

# Box Bits #5



## Fitting Barbed/Slot Hinges

These small brass hinges are ideal for hingeing small box lids, and although they don't have the finish of expensive brass hinges, this is not considered to be a problem, as when mounted, the only portion of the hinge visible is the hinge barrel. At the time of writing these hinges retail for \$5(Aus) for a pack of 10, and they are therefore an economical choice for "give away" boxes of various types.

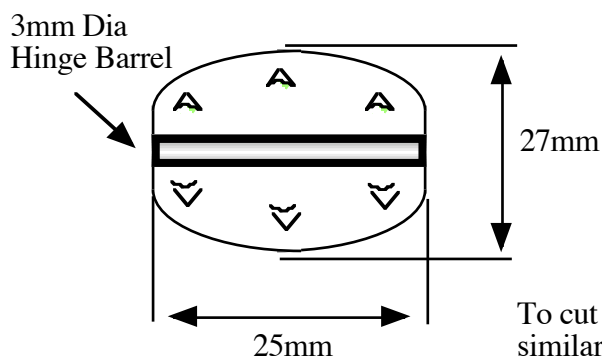


Figure 1

The hinges require no screws to mount, instead they are inserted into slots cut into the lid and carcass and are held in place by diecut or pressed barbs on each leaf. Once mounted it is basically impossible to remove the hinges without tear-out of the slots, therefore, it is recommended that for test fitting that the barbs be ground off one pair of hinges.

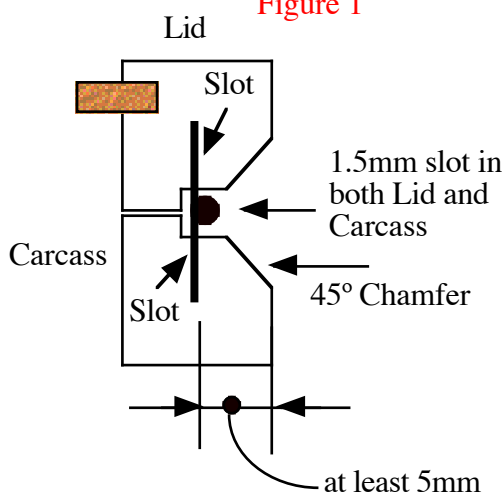


Figure 2  
Basic Vertical Slot

To cut the slots a small scale blade and arbour are required similar to those provided for use with a Dremel type of tool. The blade should be sized to cut a 12mm deep slot of sufficient width to insert the hinge leaf. In practice, a slot 3mm wider than the hinge width will provide some lateral adjustment of the lid in relation to the carcass. The slots are usually cut at least 5mm from the rear of the box. To allow the hinge to function two other actions are required.

Both the lid and carcass must be chamfered and a slot must be cut into both pieces to fit the hinge barrel. A basic layout is shown in Figure 2.

To minimise the visual impact of the chamfers the slots may be cut at approximately 22° from the vertical. This allows the slots to be made only 2.5 mm from the rear of the box which will still enable the lid to open correctly but reducing the size of the chamfers. The Angled slot layout is shown in Figure 3.

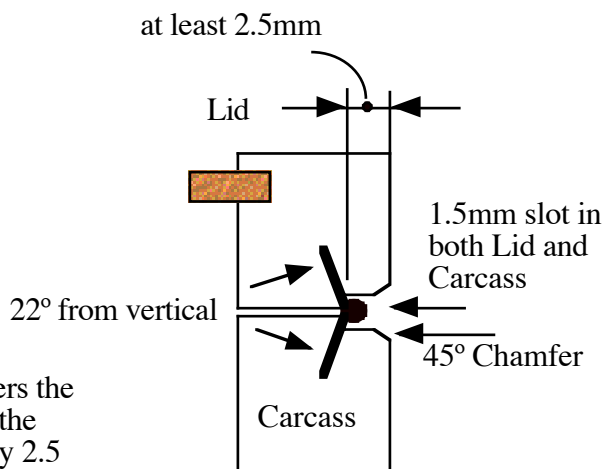


Figure 3  
Angled Slot

## Cutting the Slots

The type of blade has already been identified as the “Dremel” style with the correct arbour, but some more thought is required.

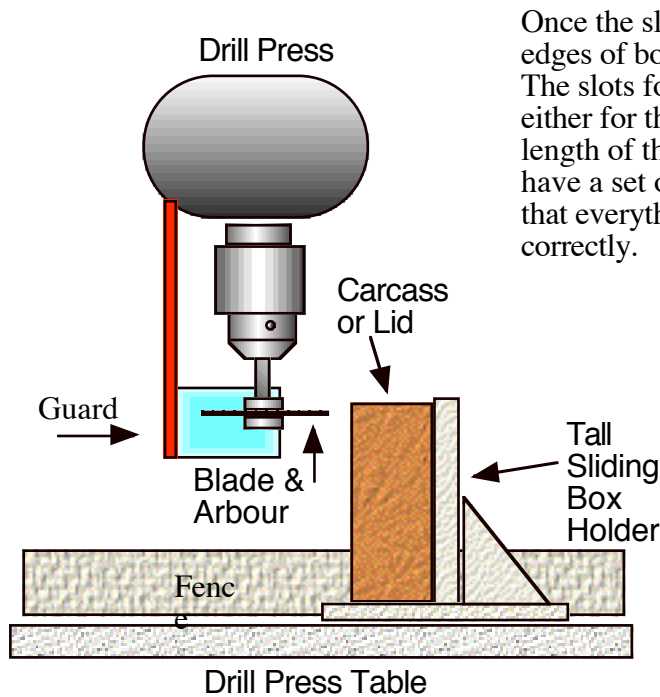
The “Dremel” style tool rotates at a fairly high speed - spinning cutting blade - unguarded - hand held. Not an option.

A table mounted router is the next option, however, a different arbour would be required to correctly fit the router collet and even the slowest speed on a variable speed router will result in burnt stock - probably a burnt blade - so, that is not an option either.

The logical choice is a drill press.

Adjustable height - slow speed - no special arbour required - just a simple jig.

Figure 4 shows a simple sliding jig for use on a drill press. It can be used against the fence, or run in the mitre slots in any manner that will allow the blade to cut the slots in the correct position. Care should be taken that the box elements are held firmly in position.



**Figure 4**  
A jig example

Once the slots are drilled in both the carcass & lid the edges of both are chamfered accordingly.

The slots for the barrel of the hinge are routed next either for the entire length of the box or just for the length of the hinge barrel using 2 stopped cuts. If you have a set of “test” hinges now is the time to check that everything is square and that the lid hinges correctly.

**Don't test fit with a normal set of hinges as they are very difficult to remove and will almost certainly tear wood out of the slots upon removal.**

Before fitting the normal hinges it is best to clean up the hinge area and apply the chosen finish to the entire box. Once the finish is cured the hinges can be inserted into the slots and the lid and carcass pressed together to firmly seat the hinges. Some lateral movement is possible so that the lid and carcass line up correctly.

So that's the story on mounting the \$1 a box Barbed Hinge Set. Have Fun!