◄ Wooden apple made by Dries.

May 2014

Crosscut

Newsletter of the Witwatersrand Woodworkers' Association
PO Box 411346, Craighall, 2024, South Africa

Secretary : Ken Mutch ken.woodman AT gmail.com Editor: Trevor Pope tpope AT iafrica.com

Next General Club Meeting on **Wednesday, the 14th May 2014** from 18h00 at WWA clubhouse at the Living Link Hall. WWA AGM and Greg de Villiers will demonstrate the new Kreg jigs from Vermont Tools. (Kreg made their name with pocket-hole jigs.)

Next Turner's monthly meeting is on **Monday, the 5th May 2014** at 18h00 at the WWA clubhouse at the Living Link Hall. Celtic Knots. Wood of the month: Beech – please bring samples and examples.

News

April 2014 Turner's Meeting – Turning and embellishing a wooden apple by Dries Blignaut. Dries turned wooden apple using a combination of work holding devices. Starting with a chuck to hold the blank, (65 diam by 55 long) he rounded off the end into an apple shape before fitting it onto a shop-made screw chuck with a 3mm screw (shown middle-right). A 3mm arbor fitted onto a live centre was used in the tailstock to support the work-piece until all the heavy cutting was complete. Then Dries used a cabinet scraper, followed by fine sandpaper and then buffed with Carnauba wax to bring the apple to a fine polish. The hole in the base was plugged with a clove and the top plugged with a twig to finish the apple.

Homework – turn and finish an apple or similar fruit.

Wood of the Month: Erythrophleum Africanum – called Paurosa or Missanda - has a wide distribution in tropical Africa. Chris showed pictures of a table he made that shows the reddish to dark brown heartwood. It is very dense with a specific gravity close to 1, so wet logs will sink. It is hard and has an interlocking grain, so it is well suited for flooring and furniture. It is not widely available but may be reasonably priced when it is.

April 2014 Meeting – Peter Rendell talked us through building an astronomical telescope made mostly of wood. Starting with the mirror, he explained how it is ground by hand to a final accuracy of less than a wavelength of light for a distortion-free image. His mirror is 150mm diam, so he constructed a wooden tube 200mm diam by 1.2m long to house it. The tube is made from 1.5mm bending ply, which is available from Veneer Tech in Germiston. (3 Refinery Road, Driehoek – 011-776-7300 or www.vtsa.co.za)

Using a former, he laminated the bending ply into a tube. The ends of the tube were reinforced with additional veneer. An adjustable wooden mounting was used to support the mirror and a spider made from metal was used to hold the mirror for the eyepiece at the opposite end. Peter showed two mounts he made, a simple Dobsonian mount, and a more elaborate equatorial mount that accurately follows the rotation of the skies. His innovative use of simple, commonly available parts allowed him to save a lot of money, albeit at the expense of more handwork.

Club Notices

Brian Jolly (Strand Hardware – the SA agent for Robert Sorby) has arranged for an overseas turner - Chris Pouncy from Robert Sorby to demonstrate at Hardware Centre on the 5th of August at 18H00. More details to follow.

Please Note:

Toymakers. The toymakers meet on the first and third Mondays of every month, at 09h00 till 12h00 at the new clubhouse. Contact Eddie Marchio on 011-678-8062 or rm22 AT mweb.co.za for more information.

Wednesday Workshop. The Wednesday evening workshops are on the first and third Wednesdays of every month at the new clubhouse, from 18h00 till 20h00. Contact Grant Mackay on 082-391-9769 or mackay.grant AT gmail.com or gmackay AT worldonline.co.za for more information.

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.

ANNUAL MEMBERSHIP SUBSCRIPTIONS: 2014 / 2015 year

Subject to approval at the meeting, membership subscriptions for 2014 / 2015 are due on 1 May 2014 for R350- per year. Country, spousal and scholar subs are R100- per year.

Please pay the Treasurer before the end of April to maintain continuity of your membership**.** Post cheques to the address in the masthead of this newsletter. Details for direct deposits are on your ***personal*** invoice below. Thank you.

Ken Mutch **Secretary**

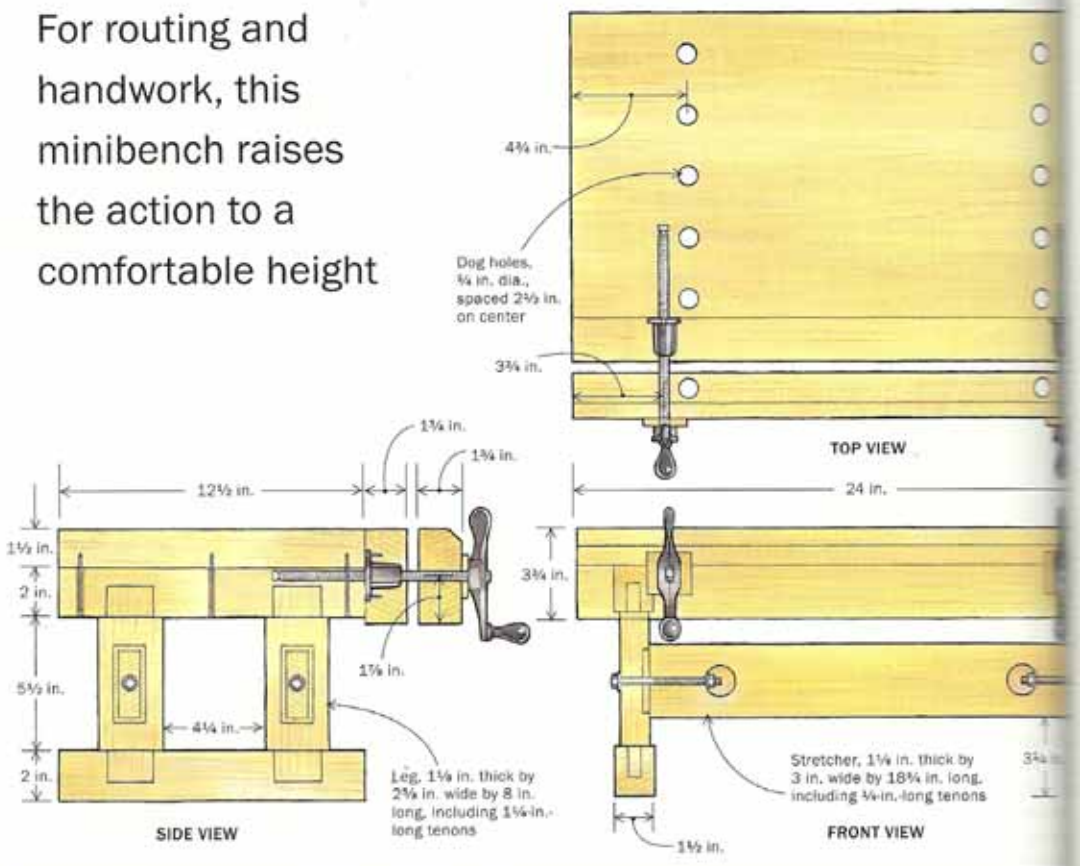
01 April 2014	**INVOICE**	
AMOUNT	DUE DATE	
R350-00	01 May 2014	SUBSCRIPTION for the Witwatersrand Woodworkers Association - 2014/2015 year
		Direct deposits to: Witwatersrand Woodworkers Association. Nedbank Main St. branch - Code: 190805. Account No: 1979-321833 – Put your name in the comment line, so that the treasurer can identify the source of the payment.

Bench-top Bench Plans

As promised, the plans for the Bench-top bench that Ken Bullivant showed at the April 2014 meeting are reproduced below – scanned by Ken from the magazine. The issue is almost 10 years old so most people will not remember it.

A Benchtop Bench

For routing and handwork, this minibench raises the action to a comfortable height



ELEVATED BENCH SAVES YOUR BACK

This benchtop bench elevates a workpiece several inches above a regular workbench, so it is more comfortable to do such tasks as cutting, carving, and routing.

BY JEFF MILLER

Woodworking benches are designed to place a workpiece at a height that's ideal for hand-planing. But the perfect height for planing often is too low for other common bench tasks. For example, when routing, carving, cutting dovetails, or doing layout, I frequently have found myself bent over at an uncomfortable angle so that I could see clearly and work effectively. When performing these tasks, I like to have a workpiece positioned 6 in. to 10 in. above my waist level.

To bring a workpiece to my ideal height range, I made a small workbench that mounts quickly to my regular bench. When extra height is needed, the minibench effectively raises the worksurface to my comfort zone. The bench is easy to move, stores nicely under my bigger bench, and includes a vise that provides plenty of holding force. I made the bench out of maple, but any hard, dense wood will work.

finewoodworking.com

Visit our Web site to see the author demonstrate the benchtop bench.

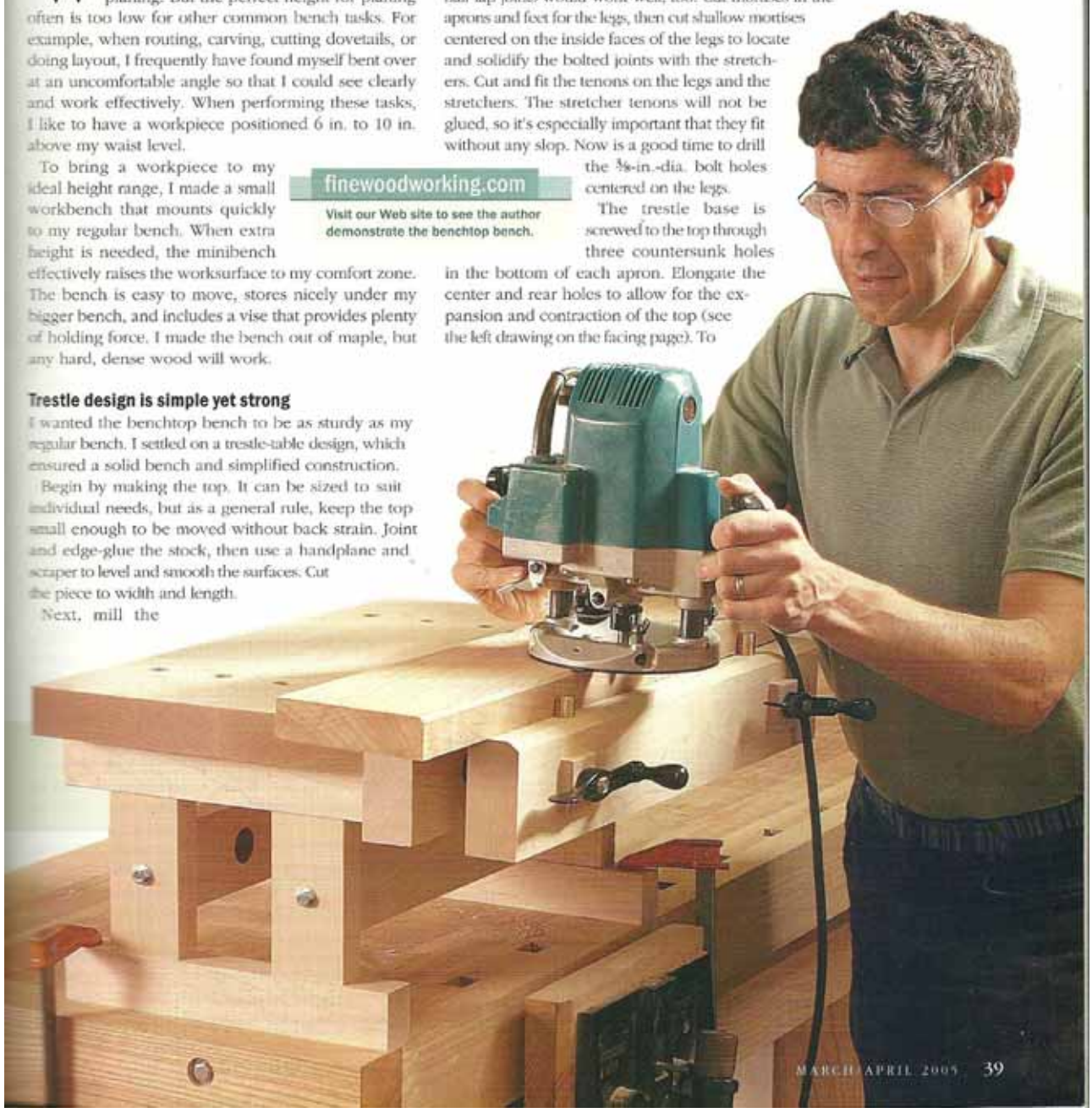
Trestle design is simple yet strong

I wanted the benchtop bench to be as sturdy as my regular bench. I settled on a trestle-table design, which ensured a solid bench and simplified construction.

Begin by making the top. It can be sized to suit individual needs, but as a general rule, keep the top small enough to be moved without back strain. Joint and edge-glue the stock, then use a handplane and scraper to level and smooth the surfaces. Cut the piece to width and length.

Next, mill the stock for the trestle base. I chose a mortise-and-tenon joint to connect the legs to the aprons and feet, but half-lap joints would work well, too. Cut mortises in the aprons and feet for the legs, then cut shallow mortises centered on the inside faces of the legs to locate and solidify the bolted joints with the stretchers. Cut and fit the tenons on the legs and the stretchers. The stretcher tenons will not be glued, so it's especially important that they fit without any slop. Now is a good time to drill the ⅜-in.-dia. bolt holes centered on the legs.

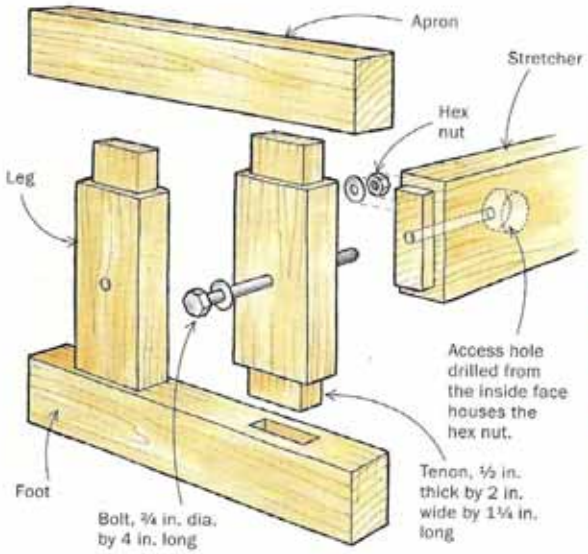
The trestle base is screwed to the top through three countersunk holes in the bottom of each apron. Elongate the center and rear holes to allow for the expansion and contraction of the top (see the left drawing on the facing page). To

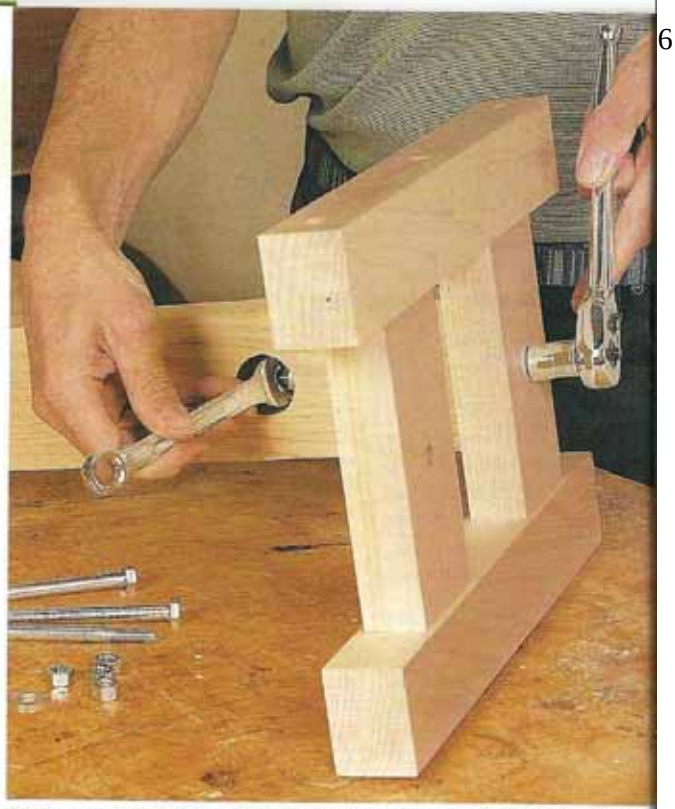


TRESTLE DESIGN MAKES FOR A STURDY BENCH

BASE ASSEMBLY

The trestles and stretchers are assembled using mortise-and-tenon construction, giving the benchtop bench solid footing.





Glue up the trestles, then attach the stretchers. *A long bolt connects the end of each stretcher to the trestles. Note the access hole in the stretcher.*

glue up the trestles, spread glue in the mortises and very lightly on the tenons, push the parts together, then clamp up. Check for square and adjust, if necessary.

The stretchers need to be drilled for the bolts that will hold the base together. Use the bolt holes in the trestle legs as drill guides. Dry-assemble the base and clamp it together, but leave access to the bolt holes. Be sure to drill to depth straight; use a self-centering dowel jig, if you need to.

Mark the locations for the hex-nut access holes on the inside faces of the stretchers. Drill with a 1¼-in.-dia. Forstner bit to within 3/16 in. of the outside face of each stretcher. The hex nuts and washers go into these holes.

Vise adds versatility

The front vise makes it easy to clamp a workpiece either to the front of the bench or on top of it. While I wanted the vise to be simple and easy to make, I also needed it to accept wide boards for dovetailing carcases. As it turned out, a couple of veneer-press screws satisfied both requirements.

Mill the vise jaw and the bench face to their designated thicknesses, then cut them to the same width and length. Mark the locations for the veneer-press-screw holes on the inside of the bench face. Clamp the vise jaw and bench face together and drill through the bench face into the jaw with a ⅛-in.-dia. drill bit. This hole helps align the hole for the veneer-press nut with the one for the screw. Check the dimensions of the veneer-press screws. I used a (roughly) ⅝-in.-dia. screw, with the outside of the veneer-press nut measuring about 1 in. dia., although it tapered slightly. Drill the hole for the screw in the vise jaw, and the hole for the nut in the bench face. The end plate that comes with each screw will not be used. You can remove the plate simply by loosening the mounting screw.

Enlarge the hole for the veneer-press nut, concentrating on the end of the hole nearest the benchtop. Tap the nut into place to check your progress. (The paint on the nut will rub off when it is tapped in place, leaving a clear picture of the areas that need relief.) You can remove the nut by threading the veneer-press screw into place and then tapping the end of the screw (not the handle) with a mallet.

Once the nut fits, trace the outline of the flange onto the inside of the bench face. Rout away enough wood to allow the nut, and the screws that will attach it to the face, to sit flush with or slightly below the surface. Screw the nuts into place.

Clamp the bench face into position so that the top edge is flush with the benchtop, and screw the two outermost screws into place (drill and countersink pilot holes first). Turn over the benchtop and check where the veneer-press screw will come through the face. Depending on the size of your bench, you may have to rout a channel on the underside of the benchtop for the veneer-press screw. Mark exactly where the channel will be, then remove the bench face to rout

Hardware Sources

VENEER-PRESS SCREW

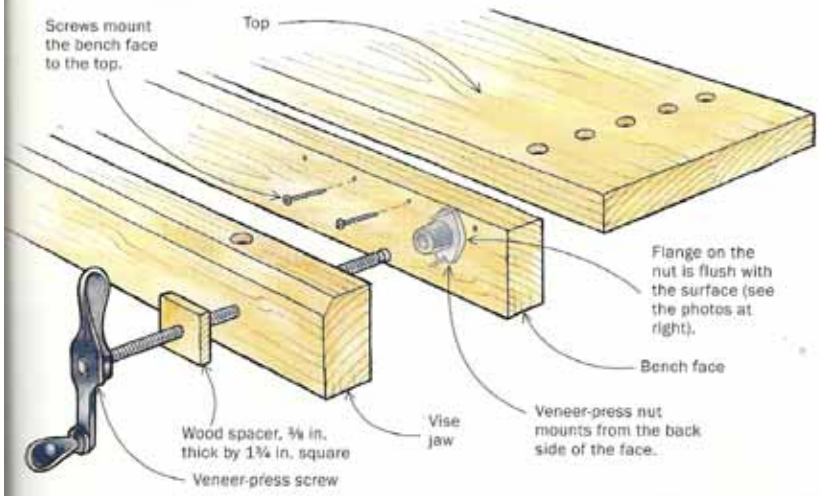
BENCH PUP

Lee Valley Tools
800-871-8158
www.leevalley.com

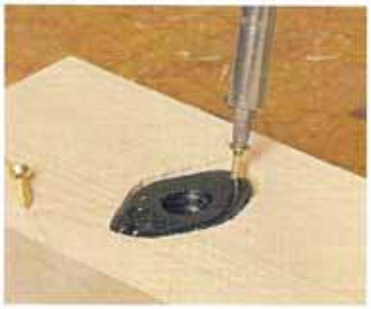
Woodcraft
800-225-1153
www.woodcraft.com

VISE ASSEMBLY

Before attaching the bench face to the benchtop, drill the holes for the veneer-press screws and install the hardware. The screws will close the vise jaw, but you'll have to pull it open manually.



Inset the veneer-press nuts into the back of the bench face. *Trace the flange profile (above) and rout a recess to set the nut flush with the stock. Secure with screws (below).*



the channel. Reattach the face, and try to thread the vise screw into place. Remove more wood as necessary.

The veneer-press-screw handles will need more clearance to operate easily. Glue wooden spacers, roughly ⅜ in. thick by 1¾ in. square, over the veneer-press-screw holes. Run the bit you used to drill these holes through the spacers from inside the jaw. The vise jaw will not open automatically when you loosen the veneer-press screws. You can pull it open manually, or refine the vise with two modified ⅝-in. drill-bit stop collars or shaft collars. The bore of the collars might have to be enlarged to fit on the veneer-press screw. A machine shop can do this for you, or you can file it by hand.

Benchdogs boost performance

The addition of Veritas Bench Pups allows me to hold a workpiece on top of the bench. Lay out the positions for holes in the benchtop and the vise jaw, being careful to avoid the area over the veneer-press screws and the apron of the base. Bore ¾-in.-dia. holes and insert the Bench Pups. The benchtop holes are best drilled on the drill press, with the bench face removed.

Reattach the face when everything is positioned properly and works smoothly. Apply glue to the mating surfaces, then add the screws. Finally, mount the base to the top by driving screws through the holes in the aprons. □

Jeff Miller runs a custom furniture shop in Chicago, where he also offers woodworking classes (www.furnituremaking.com).

Attach the base. *Mount the top to the base by driving three screws through holes (two slotted, one round) in each apron.*