

The TOOL SHED

NUMBER 74



NOVEMBER 1992

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New Jersey Draw Gauge Manufacturers / Cutlers & Partnerships by Kenneth K. Hopfel

Aaron Crawford, one of Newark, New Jersey's tool manufacturers, was first listed in the Pierson's Directory as a toolmaker in 1838. It was in 1841 when he was first listed as a *Cutler* and remained as such until 1844 when his occupation was revised to read *Saddlery Hardware*. Two years later a new title *Cutlery & Saddlery Hardware* appears only to revert back to *Cutler* in the 1847 directory. Despite the various listings I believe that Crawford was always manufacturing harness/leather tools although he may have enhanced his occupation by producing related trade items as so many of these early entrepreneurs did to survive.

Crawford continued to manufacture tools independently and with a variety of partners throughout his career. In 1852 the Newark City Directory separately lists Aaron Crawford, William Brown and Henry Sauerbier as Cutlers by trade, all with the same address of 7 Mechanic Street. During this year an additional entry appears documenting a partnership between *Crawford, Brown & Sauerbier ...cutlers, 7 Mechanic*. Finding a tool with these three names on it would be an exciting discovery. In 1867 Crawford again tried a new partner, Jacob Nopel, and for this year only was listed as *Crawford & Co*. Searching the directories, both before and after, failed to reveal what may have been Jacob Nopel's contribution to this partnership. The following year Aaron Crawford was once again listed by himself as a cutler. Crawford's tools can still be found today with a variety of additional name imprints other than his alone. Some of the other cutlers he associated with and whose name could be

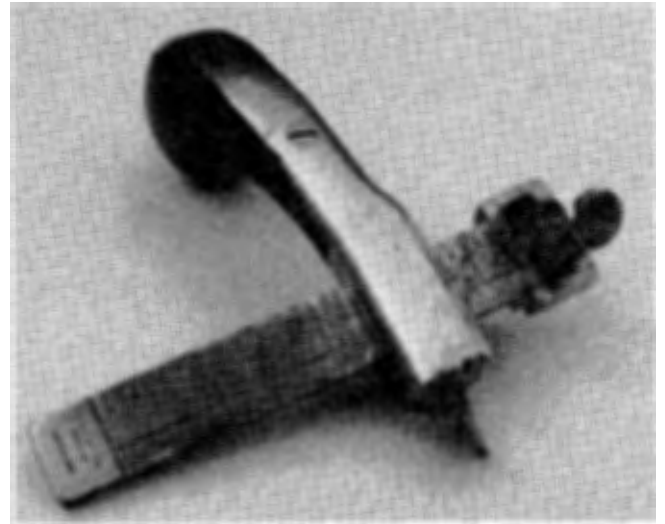


Figure 1. A draw gauge manufacturing CRAWFORD & LYLE.

found on the same tool are: Henry Sauerbier, Furgas A. Hathorn, John Lyle and William Brown. Browsing through the Newark directories from 1836-1880, one can observe an abundance of wagon, carriage and harness making enterprises. Partnerships among these cutlers were a common practice in Newark during the 1800's where this trade must have been very competitive. Whether it was for monetary reasons or his expertise, Crawford appears to have been included in many business ventures.

continued on page 4

November 8, 1992 Crafts Meeting

Alex Farnham will discuss his new book
More New Jersey Toolmakers.

CRAFTS of New Jersey

Collectors of Rare and Familiar Tools Society
of New Jersey

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The purpose of CRAFTS of New Jersey is to encourage interest in early trades and industries, and in the identification, study, preservation and exhibition of tools and implements used and made in New Jersey as an integral part of our heritage.

Membership in CRAFTS is open to anyone who shares the above interests. Annual dues per person or couple are ten dollars for the membership year of July 1 through June 30. Membership fees may be sent to the Treasurer: Helen Whelan, 38 Colony Court, Murray Hill, NJ 07974.

CRAFTS of NJ meets at the HOST Masonic Lodge, High Bridge. Take I-78 to Route 31 exit at Clinton. Go north on Rte. 31 two miles to second traffic light at the High Bridge exit. Turn right and go about half a mile to Dennis Ave. Turn left, then straight to the Masonic Lodge (on the left). Tailgate sales in the parking lot begin at 1 P.M.; meeting is at 2:00.

THE TOOL SHED

Published five times a year for members of CRAFTS of New Jersey. Editor: Stuart Shippey, 251 Hillside Ave., Chatham, NJ 07928-1732. Articles, especially about New Jersey tools and trades, are encouraged and may be sent to the editor. Text can be hand written, PC ascii, *Word Perfect*; FAX 201 301-9781.


Picnic Displays



Above: Tools made by Napoleon Erlandsen of New York City circa 1888 by Dominic Micalizzi.

Right: Planet Jr. Wrenches by Frank Kingsbury, who won Outstanding Display at Southwest Tool Collectors Assoc. in San Antonio, Texas in May.



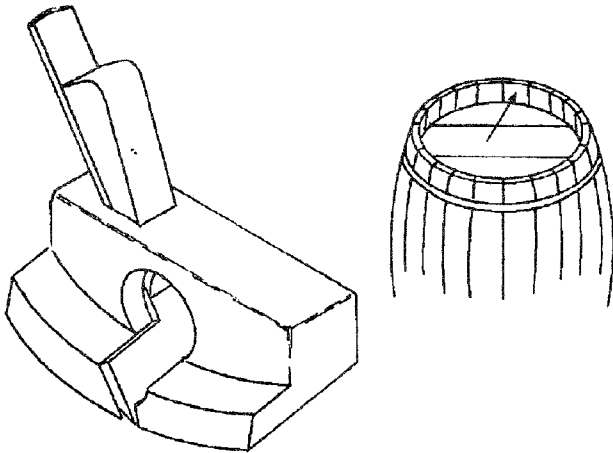


PRESIDENT'S CORNER

The season got off to a good start with our picnic September 13th. It lived up to the fine standards set by the manager, Ken Vliet, over the past years. I hope all of you who attended enjoyed it as much as we did. Any ideas you have for our next one will be welcomed.

Ken, aided and abetted by Annette, not only runs the picnic but takes care of the goodies at the rest of our meetings. We appreciate their efforts, and the presentation of the Harry O'Neill award is just a small token of this.

The enormous collection of A.M. Beitler, being auctioned by Barry Hurchalla, continues to produce fascinating tools. On September 12 I acquired a cooper's tool that does not even have a name in English, as far as I know. The job it does just wasn't done in England or this country. It's called a *Columbelle* in France, a *Backenhobel* in Germany.



The plucker and the buzz serve to smooth the outside of a cask, and the inshave or the stoup take care of the inside. Only on the Continent did the coopers worry about smoothing the inner surface of the stave ends that remain visible after the heads are installed (the surface indicated by the arrow in the barrel sketch). That is done with the plane illustrated: a compassed plane whose curvature matches the cask curvature, and whose sole has the right

slant to fit into the angle between head and stave. It's a hard area to get to, and a different size of plane must be used for each size of cask. I had never encountered one (except in Continental pictures) and was delighted to find it.

Welcome to new **CRAFTS** members Michael & Jacki Bowen (New Britain, PA); Richard Burton (Mt. Laurel); Gerald & Mary Ann Clearwater (Morganville); David Dresdner (Whippany); Alan & Judith Holmes (Slidell, LA); Leon Kashishian (Hatfield, PA); Keith & Sonya Miguel (Staten Island, NY); Don & Mary Prowant (Etters, PA); and Sue Ann Sprague (NYC).

CRAFTS Picnic Awards

President's Award: Ken Vliet

Best Display

Men's: Sash Tools

Joe Hauck &

Chuck Granick

Women's: Kitchen Tools

MarKay Zluky

Tool Contests

Most Beautiful: ivory-handled miniature saw,
Ken Vliet

Most Unusual: Adams art augers, Vincent King

Best Make-Do: floor plane,
Pete Hathaway

Ugliest Tool: large wrench,
Frank Kingsbury

Guess How Many

Men's: Harold Siegel

Women's: Brenda Prostack

Kid's: Dani Rice

Wrench Toss

Men's: Lloyd Vliet

Women's: Brenda Prostack

Horseshoes (kid's): Laura Allen

Door Prizes: Janet Orbine,
Alex Farnham, Carol Siegel

New Jersey Draw Gauge Manufacturers continued

John Lyle was a new and unfamiliar name to me. In researching the Newark directories, the name John Lyle does not appear until 1843 when he was listed as a cutler at 36 Clay St. I have a draw gauge marked *Crawford & Lyle* but failed to find any connection between the two individuals. John Lyle was listed as a cutler up until 1852 where he last resided at the



Figure 2. Two draw gauges by Henry Sauerbier; one displaying the early HENRY SOUERBIER imprint on left.

rear of 333 Broad St.

Henry Sauerbier also had a long career as a cutler in Newark. His name can first be found in the Newark directories starting in 1848 as *Henry Sauerlier* and again in 1849 as *Henry Sourbur*. After 1849 he remains listed as *Henry Sauerbier, cutler*. In 1853 he is shown working

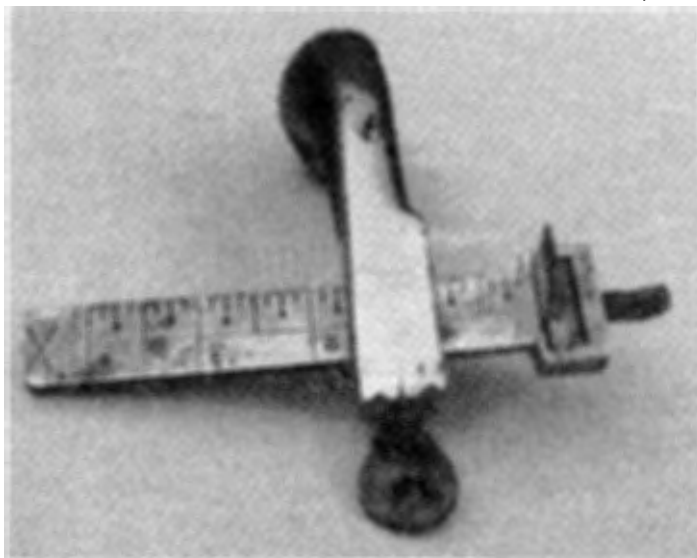


Figure 3. A draw gauge manufactured by CRAWFORD & SAUERBIER.

at 7 Mechanic, the same address as Aaron Crawford, and most likely a working partnership between the two. The next year in 1854 Henry Sauerbier is listed under his name as a cutler with an additional directory listing of *Henry Sauerbier & Co., cutlers*. It was not until 1869 that Henry Sauerbier Jr. was first listed in the directory as a clerk for his father's business. Two years later the name of the business is listed as *H. Sauerbier & Son (Henry Sauerbier & Henry Sauerbier Jr)*. The rarest and perhaps the oldest signature on his tools is spelled *HENRY SOUERBIER*, which was used in the beginning of his career. Often accompanying his name on the tools are sun or star bursts adding to the appearance of the tool. A draw gauge I have in my collection is signed *CRAWFORD & SAUERBIER* indicating the short lived partnership with Aaron Crawford.



Figure 4. A draw gauge manufactured by BROWN & HAVELL.

William Brown, a very rare Newark, N.J. toolmaker, was first listed as a cutler in 1844 at 14 Clay St. and remained in Newark as a cutler for ten years. William Brown also submitted to the comradery of partnerships. Besides the partnership with Crawford and Sauerbier he also worked with Henry Havell. A draw gauge I found at an auction is stamped *BROWN & HAVELL* showing that Henry Havell had also endeavored in making leather working tools with William Brown. Early directory entries record Henry Havell as a Steel Worker, hard-

Francis and Ward, a short-lived relationship first listed in the city directory in 1856, only had John Ward as a cutler through 1859. Surprisingly, for such a short-term partnership, Francis and Ward employed two versions of their name stamp. The first shows the name *FRANCIS & WARD* in a straight line and the second portrays *FRANCIS & WARD* in an arch both over the location *NEWARK N.J.*

Some cutlers produced gauges in two styles. The most common is called a *Draw Gauge* which is drawn or pulled through the leather toward the user. This style was also offered with a trigger under the frame which is called the *IMPROVED* model. The earlier versions of this improved frame had the trigger tapped into the brass. This step was later eliminated by making the trigger part of the intricate casting. The second variation, which is very early, is called a *Push Gauge* which was obviously pushed to cut the leather stock. The push style was only offered by the manufacturers during the early nineteenth century and was discontinued due to lack of popularity. The Osborne's, who were very prolific tool manufacturers in Newark, had produced a draw gauge in a left handed version which I have been unable to locate an example of.

Most draw gauges are marked on the frame and the cutter bar, indicating the sequence in their production and the matching of parts. These numbers or marks should match with each



Figure 5. Two draw gauges from FRANCIS & WARD displaying both variations of the name stamps. Arch on left.

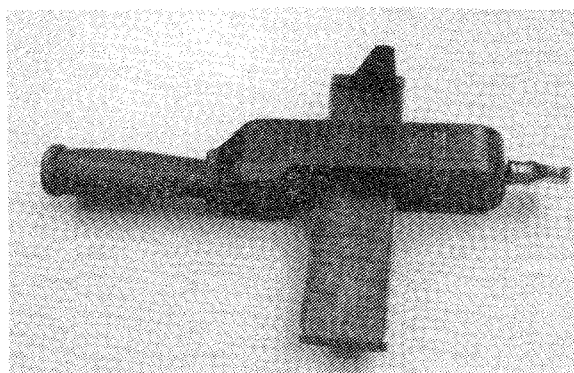
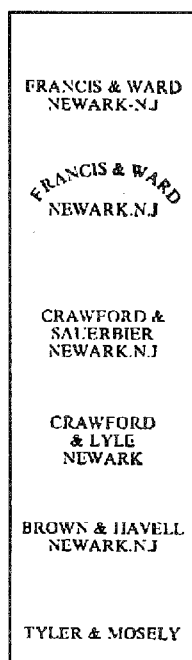


Figure 6. Early draw gauge from TYLER & MOSELY.

other showing an original bar/frame manufacture. Through the years many of these tools had various parts replaced or swapped from others resulting in a marriage often overlooked by the novice collector. These marks can be in the form of arabic or roman numerals, punch dots or tick marks. Most of these draw gauges are made with a brass frame usually stuffed with

rosewood, others with mahogany or fruitwood. The earliest gauges were stuffed with beech which was also used in the manufacture of early round knives and other tools. The steel frame was used during later years of manufacture adding a less expensive product line to the market.

The earliest manufactured draw gauge I have seen was made by Tyler & Mosely. This gauge is made entirely of beech except for the steel used to support the blade and prevent wear on the bar. Unfortunately, there is no mark to confirm the location of manufacture.

Obviously there is still information to be discovered about these Newark cutlers. They produced a variety of tools many of which were patented.

Harness making tools from early Newark cutlers are of superior quality and are still in demand for their appearance and functionality. I would be interested in hearing of any additional information or finds from fellow members.

The Topic Is Trammels

by Bill Frey

In the February 1992 *Toolshed* Jack Whelan had some very timely comments about specialization and even sub-specialization. He talked about the plumb bobbars having their own newsletter. He accused me of doing my best "to corner the trammel point market" and hoped that some day I would "share my knowledge" with the club.

Obviously, Jack was teasing me, for "cornering the market" is a hilarious exaggeration. But, Jack knows that I am a serious collector and that over the last decade have accumulated a representative number of these tools. I'm still actively looking to increase the collection - but nothing more than that.

"Sharing my knowledge" is also very comical because what I know about trammels is very limited. But this lack of knowledge I'd be happy to share -- with an urgent plea that the more knowledgeable reader please contact me to correct the inaccuracies and omissions which certainly will be made here and, hopefully, to shed some light in areas where the knowledge breaks down completely.

Now that the disclaimer is out of the way, let's start with a few basics. The beam compass is a wooden or metal bar with two heads (trammels) made of wood or metal which slide along the bar and can be fixed in any desired position by means of wedges or screws.⁽¹⁾ This form of compass was used by millwrights, wheelwrights, shipwrights, carpenters, pattern makers, etc. to scribe arcs or circles larger than could be done with dividers and/or for marking out large work pieces. When attached to a carpenter's square they serve as fixtures useful for laying out stairs. Most trammels have steel points, although some may also accommodate a pencil, if desired. (Carpenter's scribes have a steel point rather than a pencil lead, for better accuracy and durability.) The beams were usually 2 to 5 feet long,⁽²⁾ but in the tool box the craftsman would often store his trammels on a much shorter bar ("keeper bar"). To shield the beam against undesirable indentations from the adjusting screw, many trammels have separate horizontal metal protectors. These are sometimes referred to as *keepers* but a much more appropriate term would be *spacer* or *bar protector*. Occasionally one of the trammels in the set would be equipped with an adjustable vernier to permit a very fine tuning of the desired radius or dimension (Figure 1).

Major manufacturers or distributors of trammels in this country are Stanley, Starrett, Tower & Lyon, etc. Beginning in 1874 Stanley marketed No. 1, 2, and 3 brass trammels with a rather ornate design. This has been referred to as *Type 1*. Catalogs that I have seen picture only the No. 1 size (Figure 2). No. 2 and 3 sizes

are also ornate castings but their designs differ from No. 1. That series was followed by the *Type 2* bronze edition, also in 3 sizes and sometimes referred to as the *Sweethart* variety. In this series all three sizes are very similar in appearance.

Stanley #4 appeared around the turn of the century and over the years went through a number of design and material changes. A green enamel copy of the latest Stanley #4 is currently offered by Kunz, a German supplier. Numbers 5 and 6 were produced with a variety of interchangeable points and caliper legs. And then there is the little three piece set #99 which originally sold for fifty cents but has now become very pricey.

Starrett of Athol, Mass. supplied a wide variety of trammels. Number 50 was probably the most popular and, like Stanley #4, went through a metamorphosis in design and material. Originally the Starrett #50 (cataloged in the early 1900's), was nickel plated, had an open somewhat triangular design and came with an adjustable point (Figure 1). In later editions the overall shape and size remained the same, but the open design was eliminated. A 1930 catalog referenced the *new style* and specified that it was nickel plated. A 1955 catalog states that it is chromium plated and a 1960 catalog specifies a black wrinkle finish. Trammels similar to this latter variety were also sold by *Sears* (Craftsman #4061) and by *General* (#520). Having said all this, the truly original #50 was actually manufactured by J.H. Cook, Syracuse, NY. They were bronze, not nickel plated, and in Starrett's 1894 catalog were listed as *Cook's Improved Trammel Points #50*.⁽³⁾

No. 51, next in the series, was also made by Cook and called *Extension Beam Trammels* - the beam here being wood. The material in Cook's #51 was not specified. But the later Starrett versions were nickel plated. Next in the Starrett series is #58. These steel beam trammels are very plain in design and are also believed to have been made by Cook at an earlier date. Starrett #59 is an open-backed wood beam trammel which could be obtained with a wide variety of points, calipers, and even ball points to "permit scribing a circle from the center of a hole." Trammels very similar to Starrett #59 have been sold by Lufkin under No. 179A. General trammel #523 is also

almost identical in design to the Starrett #59, but Starrett trammels are steel while the General tool is non-magnetic.

Starrett also made (or distributed) a number of different styles and sizes of steel beam *machinists trammels*, as did Lufkin, Brown & Sharpe, etc.

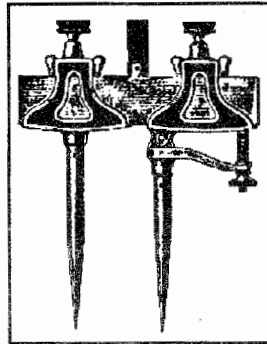


Figure 1. Starrett No. 50 Adjustable Trammel Heads

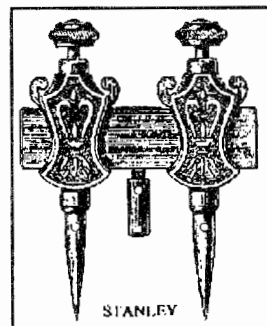


Figure 2. Stanley Nos. 1, 2, & 3

Tower & Lyon, around the turn of the century, made or distributed a series of four different sizes of brass trammels (Figure 3). They were of plain design with almost square bodies. Their highly polished finish made them very handsome indeed. (I suspect that T & L merchandised rather than manufactured them, because I have a set of almost identical #2 size trammels marked *A.M. Tool Co., Cleveland, Ohio*. Could it be that they all were made by the R & E Manufacturing Co.?)

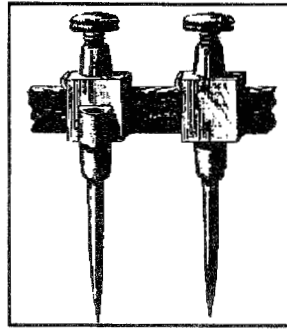


Figure 3. Tower & Lyon Brass Trammel Points

Disston and Morse in the late 19th century "produced" trammels similar in design to Stanley Type 1. According to Barlow⁽⁴⁾ there were three sizes available, but I personally have seen only the no. 1 size.

Lufkin produced a *Magic Pattern Rule* which was patented in 1890 and sold in a large, hinged wooden box containing two steel-bodied trammels on a four ft. ruled steel bar, complete with flexible steel ribbons, instruction chart, etc. Lufkin was the *sole manufacturer*, but the same patented set was also sold by C.S. Mersick & Co. of New Haven, but with brass-bodied trammels.

In England, trammels supplied by Edward Preston & Sons, Birmingham, were very popular and very handsome, being finely machined and highly polished. A 1909 Preston catalog lists 15 different sizes of *Trammel Heads*.

In the U.S. during the late 1800s and early 1900s there were a number of other companies of lesser importance⁽⁵⁾ that also produced trammels, but the collector soon discovers that factory manufactured trammels represent only the tip of the iceberg. The large majority of trammels that are available from the tool dealers are sets that have been individually hand crafted by the artisan. Which leads to the question: Why did so many craftsmen personally fabricate the trammels which they used? Here is where my knowledge really breaks down so we move into the area of conjecture.

a) In the early days it was not uncommon for an apprentice to make many of his own tools as part of his training. Trammels would be ideal candidates. It is well documented that later in the training the *master* would suggest that ask the apprentice demonstrate his skills by making his own tool box. Might trammels fall into the same category?

b) Trammels would provide an excellent opportunity for the craftsman to show pride in his ability to project his artistry and individualize this tool in his chest.

c) The beam compass was a tool used by pattern makers. Since a *pattern* is often the

first step in the crafting of a trammel, it would be a natural consequence for a pattern maker to pursue this undertaking.

d) A German reference⁽⁶⁾ contends that according to old guild rules only the master was privileged to use a ruler. Therefore the apprentice had to use trammels to transfer the master's original measurements to his (the carpenter's) workpiece. How better to fulfill this requirement than with your very own personalized set. This application may also partially explain why trammels were so much more popular years ago. Today many carpenters I have contacted never heard of the tool.

e) This same reference suggests that the beam compass was a symbolic tool of the guild and might often serve as a coat of arms of the shop or trade establishment. How important that this symbol should be individualized!

Whatever the reason, there is an almost endless variety of trammel points in the market place. Some are very plain (Figure 4) while others are quite imaginative and artistic (Figure 5). Some are obviously castings but others have clearly been machined from bar stock. Very early trammels⁽⁷⁾ were made almost entirely of wood.

All of the hand crafted trammels are individual, yielding a vast assortment of sizes, shapes, and designs. This fact makes trammels such fun to collect and so colorful to display in your tool room or recreation area. On that note I will close with the comment that I expect to display a portion of the collection at the November meeting and would welcome the opportunity at that time to learn more about this tool from our knowing members.

I would also like to express my appreciation to Herb Kean for the time he has spent with me discussing this topic.

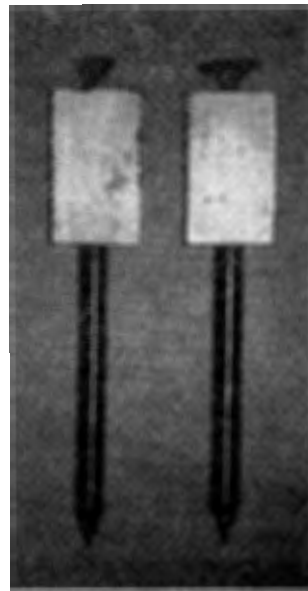


Figure 4. Plain trammel.

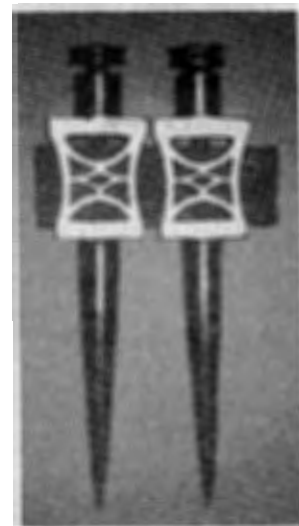
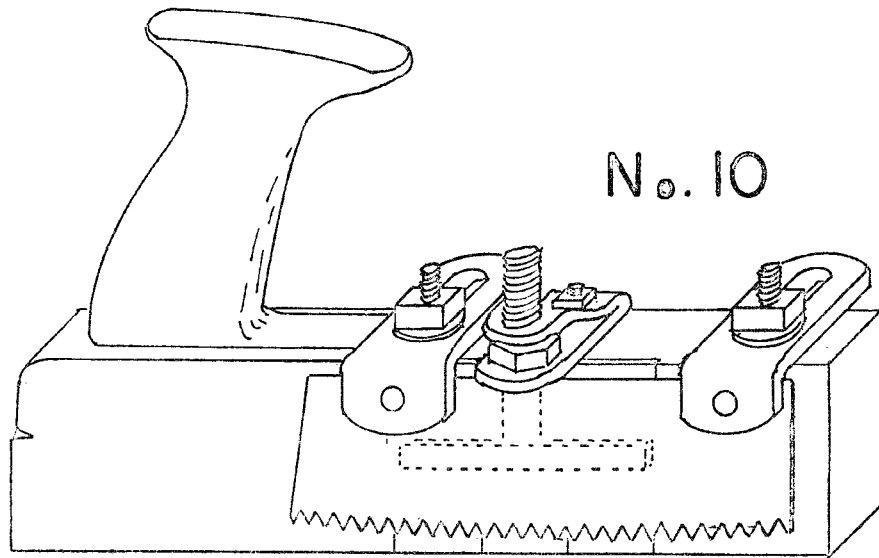


Figure 5. Artistic trammel.

- (1) Salaman, R.A., *Dictionary of Woodworking Tools*, Tauton Press.
- (2) A retired engineering friend told me he once worked on a job that required a beam that was 23 feet long.
- (3) I am grateful to Karl Sanger for this point of chronology.
- (4) Barlow, R.S., *Antique Tool Collectors Guide to Value*, Windmill Publishing Co.
- (5) E.g., Bellows, Diamond, Kline & Heller, Oliver, E.Smith et al.
- (6) Schadwinkel, Heine & Gerner, *Das Werkzeug Des Zimmer Manns*, Verlag Th. Schafer.
- (7) Reference (6) reports a quotation dated 1731 which described the use of trammels for transferring a width to a workpiece.

WILLY TELLUS WHATSIT



Letter Received

A tool well made by a craftsman, obviously by using materials at hand in his well-stocked shop. The saw blade can be set from zero to an inch and a quarter away from the stock. The depth stop (behind the blade, seen as a dotted outline) slides between metal guides sunk into the side of the stock, and can be set for a kerf up to three-quarters of an inch deep. Why did he make it?

The whatsit no. 9 in the September Toolshed struck an immediate chord of recognition with me.

An auction box lot I had acquired a couple of years ago contained a tapered wooden object almost identical to that presented by Joe Hauck. The one detail mine did not share with the pictured tool was the slot down the center. Instead of a vertical slot my tool had a horizontal slot about one third the way below the flat top surface.

That difference I would think would not alter its functioning as a sandpaper form or mandrel which I am convinced is my tool and is what I use it as. The slot is a convenient way to hold the paper without slipping. Its variable tapered shape is very useful in a variety of sanding tasks.

Frank Kosmerl
Rochester, NY

CRAFTS Calendar of Events

November 8 - meeting at High Bridge

December 25 - *TOOLSHEED* deadline

February 7 - meeting at High Bridge

April 4 - meeting at High Bridge

June 6 - meeting at High Bridge

Advertisement

Wanted: Old door, barn and chest locks, etc. Wrought iron and/or handmade locks preferred. Some Victorian cast iron and patent locks considered. No padlocks please. Call or write, Louis Schmidt, 1362 W. Front St., Lincroft, NJ 07738-1119 (908)219-9720 or bring locks to November 8th meeting, thank you.