

Crosscut

Newsletter of the Witwatersrand Woodworkers' Association



◀ Egg cup design from remodelista.com

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Next Turners Meeting on Monday, the 1st August 2016 from 18h00 at the Living Link Hall - **Butch Smuts** will be presenting to the club at the Turners meeting on Monday 1st August – on harvesting, preparation and the use of Burls for various projects. There will also be Burl, Pen and Peppermill Blanks for sale. Butch will have around 7 varieties of burls and blanks.

Wood of the Month: Oleander ☠ (which is very poisonous so if you bring samples to show, wash your hands after handling it.)

Next Meeting on Wednesday, the 10th August 2016 – General meeting from 18h00 at the Living Link Hall. Show & Tell – Chest of Drawers/Restoration Project by Graham Rudings and Michael Minassian

News

4th July 2016 - Turner's meeting. Surprise Demo by Dries Blignaut. (The surprise is under the covers. ▶)

Dries showed the use of jigs and tools for deep hollowing of turned vessels. Deep hollowing of a wooden vessel is difficult due the depth of cut, difficulties in controlling the cut and measuring the wall thickness. Dries showed the deep hollowing fixture he attaches to the lathe bed to guide the hollowing tool. He uses the Kelton tools for deep hollowing,

and he has made a number of modifications to improve rigidity and reach of the tools. He has also made a laser guided measurement frame that he attaches to the hollowing tools, which he showed to explain the principles involved. To help stabilise long vessels a 4 wheel roller steady mounts onto the lathe bed. Dries showed how he sets up the tools and uses them to work deep inside a vessel.

Wood of the Month – Blue Gum– Eucalyptus Saligna. By Chris van Heeswijk. One of about 400 species of Eucalyptus found worldwide, the Sidney Blue Gum is native to Australia. Named after the Willow (Salix sp.) due to the perceived similar drooping habit of the leaves, the Blue Gum

was introduced into South Africa for its fast growing production of timber. It is widely distributed and is classified as an invader species. The timber is hard and is widely used, despite difficulties in drying it without cracks appearing. Often cracks are present in the live tree. The tallest tree in South Africa is presently an 81m Blue Gum found near Haenertsburg, Limpopo. By-products include Eucalyptus oil and honey.

13th July 2016 - General Club meeting. Stephan from Festool showed a new finishing pad system from Festool for the application of oils. He also showed off a new 4 speed driver by screwing in an extremely long screw all the way into some meranti.



Show & Tell – A cupboard was shown off by Bobby Bezuidenhout. ►
(Thanks to Alistair for the pictures from the meeting.)



Presentation on Hand Planes by Winston Klein – On Saturday, the 23rd July at the Albertskroon workshop, Winston Klein gave a demonstration of some of the uses of handplanes. Winston explained some of the basic principles and then shared his expertise on the use of various planing jigs. He showed how he used a thickening jig to accurately plane smaller pieces of wood to accurate thicknesses. He also showed his fancy shooting board for accurately edge planing small pieces of wood and the use of a 45° shooting board for accurately planing mitres.

Club Notices

How to Sharpen a Handsaw – Saturday, 6th August from 09h00 to 12h00 at the Albertskroon Workshop. **Presentation and demonstration** by Trevor Pope, followed by a practical session. We will have samples of various sizes of Taper Saw Files, a Saw Setter and a Saw Sharpener for members to view. Please bring a saw that needs sharpening for the practical session (not a hardpoint saw), as well as any Taper Saw Files, Saw Setters and Filing Jigs you may have, to use during the practical session. Please indicate your attendance by Wednesday, 3rd August to the secretary, Alistair, to enable us to make enough copies of notes and cut wooden battens to clamp the saws for sharpening.

Talk on Plough and Moulding planes. Following the success of Winston's presentation on planes he has offered to follow this up with a presentation on plough and moulding planes and incorporate his horizontal drilling system. We can advise members that the presentation will take place on Saturday 20th August at Albertskroon starting at 09h00.

East Rand Woodworking Association spring show – This will take place on the 3rd Sept 2016 at the Northfield Methodist Church, Northmead, Benoni (Corner Aerodrome Ave and Webb Street) from 9am – 5pm Safe parking on the church grounds, Entrance on Hurricane Ave (GPS Coordinates: 26 09' 59. 72 S, 28 18' 48.93 E) Contact: Mark Lemmer on 082 775 6631 for further information

Pretoria club show – Saturday, 1st Oct 2016 at the New Hope School, from 8h00 to 14h00. See furniture and turned items, as well as demonstrations and tools and equipment for sale. The New Hope School is for children with special needs. It can be found off Cecilia Road across the highway from the Menlyn Mall. Take the Atterbury Road off ramp and go west. For more information and directions go to http://ptawoodworkers.com/?page_id=2189 or contact 082 410 8360. Adult admission R20-

Spring Challenge. Set down for Sat, 10th September at Albertskroon. As before, there will be two competitions, a Milking Stool made beforehand and a turning challenge on the day- an egg cup that can be made in a few minutes. Steven Barrett will demonstrate the making of an egg cup at the September Turner's meeting, so you can see how easy it is and can practise making one.

Regular Events:

Toymakers. The toymakers meet on the first and third Mondays of every month, at 09h00 till 12h00 at the Albertskroon workshop. Meetings will be cancelled if they coincide with a public holiday. Contact Eddie Marchio on 011-678-8062 or [rm22 AT mweb.co.za](mailto:rm22@mweb.co.za) for more information.

Wednesday workshop. 1st and 3rd Wednesdays, from 17h30 to 20h00 at Albertskroon. Contact John Allen on 083 457 4801 or Clive Stacey (See below)

Ken's Saturday Workshop. Ken Bullivant holds a Saturday workshop at his house in Boksburg. The location is 13 Franklin Avenue, Comet, Boksburg on the first Saturday of the month from 09:00 to 12:00. They decide on an annual project and work throughout the year making it. Individual projects are discussed and problems solved. Ken also offers private lessons too. Contact Ken on 082 809 0020 if you wish to take part.

Friday Morning workshop - Winston Klein will be convening a workshop at the Albertskroon work shop on the 1st and 3rd Fridays monthly from 09:00 to 12:00. Contact Winston at 072 553 5045 or [kleins AT iburst.co.za](mailto:kleins@iburst.co.za)

SPIRIT OF THE WOOD - WOODTURNERS

Offering Woodturning lessons, One-on One Training, Classes and Club, Willing to assist persons with limited physical/intellectual abilities. Contact Johan Kramer on 083 251 0183 or Johankramer300@gmail.com

Saturday meetings

1. Second Saturday of month - Eddie will open the workshop – 011 678 8062 [rm22 AT mweb.co.za](mailto:rm22@mweb.co.za)
2. Third Saturday of month – Clive will open the workshop – 083 407 8008 [stacey AT netactive.co.za](mailto:stacey@netactive.co.za) Clive will also open the workshop during the week “BY ARRANGEMENT”
3. Fourth Saturday of month – Graham will open the workshop – 082 900 0242 [grahamcr AT mweb.co.za](mailto:grahamcr@mweb.co.za)

Please can the conveners complete the attendance register on the bar counter, so we can gauge attendance?

Stanley “Handyman” Planes

Trevor Pope

The first handplane that I owned was a Stanley Handyman #4 plane (model #12-204) from about 30 years ago. It was used to trim a pine door. I quickly learned to sharpen the blade as the door had staples embedded in it as part of the manufacturing process, and these made nicks in the blade. The plane managed that task adequately, although the plastic adjustment wheel has a lot of play.

Over time, I acquired many more planes, but kept the Handyman for rougher jobs in softwoods. I tuned up the plane, by flattening the sole and the bedding on the frog for the blade; making sure the blade and cap iron fitted together properly; and adjusting the position of the blade in the throat.



However, when planing any wood harder than pine, the Handyman plane never really worked well. The blade could chatter and even dig in, jarring the plane to a sudden stop. Recently, I was using the plane to trim a millimetre from the side of a piece of pine shutter ply, and the dig-in became so bad, that the plane would jar to a halt. This was changing the depth of cut each time the blade dug in, leaving a noticeable divot.

Plywood consists of layers of wood laid alternately at right angles, so when planing an edge, half the cut is on side grain plies and the other half on end grain plies. To achieve a clean cut, the blade needs to be kept sharp, otherwise the end grain will tear out. As you may know, end grain is much harder to plane than side grain, so the forces on the cutting edge of the blade are significantly higher. This was enough to cause the blade to deflect downwards and dig in. My trusty Stanley Bailey #4 did not dig in at all when faced with the same task, so the problem lay with the Handyman plane.

Something associated with the frog and blade support was clearly moving, so I disassembled the plane to see if I could see anything obvious. There was nothing under the blade or between the frog and the sole, such as a shaving or a casting flaw, that could create play and allow the cutting edge of the blade to move downwards.

I then disassembled my Stanley Bailey #4 and put them side by side. The above picture shows the two – Bailey on the left, Handyman on the right.

The Handyman is noticeably lighter at 1510g, than the Bailey at 1744g. I thought perhaps the sole was too thin around the mouth, so I measured them. The thickness of the soles was more or less the same at about 3mm. I then compared the seating of the frogs onto the soles and the problem became apparent. The mating surfaces of the Bailey are machined. Those on the Handyman are rough cast and painted, which is an immediate concern, they need to be machined for accurate alignment and to seat properly.

The picture on the right shows a side view of the two frogs, Handyman at the top, Bailey at the bottom. The Handyman frog has been redesigned, presumably for easier manufacturing.



If you look at the diagram below showing the cross section of a plane you can see that the frog (6) is clamped to the sole by two screws (10). The frog is slotted so that it can move backwards and forwards to change the opening of the mouth and to align the frog to the sole. The bottom of the frog bears onto the sole along two areas, just behind the mouth and under the clamping screws. The front bearing area is important, because this resists the cutting forces from the edge of the blade.

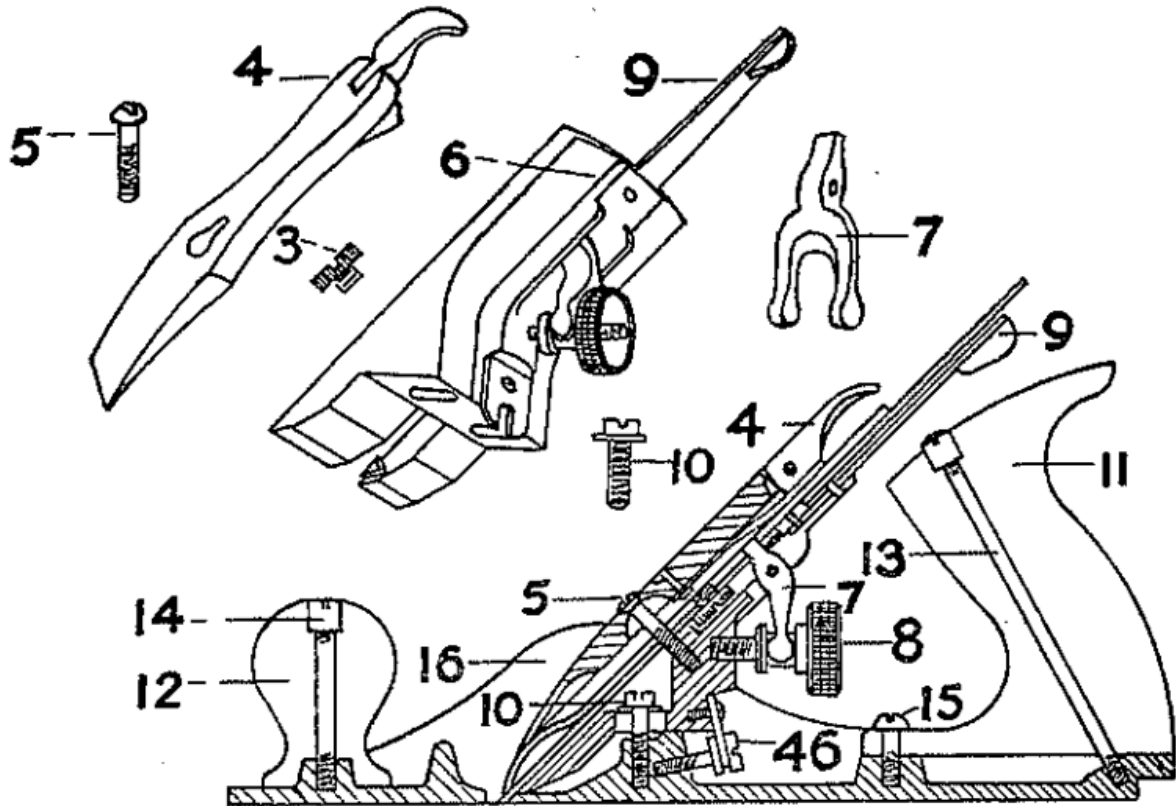


Fig. 22.—Parts of Record Planes.

3—Cap Screw. 4—Lever Cap. 5—Lever Cap Screw. 6—Frog, complete.
 7—"Y" Adjusting Lever. 8—Adjusting Nut. 9—Lateral Adjusting Lever.
 10—Frog Screw. 11—Plane Handle. 12—Plane Knob. 13—Handle Bolt and Nut.
 14—Knob Bolt and Nut. 15—Handle Toe Screw. 16—Plane Body.
 46—Frog Adjusting Screw.

As a plane is pushed forwards over the workpiece, the cutting edge penetrates the wood, lifting a shaving. The force on the cutting edge is downwards and backwards. This is resisted by the frog through to the sole.

Inspecting the frog of the Handyman plane, it was apparent that it made contact only under the clamping screws. There is a gap under the front of the frog, and this is the real cause of the problem.

Clearly, when the cutting edge encountered a lot of resistance, the front of the frog was unable to support it and it moved downwards, chattering or even digging in!

The picture shows a feeler gauge in the gap under the front of the frog, a gap of more than half a millimetre. When there is downward force on the cutting edge, the frog can move down, allowing further downward movement of the cutting edge resulting in a dig in.



For a heavy cut one would probably adjust the blade to take off about a tenth of a millimetre or more. For fine work, one is probably adjusting the plane to take off a hundredth of a millimetre. Any deflection at all is undesirable, let alone a possible movement of half a millimetre.

This explains to me why the plane behaved the way it does with heavy cuts. I have not checked other examples of the Stanley Handyman line, so this may not be a problem common to all.

Saving on machining fatally compromised the working of this plane. Clearly the designers never used this plane themselves.

If you are offered one of these planes, I would check for this issue, before trying to use it on anything more than soft pine. This may also apply to the range of "Global" planes offered by Stanley – check before you buy.

It may be possible to correct the problem by removing metal from the frog in the area under the two screws until the front of the frog makes contact with the sole. This would need to be done carefully to maintain the geometry of the frog relative to the sole, but it should solve the dig in problem.

The other issues that I have with the Handyman range are not insurmountable – there is no screw (46) to help align the frog front-to-back, making setting the mouth more difficult. Also the adjustment wheel (8) is plastic and has a lot of play, but it is workable.

I remember reading a question posed to Paul Sellers (at paulsellers.com) about a plane chattering, and Paul said he had never encountered it. I think that the poor person posing the question was probably trying to use a Handyman plane, which Paul had probably not encountered. Paul Sellers is well worth reading – he is not convinced that fancy planes with low angles and thick irons are noticeable better than a well tuned Stanley Bailey of a reasonable vintage.