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Collecting Saw Sets

by Todd Friberg

Several years ago, while doing my weekly flea market pilgrimage, I found a very unique item. A fine two- handled, cast iron tool, the mechanics of which were a puzzle, peaked my curiosity. As I stood there studying the tool the dealer commented that it was a saw set and I was hooked. What I was looking at was a John Borthwick circular cam saw set patented June 23, 1885 (Fig. 1). Standing there looking at this marvel of design I began my education in saw sets, an education whose central themes are: there is more than one way to skin a cat and there are many ways to build a better mouse trap. When you think of the function of a saw set you realize that it has one task to perform and one task only – to accurately bend (set) a saw tooth. As I've dug my way through the hundreds and hundreds of saw set patents I began to get a clear picture of the enormous range of designs and variations within this one tool type, a tool collector's dream. This realization brings me to the point of this article which is that, like most tool collectors, I thought all saw sets looked and worked something like a Morrill #95 (Fig. 2). This is definitely not the case.

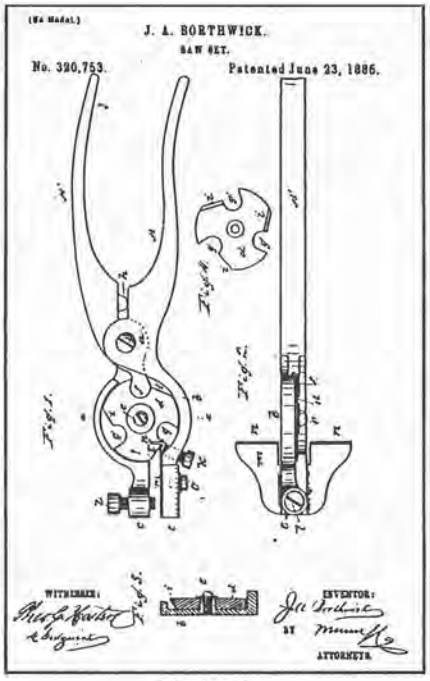

Figure 1.

Saw Set Types

Classifying saw sets is at best an imperfect undertaking. With a multitude of variations and characteristics that may appear on several types, it becomes very difficult to draw definite boundaries between saw set classifications. The following list of types overlooks the insignificant factors and classifies sets using their primary features.

1. Spring saw sets
2. Hammer saw sets
3. Setting blocks
4. Wheel saw sets
5. Two-Handled saw sets
   - A. Compound-lever
   - B. Punch & anvil
6. Automatic band saw sets
7. Simple-lever saw sets
8. Setting stakes

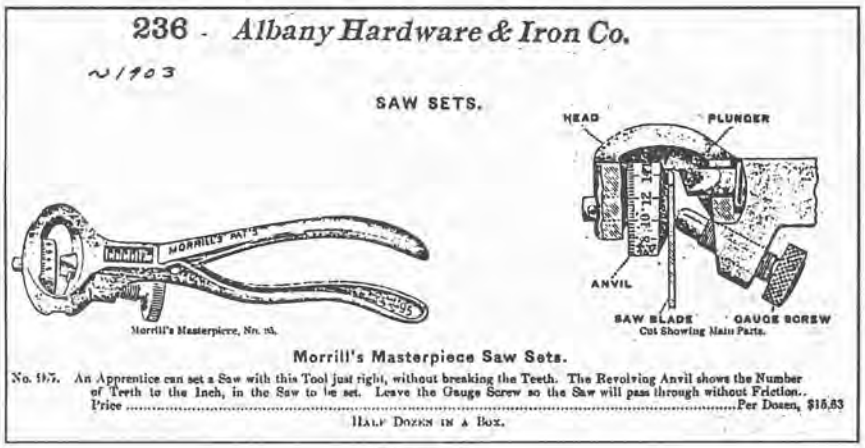

Figure 2.

(continued on page 4)

CRAFTS Picnic Sept. 10

Watch for separate mailing.

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of New Jersey

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The TOOL SHED

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CRAFTS Calendar of Events

Aug. 30 - *ToolShed* and free ad deadline
Sept. 10 - CRAFTS picnic (see separate mailing)

Is this your last TOOL SHED? It will be if the number on your mailing label (upper right corner) is 95. Renew your membership in CRAFTS by mailing your dues check for $12 (payable to CRAFTS of New Jersey) to: Helen Whelan, 38 Colony Ct., Murray Hill, NJ 07974

Displaying Tools
by Hank Allen

This space is usually reserved for our Speaker's Profile, but since our September meeting is a picnic, I'll use it to introduce a new topic. (You'll receive information about the picnic in the mail.) As my collecting has progressed, I've been displaying my tools in a basement room. In such spaces I guess it's common to start with pegboard on the walls, together with shelves and benches or tables; that's what I did. From time-to-time I've wondered how other collectors have displayed their tools, and were there other ways that would enhance my display? Also, from time-to-time I've created a few new-to-me ways that have worked out nicely.

Along with tools, I've acquired books, catalogs, back issues, and anything else about tools that would build a reasonable library. And, I've often searched through my books and back issues of the Chronicle, Gristmill, etc. for ideas on displaying tools. Around 1975 Dan Reible had a series of articles in The Chronicle on several of the great Mid-west collections (Dan is a CRAFTS member and current editor of The Chronicle.) Dan's subject wasn't displaying tools, but his photographs of the collections were certainly pertinent. If you haven't seen Dan's articles you should look them up. But, I've found little else on displaying tools.

It has occurred to me that Tool Shed readers might like to have a few articles on how others are displaying tools, ideas you might want to use with your own collection. So, this will be the first article in a series that will appear from time-to-time. As you read this article, please think whether you have a display, or ways of displaying that you would share with us. Unlike me, some of you may even be allowed to bring your tools into living spaces, so articles aren't confined to basements. You may want to focus on displaying an entire collection, such as a wall display, or on just a portion, such as how you display levels, or framing squares. See my "Wanted" ad on page 12.

Some tools display better on walls than other places. For example I use wall-mounted pegboard to hang, among other things, braces, shaves, drawknives, scorps, T-handled tools, and travelers. (Incidentally, I use 1 5/8" and 2 1/4" curved pegboard hooks which some hardware dealers can order in boxes of 100 at a very reasonable price.) When you use walls to display tools, you run the risk of running out of wall! That's what happened to me, even before I ran out of other types of space. My solution to expand my wall space was to make some framed, pegboard panels that hang from and move on ceiling tracks in front of a wall display.

continued on page 10

PRESIDENT'S CORNER

It is with great regret that we report the sudden death of Alexander Hodge. Present and helpful as ever at the June meeting, he suffered a massive heart attack on the way home. Al, a valued member of CRAFTS since 1988, has contributed a number of articles to the TOOL SHED, most recently on the Eifel-Flash PlieRench last February, with another being edited. He has also reported original investigations on electrochemical cleaning of tools and measuring tools.

For those of you bargain hunters who found slim pickings at flea markets over the summer, Barry Hurchalla provides better luck at his almost-monthly tool auctions. His recent offerings included most of Bob Zarich's collection. Some of the interesting items from his Reading sale last April include a Gladwin and Appleton patent tongue and groove ($200), an H.Baugh hat form ($475), a D.Presbry complex molder ($115), a cast sign for Peck, Stow & Wilcox ($175), a Mannebach shoot board plane ($350), a Calhoun rafter & polygon level ($310), a Henry Disston (Eagle) backsaw ($425), an unsigned 6 1/4" cut crown molder ($2000), a T.Napier crown mold ($1000), a Davis 4 1/2" level ($200), a handled ebony screw arm plow ($1300) and a Booth and Mills plated brace ($450). His usual site is now in Gablesville, PA. The June sale moved a J.Colton crown mold ($175), an oak machinist's chest ($125), an ebony-boxed E.W.Carpenter screwarm sash ($225), a Stanley #77 dowel machine ($175), a #2C plane ($225), a fine #45 in original box ($250), and planes by the rare makers Wheaton ($150), Napier ($105), and I.Stall ($115). Beside these rarities, there were lots of lower price bargains.

Welcome to new members Dan Alampi, Bangor, PA; Michael Aluzzo, Bloomingdale; Jerry Bennett, Campbellsville, KY; Larry & Stephanie Bolhuis, Aplington, IA; Fred Brown, N. Plainfield; Bud Burnier, Southbury, CT; George Gorman, Whiting; James Hopwood, Milbourne, FL; Gared Isaacs, Richland, VA; Lisa Kachajian, Wayne; Steve Kayser, St. Paul, MN; Bob & Linda Levine, Arlington, VA; Frederick Lyman, Springfield, MA; Pete Niederberger, Larkspur, CA; Edgar O'Quin, Tazewell, VA; John Pagano, Totowa; Jim Romani, Philadelphia, PA; John Ross, Wilmington, DE; Thomas Sullivan, Whitehouse Station; Michael & Kathy Taratuski, Feasterville, PA; John & Christine Tattory, Hamilton; Donald Urban, Mt. Holly; William & Mary Welch, Glen Gardner; and Karl & Dorothy West, Walpole, MA.

Meet Your Dealers

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

The superb work of Martyl and Emil Pollak in making available information on planemakers in their GUIDE spurred a flow of new material, which they reported in the journal PLANE TALK over a period of five years. Eventually, of course, the rate of appearance of new material slowed to the point that made it difficult to support a journal of its size, and it ceased publication in 1991.

Mike Humphrey, a familiar dealer at most tool events, took on the task of replacing this clearing house for rhykenological data. His new format combined articles and planemaker information with a catalog listing of planes for sale. The CATALOG OF AMERICAN WOODEN PLANES has done a fine job in both areas.

First appearing in December 1991, it is published quarterly. The June '95 issue featured an article summarizing information (including new data) on those initials appearing on planes which may be translated into makers' names. It presented over forty new items of information on makers and their marks. Mike manages to find and offer for sale a good assortment of unusual wooden planes, 85 in the latest issue. He uses a buyer selection system which ensures fairness in spite of mail vagaries. I was lucky enough to acquire from this list that real rarity, a spring plane.

Jack Whelan

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Sherborn, MA 01770

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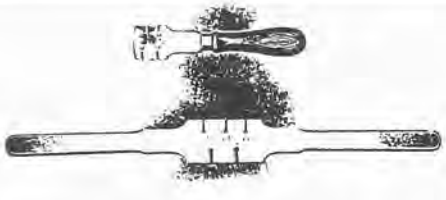
Collecting Saw Sets continued
by Todd Friberg

Spring Saw Sets

One of the most basic yet functional of all the saw set types is the spring set, a very old type which has remained virtually unchanged in the many centuries that it has existed. Also known as a plate set, a saw wrist, or a saw wrench, this tool is very simple in both construction and use (Fig 3). The construction of these is really quite rudimentary, a metal plate (usually tool steel) with different size notches cut in the plate to accommodate different gauge saws. Using this saw set involves placing the proper notch over the saw tooth and bending (setting) it. Consistency tends to be a problem with this saw set as every tooth will have a different amount of set. This uneven set leads to "high" teeth which drag and "low" teeth which remove little material. To remedy this problem some of the larger saw makers offered spring sets with adjustable stops added to them. This provided a more consistent set which meant greater accuracy.



No. 303. Saw Set, with one handle, for small circulars and band saws . $1.50
No. 304. Saw Set, with two handles, for medium and large circulars . 2.25
Write for Discounts

Figure 3.

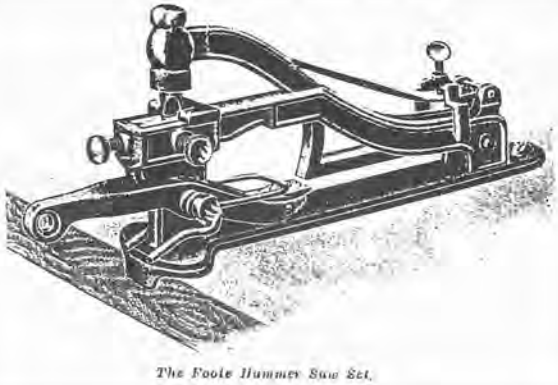
As far as collecting goes, spring saw sets run the full gamut of tool enthusiasts' tastes. For the collectors who like primitive tools this is the saw set for them. Actually, primitive does not describe some of the homespun examples I've seen, crude is a better word. On the other end of the spectrum there are examples of this saw set type that I would consider suitable for framing. Some of the most beautiful tools of any kind that I have had the privilege of viewing are spring saw sets. Ornate, highly polished spring plates along with finely detailed, brass ferrules make it easy to get the wallet out at tool shows. With the recent influx of British tools brought into this country by dealers we are seeing turning work on the handles of these imported spring sets that is outstanding. English spring sets with handles turned from exotic hardwoods and colorful fruitwoods are becoming highly prized, collectable tools.

Markings on spring saw sets tend to be done only by the major makers. Even on some of the inexpensive models known to be made by large manufacturers, the markings are sporadic and identification must be made by matching catalog diagrams. It is surprising to me that even most of the finely crafted British spring sets do not have maker marks.

Hammer Saw Sets

A fascinating and collectable type of setting tool is the hammer saw set. Also known as the bench saw set, this type has a number of unique characteristics. The hammer set is almost always a stationary saw set. Most examples are designed to mount securely to a bench, stump, or whatever makes a solid surface. This is accomplished in a number of ways. One is by providing a threaded post on the bottom of the tool (usually tapered) to screw the set directly into the working surface. Another is by providing pre-drilled and countersunk holes for permanent bench mounting.

Hammer saw sets generally are made to be used in the vertical position meaning the saw lies flat in front of the operator while the setting device is activated. The actual setting mechanism usually is either a hammer-driven punch or some sort of punch and die arrangement tripped by a foot pedal. Adjusting the amount of set is normally done by having a movable stop which contacts the top of the saw teeth.



The Foote Hammer Saw Set.

Figure 4.

Collecting hammer saw sets adds a few new twists to the average tool collection. To start with we are looking at a tool type which in most cases would be considered a fairly complex, maybe even a precision, tool. Add to this the fact that most of these saw sets needed to be hit with a hammer to function, not a good situation. Of the many examples of this tool I've seen, a good number look as though their owners took out life's frustrations on the equipment. One other feature that is associated with bench sets is some delightful casting work (Fig. 4). Being trained as a Pattern Maker means I tend to be a sucker for a nice casting.

Setting Blocks

The setting block, also called a setting anvil or a bevel plate, is nothing more than a flat surface with a beveled edge on one side. Operation of this tool looks quite easy; it's not. The saw tooth is placed over the beveled edge with the saw lying on the flat portion of the plate, then the tooth is hit with a setting hammer. Needless to say it must take a lot of practice to become proficient at this skill, yet this was the primary setting tool used in the woods on crosscut saws. I am still baffled how any degree of accuracy was attained without any depth gauging or stops.

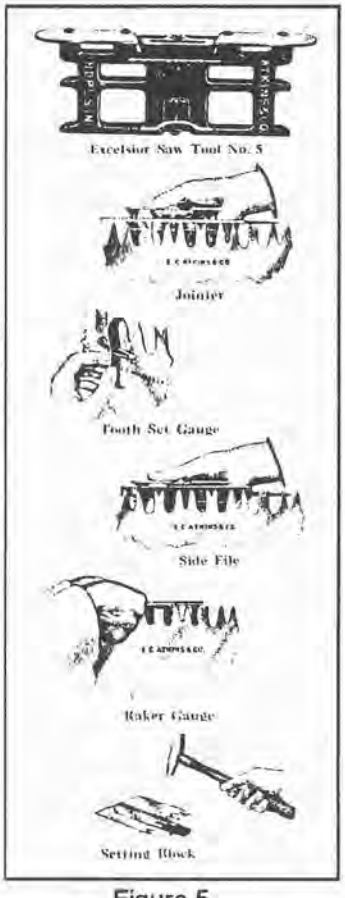


Figure 5.

Most of the larger saw manufactures offered one or more varieties of these inexpensive saw sets. I'm sure most tool collectors have seen a cast iron setting block together with a spider set gauge and combination saw tool in crosscut saw sharpening kits (Fig. 5 shows a typical crosscut sharpening kit).

Wheel Saw Sets

When thinking about setting saw teeth, one thinks of a device that uses a punch or some sort of hammer action perpendicular to the saw blade. There are exceptions which lead us to the wheel saw set. Not only is this the rarest saw set type, but it's also unique in operating principle (Fig. 6 / Pat. Oct. 13, 1916 by H.B. Foley). The operating principle of the wheel saw set has been around in various forms since the mid-1800s (Fig. 7 / Pat. Aug. 31, 1852 by Bradway & Valentine). The principle being to pass the saw between two opposing serrated wheels which alternately set saw teeth as they rotate down the saw blade. Mechanically this is accomplished by: 1. the serrated wheels must be mounted in a frame, 2. the setting wheels must be staggered the proper distance for correct timing, and 3. the setting wheels themselves must have the appropriate circular spacing for the saw tooth size. The frame on the hand held models would be similar to that of a hand saw joiner,

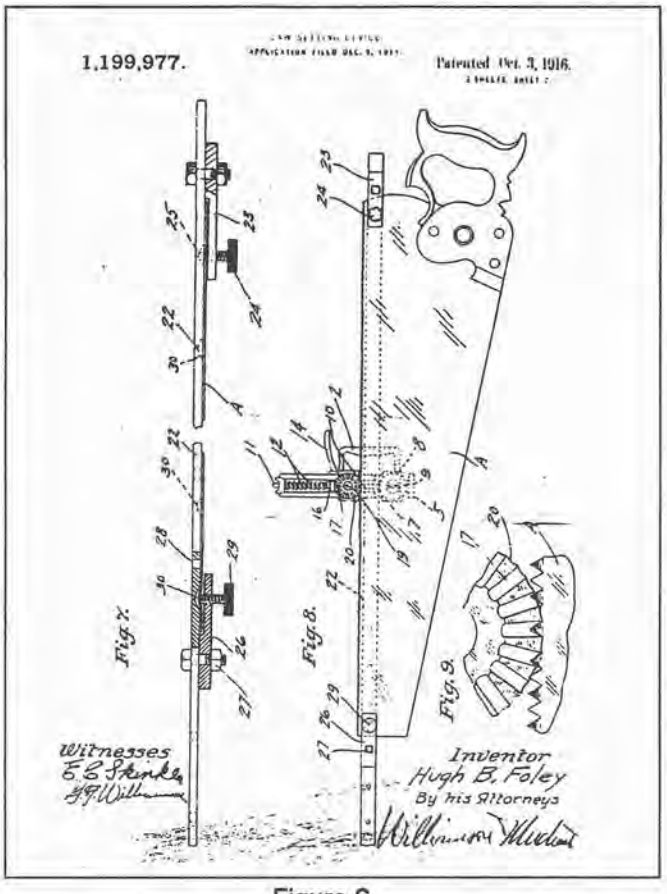


Figure 6.

as would the operation of running the saw set over the top of the saw teeth. Several other larger examples were patented (like the Bradway & Valentine patent mentioned) in which the saw was fed through the machine.

In the twenty or so years that I've been collecting tools I have not yet had the luck of snaring a wheel saw set. They are out there, but very difficult to find. I know that three or four patented wheel saw sets were produced, but certainly in small numbers as they never seemed popular.

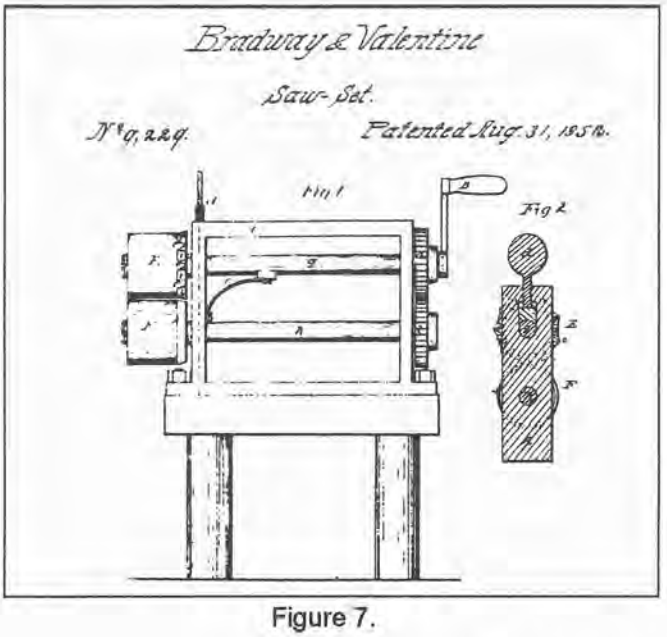


Figure 7.

Two - Handled Saw Sets

They are often referred to as a plier-grip set. It may be simplistic to group such a large saw set type with a name like two-handled, but the handles are the only common factor which binds them together. From this point we can split the group into two subtypes: compound-lever and punch & anvil saw sets. Since most saw sets are of the two-handled variety splitting this group in two leaves both subtypes with many examples.

A. Compound-lever saw sets:

Within this subtype of saw sets we have an enormous range of styles for setting saw teeth. What I use as criteria for this subtype is a lever action, one handle serving as a base or pivot point while the other handle works as a lever to bend the saw tooth. There are plenty of good examples of this mechanical action, the 1869 Leach & Elder patent is just one classic example (Fig. 8).

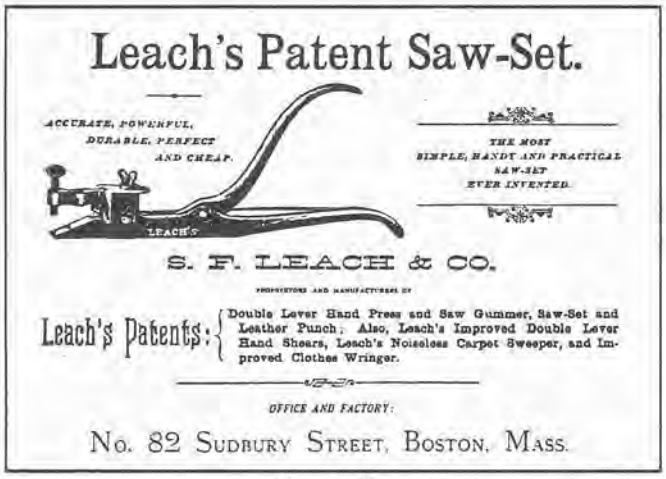


Figure 8.

This is an area of saw set collecting where many very old examples can still be found without too much trouble. Several patents dating before 1870, such as Wm Nash's 1863 & 1867 models, are still abundant and inexpensive.

B. Punch & Anvil saw sets:

The punch & anvil saw set is the type that most people relate to when I tell them I'm a saw set collector. I've had flea market dealers show me this type when asked about saw sets and leave beauties of another type lying on the table, not knowing what they had. The common features within this subtype are a stationary handle, a second movable handle that drives some sort of punch, and an adjustable anvil or die block (Fig. 9). Aside from these three common features, components like saw blade depth stops, anvil adjustments, and handle springs run the gamut of the imagination.

In this saw set subtype there are literally hundreds of different examples out there to chase after. Charles Morrill, Stearns, Stanley and several other major manufacturers all sold this saw set type. With the many examples to chose from, prices are generally very reasonable, making punch & anvil saw sets true tool bargains.

Figure 9.

Automatic Band Saw Sets

For the past several years I have put a portion of my tool collection on display at steam shows, antique tool meets, and other history - oriented events. By far the automatic band saw sets have drawn the most interest and questions of any saw set types. Fully automatic, hand-driven units, these little mechanical marvels never fail to draw a crowd when being demonstrated.

Beginning in the late 1800s Henry Disston & Sons was the first to offer an automatic band saw set on a large scale (Fig. 10). By 1920 all of the major manufacturers had followed suit and offered their own versions. Virtually all of the examples accomplished the saw tooth setting operation in much the same way, advancing the band saw blade while setting the teeth from both sides. Adding to the complexity of these machines are a whole host of depth stops, feed adjustments, and other fine tuning apparatus.

The most common of these band saw sets is the one offered by the Disston company and is most likely the Bugbee patents of 1873 and 1877. Being relatively easy to attain, the prices are still reasonable for this model, even cheap if bought away from the tool show.

Figure 10.

Simple - Lever Saw Sets

Although spring saw sets use leverage in the purest sense, the simple-lever saw set elevates the use of force to a higher plateau. Where the saw wrest uses ordinary force with little refinement the simple-lever saw set utilizes features such as mechanical advantage, guides and stops, and varied yet well-thought-out features to aid the person setting the saw. A very early example of this set type that includes some of these features is the Seymour Smith patent of 1859 (Fig. 11). Note the advantage in leverage over a spring set. Also note the refinements of a depth adjustment, the regulating screw for the amount of set, and the adjustable opening for use on different gauge saws. For the most part, this type of saw set was used on heavier gauge material such as drag saws and large-diameter circular saws. As always, there are exceptions.

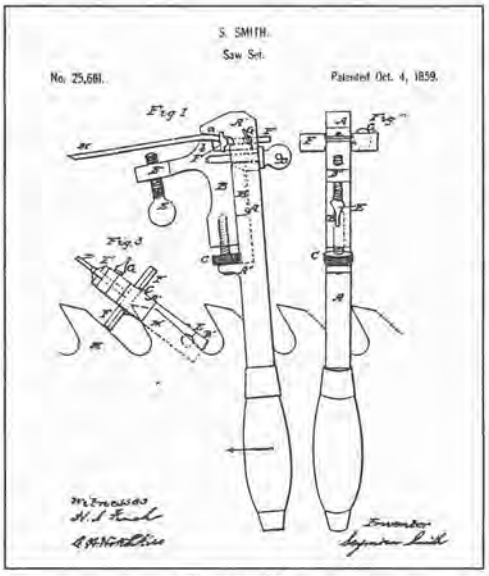


Figure 11.

Finding simple-lever sets is a formidable challenge to the tool collector. Most examples seen tend to be early, which means collectors on the East coast definitely have an advantage in finding them. Examples like the Smith saw set mentioned above tended to have a lot of smaller parts on them, so it pays to really look them over before buying. The really old sets can loose all trace of things like set screws and spring mountings.

Figure 12.

Setting Stakes

This is an example of a saw set type that is used exclusively on one type of saw, the circular saw. It is comprised of an elongated frame which holds an adjustable arbor at one end and a beveled setting block at the other end (Fig 12). The adjustable arbor is usually cone shaped to accept different diameter mounting holes and can be moved the proper distance from the setting block depending on the radius of the saw blade. The setting block was normally made from hardened tool steel and was mounted in the heaviest part of the tool as this is where the saw was set with a hammer (from the condition of some of the examples I've seen, a very large hammer). The setting stake was operated by locating the circular saw in position on the arbor cone, and then placing the locating arbor at the proper distance so the saw teeth lay across the beveled portion of the setting block for the correct amount of set. Some variations seen in this saw set type are a mounted hammer which swings up and down on a pivot over the setting block, and a setting anvil which has an eccentric bevel that can be rotated for a finer setting adjustment. Another interesting variation is on an example in my collection. The locating cone is mounted on a double-jointed hinge which allows the saw to swing off center. This in turn positions the saw tooth, depending on the pitch of the tooth, tangent to the setting surface. The earlier cast iron versions of this type of saw set tended to be more eye appealing. Later models (after 1900) were generally fabricated from existing round or bar stock.

Suggestions

First remember that most saw sets are complex tools with several components: coil springs, thumb screws, flat springs, and a boxcar load of cast wing-nuts are standard with most saw sets. If the set is common then of course you may find replacements for missing parts, but if the set is rare don't waste your money on an incomplete example. Be patient and wait for a better one. Watch out for a broken or welded casting as many of these tools are hammer operated. If you understand how a particular saw set works you will be less likely to miss a hidden defect or problem. Don't try to do a component check list before you buy, but do take the time to understand how the tool functions. Since I've started using this method the mistakes made buying saw sets have been drastically reduced.

Todd Friberg has always lived in Rockford, Illinois where, for the past 17 years, he has worked as a journeyman patternmaker and plastic-injection moldmaker. For over 20 years he has been collecting machinist's tools and saw maintenance tools, of which saw sets is a subset. This article is a microcosm of one chapter of his book on saw sets which will be published soon, and reviewed by The Tool Shed. Todd is also writing a book on the Civil War. Ed.

The Slide Rule – A Historical Perspective

by Tom Wyman

In the early 1970s the pocket calculator became available, and virtually overnight the slide rule disappeared. The "slide rule era" had spanned three and a half centuries before being abruptly terminated by the electronic age. With the passing of time we tend to forget how many people relied on slide rules. High school and college students would have had a miserable time getting through technical courses without their faithful slide rules, or "slip sticks" in collegiate jargon. Those in technical lines of work used slide rules as we use pocket calculators today. They were convenient for making rapid calculations, and answers of sufficient accuracy could be obtained without exhaustive hand calculations or resorting to mechanical calculators.

The history of the slide rule began in 1614 when John Napier (1550-1617), a Scottish mathematician, invented logarithms, a term he coined. Napier recognized that numbers could be multiplied by adding their logarithms and divided by subtracting them, which immensely simplified otherwise burdensome calculations.

In 1620, just six years after Napier's milestone contribution to mathematics, Edmund Gunter (1581-1626), a professor of astronomy at Gresham College in London, devised a straight 24 inch scale which could be used for multiplication and division. In developing his scale, Gunter used logarithms to the base 10, and inscribed the numbers on his scale logarithmically rather than arithmetically as numbers appear on the common ruler. Thus, a pair of dividers or a compass was all that was needed to add or subtract segments on the rule, and thereby multiply or divide by reading the resulting number on the scale. The Gunter scale was the basis for the development of the slide rule, and although it was more awkward to use than the slide rule, it continued to be available until the end of the 19th century.

A year or two after Edmund Gunter's invention, William Oughtred (1574-1660), a clergyman living near London who was intensely interested in mathematics, positioned two Gunter scales so that one could slide along the other which eliminated the need for dividers to perform calculations. He is credited with inventing the first slide rule, and thus began the slide rule era of mathematical computations.

Over the years that followed the slide rule gradually evolved into an increasingly sophisticated instrument. Inventors and innovators developed an imaginative array of designs to meet virtually every need.

In the late 1600s Thomas Everard devised a boxwood slide rule for calculating taxes on spirits, wine, and ale. This led to the development of a wide variety of boxwood, and sometimes ivory, excise rules which continued to be used in England until early this century.

It was 1677 when Henry Coggeshall (1623-1690) described his first slide rule which consisted of two rules, each with scales that slid one past the other and were held together with brass strips. He also devised the "girt line" for calculating the cubic content of standing timber and logs taking into account taper. Five years later Coggeshall conceived of putting the slide in one arm of a two-foot, folding rule hinged at the center.

This folding rule design was adopted 125 years later by Joshua Routledge as the basis for his engineer's rule. Beginning about 1800 a family of two-foot, two-fold engineer's and carpenter's slide rules were produced by a number of companies including John Rabone & Sons, Belcher Brothers, H. Chapin, Stephens & Co., the successor firm Chapin-Stephens Co.,E.A. Stearns, A.Stanley & Co., the successor firm Stanley Rule & Level Co., and Standard Rule Co. Interestingly, these companies generally referred to the narrow metallic slide in these boxwood rules as a "Gunter slide" when actually it was a slide rule component.

These relatively primative, boxwood slide rules, trimmed in brass, and sometimes German silver or steel, continued to be produced until World War I. Having no indicators or runners, these slide rules were inscribed with two-cycle logarithmic scales to facilitate calculations. However, this reduced the effective length of the slide rule to about five inches and limited its accuracy accordingly. With this limitation and the fact that the better slide rules were increasingly available by the late 1800s, these rules gradually became simply tools for the journeyman or tradesman.

The venerable German firm Dennert & Pape, the pioneer of the modern slide rule, which became Dennert & Pape Aristo-Werke in 1956, began producing slide rules in 1872. The company quickly recognized that the dimensional stability of ivory scales was not satisfactory, and in 1886 the firm was granted a German patent for white celluloid scales laminated onto mahogany bodies. This design soon became a widely accepted standard for slide rule construction. Rules have been found marked both "Dennert & Pape" and "Keuffel & Esser" (K&E). Additional sleuthing has confirmed that Dennert & Pape supplied slide rules to K&E until the turn of the century when K&E began making their own rules.

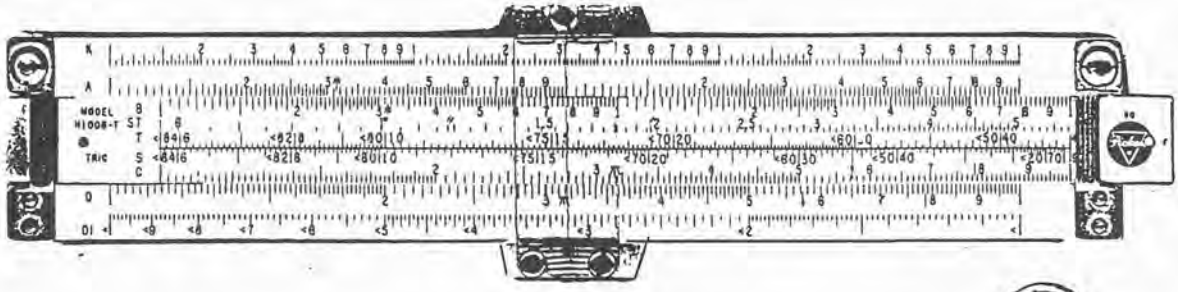
In spite of formidable competition both domestically and abroad, the Hoboken, N.J. based K&E probably produced more slide rules than any other company in the world. To name but a few, competing firms included Dietzgen, Dennert & Pape Aristo-Werke, Bruning, Faber-Castell, Sun-Hemmi, Frederick Post, Concise, Acu-Math, and, in later years, Pickett, a producer of a broad line of plastic and metal rules.

Over the years during which the slide rule prevailed as man's handiest calculator, many designs evolved including rectilinear, circular, and cylindrical rules. Each offered certain advantages. In addition, a wide range of special-purpose rules were created to allow users to perform specialized calculations more easily. The slide rule was an important tool of the industrial age with the result that, today, slide rule historians are still learning about this instrument that developed as a result of John Napier's invention of logarithms in 1614.

Tom Wyman, from Palo Alto, CA, knows many of our tool-collecting friends there. He started collecting rules, but switched to slide rules. He retired after 43 years with Chevron in oil field exploration; he serves as Membership Coordinator for the Oughtred Society. Thanks to Max Richardson for the material on slide rules. Ed.

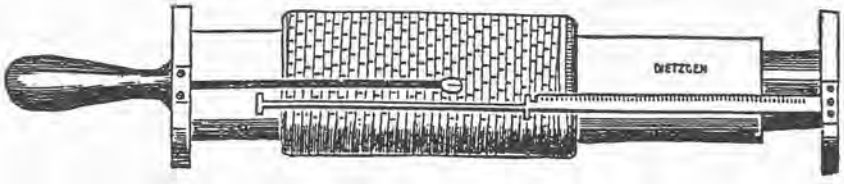
Oughtred Society Meets in New Jersey

The Oughtred Society was formed in 1991 for slide rule historians, collectors, and those interested in fostering the heritage of the slide rule. The Society's name honors William Oughtred who is credited with inventing the first slide rule in 1622. The Society has members worldwide, publishes a Journal, and holds meetings once or twice a year. The 56 page March 1995 Journal features articles on straight, circular, and cylindrical slide rules, book reviews, and a report on the European market. The Oughtred Society will meet on September 23, 1995 at the Ramada Inn Conference Center in Hightstown, N.J., just off exit 8 of the New Jersey Turnpike. The meeting will provide a means for display, discussion, trading, and selling of slide rules. Attendees are expected to bring 20 or so rules for display. Oughtred membership is not required to attend, but advance registration is. For information about membership, or about the meeting, costs,etc. contact Conrad Schure, Woodhull House Suite K, 63 West Main St., Freehold, NJ 07728, 908-431-5191.



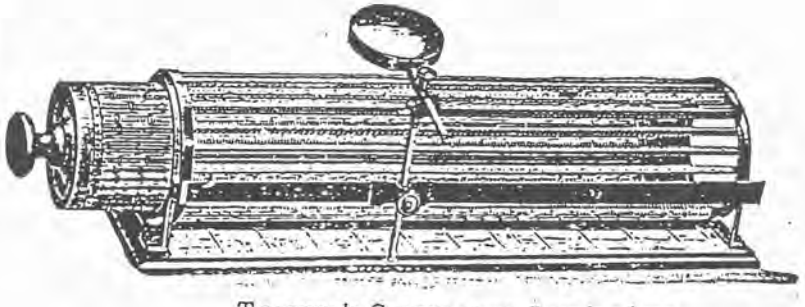
Fuller Slide Rule

Length of Scale—500 inches, 7,250 divisions

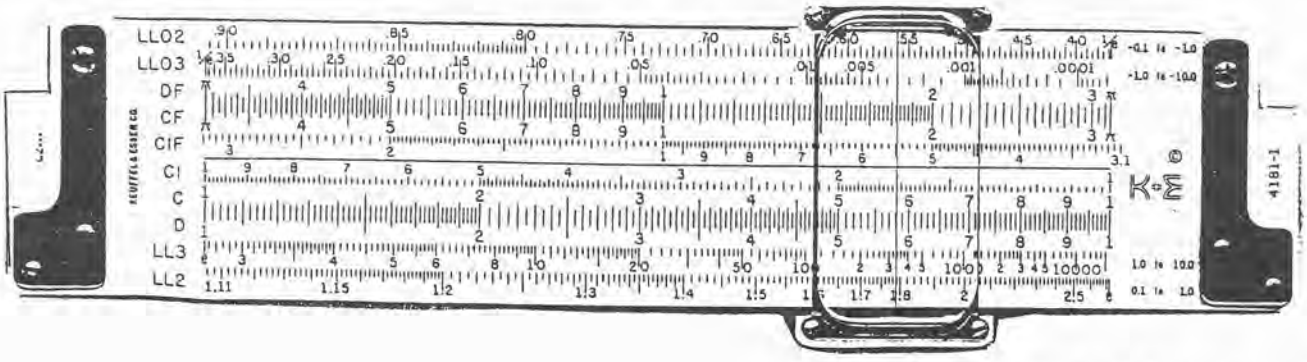


Boucher Calculator

OTIS KING POCKET CALCULATOR



THACHER'S CALCULATING INSTRUMENT.



Displaying Tools continued

by Hank Allen

Photo #1 shows a tool wall above three-foot-high, built-in shelves. You can also see the ends of three hanging panels that are mounted directly above the shelves on ceiling tracks. The shelves are six feet wide so I made the panels one-half that distance, or three feet, wide and 57 inches high to fit the space available. The panel frames are made of pine. The sides are 1x2 and the tops and bottoms are 1x3. End lap joints are glued and screwed together. The pegboard is mounted free in half-inch-deep grooves around the inside of the frame. Photo #2 shows the three panels partially open. Photo #3 shows the rear panel fully opened in front of the wall. The panels are spaced four inches apart. Ideally there should be more space between panels, but that's all the space I had on the shelf top for the bottom guides. What the panels provide is a 150% increase in display space, using space that otherwise is useless. Of course, you can't view all of your tools at once, but it's better than having them in boxes somewhere.

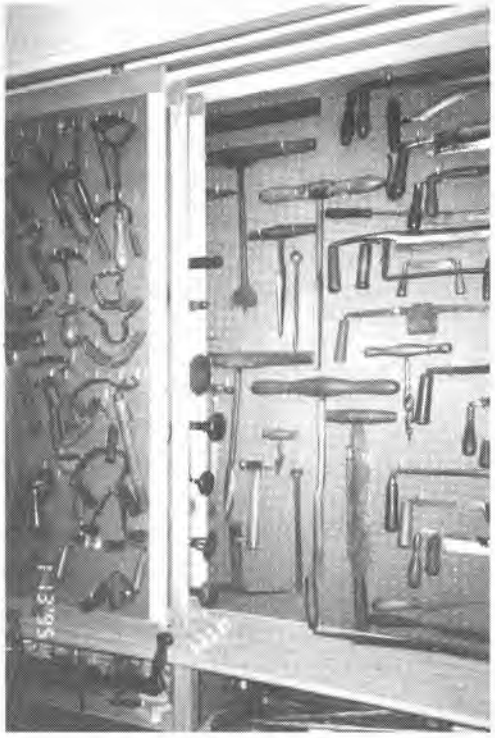


Photo 1

Photo 2

I also made two floor-to-ceiling panels that are shown in Photo #4. These frames are constructed in the same way as my smaller ones but using 1x3 and 1x4 pine for strength. The frames are 52 inches wide to surround 48 inch pegboard. Ceiling height determines the length ofthe frames. To provide some additional strength there is a 1x2 brace across the back of each frame. If you attempt these full size panels, buy the best heavy-duty, sliding hardware you can find. I have about 70 braces on my front panel, and cheap hardware would surely have failed by now. You'll see that I have tools mounted on the front and back of the panels. Thus, display space is increased by 400%, but open space is required for the panels to be viewed on both sides when open. If I were starting over I would make more use of these floor-to ceiling panels.

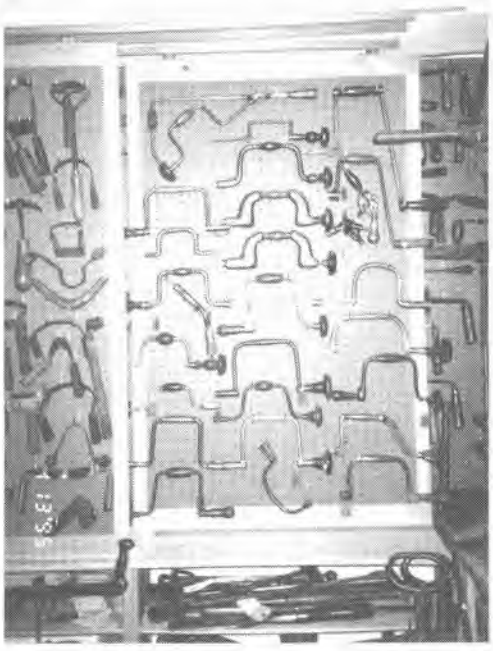


Photo 3

Photo 4

Kean Kuttin's

Sometimes It Pays to be a Packrat

My wife (and many others) asks the same question year in and year out about my boxes of "spare parts" and miscellaneous hardware, "Why are you saving all that junk, you never use it?" The answer is always the same, "I might." And, on semi-rare occasions I do use it. But most of the time it just sits there gathering dust and building up my guilt for using needed space.

During a recent holiday, I had a chance to finally demonstrate something positive that came from saving "things". My son Steve had brought home a box of tools that either: 1) he couldn't sell in Maine, 2) needed fixing, or 3) just was getting in his way. My job, "should I accept it", as they used to say on "Mission Impossible" , was to turn this box of junk into something of value. My son must have inherited my packrat complex, because before he could take anything to the dump he would bring it home, "for Dad." My first reaction to such a box was to complain bitterly, but before long I was rummaging through, picking out this and that, and saving things that I knew I would use - someday.

Once in a while, to make a point, I would make a big scene over a piece that was just completely worthless. It was to keep Steve on his toes, I guess. Such a piece was in the latest box. It was a body of a smoothing plane, just the body - no wedge or iron. The top of the body was severely burned over an area of two or three square inches. The sole was gouged out here and there, and the inlay to the mouth (to narrow the opening) was gone. On top of all this it was covered with paint speckles and grease. If I were to dream up a worthless tool, I couldn't improve on this one. There was not one saving grace about it, no signature, nothing.

It was a perfect specimen to unleash my tirade about saving junk, even though I was guilty myself. I thought I could make a few points with Doris by expounding on the necessity to scrap things when they are worthless. Steve, who has heard the speech before, just weathered through it with as little shifting of weight as possible. When I was finished, I started to chuck the plane in the trash can when I heard, "I thought you could use the wood for ebony inlays."

"Ebony! Haven't I taught you anything about wood? Look how open the grain is, it's not ebony."

"What is it?"

"Uh, it's probably one of those heavy mahoganies, Cuban maybe."

"Isn't that worth saving?"

"If it means that much to you I'll save it," I mumbled. But my peace of mind was already racing ahead to when I could get the piece off to myself and find out what the wood really was.

I knew it wasn't Cuban mahogany; in fact I wasn't sure it was mahogany at all. At my first opportunity I took it over to the band saw to cut a cross section. But I couldn't do it! What if it were a truly exotic wood? Then the plane would certainly be worth restoring. I decided to just cut the burn off the top and the tears off the sole and see what the exposed wood was. Was I ever surprised. It was Wenge! (Some pronounce it "whenj", but because the word originally carried an accent over the second e, most call it "when-gay", a cross between the French and the American versions.) Wenge is a very abrasive resistant wood that works well with tools and remains stable. If I were to make a plane that had to take a lot of abuse, I would make it out of Wenge. I know of no factory-made planes out of this wood, and know of only a few others that were probably made by shipbuilders. We are now talking about a rare tool, at least rare in my definition.

When everyone left after the holiday, I restored it with an ebony inlay at the mouth, and a nicely chamfered ebony wedge. After the crud was taken off, the irregularly swirled shades of brown and black grain, with a hint of reddish brown from the freshly-cut areas, were gorgeous. I was quite proud of myself, but there was one perplexing issue still unresolved: how to explain all this to my son after the speech I gave him.

He is a member of CRAFTS and gets The Tool Shed. I'll let this article take care of the explanation. Sorry Steve.

Herb Kean

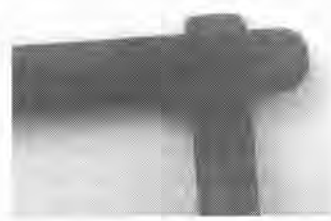
A Unique Frame Saw

Rick Slaney of Pawtucket knows more about Rhode Island planemakers than anyone I know. Paradise, for him, would be being surrounded by all of the 18th century planes of Ballou, Clark, Fuller, Lindenburger, and Wilbur. I think I met him at my first auction in 1988, and we meet regularly at the Crane and Brown auctions.

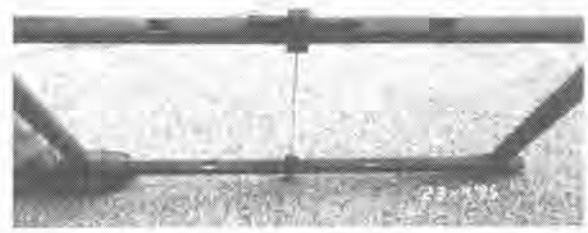
I was thrown completely off balance when he said to me about a year ago: "I have a question for you about a saw." He described a frame saw that he had access to and asked me my opinion about its desirability and value. "Buy it," I replied, "at any cost."

Well he did. He brought it to Nashua in April and invited me to photograph it for The Tool Shed. I have a number of frame saws and I've examined hundreds, but Rick's is the finest I've ever seen. It may be unique.

The frame is beautifully patinated with the cheeks and stretchers joined by pegged mortise and tenon joints. The blade is pinned to wooden blocks that pass through the cheeks with tension provided at both ends by plane-type wedges that pass through the blocks.



But the most unusual feature, which I've never seen before, is that there are three rectangular holes in each cheek so the blocks that hold the blade can be placed in any of three locations. So the blade can be centered in the frame or set to the right or left.



We wondered if perhaps there were once three blades for some special use. We don't think so. But, if not, why would the blade be moved to the right or left? Might it have been to accommodate the shape of the work? Or might it have been to adapt to an unusual work site? We don't know, but your letters to The Tool Shed with facts or theories are solicited.

Hank Allen

✍ Letter Received

From time to time Eric Sloane's name appears in The Tool Shed, and Bill McDougall's article in the February issue stirred some memories you might find interesting. I can add a personal anecdote which will add to the available general knowledge of Eric. We all admire and rely on his books, but do not know the man.

In the early 1970s Pegeen Fitzgerald and her husband, known affectionately as "Lord Edward", had a regular week-day morning talk show on WOR radio in New York. They had an apartment in the city, but their love was a general store in Kent, Connecticut which they had restored, and to which they invited their radio listeners. One of their stock topics recounted the goings-on in Kent. And one of their most interesting subjects was Eric Sloan and his little gem of a museum of Americana located on Route 6 in Kent. They were neighbors, and saw each other often.

At the time I was building my own museum, which some of you have visited, and I had begun to feel the need of some advice, and perhaps even a little sympathy, for it was slow going. The Bicentennial was sucking good artifacts off the market, and prices were skyrocketing. So, I revved up my courage and called Pegeen. She was friendly and encouraging, and assured me that Eric Sloane would see me, particularly since we were kindred spirits. She may even have given me his phone number. We called, reserved a room in a small local motel, and found our way to Sloane's home the following day. He greeted us, and led us across the yard to his studio. As we talked he took a fat brush, some white paint, and a blob of turp, and showed me how I could lighten up the dark, ground-floor paneling in my bank barn. We chatted about his tool collection, which he made rather light of. He said that he could not have produced his Museum of Early American Tools unless he had first owned, handled, and used the articles he was writing about. His masterful illustrations indicate how to grip the tools, the direction of their action, and their practical use. He was amused to hear that I had set out to find every item in the book, but I was serious. He made suggestions about arranging my collection, and explained how he had created and crowded dozens of vignettes into a small space, which still clearly illustrated the crafts and trades of early America. His comment about his museum was, "Oh, that little thing! It was only a means to an end." (Of course, we know that he turned it over to the State, but we worry about conditions there now that he is gone.)

As we were leaving he reached up and took down a copy of his latest book, Spirits of '76, and inscribed it to me! It is one of my treasures today. He was busy with his work on many enterprises, as well as contributing to local affairs, yet he found time to share his knowledge, expertise, tastes, and interests with a total stranger who turned up on short notice out of nowhere.

The W. Sagurton Museum

He had numerous completed paintings displayed for sale, but I limited myself to admiring them. This was one of the few times when I wanted something and didn't go for it. The one I remember particularly was the red wheelbarrow, which you may have seen. After his untimely death prices skyrocketed out of reach. I feel privileged to have known him, however briefly, so as to appreciate his generosity and feel a kinship with his philosophy.

My museum, like the Sloane-Stanley, is in a "barn" building which begins as a bank barn on the ground level, with a second level where wagons and hay would have been stored in a New Jersey barn. I might add that the problem is no longer finding artifacts, but rather finding places to display them. Some painful weeding will have to happen soon.

Wilma Sagurton

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 information. Each additional line (over 5) is $1. Send to: Stuart Shippey, 251 Hillside Ave., Chatham NJ 07928-1732 (FAX 201 301-9781). Ads accepted on a space permitting basis. Print/type.

Wanted

RACK-WING DIVIDERS & CALIPERS. ☎ 505 344-9272.
✍ Bill McDougall, 4020 Grande Dr., NW Albuquerque, NM 87107.

General information on the history of tool making activities of J & GH WALKER and AE YOUNG and specifaclly about their LEVELS.
☎ 504 673-4049 ✍ Don Rosebrook, 38352 Henry Rd Prairieville LA 70769

OLD WRENCHES and GLASS INSULATORS. ☎ 215-493-2513
✍ Maurce and Georgie Maltby, 1108 University Dr, Yardley, PA 19067.

STANLEY "HANDYMAN" TOOLS, CATALOGS, ADVERTISING or any other items that deals with this line of tools.
☎ 516-360-1216. ✍ Bill Hermanek, 31 Wildwood La Smithtown NY 11787

Information/ author(s) for a *ToolShed* article on trade & tools of the PATTERNMAKER and how these have changed over the years.
☎ 201-444-9440. ✍ Hank Allen, 524 Harristown Rd. Glen Rock NJ 07452

Articles with pictures showing how tools have been displayed. We can assist with the writing or pictures if that encourages you to volunteer.
☎ 201-444-9440. ✍ Hank Allen, 524 Harristown Rd, Glen Rock, NJ 07452

☞ Fall Auctions

Sept. 15-16 Holiday Inn, Nashua, N.H. Your Country Auctioneer's annual Fall Tool Show and Auctions. (Listed on the 15th, Catalog on the 16th).
☎ 603-456-3705 Lee Murray for a catalog or information.

Oct. 1 England. David Stanley's 26th International Catalog Auction.
☎ 508-748-1680 Mechanick's Workbench for a catalog.

Oct. 6-7 Paw Paw, Mich. Tom Witte's annual Fall Tool Show and Auction.
☎ 616-668-4161 Tom for a catalog or information.

Nov. 10-11 Sheraton Inn-East, Harrisburg, Pennsylvania. Brown's 12th annual Dealer Show and International Antique Tool Auction.
☎ 610-589-2229 Mickey Holmes for a catalog or information.
Correction: Mickey Holmes lives on West High St. in Womelsdorf, not on High St. as reported in our June issue.

Apology: Bud Brown knows that William Mann & Company was located in Lewistown, Pennsylvania! Your editor incorrectly gave that firm's location as Lewisburg in Bud's article on William Tate in the June Tool Shed. Bud didn't say a word, he just mailed us a picture of Mann's 1929 Calendar with Lewistown in very large letters.