

10 essential layout tools

BY CHRISTIAN BECKSVOORT

Every woodworking project begins with layout, and that layout must be accurate and efficient for each task to be successful. This set of 10 layout tools helps me get great joinery every time.

I have a tape measure, a 12-in. combination square, a 3-in. double square, and a 6-in. rule for measuring. For marking, I use a marking knife, a mechanical pencil, and a marking gauge. Angled and round layout is done using a sliding T-bevel, a dovetail marker, and an 8-in. compass.

I'm confident that with these tools at hand, you'll be able to lay out virtually any joint quickly, efficiently, and most important, precisely. Then all you'll need to do is to actually cut the joints.

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Measuring



TAPE MEASURE

Online Extra

Is your tape measure accurate? Learn how to check it in our latest Drawing Board. Go to FineWoodworking.com/extras.

Let's start with the basics. It's likely you already have a tape measure. These are real multipurpose workhorses. I use a 16-ft. tape, which is a great length for general use. The tape is my go-to measuring tool for roughing out boards, but I also use it to check cases for square and mark out dovetail spacing.

Tapes have a loose hook at the end that moves in and out. Pushed in, it delivers an accurate measurement for the inside of a case or drawer. Pulled out, it can be hooked over the edge of a piece to measure outside dimensions accurately.

Next you'll need a square, or better yet two. A 12-in. combination square is useful for a variety of layout tasks, such as marking across boards for cutting to length and laying out mortises across sets of legs. Plus you can use the angled fence to mark 45° angles. The 12-in. rule can be used as a straightedge and rule as well.

For smaller work, a 3-in. double square is the ticket. The size is less cumbersome than the 12-in. square for things like small drawers and moldings. It's also helpful for transferring dovetail marks onto the end grain of the board. Also, by holding a pencil against the square and sliding it along edges, you can use it to make long parallel marks for laying out tabletop bevels and chamfers.

For finer work, I use a 6-in. precision rule. This tool really shines at any task where I need to measure down to $\frac{1}{64}$ in., such as marking out mortise locations on a leg, and any situation where a 12-in. combination square's rule is too cumbersome, such as spacing out dovetails on small drawer parts. It rounds out the measuring side of my layout kit.

COMBINATION SQUARE



DOUBLE SQUARE

6-IN. RULE



Marking



MARKING KNIFE



MECHANICAL PENCIL

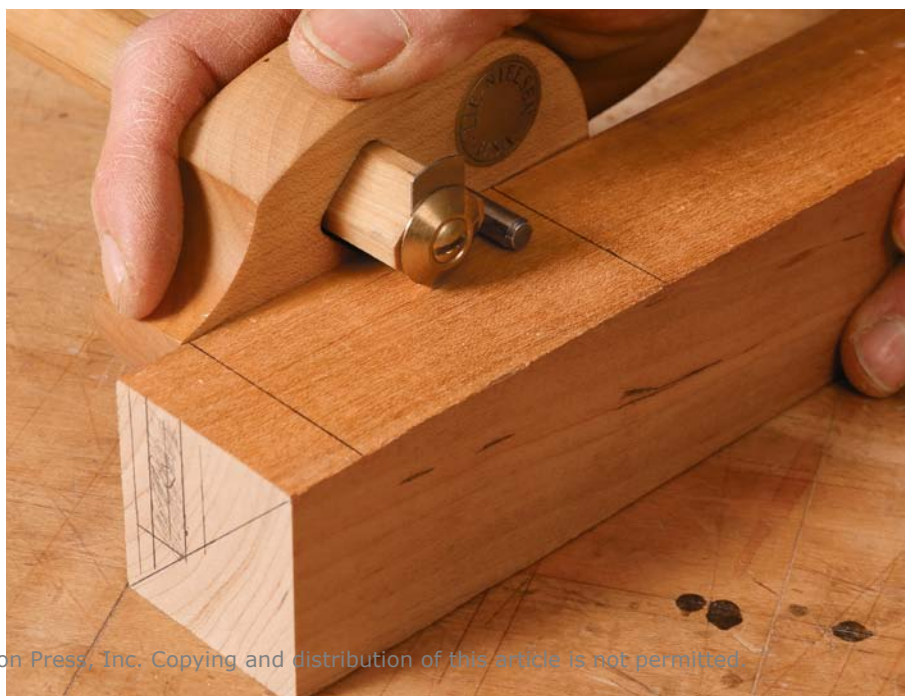
To accompany the tape, rule, and square, you'll need something to mark with. A good old yellow No. 2 pencil seems an obvious choice and will work well, if kept sharp. The downside is that the longer the line, the wider it gets as you mark. After a while, your line's more than $\frac{1}{16}$ in. wide—not great for precision layouts. My choice is a 0.5-mm mechanical pencil. The lead size is halfway between $\frac{1}{64}$ in. and $\frac{1}{32}$ in., and it won't get wider as it wears, which translates to more accurate marking.

In addition to the pencil, you'll want a marking knife. I use a straight-blade chip-carving knife, which has a narrow blade with a single, long bevel. I use it for transferring tails onto pins and transferring drawer pocket lengths onto drawer fronts, where the width of a pencil mark will result in too much error.

Next is a marking gauge, which creates long scribes parallel to an edge. I use a wooden cutting gauge with a wide bearing face and a wooden beam. I prefer the knife-style blade because it makes a nice, clean cut (especially across the grain). This tool allows repeatable baselines for dovetails and pins, and is also great for marking out the tongues on breadboard ends and scribing mortises on legs.



MARKING GAUGE



Angles and curves



SLIDING T-BEVEL



DOVETAIL MARKER

For laying out angles, nothing beats a sliding T-bevel. Whether it has a metal or wooden handle, the locking mechanism is the really important part. Some versions have a side-locking nut or lever, while others have a flush cam lock or a knob at the bottom. The locking mechanism must lock solidly. There is nothing worse than a blade that slips when transferring an angle to your work. I use the sliding T-bevel to lay out the miters on my cabinet bases, which are set to equalize the amount of short grain between each half of the joint.

You can mark for dovetails with a sliding T-bevel, but if your work frequently involves dovetails, a dovetail marker is a must. They require no setup time and make marking dovetails faster and more accurate.

Dovetail markers can be bought online from a variety of sources. They usually come set to $7\frac{1}{2}^\circ$ (1 in. in 8 in., or 1:8), $8\frac{1}{2}^\circ$ (1:7), $9\frac{3}{4}^\circ$ (1:6), or $10\frac{3}{4}^\circ$ (1:5). But I made my own shopmade wooden marker that's about 10° . I've used that same marker for more than 40 years, and it's one I "borrowed" from one of the first Shaker pieces I had the pleasure of restoring.

For any work that requires laying out arcs and circles, rounded corners, or scallops, an 8-in. compass is the tool to use. A compass can also be used as a divider, to mark repeated distances, or to divide a circle into sixths for laying out evenly spaced joinery on columns and spindles.



8-IN. COMPASS

