# NEWS 175


**March 2023**

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**Contents** # NEWS 175 **March 2023**

*Cover illustration: Herbrand Tools Catalog No.52M (Canada), 1940*



**TTTG Meetings and Events:**

Want details of TTTG Meetings, Workshops and Sales?
Please see our website:

**www.tttg.org.au**

# Bandsaw Tensioning

by Norman Heckenberg

A donation of tools to our local Mens Shed included the device shown below.


It is signed CARTER TOOLS AUSTRALIA and marked N.S.W.T.D. The scale is marked in inches and there is a vernier scale reading to 0.001”. I would love to know when it was made, what it measures, and how and where it was used?

This is what I have been able to work out.

If a cylindrical object is placed between its jaws and the central slider is brought up to touch it, the scale directly reads the DIAMETER.

Simple trigonometry (left as an exercise for the reader ;-)) shows that this will apply when the jaw angle is 38.9 degrees (2arcsin(1/3)). If the angle were 60 degrees it would read the radius directly, and calipers are available from several manufacturers that do this, although they enclose the object from both sides and are mainly used to measure 3-bladed rotary cutters.

The vernier scale would allow a reading precision of 0.001 inches. There must have been some special task it was needed for. I have not been able to find anything similar from the major gauge manufacturers.

Carter Tools was a Sydney manufacturer of hand tools, mostly for woodworking, in the 1950s and 1960s. This device seems out of character with respect to their other

products and has been incorrectly described elsewhere as a 'centre finder' or 'vernier circumference finder'.

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EDITOR:

Carter Brothers Engineering, later Carter Tools Pty Ltd, of NSW, Australia is another tool manufacturer that filled the gap in hand tool imports caused by shortages after WWII.

Carter tools were made to a range of quality standards. These range from the very rough and basic like a #C4 plane through to a well-made and finished #C1 and a vernier circumference finder of superb finish.

Many of the variations can be attributed to Carter Tools' use of different foundries. See https://htpaa.org.au/hand-tools/australian-tools-makers/australian-makers/carter-tools

# Articles from the Archives

by NEWS Editor

## *Wiesener's Australian Patent Plumb Bob*

Reg Eaton

"Aren't you interested in mechanical plumb bobs?" My wife Jane rather facetiously enquired as we were walking through the lanes of hundreds of dealers' cars and vans parked ready for the "off" at Swinderby Antiques Fair. This massive fair boasting up to 4000 stalls is held 6 times a year on an old WWII airfield in Lincolnshire, and trades for 3 days mainly in the open, and in case this is not long enough, most of the casual dealers open up and sell from the back of their vehicles. Then there is the Wild West type stampede for pitches at high noon. "It was like a yo-yo," she continued.
Retracing our steps I found this dealer demonstrating the bob to a prospective customer, and indeed the cord was returning into the body of the bob in a fascinating and magical way. For once my silent - but no less fervent - prayer was answered. On being told the modest price the other dealer rejected it out of hand.

Not believing my luck and after the briefest of negotiation I secured the bob. I had recognised it for what it was, a "Wiesener's Patent Improved Adjustable Plumb Bob".

I knew these to be very scarce, only four having turned up at any of the English or U.S.A. international or other auctions in the last 20 years, and after 35 years as a tool dealer and collector I have only had one before. Of these five none have worked, as the delicate internal mechanism and external lever are much prone to damage. The only other example I know of is in Terry Butcher's collection.

This had, fortunately, been rescued from the vigorous attention of a young man intent on opening up the internal "pocket" with the aid of a hammer, when he only had to give the knurled cap a turn, and it would simply slide out. This one, unsurprisingly, also didn't work! That is until Terry rebuilt it. However, the one I held in my perspiring hand was in almost mint condition with all the original lacquer, cord and hanging hook, and was in perfect working order.

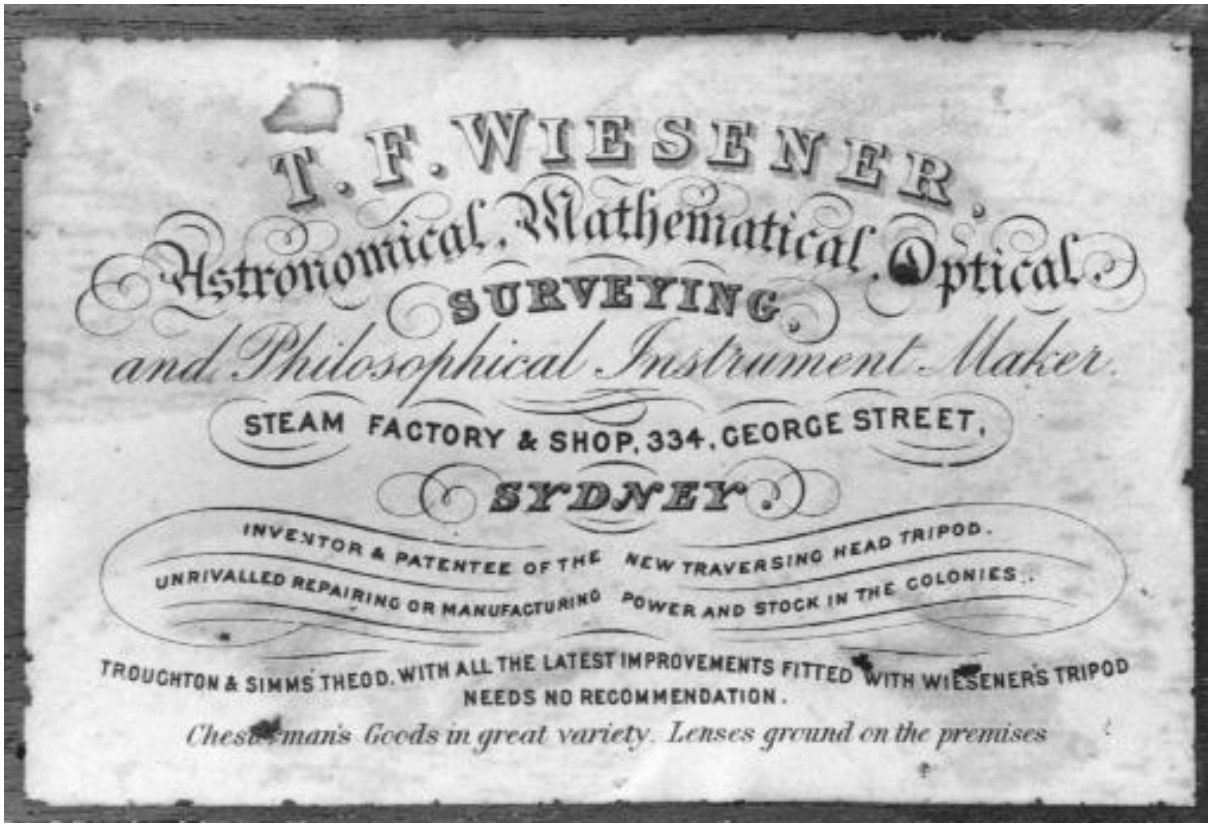
Unusually it was made of gunmetal, (all the others being brass) and undoubtedly manufactured later than most of the other examples.

It was a pointed ovoid, rather than the more usual turnip shape, also the top screw was rather plain and not waisted, and with a rounded knurling, as shown in the original patent drawings.

## William George Wiesener

William George Wiesener was born in 1879 in Sydney, the youngest of three children born to Theodore Frederick and Annie Wiesener

William's father was a German immigrant who arrived in Australia in 1871 already well practiced in the art of watchmaking, jewellery and optical instrument making.




He set up shop at No.1 Hunter Street, but by 1875 had removed to a more prestigious location at No.348 George Street.

It was here that young William learnt his trade. When his father died in 1897, the not inconsequential firm of T F Wiesener was willed to his eldest son Frederick, but it appears that William eventually ran the business, probably after he had gained his majority around 1900.

## The Patent

On the 3 September 1907 William applied for a British patent for "An Improved Adjustable Plumb Bob" and was soon granted Patent No.19687.

He had probably obtained his Australian Patent No.6427 before this, which is stamped on two of the bobs extant.


This was a fine piece of engineering more fitted to his trade as a clock and watchmaker, especially with the coil actuated winding drum and the close tolerances needed in the internal machining.

There was also a further refinement added later that differed from the original patent drawings, this consisted of inserting a tiny leaf spring to hold the pawl or lever against the toothed drum, obviously gravity (as specified) not proving adequate.

It is difficult to imagine that this superior plumb bob could have been much of a commercial success, mainly because of the considerable cost involved in production, for what, after all, was just a plumb bob!

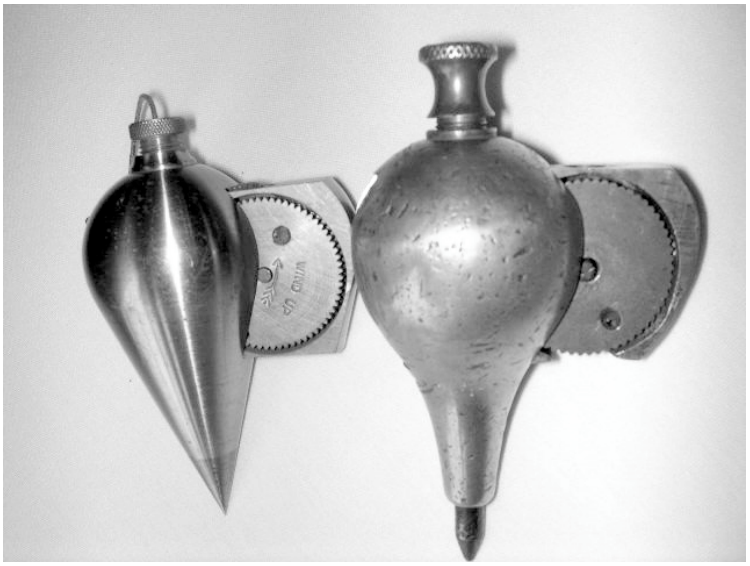
The firm continued trading until 1918 when it was bought by Sidney Whatson who founded the Precision Instrument Co. in 1920.

**References:**

Julian Holland, *T F Wiesener*. Macleay Museum University of Sydney, reprinted from Summer Hill edited by Chris Pratten (Ashfield & District Historical Society 1999) pp. 83-89.

David Stanley Auctions, March 2001 and 2006.

Tony Murland Auctions, July 1994 and 1995, Birmingham Free Library.



The above article on was written by Reg Eaton and published in TTTG Newsletter 101, June 2008, pp.13-16.

More Articles from the Archives in the next issue of TTTG NEWS magazine.

Got an interesting advertisement or article form the past that you would like to see published in NEWS? Then send it to the NEWS Editor editor@tttg.org.au as a pdf or jpeg file or send an original via post to 5 Morvan Street, Denistone West NSW 2114.

# Handles for Stanley Planes

## Exclusive to TTTG

Handles to fit Stanley planes, and copies of Stanley planes, are sold at all TTTG meetings, tool sales, events and workshops. Price is $10 per handle.

**What Planes?**
TTTG handles are close copies of old broken handles from old planes. The TTTG handles are not based on “Type drawings” from the internet.

**What sizes?**
TTTG handles are available to fit No.2 to No.7 Stanley and Bedrock planes. The handles will also fit Record, Sargent, Pope/Falcon, Carter and similar.

**What timber?**
TTTG handles are for planes made in the years 1900 to 1960s. The handles are made from recycled or off cut well-seasoned hardwoods. Species include NSW Rosewood, American Beech, Kwila, and Camphor Laurel.

**How are the handles made?**
TTTG handles are produced with a sequence of machining jigs in batches. After profile shaping the handles are drilled for the metal fittings. Batch production means consistent quality and reasonable price.

The timber is prepared in minimum lengths of 600mm, 140mm x 24mm. After machining and drilling the handles are “ready to sand and fit.

Want a handle made from your own piece of timber? Then you will have to make it!

**Some Handles have long toes!**
The length of the toes on the No.3 and No.4 planes varies with the age of the plane. Some TTTG handles for these planes are sold with long toes. The buyer can then “custom fit” the handle. A simple job for a plane user.

**Sanding**
The machining leaves the handles needing only a light hand sanding. The golden rule is “don’t sand across the grain.”

**Finish**
The original finish on the old plane handles was “industry normal” for the time and includes Shellac, Varnish, Nitrocellulose, and Polyurethane. TTTG’s supplier recommends Liquid Shoe Polish. This matches any colour and lasts.

Some buyers may pick up a finished ‘sample’ handle and ask is it “Rosewood.” The answer is: “Camphor Laurel finished with Liquid Shoe Polish.”

# Tiny Torque Wrench

by John Bates

If you missed the 4 December TTTG Members and Friends Tool Sale then don't miss the next sale on Sunday 21 May 2023 at the Old Eastwood Town Hall, Marsfield. Enough of the shameless sales plug; what about the tiny torque wrench? Well, I picked this one up at the aforementioned December tool sale.

Beautifully made by Huber& Suhner AG, Switzerland. Nicely knurled and plated handle with a super heavy duty set of black oxide coated jaws at the working end. Overall length is 115mm and handle diameter is about 14mm.

Turns out this one is made specifically for the 5/16 inch AF nut on SMA connectors. Now that is a specialised tool. It's a bit like having a torque wrench for every different sized nut or bolt. No longer widely available. Some international sellers still have a few in stock at around AUS$230 each. If you do need one no need to go out and buy one, just borrow mine.

The wrench is  for SMA connectors. Setting torque is tiny 1 Nm. End of the wrench is 8mm across the flats.

SMA (Sub Miniature version A) connectors are semi-precision coaxial RF connectors developed in the 1960s as a minimal connector interface for coaxial cable with a screw-type coupling mechanism.

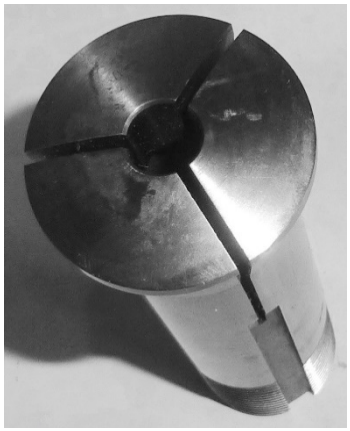
The interface dimensions for SMA connectors are listed in MIL-STD-348.[4] The SMA connector employs a 1⁄4 inch diameter, 36-thread-per-inch threaded barrel. The male is equipped with a hex nut measuring 5⁄16 inch (0.3125 inch / 7.9 mm) across opposite flats, thus taking the same wrench as a #6 SAE hex nut.

ABOVE: SMA male and SMA female connectors

# Why Collets Usually Have 3 Cuts

by John Bates

Hello readers, I have a question to pose. Why collets (W20, W25, W32, etc) have 3 cuts and not 4, and is there a problem for the collet to have 1 or 2 or 4 cuts?



OK there are four-slotted collets for holding square stock. Just like 3 jaw vs 4 jaw non-independent chucks. For a quick home-made special size collet even one or two slots can be quite OK.

Three, however, is more stable arrangement in general. Think of a chair with 4 legs on an uneven floor, it will always rock, but a 3 legged stool will always be stable. It all relates to degrees of freedom.

Thus three slots became the engineering preference because of balanced forces and balanced dimensional deviation. And when you think of the clamping bush of a quill or tailstock as a dedicated collet, one slot is enough.

Now, consider ER25 collets, for example. The smaller sizes have 2 x 6 slots, and the larger sizes have 2 x 8 slots. The one-ended, three-slot W20 collets are by design less flexible and apt to be more precise than the ER collets, but for best performance you should only use the W20 with calibre stock. Certainly with no greater undersize than say 0.1mm (that is 0.004 inch in the old measure). ER collets with their multiple slots on two ends can take a piece of stock 1mm undersized (or 0.039 inch).

So, apart from what has been mentioned above regarding three contact points, collets have three rather than one slot so that the clamping force is evenly (or concentrically) applied.

A single slot would work perfectly well for material of the absolute nominal size, but if smaller stock were used the single slot would cause the collet to close unevenly introducing eccentricity. With three slots the collet will close concentrically onto any material that is near to nominal size, but it will not grip along the full clamping length.

There are a number of long theses given over to detailed analysis of this subject.

Schaublin SA developed the W, B and ER or ESX collets as it calls them. When it comes to ER collets the number of slots, both fore and aft, is related to the clamping range. ER collets are designed so that the collet grips material, if not along the entire length, then at each end of the collet. This makes ER collets well suited for tool holding as they are inherently less accurate than a drawback collet. The ES collet on

the other hand is of the same form as the ESX but has fewer slots and is designed for the nominal size only.

This also explains why ER collets have a much larger range than W20 collets. Nevertheless, three slot collets are superior to the ER pattern. And yet because the ER pattern is so commonly used these days, it does make a difference which brand and quality you use.

In the end ‘you pays your money, and you takes your chances.’

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Got something special or interesting you would like to share?

Then please send me a picture and description and I will put it into NEWS.

Email your text and images to reproturn@bigpond.com

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# The Snake and the Saw

A snake entered a carpentry workshop and, running over a saw, slightly injured itself. Furious the snake returned and bit the saw, in doing so the snake hurt its mouth and bled.

So, not understanding what was happening and feeling attacked, the snake decided to surround and suffocate its opponent (the saw) with its whole body, squeezing with all her strength... by so doing, the snake ended up killing itself.

Moral of the story:

In life, sometimes it is better to ignore situations, behaviours and even words. Because? Because the more you think about it, the more they hurt you, and they could even kill you.

Choose well which battles to fight. Not all battles are winnable.

Regards
Greg

# The Wonderful World of Patents

C. E. BILLINGS.
Wrench.

No. 212,298. Patented Feb. 18, 1879.

*Fig. 1.*

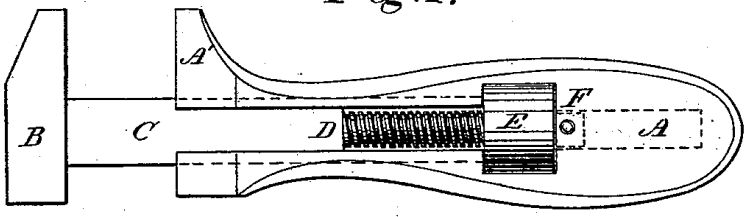



*Fig. 2.*

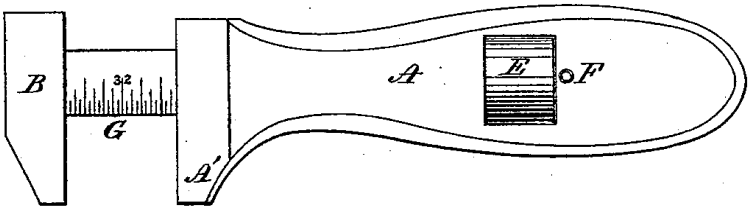
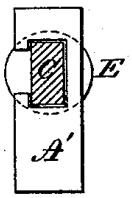



*Fig. 3.*



SOURCE: US PATENT OFFICE

# W. Baxter,

## Wrench.

No. 84,605. Patented Dec. 1, 1868.

Fig. 1.

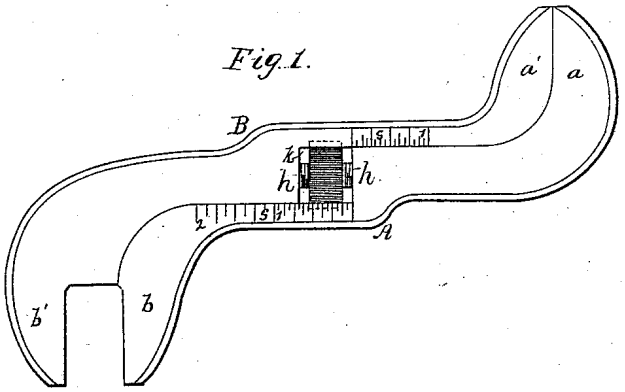



Fig. 4.

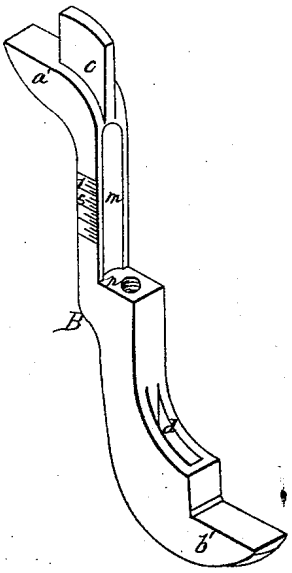



Fig. 2.

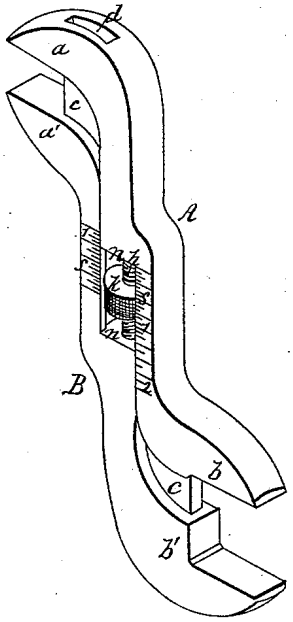
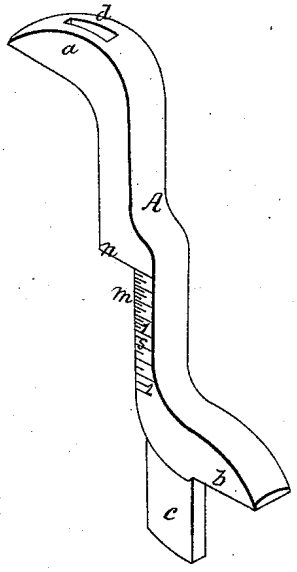
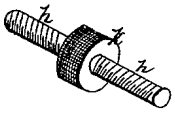



Fig. 3.




Witnesses;

Fig. 5




Inventor;
William Baxter
by A. Pollok
Atty

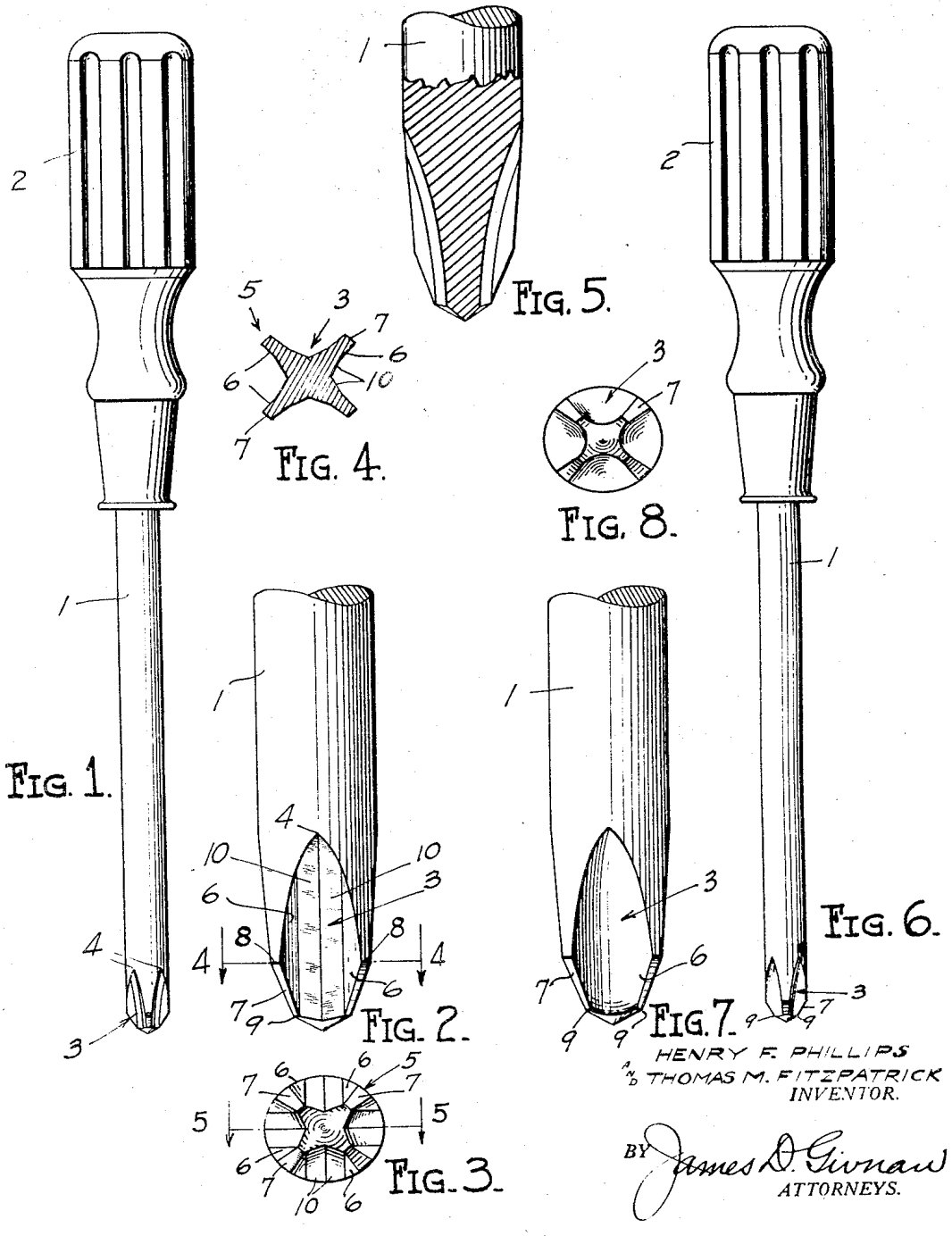
SOURCE: US PATENT OFFICE

## US Patent drawings for the Philips head screwdriver & screw

July 7, 1936. H. F. PHILLIPS ET AL 2,046,840

SCREW DRIVER

Filed Jan. 15, 1935




SOURCE: US PATENT OFFICE

**Looks like the Philips head screw came before the Philips screwdriver**

July 7, 1936. H. F. PHILLIPS 2,046,343

SCREW

Filed July 3, 1934

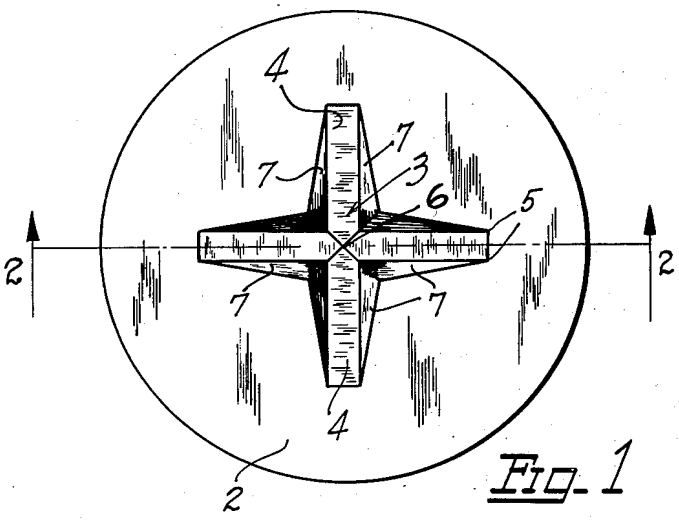



Fig. 1

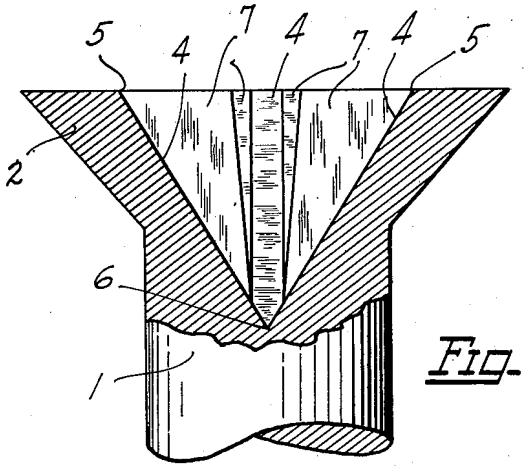



Fig. 2

HENRY F. PHILLIPS.
INVENTOR.

BY James D. Givnan
ATTORNEYS.

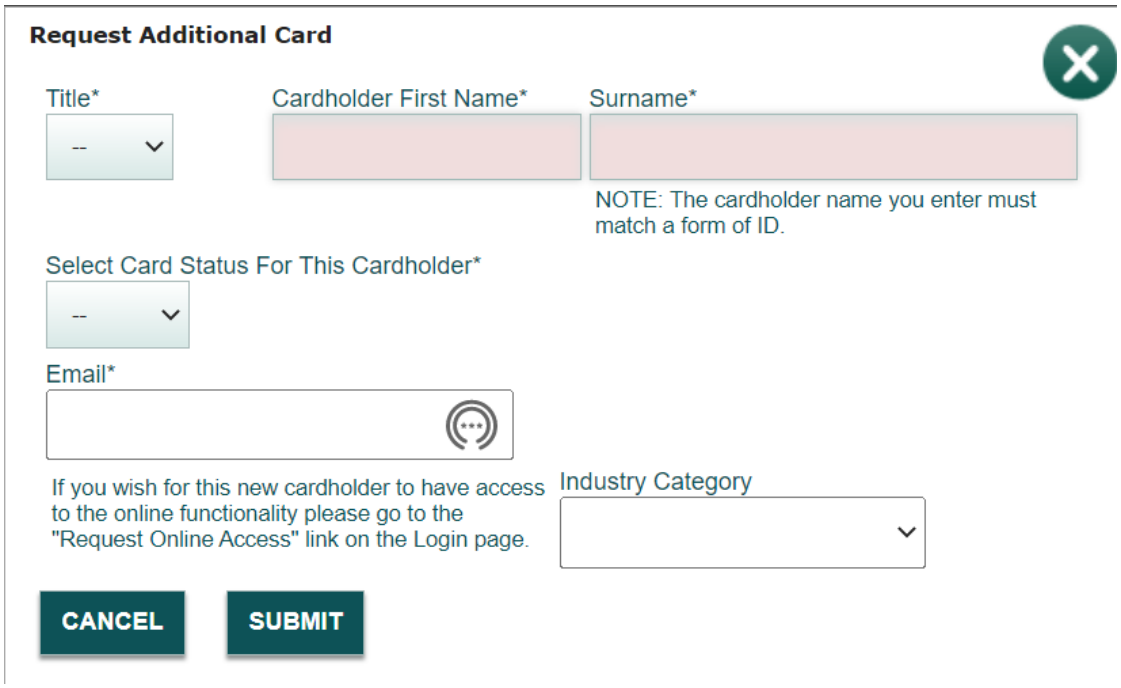
SOURCE: US PATENT OFFICE

# TTTG Member Access To Bunnings PowerPass Trade Card

All TTTG Members can obtain a Bunnings PowerPass Card. To do this please contact the Secretary, John Bates, at secretary@tttg.org.au and provide the following information:

- Your title (Mr, Mrs, Ms etc);
- Your first name and surname (this must match your driver's licence or other form of ID which you use); and
- Your email address.

The TTTG Secretary will then use that information to Request an Additional Card from Bunnings in your name.




Benefits of a Bunnings PowerPass Card:

- Access to exclusive PowerPass Pricing and offers
- Invitation to Trade events
- Full online access to manage your account
- Use your PowerPass in all Bunnings stores Australia-wide
- More information at https://trade.bunnings.com.au/powerpass

A special thank you to TTTG Member, Greg Pryor, for negotiating and organising the TTTG Member access to the Bunnings PowerPass Card.

# Vale: Michael J Smith

7 February 1963 to 8 December 2022

Michael J Smith took over the role of webmaster for TTTG around 2012 and had an immediate and positive impact on our website. In collaboration with the Committee Michael created new page styles and added much needed functionality. Importantly, this included greater capacity for the TTTG Committee members to make changes and add information and news about activities and programs.

One of his daughters, Rebecca, contacted me shortly before Christmas with the sad news that Michael passed away. I always admired Michael's endurance and positive outlook on life. Despite his serious and mounting health problems he never once complained and was always ready to do what he could to fix any TTTG website issues that arose.

Thanks to Michael we have all our NEWS magazines and Trad Tools bulletins archived, plus a separate section containing just the NEWS covers. In addition, we have web pages devoted to planes and saws; JDs articles; interesting links to websites; and many interesting pages such as how to use citric acid for de-rusting.

Michael was a real stickler for reliability and security. The website he built, maintained and constantly improved has stood the test of time. Never been hacked! Even in recent years as his health deteriorated and he was forced to spend increasing amounts of time in hospital, Michael ensured the website never missed a beat. He was indeed a webmaster.

His friends and family who spoke at his memorial service revealed a very talented, witty person whom one could easily describe as a polymath. Obviously, he was much loved, and he was also much more than 'a webmaster'. He played a wide variety of musical instruments, belonged to a bush band, and was an avid South Sydney supporter.

Rest in peace Michael.

John Bates

TTTG Secretary

# The Next TTTG Workshop

## THE 2023 'REAL SKILLS" WORKSHOPS PROGRAM

### SHARPENING EDGE TOOLS WORKSHOP

**Sunday, 2nd of April 2023**
**Cost: $70.00**

### SHARPENING SAWS WORKSHOP

**Sunday, 7th of May 2023**

**Time:** **9.00am to 1.30pm**
**Venue:** **Old Eastwood Town Hall**
**74 Agincourt Road, Marsfield**

**Cost:** **Great value at only $70.00**

**We teach real skills.**

Check in by 9am - Refreshments provided but bring your lunch!
Cost $70 Limited to 6 Enrol online: www.tttg.org.au

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## Available at all TTTG Meetings, Workshops & Events

**TTTG Leather Chisel Rolls** **$25 each**

| | |
|---|---|
| **TTTG Sharp Oil** | **$6 a bottle** |
| **TTTG Chisel & Plane Handles** | **$10 each** |

# Members & Friends Tool Sale Sunday 21 May 2023

**Remember the date and time:**

**Sunday 21 May 2023 – 8.00 am to 12.00 pm**

**Remember the location:**

**Old Eastwood Town Hall**
**74 Agincourt Road, Marsfield, NSW**

**Remember the entry fee:**

- **$5 per person – pay at the door and please have your $5 note or $5 in coins for entry.**
- **All purchases are made in cash at the sale and so having notes smaller than $50 is a good idea.**

**Want to sell some surplus tools – hire a table:**

- **$25 per table – contact the Secretary to book via secretary@tttg.org.au**
- **For insurance reasons only TTTG Members can book tables – membership is $50 per year**

**TABLES ARE LIMITED SO BOOK EARLY**

**NO ASSISTANT PASSES WILL BE ISSUED**

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# Next TTTG Sydney Tool Sale Sunday 25 February 2024


Hare & Forbes supports TTTG

# What is TTTG

TTTG is the Traditional Tools Group; a not-for-profit group of like-minded enthusiasts interested in the history and preservation of traditional trade skills, techniques, and tools, including hand tools, vintage power tools, machinery, and other old technologies. TTTG was established in 1992.

Our bi-monthly Members' meetings typically feature a guest speaker or a panel talking on diverse topics related to tools, trades, and technology.

**Keeping traditional tool skills alive is a key objective of TTTG.**

"Real Skills" workshops have been held every year since 2005. These popular fee-based workshops, open to all, are designed to guide participants in developing their tool skills and learning and practising new techniques.

The Group sells old tools and machinery at affordable prices. Two or three "members and friends" Tool Sales are held each year at the Old Eastwood Town Hall, Marsfield. And every February TTTG runs Sydney's largest second-hand tools sale at Thornleigh.

Membership of the Traditional Tools Group is open to anyone with an interest in traditional tools history, techniques, and skills.

The TTTG digital magazine, creatively titled "NEWS", is published in digital form, and normally emailed to Members by Mailchimp four times a year in February, May, August, and November.

"Trad Tools" a monthly TTTG bulletin sent to registered recipients by Mailchimp every month.

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# TTTG Membership Rules

**MEMBERSHIP YEAR**

- **starts 1 July and ends on the following 30 June.**

**MEMBERSHIP FEE**

- **currently $50 per year and becomes due on 1 July each year. Must be paid on or before 1 August or the Member becomes unfinancial.**

UNFINANCIAL MEMBERS

- a Member who has NOT paid their Membership Fee by 1 August each year. That Member will cease to receive NEWS magazine or access to the Members' area of the website.

NEW MEMBERS

- join between 1 July and 31 March the following year and receive full Membership for the remainder of that MEMBERSHIP YEAR.
- join between 1 April1and 30 June and receive full membership until the end of the following MEMBERSHIP YEAR.

Send MEMBERSHIP inquiries and questions to secretary@tttg.org.au.

# TTTG Fees and Contacts 2022/23

## TTTG Fees

| | |
|---|---|
| Annual Membership | $50 |
| 'Real Skills' Workshops | $70 |
| Member Meetings entry | $5 |
| Members & Friends Tool Sales entry | $5 |

## TTTG Contacts

**NEWS Magazine Editorial, Articles & Advertising:**
**John Bates secretary@tttg.org.au**

**Trad Tools Bulletin Editorial/Advertising:**
**Bob Crosbie president@tttg.org.au**

**TTTG Memberships:**
**John Bates secretary@tttg.org.au**

**TTTG 'Real Skills' Workshops:**
**Bob Crosbie president@tttg.org.au**

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# NEWS Magazine & Trad Tools Bulletin

## NEWS Magazine (quarterly)

NEWS Magazine is emailed to financial TTTG Members in:
**FEBRUARY, MAY, AUGUST and NOVEMBER**

## Trad Tools Bulletin (monthly)

TRAD TOOLS Bulletin is emailed **each month** to "anyone interested" – just send us your name and email address

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# Next TTTG Members Meeting

Old Eastwood Town Hall
74 Agincourt Road, Marsfield, NSW

Tuesday 11 April 2023 – starts at 7.00 pm
**TOPIC: The Future of TTTG**

For more details see the website for details **www.tttg.org.au**