



Build this Fantastic Games Table

Ken Shemilt decided to remake an old project, this time spending a little more time on refining its finished appearance. He explains how it was done.

When I first made one of these tables about ten years ago I was so impressed with its design and mechanism that I concentrated solely on its functional purpose and gave very little thought to its finished appearance.

Now that I am in retirement, and can enjoy the luxury of being able to ignore the time element of any project, it seemed to be a good opportunity to take on this project again.

It also gave me the opportunity to improve its usefulness by making some slight adjustments to its size. Its weekly use for a game of Mah Jong demanded a little more space than the usual card game.

Selection of Timber

It is fortunate that a piece of furniture of this size can be produced from one piece of timber 8 x 2in and five foot long.

For the top I selected a piece of good quality hardwood faced 3/4in ply and sufficient Brazilian veneer to cover half its surface.

Even though the need for green baize would occur much later I was able to source a supply by paying a visit to a small company who specialised in the repair and recovery of snooker tables. I was fortunate in that they had just recovered a professional table and were able to sell me the whole cloth that had been taken off for £20.

Apart from having to vacuum off the cue chalk and cut around two cigarette burns I had enough baize for half a dozen card tables and it was of the highest quality.

Legs

So as to get all the sawing done in one go I reduced the 8 x 2in plank to the four lengths of 2 x 2in for the legs, 4 x 1in for the rails and sufficient 1 x 1in for the edge moulding.

The four legs were then planed and thickened to finish at 1 3/8in square. In order to shape the feet it was necessary to remove 3in from the end of each piece. These were then marked up with the required shape using a template, then cut to the line with a coping saw and bandsaw.

The simplest way to obtain a perfect finish to these was by use of a sanding disc and a 1in diameter sanding drum, both of which were simply made and mounted in the lathe.

The next step was to taper the legs, reducing to a 7/8in square section at the bottom. The bulk of the removal was carried out with careful use of my circular saw after marking up, then finished to the line with my jack plane.

For the next step of fluting the legs it was necessary to construct a box jig, as detailed in the sketch, so that each leg could be positioned onto the centre line (taken by the router) and also positioned vertically at either end so the router vee cutter started and finished at the required depth. It pays to do a dummy run on a test piece before attempting the legs to avoid making any mistakes.

It may be necessary to select the two best adjacent faces on each leg to be routed or you may be lucky to have mahogany that is perfect on all four faces. It pays to mark very accurately the centre line of each flute so that it can be positioned in the jig box.

I should perhaps mention, at this point, that another reason why I prefer to cut off the feet is to allow this routing to be done.

This is now a good time to reconnect the feet, which should be accurately drilled through the centre to take a 4in screw, next drilling through the centres at the bottom of each leg with a pilot hole. The feet can be screwed on at the same time using a small amount of Araldite to bond them together.

Depending on how carefully the legs and feet have been matched up they should require some sanding to produce a satisfying finish.

Rails

For appearance and strength I decided that the rails should be finished to a dimension of $3\frac{1}{4} \times \frac{7}{8}$ in and that 310mm dowels would be enough for each joint. Using a marking gauge and set square I marked up the dowel positions and popped each one with a fine punch before drilling. The final test, as always, is to pop in the dowels with a small amount of glue and clamp them together, checking for squareness before leaving overnight to set.

In order to achieve two things I cut two lengths of mahogany to finish at $2 \times \frac{3}{8}$ in with one edge finished half round. I then cut these so that they could be attached to the bottom of each rail. This resulted in a finishing bead on the outside, whilst providing a means on the inside of supporting the bottom of the box-like interior.

Top

The most important thing to remember with the top is that the two halves need to be identical, with the edges absolutely square. This was best achieved by temporarily nailing the two together and planing as one.

Now the topmost piece was to be veneered. Cutting the veneer slightly oversize, I dampened it and allowed it to remain overnight between the two boards. This helped to remove any slight

humps before gluing down.

Using a good quality PVA glue I coated the surface of the ply before pressing on the veneer. Placing a sheet of newspaper on top, I then used the other half of the table top to press the veneer on, spreading the load with two lengths of 3×2 in straight timber and four G clamps.

After allowing the glue to set overnight I roughly trimmed the surplus veneer from the edges, once again clamping the two boards together ran the plane over the edges.

Using a suitable router cutter I then prepared the moulding to finish off the edges of the table top. Carefully mitring the corners I then used my own biscuit joints, which had been made up from $\frac{3}{4}$ in planed beech, to attach the moulding to the edges of the two boards.

I kept in mind that on the top the opened table it was necessary for the moulding to stand proud by $\frac{1}{16}$ th of the inch in order to accommodate the baize.

I had obtained special card hinges for this project which remain completely flush with the top when in the open position. These need to be recessed into the mahogany edging with great care, owing to their unusual shape on the underside.

Before assembling the top to the table, I carried out the staining and French polishing. I used a brown mahogany stain applied with a soft brush and allowed to dry out overnight. A further careful light sanding with 400 grade wet and dry paper was then done. I finally French polished again using a rubber in the traditional manner.

Assembly

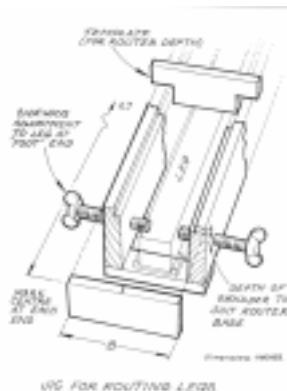
I cut the plywood bottom to fit the inside of the table which was then glued and screwed using 1/2in brass screws to the inside lip created by the bottom moulding.

By positioning two 1in deep blocks of wood on opposite sides to support by bridgepiece the hole was drilled in the correct position to allow the securing pin to be positioned and the top to swivel from its closed to open positions.

Fitting the Baize

The only thing that now remained to complete the games table was to fit the green baize to the top. This was done very carefully, with the table in the open position, noting that the gap in the centre between the two leaves was no more than 1/16th of an inch.

A coating of PVA glue was applied evenly with a flat spreader. The baize, which has been cut slightly larger, was pressed down. I worked from the centre outwards to remove any wrinkles, pressing well into the edges. Once again this was allowed to dry overnight before trimming with a sharp scalpel or Stanley knife.



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Useful Tips

A template for marking out the feet can be made from thin ply or MDF.

To ensure the position for the pivot is in the correct place use only two of the screws to secure the underside of the table top. By trial and error, these can easily be moved in any direction before finally securing with the four screws.

When trimming the baize on the finished top, use a steel straight edge pressed hard up to the raised edge and run the Stanley knife along it.

When using the router box to do the fluting, I found it simpler to secure the top end of the leg with a G clamp. A single packing piece should be made to get the correct depth position at either end and the two thumb screws can be used to secure the sideways position at the bottom of the leg.

As a finishing touch on the top edge of the table I glued on a strip of baize which gives a smoother action when pivoting the table top around to open and close.

A 1/2in facing strip should be used to conceal the plywood edge which is exposed at the back when the table is in the closed position. This can be butted up to the moulding.

The timber for this project is available direct from S. L. Hardwoods, either as sawn or planed all round material.

Sawn = £58.75*

P.A.R = £100.05*

* Excludes baize and hinges