



PHOTOGRAPHS BY MARC FISH

## *Short Cuts*

# The Short Cuts guide to... **fitting hinges**

**Follow Marc Fish's tips and your work should never be spoilt by badly fitting hinges or skewed screws**

**T**he saying, 'Do not spoil the ship for a ha'porth of tar' – nothing to do with ships but referring to the tar used to protect a sheep's sores or wounds from flies – applies just as well to our profession.

Don't spend months finishing a piece of furniture only to fit £2 hinges from a large DIY chain.

Instead, buy the best-quality hinges you can find – we use Brusso made in the USA (available from Classic Hand Tools.) They may be expensive but it's

a very small part of the total materials budget on any piece of furniture.

A little tip when looking for butt hinges: good-quality hinges will tend to have an odd number of knuckles so both halves are different and therefore will cost more to produce whereas cheap hinges will be even, so will be the same on both halves.

This means that the moving arm will be held securely in the vertical arm, allowing the other arm to swivel easily and smoothly.

## Preparation

A little time spent at this stage will pay dividends so plan the hinge fitting carefully, produce a full-size drawing and make a test model of the components – it is all too easy to fit hinges and then find the door or lid does not open.

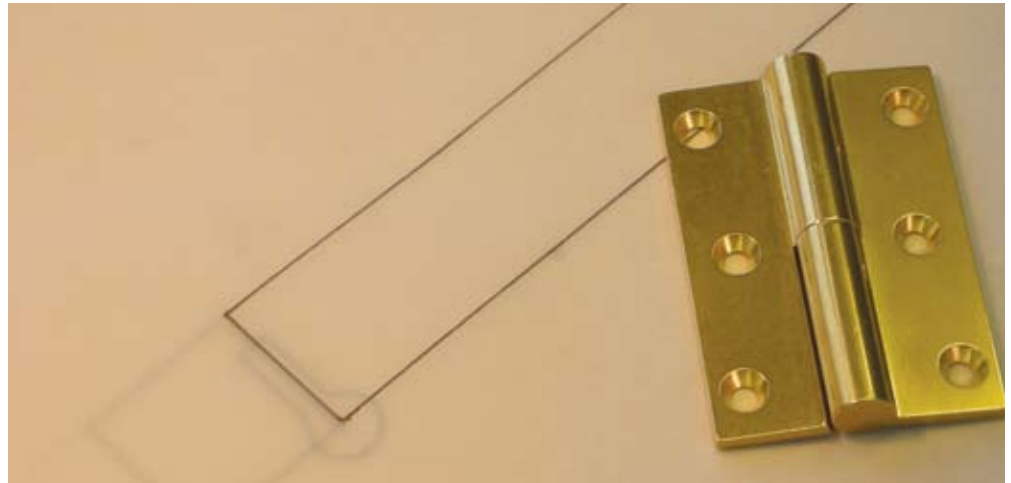
I was taught an excellent technique of drawing out a plan view of your carcass opening onto a piece of paper or board, then drawing out the door or lid onto tracing paper. By placing a pin through the tracing paper marking the centre of the hinge, the paper can be rotated as if rotating the door at the hinge pivot point.

Any clearance issues will show up and the hinge position can be changed by moving the pin.

I know some will think this a waste of time, but having been caught out fitting hinges to furniture only to find they did not work, I think you will agree that the time wasted having to rectify this error is far greater than 10 minutes spent drawing.

If the hinge is handed take care when ordering because it can be confusing.

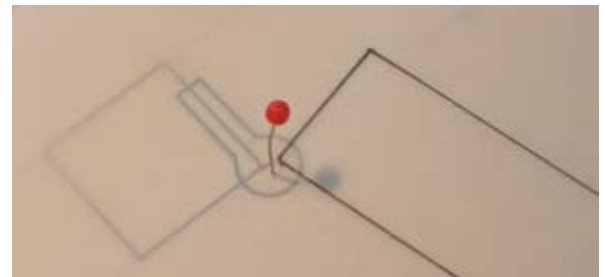
You could think that a right-hand hinge would be on the right-hand-side



Careful planning will pay dividends

of the unit. This is correct but only if you are inside the cabinet looking out, not looking towards it as most of us would be when making it – unless you are inside a very large cabinet!

Thankfully most hinges don't need to be handed, but care should be taken when fitting the hinge – it is good practice to ensure that the hinge half with the most amount of knuckles is fitted on the carcass not the door.



Old-fashioned tracing paper is the way forward

## Fitting



**You will need a marking gauge, two if possible**

A pair of marking gauges is ideal for marking the hinge depth and thickness. A third gauge can sometimes be used for marking the hinge position along the hinge rail. It is nice to set these gauges and leave them set until the end of the job; as with clamps you can never have enough gauges.

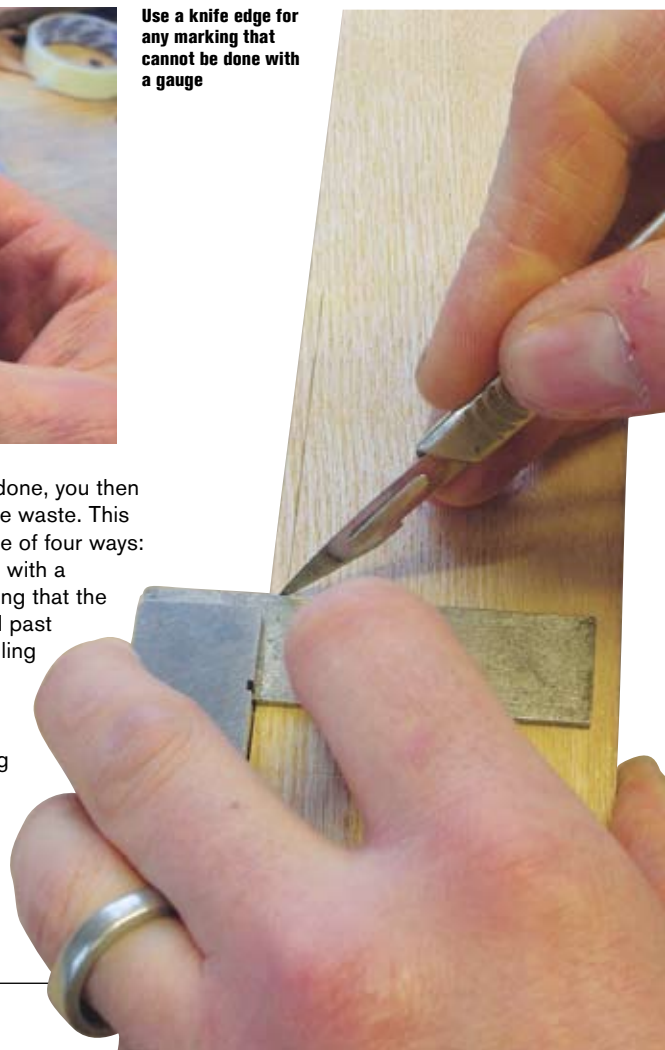
Always use a knife edge for any marking that cannot be done by a gauge because this gives you a register for the chisel to locate in.

Do not try to mark around the hinge as you will end up with a hinge recess that is too big by the thickness of two blades.

With the markings done, you then just have to remove the waste. This can be achieved in one of four ways:

- making multiple cuts with a crosscut saw, ensuring that the saw does not extend past the marks and chiselling what is left
- just chiselling the waste
- setting up a router jig – only worth making or buying if there are multiple hinges to fit
- using a laminate trimmer ➤

**Use a knife edge for any marking that cannot be done with a gauge**



## PROJECTS & TECHNIQUES

### Short Cuts, fitting hinges



Use a marking gauge to establish the depth of the hinge

➤ I usually opt for removal with a little Makita laminate trimmer, clamping some support to the work to give the trimmer's base more surface area. It is amazingly accurate and not difficult to control.

Final trimming is done with a chisel by creeping up to the marking lines and not removing too much at once. Slide the hinge into the recess, taking care not to damage the sides, and take even more care when removing

the hinge. I will always do one test recess in the same wood as used in the final work.

To ensure that all the screws are lined up when they are tight, drill the appropriate pilot hole first. Place one screw in the pilot hole and measure the depth with a Vernier gauge, then wind the screw until tight. If it lines up, repeat this procedure with other screws. If it doesn't, which is more likely, adjust the depth that the screw is inserted into the pilot hole before turning; a light tap with a small hammer will assist in this.

There is a little trial and error but when the settings are recorded the remaining screws will go in quickly and accurately.

After fitting, if the door does not quite line up the hinge can be shimmed with paper inserted behind. John Bullar also covered this technique in F&C161, see sidebar.

If the screws are not quite in the right place then inserting a small piece of wood – we use string line – will move the screw over slightly but the screw slots may not line up on the first attempt.



Carefully positioned saw cuts break up the area to be removed



Creep up to your marking lines with a chisel



Use a Vernier gauge to measure the depth of the screw



Insertion of a small piece of wood will move a screw over slightly to one side

## Finishing touches

I will always refinish hinges – they are rarely good enough when bought. I use a fine Gary Block abrasive for a brushed look, available from Axminster Tools. If a shiny finish is required then I will re-polish them with a metal-polishing kit.

Depending on what size screws you will be using it might be necessary to re-countersink the hinges to fit a slightly larger screw.

Best-quality work deserves slotted screws and not Pozi or Philips. A little work smoothing the screw heads before they are fitted will make a huge difference. Use your usual sharpening stones for this.



Gary Block abrasive gives a brushed finish to your hinges

## How John Bullar aligns screw slots

John Bullar uses a slightly different method to align his screw slots:

- 1 Drill tapered pilot holes
- 2 Stand the screws in them with all their slots lined up at the same angle
- 3 Use a clamp to press down a short distance into the pilot holes so the heads are all lined up in height
- 4 Use an MDF block as a spacing gauge for the height
- 5 As you turn the screws they will all tighten when their slots reach the same angle



Line up the slots then press the screw into the pilot hole with a clamp before starting to turn. Gauge the starting depth with a calibrated MDF spacer and align all the slots with the same torque applied to each screw

JOHN BULLAR

F&C