

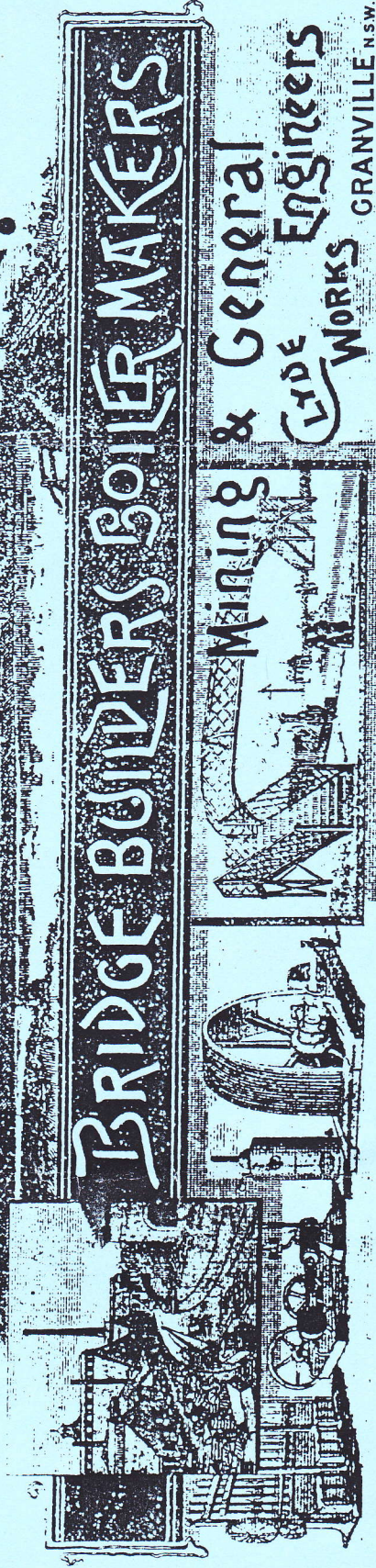
THE TRADE TOOLS GROUP INC.



GROUP
INCORPORATED

TTTG NEWSLETTER NO.18
AUGUST 1994

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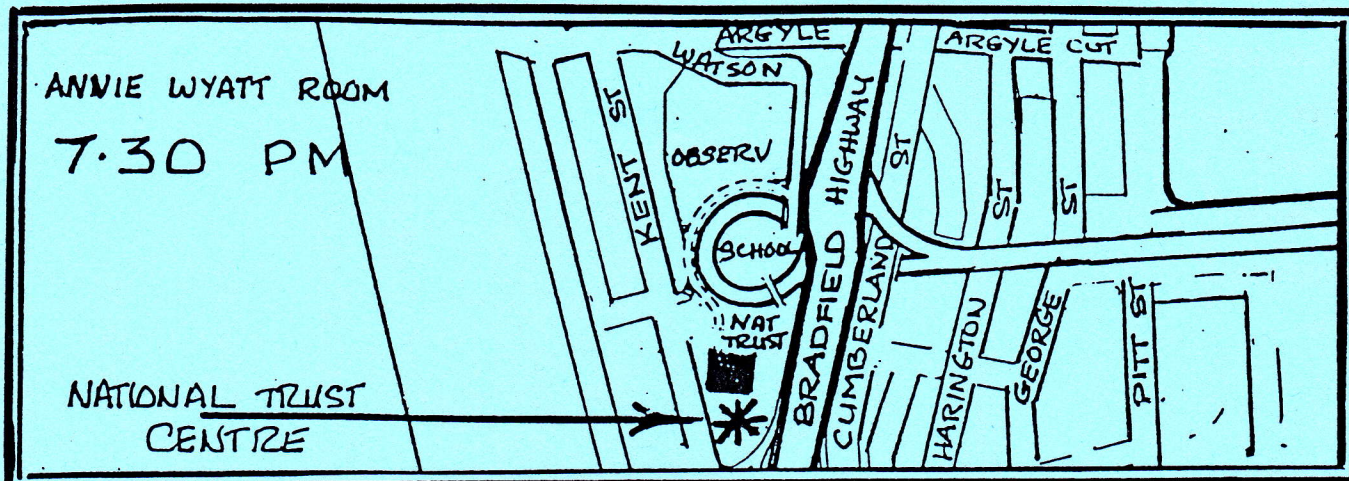
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OUR NEW POSTAL ADDRESS

The Secretary
T.T.T.G. Inc.
P.O. Box 240
GROSVENOR PLACE
SYDNEY NSW 2000

NEXT MEETING - TUESDAY AUGUST 9TH

**AT THE ANNIE WYATT ROOM, NATIONAL TRUST CENTRE, OBSERVATORY HILL
COMMENCING AT 7.30 PM SHARP**

PROGRAMME:

1. ANNUAL GENERAL MEETING
2. THE HAND CUTTING OF FILES (INCLUDING SOME FINE EXAMPLES)
PRESENTED BY BOB CROSBIE AND MAURICE BROWN - MEMBERS ARE
INVITED TO BRING ALONG RARE OR INTERESTING EXAMPLES
3. DRAWING OF THE DOOR PRIZE
4. HANDMADE WINDSOR CHAIRS - A SHORT VIDEO ON THIS FASCINATING
CRAFT WHICH IS STILL PRACTISED TODAY. ONCE AGAIN MEMBERS
ARE INVITED TO BRING ALONG ANY CHAIR MAKING TOOLS WHICH
THEY MAY HAVE IN THEIR POSSESSION
5. FRED MURREL'S "WOTS IT" SESSION - PLEASE BRING SOME TOOLS
6. SUPPER BY MARIO DAHTO
7. LIBRARY - BROWSE THROUGH THE TTTG COLLECTION - SID BAILEY

TTTG Inc.
THE TRADE TOOLS GROUP

**TTTG NEWSLETTER NO.18
AUGUST 1994**

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CLASSIFIED ADVERTISEMENTS (Deadline for next issue September 10, 1994)

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Any opinions expressed are those of the contributor.

PROGRAMME ORGANISER'S NEWS

Our last meeting was held in a changed venue. The usual venue, the Annie Wyatt Room, had been inadvertently double-booked by The Trust so we hurriedly repaired to the adjacent restaurant room and after rearranging a few tables and chairs the meeting started on time. Attendance on the night was the same as the last four meetings, a total of 34 members and guests.

Club member Mike Williams kicked off the evening's programme with a talk on saws. Mike's talk traced the history and development of saws from the bronze age, through the Roman period, middle ages, pre-industrial and up to the modern day. The presentation was accompanied by a number of slides, two short videos and of course an array of different types of saws from large cross-cut examples to small jeweller's piercing saws. Mike's display was of course augmented by a vast number of member's saws of all shapes, types and sizes. One of the videos showed a pit saw being used while the other showed the hand manufacture of quality saws in the factory of Garlick and Son of Sheffield.

Mike clearly put a lot of research into his presentation and he was ably assisted by his wife Penny who operated the projector and helped with the display. Our thanks to you both for a splendid effort.

Terry Butcher then introduced Reg Eaton in an unadvertised section of the programme to show the audience a collection of Stanley tools which Reg had recently imported from England for his business here in Sydney. The highlight of his presentation was a Stanley #77 Dowel and Rod Turning Machine which he was able to demonstrate with some measure of success.

Unfortunately this unscheduled item ran us out of time for the advertised talk "The Hand Cutting of Files" so this section will flow over to the next meeting on the 9th August. (Refer to this month's programme notes.)

Ralph Hawkins had copies of his recently published book "The Convict Timbergetters of Pennant Hills" at the meeting and was signing the edition for members. It is good to see this type of scholarship in one of our members; keep up the good work Ralph.

Our concluding sessions, Fred Murrel's "wots it" the drawing of the door prize, Sid Bailey's library and the tool swap table all met with the usual enthusiasm as did Mario's supper refreshments.

Henry's Annual Tool Swap is on again on Sunday 7th August (See advertisement in this issue). This year Henry is providing a table for members of TTTG to use so bring along any surplus tools which you wish to sell. 10% of the sale will go to TTTG so support the group and bring along your old tools. If you can't make it on the day contact Henry on 744-7875, Mike Williams on 44-6356 or Terry Butcher on 699-2391 after hours.

PRESIDENT'S REPORT

We are approaching an exciting time for the TTT Group for this month we are going to select a new body of members to run it for the next twelve months and possibly longer.

As most of you are aware, quite a few of the executive committee members are declining to nominate for another term.

We feel that although we originated the organisation and got it 'up and running', it's time to let more of the members get in there and have their say on committees, in the newsletter and at organising the meetings.

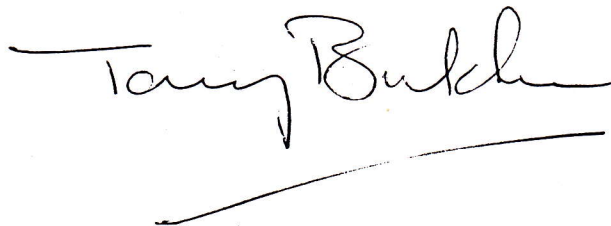
Most of the hard work has been done and we believe we are now running like a well oiled watch, there are changes to be made - improvements here and there and I feel confident that the new committee will do all this and more.

At this point I would like to express my warmest appreciation to all committee members, both past and current, on a splendid job. Attendance at committee meetings has always been very high; those unable to attend have been prompt to inform me of their absence, due mostly to being interstate, which, in my book, is a pardonable reason.

Sadly the team that produces this very fine newsletter is to be divided - some staying and some moving on - but I know with confidence we can look forward to receiving a most welcome and enjoyable newsletter.

I would like to thank all the members who have had to put up with me, and I'm sure you will give the same wonderful support you have given me to the new president.

Salutations to all,



EDITOR'S NOTES: Bob Crosbie

The entertainment at the last general meeting lived up to expectations. Mike Williams gave a lively illustrated talk on saws. As was to be expected the topic aroused some controversy, especially over the issue of saw sets. Maurice Brown showed a film on modern "quality" saw making. Those of us who were taught the traditional attitudes to saws were agreed on one point: if you want a good saw buy an old one and make it a Disston. All I can add is if you need to be convinced then compare one of these new "quality" saws with any pre war trade marked saw. Seeing two blades sheared from a sheet gave the game away, what of taper ground?

Anyway this prompted a new newsletter regular column: Favourite Tools. In this column readers can comment on their treasured tools. This issue's topic is, wait for it... Saw Sets.

Another new feature is Extracts from Nicholson. We intend to serialise material from classic texts which are not freely available. Members who have access to rare books may, through this newsletter, share such material with fellow members.

Don't miss the next meeting, despite the election, Maurice has a great night planned.

RAW LINSEED AND RUST REMOVAL.

Mike Williams

Some many, many months ago Terry Butcher showed TTTG the results of a "home made" rust removal formulation that seemed not only extrordinarily effective but was comparatively safe to use as well.

Essentially, the article to be cleaned is dropped into a bath of equal parts of raw linseed oil, mineral turps and vinegar and left for several days. The result is a surface which is quite clean of rust and looks as if it had been chemically etched. (In fact it has been, the rust has done the surface etching and by stripping it away, the resulting finish is revealed.)

The reason for the effectiveness of this reaction has strong associations with the process of producing "boiled" linseed oil from "raw" and may be of interest to our members.

Linseed oil belongs to the family of Triglyceride oils as indeed do most of the commonly occuring vegetable oils. They are of industrial importance for a number of reasons but one important one is that many of this family of oils form tough impenetrable films on exposure to the atmosphere. Indeed these films are often so tenacious and resistant to solvent attack that their application is in many instances an effectively irreversible process and has led the furniture restoration/conservation industry to recommend against their use.

Paint manufacturers on the other hand make use of this film-forming property and have searched for ways of accelerating the effect in order to realise paints and primers which will dry within a reasonable timescale.

Heating linseed oil for long periods, starts the cross-linking polymerisation process which is responsible for the film-forming properties and thus significantly decreases the paint drying time. In order to be really effective however, the process has to be taken to a point where the viscosity of the oil has increased appreciably and this is not usually desirable. Instead, "dryers" are dissolved in the hot raw oil and these act as catalysts to accelerate the film-forming when the oil is spread as paint.

The "dryers" are usually organic metal salts and air is bubbled through the hot oil to keep them in suspension until dissolved. The whole mixture tends to froth up during this process and has led to the adoption of the term "boiled" although the temperature used is far less than the real boiling point.

We are now in a position to understand how the mixture works on the rust.

The vinegar contains acetic acid as its active ingredient and starts to convert the rust to ferric acetate. This is normally a fairly slow process but in this instance the linseed oil takes up the metal acetate into its structure à là the "boiling" process described above and encourages the reaction to continue. The rust thus disappears into the linseed oil, frothing and thickening it in the process. The mineral turps merely thins down the oil and ensures that the reaction starts off and continues in a reasonable timescale. The whole process may take several days but your patience will be rewarded by an excellent result.

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A SUMMARY OF THE ART OF BUILDING;

COPIOUS ACCOUNTS OF BUILDING MATERIALS, STRENGTH OF TIMBER, CEMENTS, &c.;

A DESCRIPTION OF THE TOOLS USED BY THE DIFFERENT WORKMEN;

AN EXTENSIVE GLOSSARY OF THE TECHNICAL TERMS

PECULIAR TO EACH DEPARTMENT;

AND

THE THEORY AND PRACTICE

OF THE

FIVE ORDERS,

AS EMPLOYED IN DECORATIVE ARCHITECTURE.

By **PETER NICHOLSON, ARCHITECT.**

THE WHOLE ILLUSTRATED AND EMBELLISHED WITH NUMEROUS PLATES, FROM ORIGINAL DRAWINGS
AND DESIGNS, MADE EXPRESSLY FOR THIS WORK, BY THE AUTHOR, AND CORRECTLY ENGRAVED,
UNDER HIS IMMEDIATE INSPECTION, BY MR. W. SYMNS, AND OTHER EMINENT ARTISTS.

LONDON:

PRINTED FOR THOMAS KELLY, 17, PATERNOSTER ROW.

1823.

2.—TOOLS USED IN CARPENTRY AND JOINERY.

CARPENTER'S TOOLS.—The principal tools used in the rougher operations of Carpentry are the *Axe*, the *Adze*, the *Chisel*, the *Saw*, the *Mortise and Tenon Gauge*, the *Square*, the *Plumb-rule*, the *Level*, the *Auger*, the *Crow*, and the *Draw-bore Pin*, or *Hook-pin*, for drawboring. Of these the figures are represented in *plate LXVII*, saws excepted, which are shown in *plate LXVIII*, and described hereafter. These tools are all too well known to require a copious description.

The *AXE*, *fig. 1*, (*pl. LXVII*), is an edged tool, with a long wooden handle, used for chopping or trimming timber to a given form, and to prepare surfaces for being smoothed with the adze.

The *ADZE*, *fig. 2*, a sharp-edged tool, used for the purpose of trimming surfaces smooth, by chopping, in a horizontal position, after the operation of the saw or axe.

The *CHISEL*.—The *Socket-Chisel*, used in mortising, (*fig. 3*), differs from other chisels, (described hereafter,) in having a conical socket to receive the handle, instead of a tang and shoulder. It is commonly an inch and a quarter or an inch and a half broad. The lower part is a prismoid, the sides of which taper considerably downward, and the edges upward. The under end is in the form of a wedge, with the basil on the iron side and the edge on the lower end of the steel face.

MORTISE and TENON GAUGE.—See *GAUGE*, hereafter.

The *SQUARE* (*pl. LXVII, fig. 5*).—The *Carpenter's Square* is a rule of iron, about an inch broad, forming a right-angled triangle, and graduated into inches and parts. Of its two legs, one is eighteen and the other twelve inches in length. The first is numbered from the exterior angle; and the tops of the figures are, therefore, toward the outer edge. The other leg is numbered from the extremity towards the angle, and its figures are read from

the internal angle, as in the other side. This instrument is equally useful as a Square, a Level, and a Rule. Its use as a level, in taking angles, has been shown, thus: To take the angle which the heel of a rafter makes with the back, apply the end of the short leg to the heel-point of the rafter, and the edge of the square level across the plate; extend a line from the ridge to the heel-point, and where this line cuts the perpendicular line of the square, mark the inches, and this will show how much it deviates from the square.

The PLUMB-RULE (*pl.* LXVII, *fig.* 6).—An oblong or prismatic piece of wood, having a line drawn down the middle of one side, parallel to the arrises or edges of the same face. It is used for ascertaining the vertical position of posts, &c., and so as to set them perpendicular to the horizon, by means of a plummet, or plumb, suspended by a line from the upper end of the rule, and allowed to vibrate freely, by an aperture in the lower end of the same.

To set up a post perpendicular, place the bottom of it in the situation required, and the sides as nearly vertical as the eye can direct. If insulated, let it thus be fixed with temporary braces, at least from two adjoining sides, but, if very heavy, from all the four sides: then try the plumb-rule upon one side, and if the thread coincides with the line, that side of the post is already *plumb*, or upright; but if not, the top of the post must be moved forward or backward, as it may lean or hang, so much as required, until it is erect; and this is to be effected by previously moving the front and rear braces and fixing them anew, while the others remain to support the other sides. Again, applying the rule as before, if there be a coincidence between the line and plummet-thread, the face is perpendicular; but, if not, similar operations must be repeated, until it is found to be so. Proceed thus with the other two sides of the post, until these also are *plumb*, and the true vertical position will be determined.

The LEVEL (*pl.* LXVII, *fig.* 7).—A long rule of wood, ten or twelve feet in length, straight on one edge, and having another piece, in the middle of its length, fixed perpendicular thereto, with its sides in the same plane as the sides of the rule. The vertical piece is generally mortised into the other,

and firmly braced on each side, so as to secure it firmly in its position. This piece has its upper end kerfed in three places; one through the perpendicular line, and one on each side. On the under side of the straight edge of the transverse is a hole or notch, cut equally on each side of the perpendicular line. A plummet is so suspended by a string, from the middle kerf at the top of the vertical or standing piece, that, when hanging at length, the bottom of the plummet may not reach to the straight edge, but vibrate freely in the hole or notch.

If the straight edge of the level be applied to two distant points, the two sides being placed vertically, while the plummet hangs freely, and coincides with the straight line on the vertical piece, then these points are level: if otherwise, imagine one to be at the given height; then the other is to be heightened or lowered so as to make it level; and thus the implement is to be applied until the thread coincides with the perpendicular line.

In carpentry, the level is used to lay the upper edges of joists in naked flooring horizontal, by first levelling two beams as remote from each other as the length of the level will allow: the plummet may then be taken off, and the level used as a straight edge. In *levelling joists*, the best method is, first to make two remote joists level in themselves; that is to say, each throughout its own length, then the two level with each other: having settled these, bring one end of the intermediate joists straight with the two which have been levelled, then the other ends in the same manner; next apply the straight edge longitudinally on each intermediate joist, when those found to be hollow, if any, must be furred up.

The Level is adjusted by placing it in its vertical situation upon two pins or blocks of wood; then, if the plummet hangs freely, and settles upon the line in the standing piece, it is correct; but, if not, raise one end or lower the other to make it do so; then turn the level end for end, and if the plummet falls upon the line the level is just; if not, the bottom edge must be shot straight, and as much taken off as may be requisite, which will be ascertained by trying the level first one way and then the other, as before, until a perfect coincidence between the thread and the line is obtained.

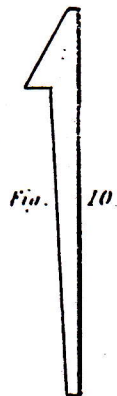
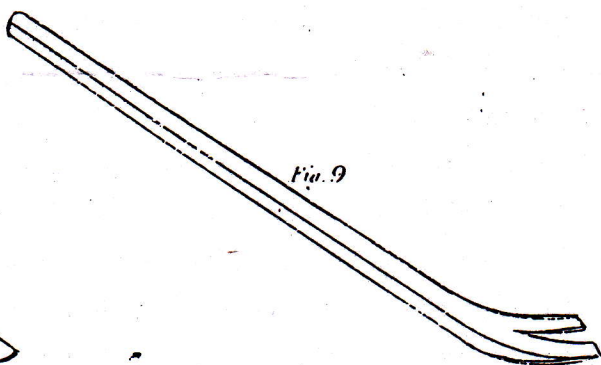
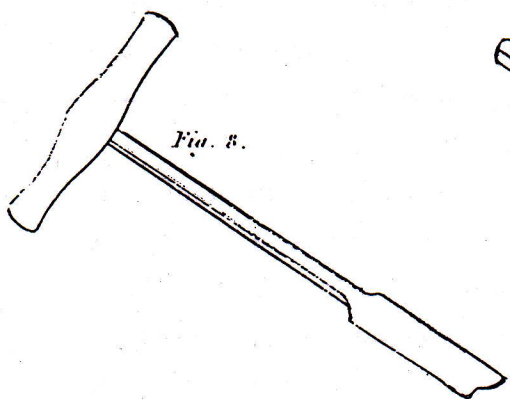
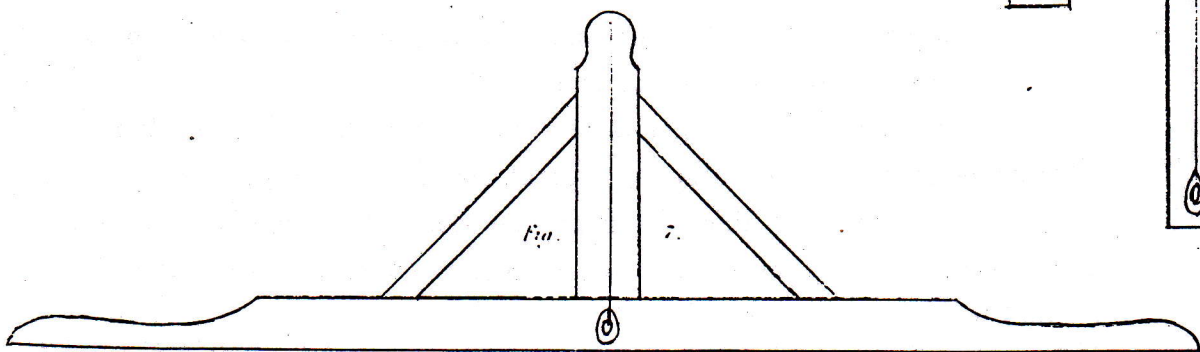
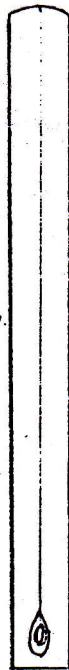
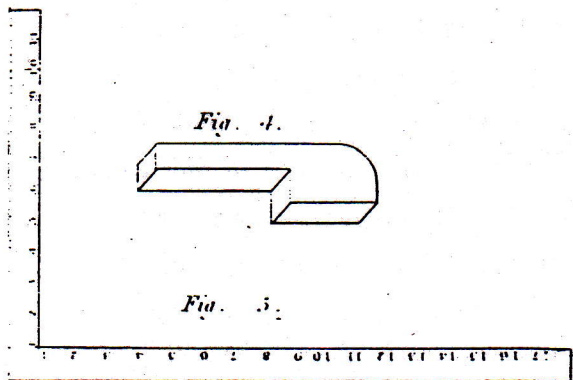
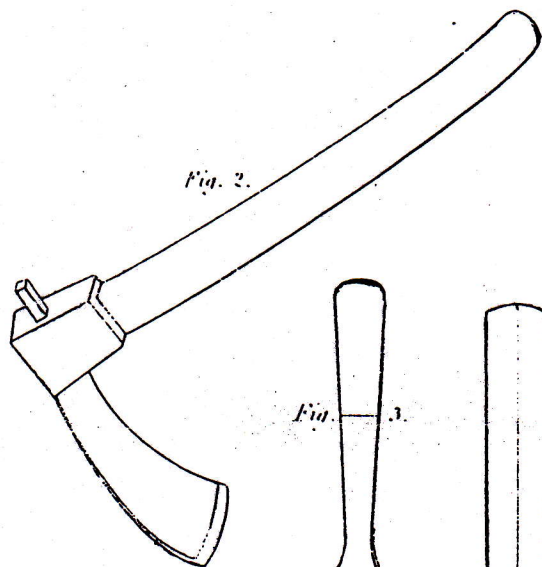
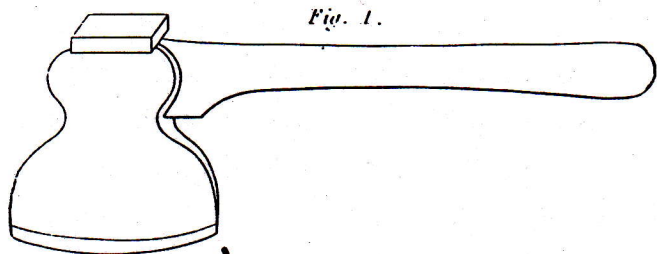
The AUGER (*pl. LXVII, fig. 8*).—*The Auger* is the largest of all tools which are used for boring wood. It has a shaft, with a wooden handle at the upper end, at right angles with the shaft, which is towards the lower end made of steel, and the other portion of iron. The steel part is of a prismatic form to some distance from the end, upwards. The point, or lower end, being furnished with a worm or screw, of a conic form, for the more readily entering the wood. The edges are almost parallel, though the sides taper, in a small degree, upwards. The upper portion of the shaft, above the steel part, is generally of a less size than the lower part, in order that it may pass the bore more freely. The axis of the shaft and the axis of the worm are in the same straight line. The lower end is, on one side of the cone, cut into a cavity, and forms on the narrow surface of the prism a projecting cutting edge, called the *tooth*. The lower end of the other side of the cone projects in the form of a wedge before the prismatic part of the face, the cutting edge being formed by the line of concurrence of the two sides of the wedge. The greatest extremity of the lower end is the vertex of the cone, the cutting edge of the tooth being somewhat nearer to the handle, and the cutting edge of the wedge-like part nearer still.

This construction of the auger is of very modern date; but it has many advantages over the older form, as, without any previous hole, it pierces the wood much truer; and, likewise, it spontaneously discharges the chips or core in the form of a spiral shaving; neither of which properties the older form of the auger possesses.

The CROW (*pl. LXVII, fig. 9*).—A large bar of iron, used as a lever to raise the ends of heavy timber, in order to lay a roller or another piece of timber under it. This instrument is commonly formed with claws, as represented in the plate.

The DRAW-BORE PIN (*pl. LXVII, fig. 10*).—A conical implement of iron, with a hooked head, declining upwards in the form of a wedge. They are furnished with tangs and shoulders, and fitted into handles like chisels. They are used after the tenons have been entered in the mortises, and bored, to draw the shoulders of the tenons home to their abutments in the mortise-

CARPENTERS TOOLS.



cheeks, in the following manner: the tenon is inserted, and drawn as nearly into its proper place as possible, and then marked on both sides, through the hole in the mortise-checks. The tenon is then taken out again, and bored through a little nearer the shoulder than the centre of these marks, and again entered, and brought with its shoulder as near to the abutment as possible. By thus using the draw-bore pins, the wood on the sides of the holes will be hardened; and thus the wooden peg, when driven in, will maintain a firmer hold.

FAVOURITE TOOLS

The last meeting got me thinking about saws. Even the best saw is useless unless it is well sharpened. This is not the time to discuss saw sharpening but one aspect is paramount. This is the process of setting. I have two saw sets and I consider both to be supreme tools. Both are favourites. They are:

ECLIPSE SAW SET

Mine is an old tool, probably made in the 1950's. The pliers are bronze and steel parts show no wear despite much use. This saw set works beautifully provided the user realises it is for saws from 4 TPI to 10 TPI. By rotating the anvil it is easy to plus or minus the set. The device has no play or lost motion so the action is positive.

DISSTON PISTOL

This is especially for back saws. The action is effortless. Any back saw can be set with precision. What of very fine dovetail saws? These should have no set so where is the problem? The Disston can cope with my finest tenon saw and that is all it was designed for.

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Secretary
President
Committee Member

Where to apply:

Next General Meeting

just stand for election, present Committee members are willing to nominate any likely candidate.

WANTED - Bandsaw in good straight condition. Cast iron frame preferred. Without motor/belt/blades o.k. 8" minimum cut. Phone Kim Johnston at Bennett Fox Designs (02) 818 4264, anytime (answering machine).

WANTED - Set of bearing rollers on pedestals to carry. Spindles from old hand/foot operated sandstone sharpening stone. V. Shepherd, phone (079) 551770.

FOR SALE - Set of 40 wood moulding planes, \$10 each or offer. Brian Kennedy, 94 Cook St Muswellbrook 2333, (065) 43 1282.

WANTED

Wooden Jointer Planes, 26" and 30" good condition. Write with condition and price to Bob Crosbie care of TTTG Secretary

Any tools stamped with (broad arrow)
Write with details to Ralph Hawkins care of TTTG Secretary

WANTED FOR RESEARCH INTO EARLY NSW TRADES

Bob Crosbie is trying to locate and hopefully purchase the following items:

- * Pit Saw with Box and Tiler
- * Cross Cut Saw
- * Felling Axes

All items need to be circa 1830. In addition any tools stamped with a broad arrow are also sought.

Tools of Trade

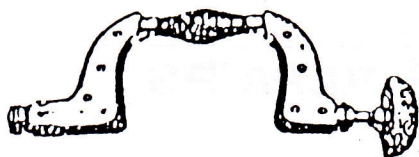
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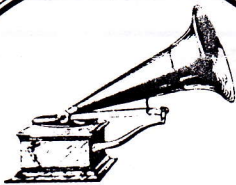
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1994

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