The TOOL SHED

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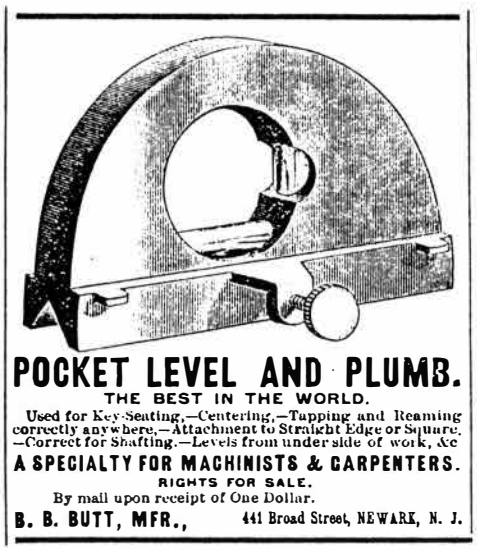
A Short History of Machinists' Tools

by Kenneth L. Cope

With this article I hope to shed some light on a subject that, it appears to me, has been neglected. Until recently the study and collecting of machinists' tools has been confined to a very small group, especially when compared with the number of collectors of woodworking tools.

I suspect that the neglect of machinists' tools is due largely to a general unfamiliarity with the tools and their use. Most woodworking tools are found, in some form, in nearly every household. Most of us grow up with some appreciation of their use. Machinists' tools, however, are seldom found in the home, and even if they were, would find little use.



Maybe we should start with the basics. First, what is a machinist? Second, what defines a tool as a machinist's tool?

The definition of a machinist is less clear than we might think and has changed over the years. A good early definition is found in the August 2, 1879, *American Machinist* magazine: "A machinist is a constructor of machines and engines; one versed in the principles of machines or one who constructs machines or who is skilled in their construction." The article goes on to complain that the term is often erroneously applied to almost all who work in a machine shop. (This same complaint was still being voiced when I first set foot in a machine shop some forty years ago.)

By the 1950s the term machinist was applied to skilled workers who had the ability to operate a variety of machine tools, doing their own layouts, setups, and inspections. These men, most of them graduates of four-year apprentice programs, jealously guarded the title of machinist and looked down on machine tool operators who were considered machine "loaders" or "feeders."

Machine tool builders, since the turn of the century, had worked to develop high-production, automatic machines which required only loading by a semi-skilled operator. The machinist was still needed on short run or special work where it was not economical to design and build an automatic machine.

By the 1960s, however, the true machinist began to disappear. Electronically controlled NC, later CNC, machine tools enabled less skilled workers to make parts of better and more consistent quality than those made by highly skilled machinists on conventional machines. The new machine tools also operated at a much faster rate, even on short runs. The skill had moved from the machinist to the machine.

(continued on page 4)

☞ DUES REMINDER ☜

Don't forget to renew membership in CRAFTS and to continue receiving The TOOLSHED. If the number on your mailing label (upper right corner) is 96 (meaning expiration in June 1996), it is time to send your $12 dues to Treasurer Helen Whelan, 38 Colony Court, Murray Hill, NJ 07974 (check payable to CRAFTS of New Jersey).

June 9 - CRAFTS Meeting
High Bridge, NJ, Masonic Lodge

American Patented Braces
Program by Ron Pearson
Author of The American Patented Brace 1829-1924
(*see page 2*)

CRAFTS 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 twelve 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 starts at 2 P.M.

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. Managing Editor: Hank Allen, 524 Harristown Rd, Glen Rock, NJ 07452. Articles, especially about early tools and trades, are encouraged and may be sent to the editors. Please send legible hand-written or typed text, or a PC disk with ascii, *Word Perfect*®, *MS-Word*® file, or send it by FAX to 201 301-9781 or 201 635-7939 (talk first).

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CRAFTS Calendar of Events

June 9 - CRAFTS meeting, High Bridge, N.J.

June 30 - *ToolShed* (Sep issue) free ad deadline.

July 1 - Renew your membership in CRAFTS.

Sept. 15 - CRAFTS picnic

Nov. 10 - CRAFTS meeting, High Bridge, N.J.

Speaker's Profile - Ron Pearson

Until January 1st of this year, Ron Pearson was an osteopathic surgeon with antique tools as an avocation. Now he's retired and planning to spend much more time collecting, dealing, writing, and promoting interest in antique tools. CRAFTS members will be the beneficiaries of his expanded activities at our June 9th meeting at High Bridge. Ron, from Erie, Penn., will talk about American Patented Braces at that meeting.

The November 1994 *ToolShed* included a review of Ron's book, The American Patented Brace 1829-1924: An Illustrated Directory of Patents [1994, Astragal Press]. You may want to re-read that review before the meeting.

Ron has been active in EAIA and Mid-West Tool Collectors, having served as president of Mid-West for six years, and is a current nominee for director of EAIA. He's been a member of CRAFTS for some time, and will author the feature article for the September *ToolShed*. He has written several articles for *The Gristmill* and has spoken and displayed tools [and won prizes] frequently at Mid-West meetings.

Don't miss the June 9th meeting, and bring your unusual and unknown braces with you for positive identification.

Hank Allen

As I am a firm believer in term limits, this will be the last "President's Corner" over my signature. My successor will be elected at the June meeting. You are fortunate in having a very highly qualified individual who has been persuaded to offer his services as your President. I hope that you will give him your full support, and respond favorably to opportunities to serve the Club. I plan to do so, as a Trustee.

You have seen significant improvement in our Club in recent years. The TOOL SHED is winning its place as one of the major tool publications, and is attracting subscribers from far beyond our geographical area. Publication of an anthology of articles from the TOOL SHED is well under way, and you will see the product before long. We plan to expand our meeting schedule to include trips to locations of interest, such as the Martin factory visit earlier this month. Our auction has grown to be a major facility for tool acquisition, attracting buyers from a wide area.

I can take little credit for these Club enhancements. They have been brought about by Trustees who are energetic and very effective. The past six years have provided me with the stimulation of working with a dedicated group.

Many of you have contributed, as well. Your response to requests for assistance is typified by the number of members who worked hard to set up for, and conduct, the auction last month. As you know, all of the workers who are Club members are volunteers, and provide their services with no other reward than the camaraderie and the pleasure of handling some fine tools. If you haven't participated so far, you are missing out!

In most groups of people you will find some you like, some you don't. It is astonishing how much this is changed by a mutual bond, such as our common fascination with old tools. We tend to like people who provide us with information that interests us, and I have yet to meet a "toolie" who I can't learn from. Working and socializing with them is is one of the major benefits of CRAFTS membership. Are you using it to the full?

Welcome to new members Don Berry, Dresher, PA; Jim Boettger, Lake Hopatcong; Steve Burns, Chestnut Ridge, NY; Carmine Cacciabaudo, Morristown; Dr. Michael Colgan, Encinitas, CA; Lou Eggerding, Lawrenceville; Michael Fehn, Botsford, CT; William Hahl, Valley Stream, NY; George Helfert, Fenton, MO; Brian Hope, Trenton; Chief & Patty Hughes, Fort Worth, TX; Ed Ingraham, North Ferrisburgh, VT; Richard Jackson, Duncansville, PA; Don Riley, Brookfield, CT; Roger Springate, Lexington, KY; William Tack, Frenchtown; Joe Wajszczuk, Emmaus, PA; John Williams, Silver Spring, MD; and David Wolverton, Fair Haven.

Jack Whelan

Meet Your Dealers

The purpose of this column is NOT to evaluate dealers, but simply to present useful & interesting information about tool sources..

Roger K. Smith is a lifelong Massachusetts resident. He grew up in Westminister and currently resides in Athol. Following service in the Navy, he graduated from Fitchburg State, received a master's degree from Bridgewater State College, and taught industrial arts for 12 years. These early years must have nurtured a passion for tools, because he's spent full time collecting, researching, selling, and promoting antique tools ever since. His knowledge has been shared with collectors in his writings and lectures. His publishing includes two major works and about 25 catalog reprints.

Certainly his most significant accomplishment, and greatest contribution to the status of tools as collectibles, are his two books: Patented Transitional & Metallic Planes In America, 1827-1927 and Patented Transitional & Metallic Planes In America (Vol.II), or P-TAMPIA I and P-TAMPIA II, as the volumes are called. They present the history of post- wooden planes, and the more than 50 manufacturers who made them. Roger credits more than 150 persons with contributions of information or tools to photograph. They are a veritable who's who of American tool collectors. Enhancing its scholarly content, presented in 756 pages, are 800 photographs of extraordinary quality, including 85 in full color, and 400 line drawings. They set the standard by which future tool books will be judged.

Roger sells primarily at tool shows, auctions, and tool meetings. Frequently accompanied by his wife, Marsha, he's a regular at PAST, PATINA, CRAFTS, the major shows and auctions (Crane, Brown, and Witte), most Mid-West meetings, and many smaller auctions and meetings. He also publishes a list, usually quarterly, of about 225 lots of Stanley planes and tools; other patented wood, iron, and transitional planes and related tools; machinist's tools; and original and reprinted books and catalogs. But you'll find other tools on his lists; a few of my favorite primitives were discovered here. Send a large SASE for the next issue. Roger does not maintain an open shop, but does sell tools at his home by appointment.

A member of EAIA, M-WTCA, CRAFTS, and most regional clubs, he is a director of EAIA, former Publications Chairman of M-WTCA for eight years, an author for the Tool Shed, and a frequent speaker at many tool meetings. He often displays tools at meetings and has received many awards. For several years he wrote the "Transitional & Metallic Planes" section of Plane Talk.

About 20 years ago Roger seriously thought about moving to Wrentham, so he could use the return address: R. SMITH, LIVING IN WRENTHAM. Although he did not make the move, it is purely coincidental that his oldest son, Glenn, lives there. Glenn has little interest in tools, except the computers he sells, but he knows to be on the lookout for Wrentham planes. He lives only a mile from Cesar Chelor Drive, a new street in Wrentham.

We're just lucky that Roger gave up industrial arts!

Hank Allen

History of Machinists' Tools

(continued from page 1)

by Kenneth L. Cope

The machinist, like other highly skilled workers, demanded and got better than average wages. A Lowell, Massachusetts, machine shop, for example, paid the following wages in May, 1817:

Machinists ----$1.43/day Millwrights ---$1.41/day
Carpenters ----$1.42/day Laborers ------$1.02/day

By 1879 average wages in Worcester, Mass. were:

Machinists ----$1.75/day Blacksmiths ---$1.25/day
Laborers ------$1.08/day

Wages, of course, continued to rise and skilled machinists were found at or near the top of the pay scale in most metalworking factories.

Figure 1 gives us a good look at the machine tools and other equipment used by machinists in a machine shop of 1834. Otis Pettee was a maker of textile machines whose shop was inventoried and valued when it was bought by the Lowell Machine Shop. Note that the inventory included 40 hand lathes and 40 bench vises. Even fairly large shops still did a good deal of hand work.

The inventory of another company associated with the Lowell Machine Shop in 1850 appears on an insert to the *ToolShed*. The firm also made textile machinery and was well equipped with much larger machines than Pettee. Many hand machines were still in use, however.

(Both inventories are from *The Saco-Lowell Shops, Textile Machinery Building in New England 1813-1949*, by George S. Gibb, Harvard University Press, 1950.)

Let's now look at the tools used by machinists. Even the term "machinist's tool" has changed. During most of the 19th century, the term meant lathes, planers, etc., that we now call machine tools. What we call machinists' tools today, were then called machinists' fine tools or machinists' small tools. This can lead to some confusion when reviewing 19th century material. For the purpose of this article, "machinist's tool" refers to the hand tool form.

Machinists' tools, like all others, evolved over many years. The history of machinists' tools is, however, shorter than most others since it began only in the 18th century with the appearance of machines and engines which required parts to be machined accurately in order to function. Many of you have seen the story of the English steam engines where the clearance between the piston and bore had to be "no more than the thickness of an old shilling," a close tolerance at that time. The history of American machinists' tools is even shorter, since machine building of any type was rare until the second decade of the 19th century.

Their evolution from other types is apparent from a display board of Pompeiian tools, circa 79 AD, made by

A. Schedule of Tools in the Machine Shop of Otis Pettee, Newton Upper Falls, 1834

Two large water wheels	$ 1,000
Drums, pulleys, and belts to drive lathes and other machinery	1,000
One high-pressure and one low-pressure steam engine of ten horse power with two boilers 20′ long and 24″ diameter	1,350
One punching machine and dies	200
Three small trip hammers	300
Three pair bellows	45
Five smiths anvils	25
One pair shears	20
One set of "swages"	50
Three heavy blocks cast iron	20
Five small swages	20
Thirty leading tools	30
Hammers, sledges, tongs, and other small tools in blacksmith shop	40
Forty hand lathes at $25 each	1,000
Two new double engine lathes, iron frames 14′ long	700
One large engine lathe, iron frame 12′ long	250
One single engine lathe, iron frame 12′ long	180
Four small engine lathes, iron frames	200
Four spindle engines, iron frames 8′ long	240
Two double engine lathes, wooden frames 16′ long	250
Two engine lathes for card cylinders	150
One machine to drill spindle rails	180
Two machines to drill double speeder rails	400
Two spiral engines	700
One bevel engine	200
One engine for cone gears	150
Four habbing engines with apparatus	400
One fluting engine	150
One dividing engine	$ 200
Two polishing benches with twenty arbors and wheels	100
Forty bench vises	160
Five grindstones with frames	50
Set of tools to finish double speeder flyers	200
Set of tools for making spinning flyers	75
Machine to bore speeder cones	50
Machine to polish rollers	25
Six circular saws	120
Three boring lathes with 100 bits	105
One tennon machine	50
Other tools belonging to workshops	50
Benches in workshops	100
Benches in iron shops	100
Set of patterns for looms	150
Set of patterns for double speeders	200
Other patterns	200
Four stoves and pipes	50
Furnaces for warming	50
One clock	10
Cutters, drills, "birs," runners, screwplates, taps, chisels, dogs, & other small tools belonging to the shop	450
Total Valuation	$11,745

Source: Middlesex County, Mass., Deeds, vol. 336, p. 46.

Figure 1.

the Brown & Sharpe Mfg. Co. in 1917. The Brown & Sharpe ad with this display is shown on the insert page. Note that many of the tools, especially the calipers and square, would be familiar to a machinist today.

The development of machinists' tools in the U.S. began early in the 19th century and was centered around the machine shops of New England, especially the gun makers. The gun makers, lead by Eli Whitney and Simeon North, developed a system of interchangeable manufacturing about 1800-1820. This system relied on making all

parts of a gun to a tolerance so close that any individual part would fit any gun. This was one of the major advances in manufacturing and is at the heart of all mass production systems. Most of us have heard the story of how Eli Whitney, in front of Thomas Jefferson, disassembled a group of muskets made in his factory, mixed up the parts, and reassembled them at random. The truth is probably a bit less dramatic, but the "American System," as it came to be known, was quickly adopted in all manufacturing countries.

The original idea was to file the parts to size using hardened filing jigs. This was much too slow so the system quickly evolved into one where the individual machinist, using machine tools and precision measuring tools, was able to make close tolerance parts on a production basis.

All this is to point out that the main criteria of a machinist's tool is accuracy. A machinist's square or level is no different in function than a carpenters' square or level, but is more accurate in its ability to measure. Many tools, in fact, were sold to both machinists and carpenters. The illustration shown on page 1 is a good example. *A Specialty for Machinists & Carpenters*, the pocket level made by Boswell B. Butt was aimed at both markets.

The vast majority of early machinists' tools were made by the user. Machinists had access to machines and other tools needed to make all their hand tools except those requiring calibration. Calipers and surface gages made by the user were often as good as commercial tools and a good deal cheaper. This leads to a certain amount of frustration for today's collector. Unless dated, a tool made in 1850 may be indistinguishable from one made in 1950.

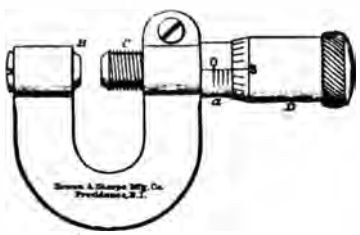
Precision measuring tools are the best example of commercial tools made only for machinists. Steel rules able to measure to 1/100 of an inch, probably the first purely machinist tool, were available by the 1830s. At $2.00 to $5.00 these were very expensive for someone making $1.43 a day, so they would have been bought only by those who worked to close tolerances. It should be noted that the rule was mostly used to set the machinist's calipers to the correct opening. The calipers were then used to make the actual measurement. Old time machinists claimed a "feel" when using calipers that could detect errors as small as 1/1000". Tests done by early technical writers showed that this "feel" could be as good as claimed, but only with very skilled men.

Reliable measurement to 1/1000" became possible for the average

A POCKET SHEET-METAL GAUGE.

IN the operations of many different trades it is essential that some reliable and convenient means should be at hand for accurately measuring the thickness of sheet-metal and other sheet material. Such an appliance is represented in the adjoining cut, and its uses and construction will be readily understood from the subjoined description:—

The piece in the form of the letter has a projecting hub, *a*, on one end. Through the two ends are tapped holes, in one of which is the adjusting screw, B, and in the other the gauge screw, C. Attached to the screw, C, is a thimble, D, which fits over the exterior of the hub, *a*. The end of this thimble is beveled, and the beveled edge graduated into twenty-five parts and figured, 0, 5, 10, 15, 20. A line of gradations 40 to the inch is also made upon the outside of the hub, *a*, the line of these divisions running parallel with the center of the screw, C, while the gradations on the thimble are circular. The pitch of the screw, C, being 40 to the inch, one revolution of the thimble opens the gauge $\frac{1}{40}$ or $\frac{25}{1000}$ of an inch. The divisions on the thimble are then read off for any additional part of the revolution of the thimble, and the number of such



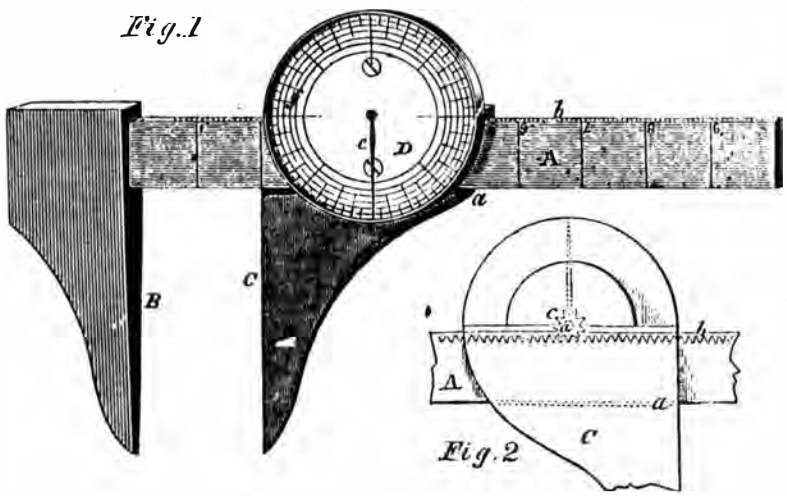
divisions are added to the turn or turns already made by the thimble, allowing $\frac{25}{1000}$ for each gradation on the hub, *a*. For example, suppose the thimble to have made four revolutions and one-fifth. It will then be noticed that the beveled edge has passed four of the gradations on the hub, *a*, and opposite the line of gradation will be found on the thimble the line marked 5. Add this number to the amount of the four gradations, which is $\frac{100}{1000}$, and it equals $\frac{105}{1000}$, which is the measurement shown by the gauge.

Figure 3. From *American Artisan* Dec. 30, 1868.

b, sunk into its upper edge. The movable leg of the calliper, C, slides on A by a groove, the lower side of which, *a*, is in contact with the lower or even side of A; the upper part of C has an arbor, *d*, through it, that, at the back, Fig. 2, carries a toothed wheel, *c*, that fits in the rack, and in the front, Fig. 1, a pointer or index, *e*. To the front of C a disk, D, is fixed, having graduations, *f*, all around it, dividing it into any number of inches and

GOULD'S CALLIPERS.

Fig. 1



parts of an inch, with relation to the inches on A, as may be desirable, so that, as C is moved the toothed wheel, *c*, rotates, carrying with it the pointer, *e*, by whose means the exact size of the object or the distance apart of the callipers may be accurately noted.

The inventor, Fayette Gould, of Huntington, L. I., will give any further information desired upon application to him. The patent is dated April 12, 1859.

Figure 2. A dial-type "calliper"

machinist when the vernier caliper was introduced in 1851 by J.R. Brown of Providence, Rhode Island. This tool is still in use today, although largely replaced by easier-to-read digital types. By 1856 a dial-type caliper was available (Figure 2).

In 1868, Brown & Sharpe introduced their *Pocket Sheet Metal Gauge* shown in Figure 3 from the *American Artisan* of December 30, 1868. This was the micrometer as we still know it.

By 1870, commercial machinists' tools became more common. Possibly because shop owners figured out that the time workers were spending on making tools was lost production time, but also due to the need for closer tolerances. Calipers are a good example of this. Nearly anyone could make useable calipers, but commercial units with fine adjustment allowed more accurate measurements. The first patent for a machinist tool, issued November 21, 1948, was for a fine adjusting caliper and divider. Dozens of other caliper patents followed, most for means of fine adjustment, and make a very interesting collecting speciality.

The end of machinists' tools, as we know them, began with the slow disappearance of the machinist as described above. Such tools are still made and will be made for a long time to come. Most, however, will eventually evolve into electronic devices built into machines or test fixtures.

I hope that we, as collectors, will help preserve this important part of American industrial history. Only a very small number of museums have significant collections of machine tools and machinists' tools. One which does, and one I would encourage all to visit and help support, is the American Precision Museum located in Windsor, Vt.

Ken Cope from Milwaukee, Wisconsin is probably THE expert on American machinist's tools. See Martin Donnelly's review of Ken's two books on this subject in this issue. For 20 years he was chief engineer for a machine tool builder, but since 1983 has headed his own firm, Ken Cope Associates, which specializes in robots and computer operated systems.

Ken has collected guns for 40 years and is the author of Stevens Pistols and Pocket Rifles and American Firearm Patents 1792-1900. It's natural that Ken also collects machinist's tools, for gun manufacturers were the cradle for these tools. In 1989 he published Index of U.S. Tool Patents, 1790-1873. It's a valuable reference on early patents. He is a long time member of M-WTCA. Thanks, Ken, for this contribution.

Ken is presently working on a history of the American machine tool industry, and is badly in need of research help. Records, especially city directories, residing in the main libraries of Cincinnati, Cleveland, and Philadelphia need to be reviewed and information copied. Ken would like to hear from anyone who lives in or near these cities and would be willing to spend some time doing the research. Any and all help will be greatly appreciated. Ken can be contacted at 3629 South 54th Street, Milwaukee, WI 53220. Or by phone 414-321-5588 daytime or 414-543-3417 evenings.

BOOK REVIEW

by Martin Donnelly

American Machinist's Tools: *An Illustrated Directory of Patents*. By Kenneth L. Cope. The Astragal Press, Mendham, N.J., 1993. Softbound. 420 pp.

Makers of American Machinist's Tools: *A Historical Directory of Makers and their Tools*. By Kenneth L. Cope. The Astragal Press, Mendham, N.J., 1994. Softbound. 314-pp.

Perhaps the best way for an antique tool enthusiast to appreciate the significance of Ken Cope's recent publications on the subject of American machinist's tools is to imagine what collecting would be like without any of the reference works that we regularly consult. What would it be like to read the CRAFTS auction list or survey the tables in the parking lot at High Bridge without the knowledge each of us has gleaned from articles and books published by pioneering researchers in the field of antique tools? Would tools with New Jersey makers' marks be nearly so appealing were it not for Alex Farnham' s willingness to give away the secrets revealed by his research in this area? Would all but a select few see wooden planes as incomprehensible and uninteresting blocks of wood without the efforts of Jack Whelan or the late Emil Pollak? The answer, of course, is that tools would be far, far less interesting without the link with the past that the information these sources and others provide us.

It is no secret that the growth of antique tool collecting nationwide has accelerated in direct proportion to the appearance of more and more publications on the subject. Ken Cope's machinist tool publications, while a continuation of this trend, are also in many ways a step beyond what has been done before and a model for other researchers in the coming years as they work to further expand the range of information available to collectors. With the publication of *American Machinist's Tools* and *Makers of American Machinist's Tools*, Cope has captured, in these separate volumes, the two essential elements that distinguish American hand tools from those of every other nation and which make the discovery of those tools and their histories such an endlessly fascinating pursuit. The American patent system, far more liberal than that of any other nation, was issuing tens of thousands of patents each year in the last quarter of the nineteenth century, and a substantial percentage of these were for hand tools. At the same time, the boom and bust cycles of the economy were producing and eliminating manufacturers of these inventions at an incredible pace.

The Cope books bring to life the world of hand tool manufacturing in the post-Civil War United States and provide antique tool collectors with the first-ever reference works in the important area of machinist's tools. Complex, patented precision tools by obscure manufacturers are the most sought after of all collectible machinist's tools. These books will serve as more than adequate inspiration for a collector to join in the hunt.

The initial volume of this set is appropriately subtitled "An Illustrated Directory of Patents." It includes in its more than 400 pages illustrations from the patent drawings of more than 1000 individual patented machinist's tools. Also included are several separate indices which present the patent information grouped by date and patent number, by patentee, and by tool type. The patent illustrations, which follow in chronological order, provide not only a reference for identifying tools encountered by the collector, but also serve as the equivalent of the Sears' Christmas Catalog for the young-at-heart within whose "visions of sugarplums" are included the appearance of such treasures at the local flea market. Many of the spectacularly complex devices illustrated have never been seen, even by experienced collectors, and the illustrations alone provide an excellent introduction to the subject. For those who find an interesting patented machinist's tool in the bottom of an auction box lot, a quick flip through the book will reveal the name of the patentee, a view of the patent drawing, and provide a springboard for further research.

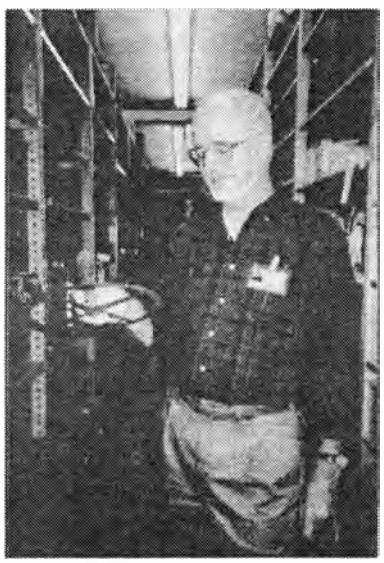
The companion volume, *Makers of American Machinist's Tools*, addresses its subject in encyclopedic fashion by documenting the history of hundreds of individual tool manufacturers in self-indexed alphabetical order. The chance box lot find described above may well have been marked with the manufacturer' s imprint and chances are that the known history of that maker, no matter how obscure, will be found in this book. The historical evolution of the five principal manufacturers in the field of precision machinist's tools – The Brown & Sharpe Mfg. Co., Darling, Brown & Sharpe, The Sawyer Tool Mfg. Co., The Standard Tool Company and industry giant L.S. Starrett, are carefully recounted in great detail at the beginning of the work. The fact that these makers were producing tools and selling the ideas behind them at a time when advertising was first becoming the phenomenon that we know it to be today provided the author of this book with hundreds of period engravings of the products of short-lived tool makers with which to illustrate the book. The illustrations, which in many cases include the ambitious claims of their manufacturers rendered in Victorian verbal excess, are interesting and entertaining.

For the experienced collector of classic machinist's tools, these books validate and expand the range of knowledge previously acquired on a piecemeal basis; for those who have limited experience with this category of tools, these new reference works provide an excellent introduction to a complex subject. And, most importantly, Ken Cope' s superb new contributions to the essential reference library of tool collecting will attract an entire new generation of antique tool collectors to join us in discovering our heritage of American industry and invention.

Frank White - Sturbridge Village

On our way to the Crane auction in Nashua last September Bill McDougall and I stopped at Old Sturbridge Village to say hello to Frank White, Curator of Mechanical Arts at the village. Frank was busy preparing for an imminent NETCA meeting, but graciously showed us some of the village's collection. Frank is shown holding an unusual, if not unique, traveler that was my favorite tool that day. In second place was a pair of Jo Fuller crown moulders! I'll see if I can get Bill to do an article on the village sometime.

Hank Allen



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Basketmakers and Their Tools

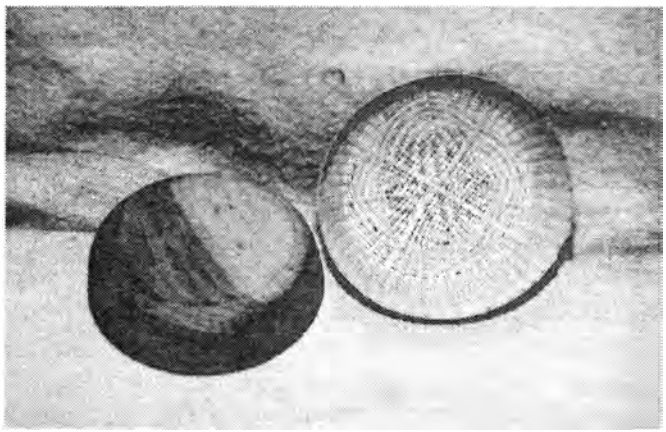
by Bill Rigler

Here in the United States we think of the Shakers for their pounded brown ash baskets made on a wood mold; the Nantucket Light Ships for their reed and cane baskets with wood bottoms made on wood molds; South Carolina for sea grass baskets; Georgia for long pine needle baskets; the Appalachian mountains for white oak baskets; the Plains for corn shuck baskets; Florida for palmetto leaf baskets; Mississippi for river cane baskets and baskets made of bark, willow, grapevine, straw, and poplar; and the Southwest Indian Tribes who made such lovely baskets of local grasses.

All of these baskets have three things in common. One: You use the basketmaking material readily available in your locale. Two: The various tribes of American Indians taught the invaders their secrets of basketmaking. Three: The availability of good basketmaking material has continuously diminished, primarily due to urban sprawl. The new Americans mechanized and developed techniques to mass produce utility baskets until the market disappeared. Then basketmakers, like the Shakers, produced more delicate, aesthetically beautiful baskets for decoration or gentler use.

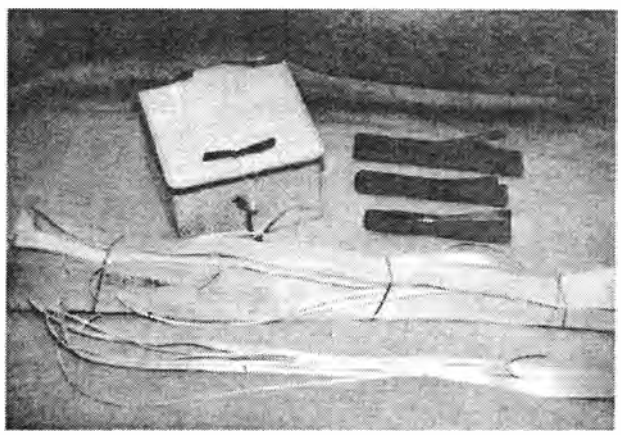
My specialty is pounded brown ash Shaker baskets. The Shakers developed the mold system to produce standard-sized utility baskets that would always fit the space already available. Brown ash was standard for the northeastern Shaker communities. Shakers had to produce items for sale to the outside world to buy the needed items that they couldn't make or grow. The Mt. Lebanon and Canterbury communities specialized in small delicate baskets of materials measuring down to 1/32 of an inch wide. They developed devices that helped them split growth rings to satin, and developed slitters that split the satin material to size plus making the molds to produce the uniformly sized, beautiful, ornate baskets. During their heyday they produced and sold about 250,000 baskets. Survivors are highly sought and bring prices in four figures.

Miniature baskets and molds - approximate height 1.5", weavers 1/64" (Left - #1 nest kittenhead, center - mini kittenhead, right - round bottom necklace)



5" Saucer basket with quatrefoil bottom

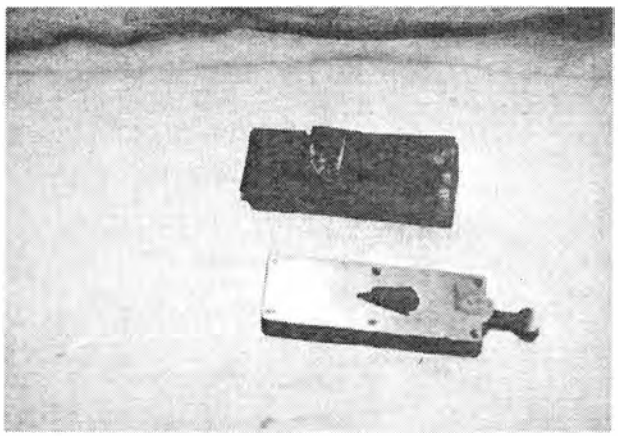
Brown ash/black ash is a swamp tree that grows in the upper- Michigan area, the upper-New York area, and the rest of the northeastern United States and eastern Canada. Unlike most woods that are split with a small froe or knife into the thickness desired, brown ash is hammered with a maul or sledge to separate growth rings. In fact, the Shakers used a trip hammer. Thick rings were used for handles and rims, thinner growth rings were split to satin (in half) for weavers and uprights. Once split to satin, the Shakers devised slitting tools that split wide material into material from 1/32" to 1/2" wide to be used as weavers. Most uprights were 1/8" to 1/4" wide and most weavers were 1/16" to 3/32" wide.



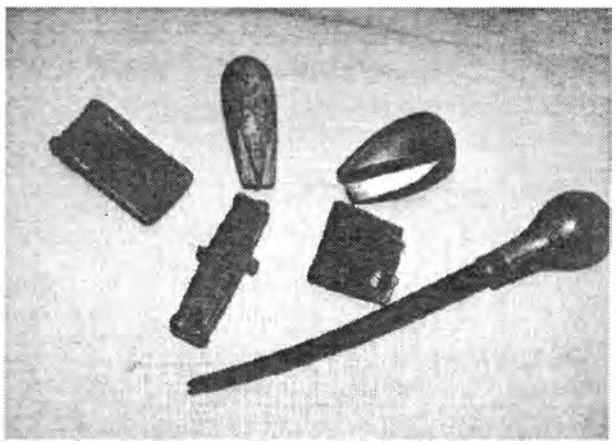
Three slitters with material for poplar boxes

The Shakers also developed a process of weaving 1/16" strips of poplar (quaking aspen) into a wood cloth that was used to make various shaped fancy boxes for the outside world. Some villages did so well they exhausted the aspens on their property, and had to buy trees from their neighbors. Quaking aspen is a trash tree, but good for making wooden shoes and Skaker boxes.

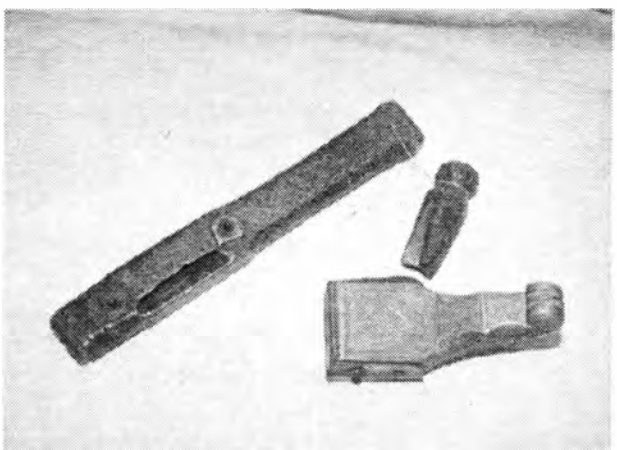
Other Basket Tools



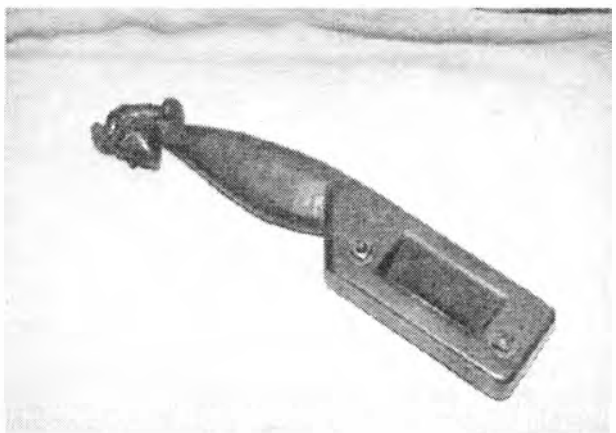
English for sizing width and thickness



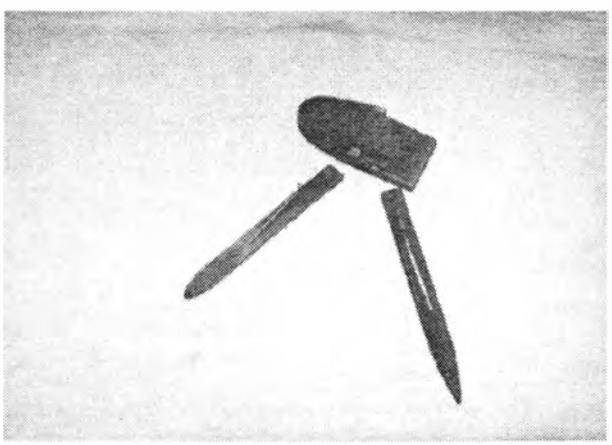
French for splitting and sizing width and thickness



Moroccan splitter, standard thickness cutter, and a one-width splitter



Hand-carved thickness cutter



Straw litters used in the straw hat trade

Saw-Sets Made By Charles Taintor

by Todd Friberg (Part 2 - continued from the April 1996 ToolShed)

Charles Taintor's next saw-set was patented in 1900 (Fig. 8). This example is again made of stamped steel with the whole tool finished with nickel plate. Further refinements in the clamping mechanism and setting anvil are the major improvements to the Taintor design. Stamped in the top handle are the words "Taintor's Positive 1900, Taintor Mfg. Co. New York, USA," and all the preceding patent dates. At this point many overseas companies were offering the Taintor set as illustrated in this Marple & Sons Ltd, ad (Fig. 9).

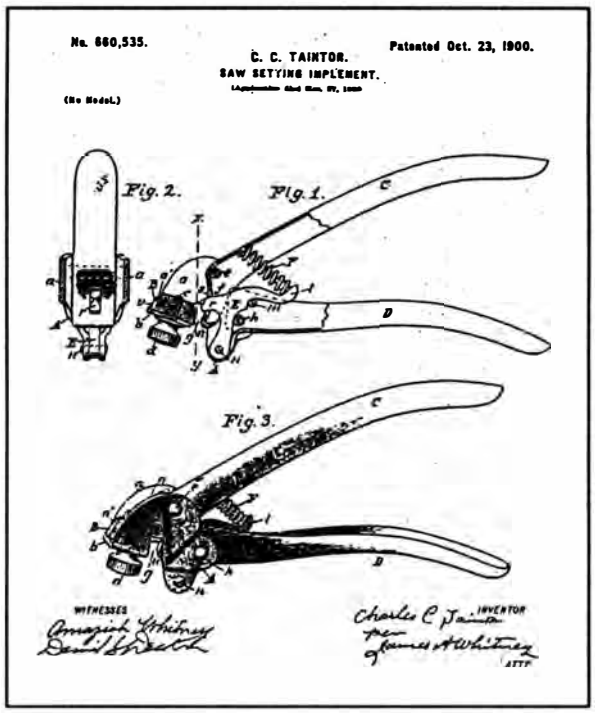


Figure 8. Oct. 23 1900 patent

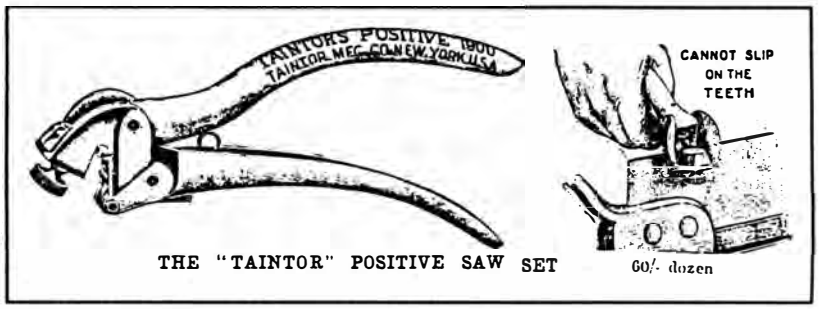


Figure 9. Marple & Sons Ltd advertisement

The year 1907 sees yet another Charles Taintor patent further refining his saw-set design (Fig. 10). A No. 7 model is a typical, stamped-steel version of his earlier sets with changes to the operating mechanics. The main feature of gripping the saw blade before the setting mechanism bends the tooth is still present. Markings and general appearance change very little from the model 1900.

The last change in saw-set design from Taintor Mfg. Co. appears in 1927 with their model 27 (Fig. 11). This set features a new handle configuration while the saw-setting operation remains similar to past models. Although this is a later saw-set offering, the model 27 appears to have not been offered long for it is very scarce.

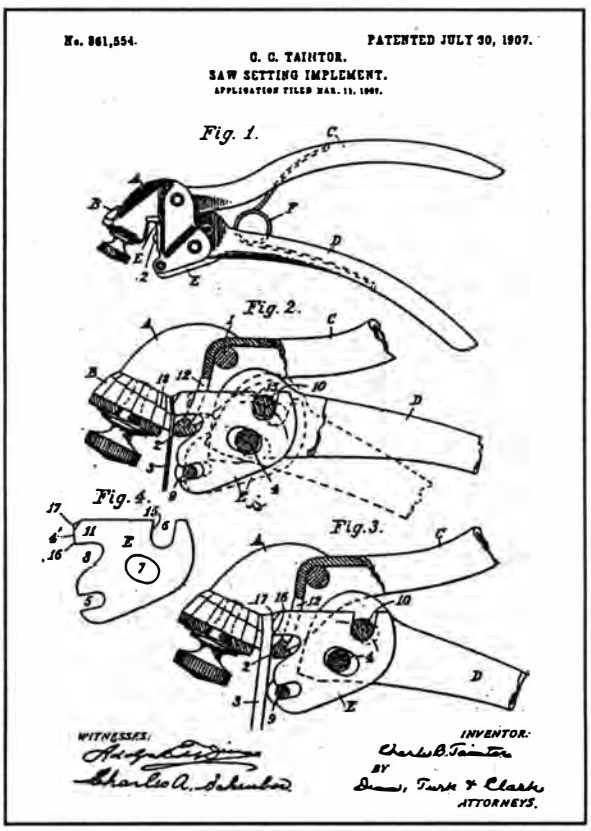


Figure 10. July 30, 1907 patent

Collecting Charles Taintor Saw-Sets

Taintor Mfg. Co. offered at least 6 different versions of his saw-set desings over several decades ending in the 1940s. Of these examples the early cast iron models are by far the rarest with the later #27 model also very difficult to locate. Things to look out for when buying Taintor sets are missing springs and sprung handles. Note: Most cast iron saw-sets break when dropped or abused, whereas the Taintor stamped steel sets bend or get sprung out of alignment. Probably the most important thing to look for is a set with the nickel plate intact. Trying to find a 1893 Taintor steel set with the nickel plating in decent shape can be a challenge.

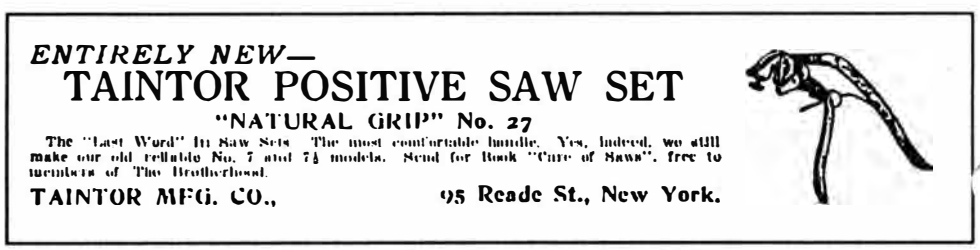


Figure 11. No. 27 appeared in 1927

April 27 CRAFTS Tool Auction Prices Realized

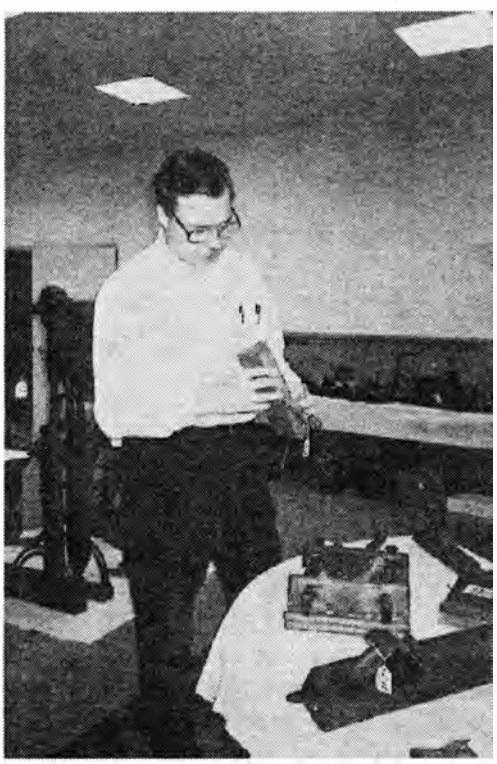
If you did not attend the auction and want a copy of the Catalog, send $1 and a #10 SASE to Helen Whelan, 38 Colony Court, Murry Hill, NJ 07974.

1.	75.00	69.	45.00	137.	20.00	205.	425.00	273.	130.00	341.	50.00	409.	115.00	477.	175.00
2.	30.00	70.	70.00	138.	105.00	206.	2250.00	274.	20.00	342.	55.00	410.	55.00	478.	35.00
3.	10.00	71.	50.00	139.	50.00	207.	350.00	275.	225.00	343.	60.00	411.	25.00	479.	30.00
4.	10.00	72.	45.00	140.	200.00	208.	900.00	276.	25.00	344.	100.00	412.	90.00	480.	15.00
5.	45.00	73.	100.00	141.	125.00	209.	1200.00	277.	65.00	345.	7.50	413.	20.00	481.	75.00
6.	20.00	74.	30.00	142.	55.00	210.	1750.00	278.	325.00	346.	25.00	414.	10.00	482.	65.00
7.	25.00	75.	45.00	143.	40.00	211.	650.00	279.	600.00	347.	40.00	415.	75.00	483.	70.00
8.	45.00	76.	55.00	144.	55.00	212.	175.00	280.	80.00	348.	120.00	416.	35.00	484.	105.00
9.	30.00	77.	55.00	145.	40.00	213.	175.00	281.	85.00	349.	75.00	417.	70.00	485.	40.00
10.	25.00	78.	25.00	146.	45.00	214.	45.00	282.	35.00	350.	25.00	418.	35.00	486.	45.00
11.	110.00	79.	30.00	147.	100.00	215.	175.00	283.	10.00	351.	60.00	419.	35.00	487.	60.00
12.	115.00	80.	40.00	148.	95.00	216.	185.00	284.	50.00	352.	85.00	420.	30.00	488.	25.00
13.	50.00	81.	45.00	149.	65.00	217.	125.00	285.	30.00	353.	60.00	421.	50.00	489.	40.00
14.	55.00	82.	65.00	150.	45.00	218.	175.00	286.	40.00	354.	90.00	422.	65.00	490.	60.00
15.	25.00	83.	45.00	151.	35.00	219.	175.00	287.	200.00	355.	75.00	423.	55.00	491.	25.00
16.	15.00	84.	35.00	152.	120.00	220.	325.00	288.	375.00	356.	45.00	424.	145.00	492.	35.00
17.	30.00	85.	35.00	153.	45.00	221.	65.00	289.	125.00	357.	20.00	425.	65.00	493.	30.00
18.	10.00	86.	25.00	154.	250.00	222.	95.00	290.	105.00	358.	45.00	426.	105.00	494.	15.00
19.	20.00	87.	25.00	155.	55.00	223.	475.00	291.	85.00	359.	35.00	427.	125.00	495.	30.00
20.	10.00	88.	85.00	156.	55.00	224.	175.00	292.	175.00	360.	60.00	428.	35.00	496.	15.00
21.	30.00	89.	20.00	157.	95.00	225.	125.00	293.	25.00	361.	50.00	429.	10.00	497.	25.00
22.	30.00	90.	55.00	158.	40.00	226.	2600.00	294.	45.00	362.	45.00	430.	50.00	498.	20.00
23.	75.00	91.	15.00	159.	55.00	227.	70.00	295.	275.00	363.	110.00	431.	125.00	499.	135.00
24.	50.00	92.	45.00	160.	150.00	228.	550.00	296.	300.00	364.	155.00	432.	75.00	500.	35.00
25.	15.00	93.	55.00	161.	75.00	229.	95.00	297.	115.00	365.	450.00	433.	105.00	501.	55.00
26.	65.00	94.	25.00	162.	85.00	230.	85.00	298.	100.00	366.	115.00	434.	20.00	502.	115.00
27.	65.00	95.	20.00	163.	30.00	231.	175.00	299.	75.00	367.	130.00	435.	60.00	503.	65.00
28.	30.00	96.	5.00	164.	125.00	232.	175.00	300.	55.00	368.	375.00	436.	20.00	504.	85.00
29.	60.00	97.	35.00	165.	175.00	233.	45.00	301.	625.00	369.	45.00	437.	10.00	505.	40.00
30.	65.00	98.	35.00	166.	250.00	234.	105.00	302.	255.00	370.	65.00	438.	25.00	506.	20.00
31.	85.00	99.	65.00	167.	300.00	235.	150.00	303.	200.00	371.	140.00	439.	35.00	507.	35.00
32.	65.00	100.	75.00	168.	100.00	236.	150.00	304.	55.00	372.	225.00	440.	35.00	508.	75.00
33.	35.00	101.	40.00	169.	45.00	237.	175.00	305.	55.00	373.	20.00	441.	80.00	509.	45.00
34.	20.00	102.	30.00	170.	65.00	238.	105.00	306.	115.00	374.	100.00	442.	50.00	510.	55.00
35.	50.00	103.	65.00	171.	100.00	239.	225.00	307.	100.00	375.	35.00	443.	25.00	511.	30.00
36.	10.00	104.	85.00	172.	50.00	240.	125.00	308.	25.00	376.	55.00	444.	25.00	512.	25.00
37.	30.00	105.	45.00	173.	75.00	241.	155.00	309.	35.00	377.	10.00	445.	25.00	513.	40.00
38.	75.00	106.	20.00	174.	75.00	242.	130.00	310.	35.00	378.	40.00	446.	80.00	514.	80.00
39.	15.00	107.	75.00	175.	150.00	243.	175.00	311.	35.00	379.	150.00	447.	100.00	515.	55.00
40.	25.00	108.	75.00	176.	35.00	244.	105.00	312.	30.00	380.	20.00	448.	40.00	516.	45.00
41.	55.00	109.	65.00	177.	75.00	245.	150.00	313.	15.00	381.	35.00	449.	35.00	517.	30.00
42.	55.00	110.	35.00	178.	65.00	246.	55.00	314.	55.00	382.	30.00	450.	20.00	518.	25.00
43.	20.00	111.	25.00	179.	110.00	247.	100.00	315.	140.00	383.	70.00	451.	30.00	519.	10.00
44.	35.00	112.	35.00	180.	65.00	248.	105.00	316.	150.00	384.	90.00	452.	20.00	520.	45.00
45.	45.00	113.	30.00	181.	225.00	249.	150.00	317.	45.00	385.	15.00	453.	55.00	521.	35.00
46.	45.00	114.	60.00	182.	125.00	250.	100.00	318.	125.00	386.	185.00	454.	50.00	522.	15.00
47.	55.00	115.	95.00	183.	170.00	251.	65.00	319.	120.00	387.	115.00	455.	50.00	523.	25.00
48.	55.00	116.	65.00	184.	95.00	252.	190.00	320.	60.00	388.	25.00	456.	55.00	524.	25.00
49.	20.00	117.	75.00	185.	70.00	253.	65.00	321.	275.00	389.	50.00	457.	25.00	525.	45.00
50.	125.00	118.	250.00	186.	45.00	254.	115.00	322.	45.00	390.	25.00	458.	30.00	526.	25.00
51.	95.00	119.	35.00	187.	65.00	255.	65.00	323.	20.00	391.	30.00	459.	40.00	527.	25.00
52.	30.00	120.	55.00	188.	125.00	256.	60.00	324.	60.00	392.	45.00	460.	105.00	528.	25.00
53.	20.00	121.	30.00	189.	75.00	257.	45.00	325.	45.00	393.	25.00	461.	165.00	529.	25.00
54.	60.00	122.	30.00	190.	100.00	258.	35.00	326.	200.00	394.	15.00	462.	115.00	530.	15.00
55.	45.00	123.	25.00	191.	95.00	259.	125.00	327.	95.00	395.	95.00	463.	35.00	531.	5.00
56.	125.00	124.	65.00	192.	30.00	260.	225.00	328.	45.00	396.	70.00	464.	20.00	532.	30.00
57.	30.00	125.	150.00	193.	175.00	261.	200.00	329.	105.00	397.	210.00	465.	25.00	533.	110.00
58.	15.00	126.	50.00	194.	85.00	262.	175.00	330.	20.00	398.	45.00	466.	35.00	534.	80.00
59.	15.00	127.	40.00	195.	150.00	263.	125.00	331.	17.50	399.	20.00	467.	5.00	535.	80.00
60.	25.00	128.	150.00	196.	65.00	264.	115.00	332.	25.00	400.	30.00	468.	175.00	536.	145.00
61.	65.00	129.	125.00	197.	150.00	265.	120.00	333.	25.00	401.	15.00	469.	75.00	537.	25.00
62.	45.00	130.	55.00	198.	155.00	266.	325.00	334.	50.00	402.	45.00	470.	65.00	538.	80.00
63.	65.00	131.	75.00	199.	150.00	267.	185.00	335.	35.00	403.	20.00	471.	25.00	539.	10.00
64.	55.00	132.	105.00	200.	200.00	268.	105.00	336.	30.00	404.	85.00	472.	20.00	540.	30.00
65.	95.00	133.	35.00	201.	70.00	269.	95.00	337.	60.00	405.	65.00	473.	10.00	541.	10.00
66.	30.00	134.	55.00	202.	125.00	270.	85.00	338.	60.00	406.	20.00	474.	105.00	542.	35.00
67.	10.00	135.	15.00	203.	150.00	271.	85.00	339.	60.00	407.	35.00	475.	85.00	543.	20.00
68.	55.00	136.	35.00	204.	375.00	272.	250.00	340.	80.00	408.	115.00	476.	95.00	544.	35.00

545.	25.00	559.	10.00	573.	25.00	587.	25.00	601.	20.00	615.	20.00	629.	10.00	643.	20.00
546.	55.00	560.	5.00	574.	10.00	588.	55.00	602.	30.00	616.	20.00	630.	10.00	644.	25.00
547.	30.00	561.	15.00	575.	40.00	589.	20.00	603.	10.00	617.	15.00	631.	20.00	645.	40.00
548.	30.00	562.	40.00	576.	35.00	590.	20.00	604.	75.00	618.	15.00	632.	20.00	646.	10.00
549.	5.00	563.	50.00	577.	45.00	591.	7.50	605.	20.00	619.	50.00	633.	20.00	647.	15.00
550.	50.00	564.	35.00	578.	70.00	592.	45.00	606.	12.50	620.	10.00	634.	25.00	648.	40.00
551.	95.00	565.	55.00	579.	25.00	593.	25.00	607.	10.00	621.	30.00	635.	10.00	649.	30.00
552.	105.00	566.	15.00	580.	165.00	594.	35.00	608.	30.00	622.	10.00	636.	5.00	650.	45.00
553.	55.00	567.	45.00	581.	25.00	595.	25.00	609.	10.00	623.	20.00	637.	10.00	651.	20.00
554.	7.50	568.	7.50	582.	60.00	596.	10.00	610.	35.00	624.	25.00	638.	30.00	652.	10.00
555.	60.00	569.	75.00	583.	105.00	597.	10.00	611.	20.00	625.	35.00	639.	20.00	653.	25.00
556.	30.00	570.	20.00	584.	80.00	598.	20.00	612.	145.00	626.	45.00	640.	70.00	654.	10.00
557.	45.00	571.	25.00	585.	20.00	599.	55.00	613.	20.00	627.	35.00	641.	30.00	655.	45.00
558.	125.00	572.	10.00	586.	30.00	600.	90.00	614.	10.00	628.	40.00	642.	30.00	656.	30.00

1996 Auction Manager's Report

Our annual auction was another success with gross sales of $56,000. We had a good turn out for the sale with 175 bidders registered and a strong turn out from the membership. Some of the more interesting lots brought good prices. The combination cabinet and workbench brought $2600, a Jo Fuller plow sold for $1200 while the I. Nicholson plow went out at $1750. The I. B. Waltons crown went for $2250 and an I. Sleeper complex with a fabulous profile went for $900. There were many bargains as well and those who spent the time to study the lots carefully came away with some "sleepers" no doubt. Of course the sale could not be a success without the help of the many members who always pitch in. The first person I have to thank is Steve Zluky who catalogs and stores all the tools and deals with innumerable phone calls about the auction (because no one can ever reach me). Steve is helped in the cataloging by Greg Welsh and together they work the day of the sale managing the lots and runners along with Ed Modugno. It always amazes me how many people do show up on Friday to help with the set-up. I am sure I will miss some of them but just let me say that there were enough there to polish off eight pizzas. The Friday night team included Frank Scordo, Jim Mallon, George Duin, Steve Orbine, Jack and Julie Kesterson (all the way from Ohio), Dominic Micalizzi, Stu Shippey, Bob Fridlington, Paul Murphy, Paul Weidenschilling, Jack Whelan, Ed Modugno, Steve Zluky, Greg Welsh, and our last minute lifesaver with a BIGGGG truck Leon Kashishian. Runners for the day of the sale included the first shift Steve Orbine, Chuck Morgan, and Jack Kesterson, the second team was Leon, Rick Anger, and Paul Murphy. Finally, the anchor leg was run by Joe Wadas, Jim Bigham, and Stu Shippey. The big treat of the day however was the return of Herb Kean to the auctioneers podium to give Barry Hurchalla a break. A personal thanks from me on behalf of the board and the club for making the sale another success. *Joe Hauck*



Auction Manager Joe Hauck looking at the Sleeper.

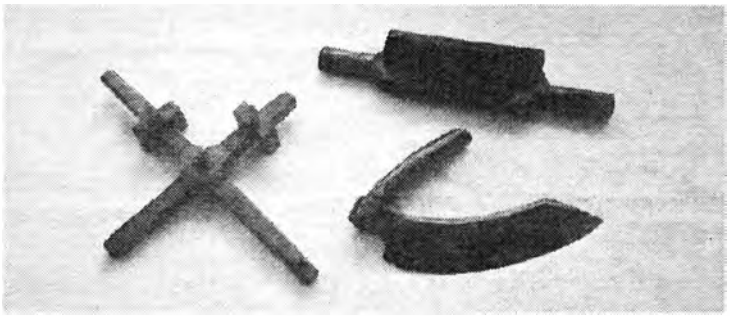
Frank W. Kingsbury with a wrench he'd, "Never seen before."

Ed: Bob Nelson, our regular auction analyst, was unable to attend, thus our photo layout. But, Bob will be back next year. Joe Hauck mounted his usual fine auction, and we owe him thanks for his efforts.

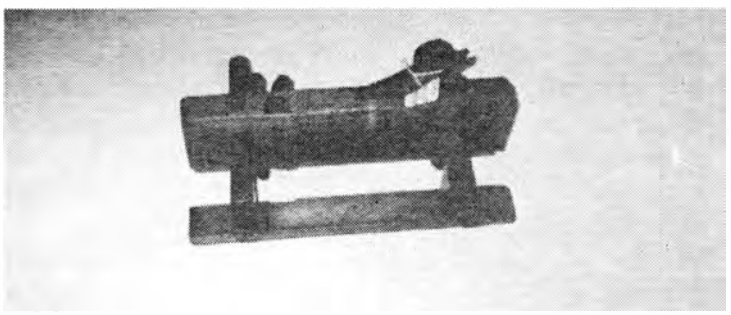
Joe has mentioned a few prices in his Auction Report. Here are a few other observations: The auctioning was superb, moving at over 110 lots per hour. Barry had, of course, to pretend he was running the Onassis auction by asking for a few opening bids of $300,000! The gross was high again this year, and good tools in proper condition brought spirited bidding and good prices. In addition to the high-ticket items, there were many lots that went to satisfied buyers for under the $35 minimum which is expected at a club auction.

One high spot came when Frank W. Kingsbury paid dearly for an adjustable allegator wrench he'd never seen before (see photo). A set of 18 J.Coughtry, Albany, *** hollows and rounds (one-fifth of those supposed to exist) now rest in California for only $450. Three Heiss planes; several metal planes including two Stanley #1s, a Victor #20, and a Phillips patent plow; and two New Jersey plows drew lots of attention, as did a Gurley transit at $650 and a Jaggers 2- fold Newark rule at $550. Your editor garnered three whatsits (see photo), one of which was Harry O'Neill's What's It #20 in the February 1982 *ToolShed*.

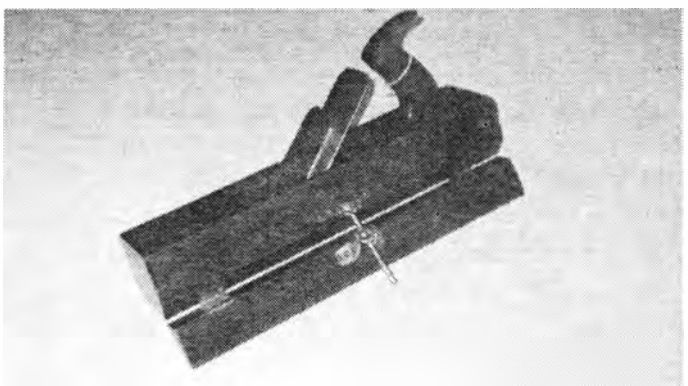
Action in the parking lot was strong which probably strengthens the auction. Our Flemington location seems to be better for dealing, for there was little action at our old Clinton location.



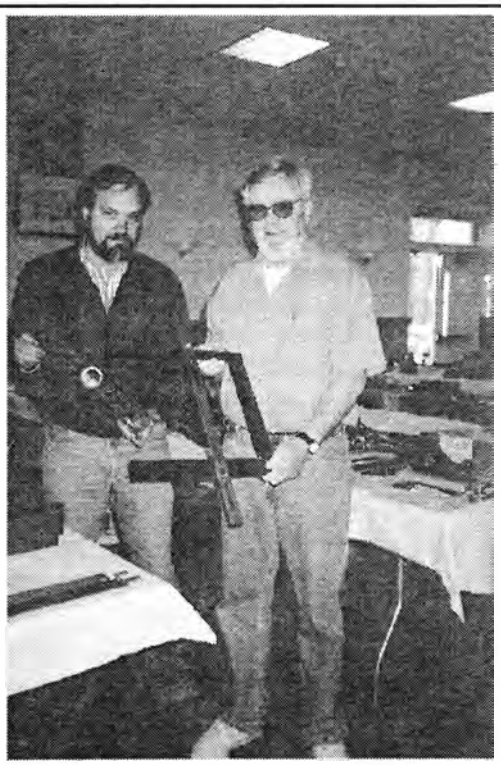
Three What-Its.



The I. Nicholson plow with wedges and thumbscrews.



Blye's patented adjustable beveling plane.



Frank Kosmel and Greg Welsh at auction preview.

Checking out the "great stuff" at auction preview.

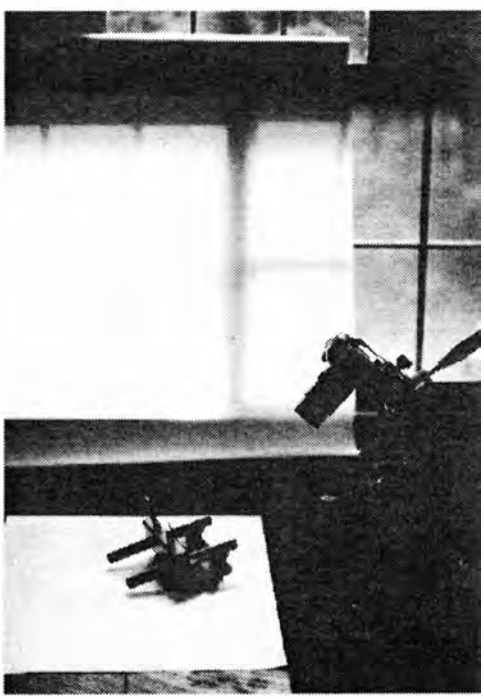
Photographing Tools
by Donald L. Miller

When photographing tools, you should strive for clear, sharp, closeup pictures with minimal shadows, simple backgrounds, and well-defined details. This can be easily achieved by following certain simple and basic procedures.

The basic setup should include a single lens reflex (SLR) camera, a lens that can focus in closer than the normal 2 or 3 feet (Macro) or closeup lenses that can be added to a normal lens, a tripod, white seamless paper background or white sheet, and a white reflector card. For color slides, *Kodachrome® 64-* is a good sharp film that will provide excellent definition of details and different wood or metal surfaces. For color prints, *Kodak 100 Gold* will do the job nicely. For black & white prints, *Kodak Plus X* is my film of choice. Faster films are not necessary or desirable since increased film speed means more grain and softer images. Your camera will be on a tripod so you won't need faster film speeds to stop camera movement. Quality is what you are after, not speed.

The simplest, cheapest and best light source is window light. If you have a north facing window, that is ideal. The light will be even and you won't have bright sunlight with its strong shadows to contend with. If north light is not possible, put tracing paper or cheese cloth over the window to diffuse the light. You will now have a constant, even light source that you won't have to think about. If you insist on using artificial light, bounce it off a wall so that the light source is soft and even. Aiming a light directly on your tool will create dark and confusing shadows which then will have to be opened with another light which will create more shadows, etc., etc. With light from a window or light bounced off a wall, you turn the tool to get the right light on it. Look in the camera as you turn the tool and this way you can be sure that the features you are interested in showing are well lit. Remember, what you see is what you get.

If you have a camera that you can set the *f* stop or lens opening, use *f*16 or *f*22. This will give you the most depth of field or area of focus. By moving in close to your tool, your depth of focus will be limited, so the smaller the lens opening the better. On most automatic cameras, if you set your lens opening, the camera will automatically set the shutter speed to give you a well exposed picture. If you have a manual camera, use an exposure meter to determine the proper exposure. But always remember, the smallest lens opening will give you the most depth of focus.



Once you set your camera height on the tripod and turn your tool so that the light is right on it, focus on the most important feature. There is a one-third two-thirds depth of focus rule in photography. Your focus will extend one-third in the foreground and two-thirds in the background from the point you focused at. Stop *f*16 or *f*22 will take care of most of your depth of focus problems but try different points of focus to see which is best.

This brings up one of the most important points in photographing tools or anything else. Explore the subject and do lots of pictures. You have either 24 or 36 exposures in the camera, use them. Change your camera height up or down, turn your subject and do a light, dark, and medium exposure of each angle. After you do the perfect exposure that the camera set, change your shutter speed one setting faster and then one setting slower. This will give you one picture a little light, one picture a little dark and one picture right on the button, according to the camera. When the processed film is returned to you and you edit the results, in many cases the lighter exposure might be the best as far as the features on the tool are concerned, and the "perfect" exposure might be a little dark. It's what looks best in the end that is important.

When you are looking in the camera and turning the tool to get the best light on it, the end away from the light might be a bit dark. Try standing a white card on the table near the dark end and reflect some of the window light into that area. It will open it up and won't cause another shadow, as would adding artificial light. It is a simple way of opening up dark areas and also highlighting other areas. Again, you will see all of this in the viewfinder. While we are talking about looking in the viewfinder, before you actually snap the shutter, or should I say "squeeze the shutter" since you don't want to cause camera movement, look all around in the viewfinder and only when you are happy with what you see, should you take the picture.

There are little extras that you can introduce into the picture to help tell your story better. Putting a steel rule near the tool is helpful sometimes, as is your hand holding a handle. They help to establish size relationship. Finally, if you can, leave everything set up till you get your pictures back from the processor. Many times there will be little changes and improvements that you will want to make once you hold the final results in your hand. It will be easier to just put another roll of film in the camera rather than set the whole business up again. Good luck and have fun.

Kean Kuttin's

Strange Bedfellows

It's only on rare occasions that we, as tool collectors, get interested in business transactions that took place between tool manufacturers. Then we find that they were pretty much like any other businessmen. It boils down to what we see today amongst our lawyers: adversaries in court, and drinking buddies after the verdict. I guess it was that way with some of the more competitive tool makers; the most vociferous being the Stanley and Sargent companies.

I never gave this much thought, until just recently. I was called on the phone to buy a "funny molding plane." I like funny molding planes; they generally turn out to be neither funny nor molding planes. What they usually turn out to be is different, and many times rare. Such was the case here, but it took a while to believe it.

The plane was described to me over the phone as "a metal plane with a wood handle, some other metal pieces that fit on to two long rods, and a bunch of cutters in a box." Sounded like a Stanley #45 or possibly even a #55. Now a #55 spurs my interest, as it is more valuable and generally fairly clean (because of a lack of use). As the description went on, I resigned myself to the fact that it was probably a #45. I slowly drifted away from my original interest.

He told me about the screwdriver and the little pamphlet, and the extra set of rods.

"Uh-huh, uh-huh," was my repeated response until the bomb fell. I didn't recognize it as a bomb because at that point it didn't explode.

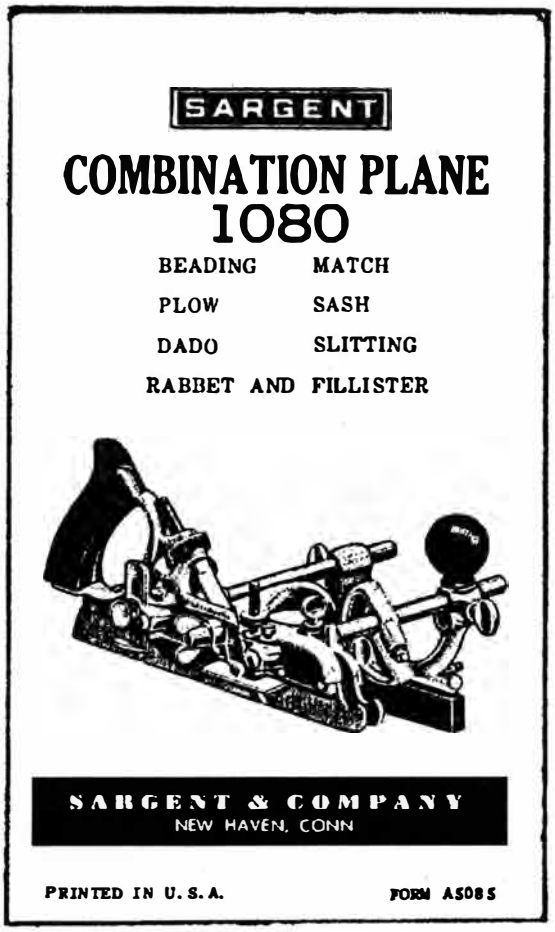
"The box says Sargent on it," was his rather casual comment.

Another, "uh-huh."

Sargent #1080 and Stanley #45 are fairly similar. You might get an argument on this from an avid Sargent collector, or a shrug from a Stanley collector, but a dealer looks at it from the standpoint of how easy it will be to resell. My interest faded even further, but politeness demanded that I allow the gentleman to finish.

He continued with, "It has this almost brand new, round knob up front to help you push the plane." It was worse than what I had thought; it was probably a cannibalized #1080 with a #45 fence, as the #1080 has no front knob. I explained this to the owner only to have him tell me, "But it has the name Sargent on the parts themselves." Now I was somewhat at a loss for words (a quite unusual happening for me). My only retreat was to have him bring it over for me to look at. Maybe I could offer enough for "parts" to keep from hurting his feelings.

A few days later we met. My first reaction was almost the classic, "I told you so." It was a Stanley fence all right, but **everything** about the plane was Stanley, even the blades. Well, OK so it's a Stanley #45 in a Sargent box. Not unheard of. But then how do I explain the Sargent markings on the plane and on the paper label on the cutter box? And what about the fact that there is no indication of a Stanley mark anywhere? The biggest puzzlement of all was the picture of a Stanley #45 under the Sargent banner on both the



Sargent's pamphlet showing a Stanley #45.

Instruction Pamphlet and the side of the box! (See photo.) I thought that Stanley made planes for Montgomery Ward, Sears, and the like, but making planes for their arch enemy! I couldn't believe it. But I bought the plane anyway; it was all there, in good condition, and could be sold to a user.

However, my curiosity got the better of me and I decided to find out about this seeming anomaly. The previous owner had called the Sargent company about the plane but wasn't told anything that would explain it. I called the foremost authorities that I knew: the Jacob brothers for Stanley and Paul Weidenschilling for Sargent. There was no question in any of their minds as to what I had.

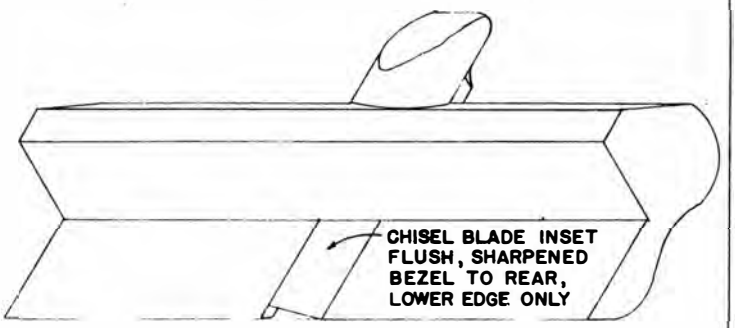
In 1948, Sargent gave up on the #1080 and ceased production of it. As fate would have it, just after the line was torn down they received a rather large order for #1080s. Rather than reopening and retooling their line, they opted to try to get Stanley to make the planes for them. It was obvious that Stanley couldn't do it economically unless they used their own castings and parts. So the #1080 transformed into the #45, with not too many people any the wiser – or really caring one way or the other.

There aren't many of these hybrids around. The speculation is that Stanley produced only one run for Sargent, and the planes disappeared from the factory floor about a year or so later.

I'm intrigued by the whole episode, and will probably keep this "genetic cross" just to show the peculiarities of the human nature that produced it. I suppose it's just a takeoff on the old adage: "**Politics** (or business) **makes strange bedfellows**."

Herb Kean

WILLY TELLUS WHATSIT



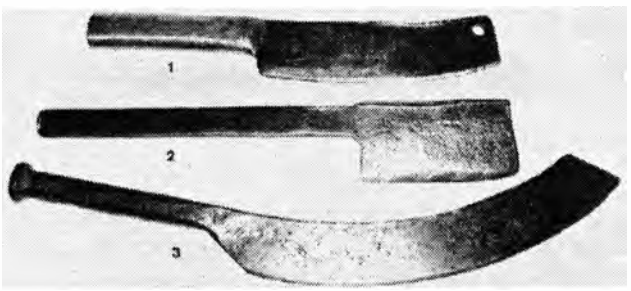
LENGTH 6" TRADESMAN MADE OF MAHOGANY
FROM JACK WHELAN

No. 27

✍ Letters

Froes [*ToolShed*, February 1996, pages 4-5]

I read the froe article in the February Tool Shed with interest, and never realized there were so many froes of different shapes and uses. My main interest is in collecting scissors and shears, and I am particularly interested in the hand wrought ones because of the variety of designs. However, you know how it is, when you see an interesting tool you can't resist getting it.



The three froes pictured are as follows: No. 1 appeared at first to be a cleaver with that hole at the end, but then I noticed that it had been hammered on at the top edge. The interesting part is that the handle is cast out of solid brass. It is 12 5/8" overall with a blade 2" wide and 7 1/4" long. No. 2 is a small knife froe 14 1/2" overall with a blade 2 3/8" wide and 4 1/2" long. It is well hammered on the top edge. No. 3 is 17 1/4" overall with a blade 1 3/4" wide and 10 1/2" long and sharpened on the convex edge. This was sold to me as a paling froe. As explained to me, it was used to split the thin palings used to keep a barbed wire fence in shape between the fence posts. Maybe you can think of another occupation where they were used.

I used to attend CRAFTS meetings quite regularly until I moved down here to the Hill Country area of Texas about nine years ago. Best regards. Harry Stevens.

Summer Auction Schedule

June 15, Gablesville AC, Boyertown, PA, Barry Hurchalla's regular monthly auction. Call Barry 610-323-0333 to get on his mailing list.

July 20, Hillsboro, NH, Your Country Auctioneer's Flea Market and Listed Antique Tool Auction. Call Lee Murray 603-456-3705.

July 26, England, Tony Murland's International Tool Auction. Call Peter Habicht 403-229-7745 for catalog or information.

July 27, Klecknersville, PA, Public Auction of Complete General Woodworking Shop & Patternmaker's Tools for Mr. Jeff Turner. 9 am at the Klecknersville Fire Co., off Rt. 987 N (Lehigh Valley International Airport Interchange) Klecknersville, PA. Call for full listing: Hahn Auction Co. 610-837-7140 (FAX 610-837-9451).

Buy, Swap, & Sell

CRAFTS members only may have a free 5 line (40 word) ad that is primarily related to the exchange of tools or tool info. Each additional line (over 5) is $1. Send to: Stuart Shippey, 251 Hillside Ave., Chatham NJ 07928-1732 (FAX 201 301-9781). Ads accepted as space allows. Please print or type ad.

Wanted

Articles &/or pictures for *Displaying Tools*. If you've a great display, but don't want to do it alone, we'll help. Call Hank Allen 201 444-9440 (address on page 2).

Harness/Leather working DRAW GAUGES & tools by BURSCH, SEYMOUR, CHARLTON, GOODSELL ... NJ cutlers. Ken Hopfel, 25 Lilac Dr., Flemington, NJ 08822. 908 788-2053

STANLEY PLANES Nos. 12 ¾, 90A, 164, 190W, 80S/K, 1103 Victor, G31. Bill Hermanek, 31 Wildwood La., Smithtown, NY 11787. 516 360-1216.

PEXTO brand tools, especially a claw hammer. I will buy any PEXTO brand tool you may have. Please send description and price to: Robert Shipley, 5212 Dayton Blvd., Chattanooga, TN 37415.

Small, usable, inexpensive FORGE for a blacksmith hobbyist. Also interested in Cheney, Heller Bros. and Athea hammers. Pls contact Seth at 908 925-0310 or 908 760-4510 (pager).

WOMENS TOOLS 1860-1920 Mechanical and/or patented 1) Kitchen – cast iron eggbeaters, glass churns or mixers, nutmeg graters, ice cream scoops, raisin seeders, apple parers 2) Sewing - early cast iron child-size machines, sewing birds or clamps 3) Ironing - fluting irons, swans and other animals, box or slug irons, combinations 4) Laundry and housecleaning devices. Also related advertising and paper. Always have good woodworking tools to trade or will buy outright. Carole Meeker Box 169 Rhinecliff, NY 12574. 914 876-7818.

Sell, Buy, or Trade

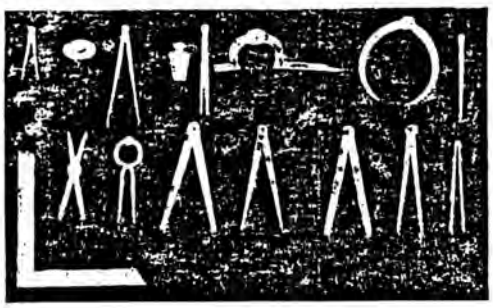
HARNESS TOOLS or related esp C.Rosecrans. Greg Woods 14305 Millcreek Rd., Millfield, OH 45761. 614 797-4258.

VINTAGE PLANE PARTS bought & sold. Pete Niederberger, Box 887, Larkspur, CA 94977. 415 924-8403 after 5 pm.

Found in the Ruins of Pompeii

The small panel below shows the kind of tools used by architects, engineers and probably early machinists in the ancient days before Pompeii was overwhelmed by the gigantic earthquake of 79 A.D. The originals of these replicas were unearthed while making ex-

Replicas of Early Types of Roman Tools

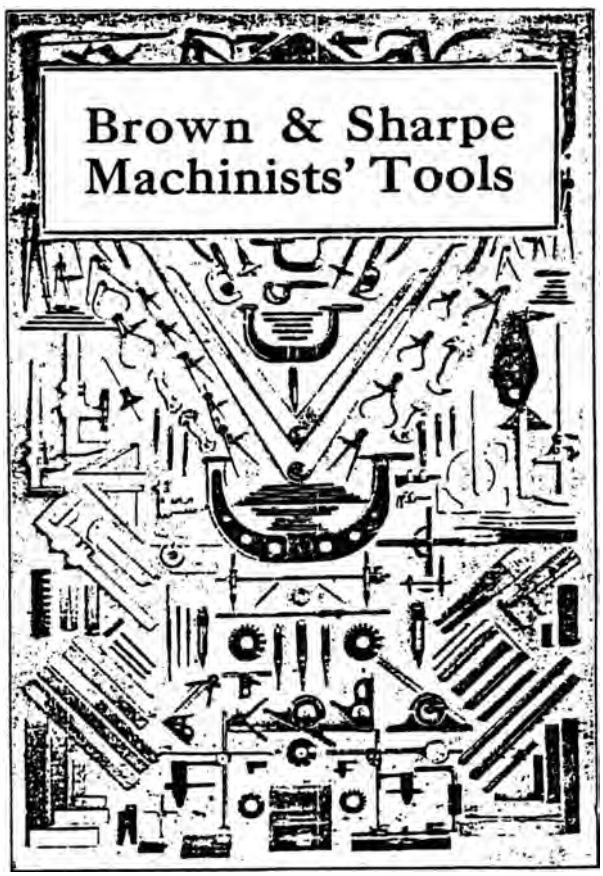


Originals at National Museum, Naples

cavations among the ruins of this ancient city. How would you like to depend on such tools in your work today?

The Wonderful Progress in Tool Making

since the days of Pompeii is strikingly illustrated by the thousand different varieties embraced in the world-known line of Brown & Sharpe Tools. Just as the few crude tools shown above are typical of the tools of early Rome, so the large panel of B & S Tools illustrates



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REPRESENTATIVES IN LEADING CITIES

B. Schedule of Tools and Machines in the Shop of the Saco Water Power Company, January 31, 1850

1 Large Planing Machine 26′ long, will plane 3′5″ wide.
1 Planing Machine 20′6″ long, will plane 2′6″ wide.
2 Planing Machines 14′ long, will plane 2′3″ wide.
1 Planing Machine 10′ long, will plane 2′6″ wide.
1 Planing Machine 7′10″ long, will plane 2′2″ wide.
1 Planing Machine 5′ long, will plane 1′10″ wide.
3 Small Planing Machines 3′ long.
1 Vertical Drill.
1 Bolt Machine (large), 1 Small Bolt Machine.
1 Splining Machine, 1 Bench (medium size), 2 Gear-cutting Machines.
1 Slabbing Machine (iron frame 4′ long 2′ wide).
1 Slabbing Machine (partly wood) 6′ long 25″ wide.
2 Fluting Machines 6′4″ long, 11″ wide.
1 Machine for cutting Flyers, 3 Spindle Grinders.
1 Machine for Turning Pulleys.
3 Machines for Turning Card Cylinders.
1 Machine for Turning Spiders for Card Cylinders.
1 Engine for Turning Doffer Cylinders.
1 Machine for Straightening Shafting.
1 Squaring Machine for Large Work.
1 Rail Drilling Machine, will drill rail 7′6″ long.
1 Slabbing Engine (all iron) 4′ long, 21″ wide.
1 Machine for drilling hobs for Card sheets, all iron, new.
1 Machine for squaring Bolt Heads.
1 Machine for drilling Whirls (6 spindles).
1 Large Engine Lathe, 20′ long, swing 7′6″.
4 Engine Lathes (geared) 20′ long, swing 2′.
2 Engine Lathes, wooden stringer 16′ long.
2 Engine Lathes geared with two heads each, 14′ long, swing 1′.
1 Engine Lathe geared 18′ long. Swing 20″, iron sides.
12 Hand Lathes, 6′6″ long. 41 Engine Lathes, 8′ long each.
9 Engine Lathes, 4′10″ long, swing 6½″. 4 Hand Lathes, 6′ long, swing 20″.
4 Drilling Lathes. 2 Engine Lathes (geared) 12′ long, swing 19″.
1 Chucking Lathe, swing 2′. 6 Hand Lathes, 2 heads each, 16′ long.
4 Engine Lathes, 6′ long, swing 7″. 4 Engine Lathes, 2 heads each, 16′ long, swing 11″.
1 Engine Lathe, 16′ long, swing 13″. 1 Engine Lathe, 10′ long, swing 6″
2 Hand Lathes, swing 36″. 4 Small Lathes, 4′4″ long, swing 9″.
16 Hand Lathes, swing 16″. 4 Small Lathes, 4′6″ long, swing 10″.
4 Bolt Machines (small). 1 Set Screw Machine.
2 Machines for planing wood. 2 Boring Machines.
150 Vises of various sizes.
6 Grindstones.
3 Circular Saws.