

# PLANS 4 YOU

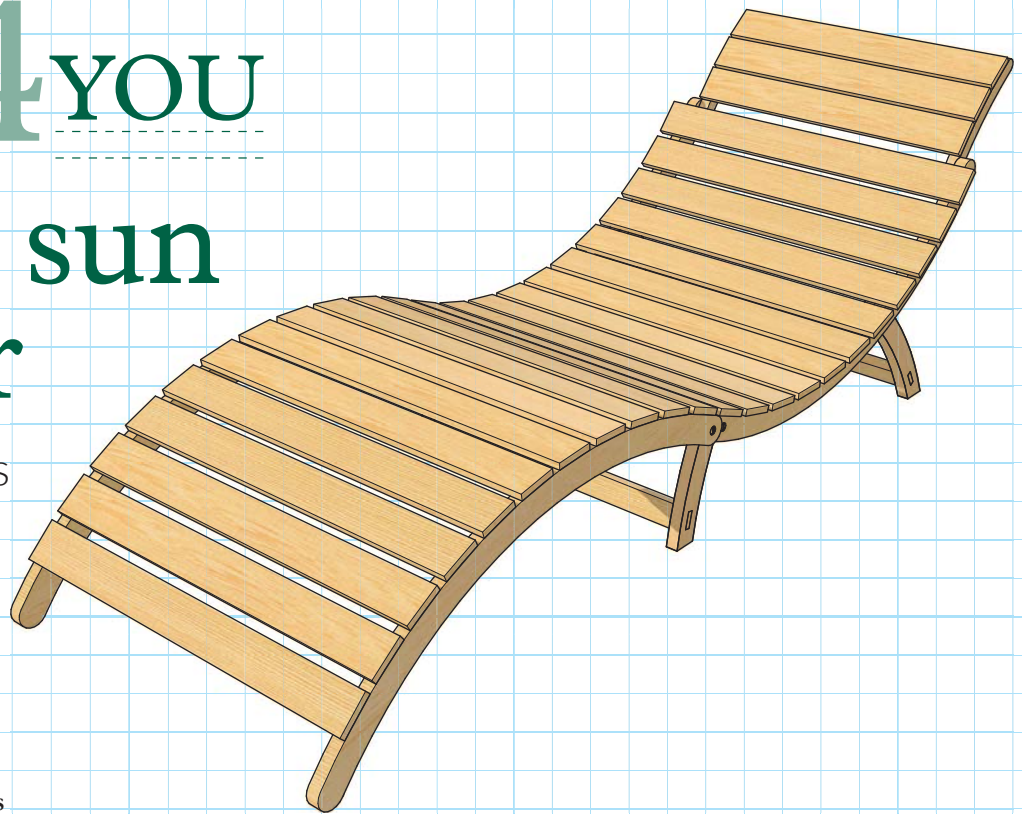
## Slatted sun lounger

Simon Rodway takes it easy with his latest project

Having somewhere relaxing and comfortable to sit on a sunny day has to be one of life's great pleasures, and that is exactly what I had in mind when putting together this month's project – a slatted sun lounger. Although to some extent you could see it as a luxury item, particularly when you consider the amount of space occupied, I particularly like this curved example as it is also designed to fold up for storage when not in use.

The construction, in fact, is in principle very simple, and there are very few joints – just a couple of mortise and tenons on each pair of legs. What is required is a certain amount of geometric precision when it comes to setting out the main curves, and also in the spacing of the legs and headrest, since the smaller components all have to fold away inside the main body, and then the leg or bottom section folds over that as well.

When cutting a curved shape you obviously want the grain to be parallel as much as possible with the direction



Folding headrest with two steel pins either side at ends of supports, which fit at different depth into slots in inner faces of curved seat rail

Top or seat section slats project beyond curved rails to finish flush with outer rail

Folding back legs, also joined by bottom rail. Front and back legs cut at feet to sit flush on the ground

Leg stop

Folding front legs joined by bottom rail, open against front stops fixed into inner face of curved seat rail

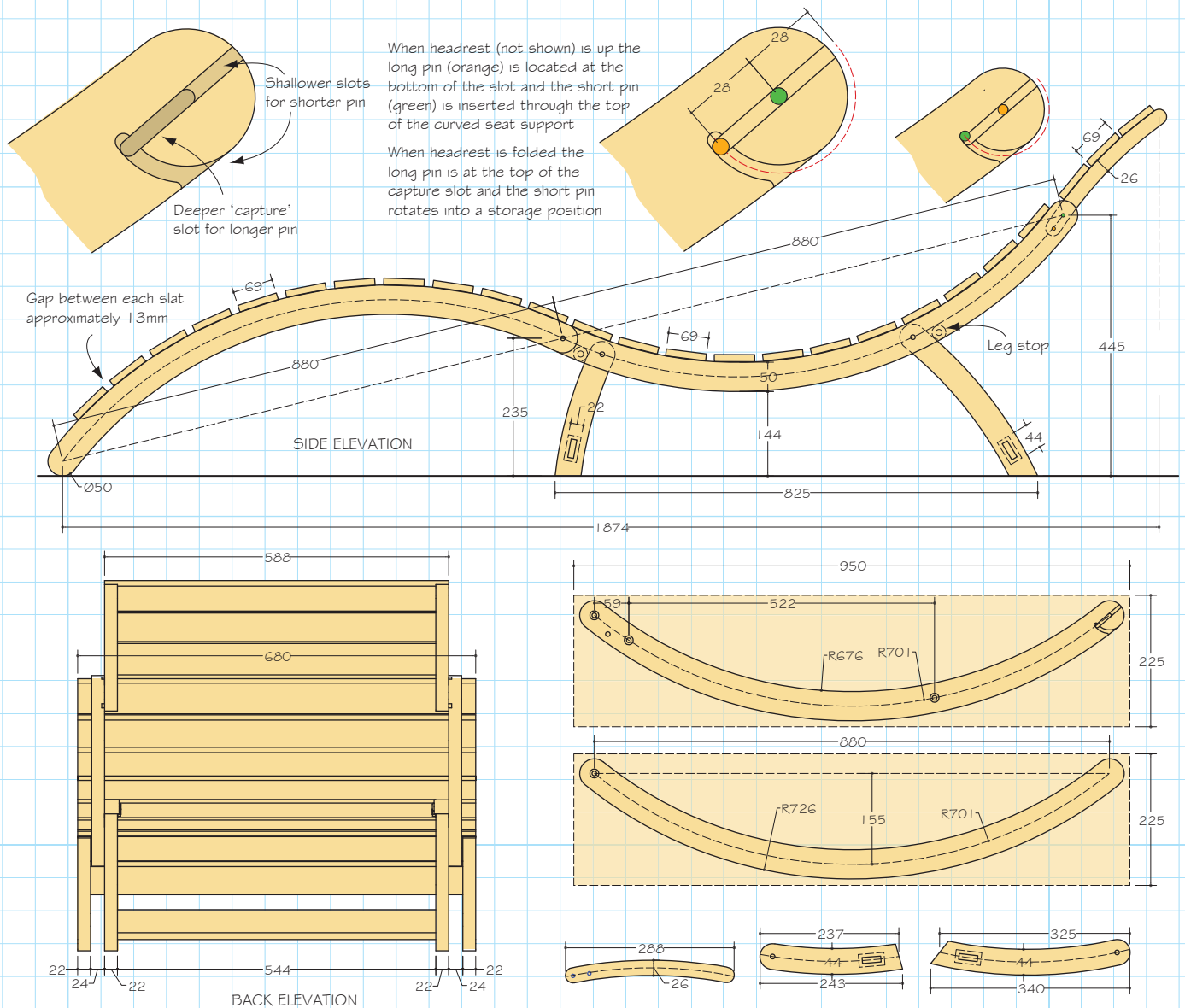
Seat slats fixed to curved rails using two screws at each end (not shown for clarity) to create rigid joint.

Seat slats on bottom section finish flush with outer face of curved seat rail

### Cutting list

Curved seat rails	4	@	Ex 950 x 225 x 22
Front legs	2	@	Ex 250 x 60 x 22
Back legs	2	@	Ex 350 x 65 x 22
Headrest supports	2	@	Ex 290 x 45 x 22
Seat slats	22	@	680 x 69 x 12
Headrest slats	3	@	588 x 69 x 12
Leg rails	2	@	588 x 44 x 22

Note: leg stops not included in list. These could be timber or rubber/plastic screwed to inner faces of rails.



of the workpiece, avoiding weaker 'short' grain if you can. In this project I have tried to keep the curvature on the main components shallow enough to minimise waste and allow cutting from single boards, providing a strong, close-grained timber is used. The choice of this type of wood will also help with the overall appearance if it is carried through to the seat slats, which are relatively thin in section and also require the use of a strong timber.

Consistency of cutting and shaping is required for the main curved seat supports as they have to be the same length and shape to fold together, so the use of a template makes sense. I would also make templates of the legs and headrest support here so that you can establish the right positions and ensure they will all fold correctly into the seat section. The leg positions have a bit of flexibility built in as they just have to be clear of each other when

folded, and are simply held when open by stops (a hard rubber cylinder will do) screwed to the inner faces of the seat sides.

The headrest is a bit trickier (see diagram for this) and is designed to hinge on a pair of steel pins captured in slots in the inner faces of the seat supports, with shorter pins slotting into either the top, when the headrest is up, or the back when it is closed. I think this sounds much more complicated than it actually is, but once you are happy with the way it works with the templates, it would be a good idea to locate the pins in the actual headrest supports then cut the matching slots in the curved seat sections to make sure it all works and fits together okay. You could also pair the legs together with the mortise and tenoned rails at this stage

With all the components ready, assemble the top and bottom sections

by screwing the slats along the outer edges of the bottom and inner edges of the top or seat sections, using two screws at each end of each slat to make a rigid joint. The spacing will be a bit of trial and error. I have allowed about 13mm on both sections for a 69mm wide slat. The slats on the bottom section finish flush with the curved supports, but on the seat section these supports are inset by the thickness of the main supports plus a couple of millimetres either side for washers. Position and fix the legs and also the stops, and you need to ensure that the leg fixings are flush on the outside as the bottom section closes over them. Then add the headrest, screwing the slats on with the captive pins in position. You could add a small peg which goes through the sides of both main supports to keep the recliner closed when folded, and even a carrying handle to finish it off. ■