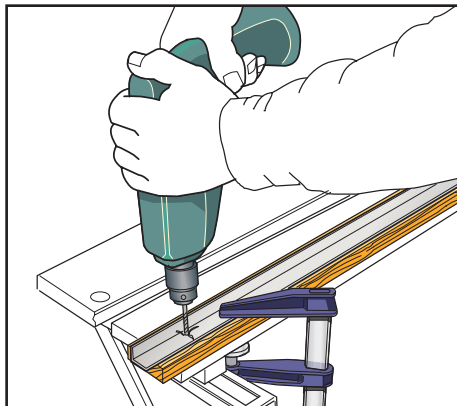


Introduction



This 'How to' shows how to create a simple form of shelving that relies on battens fixed to the side walls of an alcove.

What you'll need

Materials

Abrasive papers – medium and fine
 Aluminium angle 20 x 20 x 1.5mm or softwood battening 38mm x 21mm
 Finishing materials, e.g. varnish, paint, wax, sanding sealer
 Masking tape
 Panel pins – 25 or 30mm
 Plastic or metal shelf supports
 2-part wood filler
 Screws (length dependent on use of shelf) wall fixings
 Shelf materials
 Furniture screws
 Shelf supports

Tools & equipment

Adjustable bevel
 Bradawl
 Centre punch
 Combination try square
 Cork block
 Craft knife
 Electric jigsaw with very fine-toothed blades
 Fine-toothed hard-point handsaw
 Two G-cramps
 Hammer drill and bits – masonry and HSS twist bits
 Junior hacksaw

Pencil
 Pipe/cable finder
 No.2 Pozi screwdriver or electric screwdriver with No.2 Pozi bit
 Sawing aid or mitre saw
 Spirit levels – 300mm, 900mm
 Steel measuring tape
 Tenon saw
 Workbench
 Smooth cut file

Before you begin

Prepare the room

Clear removable furniture out of the area, and cover the floor and heavy furniture with dustsheets.

Decide position of shelves

What will you put on your shelves? Leave enough space between shelves to accommodate your ornaments, books etc.

Set ornaments out on a table and hold a shelf above them until the ornaments seem comfortable and balanced within the space.

As a guide leave the following amount of space for books:

Paperbacks	215mm
Hardback novels	260mm
Reference books	320mm
Oversize books	470mm

For TV and hi-fi equipment, remember to allow for lift up lids and ventilation. See the manufacturer's instructions.

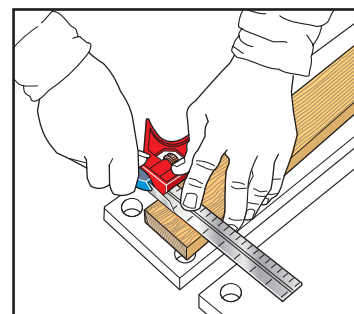


fig. 1

Find pipes and cables

Use a pipe/cable finder to find and mark the position of any pipes or electric cables.

Building shelves in a chimney alcove

1. Mark guidelines

Mark the positions of the undersides of the shelves onto one wall. Remember to add the shelf thickness onto the distance between shelves.

Use a spirit level and pencil to mark lines round the alcove for each shelf if the line is horizontal, the bubble on the level must be equidistant between the lines.

2. Cut rear battens

If using wood, carefully measure the lengths required for each rear batten. Mark these with a combination square and craft knife (**fig. 1**). Then cut them to length using either a jigsaw or a tenon saw and cutting aid or a mitre cutting jig and saw.

If using aluminium, cut aluminium angle with a junior hacksaw, then remove the burrs with a smooth-cut file (**fig. 2**).

⚠ Safety tip

Never use a file without a handle.

3. Drill rear battens

For wooden battens mark out the positions of the screw holes, 60mm in from each end and then at about 330mm intervals (400 max). Centre punch each screw position, before drilling and countersinking them to suit the screws and fixings you want to use.

For aluminium bearers, mark out the positions of the screw holes on both flanges, as for wooden battens and centre punch. To drill, put the flange on scrap timber and hold it firmly to the workbench with G-cramps (**fig. 3**). As you're likely to use panheaded screws to hold aluminium brackets in place, there's no need to countersink the holes. Use either 4.7mm (No.8) or 5.5mm (No.10) screws to fix to the wall. Use 4mm (No.6) screws to fix to shelf.

4. Attach rear battens

Hold the top batten in position, check that the batten is level with a spirit level and use a bradawl to mark the screw positions onto the wall. A second pair of hands will make this job a lot easier. Remove the batten, centre punch the screw positions (**fig. 4**) and drill holes to suit your wall plugs.

Insert the plugs into the holes. Reposition the batten, and insert and tighten the screws.

5. Attach end battens

The style of the end supports can vary, some ideas are shown in (**fig. 5**). Mark out and cut the end battens. Mark, drill and fix them to the end walls, following steps 2, 3 & 4.

6. Finish battens

Fill the screw holes and use a cork block and abrasive paper to rub down the filler when dry. Paint or varnish the battens.

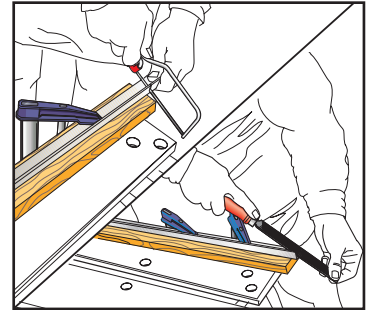


fig. 2

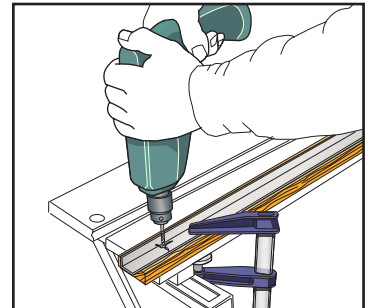


fig. 3

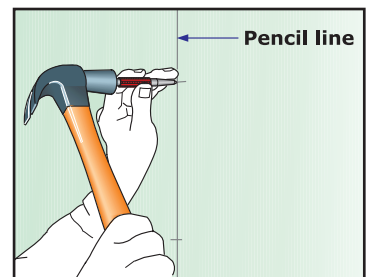


fig. 4

Hint

Use masking tape to protect wall coverings while painting or staining battens. Or, if you choose to paint/varnish the battens off the wall, remember to number them so that they can be refitted in their original holes.

7. Cut shelves

Use the adjustable bevel to determine the angle between the walls and transfer this onto the shelf (**fig. 6**). Remember to mark the angle from the rear edge of the shelf and at the correct end.

Transfer the length of the back wall onto the shelf and use the adjustable bevel to mark the angle at the other end (**fig. 7**).

Cut the shelf to length and check it for fit. Don't cut all the shelves to the same size. Measure each one separately, especially if your walls are not straight.

8. Fix shelves

Drill pilot holes. Remove the shelf, enlarge the pilot holes for clearance and countersink for 12mm x 4mm (No. 6) screws: two at each end, and two or three on the back batten. Drive home the screws and fit press-on concealment caps or fill and sand.

To fit the shelf onto aluminium brackets, mark with a pencil the position of the pre-drilled holes in the aluminium. Drill pilot holes in the shelf and refit using 12mm x 4 mm (No. 6) panhead screws.

Hint

When drilling holes to a preset depth, wrap a piece of masking tape round the drill bit several times, finishing in a butterfly (**fig. 8**). **HB**

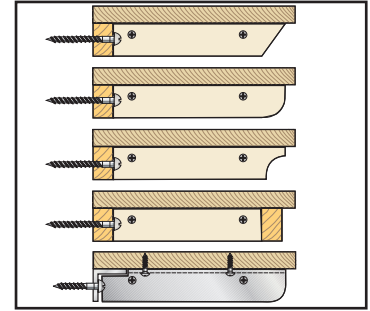


fig. 5

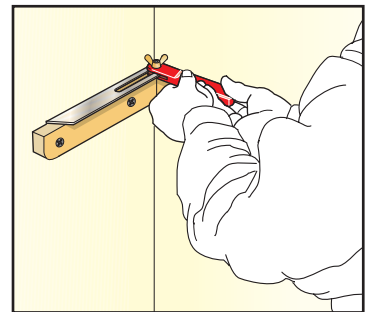


fig. 6

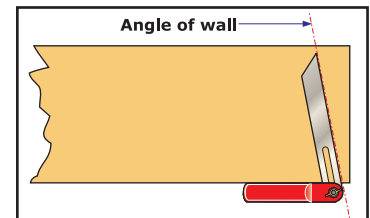


fig. 7

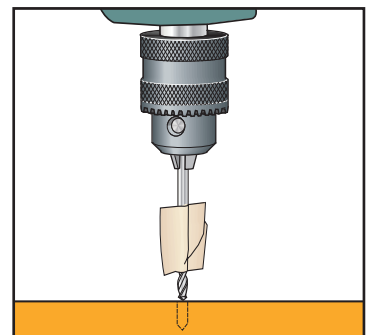


fig. 8