

Face Planing

Even with planer thicknessers abounding, we all have to plane a face from time to time, from desire or need, so John Lloyd explains how to hold wood for the job

I find that woodworking shows, in the most recent case housed in the barns at the wonderful Cressing Temple, are a great place to meet new people and catch up with old acquaintances. There's a chance I'll impart a smidgeon of knowledge to enthusiastic woodworkers and have a natter with, and pick the brains of the various professionals exhibiting alongside. This brain-picking might take the form of having a chat about plane making with Bill Carter over a plate of scrambled eggs during breakfast at the local Travelodge, or discussing the finer points of hanging on to bits of wood with Richard Maguire while

having an after-breakfast drool over one of his magnificent benches.

Richard has apparently studied old pictures of woodworkers working at their benches in an effort to learn from their generations of experience, and he has incorporated some of their features into his benches so that he can recreate their methods of work. It is these blindingly simple ideas and his commitment to using old techniques and basic hand skills, that really strikes a chord with me and inspired me to write this article.

My friends and colleagues are well aware that I tend to bang on about hand skills

and not over-complicating things, but what I'm really on about is balance and being pragmatic. There are no prizes in life for being a destitute Luddite, but I think that maintaining traditional skills in amongst the machinery and modern technology can actually increase productivity and enhance the general sense of achievement from making things with wood.

Holding the wood

Securing a piece of wood while shaping it is a basic woodworking requirement. Hanging onto the board with one hand while attacking it with a sharp implement in the

other is a recipe for you or the wood to get damaged. We've all used this misguided technique at least once, perhaps to avoid wasting time winding vices; for a professional time is money, but time spent in Accident & Emergency won't much enhance profitability.

The secret, and I hate those annoying management training mnemonics as much as anyone, is to Keep It Simple Stupid, or Kiss for short. Tail vices are not the vital holy grail of workbench wood-holding that many people believe, in fact none of the better cabinetmaking benches in my workshops are fitted with such a vice.

Applying pressure along the length of a board while planing it can be a disadvantage; a simple stop and no vice at all can be all that's required. This might seem precarious, but it does 'Keep It Simple' and will just require a bit of practice on basic planing technique, which in itself could be a very good reason for not having a tail vice!

Solid benches

The other vital ingredient for all planing, and particularly freestyle planing, is a solidly-built, flat bench, an extension of any cabinetmaker's all-encompassing obsession with flatness: planes, blade backs, benches, stones, etc... In the case of a bench, flatness makes accurate planing possible and it provides a reference surface which can be used to find high spots on a board, but more on that later.

This article does not aim to cry 'Hallelujah, I'm going to throw my planer thicknesser away', but it might just be a 'Traditional ways of working have such an elegant simplicity that it might be worth giving them a go when I next have something to plane' epiphany!



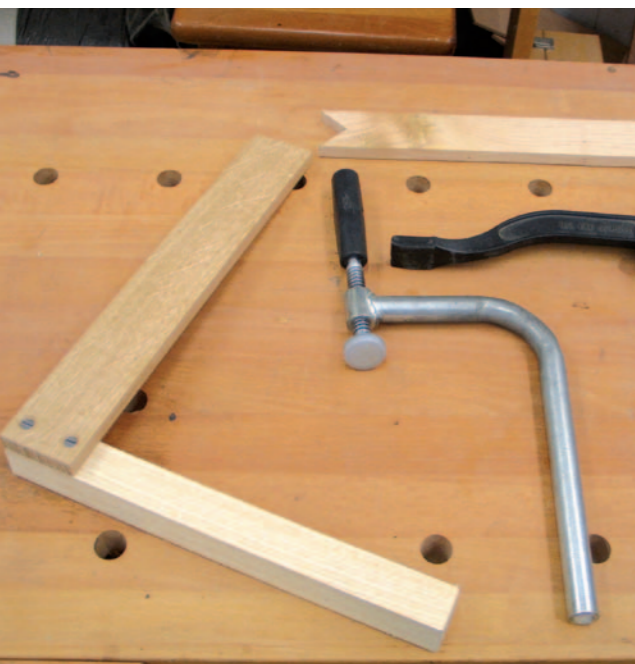
Pic.2 The trouble with tail vices is that they aren't always level, and there is often a wide gap to bridge

1 Using a Back Stop

For angled planing you need a back stop or bar



Pic.3 To flatten a face you need to plane at an angle, for which a back stop helps



Pic.1 The simple tools you need to hold a board in place for surface planing. The L-shaped stop (far left) fits in the bench vice and can be made with any thickness of arm, to suit the board you are planing. The hold-downs are used with the simple wooden bar (top, above), which stops a board from wiggling around



Planing in straight lines along the length of a piece of timber will not in itself ensure that the surface ends up flat in all directions, particularly if it's cupped across its width. The whole point of choosing a relatively long-sole'd bench plane like a No.5 or No.6 is that the length of the sole can be used to find the hills and the hollows, and to use this feature to remove cupping requires that the planing direction is across the width of the board, or at least on the diagonal.

You might argue that pressure from a tail vice would solve this problem, and you might be right, but if you have no tail vice, another strategy is required. On a Maguire bench you might simply turn over the 'flip-stop' that runs down the centre of the bench. This is just a strip of wood that lies flush with the top of the bench when not required and can be 'flipped' over in a matter of seconds to create an upstand that is the length of the bench.

Many of us are still at the aspiring to own a Maguire bench stage, so we need another option that will have the same effect, though Nick Gibbs has bravely cut his Sjoberg bench in half to mimic Richard's idea elsewhere this issue (p66). I have been known to pin or screw strips of

wood to the surface of my bench to restrain smaller pieces for planing. I sense a collective sharp intake of breath from some readers, with hammering pins into a sacred surface likely to incur wrath from some quarter or other. Not really to be encouraged, I agree, but a bench is there to be used. I make use of dog-holes whenever possible, with dirty great 3/4in holes drilled right through the bench top, so perhaps we shouldn't get so excited about a few pin holes.

For this particular planing situation the dog holes should not be too far across the bench, so to avoid the bench top ending up looking like a piece of Emmental. I would add just two holes about midway across the bench, maybe about 250-300mm from the front edge, into which I would add some dogs. A couple of fairly long battens of different thicknesses, maybe 10 and 15mm, and of a reasonable width (approximately 50mm) kept handy can then be used to span the two dogs and give that solid 'upstand' which can be used to plane against.

It's not quite as elegant as the Maguire version, but it can still be added or removed in a second or two, and you have something against which to plane.

2 Working with Pressure

Why a tail vice can be self-defeating

Standard tail vices can suffer from standard tail vice issues. The top of the vice is often not level with the top surface of the bench (Pic.2), and in really poorly-made versions the difference will increase as the vice is opened wider, with it sagging under its own weight. A bad situation that's only likely to worsen with the addition of a piece of wood and a hefty woodworker armed with a No.6.

All standard tail vices will, at times, produce a situation where there is a considerable length of unsupported wood spanning the space between the end of the bench and the vice, and once again flexing wood is likely to be a problem.

Too much pressure

Burly chaps of the sort that tighten taps to a level of torque that is usually reserved for cylinder-head bolts, are also likely to over-tighten vices, actually a habit that many of us are guilty of to some degree, burly or not. This unfortunate habit can easily force thinner pieces of wood upwards, while at the same time forcing the tail



Pic.4 A tail vice can bend thinner boards if over-tightened (above). The tail vice is often not level with the bench top (left)

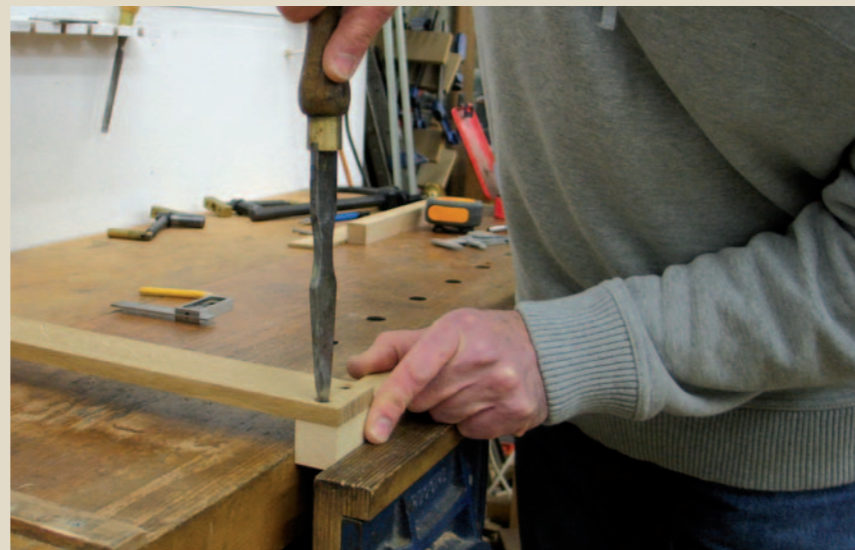
vice down, resulting in another piece of wood that's not being held flat or securely supported while it's being planed. Not a great recipe for producing nice flat wooden components.

An alternative to a standard tail vice is a Wagon Vice which is very similar but for the fact that any piece of wood that it's holding is completely supported by the surrounding bench. As we reported a few issues ago, Richard Maguire builds these into his benches, and Nick Gibbs has made a version for a bargain bench (p66).

Veritas have recently introduced their own Inset Vice, which you rout into the top of the bench, but a similar effect can be achieved with their cunning Veritas 'Wonder Pup', an interesting choice of names from their marketing department, but a neat alternative for a bench with no tail vice. A few dog holes in the bench are the only requirement, but the Wonder Pup will only work on thicker pieces of wood, a situation that can be improved slightly by grinding the top of one flat.



Pic.5 Veritas's Wonder Pups are great for holding thicker pieces, but they are often too tall for surface planing unless you grind them down (left, above)



3 Pros and Cons of Stops

Why a removable stop might be better than the permanent options

With the possible exception of sticking the wood in a vice, some sort of stop is required for planing, otherwise the wood's going to end up on the floor. And by the way, the 'stick it in a vice' option is rarely a good one because the vice will tend to distort the wood! If you're planing in a straight line, all you need is a simple stop, and there's no need for any clamping if you're pushing in a straight line. In that case there's no

compression-induced bending caused by a tail vice, no lack of support, no time wasted winding vice handles or twiddling Wonder-Pup adjusters.

In its simplest form a stop might just be a single dog in a dog hole, and this will work fine to plane a narrow piece of wood, but anything wider than about 50mm will require a bit more support, so maybe another dog at right angles to the first and about halfway across the bench, with a batten spanning the pair. This long stop will work fine for anything up to about 300mm wide and the whole thing can be removed in seconds to give a nice uncluttered bench again.

A stop that can also do a disappearing act is the sprung metal version, but this is a bit of a palaver to fit as it must sit in a complex, multi-levelled mortise, it has to be wound up and down with a screwdriver, the screw head often gets bunged up with sawdust and sometimes it jams and won't go flat. All in all, it's not my favourite option.

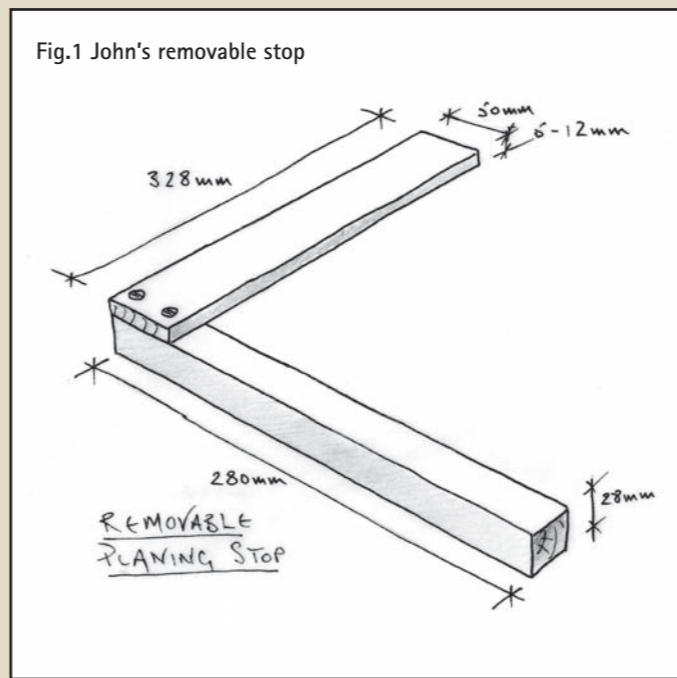
A stop that I have used on most of my benches over the years is a simple, thin strip of wood, screwed near the end of the bench, just to the left of my vice. This simple stop works pretty well for dealing with most widths of wood, but it does have

the disadvantage of being secured to the bench with a couple of plane-hating metal screws. It only requires a bit of over-exuberant planing, and before you know it the top of the wooden strip is shavings and the screws that were safely countersunk have taken parallel gouges out of the sole of your plane and given the blade an interesting 'toothed' effect. These stops are not particularly quick to remove or re-fit because the screws tend to get bunged up, which means that they can also get in the way a bit at times, so they're not the perfect stop by a long way.

The way forward might be a removable stop which is held in the jaws of a quick-release vice at one end and supported by a single dog at the other. This is really easy to make, just consisting of a batten with a strip of wood screwed to one end to form an 'L' shape. This time the screws are to the side of the stop, well out of the firing line, so your plane's safe. The batten is quickly secured in the vice and the dog at the far end of the stop prevents it from flapping about; make a couple of stops with different thickness strips to use when planing thick or thin pieces of wood. Very simple but very effective.



Pic.6 John has made a removable planing stop (top) because he doesn't much care for the toothed and sprung metal versions (above)



Pic.7 A screwed-down stop is ok (left), but there is a risk you'll plane too energetically and clip one or more of the fixing screws



4 Flattening

How to get a board sitting comfortably

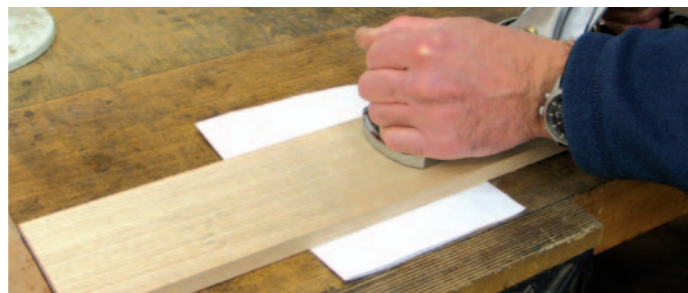
You remember the nice flat bench that provides a reference surface which can be used to find high spots on a board, that I mentioned earlier? Well, here's where that flat reference surface can come in handy. If you have a piece of sawn timber that you want to flatten by hand, the first thing that you need to do is to stop it rocking about on the bench while you're attacking it with a plane to create a face-side.

Packing under the timber when it's sitting on the bench with bits of veneer or wedges can work, and this method will sometimes be useful, particularly with thinner, more flexible pieces of timber, but I find that if random collections of veneer and wedges cluttering up my bench can be avoided, my life is generally the better for it. You might think that to achieve this happy situation of the piece of timber sitting squarely on the bench without resorting to bits of packing, would require the whole of one side to be flat, but actually all we need to do is find and remove the most obvious high spots.

The best side to work on for this initial 'flattening' is the side that is the most concave. It doesn't matter if the board is twisted or 'in wind', one side will normally be a bit more concave than the other. Having chosen a side, place the board with that side face-down on the bench and give it a good rub from side to side or perhaps in a circular motion, applying a bit of downward pressure. Then flip the board over and see if you can spot any areas that are looking shiny. Using the removable stop that you've just made (p13), hold your plane in one hand and hang onto the wood with the other, and plane away the shiny spots. The length of the plane will help to locate these high spots and the weight of the plane will help it cut successfully when being used one handed, so use something long and heavy like a No.5½ or No.6. Repeat the rubbing on the bench bit and once again remove any shiny spots until the board doesn't rock about. This process should only be the work of a minute or two and the board will now behave itself while its other face is planed flat.



Pic.8 By rubbing the sawn surface on the bench (top) you will identify the high points (above), which take a glazed look. Concentrate on planing these 'hills' until the board will lie flat (right). The paper (below) is used when planing a thin piece of wood that is bowed, but needs to be flattened



Pic.9 Planing sawn timber against a removable stop. Notice how John is doing this one-handed (left) for speed as the purpose is to flatten the board partially for planing level properly

5 Stopping Wiggle

A very neat and quick way to hold boards straight

Now for Mr Maguire's old-school entrapment *pièce de résistance*. This is an alternative to the 'flip-stop' or up-stand, which stops a piece of wood from sliding across the bench when planing diagonally to remove 'cupping', and it's so simple that I still look at it and think that this must have been inspired by the likes of Houdini.

The big secret for successfully planing lumps of wood is that they are held securely while being planed in various directions but without having to apply wood-distorting pressure to its ends. And the perfect holding solution would be one that is cheap, unobtrusive and really quick to assemble and dismantle. This little trick fits the bill on all counts, but it does require a set of dog holes on the far side of the bench, a hold-down and a secret weapon in the form of a strip of wood with a 'bird's-mouth' cut on one end.

The other thing that's required is a stop, but you know practically all there is to know about stops now, so this bit won't be a problem. The only requirement for the bird's-mouth batten is that it's a little thinner than the piece of wood being planed, whilst not being too flimsy. The bird's-mouth itself is just a couple of cuts in one end of the batten that form a right angle which can be hooked over the corner of the piece of wood that's being restrained.

To set this up, first create or fit a wide end-stop to the bench, either the removable stop or a couple of dogs and a batten. Then flatten the piece of timber as described in the previous section (p15, left), so that it doesn't flap about when it's being planed, and place it against the stop. A relatively square end to the board is helpful here.

Now the bird's-mouth batten can be located over the far corner of the board, and the batten secured to the bench with a hold-down. This doesn't have to be the super-duper Veritas hold-down, and I would probably prefer a traditional iron hold-down that's whacked into place with a sharp tap from a hammer, if I only could find one. In fact a little bird tells me that Auriou, that wonderful French company that produces hand-stitched rasps, are currently working on a traditional hold-down, which might be in the shops very soon! The guys at Classic Hand Tools can tell you more about it (classichandtools.co.uk).

A huge amount of pressure from the end of the bird's-mouth batten, against the timber, is completely unnecessary, in fact intimate contact is all that's required. The hold-down can then be used to hold the batten in place and you're ready to go. The hold-down is miles away from the action, so it never gets in the way, the bird's-mouth



Pic.10 The simplest of stops. A batten between two dogs at the far end and an angled batten with bird's mouth notch at the other

batten holds the wood securely when planing in straight lines or diagonally, without applying any longitudinal pressure to the work-piece, and it also stops the timber from moving back along the bench if the plane is left in contact with the wood during the back-stroke.

It is also possible to remove the piece of timber for close inspection and replace it against the stop and bird's-mouth without moving or adjusting anything. I still look at this set-up and think, 'this is never going to work', but work it does.

All in all a wood-holding solution that's so elegant and simple that it makes me smile

every time I use it. If you are already the proud owner of a tail vice, you'll still use it for very large pieces of timber, but if you give these simple traditional work-holding techniques a try, you're bound to be hooked and you might even improve your hand skills and productivity.

John Lloyd will be demonstrating hand skills at Talking Tools in Axminster, Devon on Saturday 26th March (axminster.co.uk). The free event is also open on Friday 25th March. Many hand tool makers will be there. Visit Richard Maguire's website (rm-workbenches.co.uk) to learn more about his benches.

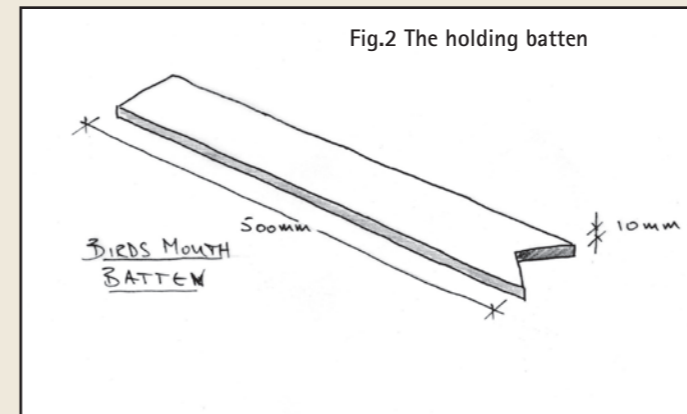


Fig.2 The holding batten