



## CHILD'S BED

**When Peter Dunsmore needed a new bed for one of his children, he decided that making one himself would not only save money, but also give him a better quality result**

A look around the local stores for a new bed for our two year old is all it took for me to decide that not only would it be cheaper but we would also end up with a better bed if I made it myself. As can be seen from the pictures the bed comprises of a headboard and footboard made up with fielded panels of solid English oak joined together with oak side rails. The mattress support slats and battening are made from softwood and are readily available. To finish the bed, four acorns were turned on the lathe and fitted on the ends of each post. Obviously access to a lathe will be needed for this but the bed would look equally well without them. A router table with a 1/2in router fitted is essential for forming the panels as well as profiling the stiles and rails. This bed is designed to fit a standard size mattress 75in long by 36in wide, but the bed can be easily adjusted to suit other sizes.

### Making the Headboard



The legs are first cut to length and then the mortises are cut into the four leg posts using a router fitted with a 16mm straight cutter, remembering to make handed pairs. It is important to ensure that each corresponding pair of mortises are cut at the same distance from the bottom of each leg so the rails, when fitted to the legs, will be square. The mortises can then be squared with a chisel or alternatively the tenons can be rounded to fit the holes. Rather than cut tenons individually on the end of each rail, cut a length of oak 950mm in length from each of the 200mm wide boards and clamp a straight edge guide in place. Use the router free hand against the guide to cut the rebates to form the tenons. Obviously care must be taken when setting the depth of cut as well as making sure that the straight edges are true on each side of the board. The boards can then be cut lengthways to form the rails and the ends notched by hand to fit the mortises.

A profile/scribe cutter set (Titman RPSS1) is used in the router table to form the profiles on the rail sides and the headboard, temporarily clamped



together ensuring all is square. The length of the stiles can now be accurately measured and the appropriate length cut from the oak board. The ends of the boards can now be scribed on the router table without worrying about any breakout as the boards are a little overwidth anyway. After cutting the timber to width, the cutter can be reversed and the stiles profiled to match the rails. It will be noticed that one of the stiles is, in fact, a half width and this is to fit into a rebate cut into the leg to visually balance the panelled effect. Another dry assembly takes place spacing the stiles equally in place and the space for the panels accurately measured. All three panels should measure the same size. Each panel should be cut and planed so that it can fit neatly on top of the profiling with the headboard laid flat. I aim to cut the panel a whisper undersize to allow for any slight expansion in the timber as well as to ensure the assembly is straightforward without putting undue stress on the joints.

A bearing guided panel cutter (Titman RPCB7) is used to shape the edges of the panels. The depth of cut is set so the panel is a tight fit into the profiled stile with its edge just off the bottom of the groove. With this set up the bearing runs along the sides of the panels so it is important that the edges are straight as any defect here will show up on the finished panel as a kink in the fielding. The footboard is made in exactly the same way.

## The Bed Rails

The long side rails are cut to length allowing an extra 60mm in the total length for the mortises and the tenons are formed using the router and a straight edge clamped in place as a guide. Care is taken to prevent the router rocking over the ends and thus removing too much timber. The ends are trimmed so the tenons are a tight fit into the mortises. All four edges are rounded over with a rounding over bit to remove sharp edges and as a decorative feature the top outside edge is moulded with a sunken bead cutter (Titman SBBC4) At this stage some 38 x 19mm softwood can be firmly screwed in place on the inside of each rail near the

bottom edge. When the slats are screwed in place on this battening the mattress will sit between the rails rather than level with the top edge. This not only looks neater but it prevents the mattress from sliding around.

## Finishing and Final Assembly



All the joints are held together with threaded rods and barrel nuts. This entails boring a hole about 20mm deep on the opposite side of each mortise in the middle of the leg. This should be wide enough to take the steel washer as well as the socket used to tighten the nut. A hole the diameter of the threaded rod is drilled through the leg and into the ends of the tenons to a depth of about 100mm into each rail. A further hole is drilled either in the back of the headboard or footboard or on the inside of the side rails into which is inserted the barrel nut. Great care should be taken to ensure that this hole does not break through the other side of the rails where it would be seen and ruin the effect of the bed.

A small rail with a decorative moulding on each side can be made to fit on top of the headboard and the footboard. This can have a shallow 20mm wide groove underneath so it fits neatly on top of the rails and can be held in place with a few spots of glue. Lengths of softwood, 75 x 25mm, are screwed in place with a 25mm gap between each to support the mattress.

Four acorns are turned on the lathe using the offcuts of timber from when the legs are cut to length. A spigot is left under the acorn and glued into a hole drilled on top of the legs.

The finish is a matter of personal preference but I covered all surfaces with a 50/50 mix of raw linseed oil and turpentine to bring out the grain and left this to dry thoroughly for a couple of days. Three coats of button polish are brushed on and allowed to dry. This is gently cut back with 0000 grade wire wool and wax and then buffed to a soft shine. As a finishing touch antique brass bed post covers were screwed in place to cover the nuts.

## Cutting List

Item	Quantity	Dimensions (mm)
Legs	4	75 x 75 x 1200
Headboard Panels	1	280 x 20 x 2500
Headboard / Footboard Stiles and Rails	2	200 x 20 x 1500
Bed Side Rails	2	75 x 35 x 2000

## Useful Addresses

### **Marshall Brass**

Keeling Hall Road  
Foulsham  
Norfolk  
NR20 5PR  
Tel: 01362 684105

### **Makita (UK) Ltd**

Michigan Drive  
Tongwell  
Milton Keynes  
MK15 8JD  
Tel: 01908 211678

### **Titman Tip Tools Ltd.**

Valley Road  
Clacton-on-Sea  
Essex  
CO15 4AB  
Tel: 01255 220123

### **Good Timber**

New Creation Farmhouse  
Nether Heyford  
Northampton  
NN7 3LB  
Tel: 01327 349991/341155