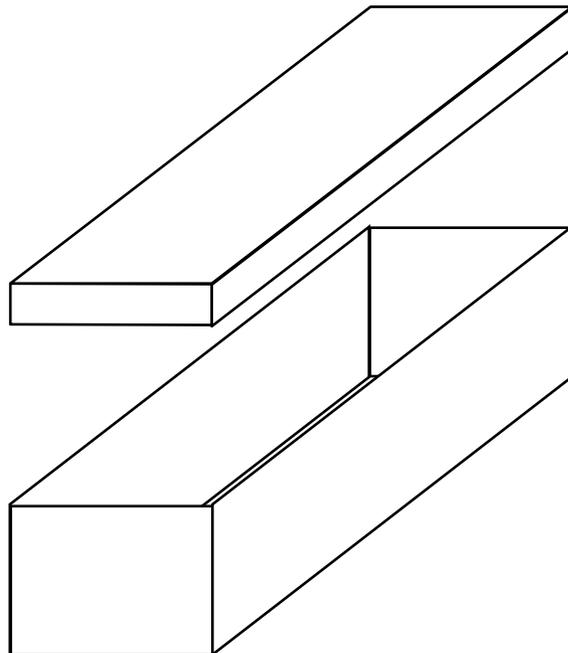


Quick and easy storage boxes

These boxes don't require any fancy joinery, using only butt joints, yet don't show any plywood ends when the lids are on. The secret is in the corner joints, which use a 2x2, ripped diagonally on the inside, and a piece of 3/4 inch quarter round on the outside. These make a surprisingly strong joint, when assembled with a good carpenter's glue and finish nailed every 10-12 inches. Mine have lasted for 4 years, even having been dropped with 200+ pounds of contents, and have never popped a joint. The quarter round on the outside of all the corners on my boxes are hardwood, and they help keep the boxes from getting dinged up too badly when being dragged in and out of the trailer.



Sizing the boxes:

The reason I'm not giving you actual finished sizes is that these boxes will have to hold your gear and fit in your vehicle. Measure your space in your car, van, or trailer and the largest things that will have to fit in these boxes to determine the dimensions for your boxes. Take your desired sizes for width, height, and depth and subtract 1 1/2 inches from each dimension if you are using 3/4 inch plywood. So, outside width minus 1 1/2 inch is the width to cut your end pieces and top and bottom. Same method for height of end pieces and sides. Also done for the length of the top, bottom and sides. After you cut the sides and ends, cut about a 2 1/2 strip off the height of each to make the sides and ends of the lids.

Assembly:

Take your plywood pieces and lay them down on a flat floor. Take your 2x2 tops and bottoms and cut pieces the same length as the plywood in both length and width, with a 45 degree bevel on the ends. Nail or screw the 2x2s to the plywood, using a generous portion of a good carpenter's glue. You should now have your two longest panels with a "rim" of 2x2s around each. You can tack the sides on to each panel and then cut the upright 2x2s to go up the sides. My lids were only about 2 1/2 inches high, so there are no corner pieces in the top, but the ones from the bottom continue past the top edges of the sides about an inch, to help keep the lids on during transport. Then nail the quarter round on the outside of the corners, also using glue. Be a little careful with the glue on the outside if you are going to stain the boxes. You will want to file the protruding ends of the 2x2s in the sides of the boxes to taper them slightly. This will help to make the lids go on easier. You may also want to number the boxes and their lids, if you are making multiple boxes. I find mine only fit well on their original box and often only one direction.

I put handles on the ends of my boxes, using some hardwood 1x2s with rounded corners and some rope.

Corner detail:

