

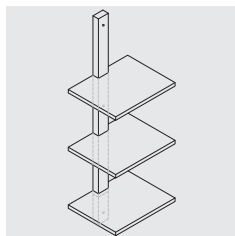
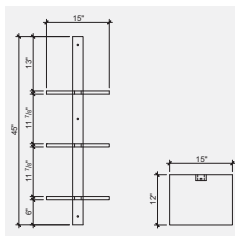
3-TIER TOWEL SHELF

CONSTRUCTION PLAN



Difficulty level: **T | EASY**

Completion time: **Less than 3 hours**



3-TIER TOWEL SHELF

This attractive pine shelf unit is a quick and easy way to create new storage space, as well as being compact and within everyone's reach!

The support bar, made of pine, is 45" high and supports three 15"-wide shelves. Notches cut in every piece enable the shelves to be easily inserted into the support bar, making the unit simple to assemble.

As they are made from wood, these shelves can be stained, varnished or painted.



TOOLS AND MATERIALS NEEDED

TOOLS

- > Band saw or hand saw
(e.g.: dovetail saw or back saw)
- > 1/2" wood chisel
- > Hammer
- > Measuring tape
- > 3/8" countersink drill bit
- > Screwdriver-drill
(electric or cordless)
- > 120-grit sandpaper
- > Small carpenter's square
- > Pencil

MATERIALS

- > 1 length pine 2" x 3" x 72"
- > 1 pine board 1" x 12" x 72"
- > 3 wood buttons
- > 6 – 2" No. 6 screws
- > Wood glue

BEFORE ASSEMBLY

CUTTING LIST

After cutting the parts, sand the edges as necessary. Sand to round off the rims, if desired.

Pine board, 1" x 12" x 72"

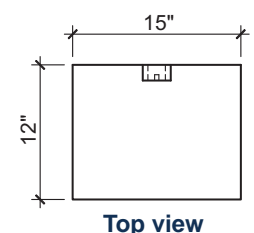
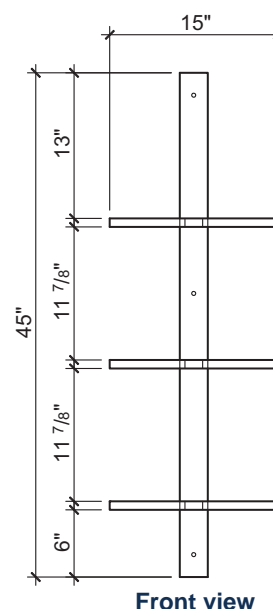
PIECES	QUANTITY	WIDTH (")	LENGTH (")
A SHELF	3	12	15

15"	15"	15"	
12" A	12" A	12" A	

Length pine, 2" x 3" x 72"

PIECES	QUANTITY	LENGTH (")
B SUPPORT BAR	1	45

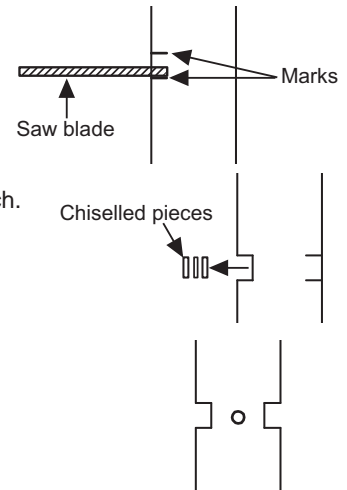
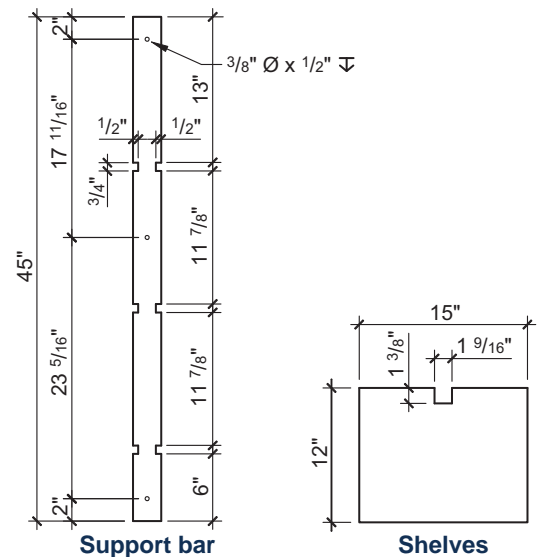
ELEVATIONS



3-TIER TOWEL SHELF

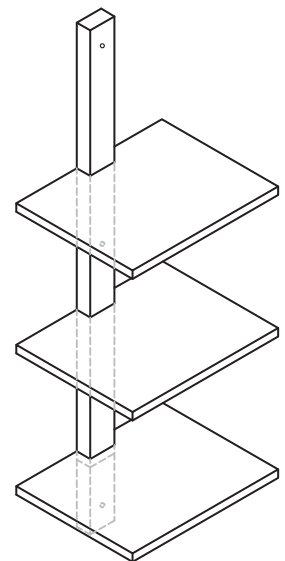
PREPARATION

- 1 Bore three pilot holes in support bar A using the countersink bit. Stop at a depth of $\frac{3}{8}$ ". Two of the holes must be made at 2" from each end of the support bar, and the third hole at $17\frac{11}{16}$ " from the top end.
- 2 Mark the cutting lines for the notches on both support bar A and shelves B. The notches on the bar will be $\frac{1}{2}$ " deep and those on the shelves $1\frac{3}{8}$ " deep. It is important to carefully follow the measurements shown in the cutting plan. Use a carpenter's square to make the marks perfectly at right angles to the edges.
- 3 Make the cuts along the marks. Important: do not saw in the centre of the marks or this will alter the width of the notch. The blade's edge must just touch the inner edge of the line, so that the saw cuts into the inside of the notch, as illustrated.
- 4 Using the chisel, remove the piece of wood between each pair of cuts to create the notch. Gently tap the chisel with a hammer if required, but do not try to remove the piece in one go; chisel out a few small chips at a time, taking care not to go deeper than required. The bottom edge of the notch must be nice and flat.
- 5 Bore pilot holes through the back of the support bar, between the notches.



ASSEMBLY

- 6 Apply some wood glue to the inside of the notches on the shelves, then insert these into the notches on the support bar. You may need to gently tap the shelves into position with a hammer; if so, place a spare piece of wood between the hammer and the shelf to avoid damaging the shelf itself.
- 7 Solidify the structure by screwing into the shelves through the pilot holes in the back of the support bar.
- 8 Wipe off any excess glue.



FINISHING

- 9 Insert the wood buttons to hide the screws.
- 10 Sand, then varnish or paint the shelves (which makes them easier to clean).
- 11 Attach the support bar to the wall, preferably into a wall stud. If there is no wall stud at that location, use anchors or wall plugs.