

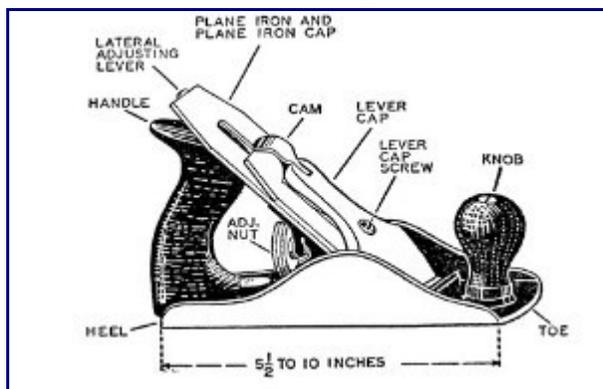
"BAILEY" ADJUSTABLE IRON PLANES

These Planes have Rosewood Handles and Knobs. The Cutters are adjustable endwise and sidewise.

SMOOTH BOTTOMS			CORRUGATED BOTTOMS		
No. 1	Smooth, 5½ in. long, 1¾ in. Cutter	Each \$3.55	No. 2C	Smooth, 7 in. long, 1¾ in. Cutter	Each \$4.95
2	Smooth, 7 in. long, 1¾ in. Cutter	Wgt. each 1¾ lbs. 4.60	3C	Smooth, 8 in. long, 1¾ in. Cutter	Wgt. each 2¼ lbs. 5.35
3	Smooth, 8 in. long, 1¾ in. Cutter	Wgt. each 3½ lbs. 4.80			
4	Smooth, 9 in. long, 2 in. Cutter	Wgt. each 3½ lbs. \$5.25	4C	Smooth, 9 in. long, 2 in. Cutter	Wgt. each 3½ lbs. \$5.60
4½	Smooth, 10 in. long, 2½ in. Cutter	Wgt. each 4½ lbs. 6.05	4½C	Smooth, 10 in. long, 2½ in. Cutter	Wgt. each 4½ lbs. 6.50
5	Jack, 14 in. long, 2 in. Cutter	Wgt. each 4½ lbs. \$6.05	5C	Jack, 14 in. long, 2 in. Cutter	Wgt. each 4½ lbs. \$6.50
5½	Jack, 11½ in. long, 1¾ in. Cutter	Wgt. each 3½ lbs. 5.40	5½C	Jack, 11½ in. long, 1¾ in. Cutter	Wgt. each 3½ lbs. 5.80
5¾	Jack, 15 in. long, 2¼ in. Cutter	Wgt. each 6½ lbs. 6.75	5¾C	Jack, 15 in. long, 2¼ in. Cutter	Wgt. each 6½ lbs. 7.30
6	Fore, 18 in. long, 2½ in. Cutter	Wgt. each 7½ lbs. \$7.70	6C	Fore, 18 in. long, 2½ in. Cutter	Wgt. each 7½ lbs. \$8.30
7	Jointer, 22 in. long, 2½ in. Cutter	Wgt. each 8½ lbs. \$8.80	7C	Jointer, 22 in. long, 2½ in. Cutter	Wgt. each 8½ lbs. \$9.45
8	Jointer, 24 in. long, 2½ in. Cutter	Wgt. each 9½ lbs. 10.50	8C	Jointer, 24 in. long, 2½ in. Cutter	Wgt. each 9½ lbs. 11.30

For prices of Plane Irons (Cutters) and Plane Parts see pages 127 to 131.
MADE IN U.S.A.

STANLEY
SW



A smoothing plane

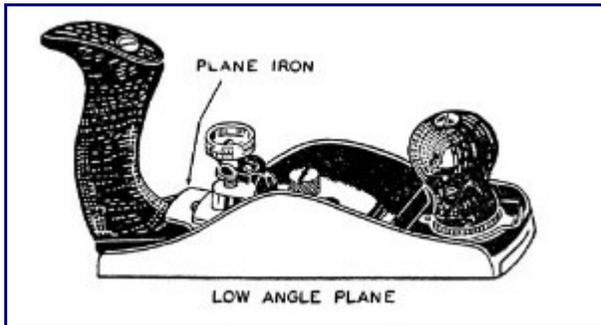
The bench plane has three jobs in the woodshop: to straighten the wood, to smooth it and to remove it.

It sounds so simple when you put it that way, but many woodworkers are confused by all the different sizes of bench planes available, from the tiny 5-1/2"-long No. 1 smooth plane up to the monstrous 24"-long No. 8 jointer plane.

Add into the mix all the new bevel-up bench planes that are available in the catalogs now, and it's bewildering enough to make you want to cuddle up close to your belt sander.

Believe it or not, there is a way to make sense of all the different sizes and configurations of bench planes out there and to select the few that you need in

your shop. You don't need one bench plane of each size to do good work (though don't tell my wife that). In fact, it's quite possible to do all the typical bench plane chores with just one tool (more on that later).



A bevel-up smoothing plane

In this article, I'm going to walk through the entire line of forms of the metallic-bodied bench planes and describe what each tool is good for. Because people can work wood in so many weird ways, I'll admit that what follows is equal doses of traditional workshop practice, personal preferences (formed by years of planing) and stubborn opinion that comes from growing up on a mountain.

But before we jump headfirst into describing each plane, let's first divide the tools into three broad categories: smoothing planes, fore planes and jointer planes.

Three Jobs for Three Planes

You can tell a lot about what a plane is supposed to do by the length of its sole.

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- Fore planes have a sole that ranges from 14" to 20" long. The traditional (but by no means only) job of the fore plane is to remove material quickly. By virtue of its longish sole it also tends to straighten the wood to some degree. The fore plane is typically the first bench plane to touch the wood to get it to rough size.
- Jointer planes have a sole that ranges from 22" up to 30" (in wooden-bodied planes). The primary job of jointer planes is to straighten the wood, a task it excels at by virtue of its long sole (the longer the sole, the straighter the resulting work). The jointer plane is used after the fore plane but before the smoothing plane.

Smoothing Planes

Let's begin at the small end of the scale and look at the smoothing planes. People tend to end up with several of these (sometimes even in the same sizes). Why? Well there's a lot to choose from and different ways to configure them.



A collector's dream: An entire tray of No. 1 planes.

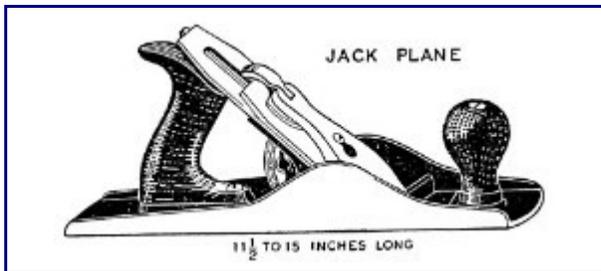
The No. 1 Bench Plane

Sole length: 5-1/2"

Cutter width: 1-1/4"

Prized by collectors, the No. 1 bench plane is like an exotic little dog. It is designed to make people pick it up and say, "It's so cute!" And it's designed to empty your wallet – it's easy to spend \$1,000 on a vintage No. 1 plane. With a price like that, it's got to be one amazing and useful plane, right? Nope.

Some woodworkers like to use the No. 1 in place of a block plane – woodworkers with arthritis report that it's easier to cradle in their hands than a block plane. Some woodworkers buy a No. 1 for their children. Some woodworkers have special small-scale applications for the No. 1, such as working [linenfold panels](#).



A jack plane

But in reality the No. 1 is not a useful size for building most furniture. You can't hold it like a regular bench plane because there's not enough space in front of the tote. And adjusting the depth of cut is no fun either because of the cramped area behind the frog. Add to that fact that the cutter is so narrow and you can see why you'd be working way too hard to plane a typical carcass side.

Buy one because you want one. But don't fool yourself into thinking that you're going to use it all that much. Most woodworkers end up putting it on a shelf and admiring it.

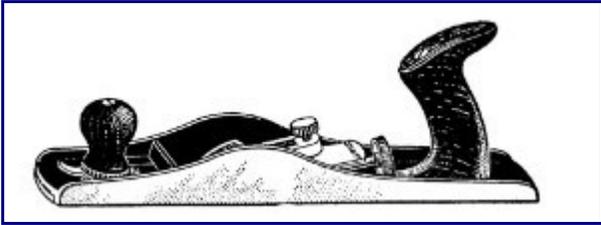
The No. 2 Bench Plane

Sole length: 7"

Cutter width: 1-5/8"

Pity the poor No. 2 bench plane. It's not as rare as its smaller and cuter sibling,

nor is it all that much more useful. Collectors love them, though the No. 2 doesn't fetch the same prices as the No. 1. Woodworkers are bewildered by them. It's almost impossible to grip the tote because things are so cramped in there. And holding the tool makes you feel like you're an awkward giant.



A bevel-up jack plane

I do hear occasionally that the No. 2 is a good smoothing plane for children. It's usually big enough for their hands, and it isn't terribly heavy. The vintage ones were 2-1/4 lbs. And I've heard from maybe one woodworker in all my years that they had abnormally small hands that were suited for a No. 2. But other than that, I think it's best to avoid the No. 2 bench plane unless you stumble on some unique application.



A No. 3 smoothing plane.

The No. 3 Bench Plane

Sole length: 8"

Cutter width: 1-3/4"

The No. 3 is one of the most overlooked planes in the pantheon. Because of its small size, it gets lumped in with the No. 1 and No. 2 in the category of "cute but useless." Nothing could be further from the truth. If I were manufacturing a line of handplanes, the No. 3 would be the smallest plane I'd offer in my line. It truly is a useful tool.



A jointer plane

You can actually get your hand comfortably around the tote and work the controls with great ease. The front knob is big enough to grasp like a traditional bench plane. And the cutter is just wide enough to be a useful size. So what is it good for? I use a No. 3 for two things: smoothing small-scale parts (such as narrow rails, stiles, muntins and mullions) and for removing tear-out in very localized areas in a larger panel.

The tool is ideal for small parts because you can easily balance it on stock that is only 3/4" wide without tipping or leaning problems.

As for removing tear-out, it's the sole's small length that makes this possible. The shorter the sole, the more that the tool is able to get into localized areas on a board and remove tear-out. The long sole of a No. 4 or larger plane will actually prevent the tool from removing more than a shaving (maybe two) in a small area. The No. 3 goes where my other tools simply won't.

The No. 4 Bench Plane

Sole length: 9"

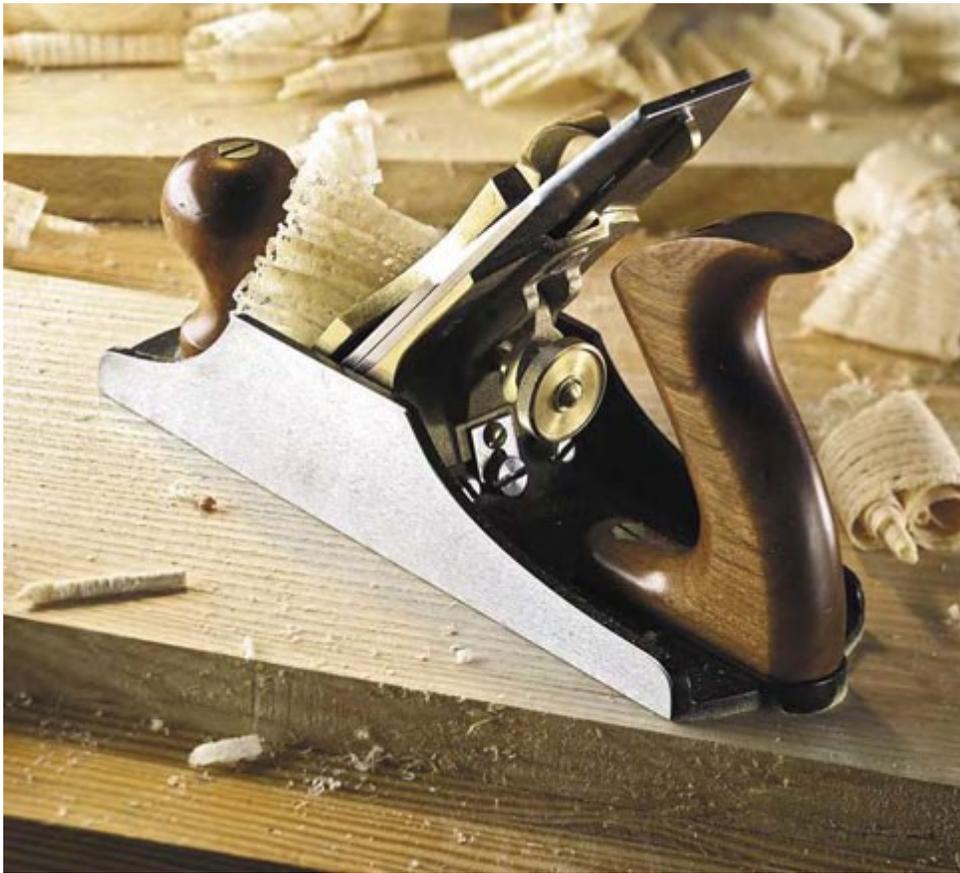
Cutter width: 2"

The No. 4 smoothing plane is historically the most common size. It is an excellent balance of sole length and cutter width to be useful for typical furniture parts. And the last part of that sentence is what is important here: typical furniture parts. Typical furniture parts range from 2" wide to 24" wide and 12" long to 48" long. That's a gross generalization, but it works.

Here's another clue that the No. 4 is useful and popular: When you are searching out a vintage one, you'll find 10 No. 4s for every one No. 3.

I use a No. 4 for most of my typical cabinet work. And because I work with hardwoods, I have equipped my No. 4 with a 50° frog, which helps reduce tearing (a 55° frog also is available for reducing tearing in curly woods). This is not the tool I'll use for really tricky domestic woods or exotics – I use a bevel-up plane for that (see below).

Another important detail of the No. 4: It's not terribly heavy and won't wear you out as quickly as the bigger smoothing planes.



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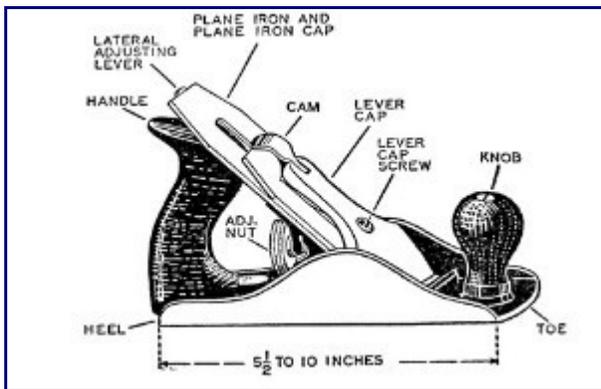
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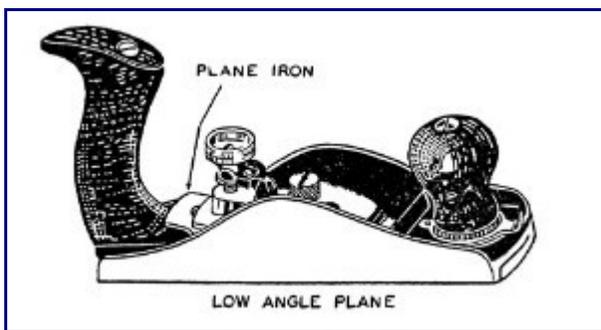
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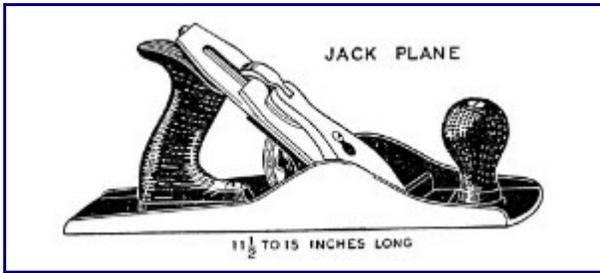
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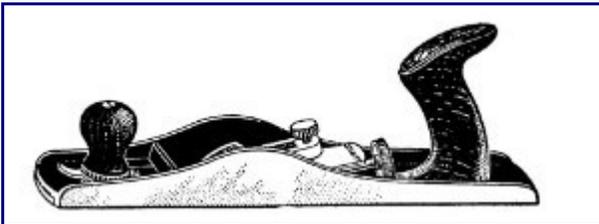
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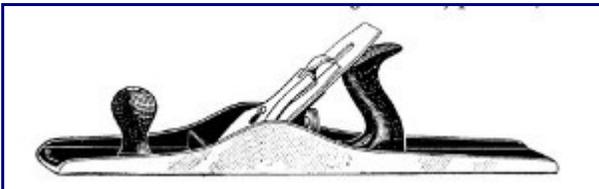
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