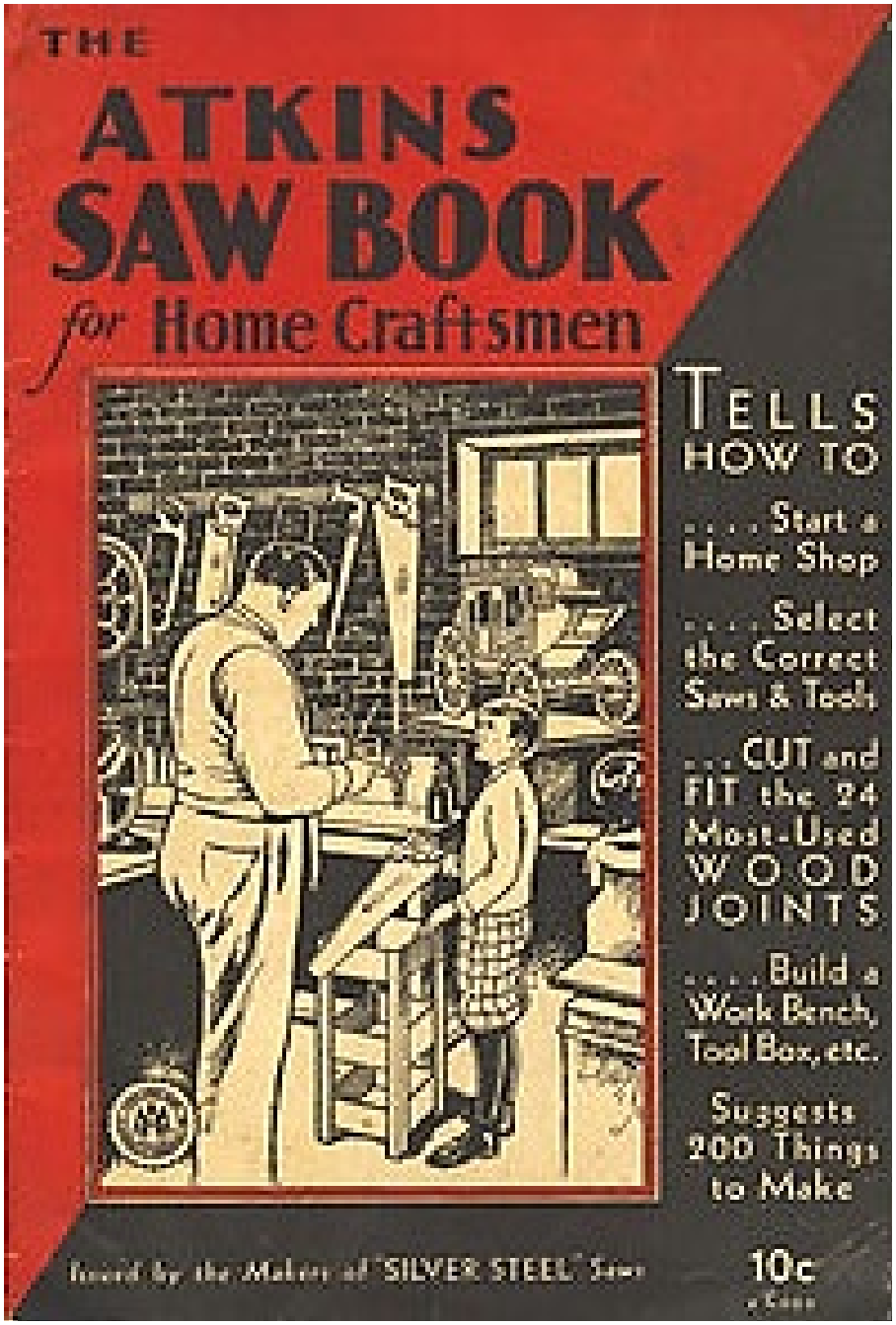
NEWS 180



June 2024

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NEWS 180

June 2024

Cover illustration: E C Atkins & Co. The Atkins Saw Book for Home Craftsmen. 1931

TTTG President's Report

John Deeble

TTTG has run a number of successful events in recent months. In May we once again presented a workshop for the Easy Care Gardening Group on sharpening and maintenance of garden tools. These workshops had been offered for many years but did not operate for the last few years due to Covid. The group of 10 participants went away with sharp tools for their volunteer gardening tasks. A special thank you to John Bates for his involvement.

May also saw yet another well attended Members and Friends Tool Sale with nine sellers offering 17 tables of tools and related items. Over 75 buyers attended on the day. My thanks to the Committee for their support running the sale. The next sale will be on Sunday 25 August 2024 – 8.00am to 11.30am. Carbatec have kindly offered to promote the upcoming smaller sales in their Sydney store. Hopefully the additional advertising will attract extra buyers. A number of tables are already booked for both the August and December sales so get in early if you wish to book a table.

At the 11 June Meeting we were most fortunate to have Anton Marinov provide an excellent presentation on 3D Printing. Anton's extensive preparation was obvious, and he was able to de-mystify this new technology for all the members attending on the night. The applications for this manufacturing technology are endless and clearly offer opportunities to repair tools and other items where parts are no longer available. Anton is currently offering hard to find bandsaw table inserts for sale at competitive prices. Many thanks to Anton.

Once again our recent members' meeting was made accessible through Skype with the generous assistance of Tom Marinov.

TTTG has been most fortunate to have Richard Luckhurst reviewing and reconstructing the Website. Many thanks to Tom Marinov for linking up Richard with our group. Richard has been exceedingly generous undertaking this work on a voluntary basis. Some updates are already in place with more to follow.

Along with Citric Acid and Sharp Oil, TTTG is now offering pressure pack cans of G-15. This popular corrosion prevention/lubrication product will be available for sale at all TTTG meetings and Tool Sales. Competitive pricing is $24 per can or $125 for 6 cans.

The Committee is keen to establish links with other similar organisations. Recent contact with the Sydney Woodworkers Group appears promising. Some TTTG members are already members of this group. Please let us know if you are aware of other groups that may provide mutual benefits through formalised links.

Yet another Membership Year has rolled around with Annual Membership Fees being due on 1 July 2024. Where possible please process membership renewals using the PayPal payment option on the TTTG Website. Membership for 2024-25 remains at $50.

I look forward to seeing many regular and new faces at the August 13 Members Meeting and the August 25 Members and Friends Tool Sale.

Vale: Jack McQuillan and Eric White

Fred Murrell

JACK McQUILLAN

Jack McQuillan was an active member of TTTG for two decades. Sadly, after a long battle with cancer, he passed away at the end of March this year.

The son of a New South Wales country veterinarian, Jack was a tradesman, a carpenter, all his working life. In the latter years of his occupation, he was engaged by the master builders Brown Brothers. The company held him in very high regard as did several architects who liked working with Jack for his ability to study the plans for a house and design and construct the roof to suit avoiding the need to resort to commercially produced trusses with the inherit limitations that follow.

For about fifteen years Jack, who owned a truck, would volunteer to carry the tables for the TTTG annual tool sale and return them to where they were stored at the conclusion of the sale. He was a great supporter of TTTG, and the sale and it was heartening to see him participate in the last sale in February 2024.

Jack had a passion for basic tools, particularly the types he would have used in his trade, such as chisels (particularly those made by E A Berg of Sweden), hand saws and iron planes, but they had to be very good quality. He would visit swap meets locally and as far as Toowoomba and the regular tool sales in Melbourne in his pursuit to find a gem. His passion was greater when it came to Stanley planes and over the last fifteen years he built up an impressive collection which included a number one Stanley plane and virtually a complete set of Stanley Bedrock planes of which he was very proud. Unfortunately, he was forced to downsize and sell much of his collection due to his declining health.

Overseas travel held little interest for Jack, but he did have a desire to drive around Australia. So, upon his retirement he bought a Prado and a caravan and with his wife Pam they followed the coastline as much as possible around Australia – he achieved his goal, but he did say that it would have been an easier trip if he had chosen to stay at motels instead of pulling a caravan.

PASTOR ERIC WHITE

Long time member Eric White died on 28 March this year. He had battled cancer for nearly 20 years but was never heard to complain.

Eric was brought up in a farming family and was accustomed to hard work such as cane cutting. He was educated in a small rural school in Leadville NSW and subsequently graduated from the Australian Missionary College in 1961 with a Theological – Normal Primary Diploma. He married Colleen who had shared values and moved to Tasmania where he began a teaching career.

With his wife and a daughter, Eric moved to Papua New Guinea in 1964 as a schoolteacher where he rose to Principal in Bautama. I recall a story he told about an incident where a young boy was killed in a farming accident in very wild country where a death had to be avenged, he was walking in the bush with a friend when he noticed movement in a tree about 30 metres away and he saw a native drawing his bow with the arrow aimed in his direction, he made a hasty retreat and decided that PNG was not where he wanted to be at that time.

The family returned to Australia where he was ordained in 1972 (he never mentioned being ordained). He became an Associate Youth Director and subsequently went to New Zealand as a youth director, climbing the Alps for recreation.

Particularly in his retirement years Eric pursued his passion for woodworking and antique tools which, no doubt, he had held for many years and developed considerable skill with his woodwork and restoration of early tools.

While we knew little of his working life Eric will be remembered as a chap who never complained.

Special thanks to Fred Murrell for composing these farewell tributes. Fred knew Jack and Eric better than I and also shared their passion for tools of the woodworking variety.

However, as Secretary of the group for the past few years I had the good fortune to work closely with Jack and Eric at the various tool sale events.

No matter the circumstances, they impressed me greatly. Both fine men whose inner strength and decency shone through. And invariably they would always thank me for the work I had done, when, in fact, it was they who did a lot of the hard yards at tool sale time (especially Jack) and were stalwarts, promoting good-will and comradery within TTTG.

Jack and Eric will always be very fondly remembered. May they rest in peace.

John Bates
TTTG Secretary

Greist Micro-Height Gage

John Bates

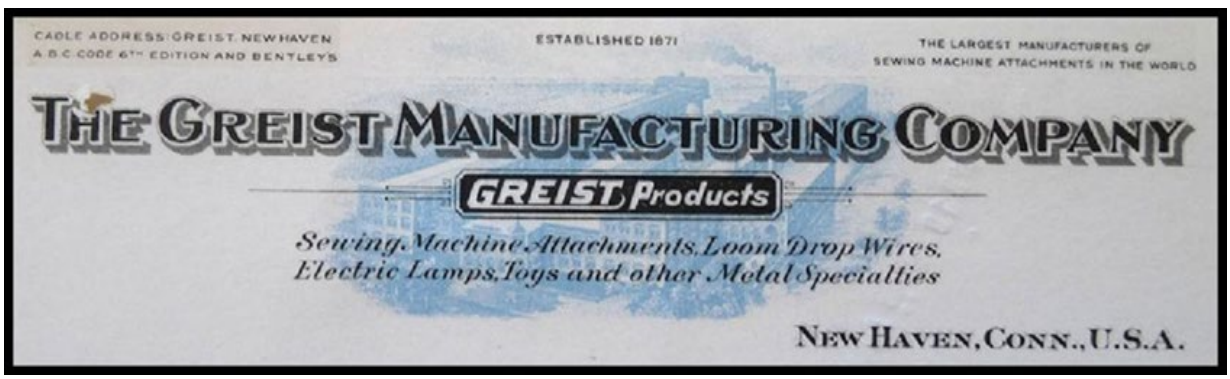
Like most of you, I'm a bit of a tool-junkie. I especially love measuring tools.

The little gauge pictured at left and below is the Greist Micro-Hight Gage. Unlike the height gauges you would usually see, this gauge is graduated by 0.001 inch and has 2 inches of travel. A latter model with 4 inches of travel was also made.

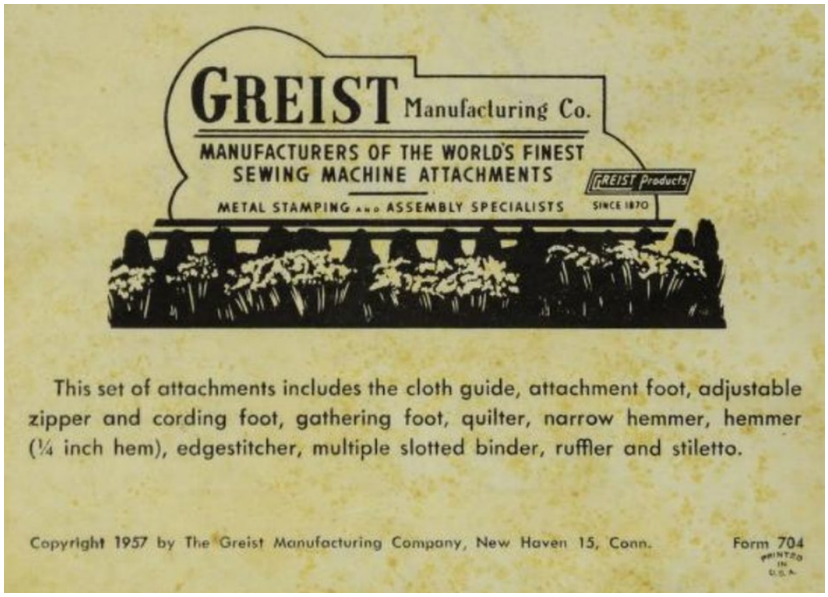
When in production riser blocks of 1, 2 or 3 inches were also available. And, let's face it, we all know that we never have enough tools.

The Greist Manufacturing Company was established in 1871. From that date through to 1892 the company was located in Chicago, Illinois at the corner of Washington and Market Streets.

On 1 July 1879 the office and salesrooms were relocated from the factory to the corner of Michigan Avenue and Jackson Street then from 1892 right through till 1970 it resided at 446 Blake Street, Westville, New Haven, Connecticut. In 1961 Greist was merged with the Mite Corporation.



However, the main business of the Greist Manufacturing Company was in fact the manufacture of sewing machine attachments. It also made Singer sewing machines and equipment during and after World War II.



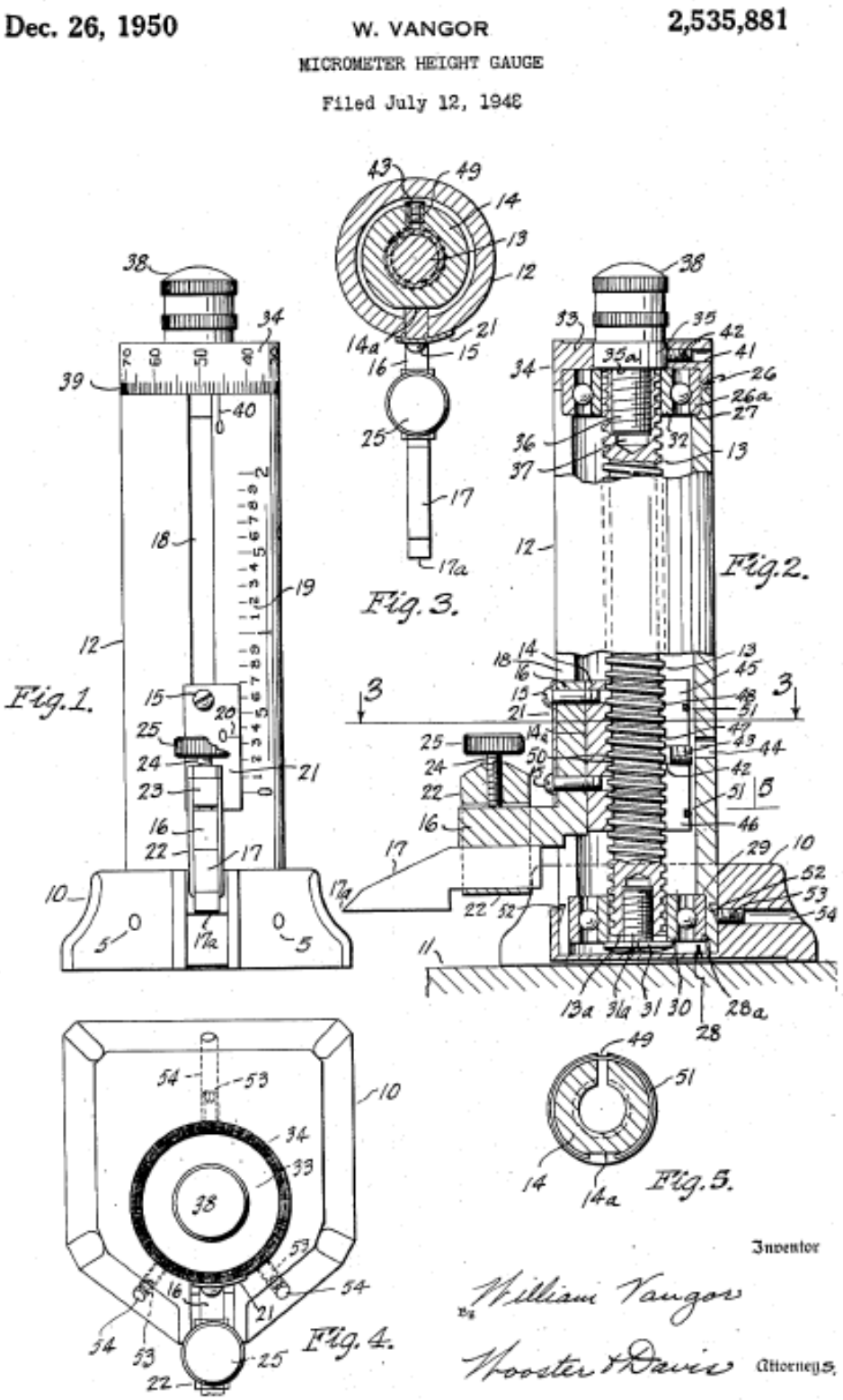
A third generation company, Greist had completed a $3 million, top-to-bottom modernization in 1955. The company was betting that home sewing would boom and women would want more sewing machine attachments to do fancier kinds of work. The company's revitalization involved purchasing new equipment and implementing the best plant layout for modern "straight-line" production.

Home sewing did take off in the post-war era, but times would change, and women would leave their sewing rooms to re-enter the workforce.

LEFT: a 4-inch gauge

RIGHT: Ad from *Tooling & Production*. Vol. XXII No.7, October 1956

The ‘Micro-Height Gage’ was the brainchild of William Vangor of Bridgeport, Connecticut who filed a patent for his invention on 12 July 1948. You will note that the Greist product features a circular rather than rectangular base as shown in Vangor’s patent drawings, but that is the only notable variation.



The Citric Acid De-rust System

Ron Fenton

The application of citric acid to rust problems came to me from remembering my grandmother using lemon juice to remove rust stains from linen tablecloths, clothes etc in the days that rusty iron pipes in houses was quite common because the plumbing in houses in the 1950's was galvanised steel. A friend that I worked with at the time had a bad rust stain on the bottom of the bathtub in a property that they were renting, and he was getting grief from his wife about the stain. She had tried everything to remove the stain with no avail and the letting agent had very little (i.e. none) interest in fixing the problem. I suggested that he put the plug in the bath and make a watery paste with citric acid, cover the rusted area with the paste and leave it overnight. The stain was gone the next morning, and his wife was very happy!

I then tried a solution of citric acid to clean up some of my old tool collection – with great success.

The exact concentration is not really important. In my original instructions, I suggested a 10% w/w solution i.e. 10gm of citric acid dissolved in 100 gm water (100 mL).

The reason that I came up with this concentration was based on an experiment that I carried out in my laboratory at the University. I took an old very rusty saw blade (with fairly uniform covering of rust) to the workshop and got them to cut it into strips (about 2 inches wide). I chemically degreased the samples and put each strip into a solution of citric acid of different concentration for about 6 hours and then visually inspected the results after cleaning them with a green Scotchbrite pad. I realize that this is a relatively qualitative experiment, but it gave a very good indication of the results that could be expected under non-laboratory conditions. The temperature in the lab at the time was around 20 degrees C. Naturally, as is the case with most chemical reactions, the hotter the solution the quicker the reaction.

I found that at room temperature a 10% solution (weight/weight 100gm/L) worked best for my samples. There was no visible damage to the steel by using a more concentrated solution. And at less than 10% there was visible rust remaining.

I am fully aware of all the Chemical methods of calculating concentrations (I used to teach this to undergraduates), but I decided to keep it as simple as possible for those with no, or limited, chemical background. In reality, the solution that I use at home (and have been using the same solution at this stage for about 12 months) is just 4 litres of water with about 4 good handfuls of citric acid powder + a squirt of detergent and a few millilitres of iso-propanol (rubbing alcohol from a local pharmacy) – methylated spirits is OK but a bit too volatile and needs to be topped up occasionally.

In practice for cleaning old tools, I just find a suitable plastic container (a bucket or plastic bottle with the top cut off or a plastic tray of some sort) put the item(s) to be cleaned in and cover it with the solution. I usually leave it for an hour or so then take it out and give it a scrub with a green Scotchbrite pad (sometimes wet and dry or steel wool). The black residue covering the item when it comes out of the solution I suspect contains chelated iron ions and

carbon – the higher the carbon content of the item the blacker the residue. If there is rust remaining put it back in again and repeat the process until you are satisfied with the result.

The used solution can be easily and safely stored for reuse in a screw top plastic 4-litre container. When it is found to be reacting too slowly just add some more citric acid. The solution can be safely disposed of by diluting it and pouring it down the sewer when you are finished with it as it only contains citric acid (think oranges & lemons here), citrate salts and iron chelates. I dilute some in a watering can and water it around the camellias and gardenias in the garden – they like acidic conditions and absolutely love iron chelates.

Some important points to consider:
1) The detergent acts to break down the surface tension. If you get a rusty, flat item such as a saw blade, which is dry, and you carefully put a few drops of water on it the water will roll up into a ball and quite happily stay there. This is because the iron oxide is hydrophobic and repels the water. If you then dip a matchstick in detergent and carefully touch the drop of water it will immediately spread out over the rust because you have now broken the surface tension. The detergent is more important if you have been touching the item with your fingers as the natural oils and grease from your fingers exacerbates the problem.

2) The item to be cleaned must be thoroughly degreased first or the process will not work. I usually use thinners and then wash with detergent/water. Spray on degreasers also work but some are strongly caustic and can affect any paint work that might be present – however, they do not appear to affect black Japanning as is found on planes etc.

3) You can clean brass backed saws with the citric acid solution and it cleans the brass beautifully with no damage to the brass. The solution is also very useful for cleaning brass, bronze or copper items.

4) You can clean bevel gauges and squares etc with rosewood or ebony infills with no problems but lighter timbers such as beech, ash and boxwood tend to stain black.

5) To clean large flat items (such as saw blades) I knock up a frame with 2" X 1" timber to make a trough a little larger than the item and line it with a double thickness garbage bag and staple it around the edges. For long thin items an appropriate length/diameter PVC plumbers pipe with an end cap on one end works great.

6) If you store the citric acid solution for future use it tends to slowly grow a biological slime in it (just like the mother that sometimes grows in vinegar) - which I might add doesn't reduce its effectiveness – it just looks evil. If you put a few drops of methylene chloride (dichloromethane) the slime will not grow. Now everyone will want to know where to get it! Methylene chloride is in some paint strippers (along with other stuff such as methyl cellulose) just put about 1/2 teaspoon in about 4 litres. If you can't get methylene chloride add a teaspoon or so of methylated spirits every now and again when you are storing the solution.

7) Saw etchings do not appear to be affected by the process and neither is japanning as long as the japanning is sound. If there is rust under the japanning it will lift back to where the japanning/metal interface is sound.

8) Items such as chisels or plane blades that are laminated will, under the differential etching of the citric acid give a beautiful outline of the lamination. The higher the carbon content the blacker that part of the item looks. Of course, cast iron (plane bases etc) are very black

when they come out of the solution due to the high carbon content (about 4%) of the cast iron.

9) A note on the popular electrolysis method: Every time that you consider using this method just think Hindenburg!!! As a professional chemist I have had a couple of small hydrogen explosions with resultant fires, and I do not want another. It is not true that electrolysis turns rust back into metal it just reduces the iron(III) oxide ions back to iron(II) ions which are then soluble and go into solution.

10) While I have tried oxalic acid I found it not to be as effective and covers everything with the relatively insoluble green iron oxalate compound. Oxalic acid is very poisonous, and the used solution presents disposal problems.

11) Citric acid can be purchased from the supermarket where the cake making stuff is kept but it is expensive to buy it there. It is cheaper to buy in bulk from beer/wine making suppliers or from TTTG at just $6 per 550 gm jar. It can be purchased from chemical suppliers (look in the yellow pages) and comes in various grades. The purer the grade the more expensive that it is. Food grade from this source is the cheapest and is perfectly OK for derusting.

12) To make up a solution put the citric acid in some sort of container (I use a 2 L plastic jug) and add hot water and stir until dissolved, adding more hot water as required. Then make up to the volume that you require.

13) The citric acid solution will not hurt your hands but will sting a bit if you have any cuts on your hands. The black carbon/iron chelate residue is fairly hard to remove from your skin, so I always tend to use disposable rubber gloves or a pair of washing up gloves that I get from the kitchen when my wife is not watching.

About the author: Dr Ronald Fenton is a retired lecturer in Inorganic Chemistry at the University of Sydney. Ron holds a Cert. Metallurgy STC, a BSc (Hons) and PhD from Macquarie University.

Greenlee Expansive Bits

The Editor

Long time member Jim Windschuttle suggested we publish an article on the Greenlee expansion bit he found. Below is an image of Jim's interesting find.

GREENLEE TOOL CO.
(Division of Greenlee Bros. & Co.)
ROCKFORD, ILLINOIS, U. S. A.

Greenlee is an American industrial and electrical tool company headquartered in Rockford, Illinois. It was founded in 1862 by twin brothers Robert L. and Ralph S. Greenlee to manufacture their invention, a drill surrounded by four chisel blades, used in making the pockets for a mortise and tenon joint, for the furniture industry in Rockford. This device is still used in cabinetmaking.

The brothers later diversified into a variety of hand woodworking tools as well as machinery for making wooden barrels.

The company was acquired by the Ex-Cell-O Corporation in 1969. Greenlee purchased Fairmont Hydraulics in 1992 and German tool manufacturer Klauke in 1996. Its operations expanded into data/telecommunications equipment with the acquisition of several companies in 1999 and 2000 which now fall under the Greenlee Communications brand. Greenlee expanded its DIY offering with the addition of Paladin Tools in 2007 and acquired Utilux in 2008.

The Greenlee brothers were inspired into industrial work by their father who was a cooper. Their contributions to the railroad industry included an automatic tie and track laying and drilling machine that rolled right along behind on the track it had just laid.

The catalogue extract below comes from page 9 of the Greenlee Tools for the Craftsman: Catalog No. 33 : 1941-1942 and it explains just what makes this expansive bit 'novel'. The name, 'Setfast', is another clue.

Tools for the Craftsman

ROCKFORD GREENLEE ILL. U.S.A.

Nos. 5 and 6 Setfast Expansive Bits

Patent No. 1,727,452

The Greenlee Setfast Expansive Bit is a brand new idea in tools of this type, in that it has a novel means of adjusting the cutter and locking the parts. It has a very simple construction, consisting of five pieces only, namely, body, two cutters, adjusting barrel, and eccentric pin. The cutters for this tool and the adjusting barrel are fitted with an 8-pitch square thread, and this permits very rapid setting to size.

The parts of this tool are securely locked by the action of the eccentric pin in the side of the body, which engages the adjusting barrel, causing pressure against the cutter. A quarter turn with a screw driver tightens or loosens the parts, and the setting of the cutter is accomplished by turning the adjusting barrel with the thumb. This pattern also has the wide, open throat.

The No. 5 will bore 5/8 to 1 3/4 inch, and the No. 6, 7/8 to 3 inch with standard cutters and to 4 inch with an extra length cutter. Standard packing is in leatherette case, one in a box, half dozen in a carton.

LIST PRICE AND WEIGHT PER DOZEN

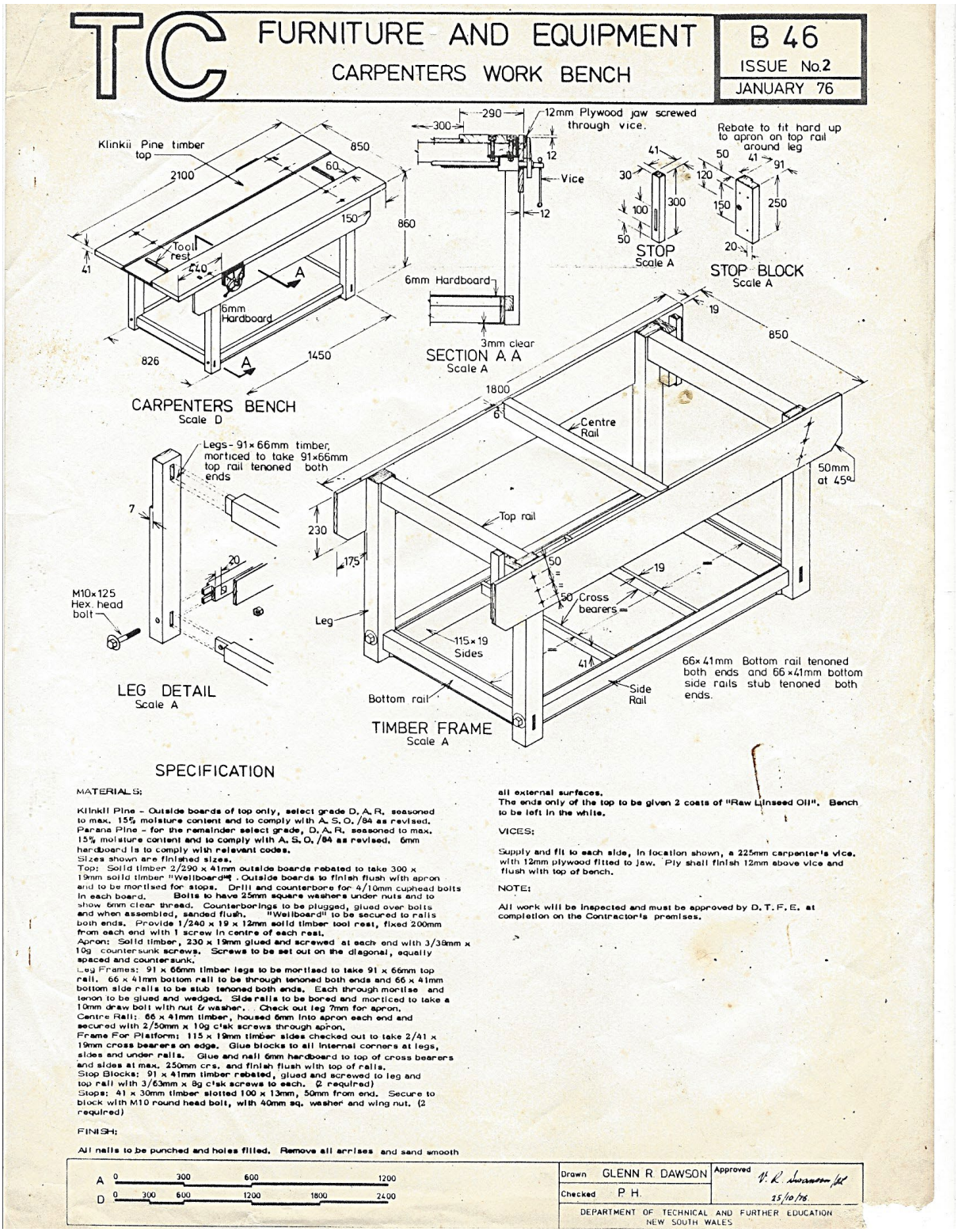
		Weight in Pounds
	Price	Weight
No. 5 Small, 5/8 to 1 3/4"	$22.00	5
No. 5A Cutter, 5/8 to 1 1/8"	3.00	1/4
No. 5B Cutter, 1 1/8 to 1 3/4"	3.75	3/8
Extra Adjusting Barrels	1.50	1/8
Extra Eccentric Pins	1.50	1/8
No. 6 Large, 7/8 to 3"	26.00	8 1/4
No. 6A Cutter, 7/8 to 1 3/4"	5.25	3/8
No. 6B Cutter, 1 3/4 to 3"	6.00	3/8
No. 6C Cutter, 2 1/2 to 4"	9.00	7/8
Extra Adjusting Barrels	1.80	1/4
Extra Eccentric Pins	1.80	1/4

If you have a 'novel' tool why not tell us about it.

Send details to secretary@tttg.org.au

Build A Carpenters Work Bench

by Editor



Plans courtesy of Peter Tierney

JDs – Refurbishing a New Rogers Scroll-saw

by John Daniel

"I'm at a garage sale and this fellow has a peddle scroll-saw, do you want it"? was the excited voice at the other end of the line, "It looks as if it works and seems to have a name on it although a bit hard to read, he doesn't want much for it, he's just cleaning out his shed."

No need to relate any more of the conversation, except to say that a good mate relocated the machine to my shed a few days later.

This new arrival was an impressive piece of cast-iron art, functional in design with the stance of the front legs balanced by the sturdy back leg. A nicely cast drive-wheel with its 'S' cast spokes, and the overall skeleton-like structure of the frame reassured me that this scroll-saw was a good find and warranted rejuvenating.

The old machine from a 'bygone era' looked complete with no real damage

With 'rose-tinted glasses' removed, it was obvious that many years back, with good intentions, the old machine had been given a good thick coat of grey paint over surface rust

and all moving parts to freshen it up, however the good intentions, had glugged up the mechanism and made it unusable, and I dare to add, the reason it has survived for many years just hidden in a corner of a shed gathering dust.

The paint needed to be removed to free-up the machine, and the only practical way to do this, was to totally disassemble the frame and sort-out the mechanism.

The main frame was simple enough to disassemble, however freeing some of the set-screws on the pully shaft was a bit of a challenge, also removing the little glugged-up grooved blade-guide under the table.

Glugged-up grooved roller blade-guide

The painter obviously took care not to miss much

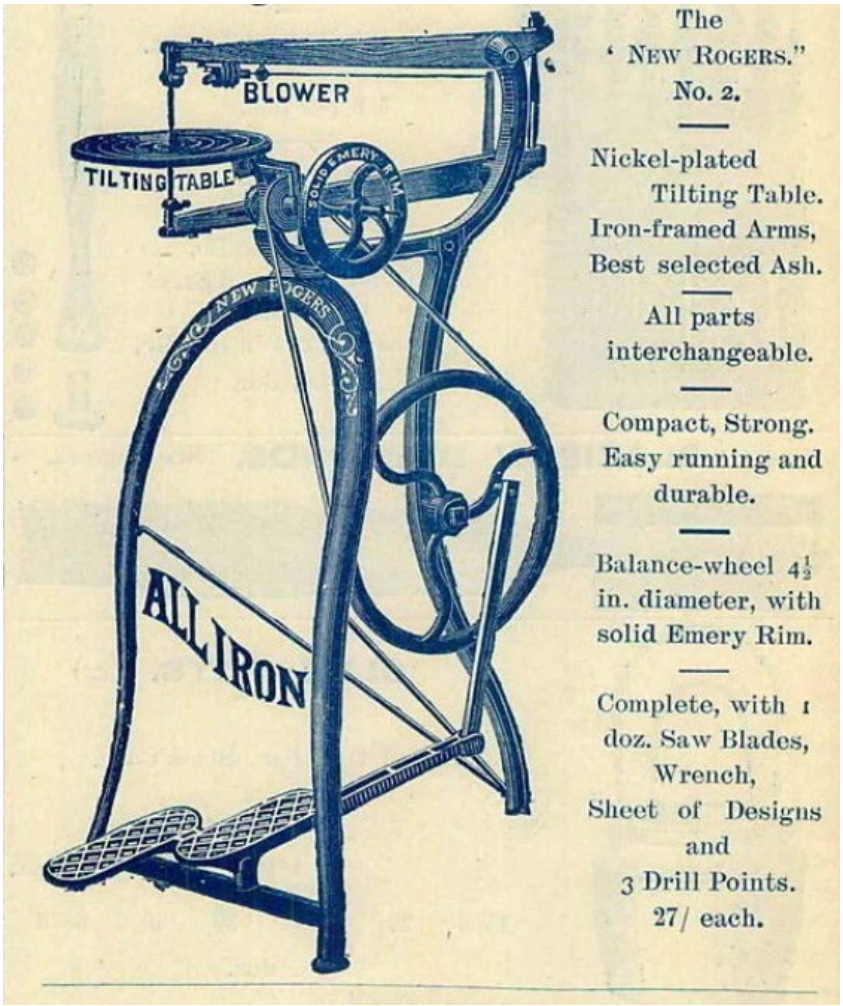
Now fit for purpose

It is always satisfying to stand back and see what can be achieved with a bit of thought, care, patience, and a couple of coats of ‘Rust Gard’ flat black enamel, and especially, to see a neglected 0ld piece of machinery back in working order.

A Brief History behind the New Rogers Scroll Saw

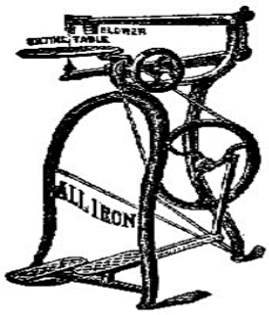
Back in 1878, Millers Falls introduced its simply designed wooden framed ‘Rogers’ scroll-saw, followed by in 1881 with the ‘New Rogers’ with a cast iron frame which was lighter and more efficient and cheaper to produce, consequently it was produced up ‘til 1925.

“The company introduced two versions of the New Rogers Saw: the cheaper No. 1 was fitted with a japanned table and an iron balance wheel; the premium No. 2 featured a nickel-plated table and an emery balance wheel that could be used for sharpening. The New Rogers fret saw, with its horseshoe-shaped front legs, became the most widely sold jigsaw of the era. Ornamented with red and gilt trim, selling in the three-to-four-dollar range, and well-made for the price, the New Rogers hit a sweet spot in the market and retained its position as the leading amateur saw for decades.” [1]



Note for link to the above image please see reference 2

SCROLL SAWS



NEW ROGERS, japanned iron frame, striped in red and gold, japanned tilting-table, selected ash arms and Pitman, steel arbors, carefully fitted to bearings, 4½ in. iron balance wheel, with drilling attachment, improved saw clamps, height of table 32 in. The swing around the table under the arms is 34 in., complete with 1 dozen 5-in. bracket saw blades, wrench, sheet of designs and drill points, w't 25 lbs., boxed for shipment 42 lbs.

No. T2—With Emery flywheel, each $20.00

ONE IN A BOX, SHIPPED KNOCKED DOWN

REFERENCES:

1. https://oldtoolheaven.com/millers-falls/treadle-tools/treadle-tools.htm
2. https://i.pinimg.com/originals/0c/a8/c0/0ca8c09297b882079573be253888ff5a.jpg

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THE EDITOR ASKS A QUESTION: …. how did you remove the paint from this little gem?

JD ANSWERS: How did I get the paint off? Good question. Well, after a lot of thought I decided that I didn't want to go down the time-wasting track of stripping it back to bare metal, I decided to use an 8" stainless steel wire wheel on all of the surfaces that I could reach, the narrow hand-made scrapers to clean up the little hard-to-reach corners etc. The paint on the face surfaces of the legs had a good even surface as the previous 'conservator' had flowed the paint evenly so I decided to just sand it well back by hand. As for the underside of the table with all that glug, well that was hard work and patience with the 8" wire wheel, hand wire brush ,a re-shaped end of an old chisel that had passed its use-by date, a small hand wire brush and whatever else I could find . In a few spots I resorted to a small file. I found that an old file was handy to remove the metal dags still on the original castings. Any areas that had underlying rust were cleaned of all rust where possible. Luckily, I was able to remove the small, grooved blade-guide on the under-side of the table by tapping the little pin through with a small pin punch which simplified freeing the little roller and clearing its space.

All-in-all, time consuming, though well worth the effort.

John, I just used a bit of common sense, made sure that I didn't do any damage. It was a pretty rough casting, but it has stood the test of time.
Kind regards,
John

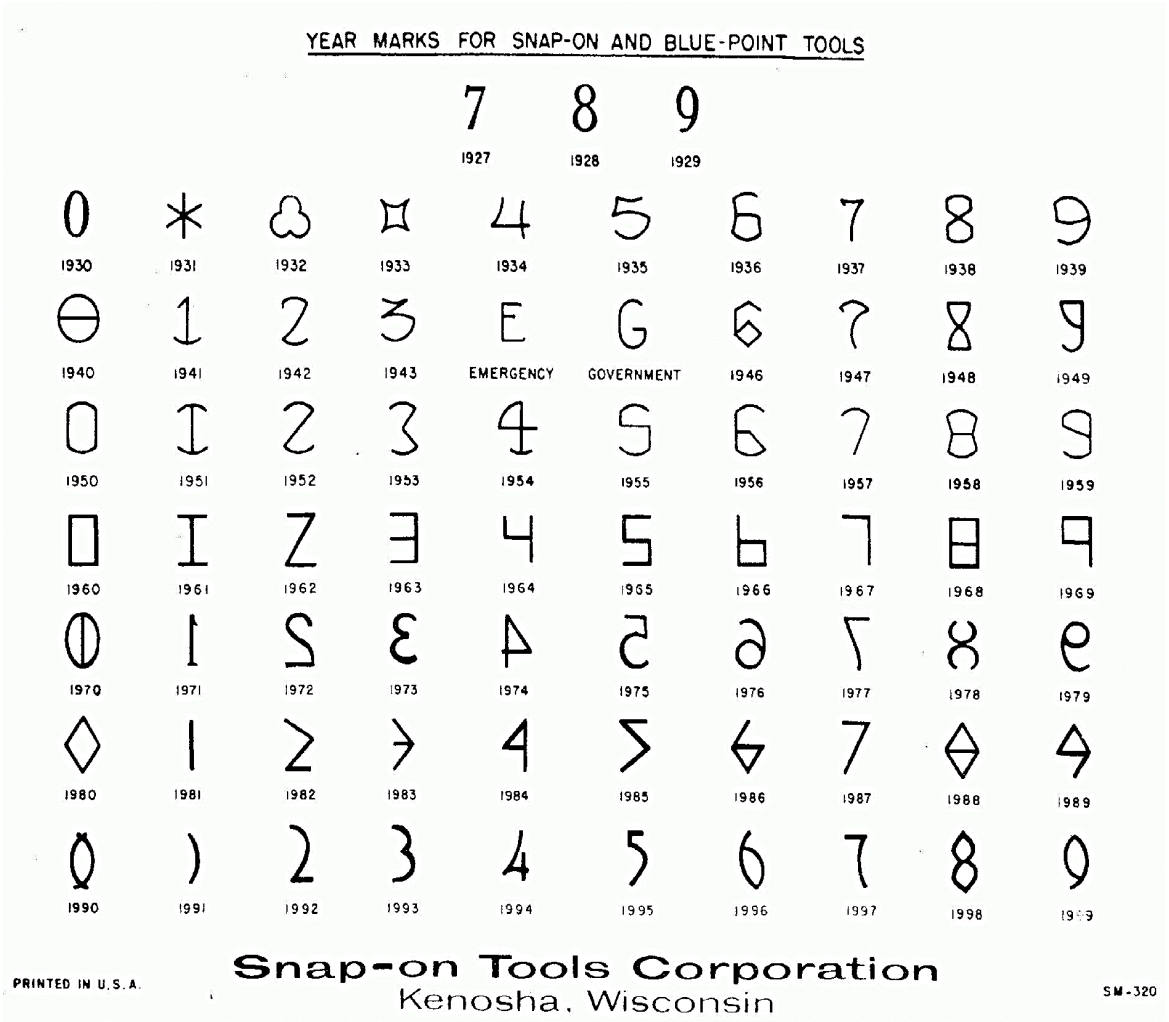
Snap-On & Blue Point Tools – Date Codes

by John Deeble

Snap-On tools were one of the earliest producers of interchangeable sockets and appear to have commenced production in 1927. Over almost 100 years they have produced an extensive range of tools for various industries especially the automotive servicing industry. While not common, tools will appear from time to time at markets, tool sales and on the internet sites like eBay. Over the years tools have been manufactured with various finishes including black, cadmium and chrome plating.

Since commencing manufacture in 1927 most tools have a distinguishing mark/code to identify the year of manufacture. Codes are not always clearly stamped, sometimes vary slightly and are often difficult to identify.

The following table shows codes used from 1927 to 1999.



Some examples of date codes are shown on the attached images below.

3/8 Ratchet Adaptor – 1981 3/8 Universal Joint – 1969 1/2 Universal Joint – 1942

3/8 Drive Ratchet: Possibly G - Government 1945

½ inch drive extension: E- Emergency 1944

½ inch drive extension: 7 – 1947

½ inch drive extension: G – Government 1945

Whatever Happened to ....

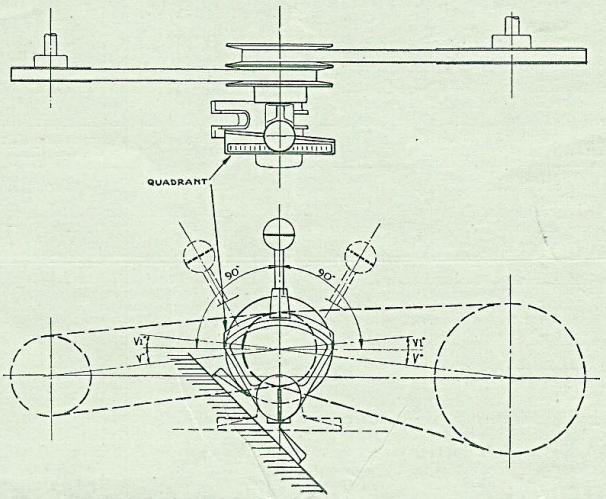
Mounting instructions for the Robley Speed Variator made in Geelong, Australia.

STEPLESS **ROBLEY** NOISELESS

MOUNTING INSTRUCTIONS FOR ROBLEY SPEED VARIATOR

The Robley Speed Variator is very simple to install and can be fitted under almost all conditions. It can be mounted either vertically or horizontally.

Referring to the accompanying drawings, the following points must always be observed:—



1. If the centres of both the driving and driven pulleys are below the centre of the Variator pulley, the angle "V" must not exceed 40°. If the centres of both the driving and driven pulleys are above the centre of the Variator pulley the angle "V1" must not exceed 25°. This is because, only within this tolerance of 65°, does the centre distance between driving pulley and Variator alter exactly inversely as the centre distance between the Variator and the driven pulley. The arc of 65° provides ample tolerance and only very rarely will it be found that a drive cannot be set up within these limits.

2. When the Variator is in the neutral position the control lever must always be at right angles to the centre line between the driving and driven pulleys. This is achieved by loosening the quadrant clamping screw and turning the quadrant on its base until the correct position is obtained.

3. The vee belts must, when the Variator is in the neutral position as shown, be equally situated in the pulleys; that is, the spacing between the pulley discs must be the same.

4. One end of the quadrant is wider than the other. The belt running in the Variator Groove **nearest** the quadrant must **always** be mated with the pulley nearest the wide end of the quadrant, irrespective of whether it is the driving or driven pulley, otherwise the belts will not be parallel in all positions. Because the quadrant is wider at one end than the other, as the speed control lever is moved the whole pulley assembly is moved laterally to provide automatic precise alignment of the drive on both sides.

5. The Variator will always provide the variation specified for each model, but if an exceptionally high or exceptionally low speed range is required it may not be practicable to obtain this without the introduction of a counter shaft, because without one the pulley sizes would be impossibly large or very seriously below the recommended minimum diameter for the belt section being used. If a counter shaft is used it **must** be placed between the Variator and the driven member as the horsepower rating of the Variator will be affected by any appreciable reduction in belt speed.

6. The maximum variation offered need not be used. Stop screws at either end of the Variator quadrant can be adjusted to determine the exact maximum and minimum speeds which the operative can obtain.

7. When the belts are placed in position they are suitably tightened and must be exactly parallel.

COMPONENT PARTS OF ROBLEY SPEED VARIATOR UNITS

Quadrant	Operating Handle	Pulley Shaft	Ball-Bearing
Scale Plate	Knob—	Disc — Inner	— Inner
Base	Operating Handle	Disc — Floating	Ball-Bearing
Radius Arm	Pivot Pin	Disc — Outer	— Outer

When parts are ordered the Model Number of the Variator **must** be quoted.

POSITIVE **ROBLEY** INSTANTANEOUS

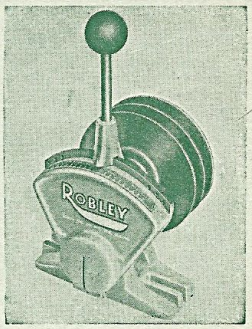
SPEED VARIATOR

Provides Stepless and Noiseless Regulation for Vee Belt Drives

Robley Speed Variators are manufactured in four sizes for vee belt drives transmitting up to 3 h.p. Details of the four models are as follows:—

Cat. No.	Belt Type	Ratio	Diam. of Variator Pulley	Diam. of Motor Pulley	R.P.M. of Motor	Approx. Max. H.P. Transmission	Weight of Variator
A.14	A	1 : 4	5½"	4"	1,500	1.0 h.p.	13¾ lbs.
B.14	B	1 : 4	6¾"	5"	1,500	2.0 h.p.	21½ lbs.
C.13	C	1 : 3	6¾"	5½"	1,500	2.5 h.p.	22½ lbs.
C.12	C	1 : 2	6¾"	5½"	1,500	3.0 h.p.	22½ lbs.

Horsepower specified in these tables is approximately the maximum transmitted at maximum output speed of the Variator, and this H.P. reduces approximately as reduction in output speed. For accurate horsepower transmission figures each application must be calculated separately from the standard tables for vee belt drives.



★ EFFICIENCY

Every machine has its optimum efficiency at a certain speed and on any machine this **precise** speed can be obtained with the Robley Speed Variator which will provide instantaneous stepless regulation through a wide range of speeds.
The cost of the Variator and the very limited amount of space it occupies are negligible in proportion to its efficiency **and the efficiency which it imparts to the machine.** Quick changes to different speeds during running save valuable time, the speed change lever being released simply by turning to the left and re-locked in the new position by turning to the right.

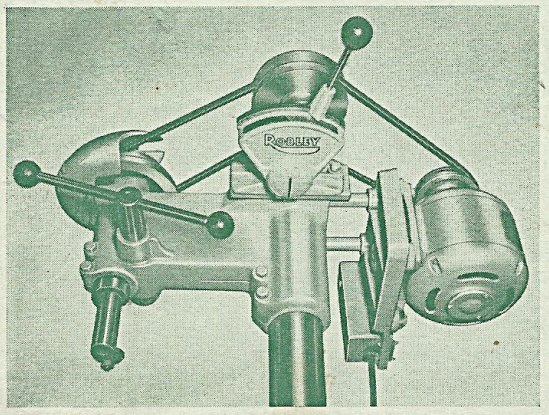
★ ECONOMY

Economy is gained by the use of standard vee belts so that quick and cheap replacement of belts can be effected when necessary. Provided that the Variator is properly set up as described in "Mounting Instructions" herein, normal vee belt life and efficiency can be expected.

★ APPLICATION

The Robley Speed Variator is not a Reduction Unit, it merely acts as a counter-shaft with variable P.D.C. to provide speed variation as specified for each model. The unit itself places no limitation on speed which is prescribed by motor speed and pulley sizes. All calculations of pulley sizes must be made from the desired **mean** speed of the driven member, which is obtained when the control lever is in the central position. When it is in this position both belts are running at the same P.D.C. and the Variator is "neutralised"; that is, the speed ratio of driving to driven member is as the ratio of their respective pulley diameters.

Robley Speed Variator fitted to ¾" Drilling Machine.



Example of calculation to find the driven pulley size to give 3 : 1 variation from 500 to 1,500 r.p.m., assuming that a 1,440 r.p.m. motor is being used, fitted with a 3½" diameter pulley.

$$\text{Mean speed of driven pulley} = \frac{500 + 1{,}500}{2} = 1{,}000 \text{ r.p.m.}$$

$$\text{Therefore driven pulley size} = \frac{1{,}440 \times 3.5}{1{,}000} = 5''$$

If, in this example, it was desired to transmit between 2 and 2.5 horsepower, a model C.13 Variator would be used.
Because of the great variety of applications and speeds it is not possible to graduate the scale plate on the Variator so that machine speeds can be read straight off. The standard Variator is fitted with a scale plate graduated above and below a zero mark from 0 to 10 in both cases, the zero mark being the neutral position. If it is desired to fit Robley Speed Variators as a standard component on a particular machine specially graduated scale plates can be supplied for orders of reasonable quantity.

★ MAINTENANCE

A grease nipple is provided in the centre of the Variator pulley. Under average conditions a light ball-bearing grease such as SKF-63 should be applied to the Variator bearings every 200 hours of running.

DISTRIBUTOR: AUSTRALIAN PASTORAL EQUIPMENT CO. PTY. LTD.
P.O. BOX 340
PHONE 68 26 86 BROADWAY N.S.W.

If you have some long lost instruction sheet or user manual at home please don't let it linger unloved and unread.

Send a picture or pdf file of the instruction sheet or user manual to the NEWS Editor at TTTG. Email the Editor at reproturn@bigpond.com

What's it ....

The Editor

Seeking information on the tool pictured.

Could it be a tool for rope work etc? Is it for lifting?

The handle is made of wood and is 12" long and approximately 1.75" in diameter.

Please send your thoughts to the Editor at reproturn@bigpond.com

G15 FERRO PAK RUST PREVENTATIVE

G15 is a contact corrosion inhibitor for the protection of ferrous and non-ferrous metals.

G15 – provides long-term corrosion resistance

- Is thermally stable from -40°C to 260°C without cracking, chipping, peeling, or sagging.
- Is thixotropic and therefore will not sag, run-off and is ideal for clean trouble-free application. G15 holds on sharp edges.
- Is resistant to sunlight. It has been tested for exterior exposure under adverse conditions and has passed such long-term tests without failure.
- Does not stain metal surfaces. When used over steel, copper, aluminium, and their alloys; the coating does not stain under normal conditions of exposure.
- Has good water displacing properties.
- Can be used as a general-purpose lubricant.

TTTG's PRICE – JUST $24 PER CAN

BUY IN BULK AND SAVE

12 CANS FOR $250 !!

ON SALE AT ALL MEETINGS AND TOOL SALES

TTTG Products

Available at all TTTG Meetings Workshops & Events

TTTG Leather Chisel Rolls …….

$25 each

TTTG Sharp Oil ……..

$6 per bottle

TTTG SHARP OIL

Best on Oil Stones & Diamond Plates – Contains 240ml

NOT TO BE TAKEN – KEEP OUT OF REACH OF CHILDREN

SHAKE WELL BEFORE USE !

BONUS BUY – 2 BOTTLES FOR $10

TTTG Citric Acid ……

$6 per 550 gm jar

G-15 ‘Ferro Pak’ Rust Preventative ……

$24 a can

or 6 for $125

Next Members & Friends Tool Sale

SUNDAY 25 AUGUST 2024

Remember the time: **8.00 to 11.30 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 your $5 note or $5 in coins for entry.**
- **All purchases are made in cash so having small notes and coins is a very good idea.**
- **PLEASE NOTE: THERE IS NO ATM AT THE VENUE**

TTTG Members, got surplus tools to sell? – then 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 only $50 per year**
- **TTTG runs 4 tools sales each year**

TABLES ARE STRICTLY LIMITED – DON'T DELAY!

ONLY 5 TABLES LEFT FOR 25 AUGUST SALE

SORRY NO ASSISTANT PASSES FOR THIS SALE

GARVIN TOOLS

Garvin Tools manufacture a range of precision-made and engineered tools for wood working and metal working. They also design and develop tools and products in-house to customers' specifications.

Based in New Delhi, India, Garvin started making quality tools in 1979, they now export internationally, and were ISO 9001 certified in 2015. They exhibited last year at the hardware trade show in Cologne, Germany.

KavTak.com.au, based in Glenwood, Sydney, NSW, are Garvin's exclusive Australian rep' and reseller.

The selection of tools that Garvin offer is vast, and therefore, at present it's not possible for KavTak Tools to offer the entire range - although they are always expanding their range based on customer demand.

If you can't find what your looking for online at KavTak Tools, then GarvinTools.com have online brochures, etc. Find what you need, let KavTak know and they can arrange to ship it on one of their annual visits. Or if it is urgent, air freight can be arranged.

Other Online Resources

Companies with good customer support are:

Machine Tools

machineryhouse.com.au

edisons.com.au

Tooling, Materials & Hardware

EdconSteel.com.au

aimsindustrial.com.au

boltandnut.com.au

Issue 01 - KavTak Tools - May, 2023

Finding the Balance

Time, Cost & Quality

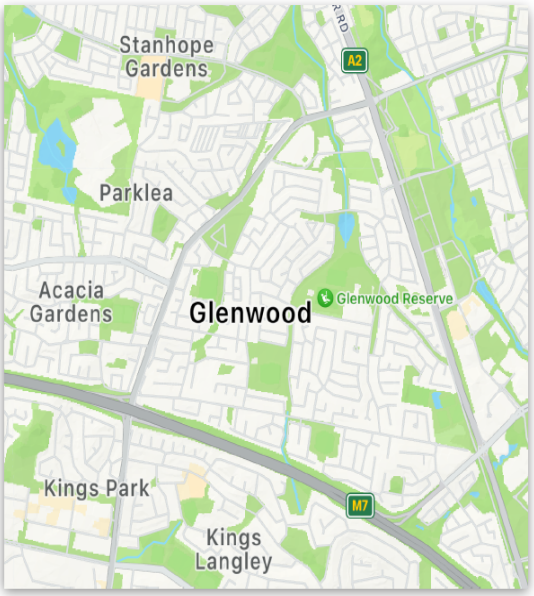
Makers are always trying to get the right balance in their own work, as well as when deciding to buy new gear, or indeed, restored gear, for their workshops.

The context at hand may sometimes require a trip to the hardware and a compromise with whatever the retailer has available at the time. But if there is enough time, waiting for local mail, or even shipping from overseas, is worth the wait.

Garvin Tools make quality products that are better priced in most cases than similar products that are made in Europe or North America.

KavTak are keen to make Garvin Tools available online to the Australian market, so check out:

kavtaktools.com.au



TTTG Fees and Contacts 2023/24

TTTG Fees:

Membership	$50.00 per year
'Real Skills' Workshop	$70.00
Members Meetings entry	$5.00
Members & Friends Tool Sales entry	$5.00

TTTG Contacts:

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

Tools Sales and Table Bookings
John Bates secretary@tttg.org.au

TTTG Memberships:

John Bates secretary@tttg.org.au

Next TTTG Members Meeting

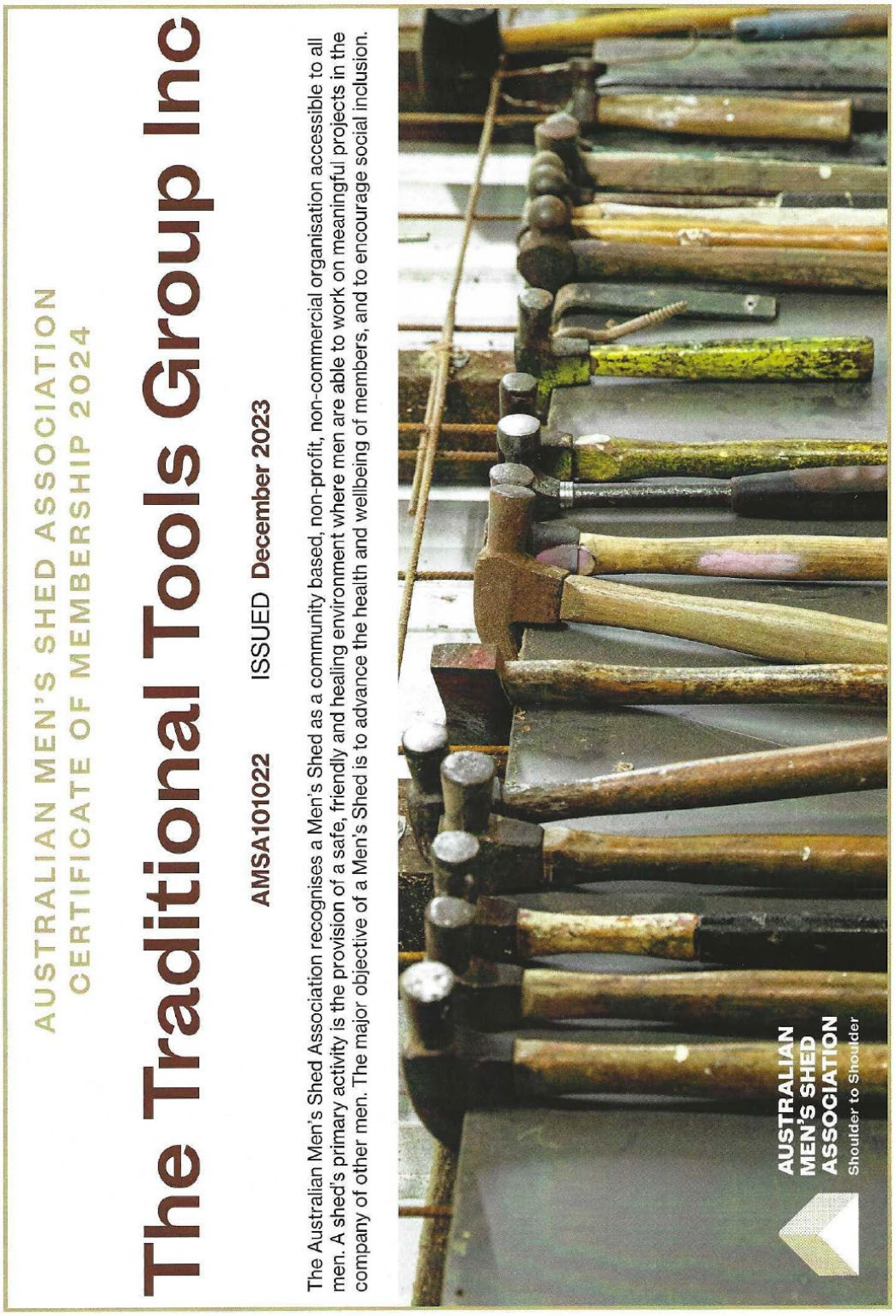
Old Eastwood Town Hall
74 Agincourt Road, Marsfield, NSW

Tuesday 13 August 2024 – starts at 7.00 pm

Henry Black will give a presentation on Wadkin machinery

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

TTTG is A Member of AMSA



TTTG is A Registered Charity

Australian Government

Australian Charities and Not-for-profits Commission

THIS CERTIFIES THAT

TRADITIONAL TOOLS GROUP INC

ABN: 50611029392

HAS BEEN REGISTERED BY THE

Australian Charities and Not-for-profits Commission

ON THE DATE OF

18/12/2023

CERTIFIED BY

Sue Woodward AM

Commissioner

Australian Charities and Not-for-profits Commission

For information about the current registration status of this charity, check the ACNC Charity Register at acnc.gov.au/charity