

NEWS 116



CHRISTMAS EDITION



December 2010

TTTG Inc

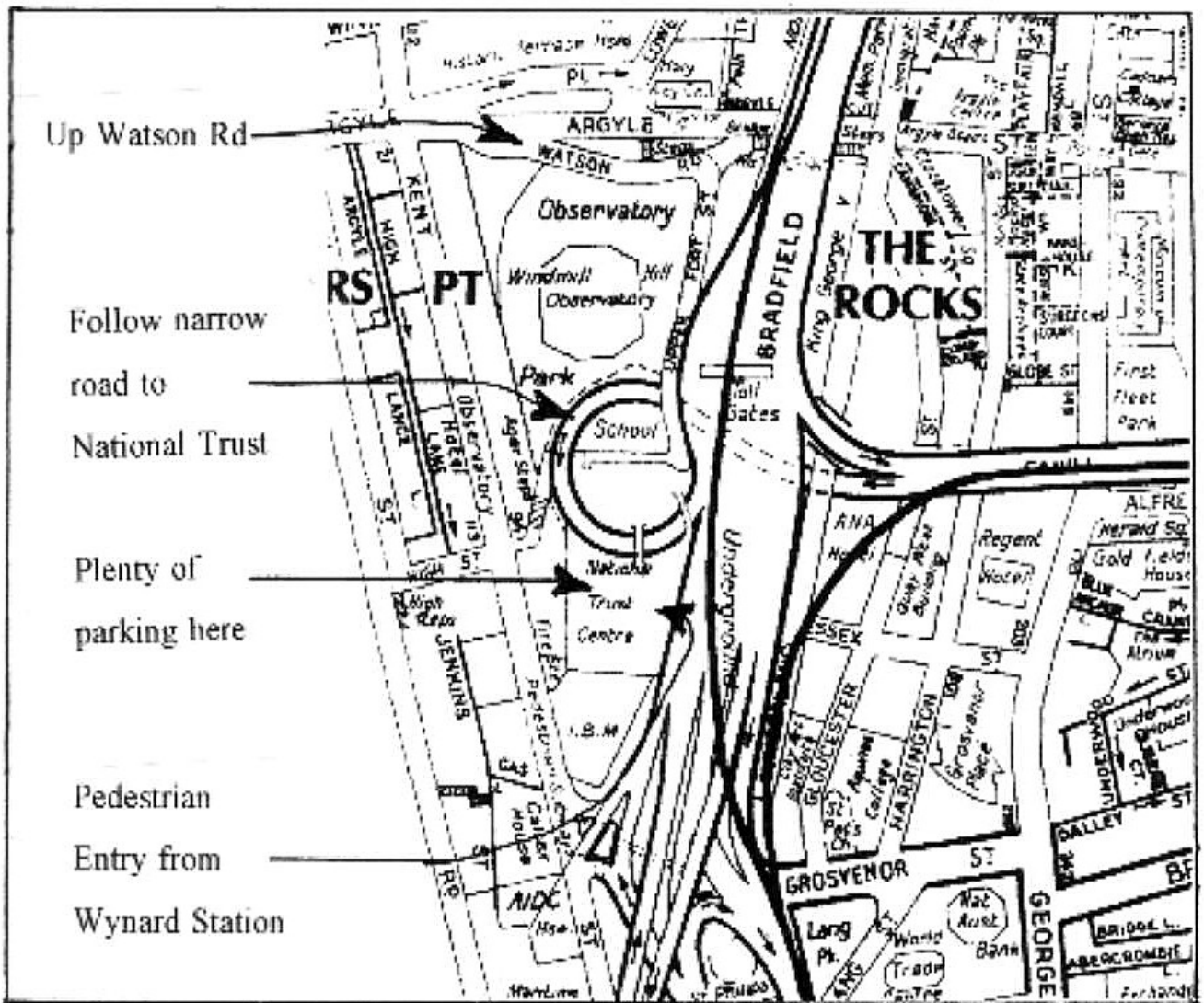
www.tttg.org.au

Next Meeting

Tuesday December 14

Annie Wyatt Room National Trust
Centre Observatory Hill

Topic: The Columns from Burdekin
House and Colonial Joinery



Postal Address

P.O. Box N240 Grosvenor Place
Sydney NSW 1220

Membership \$35

Entry \$5

Doors open at 7pm

Enquires

Mike Williams 02 9144 6356

Bob Crosbie crosbie.bob@gmail.com

www.tttg.org.au

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Cover WEN Tools advertisement

Popular Science October 1961

Looks like Wally and Betty are about to switch on their Christmas presents. The photographer may have prevented a visit to the hospital casualty ward.

The TTTG Library

The TTTG book collection has been moved to one location.

The Library is in a secure location and books can be reserved by contacting the TTTG Librarian by logging on www.tttg.org.au

A list of the Library contents is on the web page

The TTTG Tool Collection

Work has commenced on the cataloguing of the TTTG Tools

Some tools have been sold off

In time the collection will be expanded by acquiring tools suitable for demonstration and public display.

TTTG will continue to accept donations of tools and books

*The Traditional Tools Group
and the Strathfield Men’s
Shed*

TTTG has entered into an agreement to rent a room in the Strathfield Men’s Shed to store the Library and Tools.

TTTG will also hold some workshops at this venue.

Next Meeting

Tuesday December 14

The Columns from Burdekin House and Colonial Joinery

The Annie Wyatt Room now boasts four large columns, standing each side of the rather sad fireplace as many of TTTG members who have attended the last two meetings have observed.

These are four of the ten columns which graced the front of Burdekin House and are of painted timber. Burdekin House was built on the west side of Macquarie Street, Sydney in 1841 for Thomas Burdekin who was a General Goods Merchant and Ironmonger, trading in the city. The house was demolished in 1933 and besides a plaque set into the pavement indicating its location, the columns may be all that remains of this rather elegant Colonial building.

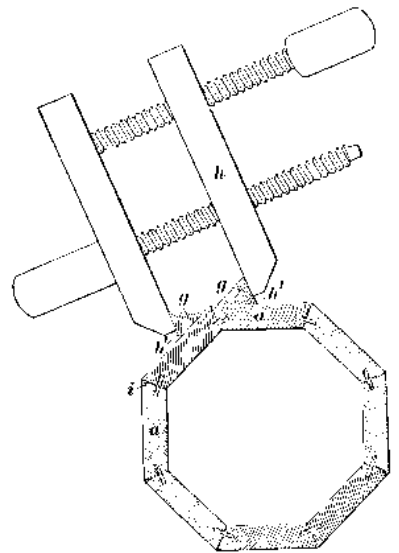
With the columns in the room, we thought that it would be a good idea to explore the way in which they were made, together with, of course, a selection of period tools which would have been used. Other colonial joinery will also be exhibited which will demonstrate the care and perfection with which much of this early joinery was completed without the use of machinery or portable power tools.

The Auction

The previous auction consolidated the return to quality items being offered under the TTTG Auctioneer's hammer.

Members are reminded to contain their enthusiasm and to pay the treasurer at the end of the auction.

Every item offered is a bargain!



Gluing up an octagonal column

From *Shop Fronts and Fittings*.
I C S Library. London. No date.

Previous Meeting

Carter Precision Tools

Mike Hendrikson rang the speaker before the meeting to remind him that at a TTTG talk on Carter, in the early days of TTTG, Frank Carter had made the statement “we only made planes in order to make vices”. Mike wanted the audience to appreciate the need to have enough patterns to make a pour worthwhile.

The talk began with a consideration of the structure of Carter Precision Tools during the 1950s and 60s. One member of the audience remember the virtually derelict Carter industrial site in Seven Hills in the 1970s. The presence of a large Metallurgy Laboratory illustrates the size of Carter.

After discussing the extensive range of the Carter products the meeting concluded with a consensus that there must be more information on Carter waiting to be found.

Wood Bending by Mike Hendrikson
Fill in enclosed order form to secure a copy of this informative book.
\$10 off for TTTG members who buy now.

The Traditional Tools Group (Inc)

'HANDS ON DAY'

**Where: - Strathfield Men's Shed
Pomeroy Street Homebush**

When: - Sunday December 12th 2010

Starts 9am Finishes 4pm

Light refreshments are provided. Bring your lunch.

The TTTG Tool Collection is stored in the Strathfield Men's Shed

The TTTG Library is being relocated to the Strathfield Men's Shed

At this 'Hands On' Day TTTG members will:

#Install the new floor in the TTTG Room

#Start Shelving the TTTG Library

#Store and catalogue the Tool Collection

For sale

*** Numerous TTTG 'on consignment' and 'donation tools'.**

The good, the bad and the ugly at must sell prices

*** A selection of rare timber.**

*** Barnes Lathe**

*** Mathieson Crescent Mortiser**

*** Excellor Mortiser**

All TTTG members are encouraged to come along and help to get the group's Tool Collection and Library into order!

This day is also a get opportunity to get some bargains!

Contact Bob 02 9869 7487

Mike 02 9144 6356

2011

TTTG TOOL SALE

13th March

ASQUITH BOYS HIGH SCHOOL
Old Pacific Highway Asquith

Entry \$5

BOOKINGS FOR SELLER'S TABLES NOW OPEN

Tables \$50 each. TTTG supplies the tables!

BOOK EARLY!

Contact Horacio at email HRodrigues@hatch.com.au



PLANES

FULLY FETTLER (TUNED) AND SHARP
STANLEY BAILEY, BEDROCK & BLOCK PLANES
FETTLING SERVICE, REPAIRS, WELDING

TRADE PRICES ON:



DMT DIAMOND PLATES - DIA-SHARP PLATES



ICE BEAR & KING WATERSTONES

M2 HSS ACADEMY BLADES, LEATHER CHISEL ROLLS AND COVERS



AGENT FOR CARBA-TEC

CREDIT CARD FACILITIES:



VISA



Jim Davey

Ph 02 4447 8822(W) 4447 8790(AH) PO Box 967 Nowra NSW 2541
JDAVEY@bigpond.com www.jimdavey-planes-sharpening.com

Next TTTG Workshop

Jan 23, 2011

Essential Wood Working Tools

Asquith Boys High School

What tools do you need?

How much will the tools cost?

Where can you buy the tools?

How do you sharpen the tools?

How do you use the tools?

This workshop will answer these questions and provide suggestions on affordable ways to start wood working.

The Workshop Content

*The Work Bench

*The Bench Hook and Bench Stop

*The Shooting Board

*Rules and Squares

*Pencil and Marking Knife

* Saws

The Handsaw and The Backsaw
Technique

*Sharpening Edge Tools

*Planes

Bench planes
Block planes
Special purpose planes
Technique

*Chisels

Types & Technique

*Hammers and Mallets

*Glues

*Extra Tools

Spokeshave & Scraper

This is a 'hands on' workshop and those attending are encouraged to bring some tools. *I suggest they bring tools they find hard to use.* In most cases the tool is not the problem rather the difficulties are caused by poor sharpening or technique.

All the tools necessary to practice will be available at the workshop. This is a great opportunity to find out what suits you by actual experience with the tools. The tools will be correctly sharpened and you will be shown safe techniques.

The workshop presentation begins with a discussion of the work bench and the key 'bench' tools. Without a good vice, bench stop, bench hook and shooting board the work bench is virtually useless.

This workshop will give those attending an understanding of how to make a good bench without spending a large amount of money or time. Likewise the participants will learn how to make a bench hook, a shooting board and other bench tools.

After showing the bench and how to use it the presenters will introduce the tools.

Participants will be shown the best tools available, these may be second hand tools or brand new tools. Advice will be offered on how to buy tools, whether new or old.

Once each type of tool has been discussed there will be an opportunity to try using a selection of each type of tool. Safe tool use will be reinforced!

The workshop will show the participants how to sharpen the various types of tools. *These sharpening skills can be further developed by attending other workshops!*

An extensive range of old tools will be on sale at this workshop.

Fully fettled planes, new planes and the best sharpening equipment available will also be available for purchase,

2011 Workshops

December 2010-July 2011

December 12

Hands On Workshop

Strathfield Men's Shed

*Volunteers to refurbish the TTTG Room!
Moving the Tool Collection and Library
There will be some tools and timber on sale*

January 23

Essential Tools for Working Wood

Asquith Boys High School

*What tools do you need?
How much will the tools cost?
Where can you buy the tools?
How do you sharpen the tools?
How do you use the tools?*

This workshop addresses these questions and provides sound advice on the most cost effective way to start wood working.

February 20

Saw Sharpening & Use

Strathfield Men's Shed

*No one else offers a course on saw filing!
Learn how to sharpen your saws
Old saws and equipment for sale*

April 10

Tool Repairs

Asquith Boys High School

*This is a 'hands on' workshop
How to make replacement handles for
planes and saws
Repairs to wooden planes
Tools and Spare parts for sale*

Enquiries www.tttg.org.au
Mike Williams 02 9144 6356
Bob Crosbie
crosbie.bob@gmail.com

May 1

Blacksmithing

Sydney Heritage Fleet

Forging steel with harbour views
Well equipped workshop
All necessary tools and materials supplied

June 5

Sharpening Edge Tools

Strathfield Men's Shed

*Want to get the best out of your edge tools?
Learn how to grind and hone all edge tools
Sharpening equipment and tools for sale*

July 3

Plane Tuning & Sharpening

Strathfield Men's Shed

*Experience using a really sharp plane
All aspects of plane care and use covered
Parts and sharpening equipment for sale*

Workshop Venues

*Sydney Heritage Fleet

Heritage Shipyard
Gate number 4
James Craig Road
Rozelle

*Strathfield Men's Shed

Pomeroy Road
Strathfield

*Asquith Boys High School

Jersey Street North
Asquith

#Bring suitable clothing, shoes and
hearing & eye protection.
Sign in 9am, Start 9-15am



How Much?

Members \$20

Others \$40

Join at the workshop for \$55
Workshop plus membership

TTTG CITRIC ACID

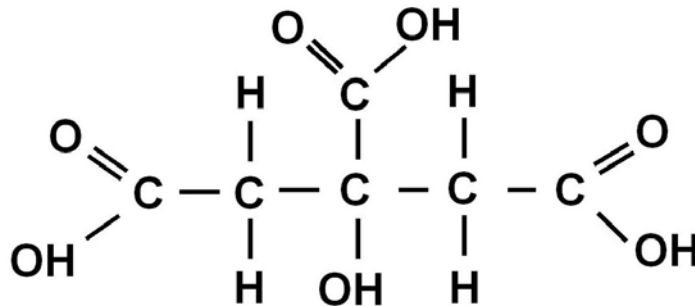
THE BEST AND CHEAPEST

Available at all TTTG Inc Meetings and Workshops

Support TTTG and save money!



*For tough rust
USE
TTTG Citric Acid*



ONE SIZE

ONE TTTG PRICE

500 grams for \$5

(Supermarket price 75 grams for \$2.20)

THE LEDGER

New Members

On behalf of the TTTG Executive and Members, a welcome is extended to three new members:-

Noelene Carter	M 602
Strathfield Men's Shed	M 603
Paul Crowe	M 604

Hands-on Workshop 12-12-'10

The Traditional Tools Group currently rents a small room from the Strathfield Men's Shed (at the Shed, 28 Pomeroy Street, Homebush) to store TTTG's Library and tool collection. On occupying this room, it was found that, whilst the bearers were reasonably sound, the joists were rotten.

At the previous Hands-on Workshop on 30th October, TTTG volunteers replaced the floor joists with galvanized C-section steel sections supplied by The Shed. In addition, underfloor ventilation was provided by knocking out a brick from the inner leaf of the cavity wall thereby gaining access to a ventilator in the outer leaf.

On Sunday 12th December, 2010, TTTG members should come along to The Shed to continue the upgrading of our Room. If you haven't seen The Shed, come along, it's an eye-opener ! Wear very casual clothes.

Wasn't the Router Workshop Great !

On Sunday 21st November TTTG held, with great success, its first Router Workshop at Asquith Boys' High School attended by 25 candidates and

instructed by Jim Davey and Bob Crosbie.

Members were able to take home a plane handle that they'd made themselves. The success of this workshop indicates that we will certainly be holding it again next year.

On the adjacent page is a copy of the late Les Miller's router chart from the March/April 1986 issue of the Australian Woodworker (with permission to reproduce).

Workshop on Essential Tools for Working Wood.

On Sunday 23rd January, 2011 at Asquith Boys' High School, starting at 9:30am, TTTG will be holding an all-day workshop on the selection, cost, use and maintenance of woodworking tools.

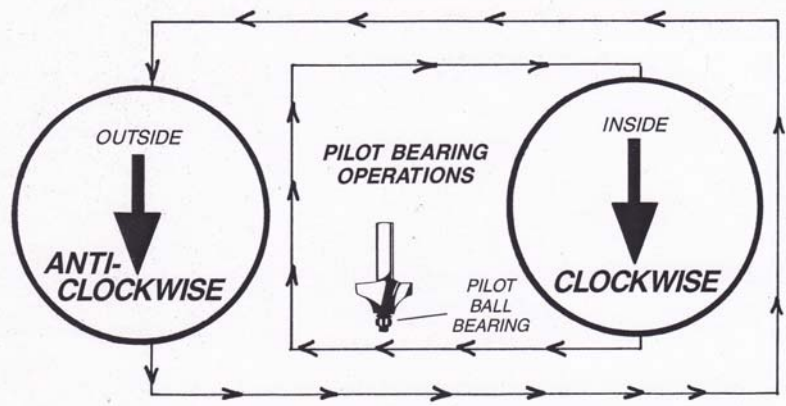
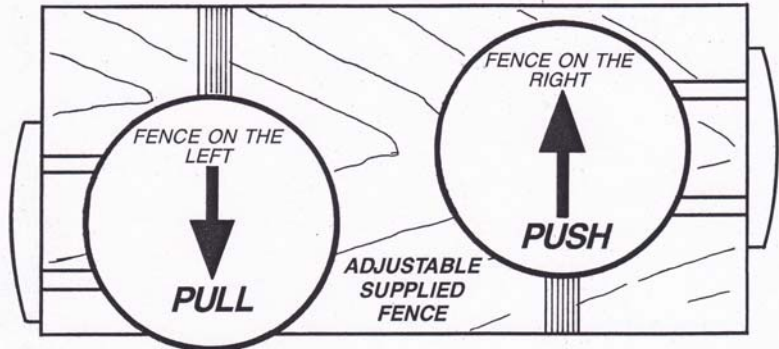
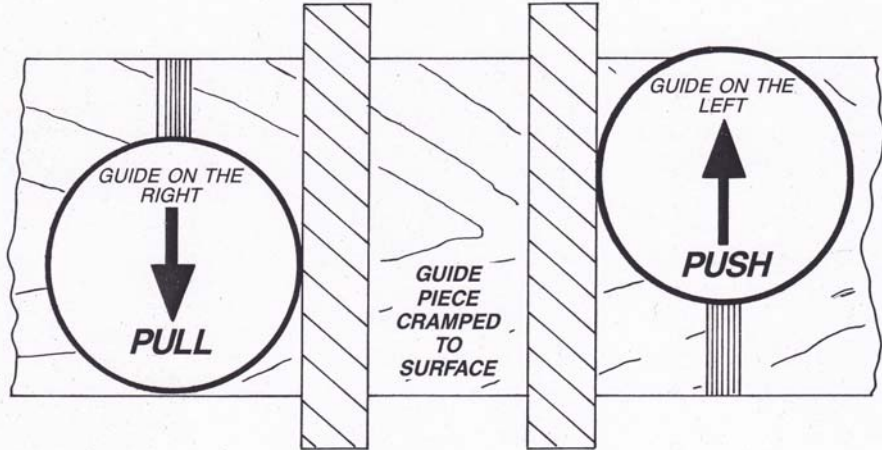
Tea/Coffee and bickies provided; bring your lunch if required. If you get there at about 9am, have a cuppa before the Workshop starts (and available all day).

Enter Asquith Boys' High School from Jersey Street North; drive 'round past the playing field to the Industrial Arts block.

Workshops \$20 members; \$40 non-members, (non-members may join on the day to enjoy the numerous delights of TTTG membership). No need to book, just turn up.

Clynt Sheehy
TTTG Treasurer

POWER ROUTER OPERATING DIRECTIONS



JD's

John Daniel

It pays to talk to your hairdresser

It all started around six months ago. "Have I got news for you", was the greeting from our hairdresser and long time friend as we met while walking along the beach front. "I was talking to one of my customers the other day and her father is settling up his father's estate in England before migrating to Australia and he doesn't know what to do with his grandfather's tools". Of course, there was the obvious answer, and now after the patient wait, the tools are now here; all the way from a Manor House in Clitheroe, near Preston in Nth Lancashire to a humble workshop on the South Coast of NSW Australia. That's technology and transport for you.

This was a moment of mixed emotions as I shook the welcoming hand of a smiling stranger soon to be friend, and the beckoning sight of an old tool box begging to be opened. Formalities were brief, and then with increased heart rate, we were down to business. It was a shared experience, he enjoying my response, and me enjoying the experience of lifting the lid on a little piece of history.

What an assortment of tools. By all accounts the contents of the box had been scattered throughout three locations at the old home and although the majority had been in the shed, some were found in the old laundry and the rest in another room, which would account for the tools from different periods of manufacture, also it's obvious that things would have been added as time passed.

The box originated in Scotland and is not the original and judging by the nails used, may be a bit earlier. It is reasonably well constructed although it has had a hard life with the top lidded slide missing, (not a problem as it will be a simple project to look forward to). As the majority of the chisels and gouges are pattern makers , one can safely assume that the original box was very well crafted and is now disorientated, occupying pride of place in someone's home. Tragic! If only.....!

For the sake of brevity, I won't get bogged down with a full inventory of the contents, for as can be seen in the photos, it could run into several pages, however I will draw attention to a few that deserve a mention. The earlier tools were manufactured c1890s, all by well documented and respected makers, and then a time gap with others added between the 1930 s and the 50 s. The majority of the pattern making tools are by James Howarth, while other names such as Marples, Sorby, Preston, Mosely, Mathieson and others of the period. No doubt, the craftsman appreciated quality.



Apart from the overall impact when first opening the box there were a lot of little treasures that winked at me, things such as the little Preston No 1355A shoulder plane, the sliding bevel by James Howarth, a nice Brazilian Rosewood handled pad handle, Buck and Ryan of London screwdriver, Moseley Boxwood spokeshave, a beaut., early diamond glasscutter, a patented Buffalo Rawhide mallet still with partial decal,I had better stop here; the photo shows a small handful.



Over the last couple of weeks I've been steadily working through the tools attempting to remove rust and grime that had built up over the years of exposure and non-use and return them to the slides/trays in a used and cared-for condition. I still have the bottom layer of the box to tackle, which I'm looking forward to, as there are a couple of nice little tenon saws hiding amongst other little challenges.



Speaking of challenges, one in particular stands head and shoulders above the rest, and that is the Edward Preston No1367 1½ inch Registered Shoulder Plane. It sure must have had an accident-prone existence; my consultant Mike Purcell usually has sound advice on such matters, throwing it over the fence is never an option with Mike.



Well as you can see, I still have a few tasks ahead however this task, that is sharing this experience, is just about complete. There is only one more thing that I have to add, and that is, "it pays to talk to your HAIRDRESSER."



The chisels are now in used and cared far condition. The Preston No 1367 Shoulder Plane is a challenge ahead.

John will be at the Saw Sharpening and Tool Repairs workshops. Few people can sharpen a saw as well or turn a handle as quickly as John.

Correspondence

Rare Tasmanian #4 Plane

The Editor,

I need your help or the help of our membership.

Recently I bought a mixed box of tools at Gowan (Hobart) Auction room and among the rubbish was a very rusty, paint covered Stanley #4. "Got plenty of those", I thought and tossed it aside – mistake No.1. I can't stand looking at planes that are rusty, so decided to clean the brute.

So I dismantled it, noting as I did that it was Australian made – folded top lever adjustment; plastic (black) knob and handle with one-piece screws.

Voila!!! No frog adjustment and no tapped holes for the screws.

So does anyone know if there was a line of #4s without frog adjustment during the last years of manufacture?

I note that in John Walter's book that there were some made in the USA during the last war that had frog adjustment omitted, but the Australian version? Can anyone shed light on this baffling mystery?

Also in the box were two gauges that have me baffled but they may have something to do with earth moving equipment as limits on the gauge refer to such things as "track roller", "Grouser" (meaning unknown), "idler", "sprocket tooth" etc.

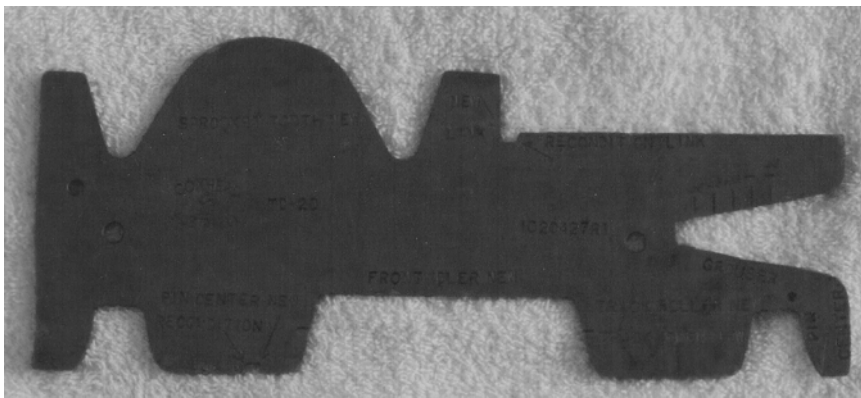
The trade mark is



The company is listed in the HTPA Directory but it doesn't mention gauges.

Terry Butcher

Has anyone seen a Stanley #4 the same as the one found by Terry Butcher?



One of the Aluminium gauges.

The Gauges are marked:

TD-25 1020430R1 & TD-20 1020427R1

COXHEAD

*Coxhead
Industrial
Engineering*

Listed tools;
rivet tools
die stocks.

Correspondence

News Editor,

I had a chance to sit down and read the last TTTG newsletter. Just a point of clarification on the person writing about using molasses to remove rust, it actually chelates the rust and leaves the steel untouched. A similar chemical process to how soap dissolves oil in water - the molasses chemically attaches to the rust and then the chelated complex dissolves in the molasses.

I found this website.

<http://www.lametalsmiths.org/news/page9.htm>

Question

I have a friend who uses molasses to clean rust off old iron items collected from the bush. The rusty iron article is placed in a jar of molasses solution (nine parts water, one part molasses) and left for two weeks. After this time, the article comes out clean and almost shiny. What is happening?

Answer

Molasses contains chelating agents. These are made of molecules that are shaped a bit like the claws of a crab—the word chelating comes directly from the Latin word chele, meaning claw. They can envelop metal atoms on the surface of an object, trapping them and removing them. Molasses owes its properties to cyclic hydroxamic acids which are powerful chelators of iron. More of these compounds are found if the molasses is derived from sugar beet rather than cane sugar. The plants from which molasses is made presumably use these chelating agents to help them extract minerals from the soil. Interestingly, there are aerobic cyclic hydroxamic acids to scavenge iron. So plants and microbes appear to use the same chelation strategy to obtain their daily ration of iron.

The same process is at work when you clean old coins with Vegemite or cola. The power of chelating agents also explains why the insides of tomato tins need to be lacquered. The citric acid in the tomatoes would dissolve the metal of the container if the lacquer were not present.

Ben Selinger. Department of Chemistry, Australian National University.

Ben Selinger is the author of *Chemistry in the Marketplace* and *Why the Watermelon will not Ripen in your Armpit*.

Andrew F

Mike Williams replies

Yes, perhaps I should have mentioned that the rust removal is a chelation process but I was avoiding getting too technical. I admit that I didn't know anything about cyclic hydroxamic acids; a bit more sophisticated than my basic organic chemistry education, but although citric acid isn't a cyclic organic acid, I maintain that it is responsible for much of the chelation activity in molasses, especially if it is old and starting to ferment. Also I again stress that molasses rust removal is fairly uncontrolled as it depends on the molasses source and the degree of fermentation.

Iron chelation agents will slowly attack the base metal (as noted in the above article by Ben Selinger) but they remove the iron in the rust first as it is less strongly bound, another reason to stick with the more controlled process of citric acid.

The NEWS editor encourages further discussion of this subject.

Rust removal is an important topic. Whatever method is used we need to consider what we are trying to achieve. Pickling back to raw metal may not always be a desirable outcome.

Powered Hand Tools

From Popular Science December 1961



ELECTRIC BACKSCRATCHER runs on house current, has a built-in motor that works five plastic fingers up and down your spine 3,000 times a minute. It's 18 inches long, adds that much to your reach in relieving an inaccessible tickle. It costs \$4.98. Mrs. Dorothy Damar, 769 Damar Bldg., Elizabeth, N.J.

The electric back scratcher might have had as much potential as an electric tooth brush but this hand power tool seems to have failed the test of time.

The editor is always tempted to include an early advertisement for an orbital sander combined massage tool but he doesn't want to encourage TTTG members to try alternative uses for power tools.

The 1960s was the decade when power tools took off. Hopefully someone is now collecting these classic power tools. As far as mechanical design and manufacturing quality are concerned these tools are hard to beat. The electronics are simple but of course there are safety uses. I always feel guilty about OH&S concerns when I use a 1960s power tool.

OH&S wasn't a high priority in the 1960s.

Attitudes to women and power tools were also different then as is illustrated by this cartoon from **SCIENCE DECEMBER 1965**.

The Female delinquent



What do you do with an otherwise bewitching wife who swipes your best screwdriver to open jars with, grabs the extension cord in the shop for her sewing machine, and uses the top of the mower as a cart to haul rock? Comes the winter and the long-handled snowbrush is gone from my car. She's latched onto it to clean out the dust under the refrigerator! Don't tell me to buy her tools of her own—how would I know what to buy when I don't know what she'll go for next?

E. L. HARDY, Fort Lee, N.J.

Don't ask us. Just keep her away from our tools.

The Traditional Tools Group is inclusive and welcomes both sexes to join. TTTG has a number of female members.

TTTG Fees

Membership

\$35 per year (1 July to 30th June)

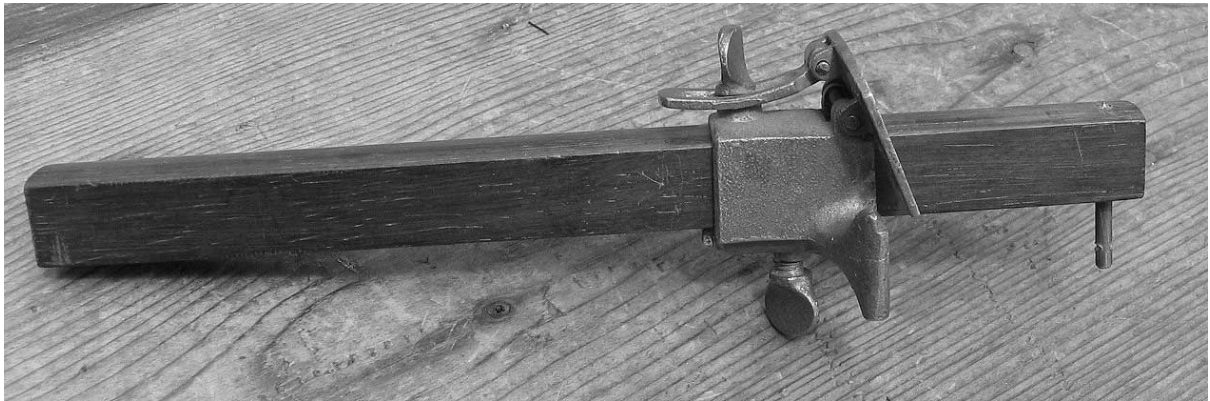
\$30 for Centre Link pensioners

Meetings \$5 donation

Workshops Members \$20
Others \$40

Tool Sales \$5 Entry

Patent Marking Gauge



This marking gauge was listed on Hans Brunner's website. The gauge sold in less than two days!

Anyone with a specific interest in marking gauges can Google the patent application.

Han's provided an excellent description which, with his permission, is reprinted.

Richard Bates Pat October 20, 1896 improved carpenter's marking gauge with brass head on a rosewood stock.

Patent number: 569739

Filing date: Feb 29, 1896

Issue date: Oct 20, 1896

Below are two details of the gauge stock.



Patented tools are often attempts to offer every related function in one tool. The gauge illustrated is a good example of a multi function tool. It is also a good example of why these tools fail to become essential tools.

A marking gauge really needs to be light weight, robust and easily used. How does this gauge fit these criteria?

Richard Bates patent gauge is heavy and the brass stock would be easily damaged. The gauge would also be awkward to set up and to use.

Richard Bates patent gauge combines these gauges in one tool;

*Marking Gauge

*Bevelled Marking Gauge

*Circular Marking Gauge

The wooden versions of this gauge are all inexpensive or easily made. A Bevelled Marking Gauge or a Circular Marking Gauge could be quickly made from a wooden Marking Gauge.

Richard Bates patent gauge would have been an expensive tool. This given the tool's bulk and vulnerable components limited the tool's appeal to tradesmen.

No wonder Richard Bates patent gauge is now a scarce collector's item.

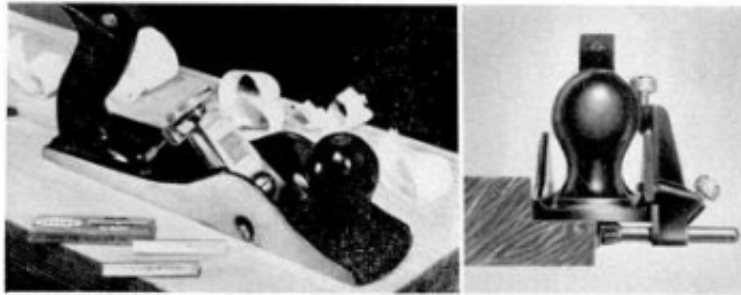
Throwaway Plane Blades

There have been several versions of the throwaway plane blade. The Stanley “ready Edge” is probably the best known.

For design simplicity and manufacturing quality the Paramo is arguably the best.

The writer does have a Paramo RB10 in the original box. The plane is too well made to use on rough work and doesn't work well enough for good work. Like all Paramo tools the plane is very well made.

A new plane with throwaway blades we wish they'd import from Britain



A plane with throwaway blades? That's exactly what you're looking at in these pictures. However, you can use the plane—now on sale in England—for both smoothing and rabbeting. For rabbeting, you clamp an adjustable guide (see the first photo at left) to either side of the body for precise width control of the rabbet. A narrow tungsten-steel blade clamps in

an open-ended slot extending across the 2" sole. Changing blades is a matter of shifting a cam that permits the old one to drop out of the slot. In England, the blades cost the equivalent of seven cents each, and they are promoted as throwaways—although a honer is offered, too. The maker: F. Parramore & Sons, Chapeltown, Sheffield, England.

Popular Science February 1966

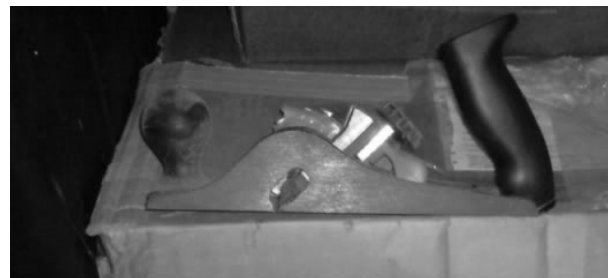
Someone at Stanley may have read this review of the Paramo RB10 and a Stanley version, the Stanley RB10, soon landed on the tool counters of the world.

Alternatively Stanley UK may have acquired the manufacturing rights to the Paramo RB10. I'm sure a reader will send the editor additional information.

Stanley's version, the RB10 plane, was very similar to the Paramo RB10 and blades may still be available and may fit the Paramo RB10 plane.

Currently the Rali Planes use a similar principle of disposable blades. Opinions differ but my opinion is that these planes are vastly over rated.

The suggestion is often made that these planes are great for use away from the workshop where nails are likely to be hit when planing old timber. This is pretty good advice! RB10 are still available.



A Stanley RB 10 just out of the box. I found this image on the internet by Googling LUMBER JOCKS.

The writer has seen a few Stanley RB10 planes and they are rough. In particular the plastic handles redefine crude!

The concept of the disposal plane blade is perennial and maybe someone will get it right one day. Maybe the real answer lies between the superb engineering of the Paramo RB10 and the cheap and nasty Stanley RB10 copy.

Do Stanley blades fit the Paramo RB10?

Cheap Tool Buys

This is the subject we never mention in publications devoted to quality tools!

I'm sure every reader has been in one of the many shops that sell cheap imports from South East Asia and China. Some may even confess to having purchased a few things in one of these crowded shops.

This writer isn't afraid to confess to buying some tools from such shops.

A lot of the stock in these bargain shops is poorly made rubbish but so is lots of the stuff in the big hardware stores. It is all a matter of buyer discernment.

I purchased a 12.5mm long series drill and used it for rough construction work for several years. One wet day I was drilling through a treated pine sleeper, with a 1960s Black & Decker power drill. Maybe I slipped or the sleeper moved in the mud but the bit jammed and snapped. After several years of use I shouldn't have been surprised when I looked at the fracture, this drill was top quality steel.

The drill cost me around \$3 so I thought I would buy a replacement. This is easier said than done as the stock in the bargain shops is ever changing. As it is I'm still waiting for these long series drills to come back into stock.

Shortly after this incident I needed a long series drill to bore a turned job using a jig on the wood turning lathe. The drill was to be fed from a Jacobs chuck in the tail stock so I wanted a long series twist drill.

Looking through the drills in my local bargain shop there were no long series twist drills. However there were packets of three long series twist drills sharpened for woodworking. I figured the cost made up for the time spent on resharpening.

At \$3.50 I decided to take the risk and I parted with the cash.

I planned to regrind the drill before use but I tested it on a piece of scrap set up in the lathe jig. The drill cut but it screamed. So I set up the final job, sprayed the drill with WD40, bored half way, reversed the job and bored the other end. The result was a near perfect bore. The work piece was 400mm long and 100mm in diameter.

Not bad for a drill costing less than \$2!

Recently I spent even more money but did even better. I'm a lifelong user of the Starrett 300mm Combination Square. I literally will not waste my time using any other square unless it is a comparable Combination Square by say Mitutoyo. The 150mm Starrett Combination Square has always appealed but I've never been prepared to part with the cash. So when I saw a 150mm Combination Square in my local bargain shop I couldn't resist having a second look. The stock was die cast but nice and sharp, the locking screw was brass and well machined, the rule was clearly marked and everything worked well. The price was five cents under \$7. Best of all; the tool was light.

I had been doing some fitting out away from the bench and carrying the 300mm Combination Square around was a bit of a nuisance at times. I was looking forward to several months of this type of work so I thought I'd give the 150mm square a trial.

At \$6.95 what could I lose?

I've been using this square for several months and for the work it is ideal. In fact I purchased a spare for when this one gets a bit knocked about!

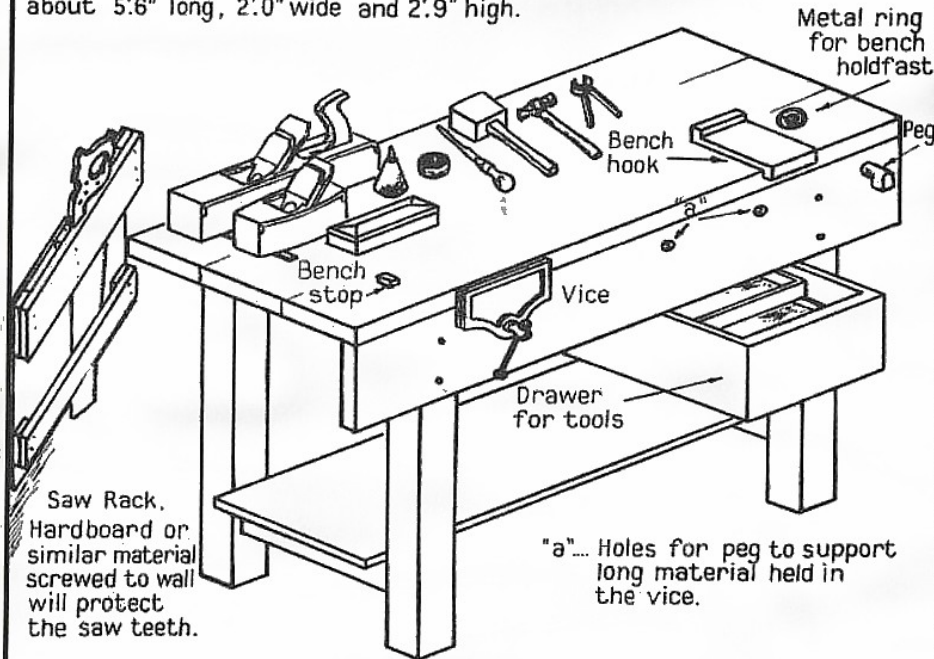
One item I regularly buy in this shop is packets of Stanley knife blades. At around \$2 they give total satisfaction. These also seem to be always in stock.

There is no guarantee the bargains will be there next week so it is a case of 'makes your choice, pays your money'.

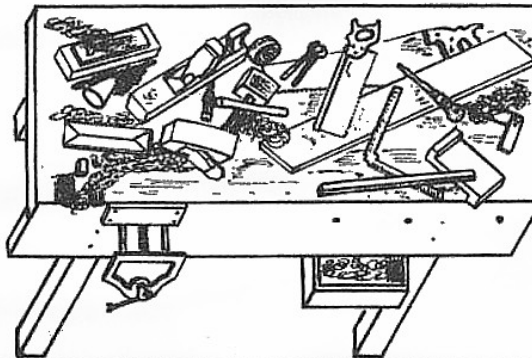
THE BENCH

A bench which is laid out neatly promotes good work. The tools do not become damaged and they are easily seen when required. An average sized bench for the home is about 5'6" long, 2'0" wide and 2'9" high.

RIGHT



WRONG



Tools jumbled with timber and shavings. Saw teeth, plane irons and any other cutting edge will become damaged if hammers, pincers and the like are heaped over them. Oil spilt on the bench collects dirt and can stain a finished job.

Pictorial Guide to Woodworking Tools and Joints.

H.F. Marfleet. London 1961

This book should be fairly common having been printed in both hard back and soft cover editions. I suspect it didn't sell as well as might have been expected due to the author's selection of old style tools just at the beginning of the swinging 60s.

Anyone starting out to learn woodworking with traditional tools could do a lot worse than to acquire a copy of Marfleet's guide.

The bench he suggests 'for home use' is an excellent first bench. This bench has the bonus of being made fairly simply and without outlaying a lot of money.

The money saved can be spent on a couple of metal planes (second-hand?).

Essential Tools for Woodworking

Fine Woodworking December 2010 has a new section, *Handwork*, with the feature *12 tools every furniture maker needs*.

This is well written, offers good advice and is generally worth reading. My only real criticism is the author's typical American assumption that large sums of cash are required to start serious woodworking.

I will address the basic question 'what is needed for serious bench work?' without assuming cost is irrelevant.

Essential tools will be specified and described and estimates of cost given.

The first essential is a **bench** with a **bench stop** and a **woodworking vice**. The bench should also be equipped with a **bench hook** and a **shooting board**.

You can buy a good bench for \$2000 plus or you can make one. I suggest making one using second hand timber, a second hand vice and fitting a simple hardwood bench stop. A first bench can be simply constructed and will only cost around \$200, including the second hand vice. There are designs in old textbooks and these are far better benches to learn on than elaborate and expensive benches.

The drawing on the facing page is a simple bench that can be made relatively easily and will give years of hard service.

I will talk about the bench and the tools you need to start working wood at the TTTG workshop in January.

Sunday Jan 23, 2011

Essential Tools for Working Wood

Asquith Boys High School

The Essential Tools

Whether you have a bench or intend to make a bench, these are the essential tools you will need. I'm assuming, unlike the Fine Woodworking author, that you do not have any machinery. Lack of machine tools when beginning woodworking is in fact an advantage. Learning to use hand tools and understanding wood first allows you to make rational decisions when the time comes to buy machinery. To me, cost is always a consideration and buying the best isn't synonymous with a high price.

Essential Tool Number 1

Folding Rule Cost: around \$30

You may find a second hand folding metre rule in good condition. Buy only a quality rule. Don't buy a cheap rule and don't go for a tape measure instead of a rule. Later add a top quality tape measure and a precision 150mm rule. The precision 150mm rule will cost as much as the tape measure but it will last a life time.

Essential Tool Number 2

Marking Gauge Cost: around \$2

New marking gauges are expensive and often useless. Second hand marking gauges are common and cheap. Buy several, you will use them often. But learn how to use a marking gauge first. Later on add a cutting gauge to your tool kit.

At this point I will mention the need to learn how to repair old tools and the TTTG workshop on Tool Repairs in April 2011

Sunday April 10, 2011

Tool Repairs Woodworking

Asquith Boys High School

Essential Tool Number 3

Square Cost: about \$100

Forget all the fancy looking squares! The square you need for a lifetime of accurate service is a combination square. Look for a second hand one, Starrett or similar quality. Make sure the square is in good condition. This will probably mean buying from a dealer and paying top price. If the graduations are imperial so much the better as it is a vintage tool and you will never use the measurements anyway. Rabone also made a combination square targeted at woodworkers, these are heavy and well made and are usually cheap as they are assumed to be knock offs of the expensive combination squares. Paying a little more for a Starrett or similar square in the original box has the advantage of getting the centre finder and protractor.

Once you use a quality combination square you will never use another square.

Essential Tool Number 4

Handsaw Cost: about \$30

You can pay around \$300 for a brand new American handsaw or around \$30 for an old Disston D8 handsaw. It is up to you!

Essential Tool Number 5

Tenon Saw (14") Cost: about \$40

Again I'm giving the average cost for a second hand Disston. There are so many quality old saws out there that this is the best option. Or you can spend another \$300 on a new American Tenon saw. Often you will pay even less than these estimates for quality old saws.

Whatever your choice you will need to learn to sharpen your saws.

Sunday February 8, 2011
Saw Sharpening & Use
Strathfield Men's Shed

Essential Tool Number 6

#6 Plane Cost: about \$110

Second hand #6 planes aren't all that popular so they sell for less than a #7. You need a long plane to plane edge joints and end grain even if you use machine prepared timber. The #6 will handle the majority of planing, from dressing to finishing. Look out for a Stanley, Record, Pope/Falcon or Turner. There are others, these are the common brands.

Later on look out for a wooden jack plane as this is useful to remove a lot of wood quickly. You will find one for around \$20. Eventually you will want a good low angle block plane. The #9^{1/2} is the best general use block plane. It will set you back \$150.

TTTG offers two workshops on planes. These workshops are the best way to start learning about planes. Sharpening gear, planes and parts, as well as expert advice are always available at these workshops.

Sunday June 5, 2011
Sharpening Edge Tools
Strathfield Men's Shed
Sunday July 3, 2011
Plane Tuning & Sharpening
Strathfield Men's Shed

Essential Tool Number 7

Marking Knife Cost: about \$2

There are lots of very expensive and very attractive new marking knives for sale. In my opinion you can do better by making your own marking knife for around \$2. The quickest way is to go into a Vinnie's' shop and pay a couple of dollars for an old colloid handled table knife. Snap off half the blade and grind and hone a single bevel. It's in all the old joinery texts.

Essential Tool Number 8

Pencil Cost: about \$2

An oval pencil or a carpenter's pencil is a much under rated tool.

At the Tool Repairs workshop I'll show you how to sharpen the pencil for a number of tasks. I'll also show you how to make a flash Marking Knife from found materials (for those who don't want to spend \$2 on an old table Knife).

Essential Tool Number 9

Hammer Cost: about \$10

You will easily pick up an old Warrington hammer for about \$10. This is the hammer you need to set your wood planes and adjust your bench stop. Sometimes it might be used for driving nails but it is more often used for driving wedges.

Essential Tool Number 10

Grooving Plane Cost: about \$50

You will soon need a means of cutting slots along the grain. A Record 043 is a very cheap but versatile grooving plane. Later you can find a wooden plough plane or a Stanley 050 (both will set you back the best part of \$120). When you progress to machines you may use your electric router for many tasks, but rarely for cutting grooves if you have learnt to use a grooving plane. For a one off the plane is simply quicker and it does a better job!

Essential Tool Number 11

Chisels Cost: about \$20 each

Again I'm recommending second hand and I'm advising attendance at the TTTG **Sharpening Edge Tools** workshop. Look out for Berg chisels with wooden handles; these are the safest buy for the inexperienced. Learn how to sharpen and use chisels before assuming that you need certain types and sizes.

Essential Tool Number 12

Sharpening Gear Cost: it depends

Depends on what? On what you use!

I use oilstones but water stones seem to be more common. An old oilstone in good condition might cost \$10 or even more. New water stones, diamond stones or ceramics will set you back \$100 or more. What you use depends on what you like. The only way to make an informed decision is to attend a TTTG Sharpening workshop. At these workshops you can try all the alternatives and have the opportunity to buy top quality sharpening equipment at the best prices.

Summary

Anyone with an aptitude for working with wood can achieve a lot with the twelve essential tools I have recommended.

Neither Fine Woodworking nor my list includes a mallet. I've left the mallet out as until you make or buy a mallet you can hit the chisel with a bit of wood! My first mallet would be a Thor soft face hammer as these turn up fairly cheaply and have many uses. Fine Woodworking does not include a hammer. The Scraper is in the American article but not in mine.

It is useful to conclude by considering the extra tools in the Fine Woodworking list and my reasons for excluding these tools.

Coping Saw: Rarely used, 'buy when \$2'.

Sliding Bevel: Nice but it can wait.

Spokeshave: Wait for the \$5 bargain.

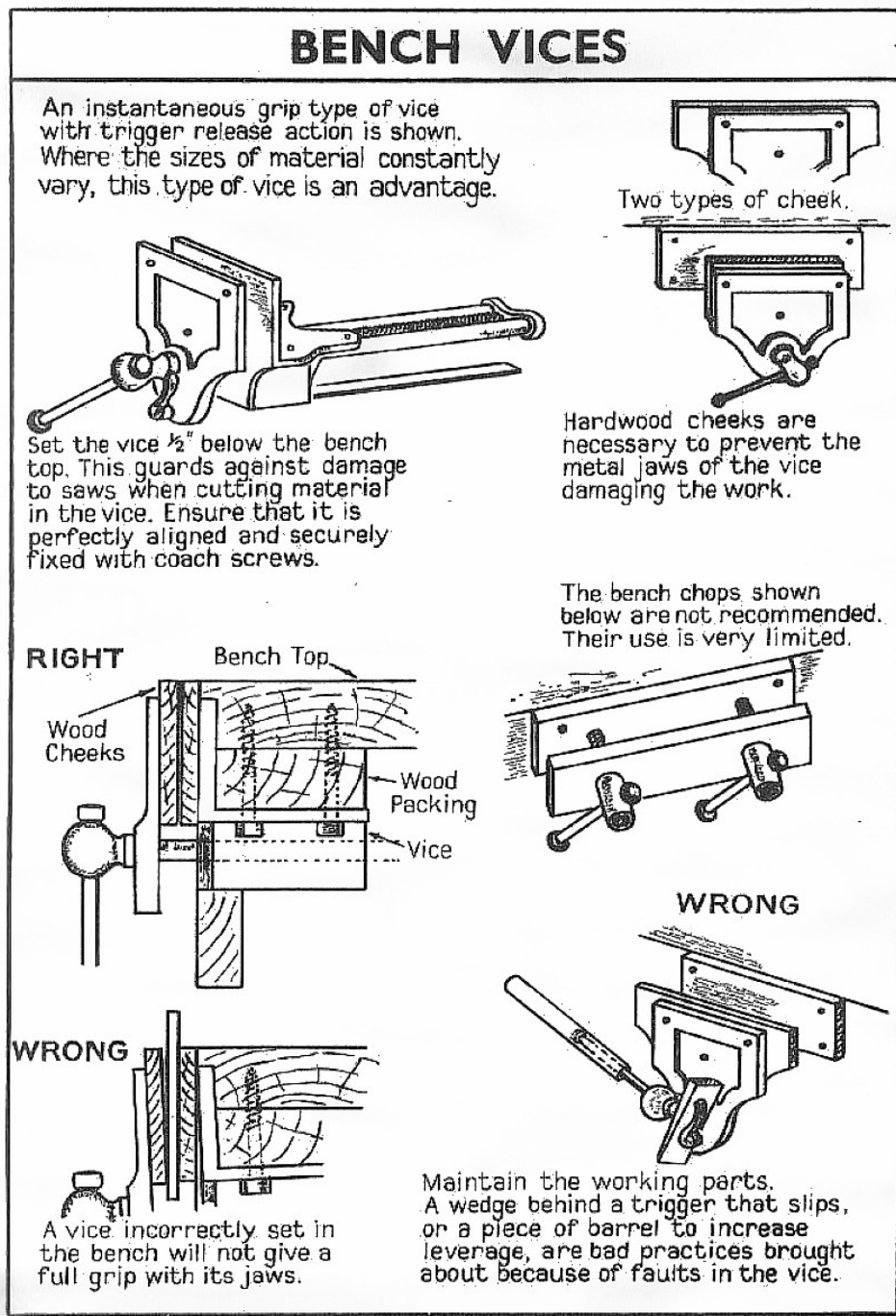
Scraper: Frustrates beginners.

Shoulder Plane: *Number 10 Essential.*

The shoulder plane is a tool you need when you have mastered tool use. Wait until you are ready and can afford the best. The best is an old Preston, Record or wood stuffed Shoulder Plane. Expect to pay in excess of \$250.

No one agrees on the essential tools and eventually we all end up with too many!

Fitting a Woodwork Vice



Pictorial Guide to Woodworking Tools and Joints.

H.F. Marfleet. London 1961

For a first bench try and buy a second hand vice. A small vice is a bad choice as is a cheap new vice. Old vices do turn up!

Correct fitting of the vice is essential so spend some time on the task. Some prefer carriage bolts to coach screws. If you use bolts counter bore and plug the holes in the bench top. Look after the vice, clean and oil regularly. If you are lucky you might get an old rusty vice cheaply.

Classic Joiner's Bench

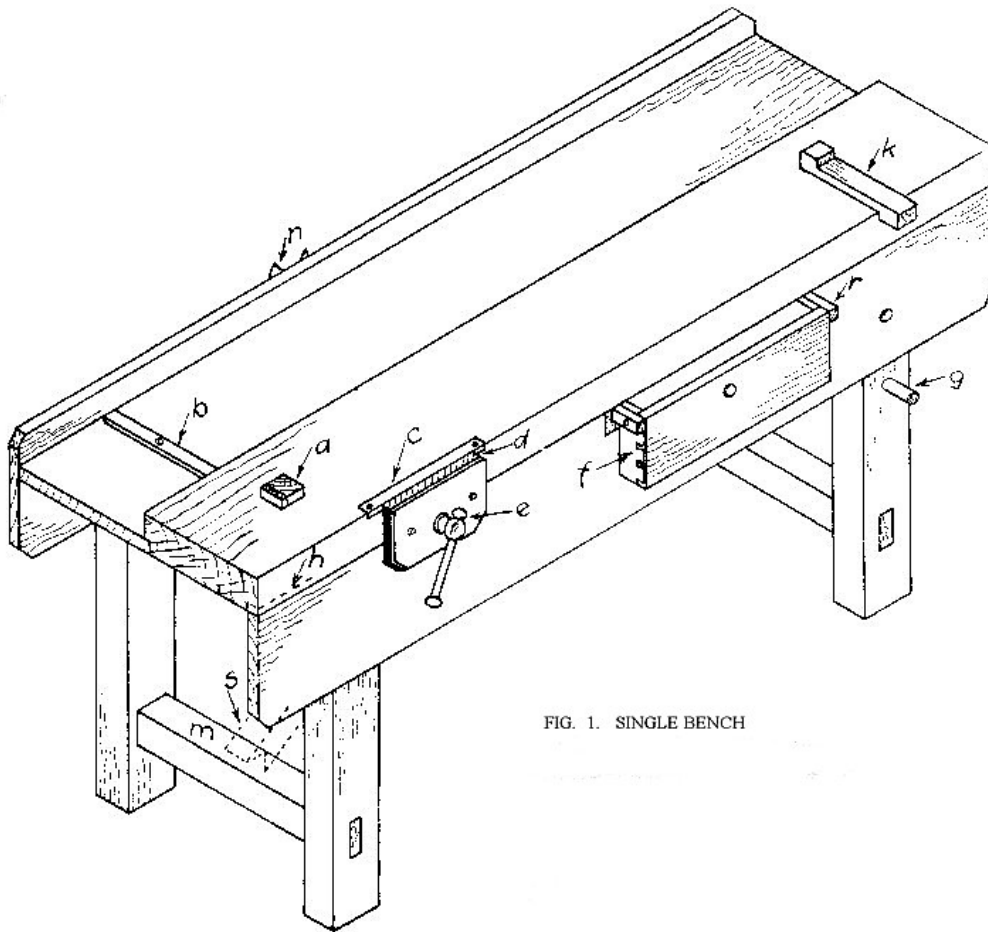


FIG. 1. SINGLE BENCH

Joinery and Carpentry
 Edited by Richard Greenhalgh
 London 1929

This is the classic Joiner's bench. Careful examination of the drawing will show how all necessities have been provided.

The bench is equipped with Bench Stop (a), Plane rest (b), Vice, modern (c, d, e), Tool Tray (f), Long board support peg (g) and Bench Hook (k).

Note hidden detail (s). This is optional strutting to resist the force generated by heavy planing against the bench stop.

The book's text describes the benches features, construction and accessories.

For joinery such a bench is ideal provided it is at least 2400mm long. It need only be about 600mm wide and the height 'to suit the stature' of the user.

Traditionally the top board is about 230mm wide, as are the apron rails. The top board should be 50mm thick and the aprons at least 25mm thick. The well board needs to be no thicker than 25mm. The legs need to be at 150mm x 50mm or 100mm square. Bottom rails should be 100mm x 50mm and top rails 120mm x 50mm. The two end frames should be mortised and tenoned, glued and wedged. *The sensible approach is to use second hand softwood (Oregon) or finger jointed Hoop Pine to construct such a bench..*

Arch Drawing Instrument

With a bit of geometry drawing the arc of a circle is straight forward. If the arc is given but radius is unknown this can be calculated or drawn with a framing square. All this is in the old text books.

Devices to draw an arc and hence set out arches were developed. The example below could be made in a version sized to set out an arc in furniture making.

The extracts below are from

Peter Nicholson.

Practical Carpentry, Joinery and Cabinet Making.

Published by Kelly 1826 London.

TTTG (Inc.) Library

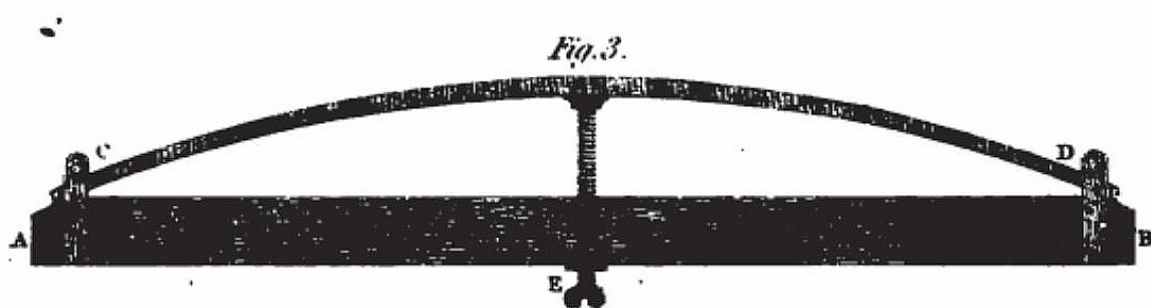
The TTTG Library Collection is now in one secure location

Strathfield Men's Shed
Pomeroy Road Strathfield

Books can be reserved and can be collected at the Meetings by contacting the Librarian by following the link on the website www.tttg.org.au

The TTTG Library Catalogue is on the TTTG website

5. Third Method.—A flat circular arch is easily drawn, by an instrument which was first proposed by Dr. Young. It consists of a straight bar, AB, (*fig. 3, pl. I.*) of any convenient length, with an elastic bar, CD, which is bent to any required degree of curvature by the screw E. The ends of the elastic bar, CD, move against two small rollers, which are fixed to the bar, AB, by thin brass plates. In order that the elastic bar may form a circle, when bent, its depth at the ends should be half the depth at the middle; and it should be adjusted till the outside be a true circular arc when bent to its greatest extent. When any three points in the curve are known, turn the screw till the outside of the elastic bar, CD, coincides with the given points, and draw the curve.



Donations Wanted for the Library

Old Text books and technical publications

Old Tool Catalogues Wanted

TTTG wants old catalogues to copy

Successful Woodworking

Anyone aspiring to producing quality
woodwork can profit from closely reading
the advice given below.

Peter Nicholson.
The Mechanics Companion
Philadelphia 1832.

§86. *Doors.*

Doors ought to be made of clean good stuff, firmly put together, the mitres or scribing brought together with the greatest exactness, and the whole of their surfaces perfectly smooth ; particularly those made for the best apartments of good houses. In order to effect this, the whole of the work ought to be set out and tried-up with particular care ; saws and all other tools must be in good order ; the mortising, tenoning, plowing, and sticking of the mouldings, ought to be correctly to the gauge lines ; these being strictly attended to, the work will of necessity, when put together, close with certainty ; but if otherwise, the workman must expect a great deal of trouble in paring the different parts before the work can be made to appear in any degree passable ; this will also occasion a want of firmness in the work, particularly if the tenons and mortises are obliged to be pared.

To make this easier to comprehend the following summary is offered.

What is necessary?

Sound well seasoned timber

What is aimed for?

Clean accurate work

How to achieve this?

Methodical setting out

Careful workmanship

How to do good work

Sharp tools

Work to gauge lines

What to avoid

Unnecessary paring of joints

Want of firmness in the finished work

PLATE XXXIV.

View of another Part of a Smith's Work Shop, shewing the Work Benches with the Vices, the Drill in the act of Boring, and a Turning Machine, as wrought by a Winch and Wheel, as also by the Foot.

A, A work benches.

B, B, B vices.

C the bench anvil.

D, E, F, G various parts of a drill machine.

D the drill block.

E the drill and brace.

F the drill beam, shewing the lever to pull it up.

G a rod to hang a larger or smaller weight, for giving more or less power to the drill, as may be required in boring a greater or less hole.

H, I, K, L parts of the turning lathe.

H handle to turn the large wheel.

I the large wheel.

Pulleys for the cord.

L puppets, rest, collar, and mandril.

N wheel and crank for revolving the mandril by the foot, &c.

THE MECHANIC'S COMPANION,

OR, THE

ELEMENTS AND PRACTICE

OF

CARPENTRY, JOINERY, BRICKLAYING, MASONRY, SLATING,
PLASTERING, PAINTING, SMITHING, AND TURNING,

COMPREHENDING THE LATEST IMPROVEMENTS

AND CONTAINING A FULL DESCRIPTION OF

THE TOOLS

BELONGING TO EACH BRANCH OF BUSINESS;

WITH COPIOUS DIRECTIONS FOR THEIR USE.

Pages 28 & 29 are from Peter
Nicholson. The Mechanics
Companion. Philadelphia 1832.

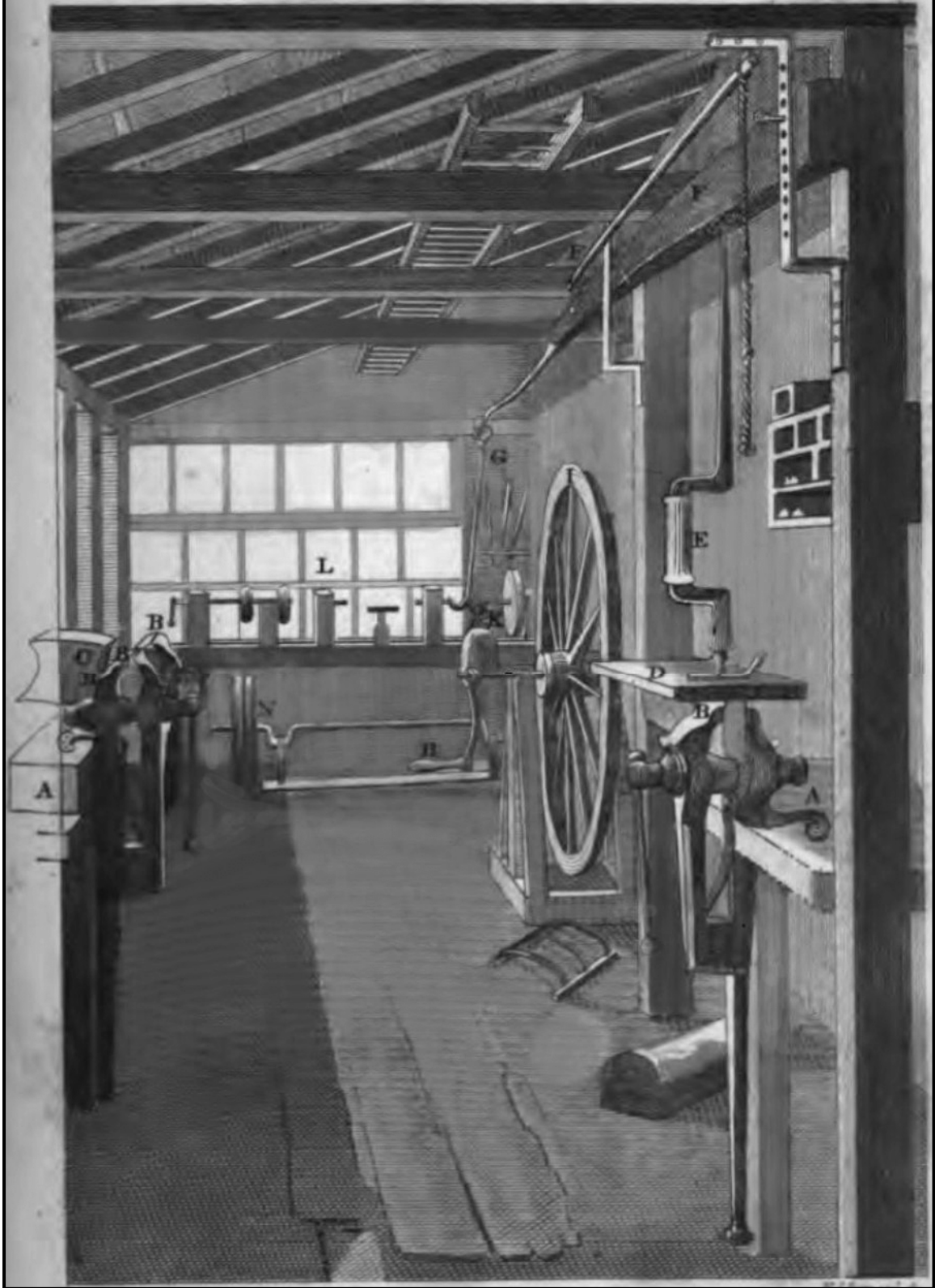
*In a previous issue News published the
accompanying Plate of the Smith's
Forge.*

Readers will observe the various
mechanical devices used to increase
the output of human labour.

These are;

*The Crank, The Treadle & The Great
Wheel.*

Smithing. Plate XXXIV.



What is a.....?

The idea for this page came from reading Peter Nicholson's description of joinery tools in the *Mechanic's Companion*, published in Philadelphia in 1832.

Nicholson's intention was to publish an up to date version of Joseph Moxon's *Mechanical Exercises*. Publishing in America didn't deter the author from using the trade terminology of London.

Some of the terms Nicholson uses have become anachronisms. Fortunately he was such a concise writer that it is easy to substitute the modern terminology.

Often the names of tools used in the past describe the function of the tool. However it sometimes happens that old names are similar to modern names despite the tools named being different tools! The older tool name discussed is a good example of this.

Drawing Knife

When I read Nicholson's description of the *drawing knife* I initially had a mental image of a *draw knife* but quickly realised he was describing a *marking knife*.

A *draw knife* is a two handled shaving tool used to shave timber whereas a *marking knife* is a one handled knife used to set out lines across the grain. Both are knives but they are dissimilar tools.

Draw knives are often called *drawing knives* and this term does accurately describe the way to use this tool.

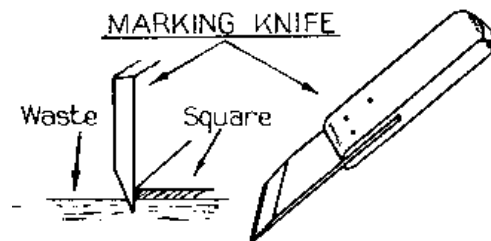
Originally, and up to fairly recently, *draw knives* were known as *draw shaves* which is an even better way to describe the tool.

When did the term *drawing knife* drop out of usage? It must have been around the 1880s as by then the term *striking knife* was in use. By the 1920s the terms *striking knife* and *marking knife* were interchangeable. By the swinging 1960s only *marking knife* was in common usage.

§ 44. The Drawing Knife

Is an oblique ended chisel, or old knife, for drawing in the ends of tenons, by making a deep incision with the sharp edge, by the edge of the tongue of a square: for this purpose a small part is cut out in the form of a triangular prism, and consequently the hollow will contain one interior angle and two sides, one side next the body of the wood being perpendicular, and the other inclined. The use of this excavation is to enter the saw, and keep it close to the shoulder, and to make the end of the rail quite smooth, for the saw will not only be liable to get out of its course into a new direction, but may tear and scratch the wood at the shoulder.

Peter Nicholson's description of the drawing knife



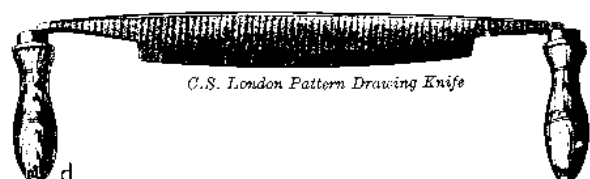
Note flat of the knife against blade of the square

By the 1960s the Drawing Knife was called a Marking Knife. The drawing shows how to sharpen and use this tool. Pictorial Guide to Woodworking Tools and Joints. H.F. Marfleet. London 1961.

All the types of *Draw Knives* described in the Dictionary of Tools (R.A. Salaman. London 1976) are listed under the common heading *Drawing Knife*.

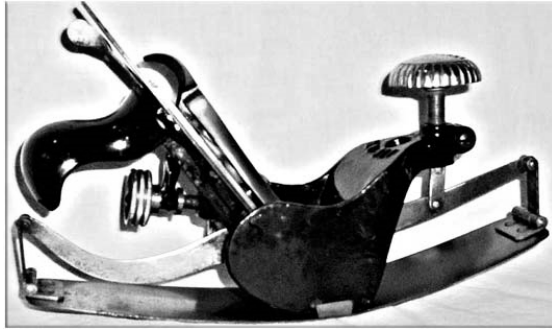
The illustrations of *Draw Knives* in the Dictionary are from the 1910/11 Ward Tool Catalogue. The name *Drawing Knife* is used in this catalogue.

In eighty years the name *Drawing Knife* had been transferred from the tool now known as a *Marking Knife* to the tool previously known as a *Draw Knife*.



Ohio Compass Plane

The Ohio O13 is virtually identical to the Union plane pictured below. It is also identical to the Sargent plane and the Stanley 113. All 113 look-alike compass planes are copies of the Stanley 113.



They all work well and given the type of work they are likely to be doing are hard to damage. So what happened to the Ohio O13 pictured below?

My guess is when it got beaten up spare parts were available so what motivated the bizarre repairs?

No one else wanted the plane so I didn't pay much. The little I parted with was justified as 'it will make a good page for the next issue of News. I purchased the plane at the 2010 TTTG Tool Sale.

One feature of the repairs dates them to the 1960s so maybe the parts weren't available after all. Of course I'm assuming the repairs were all carried out at the same time. Maybe the 1960s repair was a revamp of an earlier repair? We will never know and I doubt anyone really cares.



The broken frog

The Repairs enumerated

1) The handle has been replaced with a broken red Turner plane handle. It isn't pretty but this is how it was done. The original cast iron hand grip was attached to the top of the frog. The top of the frog had broken off; no doubt the plane had taken a fall, which also meant the lateral adjustment lever no longer had a pivot point. Assuming the handle wasn't broken what was needed was a new frog.

To overcome this problem the repairer made a long plate out of thick mild steel and attached this to the broken frog with four machine screws. To the top of this plate a bolt and a small machine screw secures the broken Turner handle. The metal work is a bit rough but it works.

The 'new' handle is quite comfortable!

2) The Lever Cap

But there is more; the original lever cap is missing. The repairs to the frog would have made the lever cap inoperable. The lever cap has been replaced by a wooden plane cap iron. A square nut on the end of the lever cap screw and a hole through the old back iron secures the blade and cap iron. The original Ohio blade seems to see little use.

I have no doubt the plane would work but I've no compulsion to sharpen it and try it out! So what will happen to the plane?

If anyone has the missing parts they can have the plane for what I paid.



Early Copy Lathe

Smithsonian Museum continued



Diorama shows that automation is nothing new. A wood lathe of 1569 used a template-tracing device to speed cutting of irregular shapes.

Popular Science April 1964

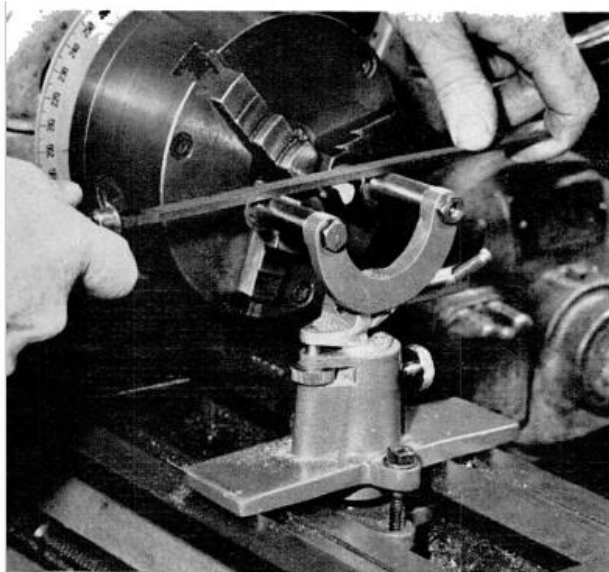
I suspect this lathe is a 'Swash Lathe'. These lathes are described in Moxon's Mechanical Exercises. They were used to produce barley twist turning.

Lathes of this form came before the Rose Engine Lathe used for ornamental turning.

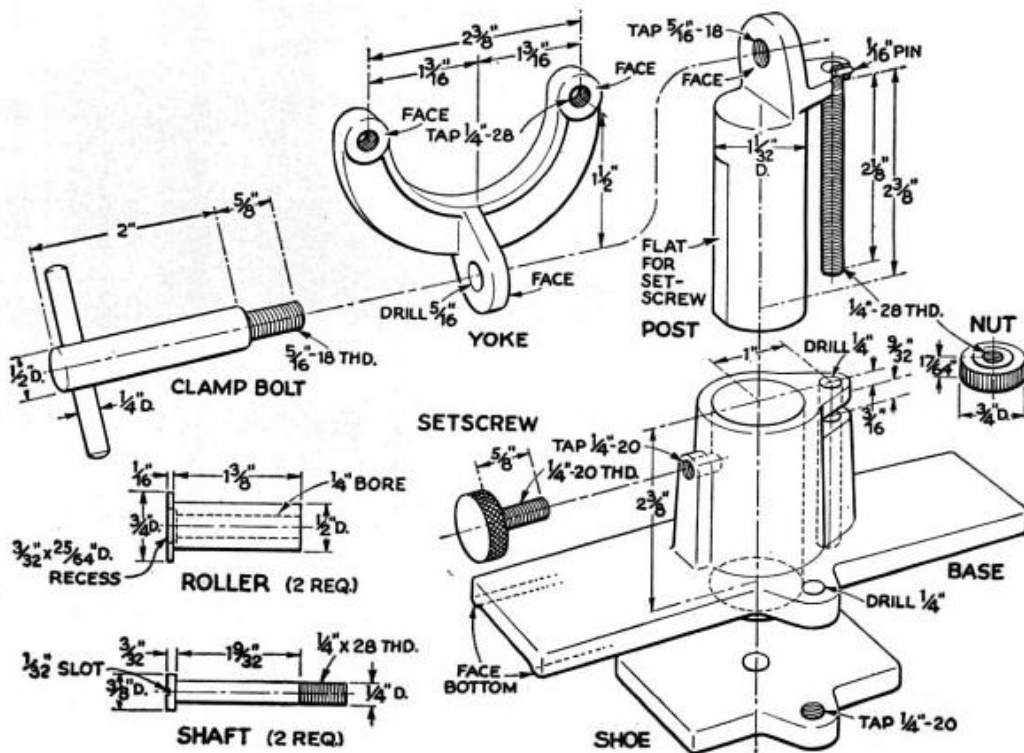
The Rose Engine evolved into the complex Ornamental lathes made throughout the nineteenth century.

TTTG has a large metal turning lathe made in Birmingham about 1860 in need of a suitable home.

Precision Filing Guide



Flanged rollers guide the familiar hand file to new accuracy and usefulness. The device clamps across the lathe ways by means of a shoe underneath. An elevating screw and nut raise or lower the post. The horizontal T bolt loosens the yoke for tilt adjustment to suit the job at hand.



FOR SALE

***RYOBI HC1262**

"Command Force" 12 volt, two speed, reversible, six torque rechargeable drill. This drill is in a plastic case with these accessories: Charger, 10 metric twist drills, 8 metric sockets, 3 torx drivers, 3 hex drivers, 5 screwdrivers, 2 adaptors.

The drill is *AS NEW* and complete with original *INSTRUCTION MANUAL*.

Best reasonable offer accepted.

The RYOBI HC1262 drill can be examined at the next General Meeting.

***Barnes Lathe**

**Restoration
or for
Parts**

The Lathe Bed is in good condition and the Headstock is complete. The Tail Stock is in good condition. The Apron and Carriage are complete. The Rack has been repaired. One spare Lead Screw. Change Gears are complete. Four Jaw and Three Jaw Chucks. Drive Plate and some tooling. The Fly Wheel is missing. The Crank and Treadle is missing. Pair of Barnes Legs.

This lathe would be ideal for someone who has an incomplete Barnes lathe they want to restore to the original condition. Alternatively this Barnes lathe could be converted to power.

The owner is asking \$550.

TTTG is selling on behalf of the owner.

The lathe can be examined at the next "Hands On" Day
Strathfield Men's Shed

***Mathieson Crescent Mortising Machine**

Due to storage constraints TTTG is selling off this hand operated machine. This classic Mathieson machine is in excellent condition. The machine has some chisels and it is ready to use. *This is a great opportunity to acquire a classic machine in excellent condition.* The machine can be seen in action at the next "Hands On" Day
Strathfield Mens Shed

TTTG is asking \$500

Disposal of the Mathieson Crescent will allow TTTG to set up the smaller Mathieson Star for use by members.

***Excellor Chain Mortiser**

During the 1960s Excellor, location Bankstown, manufactured a range of top quality woodworking machines. *Excellor machines were the best!*

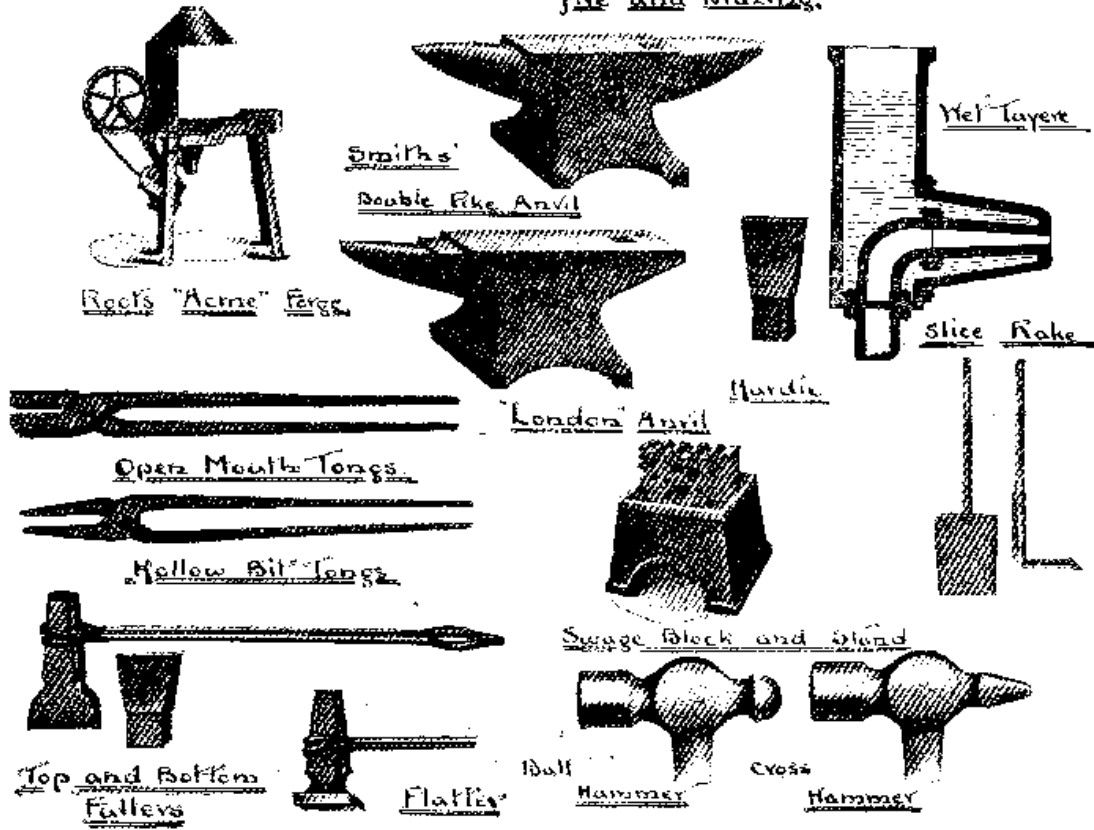
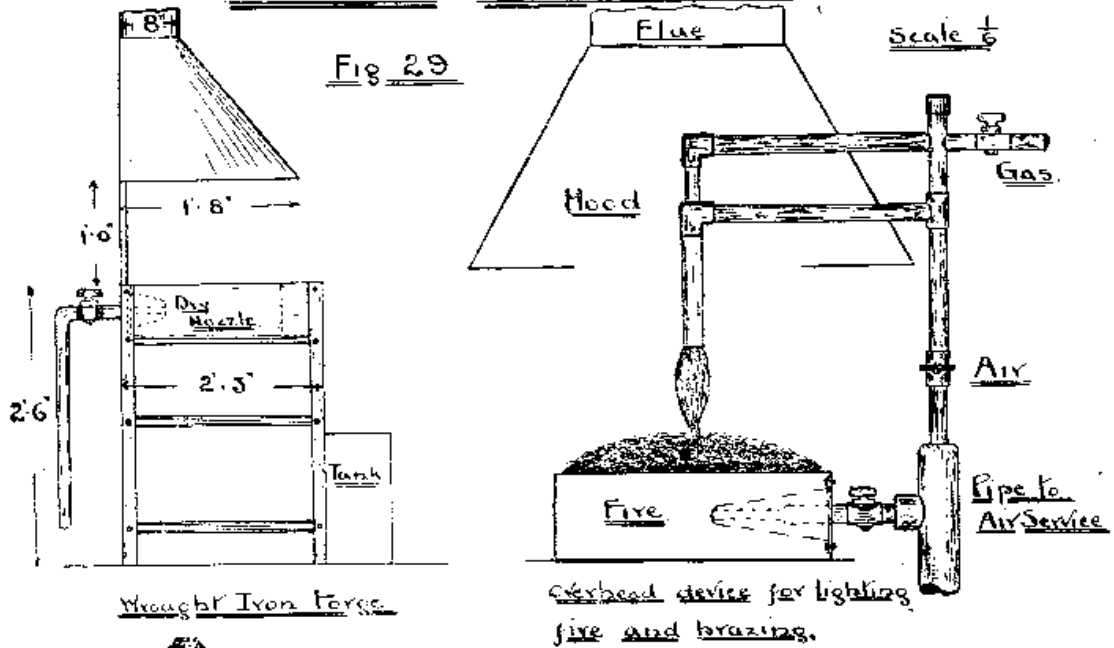
The owner wants this machine to go to someone who appreciates quality. The price is low because the machine only has a 3/8" Bar and Chain. This is the most useful size. The chain needs sharpening.

This model has carry handles, it is the portable model "easily carried by two men". The two men were likely to have been World War 11 veterans. The Excellor Chain Mortiser is single phase and on a custom built stand.

The owner is asking \$500.

The machine will be at the next "Hands On" Day
Strathfield Men's Shed

SMITHY EQUIPMENT



Metalwork for Schools and Colleges.
 Geo. J Armytage.
 Oxford University Press.
 London 1943. Fifth Edition.

This book was first published in 1929 but the photographs could be older, probably they were taken in the early 1920s.

The author wrote the book while teaching at the City of Leeds School and the photos are certainly of students at that school. The range of skills taught and the level of achievement expected from the students is astonishing by today's standards. *The means shown of lighting the fire would now be considered an OH&S concern!*



The entrance doors to Bedervale at Braidwood. Designed by John Verge and built circa 1840

Drawing from

Early Colonial Houses of New South Wales

Rachel Roxburgh

Ure Smith Sydney 1974

Next TTTG Meeting Tuesday December 14

The Columns from Burdekin House and Colonial Joinery

National Trust Centre Annie Wyatt Room

“Doors Open” at 7pm \$5 Donation

**How was colonial joinery made?
What tools were used?**

Illustrated with a display of colonial tools