

Shaker candle stand

Michael T Collins makes a Shaker candle stand

WHAT YOU WILL NEED:

Tools

Jack plane
Smoothing plane
Block plane
Compass plane (optional)
Pair of dividers or compass
Pair of outside callipers
Spokeshave (one flat, one convex)
Draw knife (optional)
Mortise and marking gauge
Marking knife
Mallet
Bevel chisels 6mm, 13mm, 19mm and 25mm
Combination square
Lathe (optional)

Wood

For the pedestal one would ideally want to use a solid block of clear straight grained wood, however, I wanted to use up some cherry (*Prunus avium*) boards, left over from other projects and so opted to laminate four boards together.

The Shaker's furniture reached its pinnacle in the first half of the 19th century, building no frills – utilitarian furniture. Among their works is a collection of small side tables that were typically positioned near chairs, desks and beds. The Shakers did most of their evening work by candlelight and today these side tables are often referred to as candle stands. Some of the original tables can be found in New York's Metropolitan Museum of Art.

In this article I am going to take you through the steps of making a Shaker candle stand, based on one first made at the Shaker Village in New Lebanon, New York and is currently in the collection at the American Museum in Bath. The stand consists of a 19mm thick by 470mm diameter top with a chamfered lower edge. The stand's

Cutting list

Four – 19 x 125 x 485mm
Legs – 19 x 90 x 371mm
Cross brace – 19mm x 125 x 350mm
Pedestal – 90 x 485mm laminated or solid straight grained

Alternatives

If you do not have access to a lathe – it is best to not try and mimic the smooth lines of a lathe, but opt instead for a modern angular pedestal. Divide the end into a hexagon. Mark the location of the base and saw down 6mm to create the shoulder – from the end draw a hexagon 6mm smaller, then use a chisel to pare away the waste. Plane the pedestal so that it tapers from the shoulder to about 38mm. The tenon on the end is cut with a saw and a rasp. The legs should also be given a more angular treatment to match.

tabletop is attached to the 85mm diameter pedestal by a cross brace. The post's profile is an elongated wine bottle, with a 6 x 90mm rebate at the bottom to accept the legs held in place with sliding dovetails.

The pedestal

1 If laminating the wood for the pedestal, then the first step is to rip the boards to a little over 90mm and plane the faces of all the boards. Then, glue them together orienting the grain for best match and ease of shaping and planing.

2 Once the glue has dried – plane and square. Whether you laminate or use solid stock to construct the pedestal, divide up one end to form an octagon. The simplest way to get an octagon is to draw the diagonals and then scribe the maximum size circle. Then, using a 45° bevel, draw the tangent where the diagonals intersect the circle.

3 Then, with a drawknife or plane bring all the edges down to the octagonal outline – this will make turning the wood easier. I always remove the bulk of the wood with the tool that is easiest to sharpen – in this case a drawknife.

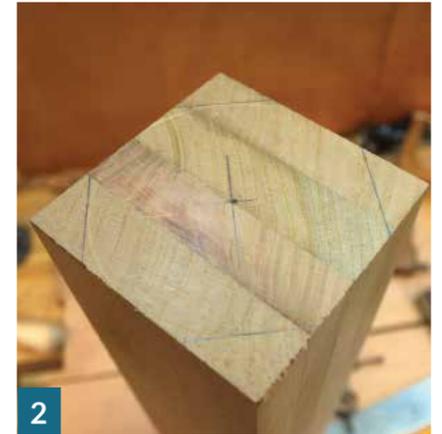
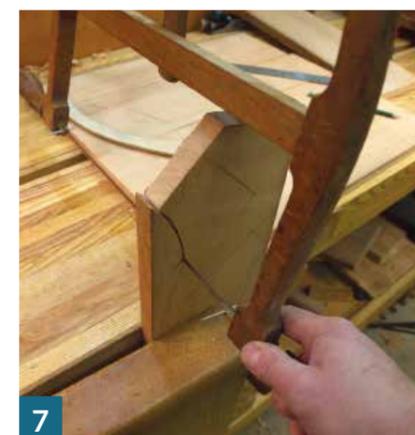
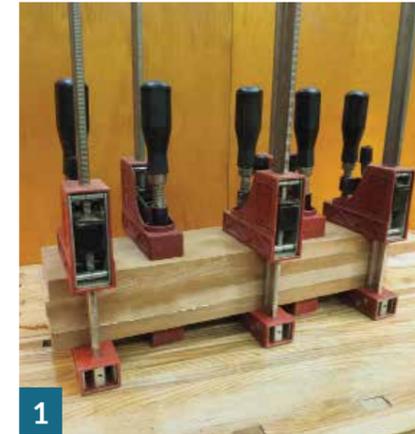
4 Once the pedestal is brought down to a rough octagon, cut a pattern.

5 Use the lathe to turn the pedestal. Mark out the general shape using a parting tool and a pair of outside callipers. There are no hard and fast rules about the shape – but the base needs to be large enough to house the joinery.

6 Plane one face of the leg stock and then gauge the thickness to 19mm – plane down to this line. Lay out the legs, making sure that the thinnest part of the leg has the longest run of grain.

7 Then with a bow saw cut out the legs. The closer to the line you can be, the less cleaning up is required.

8 Refine the shape with the spokeshave, paying particular attention the grain – always work so that the grain is rising away from you. The top of each leg has a rounded profile while the underside is flat with eased edges. I like to leave some of the saw marks on the underside. ➤



Cutting the sliding dovetail

9 Mark out the dovetail shoulder on the leg faces using a cutting gauge. Deeply score the shoulder line 16mm from the end of the leg.

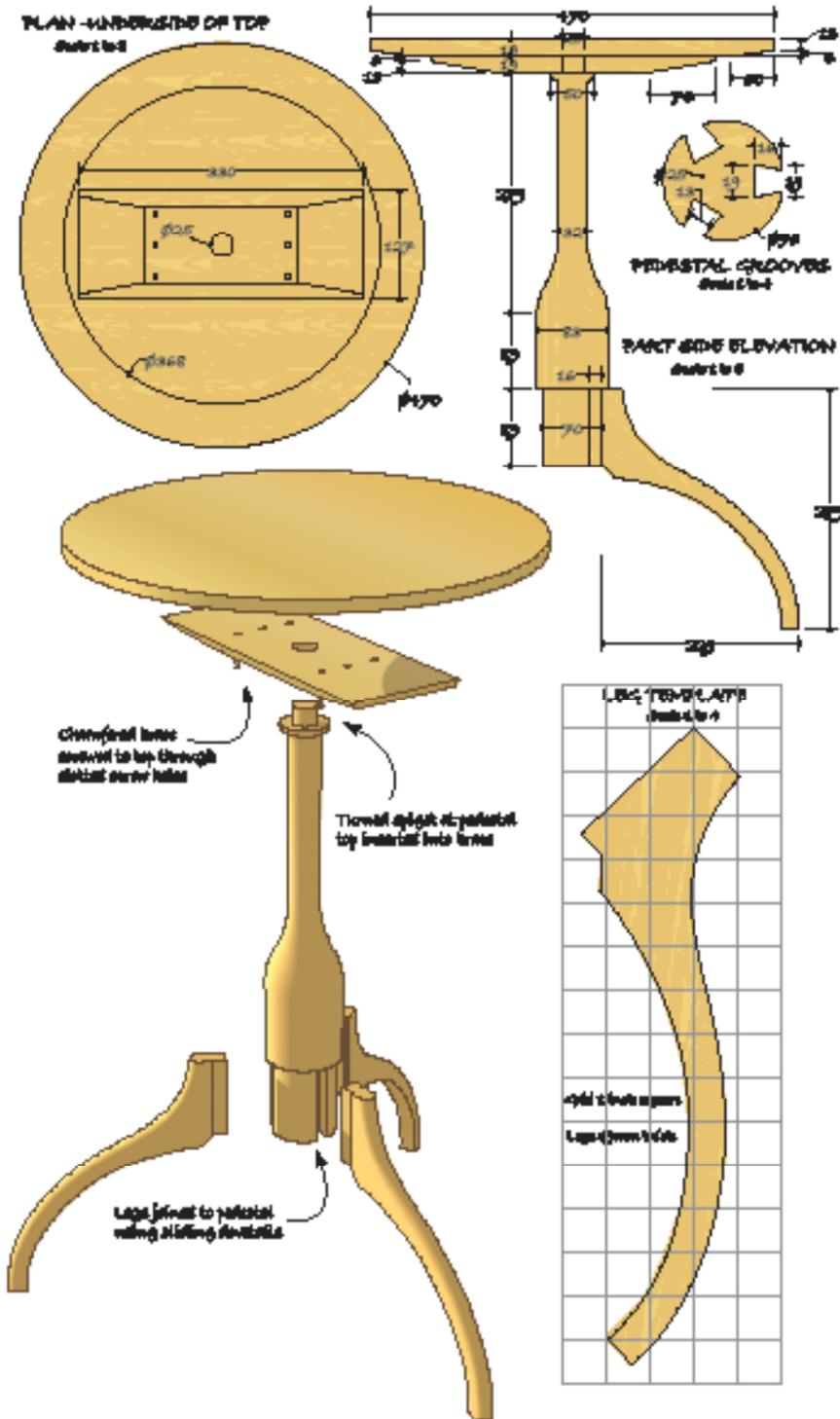
10 Using a mortise gauge, mark the root of the tail (the narrow end) 13mm wide in the centre of the end.

11 Using our tried-and-trusted method, cut a 'V' notch and saw

down to the dovetail base. Then pare away the waste, paying attention to the grain direction.

Cutting the dovetail grooves in the pedestal

12 The first step is to divide the base of the pedestal into thirds. Take one of the legs and using it as a template draw two lines parallel to the pedestal axis 10mm either side of this line.



13 Saw just below the rebate down to these two lines. Pare away the wood that is between the lines to create a flat area where the shoulder of the dovetail will meet the pedestal.

14 Now position one of the legs so that it is centred on this flat area and with a sharp pencil draw round the tail. Repeat this process for the other legs, marking the legs with 'marriage marks'.

15 Bore a 13mm hole to a depth of 16mm (or the depth of your tail). This will act as a stop and give the saw a place to go.

16 Saw down on the waste side. The deeper you can saw towards the base of the dovetail groove the easier it will be to remove the waste. Remove the waste from the base of the pedestal towards the hole using a chisel.

17 Test the fit of the pieces as you go – you want this to be a hand tight fit. Under cut the top of the hole so that the leg fits snugly into the rebate on the pedestal.

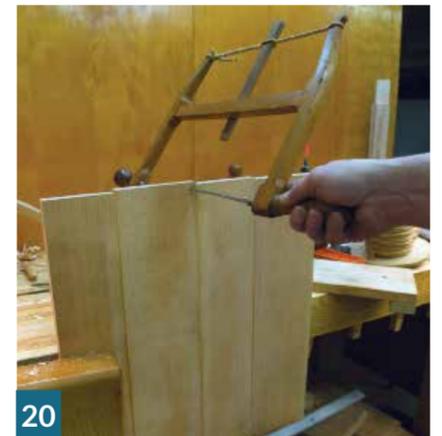
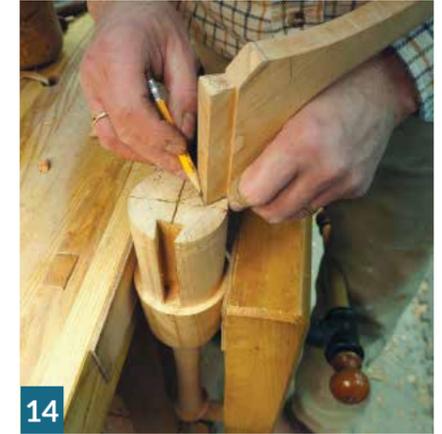
The top

The top is made from four pieces of quarter sawn stock – this will provide the most stable top. Arrange the pieces for best grain match – alternating the direction of the growth rings will prevent the top from cupping.

18 Joint the pieces in pairs (see issue 2 on making a table top, as this method almost guarantees a perfect fit). You can take a few thin shavings from the middle of each edge creating a 'spring' joint, which gives a tighter joint.

19 Once the glue is dried – scrape off any squeeze out and plane the back and front, starting with a jack plane and finishing with the smoother. With a pair of dividers, scribe a diameter of 470mm from the top side. Don't press the point into the centre too aggressively; we do not want it to show.

20 Now saw out the tabletop keeping as close to the scribe line as possible. ➤



21 With the top in the vice, plane the edge using either a finely set block or a compass plane – be sure to plane with the grain.

22 On the underside scribe a circle 50mm from the edge; use the table's edge as a guide and from the edge mark a 13mm down from the top – this will give a 50 x 6mm chamfer. Plane this chamfer, paying close attention to the grain. I prefer to plane at a slight angle to the grain so that the fibres are sliced.

The brace

23 Chamfer the ends using a hand plane from 19mm down to 6mm over 75mm length and chamfer the sides at 45° so that they intersect at the corners. Drill a 25mm hole in the centre of the brace to house the tenon on the pedestal. Drill six countersunk holes to attach the base to the table top with steel screws. The holes in the brace should be elongated to allow for seasonal changes.

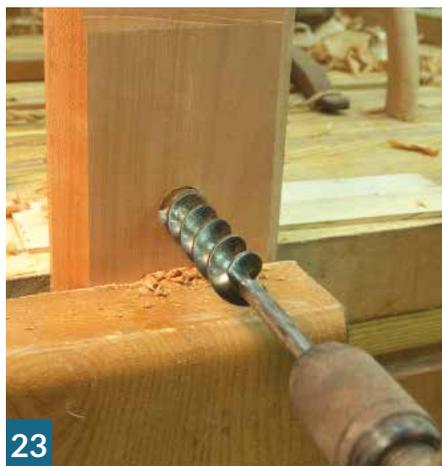
Finishing and assembly

24 Sand all parts prior to assembly. To achieve a smooth pedestal, sand this section by placing it back in the lathe and use 120, 180, 230 grit abrasives. Remove the pedestal from the lathe and finish sanding with the grain with 320 grit paper. Cut a slot in the top of the tenon perpendicular to the grain and position the tenon in the brace hole so that the slot is perpendicular to the braces grain. Getting these orientations wrong may result in wood splitting – glue in a very thin wedge and hammer it into the slot – don't overdo it! Finally, sand with 320 grit. Don't be frugal with the amount of time spent sanding. Ease the edges of the table top with the 320 grit paper. Give the 'shins' of the legs a final sanding at 320 grit.

Assembling the legs

This is perhaps the easiest part – simply apply glue to the leading edge of the dovetail groove and slide the leg into position. The glue will be smeared down the length of the groove.

25 Give the whole table a light sanding and then finish with three coats of natural Danish oil, lightly sanding with 320 grit between each coat. Attach the pedestal and brace assembly to the top with steel screws.



Sanding

Sanding is all about removing the scratches from the previous grit and much like painting, the biggest challenge is to know when to stop. The easiest way to know is to remove all the dust with mineral spirits and look to see if the surface has the 'touch' that you want.

26 Finally light a candle, pull up a chair and settle down to read a book, contented in a hard day's work in the fields... I mean workshop. ■

Michael T Collins

British-born Michael has been working with wood off and on for 40 years. He moved to New York in 1996 and over the years, has made bespoke furniture, including clocks, inlay work, Adams fireplaces, book cases and reproduction furniture.

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