

# One Bench



## 4 blades, 4 tasks



**1. STANDARD ANGLE  
FOR END GRAIN**



**2. HIGHER ANGLE  
FOR FACE GRAIN**



**3. HIGHEST ANGLE  
FOR FIGURED WOOD**

# Plane Can Do it All

Stretch your tool budget by using different blades in one low-angle jack plane

BY CHRISTIAN BECKSVOORT



Once labeled as the belt-sander guy because I used that tool to do a lot, including level the faces of my 15-drawer chest. So it might surprise you that despite this label, I have quite the plane collection. Over the last two decades, I've used handplanes more and more. They are quiet, create no dust, use no electricity, and, when used correctly, do as good a job as—or better than—a sander.

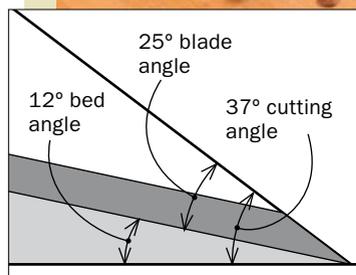
I love all my planes, but lately I reach for one in particular most of the time—the versatile low-angle jack plane. My Lie-Nielsen version (also known as the 62) is based on the old Stanley 62. At 14 in. long, it is the size of a jack plane, but the blade is bevel up and is bedded at 12°, making it technically a block plane. But you use it like a bench plane, with a two-handed grip that gives more power and control.

But here's the best thing: By grinding blades to different angles, I can use the low-angle jack plane for a variety of tasks such as end-grain work, smoothing straight and wild grain, and removing a lot of wood on finicky boards.

For the cost of two extra blades at \$40 each and one toothed blade at \$65 (all from Lie-Nielsen), you can have essentially four different planes for less than what it would cost to buy two. By the way, other companies offer low-angle jack planes (and extra blades), too. For example, Lee Valley sells a very good one for \$25 less than the Lie-Nielsen.

If you don't have a grinder or are afraid to risk drawing the temper out of the blade, it may seem daunting

## 1. SMOOTH END GRAIN

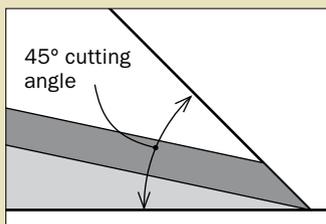


**37° angle.** This blade angle excels at end-grain work. Use it for cleaning up dovetails and the ends of table-tops.



## 4. TOOTHED BLADE FOR FLATTENING WIDE BOARDS

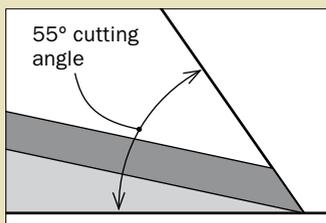
## 2. SMOOTH FACES AND EDGES



**45° angle.** Cutting at the same angle as a standard bench plane, this setup is perfect for all your standard smoothing tasks.



## 3. TAME THE WILDEST GRAIN



**55° angle.** This steep cutting angle makes for some hard work, but it's perfect on highly figured wood, smoothing it without tearing it out.



to change the blade angle. However, because you are increasing the bevel angle, you only need to hone at the very tip of the edge.

The low-angle jack plane comes with a 25° beveled blade. Together with the 12° bed angle, it cuts at 37° (like a block plane), perfect for end-grain work. Block planes were originally used on butcher blocks, hence the name. Think of end-grain planing like paring with a chisel. The back of the chisel is flat on the wood, and the bevel, at 30° or 35°, does the cutting. I use this blade for trimming drawer dovetails, as well as smoothing end-grain edges.

### Increase the angle for standard smoothing

Switch to a second blade, and the low-angle jack becomes a great smoother, with its 14-in.-long body bridging dips and bumps to produce a dead-flat, glass-smooth surface. I grind this blade at 33°, for a cutting angle of 45°, the same as standard bench planes.

Keep three things in mind and you'll get better results with less effort: First, keep the blade sharp. Second, keep the shavings as thin as possible (I would rather take three light strokes with a handplane than one heavy one). Finally, skew the plane at an angle in the direction of the stroke. This is more of a shear cut, producing a narrower shaving.

### Higher still for figured wood

I go out of my way to find figured cherry. The figure, of course, is the result of

## How to change the bevel angle

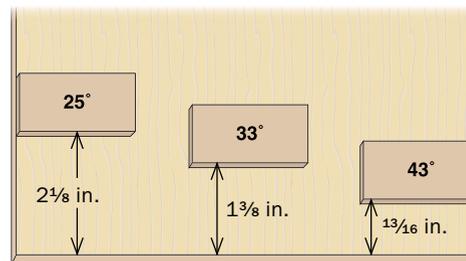
Of the four blades, two come at the appropriate angles and two need to be honed to a new angle. But changing blade angles is easier than you might think.

**Stop blocks set honing angles.** The honing guide bumps up against the edge of a simple setup jig.



### SIMPLE JIG

Becksvoort uses an all-in-one honing station similar to the one described by Deneb Puchalski in *FWW* #213, p. 43.



The measurements give approximate angles for most side-clamping honing guides.

wavy grain, which does not plane well. Invariably, when using a standard blade angle there is tearout. So my third blade is ground to 43°, giving a hefty 55° cutting angle. Over the years, I've learned that a steeper cutting angle causes less tearout. With a freshly sharpened and honed blade set at a 55° angle, taking only a 0.001-in. to 0.002-in. shaving, I can plane over knots, across tiger stripe, flame, bird's-eye or fiddleback. What's more, the steep angle allows you to come in from any direction. This high angle comes at a price, however. The effort of pushing the plane is almost doubled, so I use this blade only when necessary.

### Toothed blade is a specialist

I only have an 8-in. planer, so to flatten wide boards I use a scrub plane. This removes lots of wood quickly, but on curly wood the tearout is unbelievable. Switching to the last blade in my arsenal, a toothed blade, is a great way to flatten a wide board with tricky grain (I usually use my most difficult woods in fancy door panels that are wider than 8 in.) before it goes through the planer. The blade has 32 teeth with equal-size grooves between them. The result is 32 narrow shavings, much like shredded paper.

It's easy work because the low angle and gaps mean you are removing only half the material at a time. The tiny teeth and the gaps between them allow me to set the blade to take out a maximum of material and reduce the effort. □

*Christian Becksvoort is a contributing editor.*

## 4. FLATTEN WIDE BOARDS



**A blade with bite.** When your figured wood is wider than your jointer bed, a toothed blade lets you hog out a lot of material without tearout. Becksvoort hits the high spots first, and then planes the whole face flat. Once that's done, it's ready to go in the planer (left) with the flat face down.



**Set the angle and move through the grits.** Becksvoort establishes the new angle on a 200-grit stone, then moves through the finer grits.



**Don't change the entire angle.** It isn't necessary to change the angle of the entire bevel in the first sharpening session. Just alter the tip of the blade, the only part that's making the cut. Eventually, the entire bevel will be honed to the new angle.