NEWS

106

April 2009

TTTG Inc

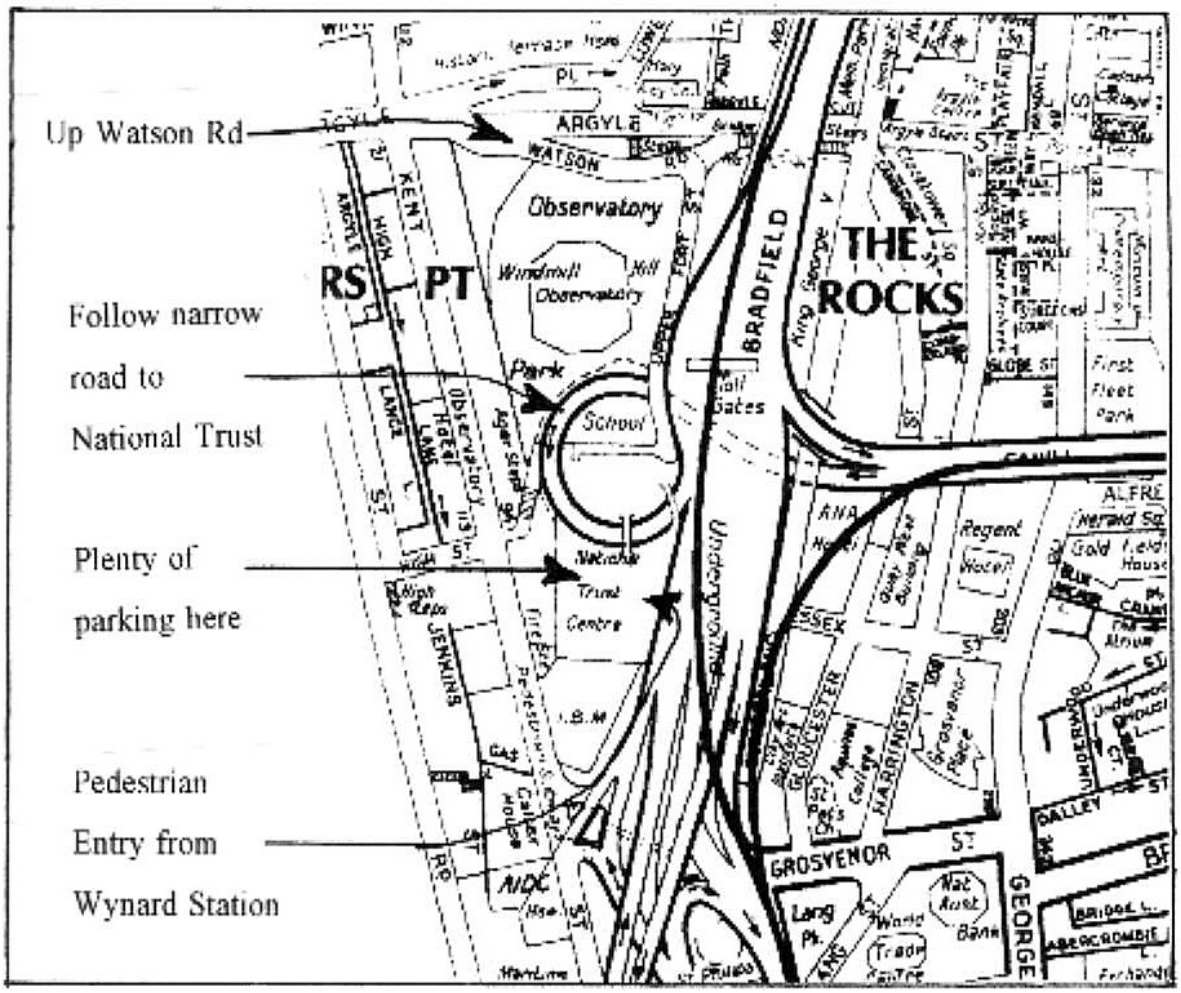
Please pay your $30 TTTG 2009/10 Subscription before 30th June

Next Meeting

Tuesday April 14 ***Shaves, Scratches and Knives***

National Trust Centre. The Rocks

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



Enquires

Mike Williams 02 9144 6356

Bob Crosbie r.crosbie@bigpond.com

Subscription $30

Postal Address

P.O. Box N240 Grosvenor Place Sydney NSW 1220 **www.tttg.org.au**

News 106 Contents

Information

Meetings/Workshops	page 2, 4
Workshops	page 5
News 105 Covers	page 15
Power Tool Repairs	page 28

Correspondence

Redfern	page 6
TATHS & TTTG	page 6
Saw Nibs	page 7
Chanceson	page 7
Bench Forge	page 7

JDs

MEM Planes	pages 14, 15

Reports

Last Meeting	page 4
Working with Wood Show	page 10
The Ledger	pages 9, 10
Kiama Woodcraft Expo	pages 26,27

Classic Tools

Obscure Tools	page 13
Handled Side Fillister	page 24
Screw Box & Tap	page 25
Hack Hand Saws	page 29
Samson Saw Vice	page 30
Toga Chisels	page 30
Table Surface Grinder	page 34

Subscriptions page 11

Features

On Committee	page 12
Saw Handle Making Costs	pages 16-21
1650s Tools	pages 22, 23
Titan Nails 1937	page 33
Nail Terminology	page 32

Workshop Tips

Drilling Square Holes	page 31

Last Meeting

Tuesday February 10

Ploughs, Fillisters and Snipes

The terminology of wooden planes was explained and the uses of the various specialised planes elucidated.

A display of wooden planes supplemented the presentation. This included several rare examples of planes by makers including ***Buck, Kimberley, Preston, Mathieson and Nurse.***

The speaker described the use of the various planes and examples of work produced by each plane were distributed during the presentation.

The care, sharpening and use of these planes were discussed in detail.

Using Woodworking Tools 1 and 2 will provide practical instruction on using all types of wooden planes.

The Auction

This auction will offer a large assortment of tools and associated ironmongery.

Mostly lots being sold on consignment.

All lots will be in ***as found condition****.*

Vendors are requested to present sale items in secure boxes such as milk grates!

PLEASE OBSERVE

Due to confusion caused by members examining items before sale the auction items will be in a secure area before the commencement of the auction.

To compensate for any inconvenience this may cause a new service is being tried.

BARGAIN TABLE, open before Auction

All items $1, $2 or $5. Cash only!

All price to be set by the TREASURER!

Next Meeting

Tuesday April 14

Shaves, Scratches and Knives

The interest in the presentation given at the last meeting was so strong that TTTG has been encouraged to investigate the tools traditionally used to shape and to profile wooden components.

The talk will be illustrated by a display of rare *spoke-shaves, both metal and wood, drawknives and scratch stocks*.

All types of shaves based on the *spoke-shaves* concept, such as sash-shaves and routers will be examined.

The display will show examples of spoke-shaves, scratch stocks and drawknives by Buck, Brades, Howorth, Marples, Preston, Mathieson and numerous other makers.

The Next Workshops

The next workshop is;

Saw Sharpening

Sunday, 24 May

If this is a long time to wait there is the TTTG Tool Swap!

Tool Swap, Rare Parts & Bits

26 April

This opens at 9.30 am Closes at1pm.
TTTG members can sell tools.
There is no sales commission.
Entry is only $5. Tea and Coffee is available at $1 per cup with a free biscuit.

All Workshops and the Tool Swap are at Asquith Boys High School.
Jersey Road North. Asquith.

The school has ample parking and is close to Asquith and Hornsby Railway Stations.

2009 TTTG Workshops

A few days after News 105 was posted out Mike Williams forwarded an email with this comment;

This has just come in and I thought that it may be the first of many (one can always hope).

The email was from Mick Wadick giving his preference for future Workshops.

In regards to your possible workshops, I would be really interested in
Joint Cutting 1
Using Woodwork Planes 1
Using Woodwork Planes 2
Chisels and Spoke-Shaves.

The Committee considered this and other suggestions and came up with a program that should have broad appeal. Some old favourites will again be offered but there are also some new classes.

Over the years the Sharpening and Tool Tuning workshops have evolved as the backbone of the TTTG Workshops.

Edge tool sharpening is the pivotal class leading logically to the plane tuning class and the saw sharpening class. These core classes are each repeated two times in each year. The TTTG classes incorporate such a flexible approach that many attend the courses more than once invariably commenting *'I learnt even more this time'.*

A popular workshop is ***Blacksmithing.*** This is offered in a colder month and is keenly anticipated by all concerned. It takes a lot of preparation but it is well worth while. For members who have never worked with metal this class provides rare insights into the basics of tool making.

Last year TTTG offered a workshop on Turning Chisel Handles. This was well attended. From this class it emerged that there was a wider interest in making all types of wooden components for tools. So why limit it to chisel handles?

This question was the basis of a workshop on turning and using the router to make batches of saw and plane handles. It may come as a surprise to some to see the electric router included in a workshop. Well this machine first appeared around 1910 so if it isn't traditional what tool is?

Spindle Turning & Pattern Routing is a workshop worth attending. Good spindle turning needs correct tool sharpening and use. The router is a versatile machine tool but is often used in an unsafe manner. This workshop will expand your approach to the lathe and the router.

When it came to a decision regarding any new workshop theme, there were a great many options. In the end the President imposed his decision on the Committee, for which decision he takes responsibility!

The reasoning was that two workshops on tool use would provide enough flexibility to meet the requirements of the largest number of possible students.

The two workshops **Using Woodworking Tools 1and Using Woodworking Tools 2** should appeal to people wanting to learn basic traditional techniques. All tools will be included, rules, planes, saws, chisels, hammers, gauges, and drawknives etc.

As with all the workshops the structure will be flexible to make it possible to cater for individual need. Tools will be provided but those attending are encouraged to bring some of their own tools.

The TTTG workshops seem to be weighted in favour of woodworkers! The reality seems to be that the greatest demand is for classes on woodworking. The notable exception is ***Blacksmithing***.

Of course TTTG can't please everyone but the courses should appeal to a broad section of the public who are interested in acquiring real practical skills.

Workshop Program is at **www.tttg.org.au**

Correspondence

Redfern Industrial Heritage

Guido Gouverneur, Blacksmith Engineer in the old Redfern Railway Workshops has provided this information.

A late thank you to the TTTG for supporting us on the open day in August 2008. Negotiations were already underway with management about our lease by that stage and the turn out really shocked the pants off them.

Since then Sartor, Iemma , Watkins have all gone from their positions, Robert Domm the CEO here has resigned.
His replacement Petar Vladeta was dismissed three weeks ago. So it seems the bad lot is nearly all out of the way.

We are trying to renegotiate the lease on more favourable terms and establish a trust/foundation to manage all heritage assets on site in perpetuity.

In the last mini budget it was announced that the ATP will be sold at some stage.

So a vehicle to manage the heritage of the site is going to be important.

At the moment all metal heritage items are getting a coat of paint, all be it without any primer or undercoat just on top of the rust. No doubt to tart things up pre sale.

Guido has also encouraged the Editor to bring Ashet to the attention of members.

The link to Ashet will show the calendar of talks ahead and may be of interest to some of the members.

http://www.ashet.org.au/events.html

Guido can be contacted at;
Wrought Artworks 02 93196190

TTTG is planning another visit to Wrought Artworks in 2009.

TATHS and TTTG

The editor had a brief email discussion with Brian Read, TATHS editor in which the TTTG editor canvassed the need to balance the interests of the membership.

Brian expressed his opinion;

I agree about the tool porn. I try to satisfy the collectors, the academic historians and the actual tool users but the last group are rather under-represented in the TATHS membership. I envy your numerous "hands on" meetings. The nearest we get to that is the two museum sites at Amberly Chalk Pits and to a lesser extent the Ryedale Folk Museum in Yorkshire but these are both about four hours travel away from me, which makes a day trip very difficult. I try to include details from commercial magazines to encourage the younger, more active, members. I am getting increasing enquiries from family history groups, which adds another dimension.

I find one problem with the A4 format is that it is so much taller than most books that it wastes a lot of bookcase space until the shelf fills up. That is why we decided on B5 when we changed, but I appreciate that the A4 gives more room for innovation and pictures. A5 was just too small to keep the articles looking neat.

I have taken to scanning important articles into the computer for reference, but there are always those that you didn't know you would want later. And you can't read a computer screen in the loo easily either.

Why A4?

Brian's comments regarding the A4 format are all valid. A4 was really a pragmatic decision based on cost.
The size used by HTPAA for *The Tool Chest* was the preferred option however the extra cost had to be weighed against the potentially greater content, and clearer pictures, offered by the A4 format.

Correspondence

Nibonists and Nibonians

TTTG Treasurer Clynt Sheehy involved himself in an online discussion on the subject of saw nibs.

Clynt forwarded the correspondence to the editor with the above title causing said editor much initial disorientation.

James (Clynt's correspondent) had offered this common sense suggestion;

I have replaced the nib on several saws, although I was not the one who broke them. I put another saw up against the broken one and mark the new nib a short ways back. Then I file and shape the new one. If you do this with some care, no one will ever know but you.

James' solution was offered in response to Clynt's posting these reminisces;

Every time the nib issue is raised I get depressed. When I was a young boy in the 1950s building billy carts (U.S.A.: soap box go- carts?), someone told me that the nib was used to make a nick to start a saw cut. Shortly thereafter, doing this I knocked the nib off my grandpa's pre-WWI Disston on a board of Australian hardwood. I've still got this saw, sans nib.

Clynt's reply to James' suggestion;

A brilliant idea ! ! Thanks ! !
On occasion, I've thought about adding a nib in the same place as the old one but the join (by any conceivable means) would always appear obvious.

A rational solution ! !

Editors' comment

This is all well and good but I'm still **reeling from *Nibonists* and *Nibonians.***

Are these online discussions healthy?

Chanceson and Lighthouses

Brian Read, TATHS Editor, offered these comments after receiving News 105;

I like the new A4 format News 105, especially the item on the relative value of tools.
The final item, at the bottom of page 34 is interesting. Are you talking about the actual lighthouse lamp rather than a table-lamp or similar piece of the domestic furniture? If so then it is perhaps just a coincidence of name. Chance Brothers were a big optical glass firm in Smethwick, Birmingham UK, one of whose specialities was the lenses for lighthouses. There is information on the web at www.chancesglass.co.uk about the history of the firm. I wonder if Chanceson was a trading name for Chance Brothers in the optical field.

Bench Forge in News 105

The bench forge is similar to one of my forges that I use for heat treating large pieces.

http://www.youtube.com/watch?v=CyqZ2eSQd74&feature=related

The only parts that weren't from Bunnings were the 5mm wall section pipe, the sheet, and the charcoal. The sheet and pipe came from Edcon, and the Charcoal came from BBQs Galore.

The design in the newsletter wouldn't work with gas without major modifications.

Regarding the furnace from the earlier issue of News, I've sourced all the raw materials for the furnace re-design, so I will have that finished soon.

Objective, cheap (relatively), easy to build, and safe.

Charles Anderson

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Ukuleles. **Ray Gurney still wants pre-loved wooden ukuleles. He restores them to musical working condition again so look in your cupboards and give that forgotten instrument a new lease of life! Ring Ray on (02) 9569 1241**

Ryobi Wood Turning Lathe for Sale

Email Bob Crosbie r.crosbie@bigpond.com

THE LEDGER

New Members

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

Fiorentino Damiani	**M 511**
Roger Dixon	**M 512**
Dick Hogg	**M 513**
M. P. O'Brien	**M 514**
Matthew Combe	**M 515**
Bradley Van Luyt	**M 516**

Friends Interested in Tools ?

Do you have friends interested in tools, their use or their history? If so, why not urge them to join The Traditional Tools Group? If they join in April, May or June this year, they will receive for their very nominal $30 annual subscription, membership up until 30th June, 2010.

2009-10 TTTG Subscriptions

Please pay your 2009-10 TTTG subscription before 30th June, 2009. You will find the Subscription Renewal Notice in this issue of TTTG NEWS.

Option to Pay TTTG Subscription by PayPal

TTTG membership subscription payments for financial year 2009-2010 are due before 30th June, 2009. Payments may be made by cheque, by cash at TTTG meetings and workshops.....

AND

TTTG for the third year is offering members the **OPTION** to pay their annual membership subscription online by using PayPal. For those members who do not have a PayPal account and wish to sign up, please go to the PayPal website at www.paypal.com.au and follow the instructions.

For those members who do have a PayPal account: On the Membership page of TTTG's website www.tttg.org.au click on Membership near the bottom of the page, then on Subscription Renewal near the bottom of the page.

When you get to the Subscription Renewal page you will find a number of entry fields that need to be filled in. All entry fields are required and will be matched against the member database to ensure they are valid.

To correctly fill out the form you will need your mailing label to obtain your membership number and first and last name as registered by TTTG. From the mailing label enter your membership number WITHOUT the leading 'M', i.e. 'M999' should be entered as '999'. The first and last name need to be separated and should be entered as shown on the mailing label including those members that include a partner on the label, i.e. Jane & Joe Bloggs should be entered as 'JANE & JOE' in the first name entry field, and the 'BLOGGS' in the last name entry field. The E-mail address is required to give you notification of payment being made.

Pressing the 'Check Details' button will confirm your details and notify you of any errors that need correcting. If you do encounter an error, they will most likely be:'***The Membership Number must be numeric***', to correct this, enter your membership number without the leading 'M'.'***The E-mail address must be in a name@domain format***', requires that a valid E-mail address be entered.

'***First Name, Last Name or Membership Number do not match any existing member***', please re-check you details against the mailing label, if you still have a problem contact the webmaster at webmaster@tttg.org.au.

Once the details have been verified, the page will be updated to show the additional information provided from that which is currently stored in the database, so please verify that the information is correct before proceeding to PayPal.

Please note that if the 'Currently Paid Until dd-mmm-yyyy' information is not showing, it indicates that you are not a current member and after payment is made this information will be updated to reflect your membership status.

To make the actual payment, press the 'Proceed to PayPal' button and you will be taken to the PayPal site to complete the transaction. Once at the PayPal site carefully follow the instructions taking note that you are purchasing a 'subscription renewal' for 'The Traditional Tools Group, Inc.'. When you have completed the transaction, you will re-directed back to the TTTG website and should expect an E-mail from PayPal on your transaction and an E-mail from TTTG indicating your membership status.

Sydney Timber & Working With Wood Show (19-21 June, 2009)

TTTG has a limited number of Exhibitor Passes for the 2009 T&WWW Show. Preference in their distribution will go to those Members who volunteer to serve on the TTTG stand at the show or who can convey TTTG equipment to and/or from the Show.

The Traditional Tools Group's stand will be in the Hordern Pavilion, Moore Park. There are several competitions to be held in conjunction with the Show with monetary prizes. TTTG members may, of course, enter any of these competitions and are urged to participate. Our future involvement with the Timber and Working With Wood Show may depend on your support for these competitions. Perhaps the competition category most relevant to TTTG members would be Woodworking Tools & Jigs and Tool Restoration. Come on, get your entry form in.

Competition details were in the February issue of TTTG NEWS and may also be found at www.eee.net.au/force-download.php?file=vipwoody/syd-comp09.pdf

Tool Sale & Swap

On Sunday 26th April, 2009 at Asquith Boys' High School, from 9:30 am to 12:30 pm TTTG will be holding its **Tool Sale & Swap, Rare Parts & Bits** day. This is a **members only event**; cost **$5** but non-members may join on the day for $30 membership plus the $5. Please tell potential members of the incredible benefits of TTTG membership.

Saw Sharpening Workshop

On Sunday 24th May, 2009 at Asquith Boys' High School, starting at 9:30 am, TTTG will be again holding our ever-popular **Saw Sharpening Workshop** ($20 members; $40 non-members). Australia is awash with blunt handsaws; you've probably got a couple yourself. You know you won't get around to sharpening them at home; but at the workshop, Bob will teach you how to sharpening them properly and you'll go home with a sharp saw after a day of camaraderie with other attendees.

Clynt Sheehy

Treasurer

THE TRADITIONAL TOOLS GROUP INC.

SUBSCRIPTION RENEWAL NOTICE

TTTG Memberships are based on the financial year 1st July to 30th June

PLEASE PAY YOUR 2009-10 SUBSCRIPTION BEFORE 30th JUNE, 2009

PLEASE FORWARD A CHEQUE FOR *$30

(MADE OUT TO TTTG INC.) TO:

The Treasurer

TTTG Inc.

PO Box N240

GROSVENOR PLACE

SYDNEY NSW 1220

On Committee

To begin this tale I need to confess to having been a TTTG Committee member since the formation of the association. I have never regretted being on the TTTG Committee, unlike other Committees I have graced with my attendance.

At any other Committee meetings I need all my well honed skills at securing votes and at moving procedural motions if I am to have any chance of achieving anything. TTTG Committee meetings are not like this, the only way to find out what they are like is to join the TTTG Committee!

There is no need to be concerned as I will not bore you with reminiscences of past TTTG Committee battles, even if I could recall any. Instead I will share a few of the more memorable experiences I have had as a consequence of being a member of the TTTG Committee. My fellow committee members will of course bear witness to the veracity of my memory.

Before telling my stories I need to put to rest some of the urban myths about the TTTG Committee.

One popular myth amongst sellers of old wares is that we are a secret society in some way controlling the value of all old tools. I can only attribute this belief to the fact that such dealers often lose a sale when a prospective buyer seeks advice from a TTTG member.

Invariably the ill informed dealer has a sales pitch such as
'This old Pope smoothing plane is very rare as Pope made washing machines and only a few tools'.

A prospective buyer may seek the opinion of a passing TTTG Committee member who may reply *'save your money it's not worth what he wants.'* Never *'don't trust that thieving swine'*. The seller is only confirmed in his belief that it is in fact a really valuable tool!

Another popular myth amongst some, but not all, tool collectors is that the members of the TTTG Committee get to own all the good tools. This entrenched belief doesn't encourage significant numbers of old tool collectors to seek nomination and election to the TTTG Committee.

No doubt this second myth arises from an auxiliary view that the old and valuable tools about to emerge from the sheds are first seen by committee members. I could counter this viewpoint by asking why so many people chose to sell tools by having TTTG act as sales agent for a commission. Indeed I can't recall any vendor who has been dissatisfied with the prices secured.

But I digress from what I want to recount. I intend to share a few of the less pleasant experiences while arranging to dispose of old tools arising from a request for TTTG to have a look at some old tools. Of course in retrospect all these experiences have a humorous dimension.

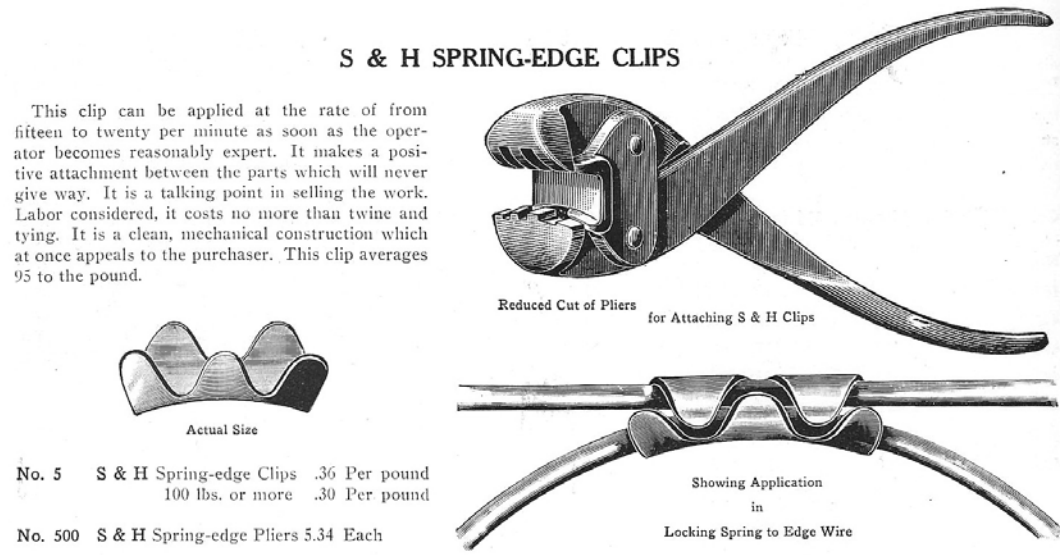
The least traumatic experience may have been the time Mike went to look at some old tools in a garage. This was too good to be without complications as the woman only wanted the tools to find a good home. She was charming when Mike arrived and keen to show him the tools. Suddenly she recalled she had in fact given the tools away some years ago.

Mike and I once went to look at the tools of an ex TTTG member. His wife made all the arrangements. It took several hours to sort through a double garage of tools. The wife and her friend, a woman, were a little agitated but charming. There were some prize items but also a lot of work ahead in selling everything.

When the husband arrived he became a bit aggressive and unreasonable. The wife told us about his mental deterioration and we parted on good terms with two women but empty handed.

More 'On Committee' tales in NEWS107

Obscure Tools

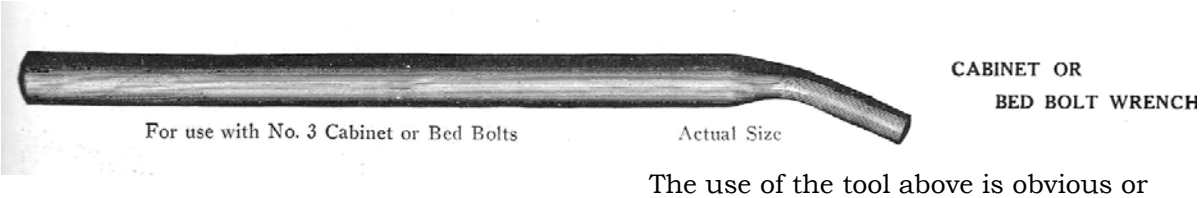


There are numerous types of specialised pliers; sometimes the use of such pliers is anything but obvious.

If the pliers in the advertisement above surfaced who could identify the correct use let alone the correct name?

If the container on the right surfaced who would give it a second thought?

Yet it is a tool that would have appealed to Upholsterers when cut-tacks were the standard fixing for webbing and fabric.



The tool above could easily be mistaken for a piece of bent round bar yet it is a very convenient tool for tightening bed or cabinet bolts with cross drilled heads.

All the illustrations are reproduced from *Cabinet and Drapery Hardware Catalog K* Lussky, white & Coolidge, Inc., Chicago. USA. September 1938

The use of the tool above is obvious or

maybe not so obvious without the title?

JD's Pacific MEM Tools

During an idle moment I took a close look at two nine inch *PACIFIC* smoothing planes. Both no doubt came out of the same factory, however, not of the same standard or finish.

In comparing the two planes I'll label them 'A' and 'B'.

'A' is the plane on the left.

In doing so I do not infer that there was a model change, however, I do feel that the planes were made during different production runs. Perhaps manufacturing techniques improved over time or quality control was tightened due to customer feedback, whatever the reason, one can only speculate.

Following is a list of the similarities and variations of the two planes.

Similarities

-The bodies and frogs of the planes are black japanned over rough sand cast surface.

-The back irons are also black Japanned, a peculiarity that I have observed on all *PACIFIC* planes that I've sighted.

-The depth adjustment yokes are crudely cast with little attempt to finish or remove casting imperfections.

-The depth adjustment screws are brass with knurling over the full edge.

-Both planes have pressed steel lateral screws. The handles and knobs have a red lacquer finish.

Variations

-The most obvious is quality. Take the lever caps for example. The lever- cap to the left belongs to plane 'A'.

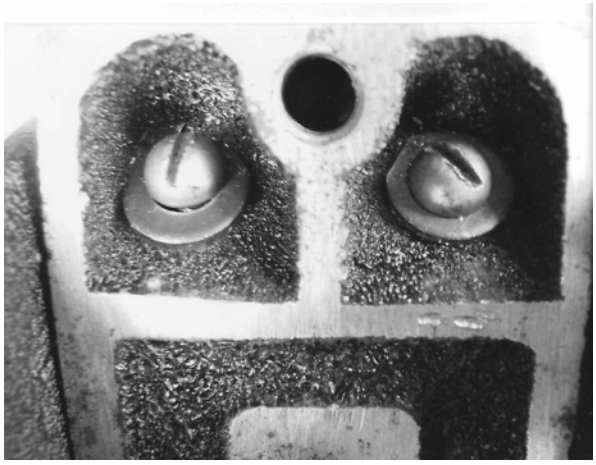
1) The lever is out of alignment and the overall shape of the cap is lopsided.

2) The lettering is poorly defined-compare the *'P'* in *PACIFIC,* the *'O'*s and the lettering in *'SYDNEY.*

Was the lever-cap one that missed rejection or was it a product of a firm just moving into a new field of manufacturing?

-The frog castings.

The two photos on the facing page well illustrate the rough frog castings, although the first photo of plane 'A's frog shows a much coarser sand-grained surface. Also of interest is the use of round head screws, oversizes washer holes, and a clipped edge on the right hand washer on plane 'A' s frog.



On plane 'B', below, countersunk machine screws have been used.

One can only conclude that Metal Equipment Manufacturers Pty. Ltd. used whatever screws and washers were available at the time, especially in the light of different screw types also used to secure the frog adjustment plates-plane 'A' has a cheese-head screw and plane 'B' a round head screw.

Conclusion

I feel that *MEM TOOLS* saw a niche opportunity post World War 2, to produce hand planes, a building boom, a sense of prosperity and a shortage of tools all contributed to a boom in local industries. Like *CARTER, MEM TOOLS* produced a functional plane minus the frills.

The planes were less expensive than the imported planes and filled a gap in the market place.

Perhaps competition from established manufacturers with their recognisable brand names, and a reputation established over years, made it impracticable for them to continue, or maybe a change in focus-more research is needed.

Metal Equipment Manufacturers Pty. Ltd operated at 22 Newington Road Marrickville NSW from approximately mid 1940s to the mid 1950s.

Trevor Semmens, in his publication Australian Woodworking Planemakers observes

'They traded up to 1959 at the same address as Metal Processors Pty. Ltd.'

NEWS 106 Covers

Front
Back cover from a HERCUS Brochure

HERCUS 9" Swing Precision Lathes
Third Edition

The brochure is undated, probably 1950s

Back

MEM advert 1948 Hardware Year Book

Saw Handle Making Costs

Bob Crosbie

This article has its origin in a discussion of the prices of tools and in speculation regarding the production costs of tools.

Saw handle manufacture in Britain will be discussed under these headings:

Hand Make Saw Handles (up to 1914)

Machine Processed and Hand Detailed Saw Handles (circa 1870-1940)

Machine Made Saw Handles (1940+)

Evidence

It is too simplistic to rely on retail or trade list prices when attempting to reconstruct the production costs of tools. Likewise it should not be assumed that a component with a plain design is cheaper to make than a more elaborate similar component.

The production processes need to be analysed before we can speculate about production costs. This can only be done with an in-depth knowledge of historical technical process and industry structure. Several sources can provide clues to production methods. First the tools themselves often show evidence of the hand tools or machines used in their production. Second there may be written accounts of the production method or 'list price' books for making tools and third there may be photographs of known and dated factories or workshops showing the tool, or components, being manufactured.

In the case of the English saw handles there is sufficient evidence to reconstruct the production processes used during the long history of saw manufacture.

To simplify the discussion I will start with saws made from the late seventeenth century when the English style saw, fitted with handle, was first made and sold.

Summary of Saw Making in Britain

The centre of saw making was initially in London, beginning in the late seventieth century and continuing to about 1800. Around 1720 saw manufacture began in Birmingham and lasted to about 1810. There is evidence of saw manufacture in Sheffield by 1747. In 1787 there were ten saw makers in Sheffield. The first known integrated saw works was established in Sheffield in 1823. By 1843 saw making was established as a specialty industry. From this date Sheffield dominated saw production in Britain. From 1835 to 1955 Glasgow was a strong centre of saw and tool manufacture offering strong trading competition to English manufactures.

For a detailed history of saw making see
Schaffer & McConnell
Hand Saw Makers of Britain
Osage Press 2005
Rockford, Illinois 61125-0082

Saw Handle Types

Schaffer & McConnell use the terms *dolphin tailed* and *London flat* to describe saw handle shape. In general these are the most common shapes of saw handles made before 1950 and fitted to hand and back saws. Below I have simplified the Schaffer & McConnell saw handle time spans and categories. The types overlap.

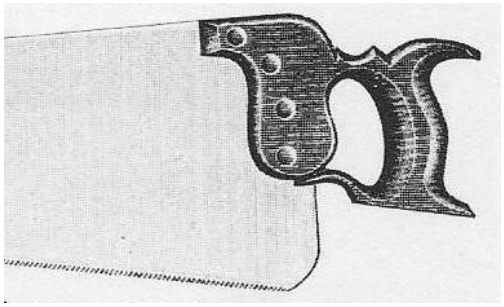
Hand and Back Saws

Dolphin Tailed 1688 to 1970
London Flat 1790 to 1940

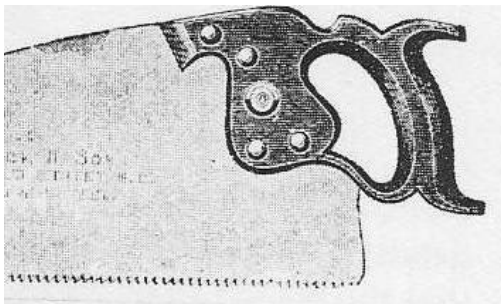
The discussion

I will attempt to reconstruct the historical processes involved in the manufacture of *dolphin tailed* and *London flat* saws during the three periods given above. This will allow informed speculation about the cost of producing saw handles to be examined in the historical context of manufacturing.

London Flat



Dolphin Tailed



The evidence from photographs

Accurately named and dated photographs are useful tools in interpreting technical processes. Often old photographs were stage managed for maximum impact and cannot be seen simply as frozen time capsules. Fortunately there are a number of photographs of Sheffield workshops taken in the first decade of the twentieth century which seem to be 'warts and all' snapshots. I'm sure there are many more images waiting to be rediscovered.

The full page photograph next page is from '*Handicrafts that Survive'* 1902-03. This photograph is from the publication '*The Cutting Edge An exhibition of Sheffield Tools'*. The Ruskin Gallery Sheffield 1992

Ideally more than one photograph would be available for comparison. The nearest I could find was two contemporary images of a spoke shave making workshop. Wooden spoke shave stocks and wooden saw handles are similar items as far as the making them are concerned.

'*Wooden Spokeshaves'* written by Ken Hawley and Dennis Watts and published for the The Hawley Collection Trust Ltd. by the Tools and Trades History Society in 2007 reproduces a photograph of Marples' shave making shop in Sheffield circa 1920 and a photograph of Pearson's shave making shop in Sheffield in the early twentieth century. (Pages 11&12).

Both photographs appear to have been taken after the shops had a quick sweep up. The floor of the Pearson's shop would be now put on notice for trip hazards. In the Marples' image are a number of shave makers at the bench. The tools are visible!

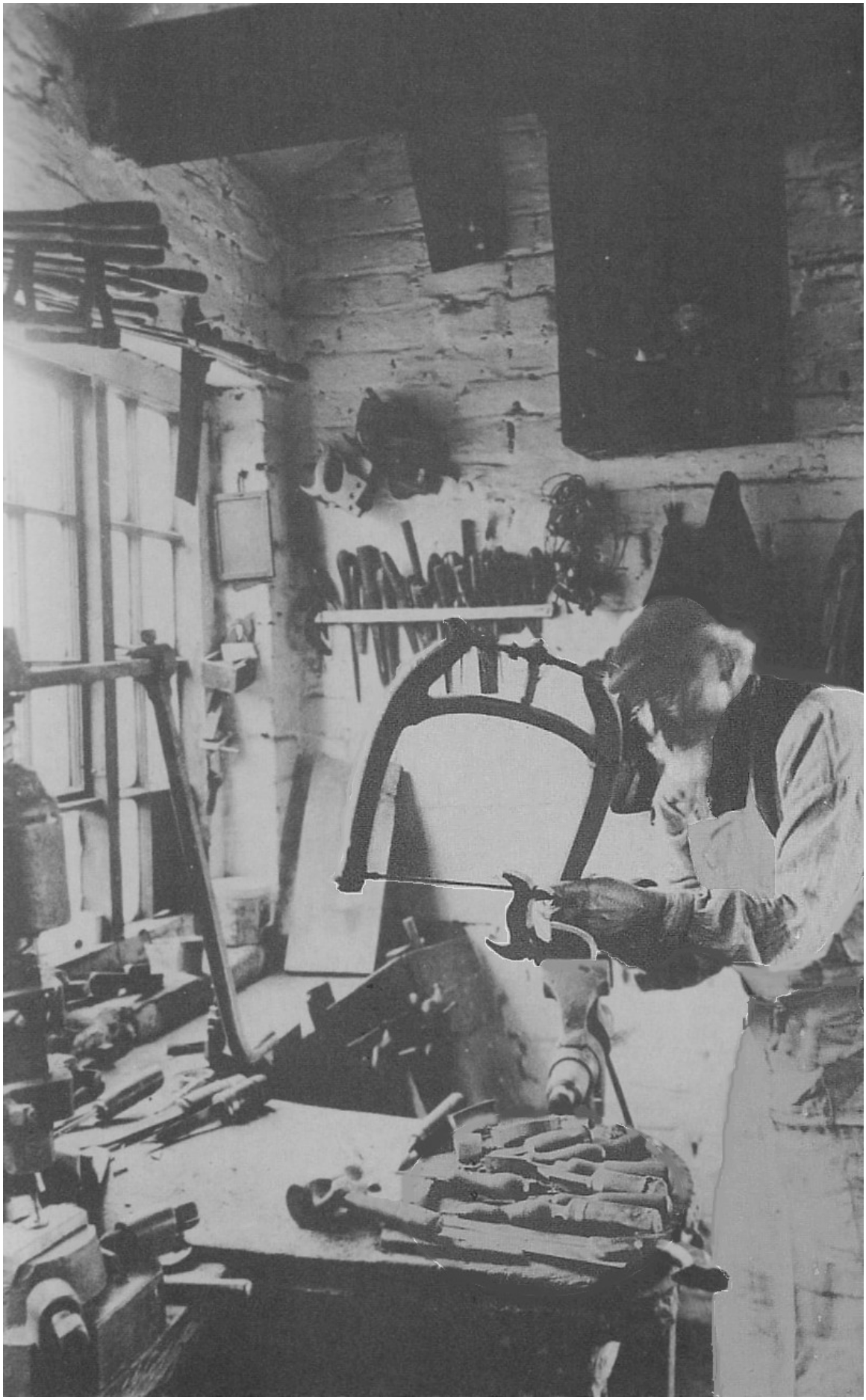
The 1902 and the Marples' photographs show the work piece being worked on held in leg vices. The benches are covered with numerous tools. Other tools hang in racks or on nails on the walls near the bench. All the bench are wall bench in front of large windows. Also of interest are the primitive three legged stools.

What are the numerous tools?

There is a back saw near each worker's bench space in both the Pearsons' and the Marples' workshop. There is a back saw in the 1902 photograph on the bench. Near the worker to the front of the Marples' image hangs a wooden brace. A bow saw hangs above the fourth worker. A bow saw hangs in front of the left front worker in the Pearson workshop. The saw handle maker in the 1902 photograph is using a deep bow saw. Hammers and mallets are also visible in all photographs. The most numerous tools on the benches are files and chisels. Keen eyes will spot templates!

How were the tools used?

The 1902 Sheffield saw handle maker is working on an open grip *Dolphin Tailed* back saw handle. He is holding the deep bow saw at an angle; this is to remove the bulk of the material from the edges prior to rounding over the edges. This indicates the precision with which these 'piece paid' specialist workers could use hand tools.



In all these photographs there is no clear bench space for planning timber flat and to even thickness. This raises a question, *'where did the handle makers start?'*

I suspect by 1902 they started work with machine planed boards, perhaps even band sawn blanks. A century earlier they may have started with boards already hand planed onto which they traced the handle shape from a template and bow sawed out the parts. For the internal cuts a hole would first be made with a spoon bit in a wooden brace. Did they cut out the internal shape with a large pad or keyhole saw?

After bow sawing the handle the edges would be rasped and filed. Sharp internal detail would be finished with chisels or gouges. Flat edges would be planed while rounded edges would be finished by draw filing with a fine cut file. The slot for the blade would be cut with a back saw and at a later period on a circular saw.

The evidence from old saw handles

Old saw handles in good condition are common enough to draw conclusions from surface examination. Numerous untouched handles I have examined over a fairly protracted period form the basis of my observations and conclusions.

Old handles often show plane marks and evidence of draw filing. Internal sharp detail can show chisel/gouge cuts or file marks. At first the edge shaping appears uniform but close examination reveals subtle variations.

Modern handles, after say 1880, can show hand tooling and are often better finished than older handles. Marks from machine planing or spindle moulding or machine sanding are often detectable.

When the handle is removed from the saw blade it is often possible to detect how the slot was cut. Older handles show hand saw marks while modern handles were invariably slotted on a circular saw.

The evidence from old publications

The only published description of saw making I know of is in the Woodworker magazine August 1937. The process of making a handsaw was detailed as part of the series '*How Your Tools Are Made.*' The photograph in the article shows the five stages in making a saw handle. The five processes are not described. The new idea of reinforcing the handle with a cross dowel is discussed. This provides the clue to the identification of the manufacturer, namely William Marples.

The caption tells us that the saw handle blanks were first bandsaw, the edges then rounded and the handle glasspapered to a smooth finish. How was the internal cut out removed? With a powerdriven jigsaw? Were the edges shaped and rounded on a pin routing machine and was the glass papering done on a endless belt?

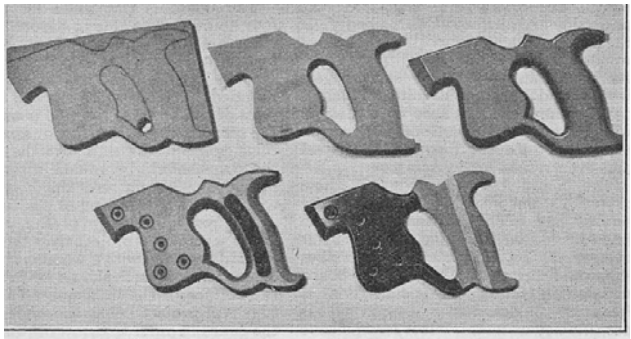


FIG. 5. THE FIVE STAGES IN MAKING THE HANDLE.
The wood is first bandsawn out to the over-all shape. The edges are then rounded, and the whole glasspapered smooth. The dowel through the handle adds to the strength.

Workmens' Price Lists

Another source of written information is from 'books of prices'. These were lists compiled by negotiation between 'masters' and 'workmen' of the rates paid for each labour performed.

The Hawley Collection contains *Wm. Marples' Shop Price List* 1880, *Journeymans' Price List for Joiners' Toolmaking & Forging,* 1890 & 1898 and *National Amalgamated Union of Labour List of Prices for Making, Grinding & Forging Joiners' Tools* 1920.

Further investigation can only be carried out by researchers closer to such sources. *Perhaps copies could be offered to TTTG?* The following are my conjectures on the processes involved in making saw handles in the three catagories of manufacture.

Hand Make Saw Handles

The discussion of the three photographs examined the tools in use in these shops. These images can be fleshed out with a little historical background. 'Putting out' and 'piece work' were the two methods used in tool production up to 1939. Even in tool making factories workmen 'rented' work space and 'made up by the piece'. The workman made a certain number of items to an agreed price. Use of workshop space and equipment was paid for by the workman. Adding up the components of the List Prices could often involve fierce disputation; enhancing negotiation skills! Tool components were made in batches to close pricing. If twelve saw handles were being made the maker would perform a series of operations on each handle thus saving cumulative time. It also meant that components were made to a predicable standard and cost price.

The sequence of making a handmade saw handle was similar to;
Saw off length for number of saw handles, plane face side, gauge and plane to width. Set out saw handles from template. Bow saw handles from board, in leg vice, also rough bow sawing rounded edge. Pierce each handle for internal cut-out (if any). Saw cut-out with pad or keyhole saw. Rasp and file edges, in vice and draw file to finish. Plane any flat edges, in leg vice. Gouge or chisel any sharp internal detail.

When was the saw handle slotted and bored for the rivets? The handle maker probably slotted the handle but it is likely that the holes were drilled by the cutler fitting the blade. For back saws the edge would need mortising for the back. When was this done? The Book of Prices holds the key to reconstructing the process.

Machine Processed and Hand Detailed Saw Handles

This is a transitional phase so there is a wide margin for speculating on the likely changes in production methods. I suggest that one reason for the labour intensive methods seen in photographs as late as the 1920s lay in the older 'contracting' to list price system.

Saw handle makers, like wooden spoke shave stock makers, would no doubt have welcomed innovations that reduced their making time without reducing the price. The first change was probably in how the unprocessed boards reached the maker. When machine planed boards became cheaper than hand planed boards the employers would have sought to issue ready planed boards to the saw handle maker. The manufacturer could buy ready machine planed boards from the timber merchants so there was no outlay on machinery but potentially much greater production at the same cost. How long did this take? Or did it even happen before the Great War changed everything?

Band sawing might be seen as a method that quickly displaced bow sawing. But is this correct? A tool manufacture would need to install a bandsaw and pay a sawyer to cut out handle blanks, the blanks would then have to be transported to the saw handle making shop. Initially this would raise the cost of production. While further processing had to be done by the saw handle maker such change was rarely worth the extra capital outlay. Up until to the 1930s, when design started to be rationalised, saw handles had details that needed finishing by hand methods. Best to stick with the known?

So even taking the next logical step of processing handles on spindle moulders after their introduction into large railway and ship building workshops offered little advantage to tool manufacturers in Great Britain. The handles would still need to be finished by hand.

While the old system was pumping out quality handles at the right price why invest in new methods? The structure of manufacturing distanced the tool sellers from the production process. Putting out meant that the production process was of little concern to the masters as long as tools could be made at the right price!

I suggest that machine processed and hand detailed saw handles were not the norm until into the 1930s, the catalysts for change being the Great War and the Great Depression. Once labour costs rose and demand declined the old system of tool manufacturing had to change.

Machine Made Saw Handles

The illustration of the stages of saw handle manufacture from, the August 1937 Woodworker, shows that machine methods and innovative designs were being introduced by the largest hand tool manufacturers by the 1930s. Sharp internal detail was being streamlined allowing repetitive machine methods to displace hand work. After the Great War the electric motor revolutionised machine design and factory layout. After World War Two the majority of saw handles were machine made. The same changes can no doubt be seen in the production of wooden planes and chisel handles.

How much did it cost?

I now return to the question about the cost of producing tools. Given skilled men the design's apparent complexity is not really a consideration. The production cost of each component is the total of the cost of all the labours involved in making the component *plus* the cost of materials, 'putting up' (assembly), transport and 'list plusage' minus trade discount (profit).

With a knowledge of the hand or machine processes involved it would be possible to consult a Book of Prices and calculate how much, at first cost, a Dolphin and a London handle cost to make.

Even so I doubt if these terms would have had any contemporary meaning. Both tool manufacturer and handle maker would have thought in terms of 'extras' to stock patterns. Taken further we can speculate on how much the handle added to the cost of a saw. The other contributions to cost were the style of rivets, the shape of the saw blade, the degree of saw blade finish and maybe even the name stamped or etched on the saw blade!

The English Saw Legacy

The English hand saw was exported to the four corners of the planet but by the late nineteenth century its market dominence was challenged and surpassed by a saw maker in the US of A.

Henry Disston learnt the saw trade in Sheffield. Not only the technical skills of making saws but also the infrastructure of saw making. Making saws in America was different than saw making in Britain.

In Britain skilled labour was plentiful and poorly paid. In America skilled labour was scarce and highly paid. Both made steel and refined steel into saw plate. At first Disston imported saw steel from Britain.

At some stage Disston realised that the methods he had learnt in Sheffield were not suited to America. Saws had to be made to the same exacting standards but the method of production had to change. Disston, like other American makers saw himself as an industralist and realised the Sheffield system of production was not suited to America.

By vertically intergrating his production he cut costs and secured vast markets. Disston came to produce the steel for his factories diversifying into file production.

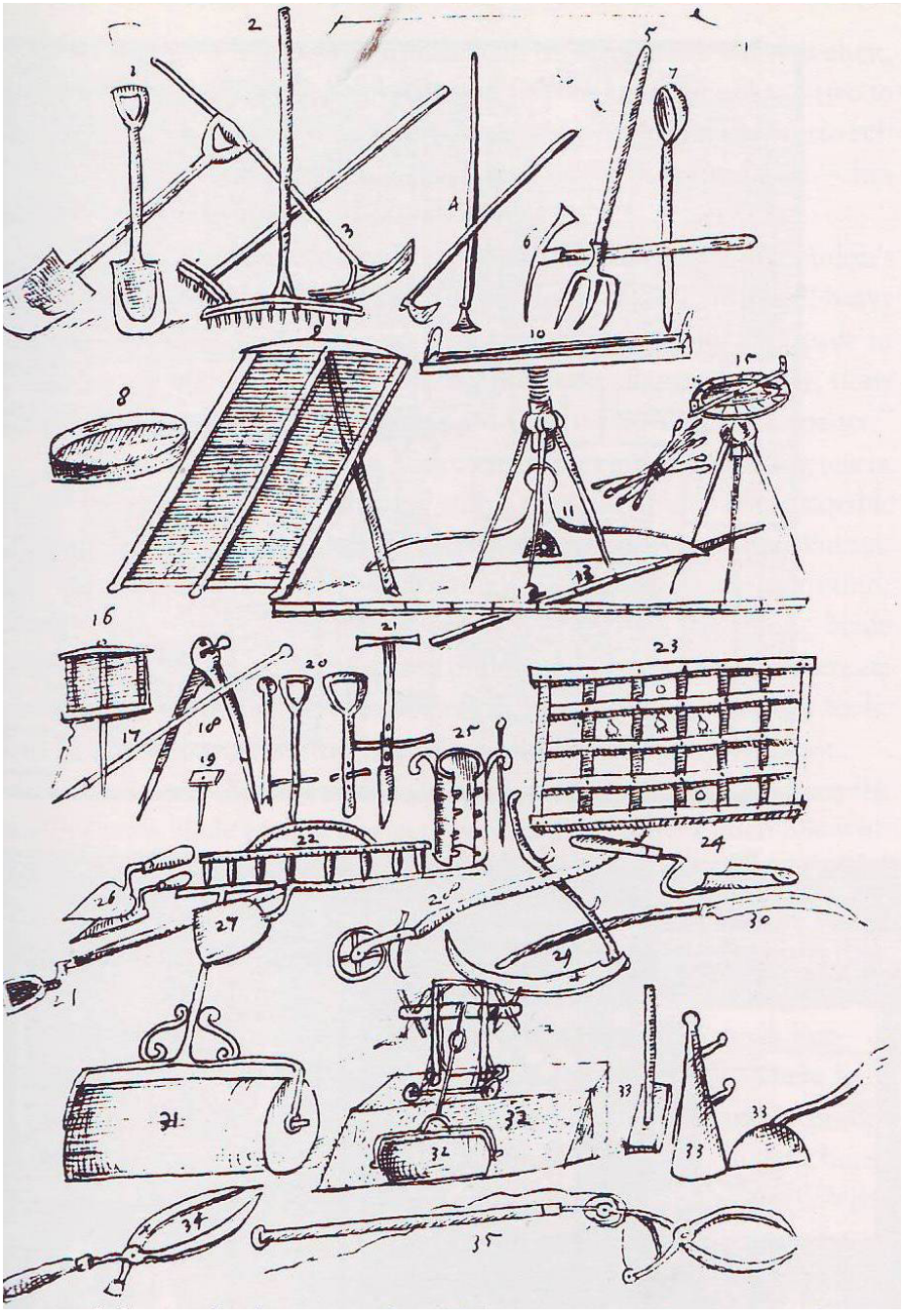
In Britain there was no need to change the structure of the tool manufacturing industries until 1914. By then of course it was too late! In one sense two world wars delayed the inevitable decline of Britains' manufacturing industries.

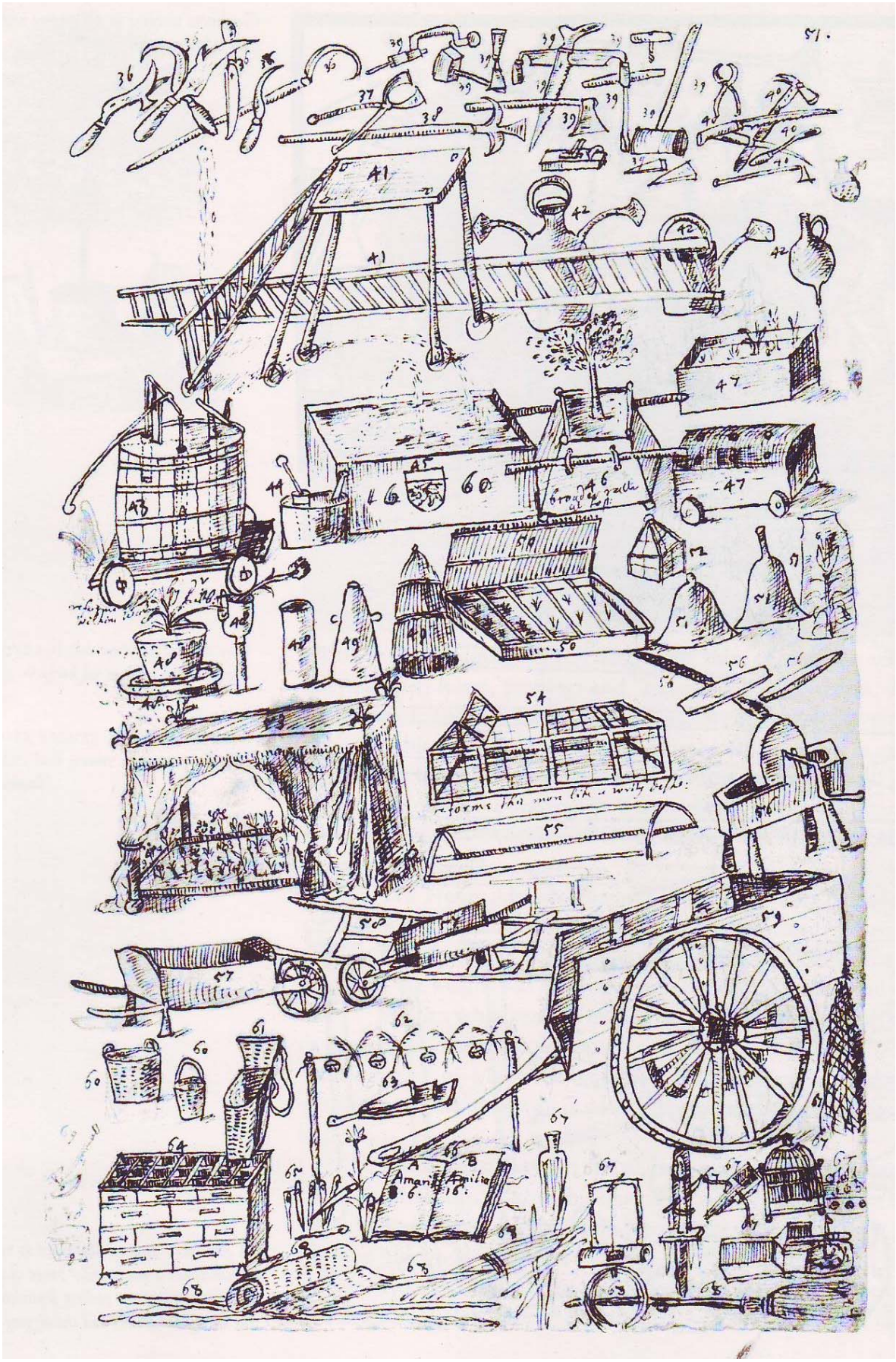
1650s Tools

John Evelyn never completed a book titled *Elysium Brittannicum* but fortunately a series of sketches he made for the book have survived. Evelyn had great technical knowledge but he was a better writer than a draftsman. The tools he drew were the tools used by gardeners and are likely to be unromanticised snap shots of the tools actually in use before 1650. Among the tools of the gardener can be seen many common building tools and devices.

These sketches repay careful study. Even casual viewing locates up many tools. Some appear more Dutch than English. In the larger drawing opposite can be seen brace, drawknife, plane, strap hammer, chisel, mallet and handsaw as well as other small tools. In the drawing below can be seen string line, plumb rule, trowels and a levelling device.

Does a reader have the time to study these sketches closely and to identify all the tools?





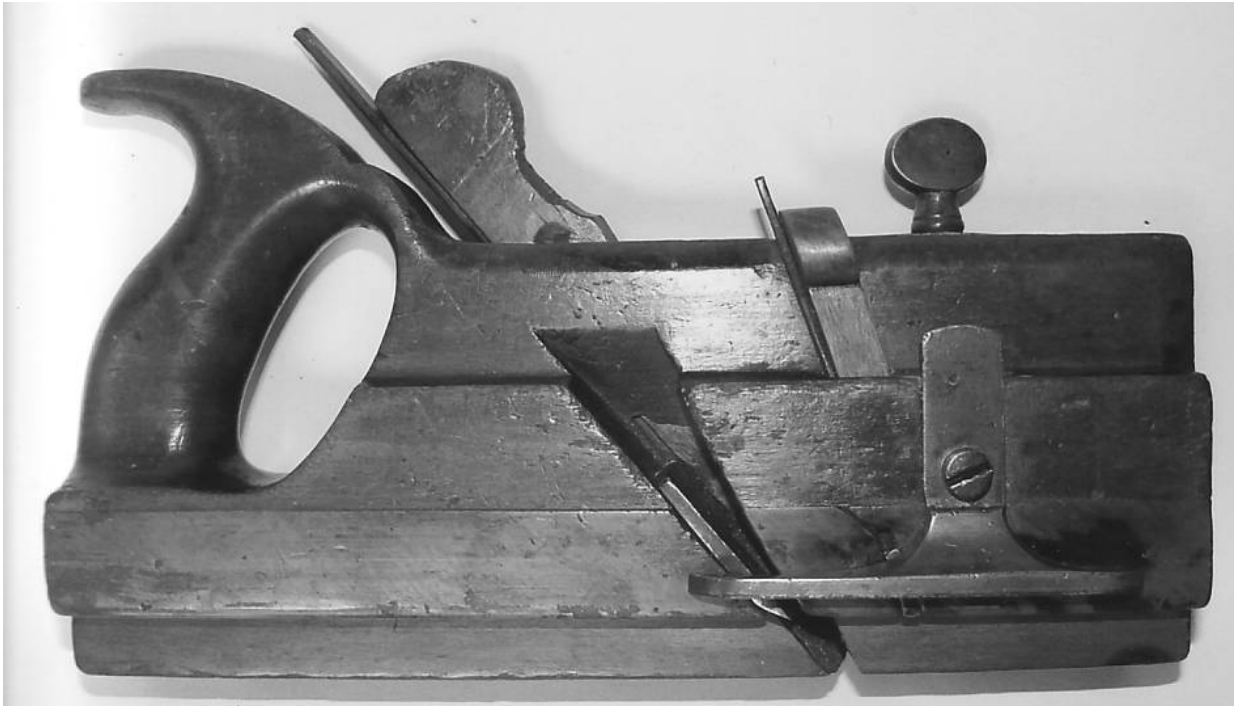
An Illustrated History of Gardening 1978
ISBN 0 7092 0322 5 pp. 116-7

Handled Side Fillister Plane

During the presentation at the last TTTG meeting, *Ploughs, Fillisters and Snipes,* the speaker mentioned the existence of the Handled Side Fillister Plane and paused to ask a rhetorical question of the audience. "*Does anyone have one these*? A reply from Fred '*Even I don't have one'*. However a modest member of that TTTG audience does proudly possess this rare wooden plane and it is a Mathieson!

John Daniel sent the editor three photos of his Mathieson Handled Side Fillister with the following observations;

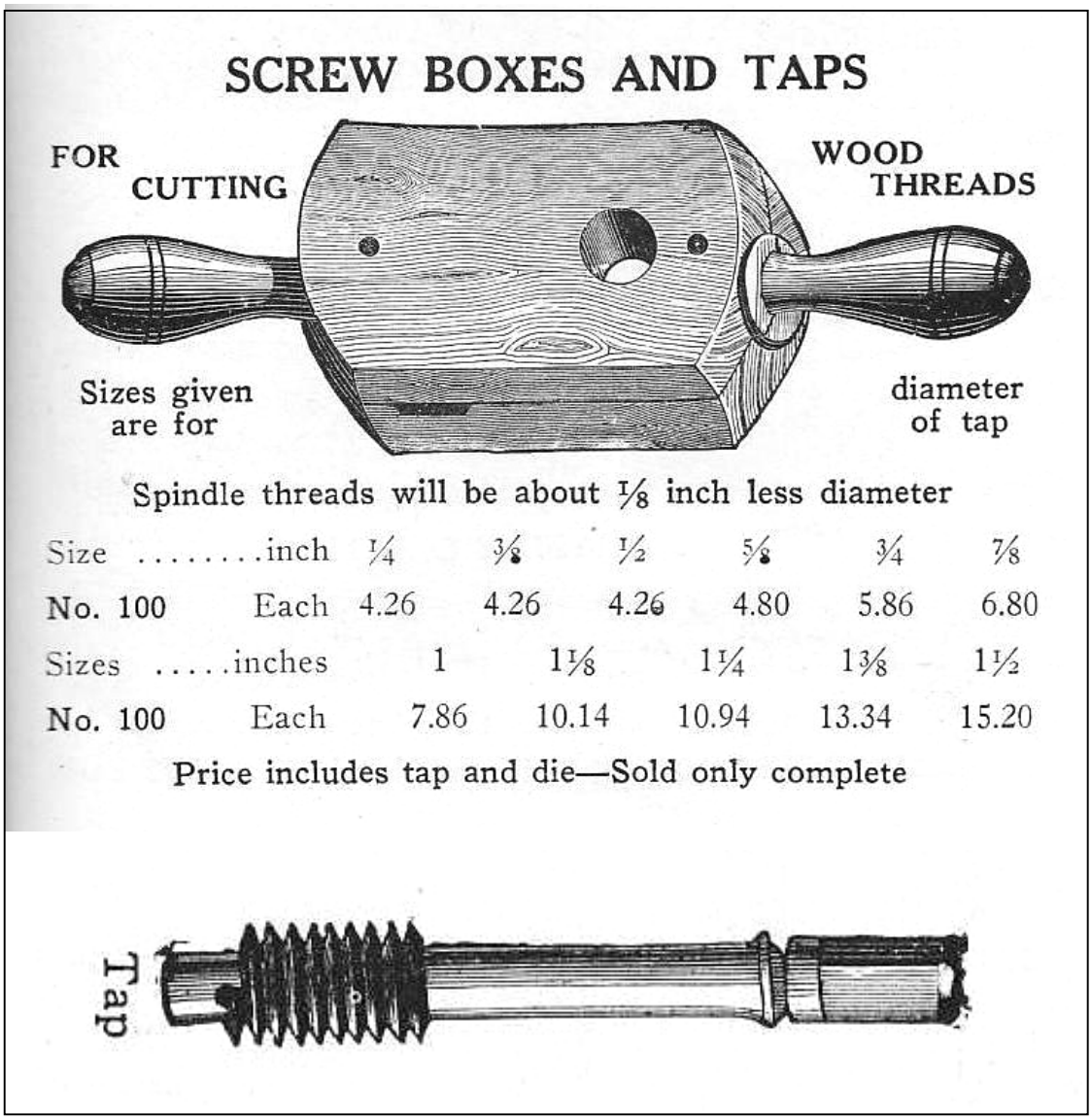
Here are some photos of my handled #25 Side/Moving Fillister Plane by Mathieson. The plane has had a hard life but it still performs well. I've used it only recently at a club demonstration. These planes are well designed and are very comfortable to use. As you have said once or twice 'those old fellows got it right'.



Wood Threading Tools

Suitable types of wood can be threaded with a screw box and matching tap. Sounds simple; and it is simple if the box and tap is up to the job. It is hard to get the box wrong provided the cutter is well made. Compare a cutter from an old box with one from a new box, the new cutter will look different and will cut badly. The pitches vary in old sets but generally the Whitworth form, but very coarse, works. The box must be taped with the tap!

There are two types of taps. The common type is similar to a metal cutting tap. These work well across the grain but are useless on long grain. The superior form of tap is the hollow tap illustrated below. Currently made boxes and taps are by and large a waste of money and time. Old sets are far better but hard to find and expensive. Hollow taps can be made easily on a centre lathe and the cutter and the box isn't that difficult to make.

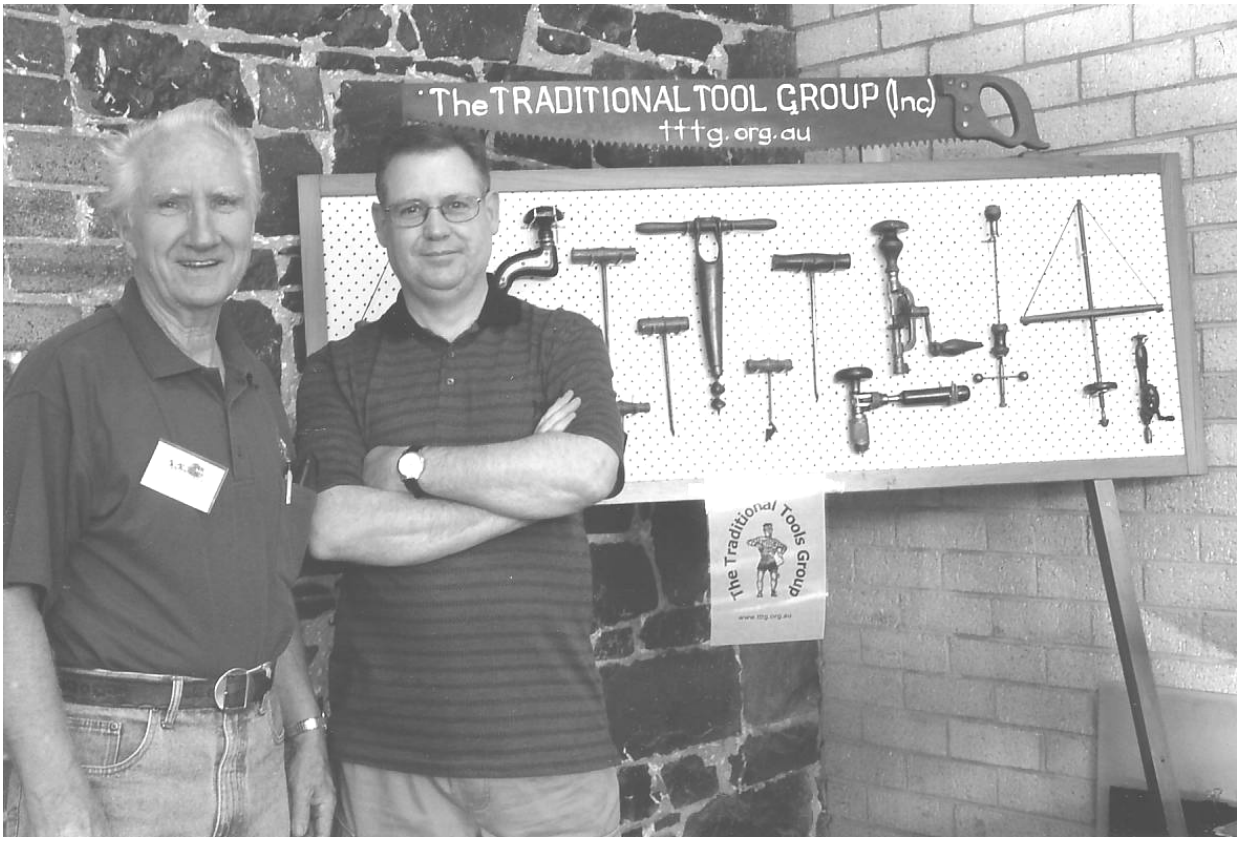


The illustrations are reproduced from *Cabinet and Drapery Hardware Catalog K* Lussky, white & Coolidge, Inc., Chicago. USA. September 1938.

If you make two taps the editor will make two boxes! There is a bit of work in the cutter and the cutter hold down. The tap and cutter will need to be heat treated.

Kiama Woodcraft Expo

John Daniel



The weather was kind, the background music from the Jazz Festival filtered in and the high quality of displays and demonstrations guaranteed a successful EXPO.

Our Traditional Tools Group Corner sparkled in the early morning light and received lots of compliments over the two days, with many inquires. Mike Purcell assisted on both days (many thanks Michael); with a new member Ray Schroeder all the way from Cowra a welcome sight on the Saturday. Ray's TAFE teaching background complimented that of Mike's, which added another dimension to the day's discussions.

Kit Tanner had a great display of bandsaw boxes and was never short of an audience when demonstrating. I concede that the bandsaw has been around for a while so we must consider it a traditional tool. I'm certain that Kit would have looked fairly hard for a 'peddle' bandsaw.

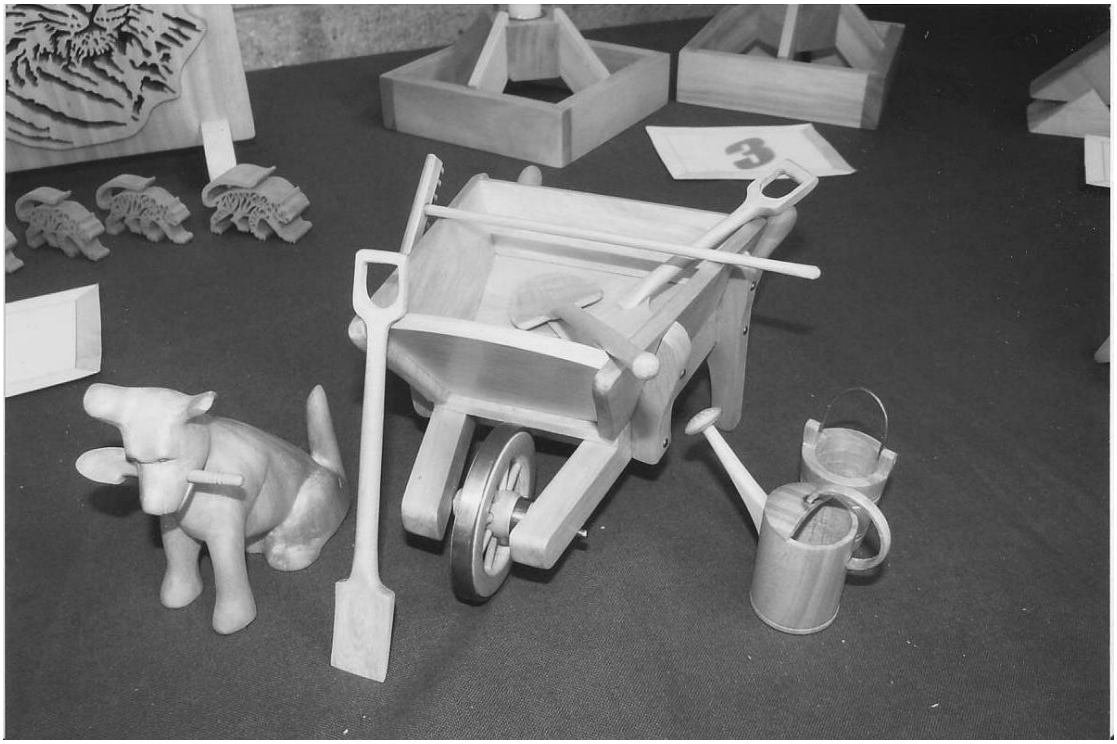
This years' Woodcraft challenge set a new 'benchmark' in standard. A super foot of Huon Pine was the common denominator for all. A barrow full of miniature garden tools and a canine helper drew much favourable comment. The artist focused on the hand gardening tools and demonstrated many facets of the crafts.

It was pleasing to see Jim Davey back on the job. Jim is a perfectionist when it comes to plane turning and is always eager to pass on his knowledge to those who show an interest.

It was also a pleasure to see Mario Dato and David Thom and wife who caught the train from Sydney. Trevor McBeath one of our latest recruits, and a Kiama local, took the opportunity to meet a few members and 'check us out'. A warm TTTG welcome to Trevor.

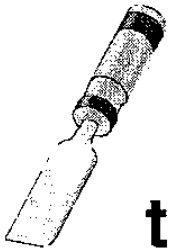
We must again thank the Kiama Woodcraft Group (Inc) for giving us the opportunity to participate in this most popular annual event. Through the Expo we have made many friends and most certainly expanded our horizons.

(John made bluey and his barrow. Editor)



KIAMA WOODCRAFT GROUP

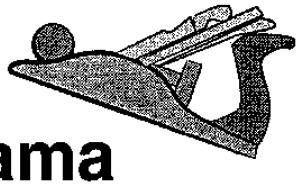
will be holding their Sale & Exhibition of fine woodwork and sales of "old tools that grandad used to have"



28th April - 4th May

in

the Old Fire Station, Kiama



Power Tool Repairs

It is now virtually impossible to get old quality power tools repaired. Many of us have power tools made ten or twenty years ago that only need basic electrical repairs. These tools are usually better made than current power tools. Few repairers can source spare parts and often give out the not interested phrase *'a new one will be cheaper'.*

One possible solution is now being offered by a TTTG member who has secured a large quantity of old components following the closure of a well established hardware store that had a high reputation for power tool electrical repairs.

He is willing to repair old power tools if he can get the parts. Given his current stock of old electrical components this seems to be something worth pursuing. The first step is to see if anyone wants repairs!

The editor a list of the components he has acquired. The list includes parts for: -
Makita saws, planers, trimmers, sanders, drills and grinders.
Hitachi saws, drills and wrenches. Ryobi saws, drills and chain-saws.
Bosch jig saw and percussion drill.
AEG drill, biscuit jointer, angle grinder, die grinder, router and saws.
Metabo drills.

He is interested in contacting anyone who can source obsolete power tool electrical components.

If you have an old power tool needing repair it is worth making a phone call!

CONTACT

GRAHAM KEMMIS

(02) 9869 2415

Hack Hand Saws

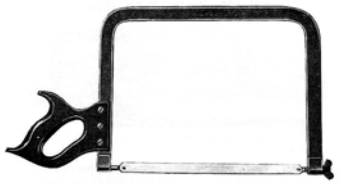
The modern hacksaw blade is a throw away product. Earlier hacksaw blades were made to a lower temper and could be sharpened with a file.

The introduction of large section rolled iron, and later steel, sections into building created a demand for hand saws capable of cutting these components.

Both Henry Disston & Sons and Simonds Saws produced hand hack saws.

Both makers also produced hacksaw frames for cutting large sections.

Rail Hack Saw Frames



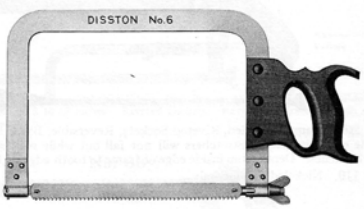
Forged Steel Frame, Nickel Plated, Drop Handle. Depth inside of frame to cutting edge of blades, 10¼ inches

No. 21. For 12 inch blades . . . . . $23.00 per dozen
No. 21 A. For 14 inch blades . . . . . $24.00 per dozen
*** No. 21 B.** For 16 inch blades . . . . . $28.00 per dozen
*** No. 21 C.** For 18 inch blades . . . . . $33.00 per dozen
* Numbers 21B and 21C are made with a handle on each end of the frame.
Packed one in box

The Simonds Saws & Knives 1919
Reprint Roger K Smith 1994 page172

RAIL HACK SAWS

No. 6



Nos. 6, 7, 8, 9, 10, Steel Frame, Polished, Riveted Sockets.
These are specially adapted for Large Work, cutting off Iron Beams, Girders, etc., and wi
be found a very valuable tool for Contractors.

No. 6.	7½	in. inside of frame to tooth-edge, suitable for 9 in. blades,					$15.00	per doz.	Frames only			
" 7.	10½	"	"	"	"	"	12	"	"	18.00	"	"	"	"
" 8.	10½	"	"	"	"	"	14	"	"	19.00	"	"	"	"
" 9.	10½	"	"	"	"	"	16	"	"	23.00	"	"	"	"
" 10.	10½	"	"	"	"	"	18	"	"	28.00	"	"	"	"

Nos. 9 and 10 MADE WITH HANDLE ON EACH END

Henry Disston & Sons, January 1914
Keystone Saw, Tool, Steel and File Works
Philadelphia USA page188

The deep section Hack Saw Frames were made for cutting railroad track. The Hack Hand Saws were for cutting girders.

"HAND" HACK SAWS

This saw is manufactured specially for use of structural iron workers, particularly in places and positions where the ordinary hack frame cannot be used. It is SPECIAL temper, hollow ground for clearance, made regularly 12 points to the inch for cutting iron and steel, and 10 points to the inch for copper and brass. Unless otherwise ordered 12 points will be sent.

CAUTION—Teeth in this saw cannot be set. In sharpening use 5½ slim taper file.

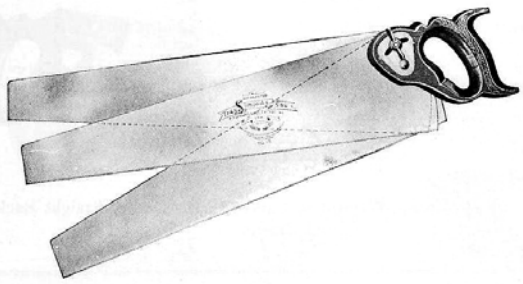
16	18	20	22	24	26	28	30	inches.
20.75	23.00	25.00	28.00	30.25	32.50	36.00	39.00	per dozen.

Packed one-third dozen in box.

Henry Disston & Sons, January 1914
Keystone Saw, Tool, Steel and File Works
Philadelphia USA page187

No. 15. Hack Hand Saw

Special Crucible Steel, Warranted, Carved and Highly Polished
Adjustable Apple Handle



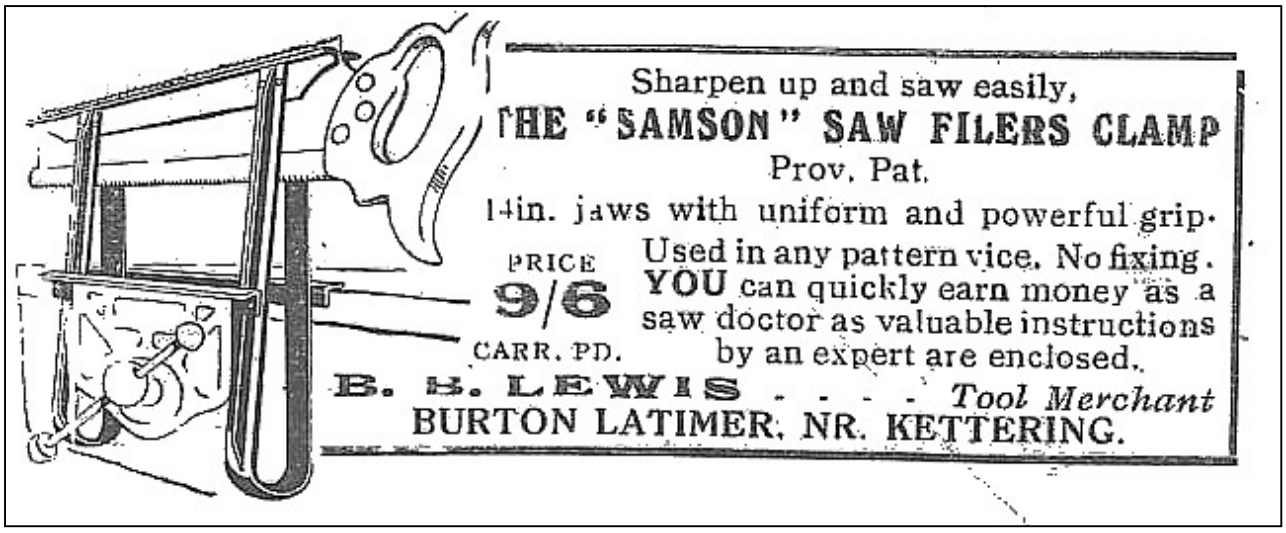
Simonds Patented Temper, specially high for cutting Metal, Nails, etc.
Taper Ground for Clearance

16	18	20	22	24	26	inches
$18.50	$20.50	$22.50	$25.00	$27.00	$29.00	per dozen

These saws are in quality and finish of steel and handle the most modern saws on the market, and are subject to the broadest Simonds Warranty.
Packed one third dozen in box
Write for Discounts

The Simonds Saws & Knives 1919
Reprint Roger K Smith 1994 page125

Samson Saw Vice



The advert above is from The Woodworker January 1930

The sales type is interesting being geared to hard times 'quickly earn money'. Prov. Pat. may be misleading and it would be interesting to check whether B B Lewis was really a Tool Merchant or a chancer.

That aside it is a good design and if well made would give reliable service.

Do you have one?

The advert right is from The Woodworker November 1936

Times were hard in 1936 and tool makers were fighting to maintain sales.

The range of tools offered was beginning to be rationalised and older expensive patterns were being replaced by improved simplified designs.

Sometimes this process resulted in classic tools. The round handle on this line of chisels is one example. These handles are both economical to make and a very satisfactory handle to use.

Toga Chisels

Drilling Square Holes

(4557).—Fixtures for drilling square holes in metals are usually rather heavy and complicated and not really suitable for experimenting with. However, the principle of the device will be explained below and querist may care to carry out some experiment in this way. The action is, that a cutter of triangular section, and of such size that it will roll round the sides of a square guide of the same size as the hole to be cut. This guide is rigidly secured to the drilling machine table leaving room under it so that the work can be clamped down on the table also. The triangular cutter is now fed down by power. The cutter is not a true triangle in section as the sides are slightly convex. Of course, owing to the rolling action of the cutter a certain amount of float must be allowed for at the driving end. Where the hole to be drilled is not very deep the float at the driving end can be partially overcome by making the drill long and reducing the diameter where gripped in the chuck; this will allow the drill to give a little and let it follow the square guide. Sketches of the tool are shown. If querist wants to produce square holes, why not try by other methods? For instance, why not drill a round hole and finish to size with a square drift. Or perhaps they could be punched out, a tool in which the punch was driven through the work by squeezing in the vice or by a heavy hammer could be constructed. "Gus."

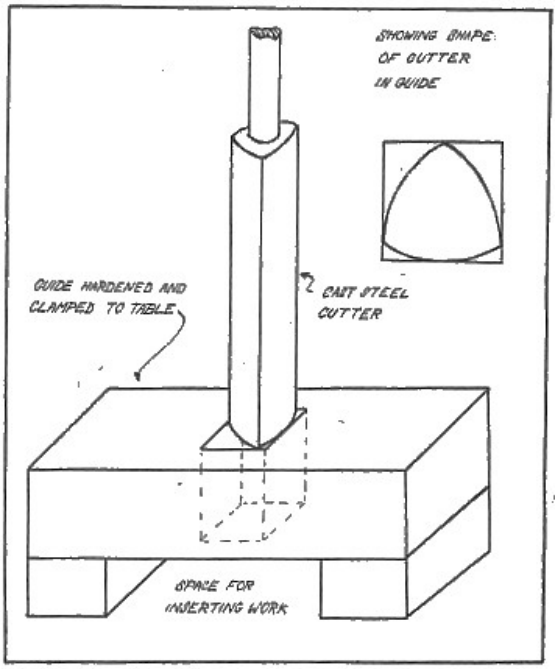
English Mechanics

March 3rd, 1933

This suggestion is as interesting for the reservations expressed as for the concept.

Allowing a little bit of float is easier said than achieved. After any prolonged use the cutter, and perhaps the drilling machine, would suffer.

The suggestion of using a drift is good advice. Using a drift will give accurate and predictable results.



Method of Drilling Square Holes.

The inquirer was clearly seeking a mechanical means of making square holes. The obvious method is to use a broach. A homemade broach used in a drilling machine, without rotation, would be a slow but a safe method.

The drawing above is also in Engineering Workshop Practice Caxton Publishing London (undated). The writer cautions that the sides of the cutter must be curved and not truly triangular in cross section but slightly convex. Also a certain amount of float must be allowed for at the driving end! For a shallow square hole this float could be achieved by making the cutter extra long. The author observes that many methods of drilling square holes rely on drilling round holes first and then broaching a square hole. The corners could, alternately, be cut away with a milling cutter after drilling a round hole.

The appeal of these makeshifts was due to the complicated and costly nature of dedicated devices for cutting square holes.

Nail Terminology

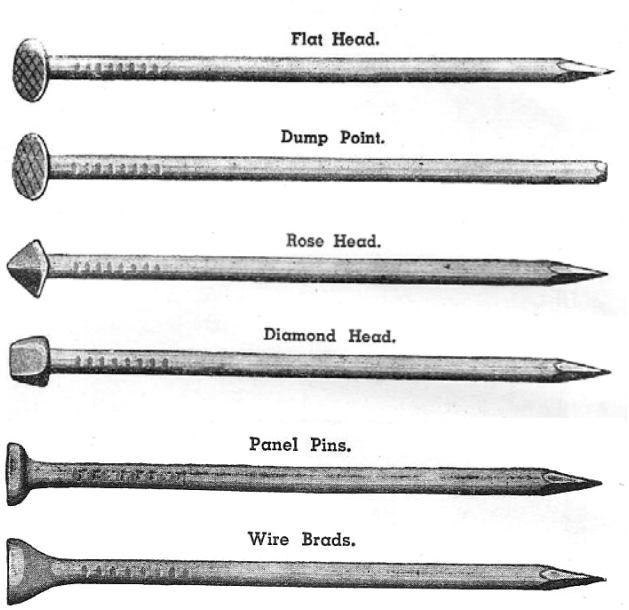
Australia: the inter-war years.

In the last twenty years the terms used to describe nails have changed significantly. For example the *jolt head nail* is now known as the *bullet head nail*. These changes in common usage are principally due to the displacement of the names used in the United Kingdom by American terminology.

The names used to describe nails between the post war years and the 1980s were in turn different from the terms used in the pre war years. These changes in common usage were primarily due to changes in nail manufacturing methods after the Second World War.

Frequently nails are misnamed in museum displays and in historical interpretations. The following material should assist researchers in identifying and naming the nails used in Australian building construction in the years after the Great World War and in the years up to the Second World War.

1937 Shapes & Sections Handbook
The Broken Hill Proprietary Co. Ltd.
Newcastle New South Wales.



STANDARD SIZES OF OVAL FLOOR BRADS

Length In Inches.	Thickness.				Approx. Number Per Cwt.
	Inches.	I.S.W.G.	Inches.	I.S.W.G.	
	A		B		
2	.104	12	.160	8	16,000
2¼	.104	12	.160	8	15,000
2½	.104	12	.160	8	14,000

NOTE.—Other sizes supplied by special arrangement.

Oval Floor Brads

This type of flooring nail was sometimes used for soft wood flooring laid onto softwood joists. As the practice in most regions was to use hardwood joists for cottage work oval brads were not the common form of flooring nail used in Australia. Oval Floor Brads are not strong enough for use with Australia hardwoods, even when the hardwood is unseasoned!

Diamond Head nails were commonly used the lay floor boards. Later Diamond Head nails were superseded by Jolt Head Nails.

Before World War 1 *Cut Brad* nails were sometimes used for laying softwood flooring on softwood joists. The majority of floors were laid on hardwood joists with Diamond Head nails immediately prior to World War 1.

In common building practice both the *Cut Brad* nail and the *Oval Brad* nail were rarely used to lay flooring in Australia. However both these types of nails had other uses and were in demand up to World War 2.

The Fibro Nail

There are no *Fibro* nails listed in the 1937 BHP Handbook. Asbestos Cement Sheet was starting to be used as a feature on weather board cottages in the 1930s. The *Dump Point* nail is in essence the *Fibro* nail and was no doubt used to fix AC sheet. After the war the fibro building boom may have witnessed the *galvanised Dump Point* nail reborn as the *Fibro* nail.

Titan Nails 1937

Manufactured by

The Titan Nail and Wire Proprietary Limited

at their works at

STH. MELBOURNE

Victoria, Australia

INTRODUCTION

HISTORY:

The manufacture of nails and barbed wire in Australia was commenced in Melbourne between 1880 and 1890.

The first firm to manufacture barbed wire in Melbourne, and one of the first to produce nails was that now carried on under the title of the Titan Nail and Wire Pty. Ltd., whose works are situated at South Melbourne.

In 1933 the whole of the interests were taken over by The Broken Hill Pty. Co. Ltd., and in 1936 a modern and up-to-date factory was built on land bounded by Lorimer Street, Ferrars Street and Normanby Road, South Melbourne.

This factory is equipped to produce all varieties of wire nails, brads, panel pins, clouts, staples, wall ties, and all classes of barbed wire.

NAIL SHOP:

The company's plant includes an efficient battery of nail machines for the production of all classes of nails, brads, clouts, etc., together with the necessary cleaning equipment.

The machines in this factory are capable of turning out nails from ½ in. x 20 I.S.W.G. to 10 in. x 3 I.S.W.G.

Wire for the manufacture of these products is obtained from Rylands Bros. (Australia) Ltd., Newcastle, New South Wales.

Full particulars of the sizes, etc., appear on pages 474 and 476.

BARBED WIRE DEPARTMENT:

The activities of the company also include machines for the manufacture of barbed wire and staples, particulars of which appear on pages 473 and 475.

BUILDING NAILS:

Building nails are generally of the rose or diamond head type. The requirements of a good building nail are that it shall be capable of being driven into timber without bending. The nature of the work dictates the length of the nail, and the necessity for driving without bending dictates the diameter or gauge of wire from which it is made. Obviously a finer nail of any given length can be used in soft wood than in hard wood. All these features have been carefully considered in Titan nails, and nails of different gauges are obtainable in the same length for various classes of work.

BOX AND CASE NAILS:

Nails for this purpose are of the flat-head type. The requirements of nails for the manufacture of boxes and cases are more exacting than for building. Large tonnages of these nails are used in box-nailing machines which automatically feed and drive in four or five, or even more, nails at one operation. To satisfactorily operate in such machines the nails must be straight, have heads concentric with the shank, and of a certain minimum diameter. The points must also be central; any small defects in these respects result in a jamming of the box-nailing machine and an interruption of its output. All these requirements are particularly observed in Titan nails.

SPECIAL "DUMP POINT" BOX AND CASE NAILS:

It frequently happens that it is required to make a box of hard wood, in which case the point of an ordinary nail acts as a wedge, which separates the fibres of the wood, resulting in splitting. Although the use of a large headed nail overcomes this difficulty to a certain extent by gripping the two sides of the split, the more rational method is to prevent the splitting in the first place. This can be done by using Titan "Dump-Point" Box and Case Nails, in which the nail acts as a punch and drives a hole through the fibres instead of wedging them apart.

TITAN "PROCESSED" CASE NAILS:

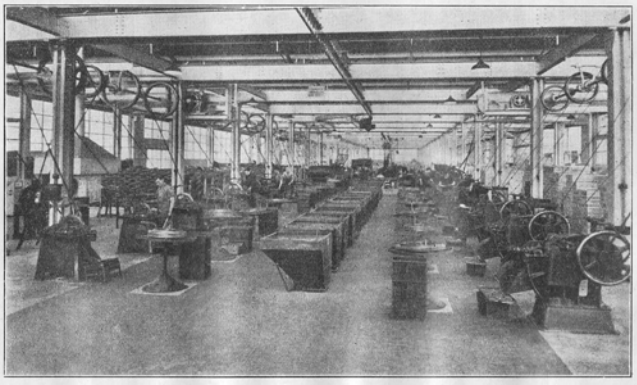
It is well known that the holding power of a nail is greatly reduced by polishing, and for casemaking many devices have been adopted to increase the holding power.

The Titan company has attacked this problem and has patented a process for the production of what is known as the Titan "processed" nail. In this process the surface of the nail is mechanically treated, resulting in an increase in holding power.

A much finer and shorter "processed" nail than the ordinary nail can be used and still more holding power obtained. In consequence as many as 50% more cases can be made for the same cost in nails. Titan "processed" nails can be operated in nailing machines in the same manner as ordinary polished nails.

PACKING OF NAILS:

With a patented device Titan nails are packed in small wooden cases containing 1 cwt. nett weight, and in consequence take less storage space and are more convenient to handle. They are also packed in 14 and 28 lb bags, and in 1, 2, and 7 lb. cartons.



The Modern Nail Shop.

1937 Shapes & Sections Handbook
The Broken Hill Proprietary Co. Ltd.
Newcastle New South Wales.

Table Surface Grinder

OH&S issues aside, this would be an ideal machine for small work such as flattening the soles of metal woodworking planes.

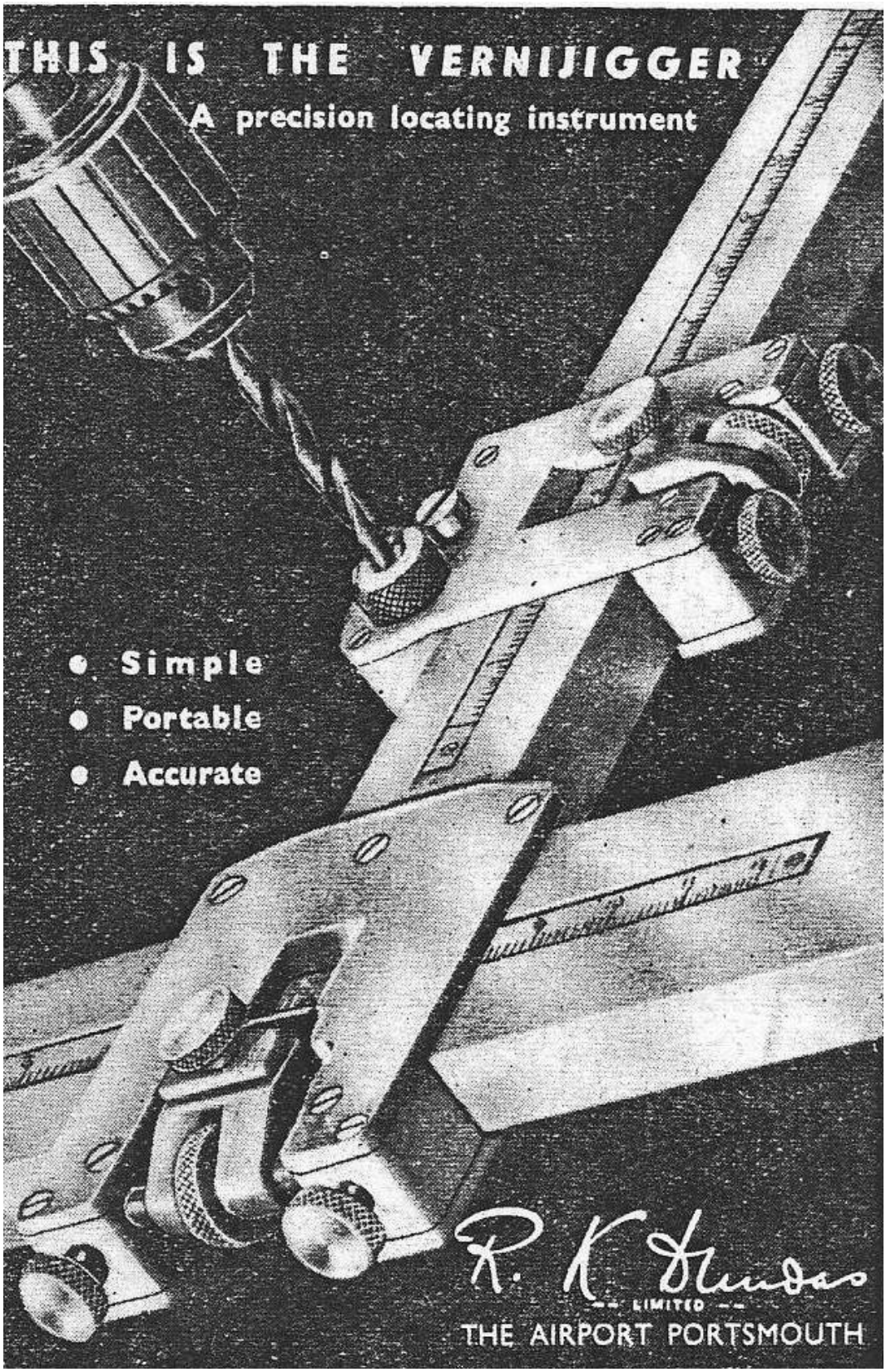
This advert is from Practical Engineering October 6, 1944.

This is a grim war-time issue even though some of the adverts are almost futuristic.

The front cover has a feature on Stag Athyweld Tools, *made by the atomic hydrogen welding process.*

More from this issue in a future NEWS

Vernijigger



The advert says it all!

Practical Engineering October 6, 1944