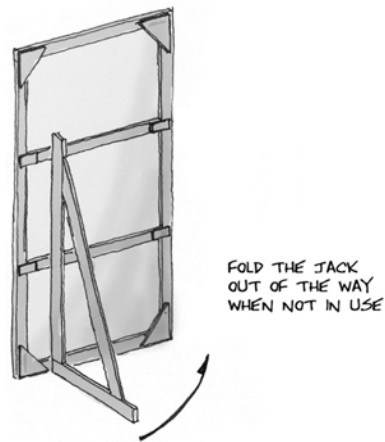


# How Do You MAKE ...

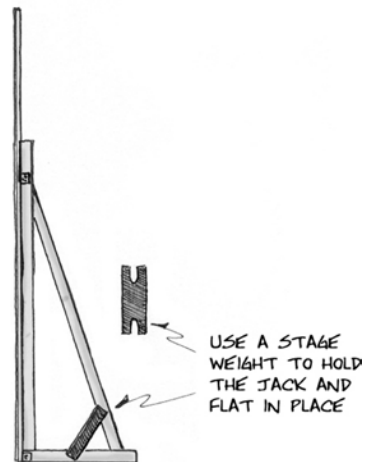
## L-JACKS

*L-jacks* are typically used to hold a piece of scenery in an upright position. Most often, they are connected to the back of a column or flat with hinges so that they can be either removed or folded against the unit when not in use.



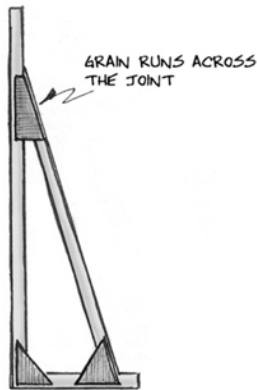
L-JACK ON A FLAT

You must add weight to the jack in order to stabilize it. A 25-pound counterweight placed diagonally between the framing members is great for this purpose. In a TV studio, sandbags are often used.



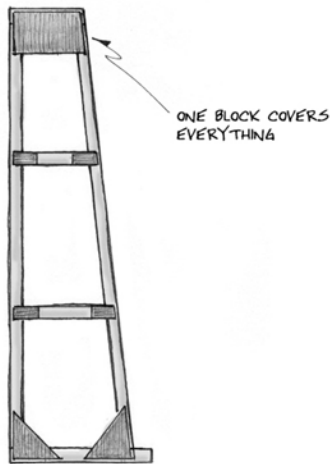
Another method of stabilizing the jack is to hinge it to the floor. This method has the advantage of being considerably more secure, but it is much more difficult to adjust, because you must unscrew and reattach the hinge. If your scenery must be struck during the show, the simple weight method is probably your best bet. The hinge works well when you need very exact placement, and have time to fit a loose pin back in the hinge.

There are two similar styles of wooden L-jacks, and the difference is created by the size of the units involved. The traditional type is characterized by a tall vertical, a shorter horizontal (hence the name), and a connecting diagonal. This works fine in a jack that is 10 feet or less in height, but eventually an increasing size dictates a slight change in design.



TRADITIONAL L-JACK

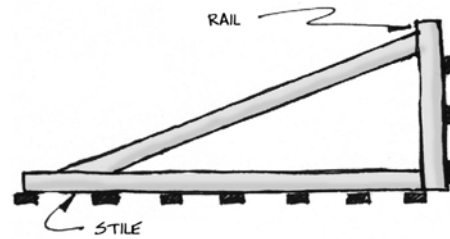
The taller type is truncated at the top, with a number of internal braces, and the resulting structure is somewhat stronger and more rigid. Construction methods are generally the same.



NEW AND IMPROVED L-JACK

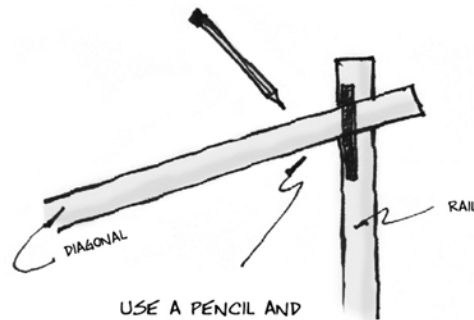
It is more efficient to make a number of jacks all at one time. Laying out the diagonal and the cover blocks takes a bit of time, but it is easy to cut out multiples of those pieces. It may take 20 minutes to mark and cut the parts for one jack, but only 30 minutes to build four. If you make extra jacks of a commonly used size, you will have some stock units to pull from.

It is easiest to build jacks on a wooden squaring up template table, as was described in the chapter on flat construction. This allows you to quickly form the L corner and to tack the parts in down on the table so they are held in place while the blocks are glued and stapled.



USE A TEMPLATE TABLE TO SQUARE THE JACK

A cut list is easily derived. The bottom rail of the jack extends under the stile and the diagonal brace. It is usually in the neighborhood of  $2\frac{1}{2}$  feet in length. Use whatever size base is appropriate to fit in backstage. There is no top rail. The jack should be tall enough to connect with a convenient and logical point on the unit being braced. On a flat, this could mean either the top toggle rail or perhaps about two-thirds of the way up one of the stiles. For a 12'-0" flat, an 8-foot-tall brace would need about a 2-foot rail. When using 1 x 3 stock, that gives you a cut list per unit of 1 @ 7'-9 $\frac{3}{8}$ " and 1 @ 2'-0". The diagonal brace must be scribed from these two members like the method used in full-scale patterns.

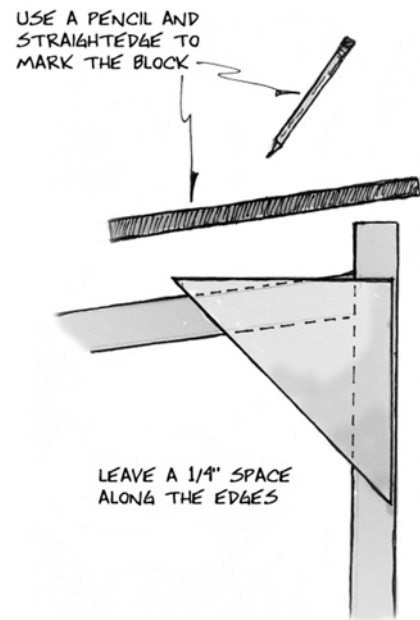


USE A PENCIL AND STRAIGHTEDGE TO MARK THE STILE

Tack the rail and stile into the square corner of the flat frame. Measure down a few inches from the top of the stile, and a few inches in from the end of the rail. Usually, I like to leave a bit more space at the top than at the bottom. This shortens the diagonal a bit, but the real purpose is mostly aesthetic. The jacks just look better that way. Lay a section of stock over the marks and then scribe cut lines onto it. After you have cut the first one and checked it for a proper fit, it can be used as a pattern to cut the rest. This will save a considerable amount of time.

When all of the  $1 \times 3$  stock has been cut to length, tack down the diagonal for the first jack. A regular corner block can be used for the 90-degree-angle corner. If the other bottom angle is reasonably acute, a regular corner block can be marked and trimmed to fit. The top intersection of the pine framing is generally too acute to use any stock parts, so plan on cutting these blocks from scratch using scrap  $\frac{1}{4}$ " plywood. Run the grain of the plywood horizontally, so that it is across the joint. There is no need to inset these blocks  $\frac{3}{4}$ " from the edge of the framing as in a regular soft-covered flat, but a  $\frac{1}{4}$ " inset will give the unit a nicer appearance.

This jack has been pictured with the 90-degree-angle corner to the left because that is the most natural way for it to fit on the template. Sometimes, a jack will hinge better if the blocks are on the other side of the unit, especially if the jack is expected to fold back tightly



against the flat. It is smart to make some left-handed and some right-handed jacks. The parts are all the same except for the oddly shaped blocks that need to be a mirror image. (Reverse and repeat.) On occasion, you may want to put blocks on both sides when a super-heavy-duty jack is required.