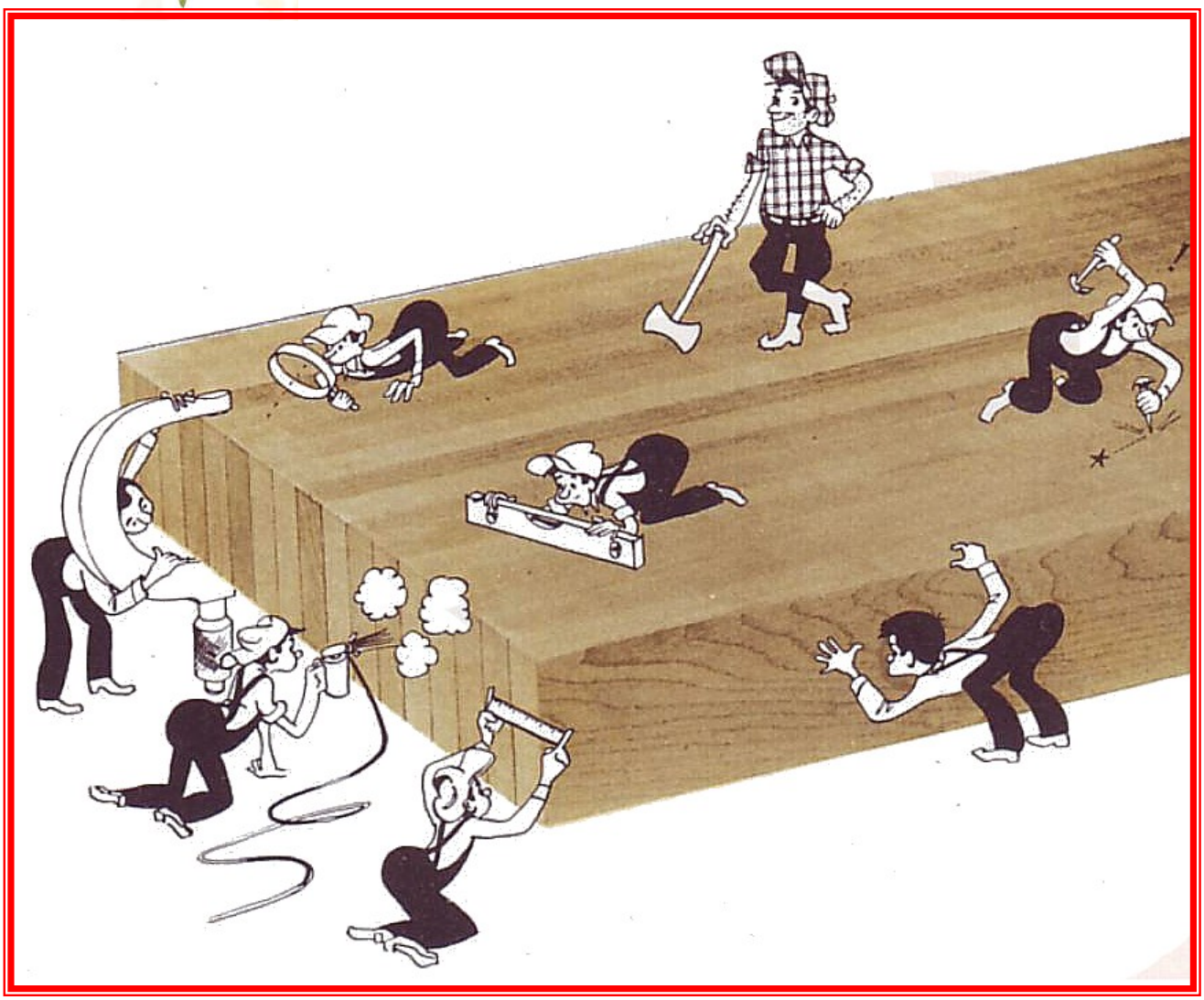
NEWS 104

December 2008

CHRISTMAS NUMBER



The Traditional Tools Group (Inc.)

www.tttg.org.au

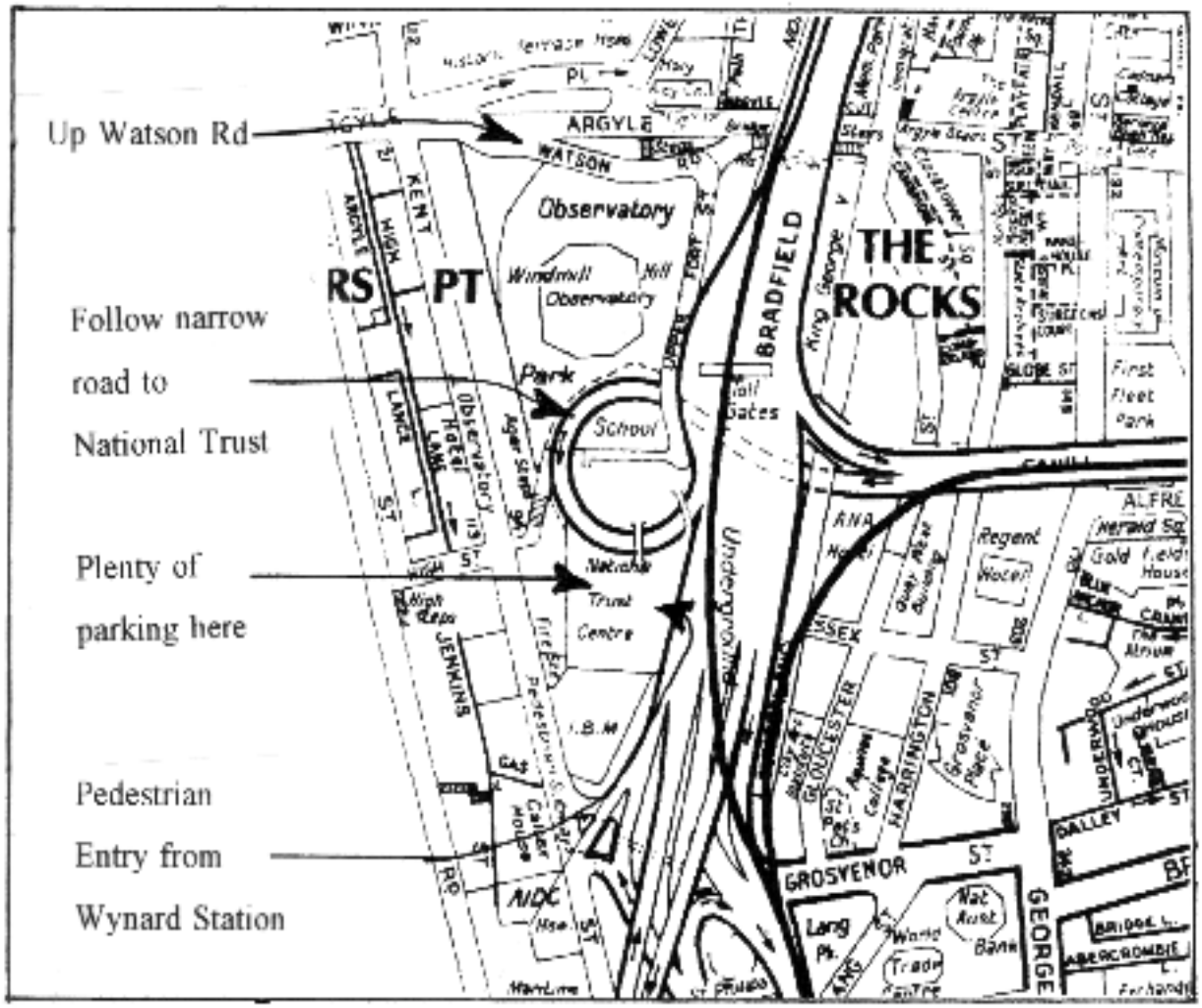
Next Meeting

Tuesday December 9

National Trust Centre

Chinese Woodworking in Sydney

Annie Wyatt Room *"Doors Open"* at 7pm Entry $5



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Enquires

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Subscription $30

Contents

Next Meeting

Tuesday December 9

A Slice of Australian Woodworking History

"Chinese Woodworking in Sydney"

A presentation of the woodworking tools used by Chinese tradesmen in nineteenth and early twentieth century Sydney.

Locally made tools will be on display. The speaker will reveal the sophistication of these apparently simple tools.

The display will include planes made by Chinese plane-makers in Colonial Australia.

The Auction

More treasures and hopefully more of Mario's leather off-cuts!

The auction will be supplemented by a small selection of high quality tools TTTG is selling 'on consignment'.

The Catering

The end of another year provides a timely opportunity to thank Mario Dato for his catering of each TTTG meeting.

How can we provide so much for $5?

Last Meeting

EARLY POWER TOOLS

This meeting was ***a show and tell*** session.

The invitation was to bring in your ancient power tools and start a discussion.

A power tools sub-committee did not eventuate but everyone had a good time!

The meeting reinforces our perception that there is a growing interest in old power tools. '***Where can I get it repaired?***' This was a universal question from the participants.

The Committee has started work on a directory of 'services' for user and hoarders of old hand and power tools and old machinery. If you know of someone who offers a special service please send the details to the editor.

TTTG Workshops

Sharpening Edge Tools

15 February 2009

Find out what sharp means.

Chisels, plane blades and all woodworking edge tools

Plane Tuning

29 March 2009

Learn how to get the best performance from planes

Materials, parts and fettled planes for sale

Experience a correctly fettled plane

The New Look TTTG NEWS

The Evolution of News

NEWS began as a newsletter and evolved into a publication which combines news with articles on tools and technology.

The editorial committee is aware of the publications of similar interest groups. NEWS is a frugal publication in that it rarely has colour illustrations and is printed on economical paper. Printing cost is kept to a minimum.

This financial rectitude will continue.

That said we believe the time has come to improve the scope and the appearance of TTTG's newsletter.

The emphasis will remain on content and expensive colour illustrations will only be included when they make a significant contribution to the discussion.

A bigger format will allow larger articles and may also encourage members to submit more contributions. It will also facilitate clearer illustrations and make possible improvements in layout.

NEWS will continue to be the main method of distributing information to members. The TTTG Web Site will increasingly be used as a vehicle to supplement NEWS.

Why is the editorial committee so frugal?

The membership fees are very reasonable and are the core revenue for the diverse activities offered. We spend wisely!

News 104 Covers

The title illustration is from a TOLERTON Vocational Equipment Bulletin, VE-159-A.

The Tolerton Company made Vocational Equipment from 1894 specialising in precision-built wood products. Tolerton were based in Alliance Ohio.

VE-159-A is loose bound in a compilation booklet from Vonnegut Hardware Co. Indianapolis. USA. The booklet is undated.

The Vonnegut Hardware Co. booklet cover is impressed with the names of some legendary machinery and tool manufacturers including Browne &Sharpe, Delta MFG. Co., Norton, Nicholson Files, Winter Bros., Carborundum Abrasives, La Salle and Cleveland Twist Drills.

Other leaflets in the booklet are from such ironic brands as Powermatic, Skil, Stanley and Black & Decker.

The Stanley Leaflet (Catalogue 562) includes Price List No. 62 and is dated July 16, 1962.

All the Vonnegut Hardware Co. booklet contents are probably from the 1960s.

The illustration on the back page is from Shea and Wegner *Woodworking for Everybody*, Pennsylvania 1946.

My copy is the fourth edition. The first edition was published in 1944. This book is a delight both for the illustrations and for the clear and concise text.

Correspondence

Silex Soldering Iron, News 102

I was very interested in this tool as I had been looking at one in another member's collection. At first we thought that they were heated by a hot slug that was heated on a stove then placed in the cavity in the iron. Then we were visited by a New Zealand member who was a retired plumber he said that they were heated by a solid fuel that was like a white tablet and is sometimes called solid methylated spirits. This is in fact metaldehyde that is used in camping stoves and you can buy it still in camping shops. It is also a principal ingredient in snail baits. As the tool is used by linesmen to solder splices in power and telephone lines this would make sense as the solid fuel could easily be carried in a container up a ladder. I have also seen in the last week somebody trying to sell one on e-bay claiming it to be heated by white phosphorus. I think this would be a little dangerous. We would also like to know if it is an Australian made tool. Do you have any additional information?

Ian Stagg. President HTPAA

Ian,

The Merx iron which we feature in News 103 is almost identical to the Silex, in News 102, and the instructions with it refer to an "alumino-thermic" briquette which is almost certainly thermite or a slightly broken down form of thermite as the instructions say that it reaches temperatures of greater than 5000 degrees Farenheit. Certainly metaldehyde slugs cannot reach anywhere near this temperature. Although there may be some soldering irons that use such a system, they would be a different design to the Silex or Merx irons and would have a much larger soldering bit to hold the heat.
I guess that if you generalise about the functioning of the different types of irons, there are the conventional type which use a lower calorific source such as kerosene, propane, butane or solid fuels to heat a heavy copper bit which stores the heat so that the temperature of the tip can be maintained above the soldering temperature when you attempt to solder reasonably heavy articles such as guttering. Then there are these thermite irons that use a high temperature high calorific source and hence there is no need for a heavy bit to store the heat. In fact, the thermal path needs to be throttled back somewhat, hence the narrowed neck. Metaldehyde and solid methylated spirits are actually not the same although they perform similar functions. Metaldehyde as you point out is also quite poisonous and is used as slug and snail bait whilst solid methylated spirits is actually methylated spirits held in a sort of gel matrix so it can be used as a solid fuel. I can't comment on white phosphorus fuels if they exist they would be even more dangerous than metaldehyde to handle. White phosphorus spontaneously ignites on contact with air so as well as its toxicity, it would pose a fire hazard to transport. If such a fuel exists, it must also be held in some sort of matrix to prevent its contact with the atmosphere.

News 103 also contains an advertisement for a Soldo Iron which also would seem to use thermite briquettes. In the Soldo case, the soldering tip is narrowed down, once again to prevent the tip temperature from going too high while soldering. Both the Merx and Soldo were made in England and I suspect that the Silex was too.

Mike Williams. Secretary TTTG

Correspondence (cont'd)

Thermite Soldering Iron

TTTG's Southern Correspondent (Tasmania), Terry Butcher, has sent some photographs.

The first was of two soldering irons identical to the Silex soldering iron previously published. One of the soldering irons has the Silex mark but the other but the other is not marked by the maker.

However on the underside of the brass ferrule on the handle is *PMG No. 40D.2*

The photograph below shows another soldering iron in Terry's possession.

Manufacturer: Remode Manufacturing Co Inc 409 Railroad Ave Westbury NY 11590

The instructions are reproduced below.

Instructions for using Heat Cartridge Type QS Soldering Iron QS-200
Unscrew copper soldering tip from steel body, insert cartridge into tip. Pull knob of handle to full length and release abruptly. A slight amount of smoke appears at the back of the handle as the cartridge brings the tip to soldering temperature in approximately twenty seconds.

Terry believes the Remode Soldering Iron was used by the U S Army in Korea. In the photo one tip is attached.

Gasoline Soldering Iron

Thermite cartridges were not the only potentially lethal method of heating soldering irons. Gasoline was another fuel capable of reaching high temperatures rapidly.

Terry Butcher has provided the picture above of one such gasoline soldering iron.

This is the Justrite Gasoline Soldering Iron made in the U S of A.

Terry was recently robbed, the thief took the Justrite Soldering Iron but left the box behind.

Maybe Tery should have the constabulary check out the Tasmanian Burns Units!

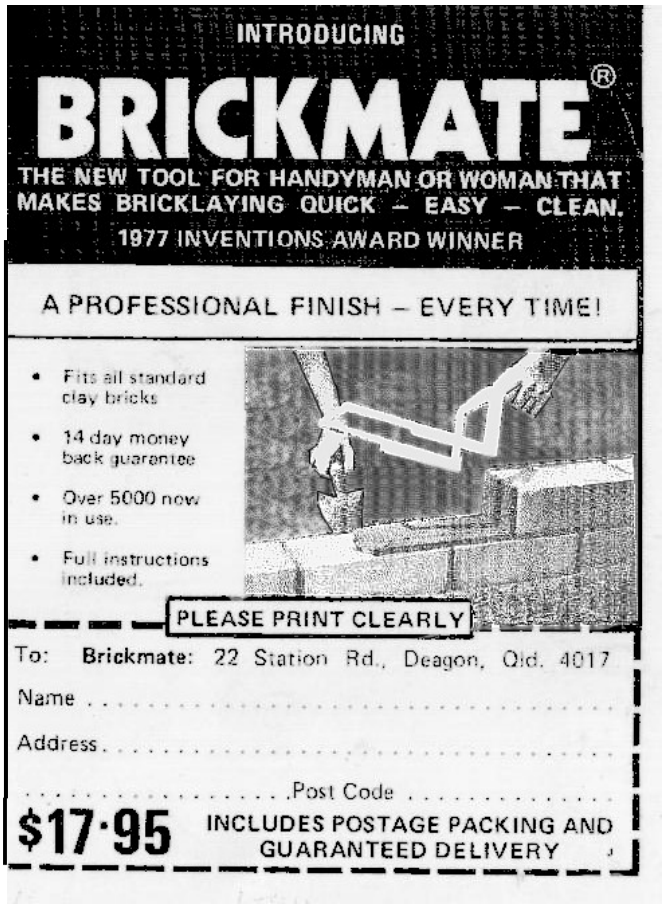
1000 Bricks an hour!

Terry Butcher has also provided a copy of an advertisement for a tool similar to the American brick laying aid featured in News 103. See ***Brickmate*** on the next page. Terry included some observations on the Brickmate and on bricklaying in general. His comments on the need for a taught and level stringline are beyond dispute.

Terry tells us that his first father-in-law was a ***New Zealand champion bricklayer who could lay 1000 bricks per hour.***

Correspondence (cont'd)

Brickmate



Terry Butcher (TTTG's Bruny Island member) sent the advertisement reproduced above.

This is an Australian advertisement for a tool similar to the device featured in News 103.

Terry observes: *"Here is an Australian advert for a similar tool but dated 1977 and an Australian inventor's award winner. I have one and it slows down bricklaying by at least fifty percent. I found it difficult to place bricks accurately in position but doing it without this tool and relying on your eye much easier."*

The First Wood Show

Terry Butcher has a few recollections.

"I was delighted to see Barry Perdriau's name come up in News 103. I remember our first Timber and Working with Wood Show and how Barry brought along, no mean effort, a Treadle Circular Saw. He did this because the one we had was incomplete. How is the TTTG Treadle Circular Saw coming along? Barry had a wonderful collection of tools."

The saw like the other TTTG tools, machines and books is still dispersed until TTTG secures a permanent home. The Committee is trying to find suitable premises. Any suggestions would be appreciated.

Power Tools

Residing on Bruny Island prevented Terry Butcher from attending the last meeting. He has however sent some observations.

"I applaud the interest in old power tools. A collector in the future will be hunting around for the trashy throw away electrical junk we have on offer today in the hardware stores. Today we can still assemble a comprehensive collection of these early well made but heavy pioneering ventures into the world of portable power tools. These tools work but they need more maintenance. Brushes need replacing, bearings must be repacked with grease, but that apart, they are solid, strong and look good.

Consider the big brass plate full of information, the shiny metal handle and the big black cord!"

For more on Power Tools see Terry's article on the next page.

Correspondence (cont'd)

Power Tools Terry Butcher

The Add-ons

To complement the collection of basic workshop portable tools, drill, saw, planer, jigsaw, there is a wonderful area of add-ons.

Perhaps it is not regrettable that the descriptor add-ons, like these power tool accessories, has fortunately passed out of use because unlike the parent tool, solid and robust, the add-ons were light and flimsy and often also dangerous and awkward to use.

Three hands would have made life a bit easier when using add-ons to the portable drill but not being available the operator had to juggle the drill, the switch and the cable.

For example the guard on the super seven-and-a-half inch circular saw attachment always refused to slide out of the way when trying to saw though a plank.

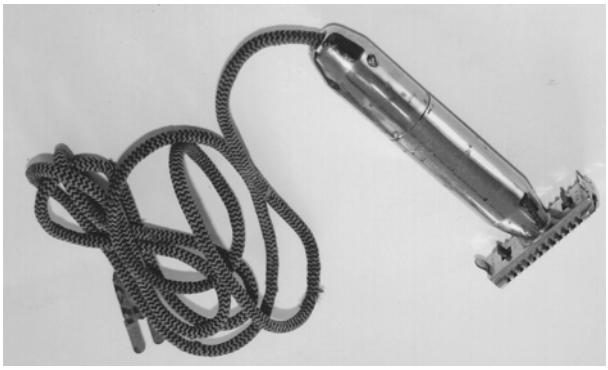
The sander was about the worst of the add-ons. The counter weight of the drill while trying to guide the sander over the job made the much desired third hand almost mandatory.

I have a big collection of these little add-ons toys. I find them regularly at the tip shop as no one in their right mind would dream of using them with the current choice of cheap power tools at around $15 or so.

Add-ons had a life of about forty years, the first appearing not long after World War 2 and the last disappearing in the 1980s.

Electric Razor

The electric razor featured in News 103 is not the earliest electric razor. Terry Butcher has sent this image of his oldest electric razor. This razor was patented in 1932 and manufactured by Siemens in the Germany.



But this is not the first electric razor!

A patent for an electric razor was taken out in 1900 in the U S of A.

The first successful dry electric shaver was developed by Joseph Schick Joseph Schick, a retired American Army Officer. Schick's razor was patented in 1928 and for sale by 1931.

Remington shavers came onto the market in about 1934. The rotary blade Philishave was introduced 1937.

The English Clipshave, illustrated in News 103, is a late comer of the late 1930s.

Terry added a postscript;
" *the study of shaving is called POGONOTOMY."*

The editor remembers watching the episode of Sergeant Blinko with the advert for an electric woman's razor not edited out before broadcasting. Big scandal for the ABC to broadcast advertisements! *Your editor was only a boy then, too young to shave!*

Correspondence (cont'd)

Foundry Furnace News 103

There are a few modifications that would make this a useful and safe relatively tool.

The addition of a drain would be extremely beneficial, especially if the crucible breaks (which they do), and molten metal goes everywhere.

The addition of a drain will mean the metal exits the furnace and into a waiting receptacle underneath. If this is not done and there is a spill the bottom of the furnace will need replacing.

The gas inlet/accelerator is in the wrong position to make an efficient system

The unit depicted is extremely heavy, using Kaowool plus Kaowool Hardener will make a much lighter furnace that will be able to achieve higher temperatures.

A vacuum cleaner motor is fine, however if you simply use a Shop Vac $80 from Bunnings, you will have the desired air (plus a very good vacuum cleaner that will pick up sawdust to metal to glass), but as has been omitted from the design in the magazine, a way to control the volume of air is necessary.

The vent in the lid is restrictive and unnecessarily complex, and I'm wondering how they plan to take the lid off without getting burnt fingers.

If you want I can re-design it, so that it will work using a 9 kg BBQ cylinder, and I could make it hot enough to melt brass, bronze and grey iron.

Charles

Tools as Art

At the black smithing workshop there was a small anvil made out of Railway Iron. It was a particularly fine example of its ilk.

It might be an interesting project to have an exhibition of the Tool as Art

No painted saws, no strange collections of old rusted junk arranged "artistically" etc but the main criteria would be that the tool has to be in working condition

Such criteria as, Excellence in construction, Purity of line Ease of function (a tool that says use me), Neatness of decoration (saw handles with carvings etc).

When and where?

When? Whenever suitable.

Where? Well I like the Idea of Museum of Contemporary Art just to stick it up those café latte types but probably in the too hard basket.

Perhaps at the Working With Wood Show or one of the frequent art days/open houses that Historic Houses Trust have. It would probably appeal to an art exhibition as a way of getting the wives to drag along the husbands.

So I put it to members: Course if you make a suggestion you must be willing to work on it so I put my hand up to help on the project.

Jim (with the hat).

ARE THERE ANY VOLUNTEERS?

The subject is open for discussion.

WANTED WANTED WANTED

Ray Gurney is collecting old wooden Ukuleles and putting them back into working order, so if you have one or know anybody who has one that they no longer want, please contact Ray on (02) 9569 1241 at his Style Street workshop.

John's Page

John Daniel

A fresh look at some traditional tools

Part A

Recently I was given a collection of ten wooden planes that were brought into Australia in 1961 by a German migrant. He was 21 years old at the time, a qualified electrician, who gained employment at the Port Kembla Steelworks. His father had purchased the planes in Germany in the 1930's. Our new Australian wanted the planes to be kept together and go to someone who would appreciate them; I must have qualified as the caretaker.

On inspection it soon became obvious that two of each type of plane was purchased, some manufactured by E. C. EMMERICH, some by BALDAUF and some by STEINER, all old makers. Both BALDAUF and STEINER used a European timber of the birch family, sometimes known as White Beech. This is a heavy hard timber, difficult to split and is most suitable for tools and other implements.

EMMERICH used European Beech for the body of his planes and Hornbeam for the wedges and soles. The soles are attached to the body with a machined interlocked joint. He also used a patented swivel bridge or bar to secure the wedge on his bench planes.

At first glance the smoothing planes may appear to be generic German Jack planes; however, with the blades honed and the cap irons carefully set they were anything but that. All three makes performed beautifully, removing a shaving to compare with any finely tuned metal plane. To say the least, I was very impressed.

The first photograph shows the variety of planes passed on to me and the intriguing presence of similar planes of different makes all purchased at the one time.

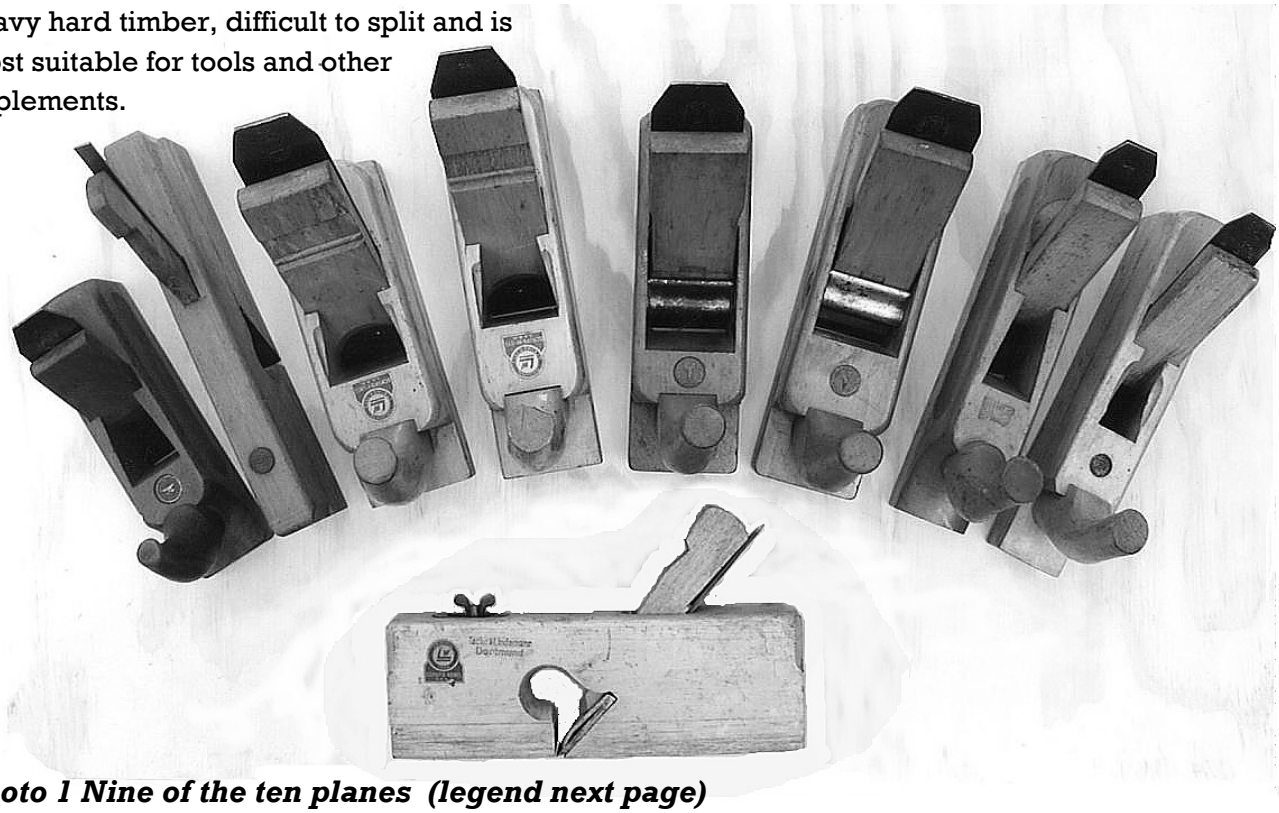


Photo 1 Nine of the ten planes (legend next page)

Photo 1 Legend (left to right)

Block plane/small German Jack by Emmerich European Beech, 200mm long, blade 40mm

Common Rebate by Baldauf Hornbeam 240mm long 30mm blade.

Smoothing Planes (2) by Steiner Hornbeam 210mm and 240mm long blades 50mm with back irons

Smoothing Planes (2) by Emmerich European Beech with Hornbeam soles 220mm and 240mm long 50 mm blades with back irons

Scrub Plane (name hard to read) possibly Emmerich Beech with Hornbeam Sole 240mm long 35mm blade

Scrub Plane by Baldauf Hornbeam 240mm long 30mm blade

Below is the Rebate plane with adjustable mouth by Steiner Hornbeam 240mm long 30mm blade with back iron

Photographs 2-7 show the individual planes whilst ***Part B*** is a comparison in photographs and in words of the two rebate planes

Photo 2 (Below) Jointer/Fore Plane by Emmerich 600mm long by 80mm. Note the patented cross bar to secure the wedge, also evident on the Emmerich smoothers in Photo 1

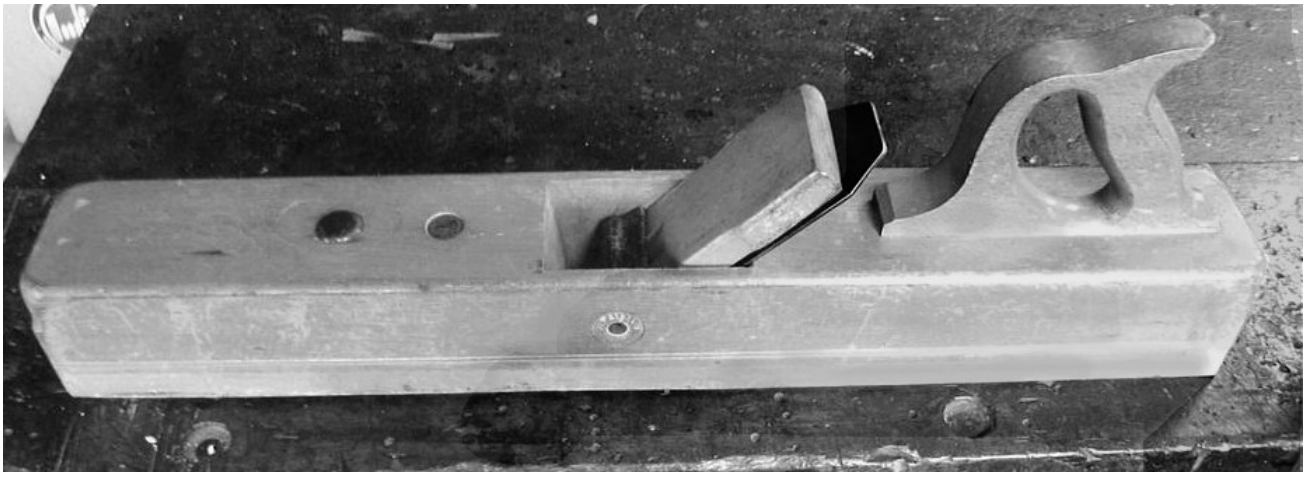


Photo 3 (Left)

Baldauf's mark (scrub plane blade)

Photo 4a

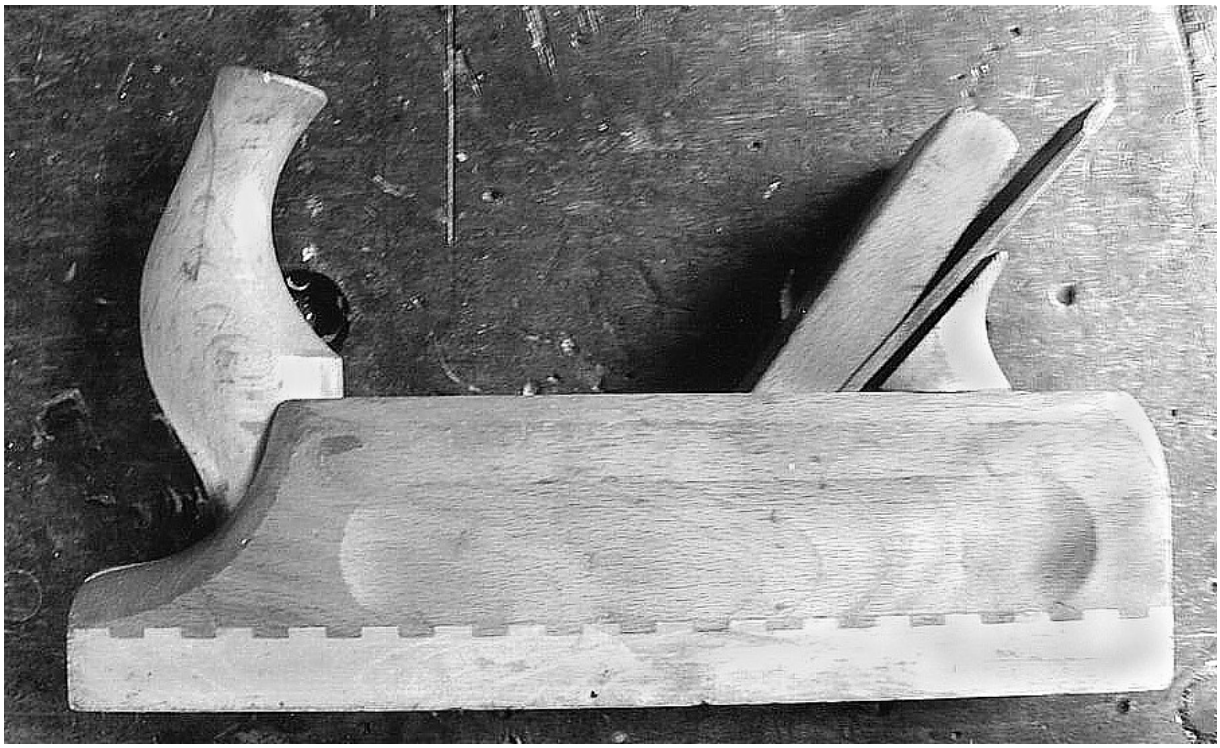
The front end of the adjustable mouthed Steiner rebate showing both the decal and retailer's mark. Note the wing-nut on the top for the mouth adjustment.

Photo 4b (Left) Steiner's decal on his smoothing planes

Photo 5 (Below) The two E. C. Emmerich smoothers

Photo 6 (Above) Side view of the Baldauf Scrub plane

Photo 7 (Below) The E. C. Emmerich Scrub plane



Part B:

The rebate planes

The common rebate by BAULDAUF and the adjustable mouthed rebate with the back iron challenged me to make a comparison of the two. Would there be much difference in their performance?

The following photographs tell the story.

Firstly, the common rebate.

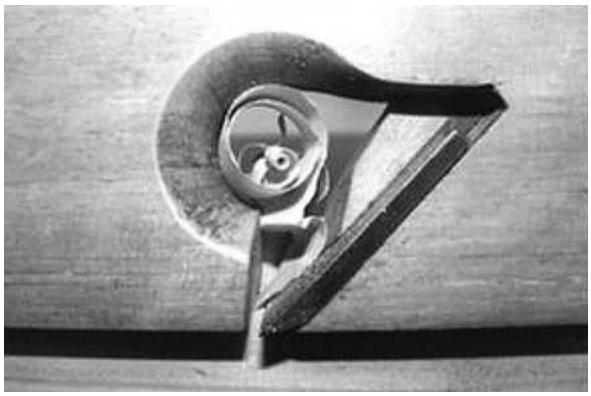
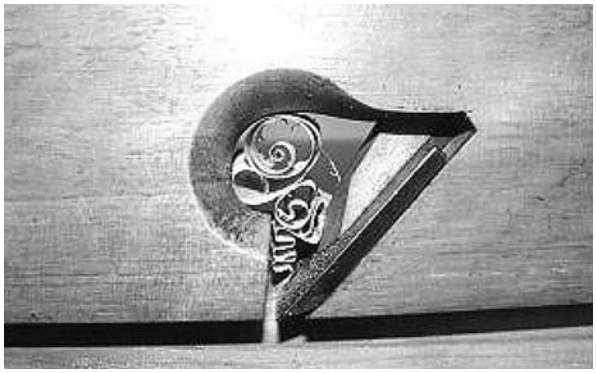


Photo 8a (Above)

Photo 8b (Below)



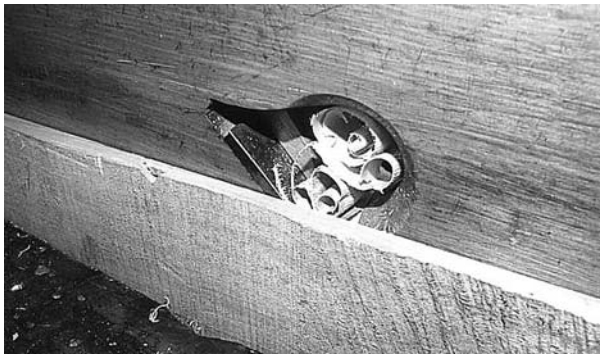


Photo 8c (Above)

Secondly, Steiner's plane

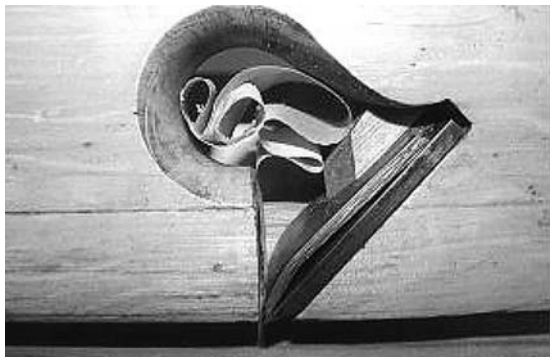


Photo 9a (Above)

Photo 9b (Below)

The cutting action of the two planes

BAULDAUF common rebate plane

The shaving slides up the blade, deflects off the wedge is restricted and starts to crumple.

STEINER double iron rebate plane

The shaving deflects on the back iron (chip breaker) and travels straight up.

Interestingly, the shaving tends to fold rather than curl as with the common rebate.

Evaluation

Which was the better plane?

-The common rebate plane by Bauldauf

This proved to be a free cutting plane and although the shavings were a little slow to clear, it was of no concern. The planed surface was a little rough but would be of little concern on internal panel and joinery work.

-The double iron rebate plane by Steiner.

This plane also was free cutting but care had to be taken not to set the mouth too fine. The back iron did have a positive effect of deflecting the shavings, also coupled with the mouth adjustment, allowed a much finer cut leaving a smooth almost burnished surface on the work – would be most suitable for "show" surfaces such as table edging, etc. or where grain direction varied. In setting up the plane it was most appropriate that the adjustable mouth was a necessity to allow blade and back iron removable, the alternative would have been an extra wide mouth or, alternatively, a side fitted blade and wedge.

To conclude, it's been a bit of an experience to take a closer look at the two rebate planes and to actually "set them up" and experience their performance. It became obvious that the Steiner with the back iron and adjustable mouth was the superior plane; however, both planes would find a place in any cabinet maker's tool box.

Overall, the German migrant of 1961, not only contributed to the development of our region, he now has contributed to my appreciation of Traditional European planes and also has given us all a glimpse at the preferred planes and plane makers of the 1930's back in the old country. I'm thankful that the planes landed at my place.

John's Pages past and future

John's Page has been a regular feature in News since News 47 and will continue to be a part of future issues of News.

A compilation of John's Page was printed as the TTTG publication *John's Pages*.

John's Pages is long out of print and is now a collector's item. Issues 47 to 70 were included.

The changed size of News offered John Daniel the chance to expand the scope of the page. This he has done not only in words but also in superb photographs.

After more articles of this scope there may be the opportunity to publish *John's Pages 2.*

John D sorting tools, (from the back cover of John's Pages 1 compilation).

Chapman Saws

Could not resist this old 10" saw blade at the weekend markets. Had never seen one in "as-new" condition, and made in Australia too … The price tag of 2 pounds-18 shillings suggests pre-1960's vintage, manufactured by:

Thomas Chapman & Sons
105 Annandale Street
Annandale NSW Australia

What else did this company make, and how long were they in existence?

Any further information would be appreciated

THE LEDGER

Clynt Sheehy, Treasurer

New Members

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

Barry Peck	***M494***	***Geoff McKay***	***M497***
Kim Larymore	***M495***	***Norm Richardson***	***M498***
Andrew Mortlock	***M496***	***Mick Smith***	***M499***

Workshops

The year's programme of TTTG workshops for 2008 concluded with the ever-popular Saw Sharpening Workshop on 26th October which saw a big roll-up of members who went home with sharp saws after a day of camaraderie with like-minded enthusiasts.

As TTTG Treasurer, I attend all workshops and, although I've been to all of them several times, I, like all participants, learn something at every workshop.

A full programme of TTTG workshops is scheduled for 2009.

A few tricks I've learned in recent years:

1. To plane small areas perfectly flat as when replacing a broken-off horn on a plane handle, I remove the handle from the plane and clamp it in a Black & Decker Workmate with the broken surface projecting a fraction of a millimeter above the jaws. The jaws then provide a guide to ensure the plane you're holding is level and that the planed surface is dead flat.

2. To re-cut the teeth on a back saw (or in fact any saw), that has been previously badly sharpened (e.g., has uneven, undular or badly shaped teeth), file off the old teeth then clamp a blunt power hacksaw blade (of appropriate tooth spacing) against the saw. The power hacksaw blade will provide a guide to file the new teeth. (This trick came from President Bob.)

3. If the back (flat side) of a plane blade has become so rounded over near the cutting edge (by poor sharpening) that flattening it on a diamond plate would take an eon, then put a small back bevel on the blade by using a strip of metal (such as a discarded six inch steel rule) to lift the other end of the plane blade slightly off the diamond plate by the thickness of the rule. The reduction in sharpening time is dramatic as is wear on the diamond plate. (This trick from master sharpener Jim Davey.)

4. To loosen wedges in wooden planes, don't go slamming the plane with a hammer; this damages the plane. For a wooden bench plane, invert the plane, cup your hand under the blade and wedge (to prevent the blade falling out) and strike the top of the stock forward of the mouth on the bench. For an obstinate wedge in a wooden moulding plane grip the protruding part of the wedge in a vice and strike the rear of the plane with a mallet. (Both these tips from President Bob.)

Postscript

From our recent Tool Swap and Sale, we signed up seven new members.
M500-Mathew Pryor, M501-Peter Tierney
M502-Eric White, M503-Peter Mury
M504-Robert Cruz, M505-David Boyd
And M506-Steve Tizard
Welcome all!

Working With Wood Show

Sydney 2009

(19th – 21st June, 2009)

TTTG is represented on the committee of wood-related clubs which liaises with the Show's owners. TTTG's stand will, in 2009, again be located in the Hordern Pavilion at the Sydney Showground.

2010 Change of Venue

In 2010 it is probable that the T&WWW Show will be held at Rose Hill Racecourse, a much better venue with free parking.

Competitions

TTTG members are encouraged to enter one or more of the various club competitions associated with the show. Perhaps the most relevant is the competition for Woodworking Tool-making & Jigs & Tool Restoration. Details of these competitions and the entry form will shortly be mass E-mailed to members with computer access and will also appear in a future TTTG News.

Linnwood

This year, The Traditional Tools Group was represented at the open days for the historic house, Linnwood at 25 Byron Road, Guildford.

Linnwood was built between 1889 and 1891 by architecture company partner, George McCredie (1859 – 1903) who was married to Susan Blackwood, daughter of engineering supplies company family, James Blackwood & Son. George McCredie in 1891 was elected to the Council of Prospect/Sherwood (now Holroyd) of which he became mayor in 1892.

In 1894 George McCredie won the parliamentary seat of Central Cumberland.

'Special Schools'

The Linnwood estate later became Guildford Truant School for Boys, then subsequently a residential girls' school for state wards and in 1966 a special home science training school for girls from deprived backgrounds.

Since 1999 the Friends of Linnwood have endeavoured to preserve and protect the Linnwood estate.

Linnwood Open Days

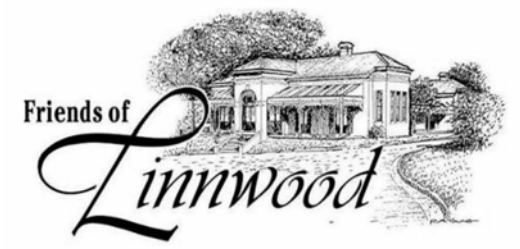
The Linnwood open days for 2009 will be advised in future issues of TTTG News.

I would recommend that members and their families should drop into Linnwood to check it out (donation $2 and you might win a prize). Members willing to serve on the TTTG bench at Linnwood should contact President Bob on 9869 7487 or see him at a TTTG meeting.

Proposed TTTG Linnwood Tour

In 2009 TTTG hopes to have a special event at Linnwood. This will be a conducted tour of the house with a commentary on the architectural features. A display and working demonstration will show the traditional techniques used in the construction of the house.

Merry Christmas and a happy new year.
See you at the next TTTG meeting and at the first 2009 meeting on Tuesday February 10th.



Saw Sharpening Workshop *26 October 2008*

John Daniel

President Bob delivering his usual motivational introduction.

What a day! The TTTG workshops just get better and better. We "kicked off" at 9.30am as advertised, with around half a dozen takers, however, it wasn't long before our numbers grew and by 9.45am all spare spaces were taken. I've been in many workshops over the years, however, seldom have I encountered such a focused receptive group; they were all on a mission, arriving with saws under one arm, file, saw-set and lunch under the other – no doubt President Bob would have felt well rewarded for his efforts in making the great saw cramps evident in the photographs.

"Did I hear him correctly – he wants us to file the tops off the teeth?"

Apparently after the previous saw-sharpening workshop all "students" including Bob, left the building with Shearer's back". The cramps allowed the men to work at a comfortable height, and I must add deadened a lot of the screeching normally associated with filing across a sheet of steel.

"That light coming over my shoulder is just right"

"When's the next workshop?" was the parting question as they walked out the door, taking care not to injure themselves with their now prized possession. All went away with saws that now cut, some not perfectly, however, a great improvement on their pre-workshop condition. It was good to get positive feedback from the participants and I have a feeling that we may see them again. A most satisfying day!

All well focused and full of confidence.

The Davenport Saw Makers of Sheffield – Part 2

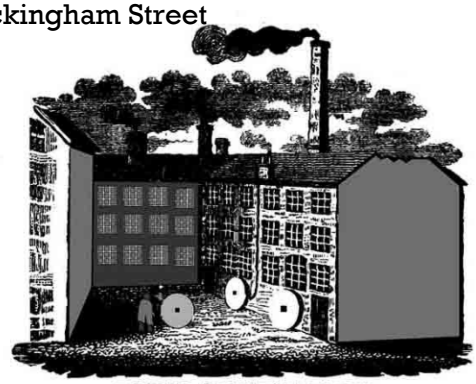
Ray Gardiner and Peter Evans

Part 1 News 103 should be read before Part 2.

The Rockingham Street Davenports

Now we move to the main player in the Davenport saw-makers. The only candidate for a precursor business is,
1814-1817 DAVENPORT & FLETCHER
Carver Lane (HSMOB)
In 1818 there is a miss-spelt directory entry, but since it is in Carver Lane, three streets over from Rockingham, and at the same address as the previous Davenport & Fletcher, we feel it is likely the same maker.
1818 DEVENPORT
Carver Lane (3 streets over from Rockingham) Our first confirmed entry comes in 1821 and we will use that as our earliest date, although 1818 is still possibly correct.

1821 DAVENPORT, JOHN Sheffield (HSMOB)
1822 DAVENPORT John Saw manufacturer
37 Rockingham Street
1829 DAVENPORT John Saw manufacturer
37 Rockingham Street



JOHN DAVENPORT,
ROCKINGHAM-STREET, SHEFFIELD,
SOLE INVENTOR OF THE
PATENT LATHE-TURNED CIRCULAR SAWS,
And Manufacturer of all other kinds of Saws,
ELASTIC STEEL BUSKS FOR LADIES' STAYS, MACHINE & MINCHING KNIVES,
AND CAST STEEL REFINER,

Pigot's 1829 Directory.

Sometime after 1829, the business expanded and John added steel refining.
1833 DAVENPORT John Saw and elastic steel busk manufacturer and steel refiner
36 Rockingham Street.

Pigot's 1834 Directory.

Note the addition of "and cast steel refiner". He obviously didn't want to spend more money getting a new engraving. So he just modified the previous advertisement.
The business relocated to the main factory address at 188 Rockingham Street sometime between 1833 and 1841. At this time the Sons Henry and James joined the business officially. Note the addition of the "& Sons" to the directory listing.
1841 DAVENPORT John, Saw manufacturer, Rockingham Street
1841 DAVENPORT & SONS, saw & steel busk manufacturers
188 Rockingham Street.

Sometime between 1841 and 1845, John senior decides to step aside from the saw making and the firm becomes Davenport Brothers. John senior continues running the steel side of the business however.

1845 DAVENPORT BROTHERS Sheffield 1845 - 1847 (HSMOB)

But is seems Thomas is not too keen and he combines running a boarding house with a saw handle making business.
1849 DAVENPORT Thomas, Saw handle maker & boarding house
27 Howard Street
1849 DAVENPORT Henry, Saw maker
192 Rockingham
1849 DAVENPORT John, Saw, steel, busk &c. Manuf.
185 Rockingham Street

Evidently all is not well with the brothers and Henry drops out of the business between 1849 and 1852, leaving James to carry on alone. 1852 DAVENPORT James, Saw &c. manuf. 188 Rockingham Street
1852 DAVENPORT JAMES,
188 Rockingham Street [1852 - 1855]
Sometime between 1852 and 1856 James relocates the business to a succession of addresses.
1856 DAVENPORT, JAMES
Milton Street, Thomas St (HSMOB).

JAMES DAVENPORT,
MANUFACTURER OF
SAWS;
LADIES' STEEL BUSKS, &c.,
CORNER OF MILTON STREET,
THOMAS STREET.

White's 1856 Directory.

In White's 1879 Directory the following advertisement appears.

JAMES DAVENPORT,
MANUFACTURER OF
SAWS, SUGAR CANE KNIVES,
REAPING AND STRAW KNIVES,
JOINERS' SQUARE and BEVIL BLADES, and ALL KINDS OF TOY SAWS,
56, NAPIER STREET, SHEFFIELD.
RESIDENCE:—4, VICTORIA TERRACE, HOLLAND ROAD, LOW FIELDS.

It seems the company moved a number of times including to several addresses in Napier Street.

1884 DAVENPORT, JAMES & SONS
Clifton Works, Headford Street

The following advertisement appeared in a London Directory in 1884

JAMES DAVENPORT & SONS,
MANUFACTURERS OF
SAWS,
Sugar Cane Knives, Matchets, Cook Knives,
REAPING & STRAW KNIVES, JOINERS' SQUARE & BEVIL BLADES,
And all kinds of Toy Saws, Lightning or Budding Saws.
CLIFTON WORKS, HEADFORD STREET, SHEFFIELD.

1893 DAVENPORT, JAMES
99 Napier Street

1900 DAVENPORT, JAMES
Napier Street (HSMOB)

We have traced our three separate branches as far as we can for now.

Getting back to the original question that started all this - when was the saw made and by whom?

The saw was probably made between 1820 and 1840, estimating from its features. We see two shapes for the Davenport name at approximately the same period – indicating two Davenport makers for the five saws observed. Could be John or Charles. However the directory entries suggest John is the earlier maker, in business by 1821 (when he was 38 years old) and probably earlier.

We can infer that the later Davenport saw makers would wish to distinguish their marks and add initials or first names – however we see no such marks and the EAIA reference to Jno Davenport is not supported by any evidence. So we assume

Matt W's saw was made by the Rockingham Street John Davenport, and since he started refining his own cast steel around 1833, saws made after that date could/are likely to be marked "Cast Steel" rather than "German Steel" although many makers continued secondary product lines marked "German Steel" at lower prices.

The earliest date could be as early as 1818, however the "Devenport" directory entry is not really conclusive, and therefore we estimate the earliest date to be 1821. So the estimated date is 1821-1833. The handle style looks appropriate for this date estimate.

Conclusions

We have traced the highlights of the Davenport Saw Makers, and while there are plenty of gaps where more research is needed, the framework for this future research has been established. They are a confusing lot these Davenports, perhaps best summed up with quote from an old English proverb ".....and as many Davenports as dogs tails"

References

-"Handsaw Makers Of Britain".
Don McConnell & Erwin L Schaffer, 2005

-"Handsaw Makers of North America".
Erwin L Schaffer, 1999

-Directory of American Toolmakers.
EAIA, 1999

-Some 19th Century English Woodworking Tools, Roberts, Kenneth D, 1980

-The TATHS Newsletter – issues 89 and 91 articles can be found at www.wkfinetools.com. The article Dating of saws, by Simon Barley will be published in TATHS Newsletter issue 102 appearing around the same time as this issue of News.
The authors very much appreciate the help of the TATHS editor Brian Read, as well as Simon Barley, for their assistance with this article and access to the article before publication.

Simon Barley has provided considerable assistance to the authors with the preparation of this article, and critically commented on drafts, leading to a much better article. The authors take full responsibility for the conclusions reached.

-Sheffield Records Online
http://www.sheffieldrecordsonline.org.uk/

-Historical Directories Leicester University
http://www.historicaldirectories.org/hd/

Ray Gardiner is developing a very interesting website www.backsaw.net, the site is designed to capture the details and nuances of backsaws, particularly British backsaws and their makers. Ray is looking for images of backsaws plus any information about the saws and the makers.

The Origin of the 'Allen' Key

John Bates

An Allen wrench, Allen key, hex key or hex head wrench is a tool used to drive socket head cap screws and bolts, which have a recessed hexagonal socket in the head. In non-English speaking parts of Europe, it is usually known as an 'Unbrako key' (also often misspelled 'Umbrako' viz IKEA). Unbrako is a brand of socket head cap screw established around 1911 by the SPS Company of USA (see http://productnames.blogspot.com/2006/10/how-was-allen-wrench-named.html).

SPS Unbrako is the company that is said to have invented the socket head cap screw (see http://www.intota.com/viewbio.asp?bioID=772934&perID=722457). However, while this claim of having 'invented' the fastener is certainly possible it is not able to be readily confirmed. Certainly, as is discussed below, the SPS Company was a very early manufacturer of the socket head cap screw. SPS also became a world leader in mass-producing this type of fastener which it branded 'Unbrako' because it is unbreakable, which in absolute terms it isn't.

Certainly the company's decision in the 1950s to produce metric sizes for the European market has led to or significantly influenced the current demarcation evident in the popular terms used across the Americas, Europe, and Australasia to describe these fasteners.

The Unbrako brand is now over 90 years old and, in terms of product quality, remains the socket screw by which all others are measured. Developed in the early 1900s, it rapidly became the socket screw of choice for engineers in the US and Britain.
In the decade before and after World War II the product spread to all worldwide markets and today is recognized as the brand and performance leader in over 25 industrialised countries. Nevertheless, the term 'Allen key' is still part of the mechanical engineer's lexicon.

Clearly that the term 'Allen wrench' or 'Allen key' originated from the products made by the Allen Manufacturing Company of Hartford, Connecticut USA.

That company was also a maker of socket head cap screws featuring the recessed hexagonal head. Consequently the Allen screw is another commonly used name for socket head cap screw.

It is widely reported that in 1943 the Allen Manufacturing Company of Hartford, Connecticut trademarked the name 'Allen wrench or key' for its range of hex wrenches. The Allen manufacturing Company is no more, but the brand is now owned by the Danaher Group in the USA and used by its industrial tools division which still produces the 'Allen' wrench or key.

While the socket cap screw had been around for much longer than and have been produced by many, many companies, the popularity and wide market distribution of the Allen Manufacturing Company's 'Allen Key'® has continued to exert an influence on fastener terminology.

The author is aware that prefix 'Allen' has been commonly used in reference to both the wrench/key and the fastener/bolt in both Australia and the USA for many decades (see http://www.nickel-systems.com/allen_head_cap_screws.htm).

It is self-evident that the 'Allen' wrench used to tighten the socket cap screw has been in existence for as long as the screw itself so it

was definitely not 'invented' by anyone connected to the Allen manufacturing Company. As to the person after whom the Allen Manufacturing Company was named, well that is another story.

Speaking of which, an interesting tale behind the Allen wrench/key question concerns the issue of who did not invent it. Several imaginative but unsupported stories and theories appear on various web pages. One of the more common is an erroneous account that the inventor of the Allen wrench was one Gilbert F Hublein (1850-1937), a German immigrant who happened to be a liquor importer in Hartford, Connecticut (see http://www.cosci.org/images/Feb07Newsletter.pdf).

'UNBRAKO' AND THE STANDARD PRESSED STEEL COMPANY

In 1900 an overhead shaft hangar made of brittle cast iron broke at the American Pulley Company where Howard T. Hallowell a young draftsman worked.

Hallowell designed a better hangar made from pressed steel, which was patented in 1901. In 1903 Hallowell and Harald F. Gade, a Norwegian engineer, along with their friends and relatives, started the Standard Pressed Steel (SPS) Company in a rented Philadelphia plant to make the improved hangars.

By 1906 the firm began making socket set screws for its own internal use. Then five years later, SPS introduced the first Unbrako socket head cap screw to the U.S. market.

A new plant was added just for the many screws, bolts, and other threaded items needed for the company's products.

In 1920 the Standard Pressed Steel Company moved its operations to one site in Jenkintown, Philadelphia and that site remained the firm's headquarters in the decades ahead. Many manufacturers were already using the firm's Unbrako socket screws and so during the 1920s the company strengthened its distributor network.

Other developments included the redesign of the Unbrako socket head cap screws so its outer surfaces were rougher; a simple change which made it easier for workers with greasy hands to handle the screws.

The company started selling its Unbrako screws to customers in England in 1930. By 1937 the firm had begun making Unbrako screws in Coventry, England. This led to the founding of Unbrako Socket Screw Company Ltd. By the late 1930s the busy firm destroyed its older buildings in Jenkintown and built a modern plant, a good move that prepared them for the demands of World War II.

The call for military parts and supplies helped SPS grow during World War II. SPS facilities in Jenkintown ran a 24 hour day and employment peaked at over 3,000 workers. It made airframe bolts and other aircraft parts as the nation increased its production of war planes.

In 1941 the firm set up the nation's first commercial machinery to test the fatigue of its fasteners. That led to more dependable bolts and screws and other threaded products.

In the 1950s the firm acquired several fastener companies including; the Cleveland Cap Screw Company; the Columbia Steel Equipment Company in Fort Washington, Pennsylvania; the Nutt-Shell Company; and the Detroit Diamond Company that made special kinds of nuts. The company also expanded its manufacturing facilities by building a

modern 260,000-square-foot facility on a 46 acre site in Santa Ana, California.

Further expansion followed including the production of metric fastener products for the growing European market. In 1959 the company organised Unbrako Schrauben in Koblenz, Germany with full production commencing the following year. By the early 1960s it had established other overseas production or distribution facilities in Mexico City; Melbourne (Australia); Japan; and Shannon (Ireland). In 1962 company sales topped $100 million from selling its products in 52 countries. It employed a total of over 7,500 men and women in seven nations.

In 1978 the company changed its name to SPS Technologies, and about the same time new opportunities arose with NASA and the space shuttle program. The firm created high-strength bolts, nuts, and shear pins used in the shuttle's boosters and fuel tanks. Since each shuttle needed hundreds of SPS bolts and some of these bolts cost up to $600, the shuttle program provided SPS with new and lucrative markets.

Numerous acquisitions by SPS fuelled its growth in the late 1990s. For example, in 1996 SPS acquired all or most of the outstanding stock of Mecair Aerospace Industries based in Pointe Claire, Quebec, Canada, a firm that produced fasteners and other aircraft parts.

In 1997 SPS acquired the Greer Stop Nut Inc a manufacturer of nylon locking nuts located in Nashville, Tennessee further strengthening its fastener segment. Again in 1998 SPS acquired more fastener-related firms including, in Waterford, Michigan, Terry Machine Company which made specialty fasteners for the auto industry; and the Nevada Bolt & Manufacturing Company, based in Las Vegas, which made non-standard bolts and nuts from steel and special alloys.

Today SPS Technologies Inc. produces both stock and specialty fasteners and fastening systems for automotive, aerospace, and industrial sectors. It also makes precision tools such as thread roll dies, drills, and metal cutting tools.

After numerous acquisitions SPS now operates facilities in Pennsylvania, Utah, California, Ohio, Michigan, Tennessee, Illinois, Nebraska, and New York. Its overseas plants are located in England, Ireland, China, Canada, India, Brazil, Australia, Mexico, and Singapore.

For more information see:

http://www.fundinguniverse.com/company-histories/SPS-Technologies-Inc-Company-History.html)

SPS Technologies, Inc.
101 Greenwood Avenue
Jenkintown, Pennsylvania 19046 USA

http://www.spstech.com

A Garage Sale Norris

Bob Crosbie

A frugal TTTG member sometimes buys old tools at garage sales, at tool sales and at the TTTG auctions. But he rarely spends more than the few loose notes in his wallet. Of course he ends up with lots of odds and sods but sometimes he secures a bit of a bargain.

I know he purchased a Norris Post War round sided Smoothing Plane at a garage sale and I know how much he paid for it because he told me. When I examined the plane the problems were self evident. The original blade was missing as was the cap iron. More serious was the severe bend in the adjustment mechanism.

This Norris is cast iron so whoever dropped it had the luck of the devil as the brass knob at the end of the adjustment screw took the full impact of the fall. The bend was immediately under the brass knob, a pronounced dog-leg and a real problem.

Our frugal member wanted to straighten the adjuster and sought my opinion. We were both keen on bending the screw rod back without removing the adjustment assembly. All our inspired and optimistic ideas failed! Nothing for it but to remove the adjuster mechanism!

All this happened at the TTTG Black Smithing Workshop so our credibility was on the line. The thing to avoid at all cost was the removal of the plane lever. I sharpened up a small and very cheap plastic-handled screw driver and with patience managed to remove one screw. The second screw was too inaccessible.

An offset screw driver was suggested. We were talking about this problem next to one of the smith's fires. Only a cheap screw driver so put the tip into the fire. Five minutes later we had a perfectly fitting offset screw driver. This improvised tool, with patience, removed the second screw. The adjustment assembly came out of the Norris plane frog easily. Next we had a cup of tea and did a bit of thinking. How to straighten the screw rod?

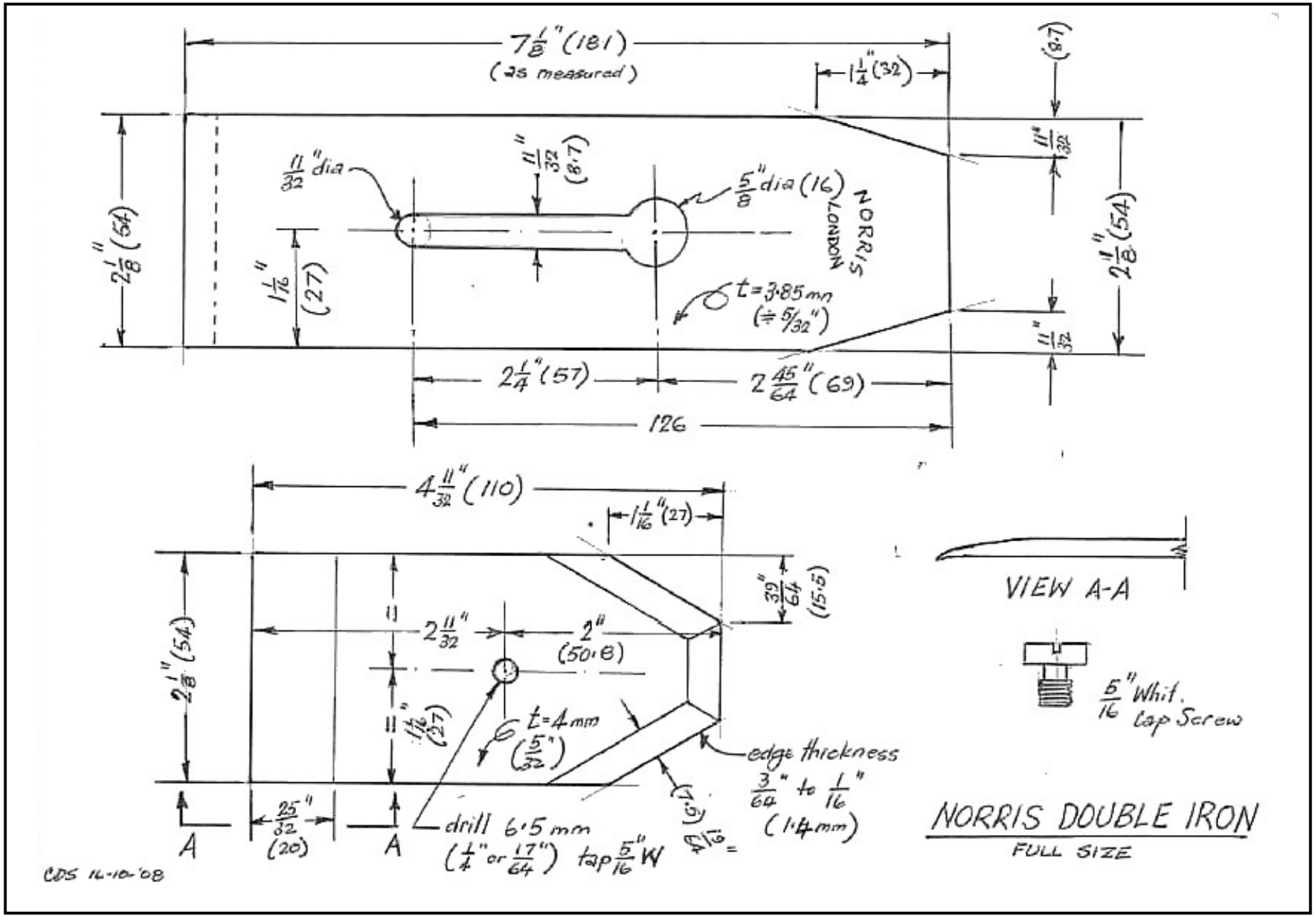
Again we both had some great ideas which all failed miserably. Heat was out of the question due to the knurled brass knob. We tried putting the rod between two pieces of wood in a strong vice (Carter) but this only impressed a semi circle in each bit of wood.

Then I thought it might be useful to see how bent it was. So I put it in the three jaw chuck on the best lathe. Imprinting the run-out on my mind I turned off the lathe and removed the screw rod. Next I put it in the vice with soft jaws, concentrated and bent the metal in my bare fingers. I repeated the 'in the chuck, deep stare, in the vice and zen bend' routine half a dozen times and the result was an almost perfectly straight Norris adjuster.

Of course it all came down to geometry and bending moments but why kill the romance? Our frugal friend now had a straight Norris adjuster, a Norris plane and a bent plastic handled screw driver. He also had a plane blade that didn't fit and a really dodgy cap iron. The cap iron screw didn't fit the adjuster so I turned down an old cap iron screw to fit.

Fearing more expenditure he was all for calling it a day but I convinced him that we should make a proper blade and cap iron. We borrowed the missing parts made the drawing sheet on the opposite page. When we finish he will have a perfect Norris smoothing plane.

I'll tell you I did this work for the enjoyment but I won't tell you how much the Norris plane cost at the garage sale!


7 1/8" (181)
(as measured)
1 1/4" (32)
(8·7)
11/32"
11/32" dia
11/32" (8·7)
5/8" dia (16)
NORRIS LONDON
2 1/8" (54)
1 1/16" (27)
t = 3·85 mm (≑ 5/32")
2 1/4" (57)
2 45/64" (69)
126
4 11/32" (110)
1 1/16" (27)
39/64" (15·5)
2 11/32"
2"
(50·8)
2 1/8" (54)
1 1/16" (27)
t = 4 mm (5/32")
edge thickness 3/64" to 1/16" (1·4 mm)
25/32" (20)
A
A
drill 6·5 mm (1/4" or 17/64") tap 5/16" W
CDS 16-10-'08
VIEW A-A
5/16" Whit. cap Screw
NORRIS DOUBLE IRON
FULL SIZE

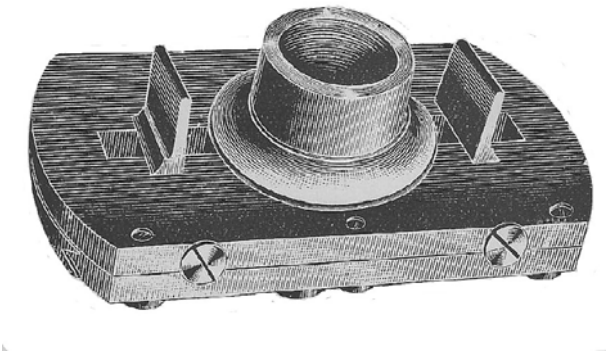
Oval Wood Turning

Bob Crosbie

Turning large elliptical frames probably has a long history. However the documentation of this process is minimal. Oval turning large frames is mentioned in Moxon and Holtzapffel. The only detailed historical description of the process seems to be in Nicholson while there is a article in Fine Working, May 1986, on a then operating workshop with nineteenth century equipment. The literature on elliptical turning as an ornamental technique is extensive. This is useful in understanding the mechanics of oval turning.

Ornamental Oval Chucks

J Lukin Turning Lathes, Britannia Company, Colchester 1894 discusses the ellipse chuck and the oval chuck. The oval chuck is not to be confused with the ellipse chuck which is a smaller and simpler device. Both chucks screw onto the lathe mandrel. The crucial difference between the two chucks is that the movable plate of the oval chuck is free to slide.



Oval chucks were expensive. For example in 1894 the Britannia Company, Colchester offered oval chucks at nine pounds, twelve pounds ten shillings and sixteen pounds according to size and construction. Oval chucks were also constructed from timber.

Large metal oval chucks fitted to large metal headstocks present mechanical problems that can be minimised by the mass of cast iron and by well designed bearings. A substantial cast iron headstock with an oval chuck screwed onto a well lubricated mandrel could be easily driven by steam power via line shafting. Even so the device would have put some strain on the lathe bearings and have been rather noisy!

What of oval chucks before steam traction? It is certain that oval chucks were still being constructed of wood after the introduction of steam power. The cost of cast iron oval chucks must have been prohibitive for the majority of turners. An example of wooden oval chucks driven by power is detailed in the May 1986 Fine Woodworking article.

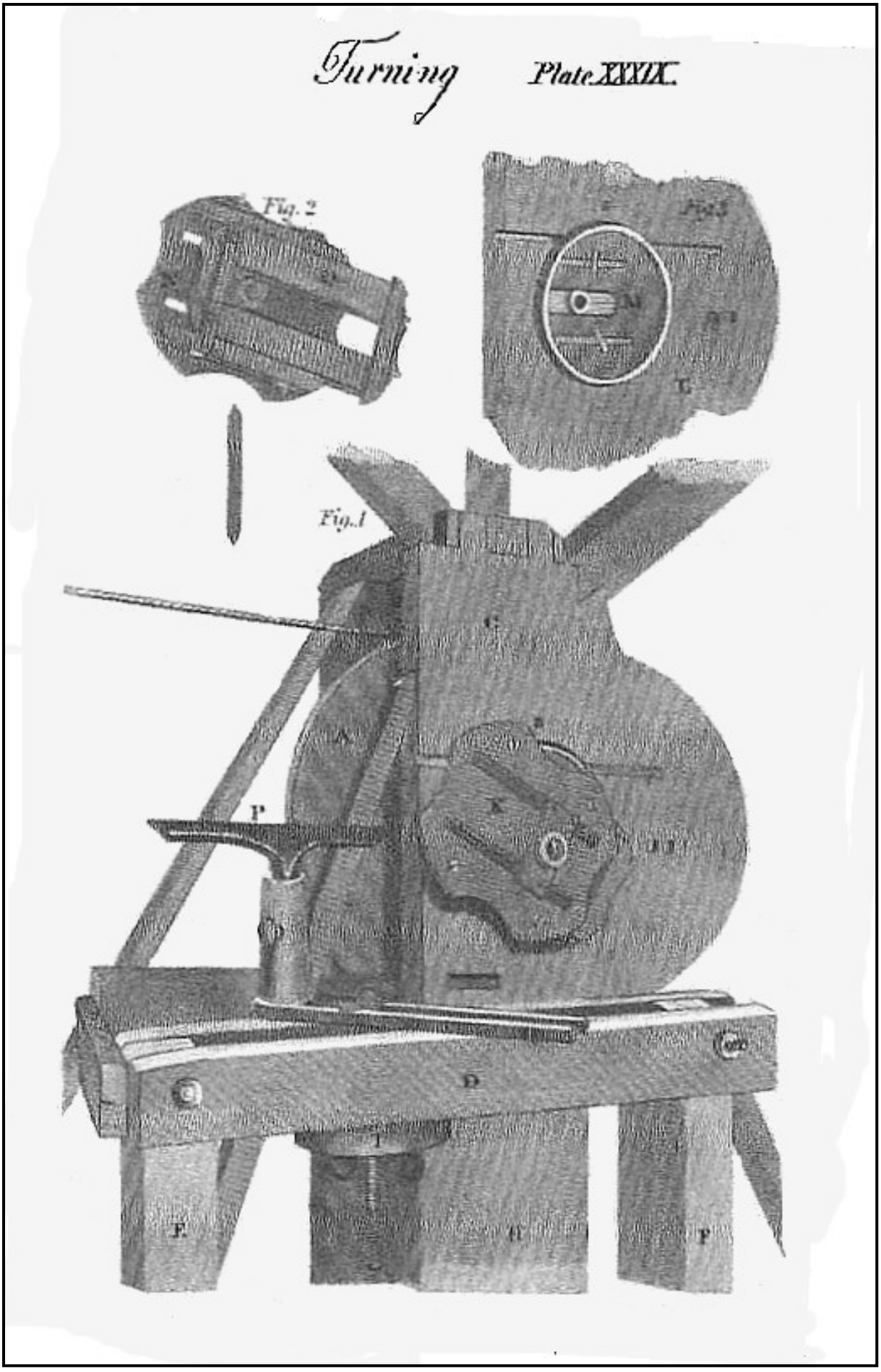
Pole or Treadle lathes could not deliver the sustained power necessary to drive large oval chucks. The only possible power generator was the great wheel driven by an assistant.

The full page drawing opposite seems to be the only accurate depiction of a pre industrial oval lathe. The engraving copied is from *The Mechanics Companion* by Peter Nicholson published in Philadelphia in 1832. This book was printed in several versions in America and is an adaption of earlier English editions.

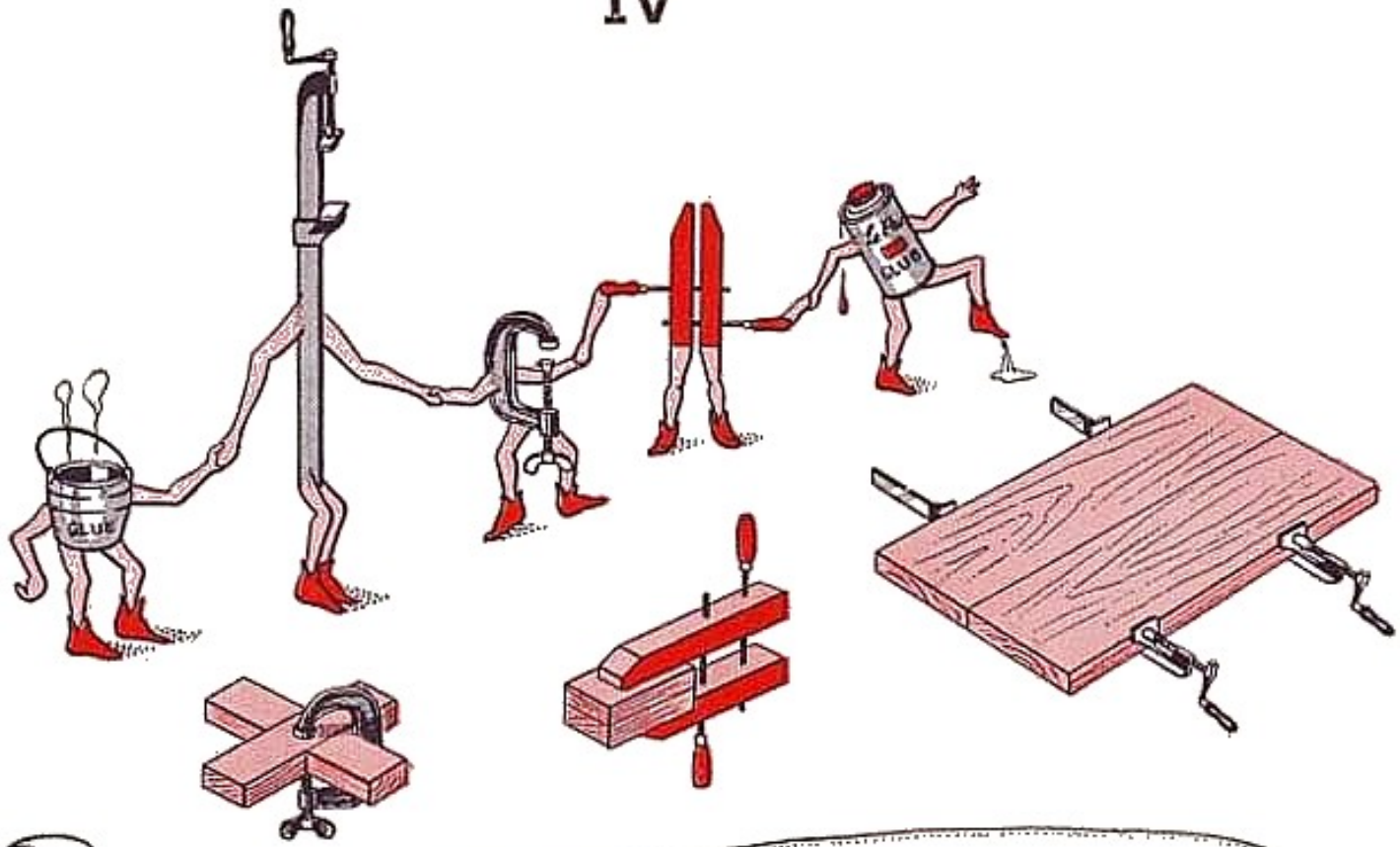
The image is from a digitalized Google copy. This copy is of the 1832 Philadelphia edition. A copy of the 1831 New York edition can also be found on the web but the scan quality is not as good as the Google version.

The 1991 Fine Woodworking article is also available online, Google Oval Turning. This article is well worth reading.

The author has seen a large metal oval chuck in Sydney. Probably heading for scrap!


Turning
Plate XXXIX.
Fig. 2
Fig. 3
Fig. 1
P
D
F
F

IV



Joinery