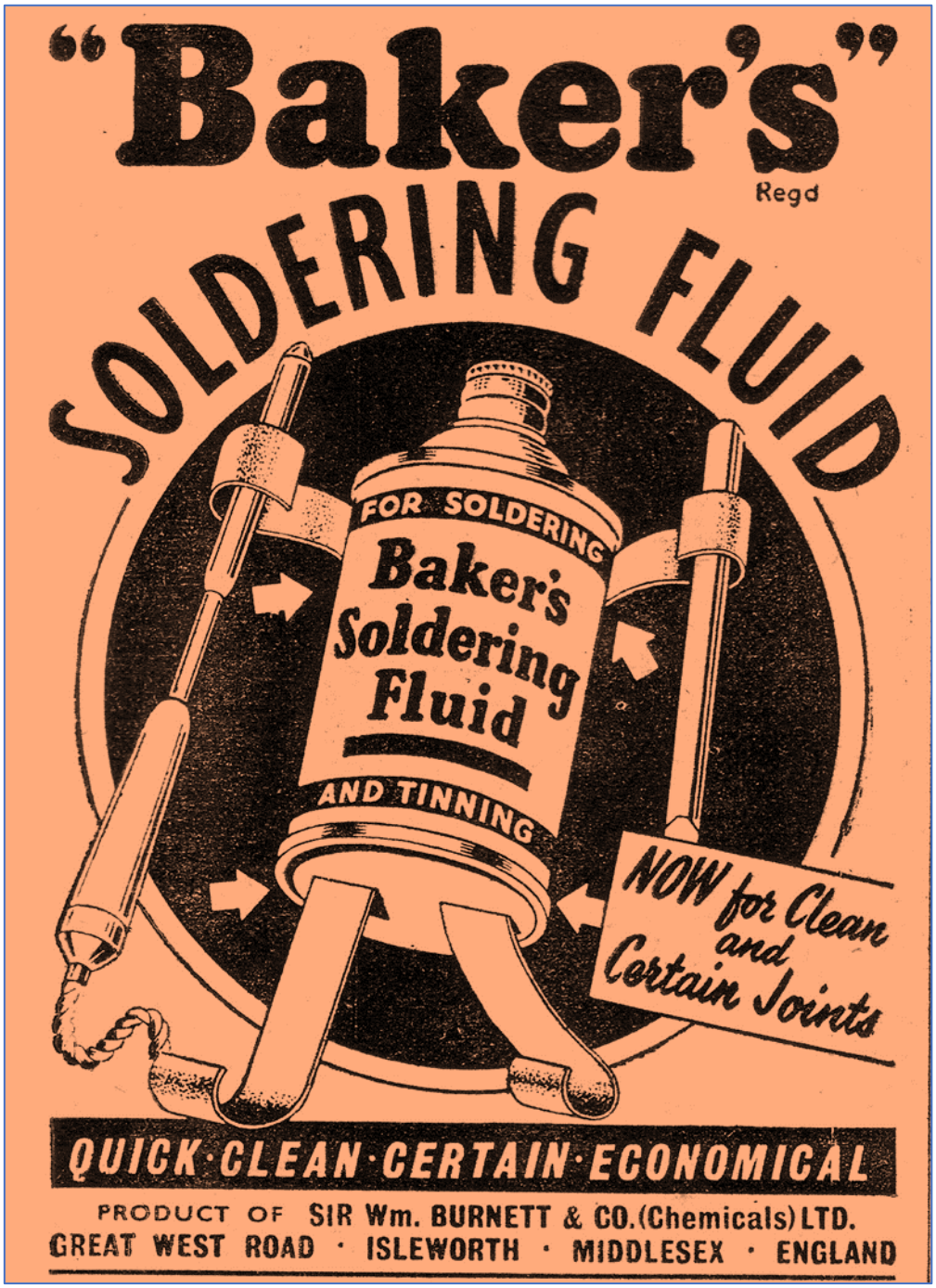
NEWS 173



August 2022

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TTTG Meetings and Events:

Want details of TTTG Meetings, Workshops and Sales - please see the website:
www.tttg.org.au

October Members Meeting: *Tools from the TTTG Collection*

- *Early Australian-made Power Tools*

The audience will get to examine these rare tools.

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, 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 four times a year in February, May, August, and November.

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

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	$60
Members Meetings entry	$5
Members & Friends Tool Sales entry	$5

TTTG Contacts

NEWS Magazine Editorial/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

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

Next TTTG Members Meeting

Old Eastwood Town Hall
74 Agincourt Road, Marsfield, NSW

Tuesday 11 October 2022 – starts at 7.30pm after the AGM
Please see the website for details **www.tttg.org.au**

Understanding Stainless Steel Grades: 304 vs 316

by Edcon Steel

Stainless steel 101

While all steels have the same foundational iron and carbon composition, stainless steel is the general term for a group of corrosion-resistant alloy steels that contain 10.5% or more chromium. Chromium is the element that enables stainless to withstand long atmospheric exposure and use before showing wear or corrosion.

Both carbon steel and stainless steel contain iron, but the added chromium in stainless makes it more corrosion resistant. Many grades fall under the stainless steel umbrella, each with slightly different chemical compositions and physical characteristics: this is important when selecting the correct grade for your own application.

For projects that require high corrosion resistance, austenitic stainless steels are optimal as they contain high amounts of nickel and chromium, alloys that offer exceptional corrosion resistance.

The differences

TYPE 304 - austenitic (chromium-nickel stainless class) stainless steel, accounting for more than half of the stainless steel produced in the world. This grade withstands ordinary corrosion in architecture, is durable in typical food processing environments, and resists most chemicals. Often referred to as ‘kitchen grade,’ 304 grade stainless steel contains from 16% to 24% chromium and up to 35% nickel, as well as small amounts of carbon and manganese. The remainder of the chemical composition is primarily iron.

TYPE 316 - austenitic (chromium-nickel stainless class) stainless steel containing 0.2%-0.3%molybdenum (whereas 304 has none). The inclusion of molybdenum gives 316 greater resistance to various forms of deterioration. Grade 316 stainless steel is commonly called ‘marine grade’ stainless steel, as the higher content of nickel and chromium, plus the inclusion of molybdenum, enhance its corrosion-

resistant properties and suitability for marine environments. While iron remains the major component of grade 316 stainless steel, it also contains silicon, manganese and carbon.

Understanding the differences between 304 and 316 stainless steel is important when selecting materials for your application. The main difference between 304 and 316 stainless steel is the presence of molybdenum, an alloy that enhances hardenability, strength, toughness and resistance to wear and corrosion.

Applications

The high amounts of chromium and nickel give 304 stainless steel good corrosion resistance, making it an excellent choice for kitchen appliances, food processing equipment, piping, finishing hardware and accessories, and indoor panels and sculptures.

However, grade 304 stainless will struggle in more corrosive environments like swimming pools, chemical equipment and medical equipment. Grade 316 stainless steel is often preferred in these applications, particularly when exposure to salt may be an issue.

Grade 316 stainless steel can also be found in products related to the food and beverage industries, particularly commercial kitchens and food processing plants, as it has higher resistance to chlorides; is able to withstand shock and abrasive conditions; and does not react to acids found in foods, vegetables or food additives.

Strength and workability

Austenitic stainless steels like 304 and 316 ensure a versatile balance of strength, workability and corrosion resistance, making them ideal for outdoor architectural features, surgical instrumentation and food processing equipment. However, while the molybdenum content in grade 316 increases corrosion resistance, it can affect formability and machinability.

Cost

Cost is another major difference between these stainless steel grades, as grade 316 is generally more expensive than grade 304.

If you have an application with very powerful corrosives or one that relies on chlorides, then paying a premium for grade 316 stainless steel will result in a product that will last many times longer than grade 304 stainless.

However, for applications using milder acids, or where salt exposure is not a concern, grade 304 stainless steel can work just as well.

https://www.edconsteel.com.au

Edcon Steel stocks a wide range of grade 316 stainless steel, cut to size as required. The company has six retail outlets in NSW.

Articles from the Archives

by NEWS Editor

Making Small Wooden Cabinets.*

This Article describes the Making of Various Types of Joints for Wireless and Gramophone Cabinets, etc.

Figs. 11 to 15 show corner joints between legs, or rails, and the boarding which fills the spaces between them. In Fig. 11 the leg is notched to receive the meeting edges of the boards which enter it at right angles to each other. By this method a box cabinet can be made and have legs fitted to its corners after. Fig. 12 shows how rails may be tenoned in to keep their faces flush with one side of the leg. Fig. 13 shows their full thickness entering midway in the thickness of the leg. Figs. 14 and 15 are methods often adopted when glass has to be fitted into a framework of wood, though suitable for wood panels also. In Fig. 14 an inner fillet screwed to the outer wood pinches and holds the edges of the inserted pieces. In Fig. 15, fillets are nailed to the outer wood to form a groove for the inserted edges. Often the inner fillet would be produced by cutting a rebate in the solid, and only the outer fillet nailed after the wood or glass is in place.

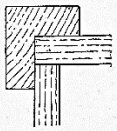


Fig. 11.—Corner of Cabinet in Notched-out Leg.

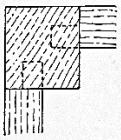


Fig. 12.—Rails Tenoned in Flush on one Face.

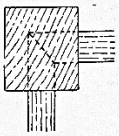


Fig. 13.—Rails Midway in Thickness of Leg.

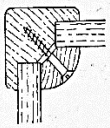


Fig. 14.—Panels held by Inner Fillet.

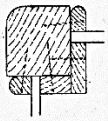


Fig. 15.—Panels in Groove formed by Nailed-on Fillets.

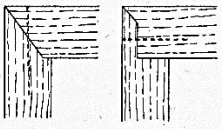


Fig. 18.—Stopped Mitres.

Where the ends of pieces meet at right angles in a conspicuous place, a mitre joint is often used to avoid exposing end grain. A plain mitre, as in Fig. 16, cannot be held together strongly unless the parts are securely kept in position by their attachment elsewhere. The joint in Fig. 17 is stronger and shows as a mitre on its front face, which is sometimes sufficient. Two other modified forms of mitre joint are shown in Fig. 18, and either of these are stronger than the plain mitre. Figs. 19 and 20 are rebated and nailed joints often used when covered by moulding or out of sight.

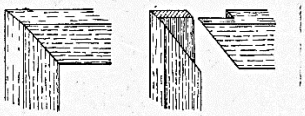


Fig. 16.—A Mitre Joint. *Fig. 17.—A Lap Mitre.*

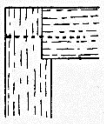


Fig. 19.—A Rebated Joint with Parts alike in Thickness.

The best doors are framed and panelled. Some are a single solid piece of board, perhaps with moulding on its face. Some are of thick plywood or wallboard, similarly ornamented. Plywood panels are very commonly used, and often plywood backs and sides. Panels fit into grooves in their surrounding frame, and have to be inserted when the frame is being put together. Sometimes they are tenoned as in Fig. 3 instead of entering a continuous groove. Sometimes they are nailed into a rebate in the frame. Moulding is often used around panels. Fig. 21 shows how parts are screwed together when it is desired to keep the head of the screw from showing on an outer surface, and the wood on the other side is too deep to put the screw through in a parallel direction.

WILLIAM J. HORNER.

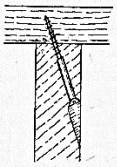


Fig. 21.—Screw put in Diagonally to Avoid Showing on an Outer Surface.

* Concluded from page 538, September 5th issue.

The article above is the concluding part of a piece first published in the English Mechanic on 5 September 1930 (page 538).

Does anyone have the missing part? If so, please contact the Editor at secretary@tttg.org.au

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

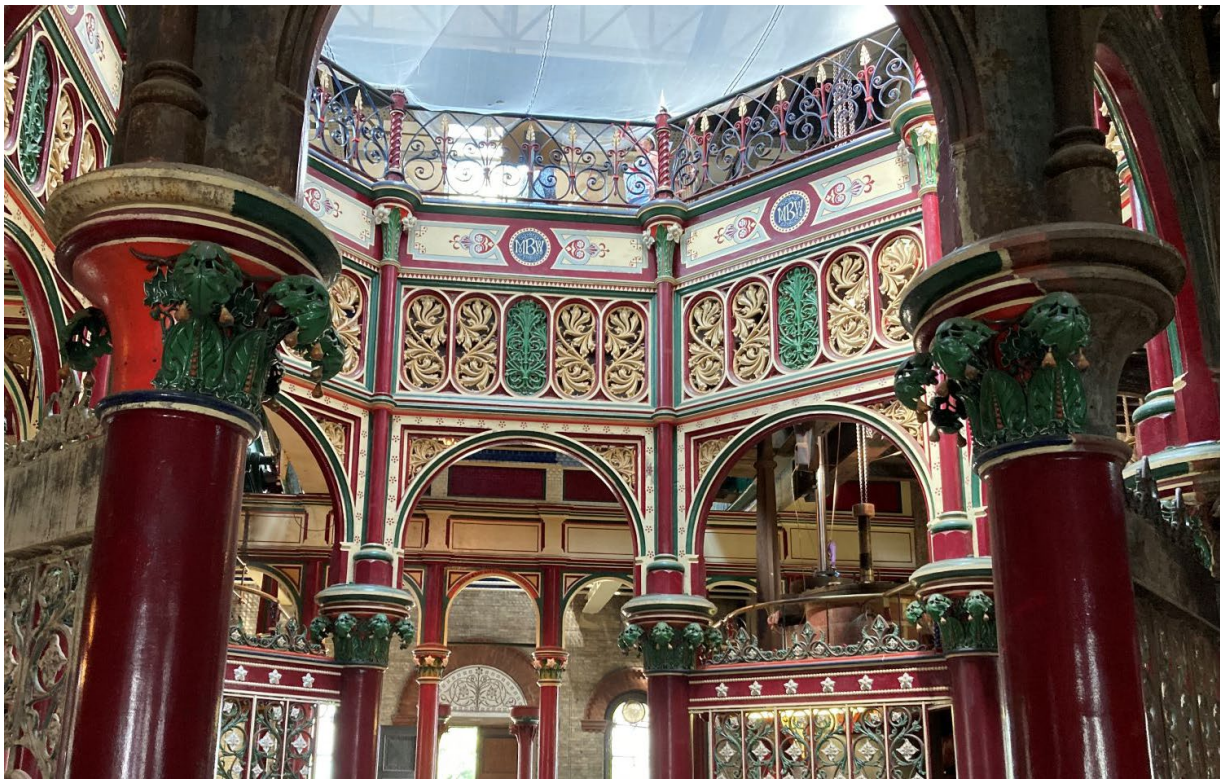
Got an interesting advertisement or article form the past that you would like to see published in NEWS? Then send it to the Editor as a pdf or jpeg file or send an original via post to TTTG NEWS Editor, PO Box 75, Eastwood NSW 2122.

A POOEY ADVENTURE: THE BIG STINK & CROSSNESS PUMPING STATION

by Dean

A very basic function if left uncontrolled can stop an entire city in its tracks. This occurred in London in the summer of 1858 when the temperature rose to over 95 degrees F (35C) and the Thames released such odour as to stop Parliament sitting. Tests on the river water showed that 20% was raw sewage made up of human excrement, animal excrement and offal from boiling down works, abattoirs and other yucky practices.

Cholera was rife due to the pollution of drinking water taken from street pumps by the populace. So, the Thames was in fact a very large sewer which was getting worse every day due to the increasing urban population caused by the industrial revolution. Parliament acted quickly and passed legislation to provide three million pounds (about 400 million pounds today) to deal with the problem.



The flywheel pictured above weighs 52 tons and was cast in four sections.

Enter Joseph Bazalgette who was Chief engineer of the Metropolitan board of works. His solution resulted in new drains running into vast sewage tunnels which by gravity sent the smelly stuff east to discharge into the Thames, then to the North Sea.

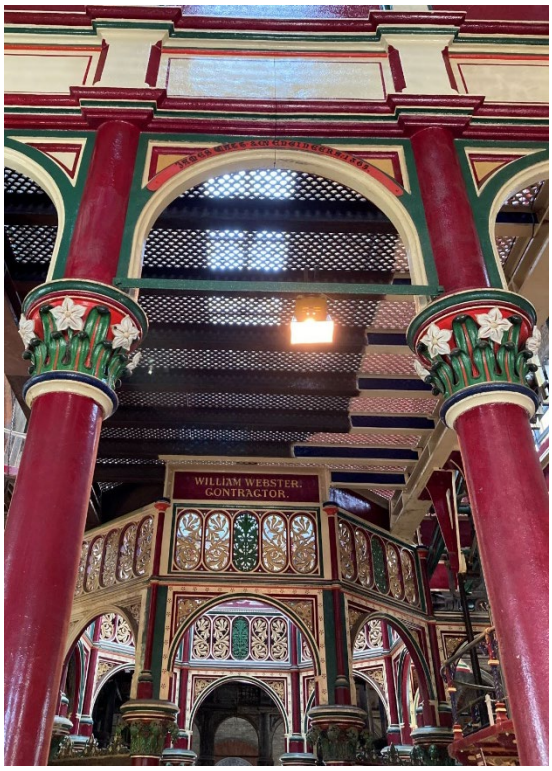
The Crossness Pumping Station was completed in 1864 and was built to pump sewage into a huge reservoir which held 25,000,000 gallons of the gunk which was then released into the Thames on the ebb tide. Imagine swimming in that!

Metropolitan Board of Works logo casting

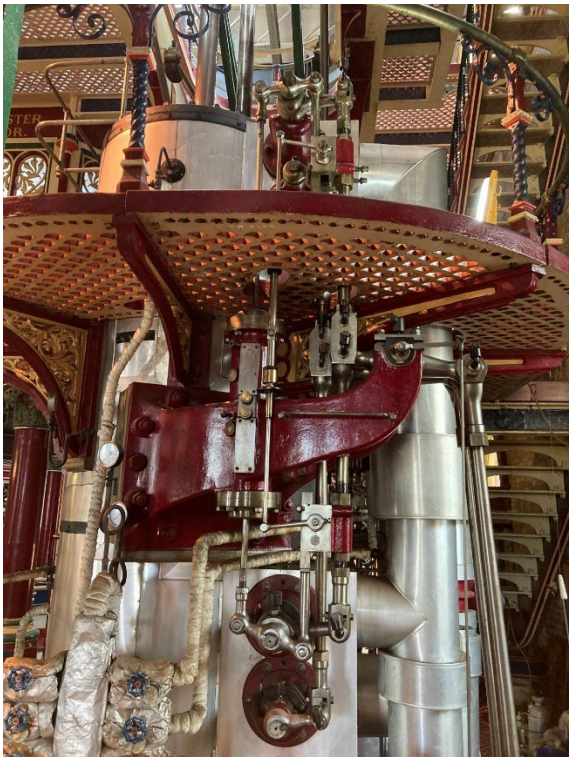
The triple expansion cylinders restored

Joseph also narrowed the river by building embankments either side of the Thames to house the sewers. This sped up the natural flow to send everything out to sea. Once done the project cleaned up London town, cholera virtually stopped and all they had to worry about was tons of horse poo still being deposited on the streets. Queen Victoria was so pleased that she gave Joseph a knighthood, after he had a bath.

Crossness is a cathedral of industrial design and cast-iron artistry. Unfortunately, it only opens on certain days and by booking your ticket online. It is miles out and took over an hour to drive there. Then a 700-metre walk including one section where you are standing over pipes delivering all of the poo of London. This now goes to a new sewage works which eventually pumps clean water back into the Thames.



The octagon through the columns



The triple expansion cylinders restored

The cast iron work is superb. Volunteers scraped back paint layers to get the original colours that you can see in these photographs. Mostly the machinery has been left as found.

Cast iron columns with floral capitals remain as found. There are also four huge beam engine courtesy of James Watt, but only one works. Named Prince Consort it was unable to perform due to a crack found in the casting. The huge bearing showing the brass oilers. The cast iron floor is painted the correct original colour. The octagon is artistry in colour, hand painted by volunteers.

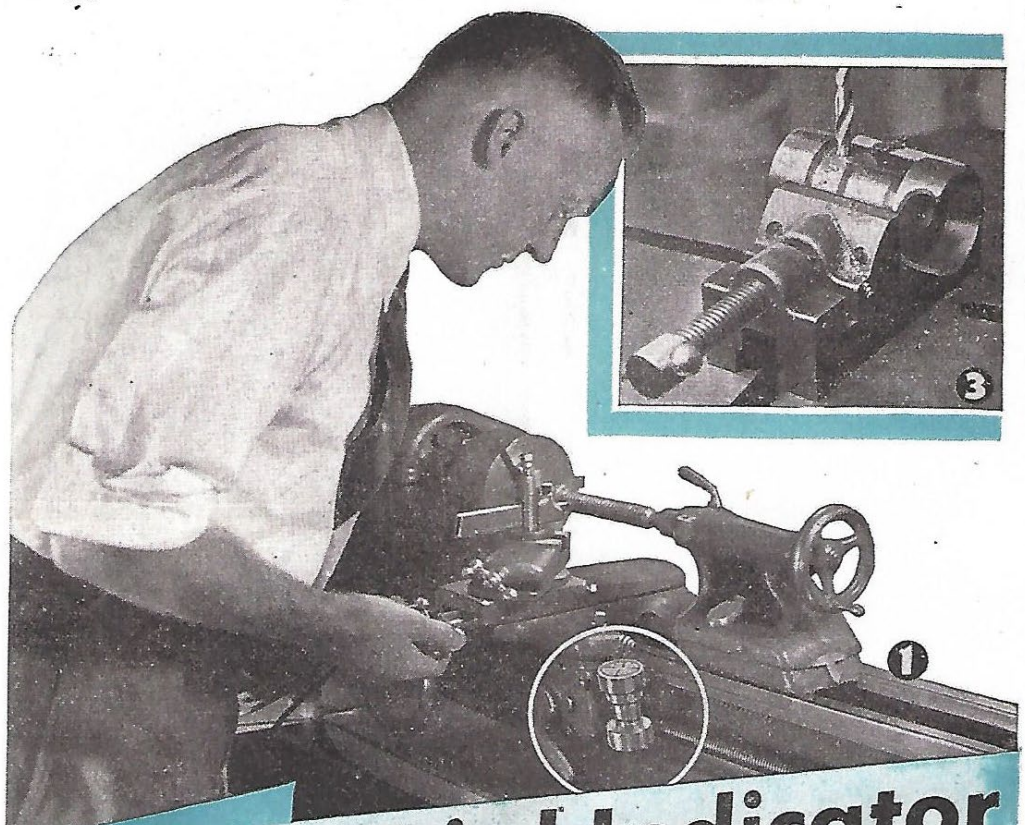
A range of lovely Victorian loos - why can't we buy these today?

Finally, a genuine Thomas Crapper pedestal. Tom did not invent the flushing toilet. Two inventors patented that years before, but Tom was a clever merchant and managed to get his name on advertising and the loo itself.

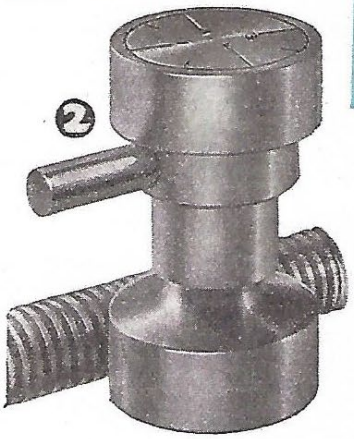
So that ends the tour of Crossness. Remarkable survivor from the 19th century. Worth getting there if you can and not too smelly.

Thread Dial Indicator for the Lathe

Popular Science, Giant Home Workshop Manual (1941)



Thread Dial Indicator for the Lathe



THREAD cutting in a wide range of pitches and diameters can be done on a small screw-cutting lathe. The coarser pitches require a number of cuts to complete the thread groove, and in this operation the tool must be returned to the starting point for each successive cut. There are two ways of doing this: First, by reversing the lathe, which on long threaded work is quite slow. Second, by using a thread-chasing dial or indicator that will allow the carriage to be disengaged from the lead screw, returned rapidly by hand, and re-engaged so the tool will follow the original cut.

Building a chasing dial of this type is an interesting and instructive project, especially as the work can all be done on the lathe itself. The indicator shown in Figs. 1 and 2 is made from cold-rolled steel. The shell or body (Fig. 8) is turned from a solid bar as in Fig. 4, carefully smoothed with a fine file, and polished bright with a strip of emery cloth.

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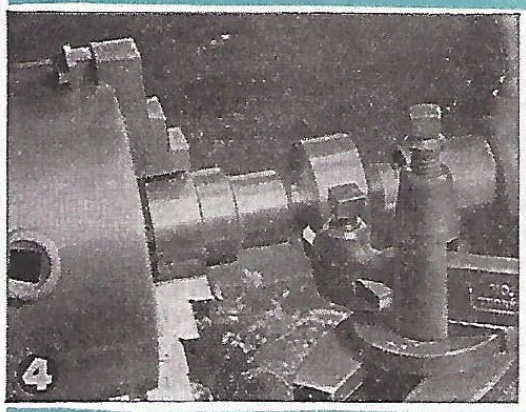
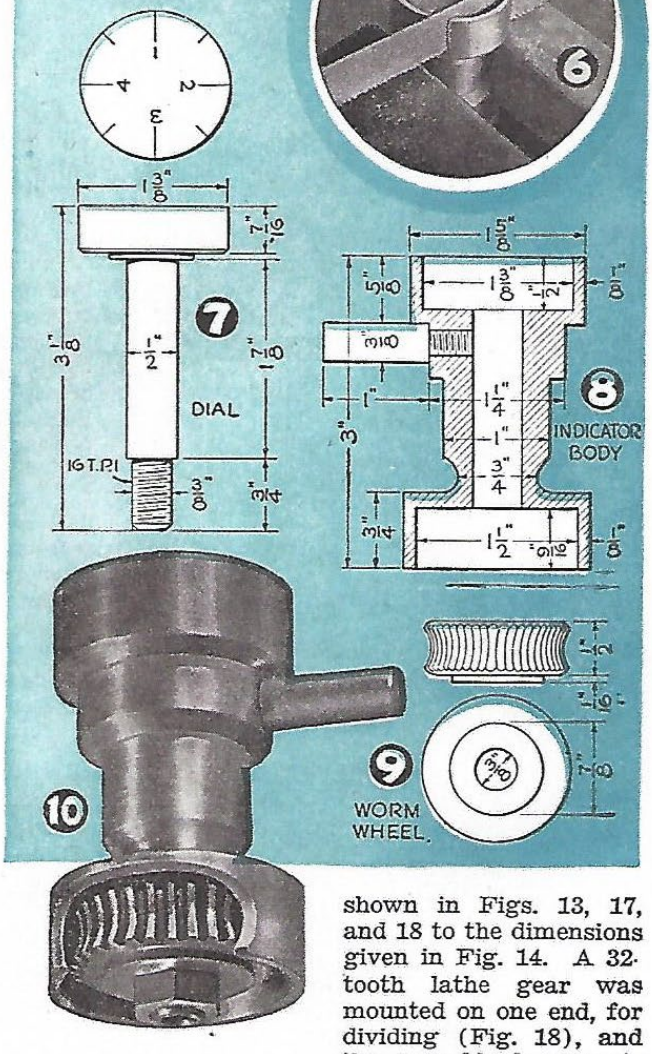


The shaft hole is then drilled and counterbored (Fig. 5) to receive the dial on one end and the worm gear on the other. Figure 6 shows a portion of the lower wall being cut away to allow the worm gear to mesh with the lead screw. This opening was filed to shape with a large, round file to fit snugly around the lead screw.

The hole for the supporting arm is being drilled in Fig. 3. It is later tapped to receive the arm, which is then made up and screwed tightly in place.

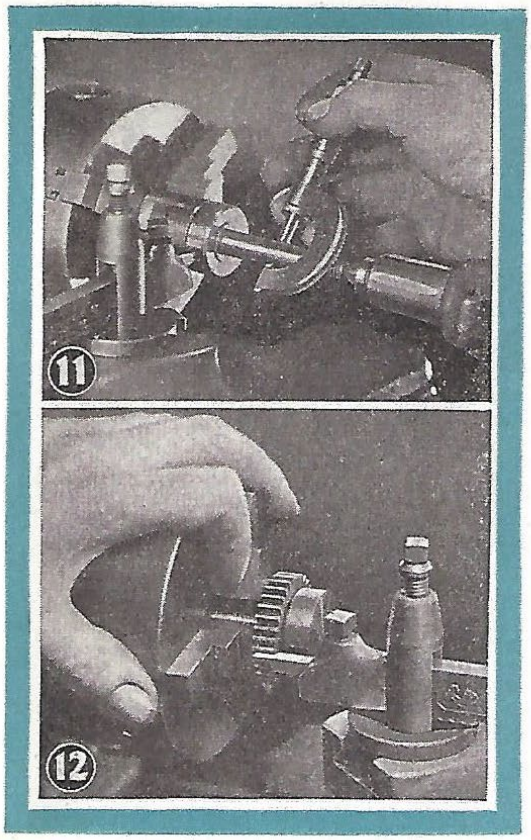
The dial and its shaft are cut from a solid bar as shown in Fig. 11 and brought to the dimensions in the drawings (Fig. 7). The face of the dial is graduated in eight divisions, four of which are numbered.

These indicating lines can be engraved on the dial with a sharp-pointed lathe tool laid on its side. The dividing is done by a 32-tooth lathe gear slipped over the shaft. Use the lathe tool as a stop as illustrated in Fig. 12. The line is then engraved by drawing the pointed lathe tool across the face of the dial with the cross-slide screw. The work is advanced four teeth of the dividing gear, again using the lathe tool as a stop, and the operations repeated. The four main divisions are numbered as shown in Fig. 7, and an indicating mark is also stamped on the edge of the shell as shown in Fig. 15.



The worm wheel (Fig. 9) has the following diameters: outer, 1.437"; throat, 1.353"; pitch, 1.273". For cutting the 32 teeth on the blank, a dividing fixture is needed. In this case, a suitable fixture was made as shown in Figs. 13, 17, and 18 to the dimensions given in Fig. 14. A 32-tooth lathe gear was mounted on one end, for dividing (Fig. 18), and the gear blank was attached on the other end.

The fixture is clamped in a vise mounted on the cross slide of the lathe. This is mounted at a slight angle to obtain the spiral in the gear teeth, which are then



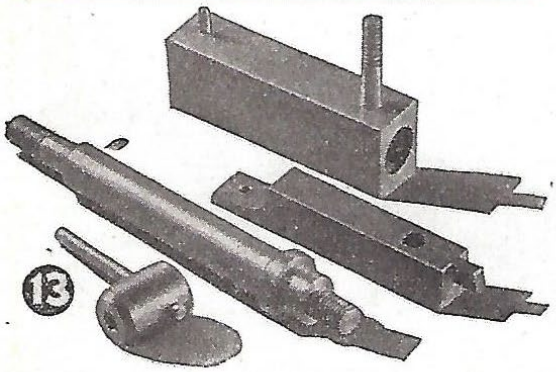
roughed out with a small milling cutter mounted on a mandrel as in Fig. 19. After each tooth is cut, the dividing arm is raised, the gear advanced one tooth, and the operations repeated until all the teeth are roughed out, ready for hobbing.

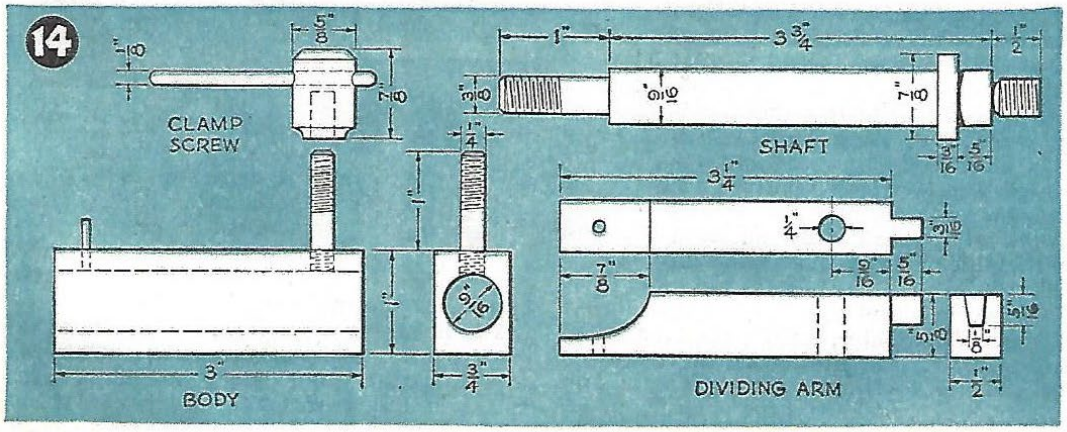
A serviceable hob was made for this particular job from a ⅞" N. F. tap. After being annealed, this was turned smooth to ¾" in diameter; and new Acme threads, eight to the inch, were cut as in Fig. 20, exactly duplicating those on the lead screw of the lathe. The new threads were then backed off, for clearance, with a fine file, and the hob was rehardened and drawn.

Figure 21 shows the hob mounted in the chuck and supported by the tailstock of the lathe. The gear is mounted to revolve freely. It must be set at a slight angle (high on the left side) for cutting the gear teeth spirally to fit the pitch of the lead screw. The cross-slide screw is used to feed the gear to the revolving hob, which furnishes the motion to the gear as the teeth are being cut. When the gear has been brought to the required dimensions so that it will mesh perfectly with the lead screw, the various parts can be assembled, ready for use.

In cutting threads with the indicator, each line on the dial represents ½" of carriage travel, so with all even-numbered threads the half nuts on the lathe apron can be closed on any line on the dial. For threads of an odd number, close on any numbered line. For threads involving a half thread per inch, such as 11½ threads, close on any odd-numbered line.

In cutting 11 threads per inch with the dial reading as at *A* in Fig. 15, if the tool were withdrawn from the thread groove and moved back a distance equal to 4 or 5 lead-screw threads, it would not fit into a thread groove in the work. However, if it is drawn back 8 lead-screw threads or a distance of 1", as shown at *B*, this would bring the tool in line with a thread groove 11 threads

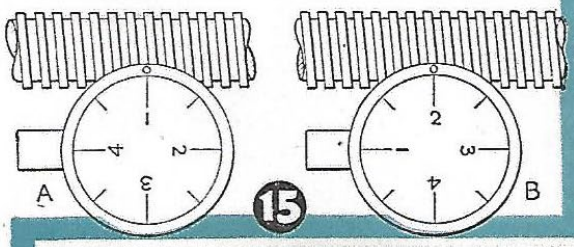


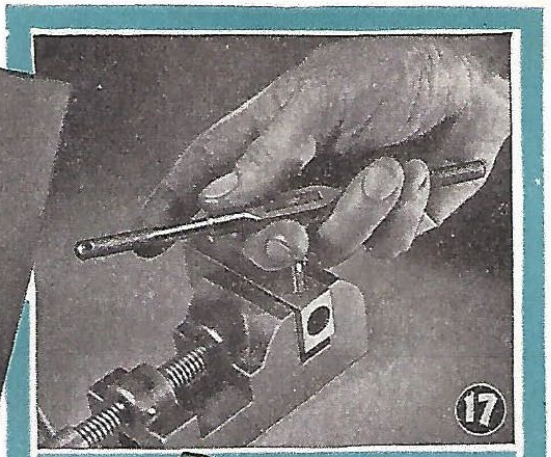


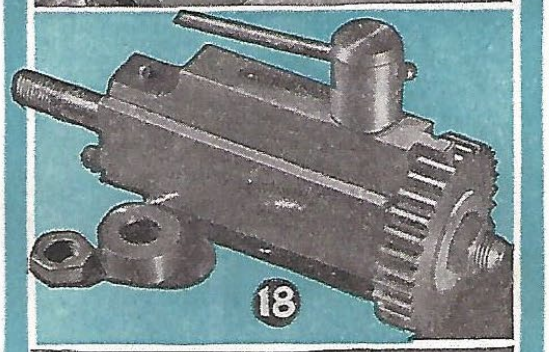
Making a trial assembly of the dial indicator

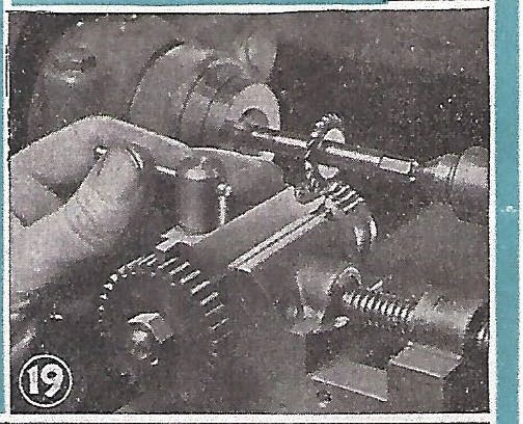
away. The half nuts can therefore be closed on any numbered line on the dial that represents an inch of carriage travel, and the tool will then follow the original cut.

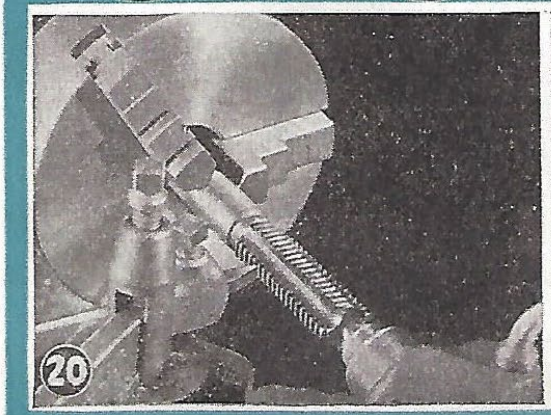
When cutting threads and a half thread per inch is involved, such as 11½ threads, line No. 1 or 3 on the dial, indicating 2″ of carriage travel or 23 threads on the work, should be used in closing the half nuts.

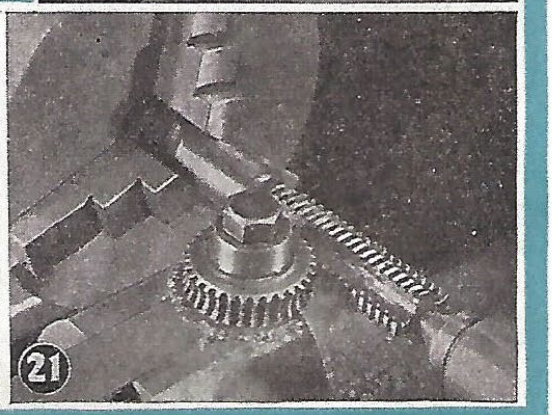












Selling Old Tools Online

by Andrew Morony

The TTTG News often has a short segment titled ‘Buying Old Tools Online.’ This can be a challenge sometimes, as the article notes, with regards to accurate descriptions and realistic prices. There are a couple of sites in Australia dedicated to this however, most notable being Vintage Tool Shop (Melbourne based physical store) and The Tool Exchange (Sunshine Coast Online Store). Both seem to be well run by active and supportive members of the ‘old tool society.’

I thought though, I’d provide my experiences of Selling Old Tools Online.

Background

Growing up, I was fortunate to have both a very handy but non-trade-qualified Grandfather and Father. I learnt many a thing from them and I also received most of my first tools from my grandfather when he passed away. I took many of their skills into my life. I am similarly non-trade-qualified but handy enough to complete moderate renovations on houses etc. As life progressed, I moved closer to the city (Sydney), had a family, and settled down. The opportunity to use my tools dwindled and as the kids moved out of the infant ‘high maintenance’ stage, I found myself looking for a hobby. I started buying job lots of old tools at a very reasonable price. I would spend time cleaning up some of the tools, to a basic degree at first as I honed my restoration skills. Ultimately, I accumulated both a number of restored tools, and a lot of more modern tools that needed to be moved on. Although I liked the idea of collecting tools (and still do), living in an inner-city terrace doesn’t lend itself to tool collecting from a space standpoint. Subsequently, and for the benefit of my marriage, I started selling tools online.

This is what I have learnt and experienced navigating the online selling opportunities over the past 3 years.

eBay

I have a complicated love-hate relationship with eBay. That probably says it all right? I find eBay to be a necessary evil, and as such tolerate many of the frustrations the platform creates.

The Pros:

- eBay has both National and International reach depending on your comfort level to post items.
- Long term platform, providing a broad audience.
- Well-structured search functionality for buyers and items are removed when listings expire.

- eBay takes payments from buyers and makes deposits in your bank account which limits sharing of personal information.
- Ability for Auction, Make Offers and Buy It Now functionality. A very flexible approach for sellers.
- Ease of use, it is available 24/7 and items can be bought/won or offers made at any time of the day or night which makes it convenient to ‘manage’ when the time suits you.
- Allows for Postage or Local Pickup (a local collection means no additional postage costs)

The Cons:

- The main bug bear for most sellers is the approx. 15% service fee on sales. This fee is charged on the price of both the item and its postage combined. In my mind this limits the feasibility of selling relatively inexpensive items.
- Example. A $5 Screwdriver is sold with regular Australia Post parcel fees of $9.50 the total eBay fee is based on $14.50 and would equate to appx $2.17. Given the postage is a fixed sunk cost, that fee means you sold the item for $2.83 in reality. Hardly worth it right?
- Imagine the compounding postage problem when you post a heavy item. The postage might be quite large relatively speaking, and the eBay fee then takes a larger chunk of your profits!
- A further frustration is that the platform previously committed an individual to the purchase if they won the auction or initiated an offer/buy it now process. This no longer the case and sellers must relist the item, with no penalty to the buyer, to ensure the seller fees are returned/credited (in the past the buyer received a poor feedback score for not completing the purchase)
- A final frustration is the feedback function for Sellers. In a perfect world there shouldn’t be any issues with the sale of an item. In reality, occasionally problems occur. The public feedback provided by a buyer cannot be publicly responded to and eBay seldom removes feedback from buyers. Feedback, positive, negative, or neutral, stays with a seller for 12 months.

Facebook Marketplace

I have used Facebook Marketplace recently as a foray away from eBay.

Pros:

- No Fees
- Reasonable search functionality and geographic radius settings for visibility of adverts in your ‘feed’
- Quite easy to list an item for sale.

Cons:

- Does require active communication with buyers to answer questions, negotiate prices, obtain addresses, and provide payment details if posting items.
- Potential for the sales to take more ‘admin time’ to manage due to the communication that is required on this platform.

Facebook Marketplace is a good option if you have the time, don’t have a huge number of items to manage and would like to ensure there are no fees to eat away at your sale price.

Gumtree

I have only ever found Gumtree to be a confusing platform from a buyer perspective and have thus not used it to sell any items. I have found adverts/listing from over 12 months ago in the search results which erodes my confidence in the platform. I’d be open to hearing other people’s experiences with Gumtree.

Retoolco.com

This is one to watch in the future. It is a USA based platform that was released in about March 2022. There are no fees for sellers, but it operates similar to eBay. The Buyer is charged a fee of 3.5% of the transaction cost + $0.75 as Buyer Protection which is put towards guaranteeing and protecting the purchase. This provides refunds for when something goes wrong, such as an item not arriving, or its condition varying greatly from its description etc.

I had asked whether there were options to restrict where you would post to, as eBay does, and was told the team were working on improving search and settings of the platform. I, as an example, only post within Australia as I know in advance the postage costs for my items.

This could be a viable replacement for selling tools on eBay in the future.

Summary

Ultimately people can ‘pick their poison.’ I prefer eBay as I find it more passive whilst working full time and raising kids. Because of this, I begrudgingly accept the fees. Some platforms might work better, or be more dominant, in different geographic areas. That is, if no one is looking at eBay in rural NSW and your listing are only for ‘local pickup’ you may be forced to change to Facebook Marketplace or Gumtree for more success. I’m sure all experiences are unique and varied based on our individual circumstances.

Before concluding I thought I’d touch on what my process is for selling tools, as this harks back to what appears in the ‘Buying Old Tools Online’ piece in the News.

One of the joys of finding old tools (preferably cheaply) is the thrill of going through them all. For me, it is learning what I have, on occasion when it is not clear, or who

made it out of the likes of hammers, chisels, planes, saws etc. Restoring them to a reasonable degree is part of what I enjoy, before finally, the challenge of selling the item. I went into tool collecting with the ambition that it was a zero-cost hobby. My tool purchases had to be offset by selling a portion. The challenge of ‘what they will pay’ or ‘what is it worth’ can be difficult. I used Google searches and eBay searches for current asking or historical sales prices.

I purposely set my eBay listings as 7-day Auctions with ‘make an offer’ functionality. The reason for this is that if I didn’t want to sell it, it wouldn’t be listed. This enables the item to be visible for renewable 7-day periods, but it also means someone can at any point in time make an offer on the item (above or below the value of the listing). I welcome offers, as this is similar to a face-to-face negotiation. If someone offers above the listing price. They are a 99% chance of owning that item, on my listings. This does allow someone to still get a bargain if I have under-priced an item with which I am not familiar. For offers under what I have listed the item at, I will consider it. I review the number in line with what the item is, how long I have owned it for, am I that connected with the item, and unfortunately what eBay fee will be incurred at lower cost item processes.

Having written so much here about online selling of old tools, I did attend the 2022 Annual TTTG tool sale as a seller (for the first time) and found this to be a great opportunity to sell items, to offer them cheaper, and to have immediate negotiations on price. I will certainly be back! I also bought a few items too!

If you are keen to see what tools I have dug up or restored, follow along via Instagram or Facebook

Instagram – **@whiskeyandvintagetools** or **@vintagetoolssydney**

Facebook - **@vintagetoolssydney**

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.

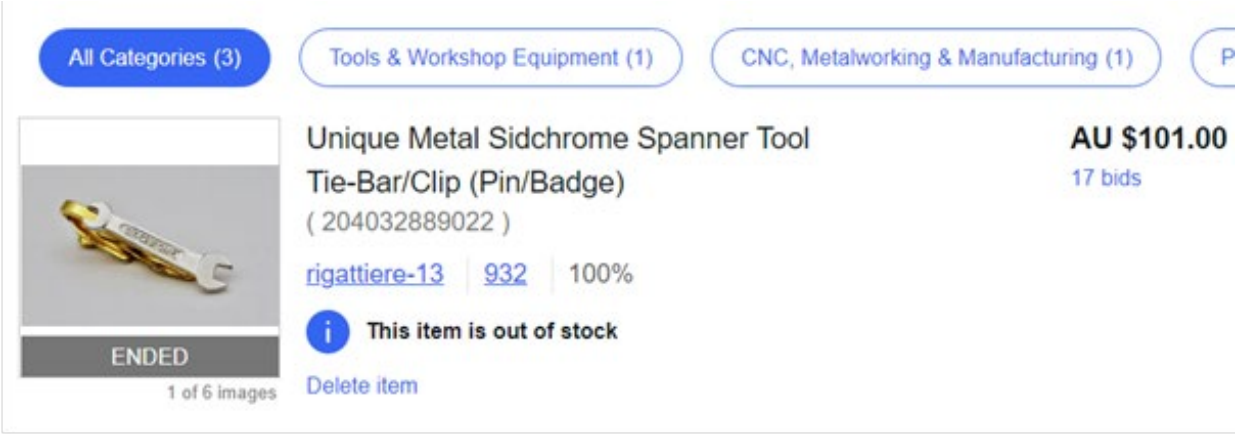
Some buyers may pick up a finished ‘sample’ handle and ask is it “Rosewood.” The answer is: “Camphor Laurel finished with Liquid Shoe Polish.”

Industrial and Tool Ephemera

by John Bates

It seems that ephemera associated with tools, industry and well-known tool brands is never out of favour.

Advertising materials and catalogues are particularly collectable, but the price this Sidchrome tie-clip went for recently is eye-watering.



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

Repairs to a Stanley No.82 Cabinet Scraper (Type 1)

by John Bates

TTTG Member, Greg Banwell, asked me to do repair work on his Stanley No.82 cabinet scraper. This is the story of the repair.

BUT WHAT DID THE ORIGINAL TOOL LOOK LIKE?

By my standards this is an old tool. Seems the Type 1 cabinet scrapers were knocked out between 1909 and around 1933. Any tool older than I am is an ‘old’ tool. I wanted to find out a bit more about the Stanley No.82 and how it looked when it came out of the factory. A bit of research never goes astray.

Here is a picture of an original No.82 Type 1 in working order, just for reference purposes. Note the position and style of the thumbscrew.

And below is another image showing the thumbscrew and just below it the pivot pin running horizontally through the head and the yoke. These two parts are the subject of the repair.

So, what was wrong with the No.82 cabinet scraper? There were two issues. Firstly, the original pivot pin was missing. This pin holds the head and handle assemblies together and allows the head to pivot. Second, the thumb screw, which locks the head and prevents rotation, had broken off just inside the casting at the point where the threaded section of the thumbscrew joins the thumb rest. Yet another practical lesson about stress raisers.

In the original tool that thumbscrew has a shoulder and a hole approximately 1/8-inch diameter drilled through it allowing use of a pin pr nail to ease tightening. Greg provided a replacement thumbscrew, but it lacked both the shoulder and the hole. I created the hole without trouble and used a suitable washer in lieu of the shoulder. This last ‘fix’ is fairly important because without a shoulder the unmachined section under the thumb rest will create uneven pressure on the casting at what I think is quite a vulnerable point. Over time this may result in the casting cracking or breaking. The thread for the thumbscrew is ¼-28TPI UNF. Thumbscrews this size are quite hard to find, but those with a shoulder are exceedingly rare. If anyone knows where to get them, please let me know.

Photo of another No.82 showing the original thumb screw with ‘handy’ hole

REMOVING THE BROKEN THUMBSCREW

My first step was to remove the remains of the broken thumbscrew from the yoke. As the break had occurred just below the surface of the yoke, I tried grinding a small slot into the broken end. My thinking was that I could just screw the broken slug out. Best I could manage was about ½ a turn.

Next, I used a small left-hand drill to make a hole in the end of the slug. Sometimes the drilling will actually reverse the broken screw out, and all is well. That was not the case on this occasion. Of course not!

However, there was now a raised edge on the screw where I had drilled the hole and I used this as a leverage point to gently tap the broken screw undone until there was enough thread protruding to remove the ‘slug’ using pliers.

MAKING A NEW SWIVEL PIN

The missing swivel pin needed to be replaced and as none are available one had to be made. It is quite basic; a plain pin about 1.3/16 inch long which is threaded one end (#8-32TPI UNC) with a screwdriver slot at the other.

Photo of another No.82 showing the original pivot pin with screw slot.

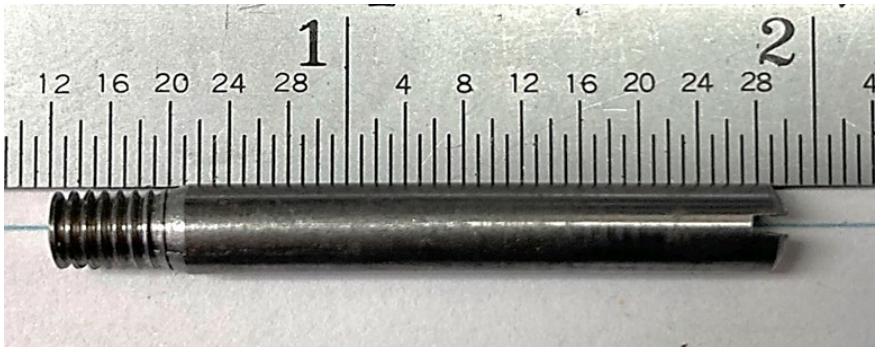
Signs of wear were apparent in bores which locate the pin in the yoke and the head. No major wear but enough to create unwanted movement between the head and the handle. To avoid this, I decided to ream the worn bores to 3/16-inch diameter and

make the pin a running fit. Fortunately, I had silver steel (or drill rod to our US readers) of the correct size. Mild steel would also have been fine, but I didn't have any the right size.

As chance would have it, I purchased my stock of silver steel years ago from Mick Moyles at Summer Hill, Sydney. It was the last he had and has proved to be extremely valuable to me. Sadly, Mick is no longer with us, but his son Patrick continues the business and has developed a website (Mick Moyle's Engineers Supplies (moyles.com.au) and eBay presence. Neither compares to a visit 'in the flesh' so to speak. I recommend it.

Anyway, back to business. One end of a length of 3/16-inch (0.1875 inch) diameter silver steel rod was turned down in the lathe to a diameter of 0.162 inch for a distance of about ¼ inch to accept a #8-32 UNC die. That size is about 2 thousandth of an inch under the major diameter for a #8 screw which is 0.164 inch.

A thread was cut in the small end using a tailstock mounted die. This is the easiest and most fool proof way to cut such a thread. The rod was then removed and the freshly cut thread assessed for fit in the threaded bore of the scraper head. Snug, but not too snug; all good.



Back to the lathe to part off the required length of rod which was about 1.3/16 inch. The part was then reversed in the lathe chuck and a slight dome machined in the plain end. Now for the screw slot.

To cut the screw slot I secured the pin in the toolpost using a prism and mounted a slitting saw on an arbor in the chuck. The slitting saw I used was a 0.023 inch thick. The screw slot was cut to a depth which looked 'right' and allowed the screwdriver to be properly inserted. In this case the depth was about 0.1 inch.

Assembly of the yoke and head was completed using the new pin. The fit and movement was exactly right. Smooth rotation of the head with no discernible shake. The replacement thumb screw was fitted and that was it; job done.

The Wonderful World of Patents

UNITED STATES PATENT OFFICE

ALBERT D. MIZZY, OF NEW YORK, AND WILLIAM E. FAVINI, OF SOUTH OZONE PARK, NEW YORK

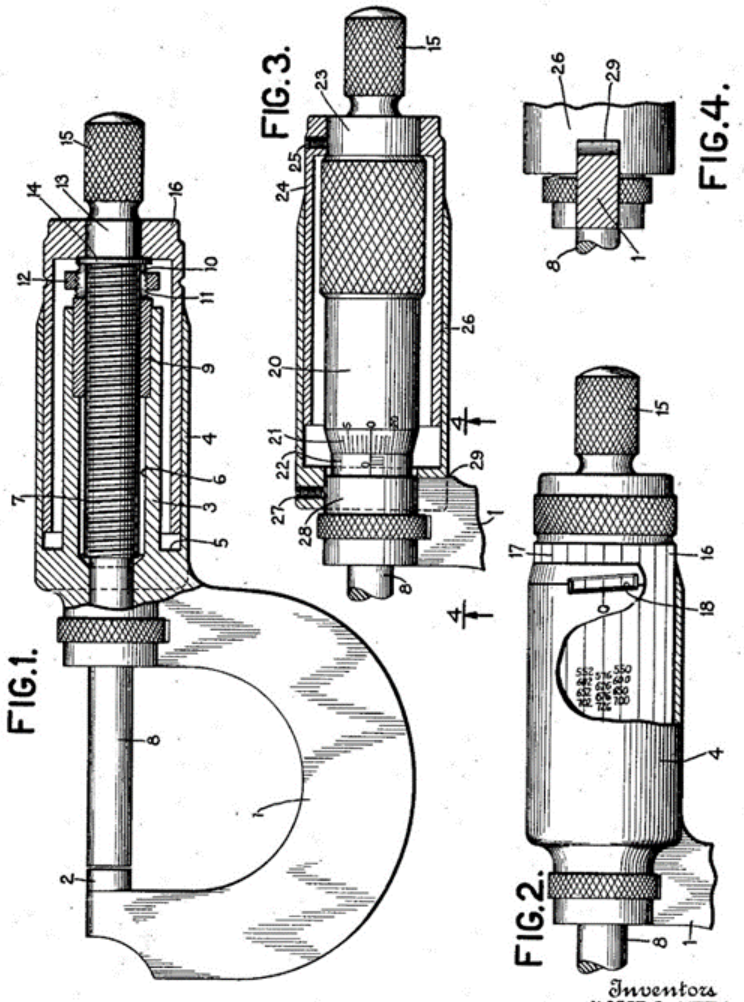
MICROMETER

Application filed March 2, 1929. Serial No. 343,872.

Sept. 8, 1931. A. D. MIZZY ET AL 1,822,413

MICROMETER

Filed March 2, 1929 2 Sheets-Sheet 1



Inventors
ALBERT D. MIZZY
WILLIAM E. FAVINI

By their Attorneys
Bohleber & Ledbetter

Sept. 8, 1931. A. D. MIZZY ET AL 1,822,413

MICROMETER

Filed March 2, 1929 2 Sheets-Sheet 2

FIG.5.

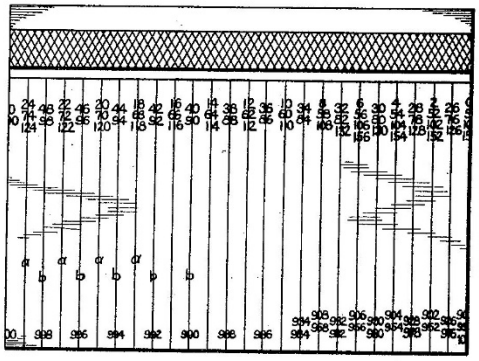


FIG.6.

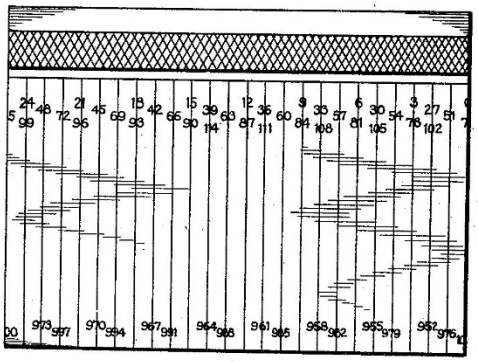
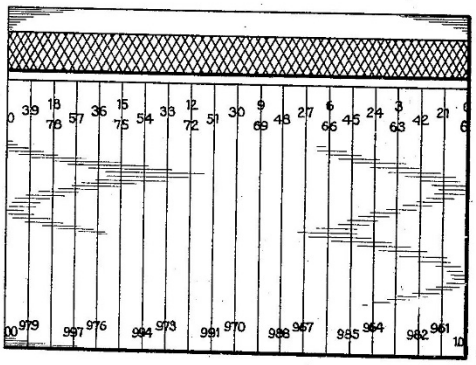


FIG.7.



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Flattening Edge Tool Faces Using Abrasive Rubbers

by Bob Crosbie

What are edge tool faces?

The surface of a chisel or plane blade without a bevel is known as the tool's face. The term originated when edge tools were faced with a swage wedged layer of crucible steel.

What are abrasive rubbers?

Old engineering textbooks often make passing reference to using "rubbers" or "emery sticks" to finish surfaces. These are a piece of wood "dressed" with abrasive particles or with abrasive sheet glued on. Abrasive rubbers are used with a lubricant. The flat surface of the abrasive rubber and the lubricant give the combination of fast and flat cutting.

Make your own.

This is easy with modern materials. Construction grade plywood is ideal. It is cheap, water resistant and offcuts are free. Emery cloth is ideal as the abrasive. Old belt sander belts or sanding discs are ideal and even cheaper if you use old belts that have lost their bite. With lubricant they cut! Readers with deep pockets can search for special purpose expensive abrasive sheets! First find the abrasive sheet, then cut up some ply. Cut the abrasive sheet into pieces about 20mm wider than the ply. Next, glue the abrasive sheet to the ply under pressure. Titebond is the ideal adhesive. When the glue is set cut around the edge of the ply with a Stanley knife. The trimming will consume a few fresh blades but even the bargain shop blades are up to the task.

Next mix your brew.

TTTG Sharp Oil is ideal. WD40 is good and is often on special in the big supermarkets. A mix of Lamp Oil and White Spirit is also good. The process uses less lubricant than you may assume. Abrasive rubbers can be used dry, but the cutting is slow, and the dust isn't good to inhale.

Remove loose rust first.

A lot of surface rust can be scraped off with a blunt Stanley knife blade. With a sensible approach Citric Acid solution will dissolve the rust.

Examine the face.

When the surface rust is removed lay the edge of a Combination Square rule on the face. Test along and across the face. Fix in your mind where the high and low spots are. You don't need an expensive precision straight edge.

Start rubbing.

Put on the rubber gloves and lay out the old newspaper. Then get to work. Rubber along the length of the edge tool and use lubricant.

Length isn't important.

The abrasive rubbers can be around 120mm x 60mm made out of 12mm or 19mm CD Ply. Used carefully, that is along the length and checking for straightness regularly, these abrasive rubbers will flatten a long surface. The writer keeps a minimum of six abrasive rubbers "in stock." One side is faced with 80 grit abrasive and the other side with 120grit or 180 grit abrasive. Abrasive rubbers probably last longer than the reader assumes.

Keep the abrasive wet.

Push the wet abrasive rubber parallel to the sides of the edge tool. The "waste" metal flows off the wet abrasive. The black sludge gets everywhere. Have some fresh newspaper and paper towel near the bench.

It isn't quick and it is tedious!

Edge tool faces are heat treated to around 62 Rockwell C. They are hard. If the surface it pitted, consider paying for surface grinding. The reward for the time and effort is a tool that can be honed to cut properly and that may outlive the owner.

Wipe dry and test for straightness.

Every ten minutes or so wipe the edge tool with paper towel (or a rag) and test for high spots both along the length and across the width. The process seems to take an eternity but if you stick with it, you will get there!

Final flatness comes with honing.

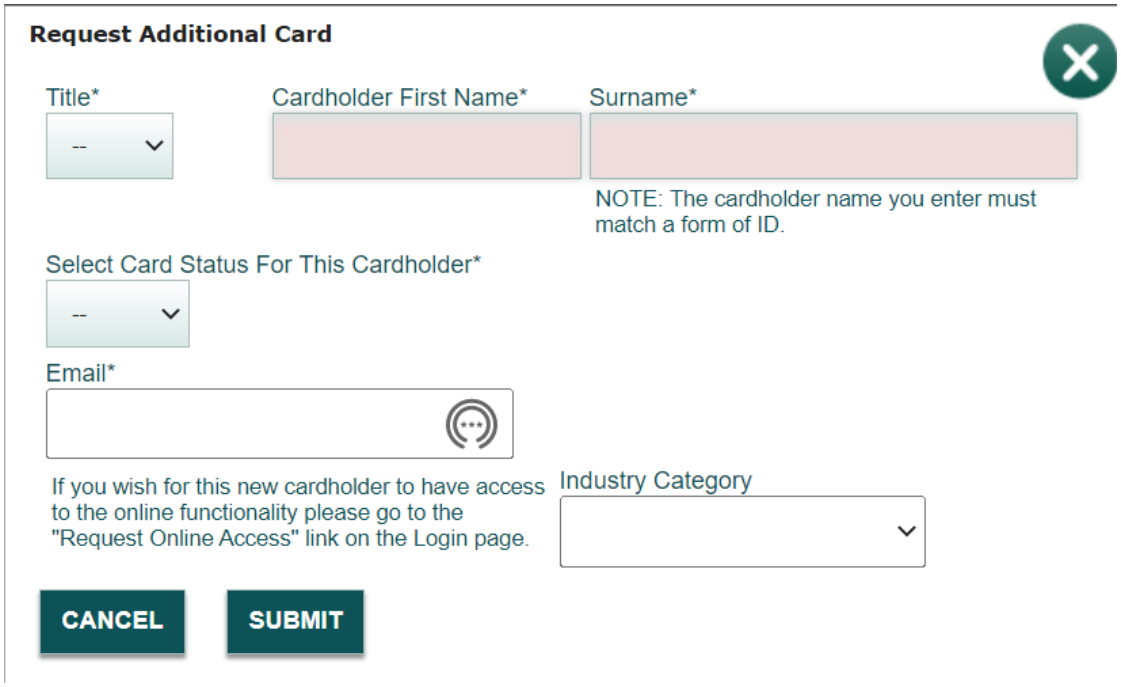
With the edge tool face flat, you can then proceed to grinding and honing. When you take the last burr removing stroke across the oilstone or diamond plate you will feel "This flattening was worth the effort."

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.

The Next TTTG Workshop

HANDSAWS & BACKSAWS:
Sharpening & Using

Sunday 18th of September 2022
9.00am to 1.30pm
Old Eastwood Town Hall, 74 Agincourt Road, Marsfield
Cost: $60.00

Selecting, Sharpening and Using Hand Saws
Saws for cutting along and across the grain

What will you be doing at this workshop?

- **Is the saw worth cleaning and sharpening?**
- **Learning how to 'Top and File' saws**
- **Learning how to 'Shape, Set and Sharpen' saws**
- **Discovering the potential of Hand and Back saws**

No expensive jigs! **We teach real skills.**

Check in by 9am - Refreshments provided but bring your lunch!

Cost $60 Limited to 6 Enrol online: www.tttg.org.au

Available at TTTG Meetings, Workshops & Events

TTTG Leather Chisel Rolls	**$25 each**
TTTG Sharp Oil	**$6 a bottle**
TTTG Chisel and Plane Handles	**$10 each**

The Next TTTG Tool Sale

Remember the date and time:

- **Sunday 4 December 2022 – 8.00 am**

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 a $5 note or $5 in coins for entry.**
- **Also all purchases are made in cash at the sale and having notes smaller than $50 is a good idea.**

Want to sell some tools – hire a table:

- **$25 per table – book via secretary@tttg.org.au (only TTTG Members can book tables)**

Hare & Forbes supports TTTG