

# The TOOL SHED

NUMBER 76



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## Tool Woods by Herb Kean

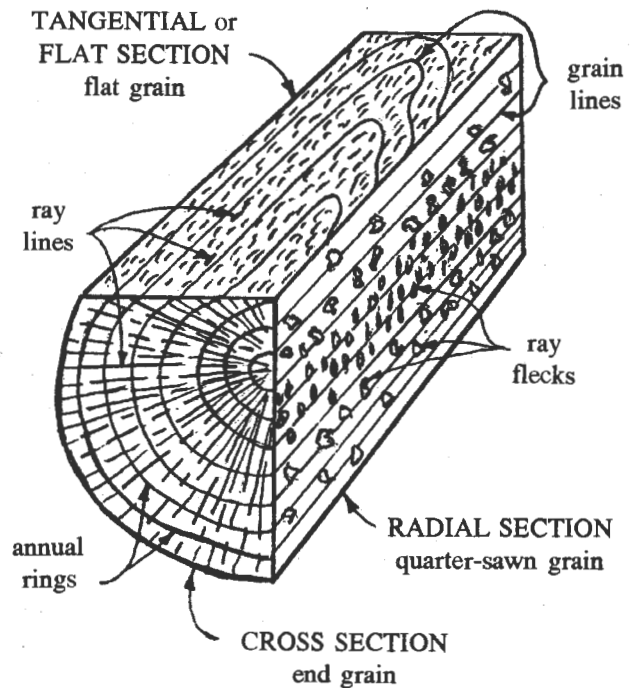
One cold morning at Shupp's Grove, many years ago, I came across a grimy plow plane. "How much?" I asked. The owner said he was looking for \$40, "but with all that black paint on it," he would take \$30. Turns out that there was no black paint at all. The plow was ebony! I've had similar windfalls with tools of boxwood, rosewood, apple, and other premium woods. It pays to know your woods, not only for value, but for the satisfaction of being able to completely identify a tool.

There are many wood identification books on the market, but few supply what the tool collector needs. Hoadley's *IDENTIFYING WOOD* (Taunton Press, \$39.95), is one of the best, but requires time and effort to learn the wood technologist's language. We don't need to identify all the world's woods, just the twenty or so that were used professionally in tool making. This article tries to get through these woods with minimum buzzwords.

The two items that make up **grain**, (as seen by the naked eye), are the **pores**, and the **rays**. The sketch to the right identifies these as they appear in the various sections of the log.

Pores are the openings in the tiny tubes running up the tree, that show up as holes when the tree is sawn across the trunk, (**cross section**). The tree's **annual rings** result from having more, or larger, pores at the start of the growing season. If the pores are readily visible with the naked eye, the wood is termed **open grain**. If 5X magnification is needed, the wood is called **tight** or **close grain**.

*continued on page 4*



April 3 CRAFTS Auction  
Clinton, NJ Holiday Inn.

April 4 CRAFTS Meeting  
High Bridge, NJ Masonic Lodge

Wilma Sagurton will present  
a program on Early Lighting.



Collectors of Rare and Familiar Tools Society  
of New Jersey

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

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

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

#### THE TOOL SHED

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

#### In Memorial

We regret the loss of CRAFTS member Lewis Rokita. We extend our sympathies to his sister Anna.

#### Trammel Points at right →

Bill Frey exhibited a few of his trammels at the November 1992 CRAFTS meeting.

## Speaker's Profile Wilma Sagurton

Wilma Sagurton is one of the grand ladies of Morris County (N.J.), and well she should be, considering that her family roots reach back over 200 years in the same area. Hers was a family of farmers, inventors, and tool oriented people. Even her mother fit this mold, as she helped build the house they lived in, and wired it herself for electricity.


Wilma has made her barn (and part of her home) into a museum of early trade tools and artifacts, dating back to the Indians of this area. She uses her collections of lamps, kitchen utensils, farm tools, and trade tools in lectures and displays for educational purposes. She has had plenty of experience in this, -- 50 years of teaching, majoring in chemistry, biology, physics, geology, and music.

Early lighting fixtures, particularly pre-candle types, are her favorites. She possesses knowledge about these intriguing devices that few can match. Being a member of many historical societies, she has the capability of blending local history with the tools of those days.

When you visit her museum (at Mendham), you almost feel that you have stepped backward in some kind of time machine. Her presentation in our April meeting will be only the tip of the iceberg. Come, hear about our heritage, and if you can -- visit her museum.

Herb Kean





## PRESIDENT'S CORNER

Herb Kean has taken on the assignment of roving reporter for the *TOOLSHED*, and you saw some of the fruits of his labor in this and the previous issue. Stu Shippey works hard to make this a good publication, but it can't be done without the information that you, the members, supply. I hope that you will continue to cooperate. Most of us need a bit of persuasion to put our knowledge on paper, and Herb is top-notch in this respect. When he approaches you with a suggestion for an article, hear him out. Don't think that "I can't write" will get you off the hook. If need be, we can take the raw information and make an article of it. We are also in need of your help in staff writing, and in backing up Herb's effort. If you are interested, please contact me.

We plan a new series of short articles entitled *Meet Your Dealers*, which will premier in the June issue. The intent is to give you leads on sources for additions to your collection. Each will cover one tool dealership, including its special interests, and how it conducts its operations. If you have an anecdote that would add to one of these, please share it with us. This, we hope, will complement the new feature on tool exchange which you will read about elsewhere in

this issue. Let me emphasize that *CRAFTS* does not rate tool dealers, or recommend one over another. The order of their appearance will be random, at the whim of the writer: no judgement as to relative merit is implied.

I think we have one of the best publications of any of the regional tool clubs, but this doesn't mean that we can't improve it. Let us know if you like the new features, or suggest others that would be of interest to you.

*CRAFTS*man John Walter has organized a Stanley Tool Collectors convention to be held in Hartford, Conn. June 16-19. Stanley Tools is providing a private tour of their facilities, and an outdoor buffet at their headquarters. This is for registrants only: a SASE to John at 208 Front Street, Marietta, OH 45750 or a call to (614)373-9973 will get you further details (Stanley Tools cannot provide this). Also of interest to Stanley people, Stanley Tools will produce a limited edition of classic Stanley tools, re-issued to mark the 150th Anniversary of the Stanley Works.

We will miss Fred Grosso, a knowledgeable and discriminating tool collector. Our sympathy goes out to his wife, Jean.

Welcome to new members Ray and Susan Beauduy (Holbrook, NY), Glenn Grabinsky (Montville), Mathias Koppinger (Chester), Bob and Sheila Shippey (Balston Spa, NY), Ron Toth (Milford), Bob Willard (Buttsville): and to our sister Club, L.I.A.T.C.A. (Long Island Antique Tool Collector's Association).

Beginning with the June issue of the *TOOLSHED* watch for several new features:

- **Buy & Sell section:** *CRAFTS* members (only) may put in a free five line ad (40 words)!

Mail or FAX your ad to the Editor by April 30. All ads accepted on a space permitting basis.

- **Meet the Dealer:** informative discussion of a particular dealer of collectable tools, etc.

## Tool Woods continued

by Herb Kean

The pores appear differently when the log is sawn lengthwise. They are now tiny grooves, such as you would get by cutting a bunch of straws lengthwise. In antique tools, these may be filled with grime, making them appear darker. If the cut is through the center of the tree (**radial section**), the annual rings appear as parallel lines. If the cut is at right angles to the radial section (**flat or tangential section**), the rings "wander", as in a contour map. See sketch on page 1.

The rays appear solid and flattened, and run outward from the center of the tree. In the cross section, they are seen as thin lines running from the core to the bark. In the radial section, they become irregular flecks; and in the flat section they are tiny straight lines. The rays are an important identification feature and usually need 5X magnification.

Two last definitions: the **sapwood** is a ring of wood next to the bark. It is usually much lighter in color than the remaining **heartwood**.

I believe that with just these terms you can identify the 20 or so common tool woods. I've found others: elm, sycamore, honey locust, teak, wenge, cormier, luan, cocobolo, satinwood, moradillo, etc., but they are insignificant in tool usage.

The clearest view of the pores and rays requires slicing the wood with a sharp razor. Not likely any of us would ever do this to a tool, unless it could be done on a hidden part. Cleaning the surface with #0000 steelwool will have to suffice. This will also help in determining the true color, as most tools have an aged surface (patina) that deepens their natural color.

Here are the woods:

### **BOXWOOD, European and Turkish**

(current substitutes are: Caribbean and Indonesian)

Almost every tool collector is familiar with the hard homogeneous grain of boxwood rules. Molding plane wear strips, plow planes and miniatures also use boxwood. When this light yellow to buff wood patinates and darkens, it might be mistaken for maple. Maple's end grain under 5X has very distinct ray lines, while boxwood's rays are so thin and close together that they could be missed even under magnification.

Apple, particularly its sapwood, is occasionally taken for boxwood; but it is much grainier and has a pinkish-brown hue, (as opposed to the yellowish cast of boxwood).

### **MAPLE, Sugar** (also called Rock or Hard)

A sandy-colored wood with tight grain. Rays in the flat section are thin lines about 1/64" long. They show as flecks in the radial section. Maple can be found in primitive braces, chisel and other handles, log rules, cooper's howels and crozes. The figured *birdseye* and *tiger* grains are seen sometimes in measuring tools. Signed planes in maple are rare.

### **BEECH, American**

This is the most commonly used tool wood, particularly in planes. It is tan in color, but can patinate to a deep walnut. The key to beech is its rays: prominent flecks in the radial section, and thin lines in the flat section (which can go over 1/16" long). The fact that the flat section rays are easily visible to the naked eye, helps differentiate beech from birch and maple.

### **BIRCH, Yellow**

Used mostly in early New England planes, it is sometimes confused with beech and maple. It is grainier than either, the flat section showing open pores up to 1/2" long, (usually darkened with grime). Magnification is needed to see the rays in any section. At 5X they show in the cross section as narrower than the pores. (The rays in maple are the same size as the pores, and in beech they are considerably wider than the pores).

### **APPLE**

Used in planes, an occasional primitive brace, and non-impact handles, particularly saw handles. It has very tight grain, and shows no rays to the naked eye. Its heartwood is pinkish-brown; its sapwood much lighter.

### **CHERRY, Black**

Primarily used in levels and non-impact handles, it is grainier than apple. Radial sections show pronounced ray flecks, but none are seen in apple. Cherry's sapwood is light tan, and a stripe of it is generally seen in levels.

### **HORNBEAM, European**

A wood of yellowish-tan cast, common in central European tools, particularly German and Austrian planes and braces. It has wide rays, about the width of those in oak. They show as flecks sometimes 1/4" wide by an inch long. You'll have to look closely, as the color of the rays is almost the same as the base wood.



### **HICKORY, various**

Used almost exclusively in impact handles, (axes, hammers, etc.), I do own a hickory plane and a brace, but these are exceptions. Pores are large in diameter and very long in the lengthwise sections, (up to 3"). No rays are visible to the naked eye, which differentiates it from oak. The sapwood is buff and the heartwood light to medium brown.

### **ASH, various**

Not many tools use ash; a plane or two, Dutch and English braces, and some handles. Ash has large pores like hickory and oak, but no rays are visible to the eye, (unlike oak). The heartwood is very light tan. The subtle difference between ash and hickory (besides color), is in the pores. In ash they are generally under 1/2" long, while in hickory they are over 1/2". Another difference can be seen in the end grain. Ash has a tight cluster of large pores (2 or 3 deep), right at the ring line, while hickory has the pores more distributed between ring lines.

### **OAK, Red and White**

The common red and white oaks are rarely used in any but homemade tools. They have large pores, long rays in the flat section (up to 1" long), and almost a garish ray fleck pattern when quarter-sawn in the radial section.

### **OAK, Live**

Live oak is much heavier and darker brown than the common oaks, and has a more twisted grain. Its pores are smaller, but its rays are thicker and more pronounced. It was used mostly for bench planes. It is on the borderline of sinking; most of the time it will sink slowly.

### **OAK, Cork**

Growing mostly in Spain and Portugal, this tree's bark is harvested for cork. Many of the long shouldered rabbit planes and plow planes from this area are of this wood, as are hand adze handles. It is very similar to our live oak, except it is lighter brown and doesn't sink.

### **OAK, English**

Also called brown oak, (because of its brown color, naturally). It sometimes has a striped or figured look.

### **OAK, Japanese**

Lighter in color than our live oak, with straight grain and shorter, thinner rays. It is used in Japanese and Chinese planes.

### **WALNUT, Black**

Except for some infills of English planes, a few measuring and homemade tools, not many other tools are made of this wood. It is straight-grained and brown in color, without any reddish cast. Although color is the best means of separating walnut from mahogany, end grain, under 5X will help. Walnut's rays are very hard to see, and it has more pores than mahogany, mainly due to walnut's pores

diminishing in size as they move outward from the annual ring. This produces the telltale "shaded" look to the grain line in the flat section.

### **MAHOGANY, Central American (various species)**

Commonly called Honduras Mahogany, from the former principle source, these look-alike are light reddish-brown with well defined pores in all sections. A *ribboned* appearance is common in mahogany, caused by changes in grain direction in adjacent areas. These woods are not as heavy as Cuban mahogany or the rosewoods, nor do they have the swirling dark stripes of the latter. Rays are obvious under 5X, in contrast to walnut and rosewood. Mahogany is used in levels, measuring tools, and English plane infills.

### **MAHOGANY, Cuban**

This wood is no longer available, but can be found in antique levels. It is considerably heavier than the Central American mahoganies, (bordering on sinking), and is tighter-grained and much darker.

### **ROSEWOOD, East Indian (also called Indian)**

One of the premier tool woods. It has a medium brown to purplish-brown color with dark brown (almost black) stripes. Pores can easily be seen in all sections under 5X, but not rays. It was used for plane handles, levels, measuring tools, premier planes and braces.

### **ROSEWOOD, Brazilian**

This more dramatically grained rosewood is orangey-brown to medium brown with swirling jet black stripes. It was used similar to Indian rosewood. The difference between Brazilian and Indian is subtle when color is not a strong enough clue. Brazilian is heavier, more aromatic when abraded, and has tighter grain, (sparser pores). Unfortunately these three characteristics are not easy to evaluate in the finished tool. If you can't get a good look at the end grain, you may have to accept the fact that you can only identify it as a rosewood, nothing more.

### **ROSEWOOD, Honduras**

A much lighter colored pinkish-brown to orangey-brown with less figure and straighter grain than the rosewoods above. Used in premier planes and levels. It is generally heavy enough to sink.

### **LIGNUM VITAE**

Common in Sheffield brace heads, it was also used in ship's planes, mallets and in the boxing strips of planes from the Philadelphia area. The color varies (many times in the same piece) from olive-brown to reddish-brown with yellowish-brown stripes. It generally becomes very dark with age. Its yellowish-tan sapwood may form part of a brace or plane etc. The grain is very tight, and is distinctly interlocked (reversing). Pores can just about be seen at 5X, but not rays. A *dusty* (some say *spicy*) odor can be detected, even without scuffing. It sinks like a rock.

### **EBONY, Ceylon (now called Sri Lanka)**

This basically black ebony has a light gray sapwood. It was used for braces (Ultimatums), plow planes, bow drills, ship's planes, infills for English planes, handles and measuring tools. The pores are harder to pick out than the rosewoods; the rays are almost undetectable, even under 5X. Ceylon is the heaviest of the ebony; it sinks quickly.

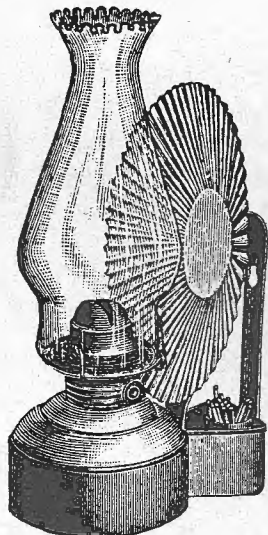
### **EBONY, Macassar**

A dark brown ebony with medium brown stripes, and a buff colored sapwood. It was used similar to Ceylon. Although not as dense as Ceylon, it still sinks.

### **EBONY, African (various species)**

Some species have black heartwood, others a black and brown striped heartwood, still others black with grayish-brown streaks. All have light colored sapwood, and all sink. Ebony is another group of species that might be hard to differentiate. Unfortunately, wood can vary drastically (even within a species), based upon growing conditions and locale. To get down to the nitty-gritty of which solid black ebony is which, you will need more buzzwords and higher magnification. We'll let that go for another time.

The best way to learn these tool woods is to examine samples large enough to see all three sections. Some may be available from commercial sources, but some are no longer found, except in old tools. I am making up sample wood kits, just for tool collectors. Come to the April meeting and see the tool woods on display, most in samples, all in tools.

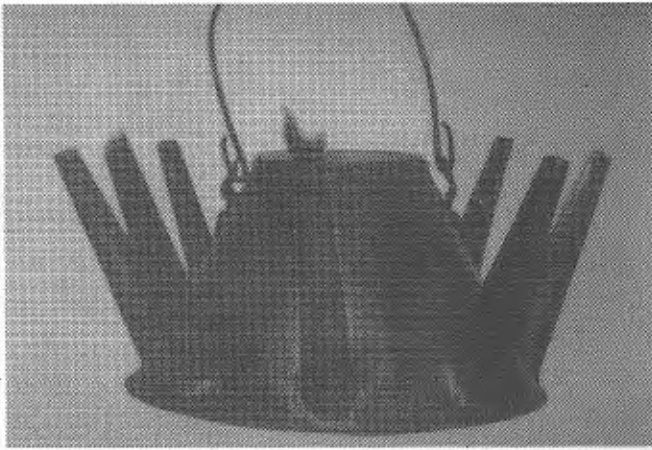


## **Early Lighting** by Wilma L. Sagurton

Amassing a collection of any objects can be a challenging and interesting project. Most of our members are experts in hunting out good, and even outstanding tools. Almost all of these collectors are men, with wives trailing along and being good company. The hunt for early lamps could reverse these roles, or at least equalize them. Lamps are usually associated with hearth and home - woman's traditional territory. However, they are made of different materials, and show workmanship from ordinary to artistry in the handling of the materials employed, matters traditionally of more interest to the men.

To keep from impulse buying, resulting in a collection of battered, incomplete, and commonplace lamps, the collector should purchase or borrow books on the subject, and visit museums and exhibits to absorb the atmosphere in which they were used in early times. Most of us enjoy auctions, and it is easy to get on the mailing lists of auctioneers who sell estates where such treasures turn up. Whenever practical, preview the auction the day before, or early in the day of the sale. Go to antique shows, and introduce yourself to dealers who deal in the sort of thing you are hunting for. Read the ads in newspapers and journals, stop at garage sales. You never know.

There are many different types of lamps, varying according to the material they are made of, the fuel burned, and style and design. Condition is important. Early lamps burned kitchen fat, olive oil, whale oil, pith of elderberry bushes and rushes, cat-tails, and fish oils of different sorts. The earliest were made of clay, shaped into small dishes, baked in the sun. Soft stones, such as chalk or limestone and soapstone were hollowed out to form a depression to hold the fuel. Later metals were melted, spun, or beaten into the desired shapes. The curious collector will deduce the area where the lamp was used by knowing what was burned in it. Fats which harden at fairly high temperatures would be impractical for cool climates, since the fat would not move toward the wick. Warm climates, where oils are liquid at ordinary temperatures permitted a variety of fuels to be used.



Fishing Light

Pewter is a special case. It is made of lead, tin, antimony, and perhaps other traces of metals. The earliest lamps predate any kind of writing, until about the time of Christ when the early Christians wrote in code to avoid detection and persecution. Pewters belonged to a Guild which kept strict controls over quality of metal and workmanship, and these men used a registered touch mark, and perhaps their names to identify their work. Signed pewter pieces are scarce, and of considerable value. If you stumble upon one, don't talk about it until it's paid for. Pennsylvania has kept to the old ways longer than surrounding areas, and unusual things still turn up there.

And now, a word to the ladies. If you find an early lamp it will probably be tarnished and very dirty. Do not be in a hurry to clean it up. Residues of unburned fat and wick material can be of great interest, or even value.

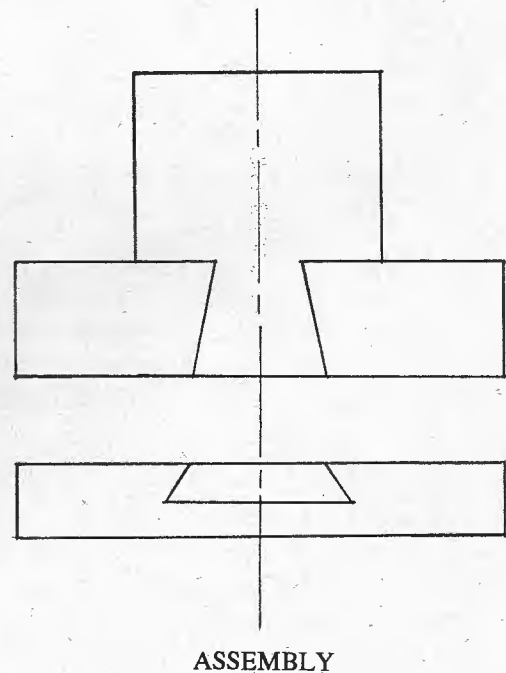
It is largely impossible to date lamps by style, workmanship, or material, for these overlap so much that any sense of continuity is destroyed. If there is documentation or strong tradition that an important person used a lamp, its interest and value are greatly enhance. A small tin lamp used by Lincoln was given to a lecturer who helped to celebrate a commemoration of the great president's life, and is still treasured in his collection.

Early lamps were used by the founders of our country, and many of our great documents were produced by the light of lamps that gave light smaller than that of a present-day match. Think about that the next time you flip on a light switch!

## A Tough Joint by Herb Kean

Been around any tough joints lately? (O.K., O.K. so it's not a great pun.) The joint below is generally presented as a puzzle. The trouble with puzzles is that the tough ones are frustrating, and with some people - infuriating. I'm not taking any chances of an irate puzzler slashing my tires, so I'm giving you the answer along with the puzzle. Before the avid puzzlers turn the page in disgust, let me tell you that figuring out the puzzle is a piece of cake compared to physically making it out of wood.

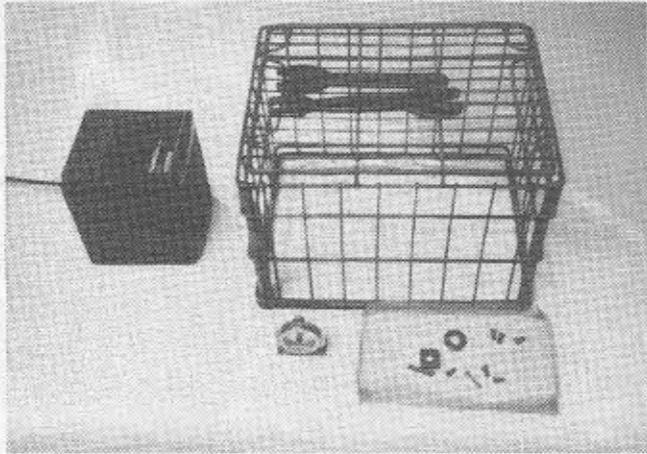
Here's the puzzle: How can you assemble an interlocking dovetail, when it appears impossible to move it in any direction, as shown in the assembly drawing?



## Tool Drying by Al Hodge

After wet cleaning, tools should be thoroughly dried before wax or oil is applied. I have heard three methods mentioned by various collectors. These are:

1. Running hot water over the tool, toweling it off, and letting it dry by residual heat in the metal.
2. Using a hand held device (a hair dryer or a hot air gun.)
3. Using a domestic oven.



For some time, I have been using the method illustrated in the photograph. It's simple and crude, but it has some advantages. The stand is an inverted wire milk crate. The heating unit is a small electric space heater (chosen solely because it's what I had on hand). It's rated 800/1500 watts and is labeled *Heat Express* by *Duracraft*. On the 800 watt setting, the fan in this thing is feeble, resulting in an air stream that projects about a foot and then turns straight up. At the level of the milk crate the core of this stream is about 6 by 9 inches and has temperatures of 220 to 240° F. At the 1500 watt setting the fan is a bit livelier and a broader area is covered, but temperatures drop to the 180 to 190° F. range.

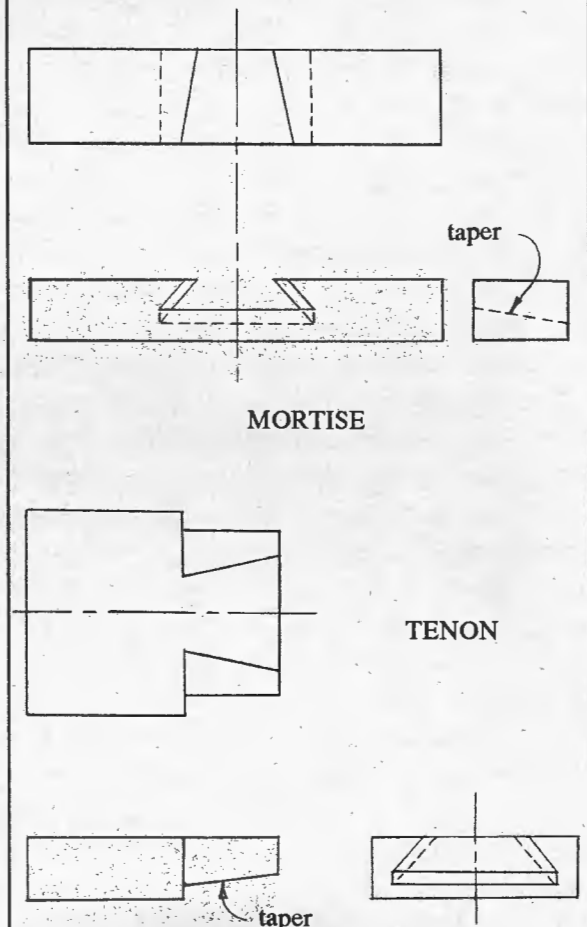
At either setting, I usually use a sheet of heavy duty aluminum foil over the tools to spread the air stream to a broader area. The other accessories are a flat piece of screening to hold smaller tools, a shallow tray bent up out of window screening to hold small parts, a cookie sheet to put under more delicate items, and an oven thermometer to check out any new variations in the setup. I'm still looking for an inexpensive timer which would save a few extra trips to the basement.

The main advantages to this setup are that it works while I do something else, and it reaches temperatures that are high enough and can be left running long enough to do a thorough job even on items that are pitted or with minor porosities or crevices. In addition, it's possible to run several medium sized tools at one time, and the outfit can be setup or knocked down quickly and stores compactly. The major caution is the usual one for a space heater -- be careful of the surface you set it on and avoid contact with

fabric or other flammable materials. Obviously, some judgement is called for when exposing wood or painted surfaces to these temperature ranges. I've also found that trying to judge air stream temperatures by feel is very misleading -- use a thermometer.

There have been a few cases where I've encountered significant porosities. These were not obvious to the eye but showed themselves as persistent wet spots on what should have been a dry surface. The best solution I've found for these is the use of an oven with repeated heating and cooling cycles.

Answer: Taper the mortise and the tenon in the one plane that no one expects (or can see), as shown:



Sounds easy? Try it! You'd better figure it out dimensionally first, because you only have one shot at it, once you start to cut the matching detail. Let's hear from those who are successful in getting around tough joints.



## Cleaning and Restoration of Planes

by John Whelan

### Part II

*This second part offers suggestions for working with the wood parts of the plane.*

Patina is a much used but ill defined word, with different meanings for different people. The dictionary (which even disagrees with the common pronunciation of the word) defines it as a sheen produced by age and use. To one, a patina on wood means all of the stains and grease marks left by use, after removal of subsequent grime. To another, it is the soft coloration of wood smoothed by years of hand friction and body oils after more thorough cleaning. Decide which "patina" you wish, and choose the methods that best preserve it.

Cleaning the wood may be done in several ways, each with its proponents. Prior to using liquids, it is advisable to remove as much of the grime as possible mechanically, as liquid can carry it into the pores of the wood. Gentle rubbing (avoiding sharp edges) with 4-0 or 5-0 steel wool does little or no damage to patina. A modern replacement for steel wool in the form of synthetic fiber pads, if in the proper grade, works equally well and will not leave steel splinters in your fingers. A soft brass-bristle brush, used gently, cleans the maker's inscription with little risk of damage. Paint spots are often found, and usually may be flaked off by careful use of a dull knife. The lighter color of the wood underneath these will still be visible as a spot, but becomes less visible with further cleaning.

Most old planes were treated with linseed oil by their makers. (Some factories routinely soaked their planes in a barrel of linseed oil before shipment.) This forms a coating inside the pores of the wood rather than on the surface. A minority have a surface finish, which may be a shellac "polish"; and recent planes may have been lacquered. If in reasonable good shape, these may respond to the finish "restorers" now available. If not, they may be removed with alcohol (for shellac) or lacquer thinner. Most finishes, and most grease, are removed by paint strippers of the

solvent type. Those using methylene chloride as the active solvent should only be used with good ventilation. Water thinned strippers are not advised for this use unless you have practiced with them on tools of little value. Unless there is heavy grime or patchy coating, strippers are not necessary. After a mechanical cleaning, a wipe with paint thinner usually suffices. (If you use kerosene, you will regret it, as this has strong-smelling components which remain with the tool for a long time.) As always, in using solvents of any type, good ventilation is essential. Damage to health is not immediately evident, but is a real risk.

For staining which resists these treatments, some recommend the use of soap and water. Water raises grain of wood, but in many cases this damage has already been done. A quick scrub with a mild soap and luke-warm water followed by thorough rinsing and prompt drying in a warm place does little more harm, and is an effective cleaning method. Most regard this as a final resort, applied after the solvent methods have been used. After thorough drying, the raised grain may be reduced with fine steel wool. Certain types of stain, in particular iron stains, are not removed by any method safe for the wood. Learn to love them. Using water on threaded plow arms carries a risk of distorting the threads with subsequent chipping on reassembly.

A battered and frayed wedge may invite trimming and sanding to avoid splinters in handling. This may be acceptable in some bench types of plane. It is difficult to do this without changing the profile, which is an important factor in characterizing a molding plane. In this case, such a repair is regarded by some as less satisfying than a patch or a replacement.

Having cleaned the tool to your satisfaction, there are a number of options for protecting it and improving the appearance. Most beech planes, as stated above, have been oiled with linseed in their history, and further treatment should cause no great change. Linseed oil does darken with age (the darker planes were probably oiled repeatedly) and you may wish to avoid further darkening.

Tung oil is reputed to darken less, and it certainly dries harder. In either case, the oil penetrates the pores of the wood and fills them, hardening by reaction with the oxygen of the air. You have seen the result of this hardening in the gum rubber-like accumulation around the cap of the linseed oil container. It serves well to fill pores and keep moisture vapor out, but is not a satisfactory surface finish. Neither linseed nor tung oil should be permitted to remain and dry on the surface of the wood. After soaking in, any surface oil should be removed as completely as possible by wiping with a clean cloth; after minutes for tung, no more than a few hours for linseed. (Don't forget to dispose of the oily cloths properly, as they are a fire hazard.) Heavy woods such as boxwood, rosewood, ebony, and lignum vitae absorb very little oil. They look beautiful when oiled but most of it wipes off with little permanent effect. They are best left alone, French polished (immediately after thorough solvent cleaning) or simply waxed.

Wood absorbs moisture from humid air, and expands in the cross-grain direction. The principal benefit of oiling (or other finishing) is to slow such change. No coating can prevent it, but slow shifts are both less extreme and less damaging. The wood does not require "feeding" with oil, as some oldsters said, but does benefit from impregnation with a drying oil because of this protection. Multiple coats are required for effective protection. The old recipe is once a day for a week, once a week for a month, once a month for the rest of your life. Mineral oil or "lemon oil" is of little value, as it does not harden and may bleed from the surface.

A caution about storing planes: A wedge driven tightly in winter expands in summer humidity. The long-grain wood it is driven into does not. In extreme cases, the wedge slot will be split by this change. In the other direction, a wedge which was tight in summer may not hold the blade in winter. It is good practice to restrain the blade when you pick up any plane.

Opinions differ on whether a glossy or dull finish is more attractive on a plane. A drying oil finish is on the dull side. Intermediate sheen is given by French polishing, if you have mastered this technique, either the classic shellac style or

the modern padding lacquer. Waxing provides a brighter surface, and can be removed later. Natural shoe polish is a good choice, and a harder finish is available with a carnauba-containing furniture polish and a buffing wheel.

You may wish to disassemble filletsters or plows to facilitate cleaning. If so, remember that screws were not necessarily standard products and identical when they were first installed. Keep track of which screw came from where. A large supply of screwdrivers should be available. If none at hand fit the screw slot exactly, you may regret it if you do not grind one to fit. Wood screws may become attached to their seatings over time. Their reluctance to leave may sometimes be overcome by a small dose of penetrating oil followed by placing a hot object (such as a soldering iron) on the screw head. Once removed, the threads should be cleaned by wire brushing, and lubricated with beeswax or equivalent prior to replacement. Older plow fences are attached to arms with rivets. Unless you are accomplished in the art of aging iron, these had best be left alone.

The problem of frozen knobs on threaded plow arms is a vexing one, best attacked with patience. A little petroleum jelly or wax dissolved in paint thinner and allowed to seep into the threads sometimes helps if you allow plenty of time and repeat the treatment. A stuck joint may be more easily moved in dry or in wet seasons, which one depending on the woods and the grain orientation. Keep force to a minimum. If it resists, put it aside for a month or so before trying again. Better a stuck knob than stripped threads.

Whether or not to restore or replace a damaged or missing part is another subject sure to start arguments. Again, it is your decision. Be warned that if the piece is sold, a purchaser can be very unhappy on learning, after the purchase, of restoration work. Most collectors agree that replacements or restorations should be indelibly marked with the date of restoration before sale.

The wedge of a molding plane is a common candidate for replacement. The finials are often broken off. They are often separated from the plane in storage and lost, or exchanged for one from another plane that does not fit. It may have been broken long ago and replaced by a make-do of inappropriate wood or shape.

Given a modest woodworking capability, a borrowed authentic wedge of the same maker and period as a pattern, and a piece of beech wood, the replacement is easily made. You may choose to leave it natural as an emphatic announcement of its nature, or try to make it less intrusive by staining. A supply of water-soluble wood stains permits blending to give as close a match as your patience permits, or you may be satisfied with a coat of brown shoe polish. Some prefer to retain as much of the original part as possible, fitting a patch to replace the broken finial. In any case, it is usually a good idea to retain the part replaced. As your experience grows, you may want to repeat the restoration to incorporate some point you missed in the first one.

To return to the subject of fungal or insect damage in planes, in most cases simply making sure that the tool is not subjected to high humidity or dampness in any form will suffice to prevent further damage. "Punkiness" in the wood is often the result of fungus attack that destroys the cellulose, commonly called dry rot. The fungus will not propagate in dry wood (below 20 % moisture content), although it can import water through filaments that extend to a damp source nearby.

Holes in the plane stock up to 1/8 in. (3 mm.) in diameter were probably caused by lyctid or anobiid beetle grubs, commonly called woodworm in England. The adult, not much larger than the hole, lays eggs in pores in wood (a hole left by a previous generation is ideal). A completely smooth finish prevents this. After about six weeks, the eggs hatch into grubs which chew their way through the wood. This phase can last for two years, after which it pupates and gnaws an exit hole. The risk of contamination of other planes by an insect-damaged one is slight, as most dealers recognize and treat active infestations. As a precaution, especially if small piles of wood dust are noted near one of your tools, treatment is use of a strong vacuum to clear dust from the holes followed by injection of a liquid fatal to the grub. The agents available change with government regulation, so that a specific recommendation is not made here. The one chosen should obviously be one that does not leave a harmful residue. As we are not the first, we will not be the last owner of the plane.



**November 1992 CRAFTS meeting**

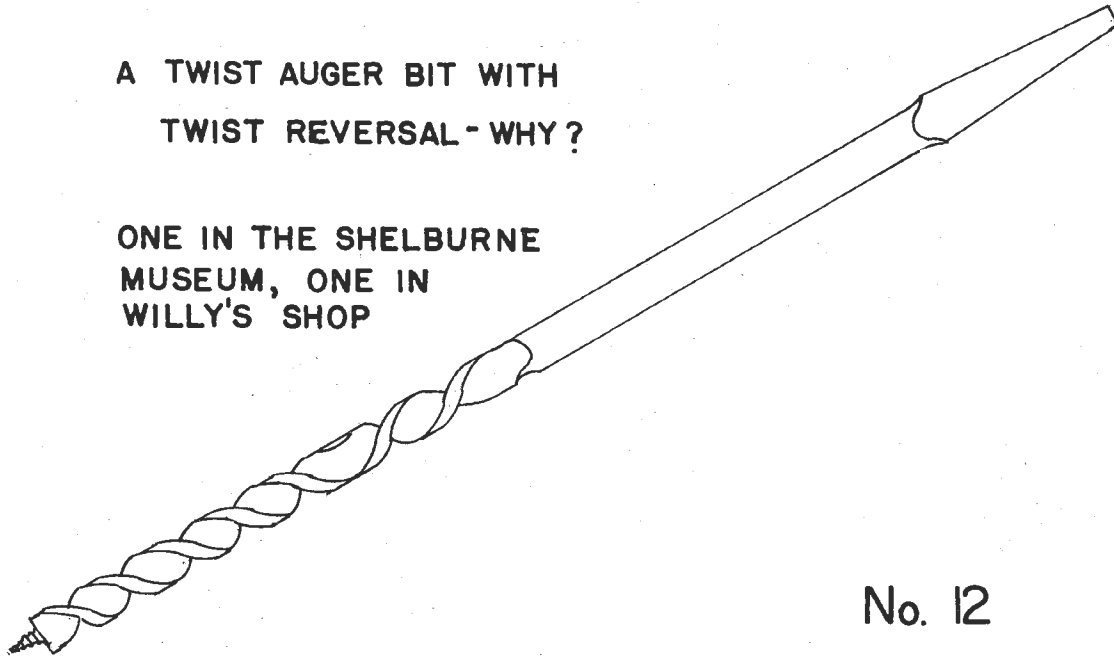
Alex Farnham (above) explained his new book **SEARCH FOR EARLY NEW JERSEY TOOLMAKERS**. David Elias (below) exhibited his flat nose and round nose pliers and punches.



# WILLY TELLUS WHATSIT

A TWIST AUGER BIT WITH  
TWIST REVERSAL - WHY?

ONE IN THE SHELburnE  
MUSEUM, ONE IN  
WILLY'S SHOP



No. 12

## Letter Received

"I thought the Whatsit saw [No. 10, November 1992 TOOLSHED] was most interesting, and as you see, have included it in the Ohio Tool Box for December."

Raymond Townsend, Williamsburg, VA

*See excerpt at the right →*

## Notable Quote

"The inside of the tree is the outside of your work."  
Frank Klausz, February 7 CRAFTS meeting

## CRAFTS Calendar of Events

April 3 Auction, Clinton Holiday Inn

April 4 - meeting at High Bridge

April 30 - *TOOLSHED* deadline

June 6 - meeting at High Bridge

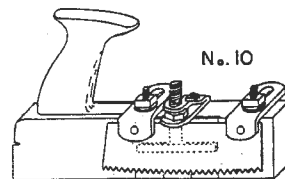
OHIO TOOL BOX

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December, 1992

REBATE and DOVETAIL ADJUSTABLE SAWS

The below Whatsit appeared in *The Tool Shed*, Crafts of New Jersey, November, 1992.



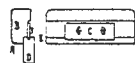
It is described: "The saw blade can be set from zero to an inch and a quarter away from the stock. The depth stop (behind the blade, seen as a dotted outline) slides between metal guides sunk into the side of the stock, and can be set for a kerf up to three-quarters of an inch depth. Why did he make it?"

Upon seeing this I recalled that I had several similar illustrated saws in my files. A most interesting tool.

Knight illustrates a similar saw that he labels a Rabbet saw. He writes of it:

"A plane for plowing a groove on the corner edge of a plank, etc. That illustrated has an adjustable fence or gage C attached to a handle similar to a plane stock, so as to cut at variable distances from the edge." (a)

He does not mention if the blade can be adjusted for depth. His illustration shows slots for attaching the saw blade to the stock and it would appear the blade could be moved down for a variation of small depths. This appears similar to the above.



A 1904 German Lexicon, left, shows a similar saw, that they call - *Absetzäge* - literally separation saw. Described:

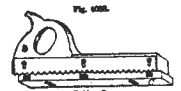
"a tool that is used similar as a so-call rebate plane. The slide B has on the one edge a rectangular adjustable recess and on the same side a recessed parallel adjustable saw blade C. As the figure illustrates, the saw moves lateral as it is applied to the workpiece D. By guiding backward and forward the tool will produce in the latter a fine slot, of which the depth of the rectangular recess is subject to the setting of the saw blade. The saw is for thin work pieces and is adapted to work in cross grained timber. In other cases the rebate plane is appropriate to use. The saw is also used for the preparation of a tenon on the end of a stick *Fod*." This description would label it as a tenon saw.

The French Encyclopedia, Diderot, 18th century, also shows a similar tool, Figure 83, names Scie a Arraser - Tenon-saw.

Define arraser /sic/ as " term of the Cabinet Maker's, that signifies cutting a certain depth with a saw made for this use, the bottom of planks where they wish to place joints & to retain enough wood to make tenons.

Of the saw, he states, "Figure 83 is a kind of A plane called Tenon Saw; it is a small saw A attached with nails or screws, on a kind of plane, that, along its length is half notched underneath, or according to a required measurement, and that in sliding along a plank previously dressed, forms a groove to the depth of the saw part A."

(a) Eric Sloan illustrates the saw Rabbet Saw, which he no doubt copied from Knight.



From Ohio Tool Box, December 1992