

TRAVELING TRESTLE TABLE

Designing for Convenience

SIX HUNDRED YEARS AGO IN EUROPE ONLY THE RICH HAD FURNITURE. EVERYONE ELSE SLEPT ON THE FLOOR, SAT ON CRUDE BENCHES, AND GENERALLY led a life bereft of much that we would today consider essential furnishings. This state of affairs was not just the result of the general level of sophistication enjoyed by people in the 14th century, it was also due to relatively unstable social conditions. Even the rich were forced to carry their furniture around with them from castle to castle if they wanted to keep it in one piece. Such requirements had a strong influence on design. Many pieces were made to carry and store goods as well as provide seating, and most were made with portability in mind. This was the age of iron-bound chests and large box-chairs. Tables were no exception to the demands of the times, and a large and relatively immobile piece would have been out of the question. Consequently, collapsible units consisting of boards supported on removable trestles were very much the order of the day. Times may be a little more secure now, but given the rate at which many people change addresses an easily disassembled and transported table remains an idea whose day is far from over.

TRESTLES OLD & NEW

A TRESTLE IS ESSENTIALLY A SUPPORT. IN FURNITURE THE trestle is understood as a pair of diverging legs, joined at their upper end, and commonly used to support a table or bench. They are typically used in pairs and are frequently capable of being folded up and easily moved. But a trestle may have other forms. So long as it retains the ability to support a superincumbent structure it remains a trestle. The trestle design used in the traveling table actually consists of three pieces: two uprights and a connecting horizontal beam known as the stretcher. The stretcher is, in fact, the piece originally meant by the word 'trestle'; it derives from the Latin: *transtellum*, meaning something 'placed across'.

Despite the general interpretation of the word 'trestle', the term 'trestle table' most often implies something slightly different: specifically a table that is supported neither by a single central column or pedestal, nor the more usual four corner legs. In addition, many contemporary trestle tables are not collapsible, hence the need to distinguish this particular table, which is particularly easy to dismantle, transport, and reassemble.

THE TRAVELING TRESTLE

OVER THE YEARS I HAVE MADE SEVERAL OF THESE TABLES, each one slightly different from its predecessor, but all with the same basic framework. The first one was designed in response to the problem of how to build a table larger than could be negotiated up stairways and through doors that were too small to admit the finished piece to its intended location. Subsequent tables were made in a similar fashion purely to take advantage of the ease of transporting a piece of furniture that might be readily disassembled into conveniently small pieces. This is still, however, a substantial piece of furniture, which when assembled is rock steady and gives no impression of impermanence. It is not the same as a folding card table or a picnic table, the very essence of which is their temporary nature and almost instant erection, for it takes half an hour or so to take apart and reassemble each time. But nevertheless, unlike more monolithic structures, it is possible to move this piece in a medium sized automobile if necessary.

Since this table comes apart, it may also be thought of as modular, and as such is capable of being built with differently sized parts to fit different areas. The same trestle may be used to support tops of different sizes, and even parts of the trestle may be built to different measurements depending on your needs. The measurements given here may be thought of as resulting in the standard model, but there is no reason why, when the structure is understood, it may not be built to different dimensions. As a table it is, of course, subject to certain limitations: the top should

be around 29 in. high if it is to be used for writing, and lower still if a keyboard is to be accommodated. If its main function is as a dining table, 30 in. will be a better height. Any construction attached to the underside of the top should allow sufficient knee room for someone sitting on an average 18 in.-high chair, which means a lower limit of around 24 in. And the width of the top, if intended as a dining table for facing diners should be at least 30 in. wide. Each use will dictate its own set of dimensions, as will the requirements and physical size of the owner.

If you bear all this in mind, make sure you understand the minimum requirements of the individual structural components, and remain flexible; it will be perfectly all right to change any of the dimensions given here. I have rarely made two pieces with identical dimensions except, of course, when building sets of chairs or purposely matching units. The top of this table, for example, as finished is 76 $\frac{1}{8}$ in long by 31 $\frac{3}{8}$ in. wide, although the original intention was for something 76 in. by 32 in. The slight variations are of little importance and result from other considerations that occurred during construction.

THE TOP

IN LIEU OF OTHER GIVENS AND REQUIREMENTS THE TOP IS often a good place to start, since it is the most visible. It is also the part most easily varied. A straight-sided top can have advantages if the piece is to be placed against a wall, but there is no reason why some other shape might not be used.

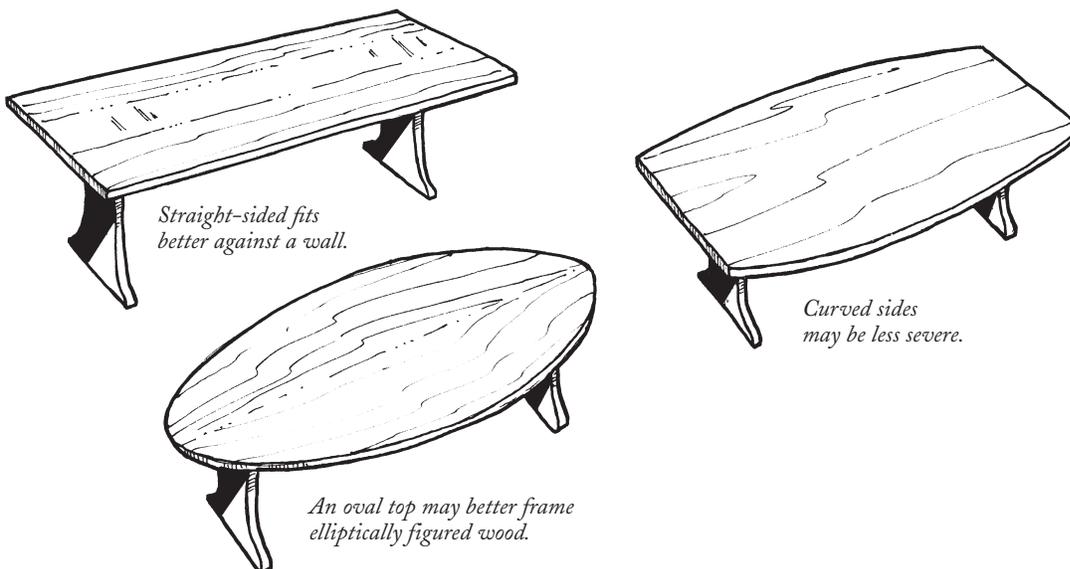


FIG. 100 ALTERNATIVELY SHAPED TOPS

All other things being equal, let the material decide the size and shape. The boards I had available for the top of the traveling trestle table, three particularly nice pieces of mahogany, were long enough, but when joined did not give me the required width. It was an easy matter to rip an 8 in. piece of padauk into two 3½ in. boards and thereby increase the width and add a little extra complementary color to the design.

The actual process is an exercise in careful jointing. All five of my boards were simply butt-jointed. No splines, pins, biscuits, or tongues and grooves should be necessary if the stock is prepared carefully. Jointers and planers can save a lot of handwork when preparing perfectly flat and equally thickened boards, as well as then also obtaining perfectly square and true edges, but surfacing may also be done by hand if you are equipped with properly conditioned planes and winding sticks. So far as surface preparation is concerned, it is often safer to use handplanes when dealing with figured or cross-grained material, since this avoids the dreaded tearout often encountered with powertools.

When the boards to be joined are all of the same thickness and are perfectly flat, with no winding, twisting, or cupping, prepare their edges for butt-joining. To do this successfully and without having to depend on splines or pins or clamps to pull the boards together in perfect alignment requires that the edges be shot perfectly square and true. Very careful use of an exactly adjusted power jointer may achieve this, but more control is possible by using a plane. The ideal tool is the longest tryplane or jointer at your disposal, used in conjunction with a machinist's straightedge. A machinist's straightedge is a precision instrument and if, when placed on the top of the edge, does not rock or show any light between it and the wood, will show that the edge is flat enough for a perfect butt joint — provided it is also square.

To joint an edge by hand takes a little practice, but when the skill is acquired you have more control over the vagaries of grain and density. The plane iron should be very sharp, sharpened with the mereſt crown,

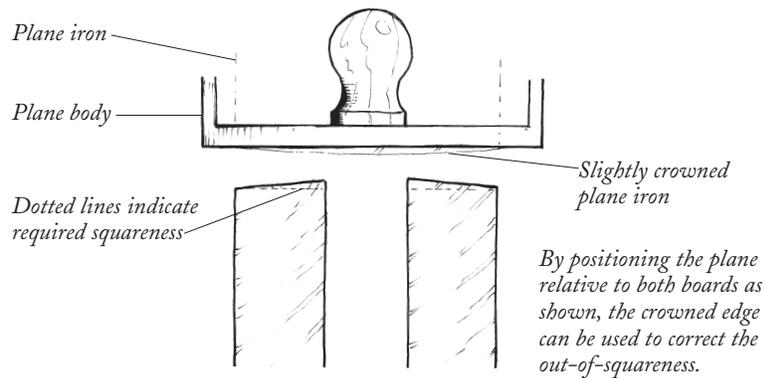


FIG. 101 CORRECTING FOR SQUARENESS

and set with the smallest possible mouth so that if one side of the edge is too high, planing with the tool off-center will produce the required uneven shaving as shown in FIG. 100. Use the straightedge and the try-square frequently, and make every inch of every pass count. When adjacent edges have been prepared as perfectly as possible in this way, proceed by testing the fit with the boards themselves, adjusting with the plane by taking the slightest shavings possible. The aim should be two edges that fit so well together they almost create a suction effect when you attempt to separate them. Such joints need only to be glued on one side to form joints stronger than the wood itself.

When the entire top has been thus assembled, both the underside and the top should be planed clean. The best finished surface will then be obtained if you use a well-tuned smooth plane rather than abrading and filling the grain with dust by the use of sandpaper. If the grain is too difficult to manage by hand a scraper may help, but this also needs to be extremely sharp.

I had originally planned on a top 1 in. thick, but by the time I reached this stage the actual thickness was slightly less than $\frac{7}{8}$ in. To give the top a fatter look I finished the edges with an upward-facing bevel. If the top had been too thick, a downward-facing bevel would have achieved the opposite effect, making it appear thinner. If the top is just right, consider other edge treatments from perfectly square to rounded over or moulded into quarter-rounds, thumbnails, or ogees, as shown below.

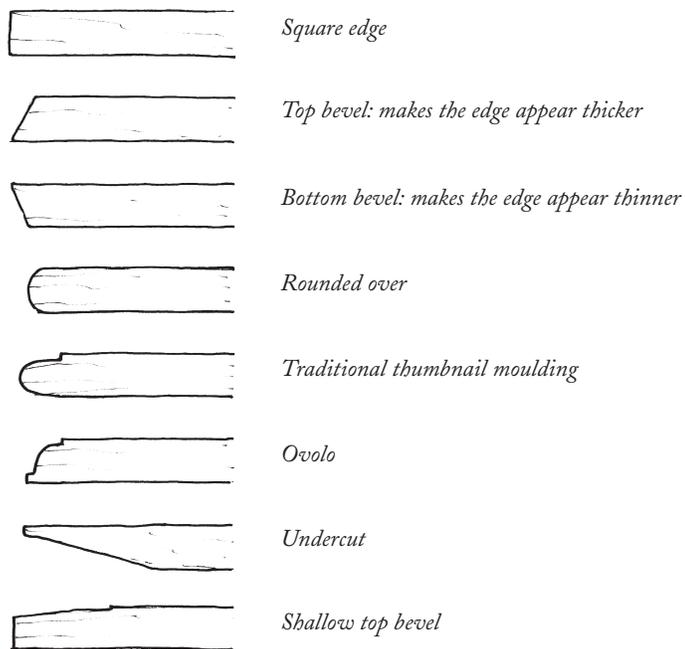


FIG. 102 EDGE PROFILE EXAMPLES

Moulding such a large piece is most easily done by hand, using a plane with an angle guide or a specific moulding plane. An electric router is another choice, but extreme care must be taken not to chip away the corners, burn the surface, or slip. Furthermore, when you have finished you still have to clean up the surface to remove the cutter marks, whereas the surface left by a plane is a single facet, already partly burnished by the plane's wooden sole.

THE TRESTLE ENDS

THE TRESTLE CONSISTS OF TWO ENDS, A CROSS BAR HELD in the ends by removable wedges, and a substructure that connects the tops of the two ends. This substructure (FIG. 108) takes the form of a shallow framework holding three drawers. The drawers may be omitted (although they are useful for holding cutlery and table linen if the table is to be used for dining, and for holding pens and pencils if the table is to be used as a writing desk), but the basic framework of the substructure is the key to the table's integrity and rigidity when assembled.

Make the ends first. Each end consists of three pieces: a top, a bottom cross piece, and a vertical piece. The vertical pieces are 20 in long, and may be prepared from two-by-eight material. The horizontal cross pieces are 28 in. long but may be prepared from two-by-six material. The idea is to make the top horizontal piece a couple of inches or so shorter than the width of the top, thereby providing the maximum amount of support necessary to keep the top flat. Whatever the width of this top piece, the

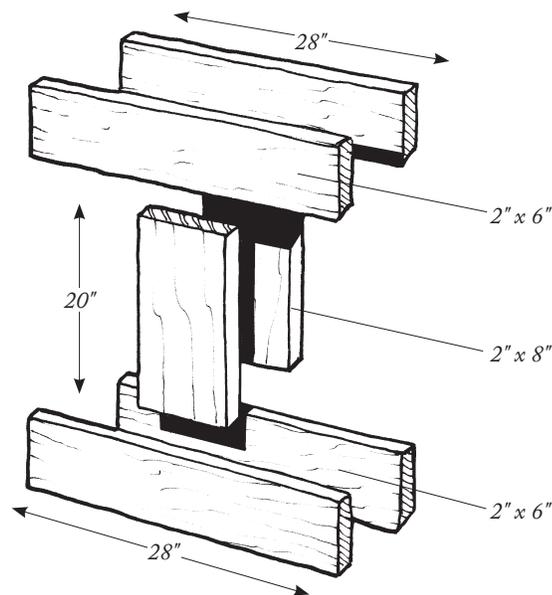


FIG. 103 THE ENDS

bottom piece should be an inch or so wider to preserve the proportions of the ends. All three pieces are first prepared to thickness and left rectilinear so that the mortise-and-tenon joint that connects them may be more easily made.

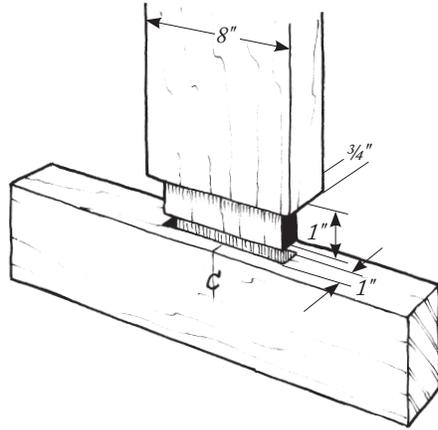


FIG. 104 STUB MORTISE-AND-TENON DIMENSIONS

After assembling both ends trace the actual shape required (FIG. 105) from a template made of cardboard, masonite, or even stiff paper. I make these full-size patterns for any curved work I do and, carefully labeling them, keep them for possible future use. Nevertheless, refinement is always possible, and indeed is sometimes demanded by the presence of a knot or some other peculiarity of the material.

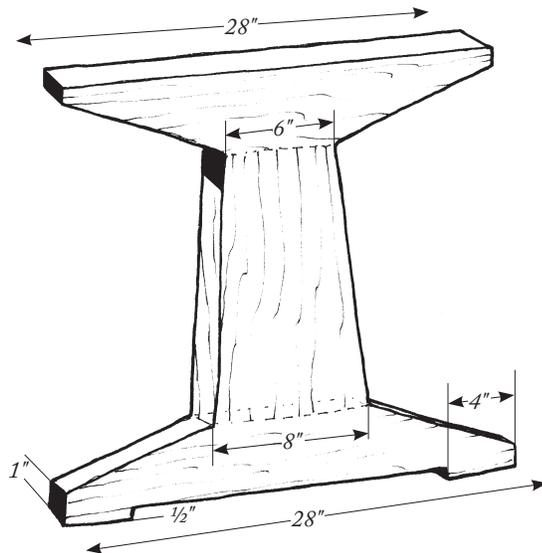


FIG. 105 DIMENSIONS OF THE END BEFORE ROUNDING