

Inspired by the land of the Pharaohs 2

In the previous issue Nicholas Chandler explained how he designed and made a dining chair taking the Egyptian pyramids for his inspiration. After the chairs he made the table to go with them. This is how he did it.

The style of this dining table had to reflect the design of the chairs I had made to go with it. It had to reflect their tapered back frame, which it does because the shape is repeated on the four sides of the pedestal base, making a truncated pyramid.

I increased the proportions of the frame dimensions on the table because I wanted something that was solid, both visually and physically. The rungs are similar to those in the chair backs, although they are flat, not curved.

The pyramid shape created two problems – the top of the base would be too small by itself to support the table top and the base would be too wide, halving the footroom at the sides. Diners would be constantly kicking it.

I solved the first problem by designing some substantial bracing rails. The top needed strong bracing anyway, and following the maxim ‘make a feature from a fault’ I beefed it up even more and curved up the ends. This shape looked wing-like – similar to the wings of the Egyptian god Osiris, further emphasising the Egyptian theme. I wanted to paint wing feathers on this feature, but the client wouldn’t have it.

again. Fresh eyes can see what tired ones may miss.

A favourite trick of mine is to turn the model upside down. I discovered this by accident when I had been labouring for hours over a piece of calligraphy. I knew it didn’t look right but couldn’t work out why. In anger and frustration I threw it across the table. It landed upside down and I could see at once what was wrong – I couldn’t read the writing but I could see the shapes and spaces in between which gave the game away.

I now look at all my designs upside down – if it looks this good upside down just think how good it must be right way up! I also ask my wife. She is no artist or designer, but I have come to trust her gut feeling about a design. If she doesn’t like it, but doesn’t know why, it usually reflects a tiny doubt I had about the design anyway.

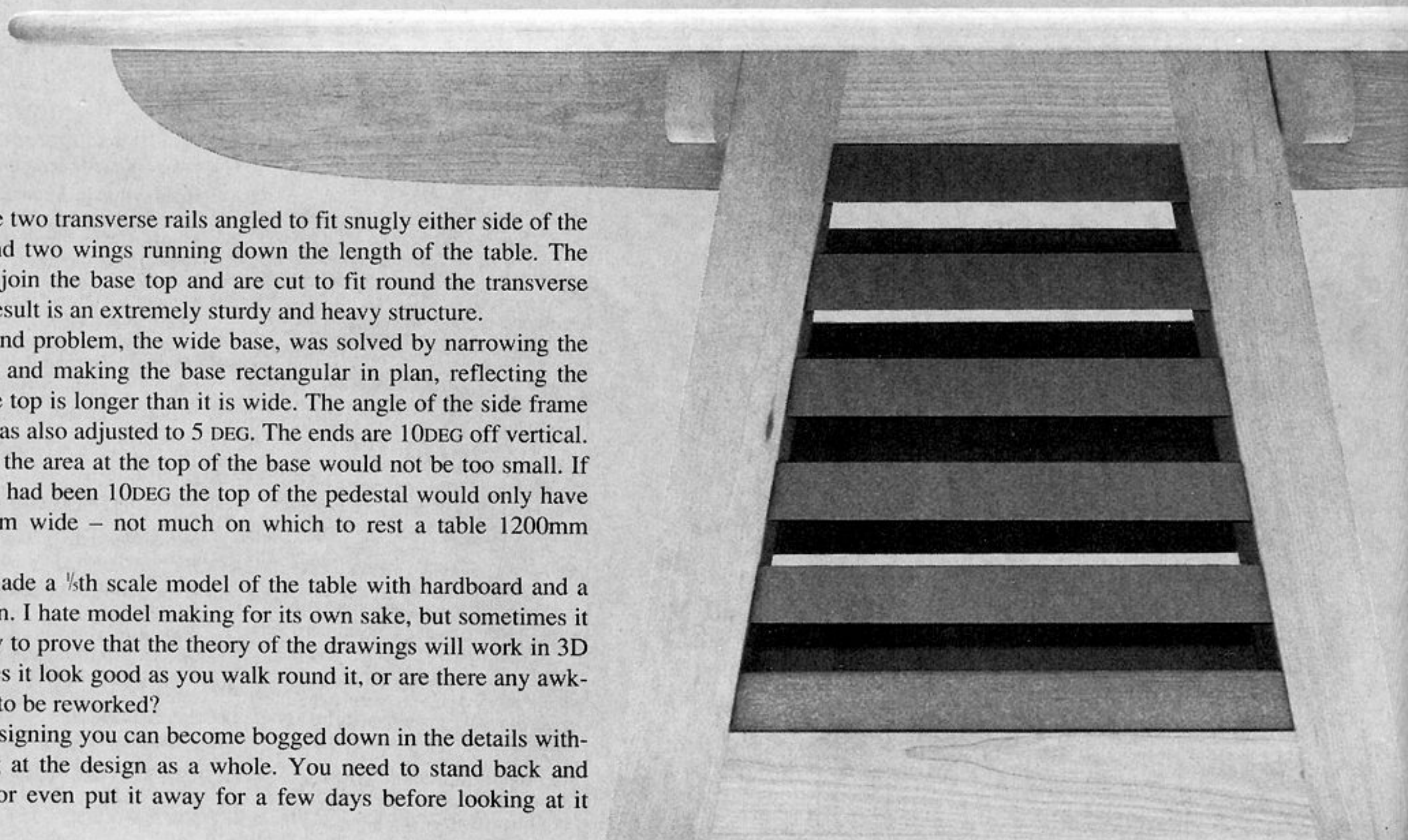
Someone I knew once commented on my ‘fetish’ (as he put it) for model making. “I never make models,” he said, “I just seem to know what’s right.” Which is probably why he never made a living at cabinet making. His prices were ridiculously cheap, the finishing was awful and the construction decidedly suspect – it probably got in the way of his ego. The rest of us make models to test the physical appearance of our designs.

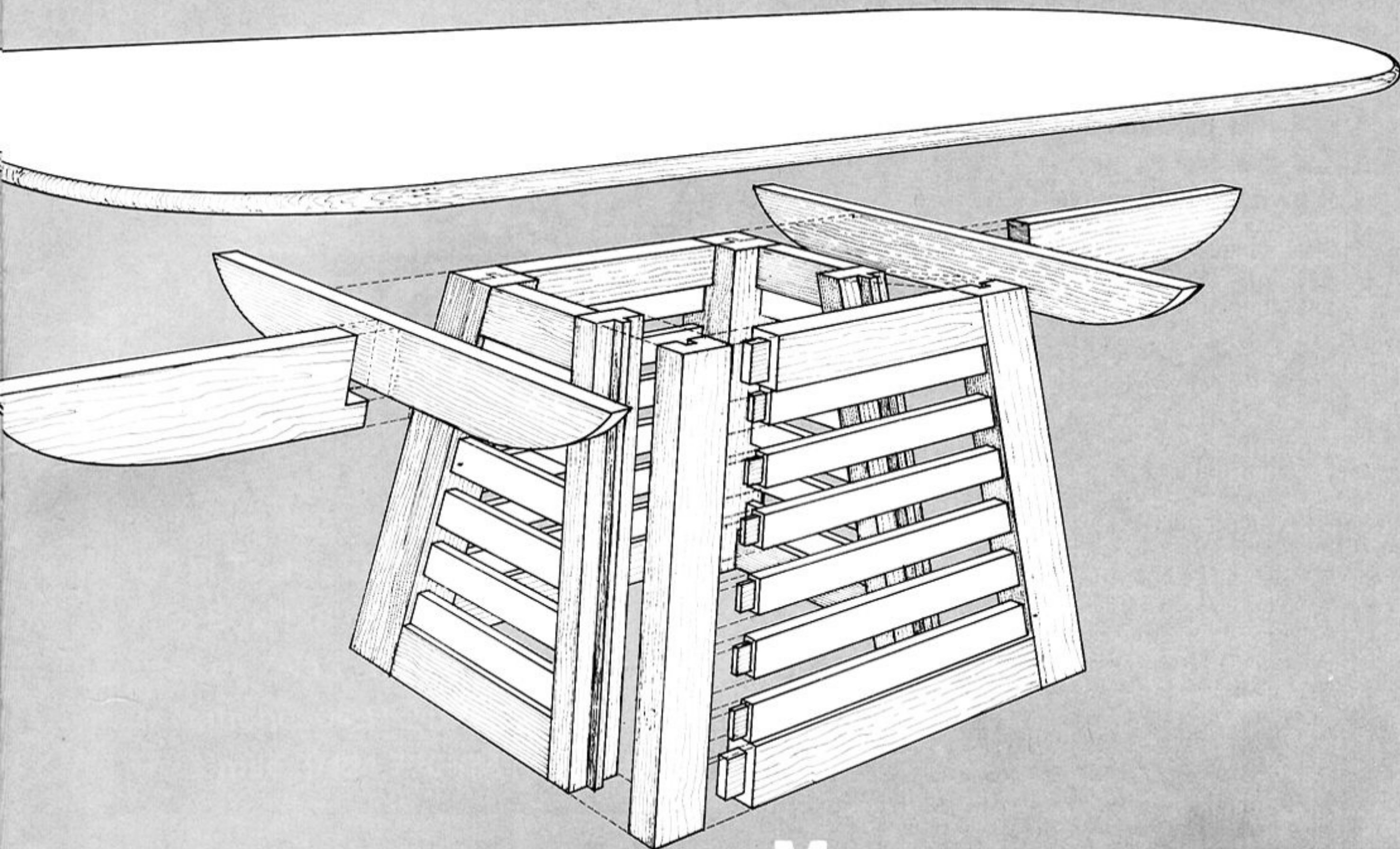
There are two transverse rails angled to fit snugly either side of the base top and two wings running down the length of the table. The wings butt join the base top and are cut to fit round the transverse rails. The result is an extremely sturdy and heavy structure.

The second problem, the wide base, was solved by narrowing the end frames and making the base rectangular in plan, reflecting the fact that the top is longer than it is wide. The angle of the side frame members was also adjusted to 5 DEG. The ends are 10DEG off vertical. This meant the area at the top of the base would not be too small. If both angles had been 10DEG the top of the pedestal would only have been 150mm wide – not much on which to rest a table 1200mm wide.

Next I made a 1/8th scale model of the table with hardboard and a hot glue gun. I hate model making for its own sake, but sometimes it is necessary to prove that the theory of the drawings will work in 3D reality. Does it look good as you walk round it, or are there any awkward areas to be reworked?

When designing you can become bogged down in the details without looking at the design as a whole. You need to stand back and look at it, or even put it away for a few days before looking at it





Below you see how the design elements of the chair featured in the previous issue of *Woodworkingtoday* are carried through into the table featured here to make a distinctive and attractive dining suite.

MAKING THE TABLE

Whenever I make a table I always make the top first, because no matter how long the wood has been in my heated workshop there is always some movement or shrinkage once it becomes a table top. As the top is the most important part of a table you need to spend some time getting it absolutely right.

In this case it is 40mm (1⁵/₈IN) thick maple, so I didn't want to risk any glue lines opening up. Some makers simply butt join the edges of the boards or use dowels in the edges, but I prefer to over engineer, just to make sure. I work loose tongue and groove joints 6mm (1/4IN) down from the top surface and 6mm up from the underside. This gives near perfect alignment which saves much time in levelling down.

The text books say you should align boards with the growth rings turning alternatively upwards and downwards to minimise the effect of shrinkage. Others say this can cause rippling, and it is better to have the growth rings facing all the same way, even if this does lead to a bowed or cupped shape.

I prefer to avoid the problem altogether by using quarter-sawn boards. That way the growth rings are at right angles to the top surface and there is no cupping, warping or twisting.

When gluing up the top boards make sure you work on a large, flat surface. Check for twisting with winding sticks and correct with wedges under the appropriate corner. When dry, clean up the top with a thicknessing sander or use a try plane to take off the high spots. Use sharp blades as maple is a close grained hardwood and any tears will show. I keep two spare honed blades handy so when the one I am using begins to show signs of losing its edge I can pop a spare one in without losing rhythm or momentum.

Plane the top at a 45DEG angle to the long edge so you take a shearing cut. Check the surface with a long wooden straight edge. Rub bright coloured chalk along the straight edge and mark across the grain every 300mm (12IN) along the length of the top. You will see any high spots left. Repeat this along the grain and diagonally.

When both sides are flat, finish by sanding. A pad sander will take



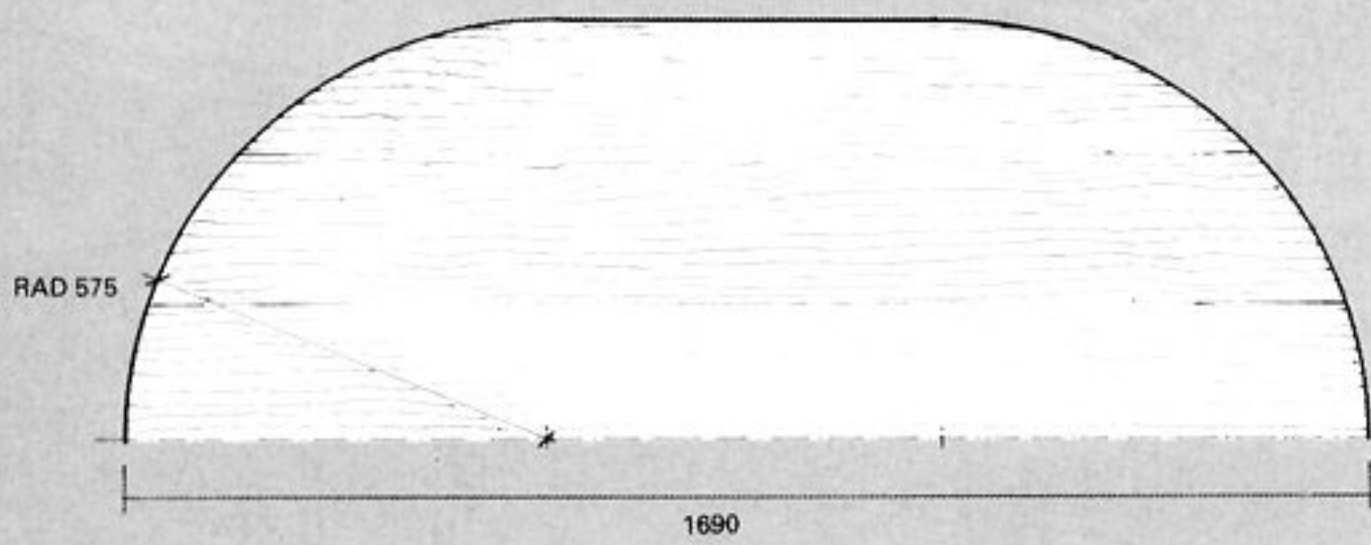


FIG 1

Half plan view of the table top.

the drudge out of this job. I use aluminium oxide paper which lasts longer than ordinary paper. Start with 80 grit and work down to 180. Finish with 240 grit when the final shaping is done.

Mark out the D ends of the top (FIG 1) with large compasses set to 575mm (22⁵/₁₆IN) radius. Cut off the waste and clean up the profile with a compass plane or spokeshave.

Radius the edge of the top with a router and 20mm (3/4IN) radius cutter. It is a good idea to have help and spread padding on the floor when working on the top as it is heavy and you do not want to risk damaging it.

Cut the bracing rails to shape. The rails going the length of the table are shaped to butt up to the pedestal and are cut around the two transverse rails, which are angled to fit snugly against the pedestal. Clean up the rails with a compass plane or spokeshave and sand down to 120 grit.

Smooth the edges with 150 grit paper wrapped around a block. Position the rails accurately and evenly on the underside of the top so they fit up against the pedestal and screw them to the top through slotted holes to allow for movement.

The pedestal (FIGS 2 and 3) is made in much the same way as the chair backs described in the previous article, only this time the work is easier because the frames are straight, not curved. I cut the compound angle by setting my saw blade at 5DEG and the mitring fence at 10DEG, but it would be easy enough to set out using a sliding level.

The frames and the rungs are mortised and tenoned together – it saves time and effort if you can use a mortiser or router for the mortises and if you can cut the tenons with a spindle moulder, but it can be done by hand.

Once the frames of the pedestal have been cleaned up and glued together the rungs are clad in leather. There is a special glue called Tenaxatex for sticking leather on. It is recommended to be used 10 parts water to one part glue, although I have found ratio of 5:1 better. Otherwise you can use PVA watered down 1:1.

The four frames of the pedestal are glued together to make the

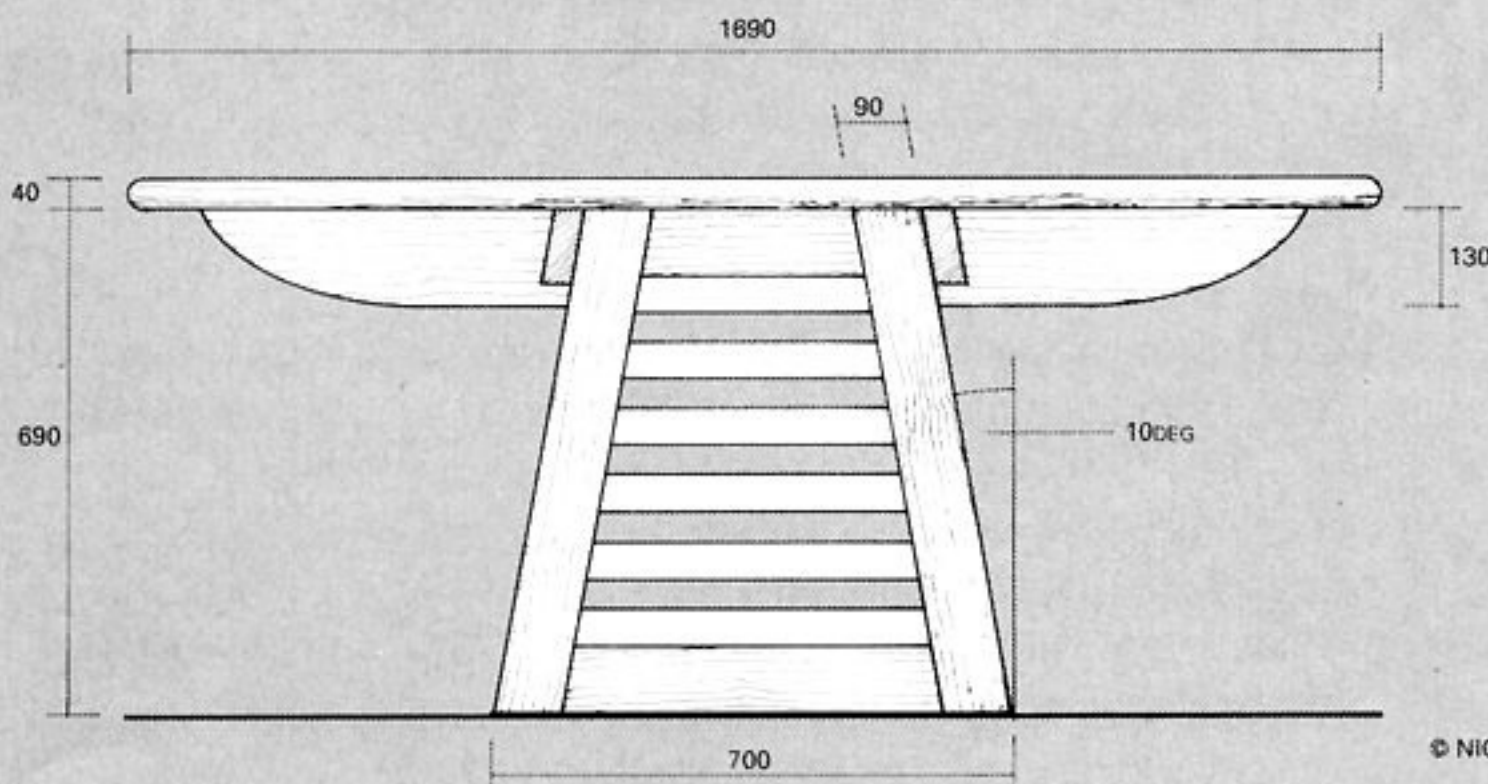


FIG 2

Side view of the table.

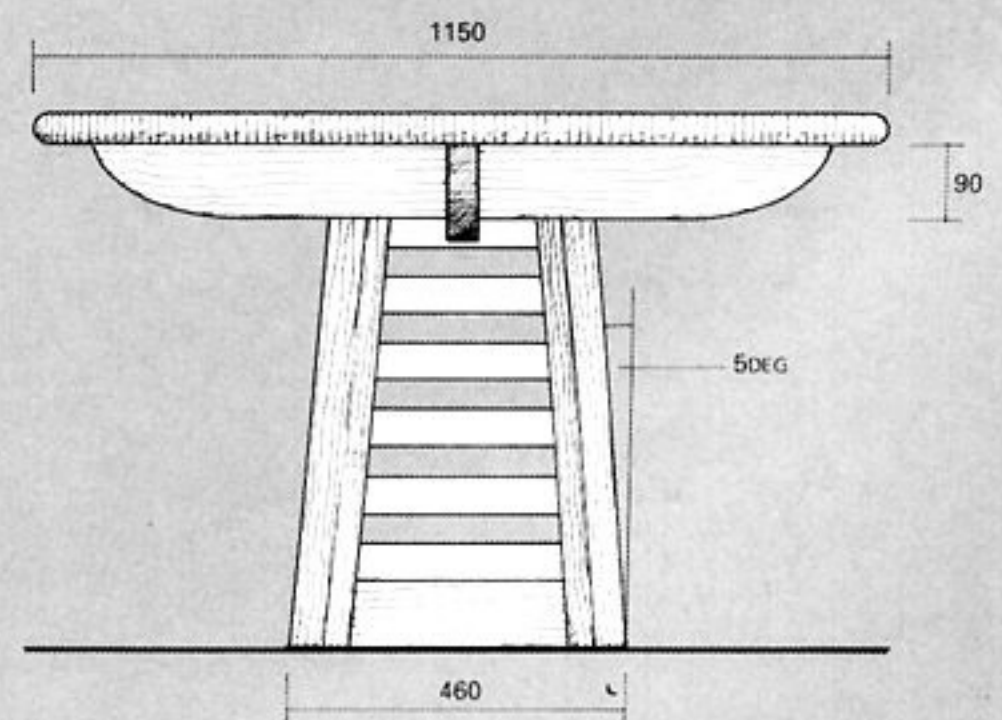


FIG 3

End view of the table.

CUTTING LIST

finished sizes in mm, (inches in brackets)

Pedestal base		
Side frames		
Top rails x 2	400 x 90 x 45	(15 ³ / ₄ x 3 ¹ / ₂ x 1 ³ / ₄)
Bottom rails x 2	620 x 90 x 45	(24 ¹ / ₂ x 3 ¹ / ₂ x 1 ³ / ₄)
Sides x 4	750 x 90 x 45	(29 ³ / ₈ x 3 ¹ / ₂ x 1 ³ / ₄)
Rungs x 2	505 x 50 x 20	(19 ³ / ₄ x 2 x 3/4)
x 2	468	(18 ³ / ₄)
x 2	435	(17 ³ / ₁₆)
x 2	402	(15 ³ / ₄)
x 2	370	(14 ³ / ₈)
x 2	336	(9 ¹ / ₄)
End frames		
Top rails x 2	255 x 90 x 45	(10 x 3 ¹ / ₂ x 1 ³ / ₄)
Bottom rails x 2	360 x 90 x 45	(14 ³ / ₁₆ x 3 ¹ / ₂ x 1 ³ / ₄)
Sides x 4	750 x 90 x 45	(29 ³ / ₈ x 3 ¹ / ₂ x 1 ³ / ₄)
Rungs x 2	285 x 50 x 20	(11 ¹ / ₂ x 2 x 3/4)
x 2	265	(10 ³ / ₈)
x 2	250	(9 ³ / ₄)
x 2	235	(9 ¹ / ₄)
x 2	220	(8 ³ / ₄)
x 2	205	(8 ¹ / ₄)
Table top		
make up to	1690 x 1150 x 40	(66 ¹ / ₂ x 45 ³ / ₈ x 1 ⁵ / ₈)
Bracing rails		
Transverse x 2	975 x 100 x 40	(38 ³ / ₈ x 4 x 1 ⁵ / ₈)
Longitudinal x 2	520 x 130 x 40	(20 ¹ / ₂ x 5 ¹ / ₈ x 1 ⁵ / ₈)

truncated pyramid. I cut a groove down the back face of the side members to take a tongue I cut out on the edge of the end frames for greater strength.

Use tapered battens cut at the same angle as the frames to cramp up the base squarely. When the pedestal is cleaned up you can hardly see the joint.

Finish the wood as you did for the chairs, using Danish oil, pre-catalysed lacquer or water-based cellulose. Remember to mask off the leather clad rungs when you apply the finish. I now use an airless spray gun for finishing, but remember you will need good ventilation and a respirator mask if you decide to spray.

To assemble the table, put the top upside down on to some padding, screw brass fixing plates to the top of the pedestal, place the pedestal on the top between the bracing rails and screw the fixing plates to the top. The fixing plates should have slotted holes to allow for movement. I made my own fixing plates out of 6mm (1/4IN) brass plates because those I could find commercially available were made from thinner brass and I wanted to be sure the top and pedestal had a strong joint.

Turn the table the right way up and the job is finished □