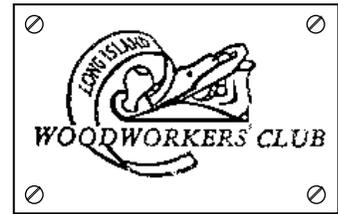


# .Woodrack

February 2003



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Photos of the January Round Robin  
A visit to the Met  
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Book Review

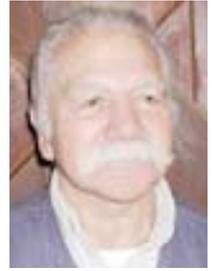
*Online only!*  
Mac Simmons on finishing  
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**President's Message**

*Gabe Jaen*



These last few weeks it's been a different kind of woodworking for me. What I've been doing is mostly home renovation work for friends who recently moved into a condo that needed some repairs. There were some kitchen cabinets that needed lowering and refinishing, trim that was missing, some needing repair, closets needing repair, and the reconstruction of a door opening, due to the previous owner's failed effort to make an opening where none existed before. But that whole project is now done and I can go back into my shop once more.

Every time I start a new project I try to do several things before I start cutting and gluing. One of those things is cleaning the shop. I vacuum my irregular concrete floor; do a little overhead dusting, and wipe down machinery. I make sure all tools are back where they belong and in good condition. Another thing I do is clean, oil and tune up the machines; blowing out the excess sawdust from lead screws, checking squareness and waxing surfaces. Along with that I try to incorporate any improvements in the machines, such as extension tables for the table saw which can also house a router, or one that can add support to the wood when ripping. A crosscut sled would be typical of these improvements. The last thing I do is sit down with old issues of my woodworking magazines and books. These books tend to stimulate me to try something new or think about making that piece I thought too difficult to make years ago.

What has resulted is that I am interested in improving my hand tool skills, to the extent that I am attending a workshop on hand tools in February. I, along with Daryl Rosenblatt and Bernie Hunt will be in Connecticut getting some first hand instruction from Garrett Hack. It's been a long time interest to make something that was made entirely with hand tools, even if it's only a toolbox.

Some of the things I mentioned about cleaning and putting tools in place are practices I learned in a vocational high school, the US Navy, and the technical college I attended. Unfortunately, shop training in woodworking, machine shop practices, or similar skills are not as available as they were years ago. The apprenticeship programs of Europe are almost nonexistent in the US; even our local BOCES has limited courses available in these disciplines. I am not, and I won't downplay the importance of computer skills being taught in schools as I'm constantly on mine. I do lament the unavailability of this kind of instruction to young people. I guess it's up to organizations like the Long Island Woodworkers' Club to encourage and share this with those who are interested.

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**Online Exclusives:**

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**• Woodrack**  
 Volume 15 Number 2  
 This issue of  
 •woodrack  
 has some exclusive features,  
 not available in print.  
 Look at the Mac Simmons  
 article, the new Crooswood  
 Puzzle, and check out all the  
 links. We can show you pic-  
 tures not possible before.

## Secretary's Report

Owen Brady &  
Steve Costello



This month's meeting was planned as an informal gathering featuring a round robin of demonstrations by our own members. This format is used a couple of times a year to showcase the skills and talents of our members.

First, Gabe opened the meeting by wishing everyone a Happy New Year, with a particular welcome to Tony Zappia who is back after his accident and to Dan Jackson who suffered an injury on the job. Welcome back guys! Gabe read an email received from Paul Irwin, Secretary of the El Paso, Texas Woodworkers' Club, complimenting us on the format and content of our website, which is in the process of being redesigned.

We were reminded that at the Somerset, N. J. show, the seminars are not free and cost from \$45.00 for a 90 minute seminar to \$135.00 for all-day seminars. Members can easily see how much of a bargain the FREE seminars are at our show. Bob Urso brought us up to date on the show, which is getting closer and closer. Ernie Conover will be spending 4 days with the club during which there will be a variety of seminars, from turning to routers. See Bob Urso's column for details. Some of the seminars are filling up quickly, so if you are interested in attending any of them contact Steve Costello at (631)427-8070 ASAP.

New Members included Eric Sparwasser who is a long time woodworker, Larry Ramsden does traditional woodworking using hand tools, and a Mr. Van Ingen. We welcome all of these new members and know they will benefit both themselves and the club.

Show-n-tell items included Jim Clancy showing us a German multi-angle clamp and the Leigh Valley spacer set which includes a one-two-three block. Fernand Neuenschwander showed an intricate oak magazine rack which he made. Gene Kelly showed part of his extensive tool collection which was mounted using a very interesting technique he learned in Canada. He also mentioned that one of his friends has a doll house kit that she never got around to making and would like to sell it. Anyone interested in either helping to assemble it, or buying it outright should contact Muriel Valeriate at (631)584-4161 (St. James).

## Notes From the Editor

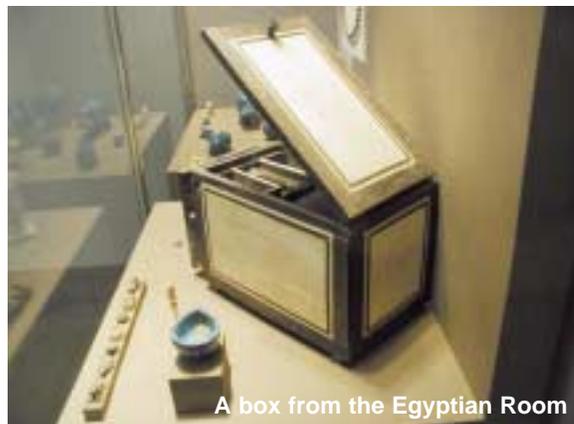
Mike Daum



Glad I Met.

Design inspiration. We all look for it. We all need it. As far as design goes, I've always felt there is nothing new under the sun. After a recent visit to NYC's Metropolitan Museum of Art, I'm now even more convinced. I tagged along with the Hinteman brothers as a planned detour to the Somerset, NJ woodworking show. They wanted to show me the beautiful 18th & 19th century furniture exhibits that inspire them.

Eastern (Asian) and more contemporary styles have always been more to my taste, but I have a newfound appreciation for the American craftsmen of yesteryear. Unless you actually see the furniture for yourself (the pictures do little justice, but see them anyway), you cannot fathom the quality, the detail, and the wood itself. You'll find row upon row of chairs, dressers, desks, and the like – some behind glass, but most you would reach out and touch if there wasn't a museum attendant in every room (they are alarmed, as Brian Hinteman can attest to).



A box from the Egyptian Room

**For more pictures, click on the link below:**

<http://www.liwoodworkers.org/woodrack/images/MetroMuseum.pdf>

We also paid a visit to the Egyptian wing, where true antiquity can be found. Here we found some of the earliest woodworking in existence. Benches, boxes, headrests, chairs (as short as footstools), and of course sarcophaguses sported joinery from the simple to the complex. I noted pinned mortise and tenons, secret miter joints, and yes – dovetails!

Everywhere you look, you'll find incredible works in wood. One exception was the modern wing, which disappointed me. There we found mostly paintings and wall art. A single

continued on page 5

## The January 2003 Round Robin

*Daryl Rosenblatt*

Our semi-annual Round Robin showcased some of the superb skills of our members. Whether the skills required were for hand work or power tools, such skills were well demonstrated.

### HAND WORK:

Charles Morehouse demonstrated why french polishing is not only a beautiful finishing technique, neglected by too many woodworkers, but how hard it actually is. Although Charlie made it look easy, I can attest that it is much, in fact way more than "much" harder than it looks.

Karl Blessing gave us another of his fine sessions on how to sharpen a handsaw. This is a skill I've always wanted to learn, but never had the opportunity to see. Thanks to Karl's ability to teach what he knows, this skill is at least understood by those who watched.

Charlie James and his hand skills continue to amaze all who see them. With deft strokes, he easily demonstrated how quickly and accurately a mortise and tenon can be cut.

### POWER TOOLS:

Brian Monks showed example after example how easy it can be to make frame and panel doors. In his case, the frames and panels all went together perfectly.

Bob Urso continued to show his mastery of the lathe, both in his knowledge of technique and ability to teach it to others.

The Round Robin is one of the reasons we exist as a club. Remember, you don't need arcane skills to teach at a Round Robin; some enthusiasm at one branch of woodworking or related topics (how about drawing technique or how to photograph your work?) is all you need, and an enthusiastic and rapt audience is guaranteed!



**Charlie Morehouse and French Polishing**



**Karl Blessing and Hand Saw Sharpening**



**The hands of Charlie James - Master Craftsman**



**Brian Monks and his router table.  
Frame and Panel Routing**



**Another chest from the Egyptian Room**

Ruhleman piece, which we were not allowed to photograph, and a few other pieces were all that were displayed. Also not to be missed are the Frank Lloyd Wright, and Greene and Greene rooms.

Having learned early on that you can accomplish anything you set your mind for, I would highly recommend all woodworkers to visit this and other museums, as well as galleries (Pritam and Eames in Amaganset is one locally). If inspiration is what you seek, there are no better places. With time, patience, and perseverance, I truly feel that every woodworker could create works like these. I bet most of you would say the pieces are too complex, or you would need instruction.

When I feel overwhelmed by a design I set out to make, I've found that breaking things down in microcosms makes tasks much more manageable. Developing hand-eye coordination comes with practice. And one thing that really strikes me about the museum pieces is the fact that rudimentary tools were employed in creating them. That is a testament to the time and devotion put into the work. There could be no monetary profit motivating these tradespersons. They truly loved woodworking, and thus secured their role in the art. For me, that's inspiration.

As the time grows near to Show 2003, our shops should now be noisy and dusty. I would hope that my fellow woodworkers would agree that I'd like to find the same inspiration from the works exhibited at our show. The quality of the pieces don't have to rival the museum art. I would rather gauge merit on the spirit of the work. It is much more evident to see the thoughtfulness and consistency put into a piece of furniture than to appreciate it by design or joinery technique. So use the time we have left wisely; create a quality piece, of a design that best suits your current skill level and tool availability. If you need help along the way, well – isn't that what the club is all about?



**Bob Urso and his lathe.  
Lathe Techniques.**

## A Grizzly Adventure

Mike Daum

One lucky raffle-ticket-holding club member will leave our Show 2003 with a great new tool. How do I know? I was one of the attendees at its inaugural appearance and assembly at Steve Costello's shop on Saturday, January 4th.

When I arrived promptly at 9:47am, I found Mr. Costello and Harry Diaz unpacking one box, while Gabe Jaen and Brian Hayward were attacking another (photos 1&2). Like kids on Christmas those two were. Didn't even stop to say hello. The contents of the boxes had the eagerly awaited Grizzly 14" bandsaw model # GO555, dubbed "The Ultimate 14" Bandsaw" by Grizzly Industrial. If you've been reading any of the latest woodworking magazines, you've surely seen the full-page ad, with the introductory selling price of \$375.00 plus \$55.00 shipping.

The club bought the bandsaw to use during the upcoming Ernie Conover seminars, and also for use in the Toy Workshop during Show 2003. Its new home after April 6th will be dependent on who's holding the raffle ticket number announced. I must admit I was skeptical about the value of this prize, but after seeing the features and performance, I will surely pay for admittance to the Show again on Sunday to gain that extra raffle ticket!

There were very few parts to assemble out of the box. Gabe, Harry, and Brian had the sturdy stand frame bolted together quickly, and the top of the stand fit nicely with no fuss. An impressive notation is that the upper body, motor, and even the blade was shipped assembled (photos 3-10). The whole unit just needed bolting to the stand (photos 11-13). Once this was done, the cast iron table trunnion was mounted to the saw (photo 14). After wiping the protective coating off of the smooth, polished tabletop with mineral spirits, the heavy cast iron table was fitted to the trunnion. The



Photo from the Grizzly Industrial website.

To see the full photo series on assembling this saw, click on the link below:

<http://www.liwoodworkers.org/woodrack/images/grizzly/bandsaw.pdf>

extruded aluminum fence rails were attached to the table next, one each for the front and rear (photos 15 & 16). There was little fussing and minimal difficulty in these procedures (probably because Harry was reviewing the assembly instructions to make things easier)

Clocked in at two and a half minutes, ehem, hours, at a leisurely pace, the assembly was complete. The next time we all assemble one, it will take less than an hour. The fit and finish was superior (I've always

wanted to write that for a tool review). It was now time to tune it up.

Setting the blade tension was much like any other saw, with the added feature of a tension release lever for quick blade changes. The cast aluminum wheels were checked to be coplanar (photo 17), and the included ½" blade was set nicely in the middle of the rubber tires. Gabe and Harry set the blade guide roller bearings away from the blade the thickness of a green-back, and the thickness of a folded bill for the rear thrust bearing (photos 18 & 19). We then checked for table squareness to the blade in all directions. It is easy to make the adjustments to the table from side to side with the tilting feature.

Gabe started up the machine to allow the blade to track on the tires and made a few test cuts (photos 20 & 21). It was discovered that the back edge of the blade was not perpendicular to the table, so Harry and Gabe shimmed the table with washers to correct it (photos 22&23). After firing up the saw again and making a few more test cuts (photo 24), we again checked the alignments. This time, the back of the blade tilted in the opposite direction, so the shims were removed. After reassembly and test cuts, the back of the blade remained square to the table. Go figure.

After raising the height adjustment rod a few times, we discovered a design flaw. The height adjustment/bearing rod has a "v" notch along its length, in which the rounded end of a threaded knurled knob seats to tighten the assembly and keep the blade bearings and blade guard above the workpiece. However, when you tighten the knob down, it causes the bearings to move and deflects the blade badly. Harry disassembled the rod and found the problem (photo 25).

A set screw (an inch or so below the threaded knob) keeps the rod in place while the height adjustment is made, and when you examine it further, you'll see the set screw seats against a spring and a ball bearing, which self-centers in the "v" notched rod. That's

good. Tightening this setscrew won't cause much lateral movement of the rod. The height adjustment knob, lacking a round ball bearing and spring, tightens in the "v" notch without self-centering and hits one side of the notch, causing the rod to move (photo 26). That's bad. After much head scratching, Gabe came to the rescue. The solution; wood, of course.

By placing a short length of a wood dowel ahead of the steel threaded knob, the tightening action compresses the soft wood and conforms it better to the shape of the "v" notch in the rod (photo 27). Now we could raise and lower the rod and tighten it in place without deflecting the blade. We will be contacting Grizzly about this serious design problem to find out if they are addressing it.

The blade that came with the saw was not a skip tooth blade; therefore we couldn't make accurate resaw test cuts at the time. It's not like we didn't try – the blade was just not good quality. They are several things not aforementioned that we all loved about the saw. Other features are a very quiet 1 HP motor, the fence – with a magnified rule line window - is easily removed from the rails, the included miter gauge, the hinged wheel covers, the quality start/stop switch, the 4" dust port, and the 2 speed feature. By opening the lower wheel cover, loosening two bolts, sliding the pulley assembly over and placing the belt over the smaller pulley, then retightening the bolts, you now have a motor speed operation of 1500 rpm. The standard speed is 3200 rpm in the factory position.

The club didn't order the optional riser block (\$50). This would increase the resaw capacity from 6" to 12". I would very much like to see how the motor handles this resaw size, as I've read mixed reviews on its performance. However, if you don't plan to do everyday resawing, owning this saw will spare you the pain that Gabe and Harry felt after realizing they paid much more for their saws – without the standard features of the Grizzly. The consensus from all was "you just can't beat the price".





## Notes From the Programming Committee

*Bob Urso*

Recently the program committee met to establish the upcoming meeting topics, along with a schedule of additional workshops and seminars. We have developed a very wide range of interesting topics for the coming year. Please indicate as soon as possible which workshops you are interested in. It allows us to properly manage these events. Even if you cannot commit at this time, let the person in charge know; it is the only way we can gauge interest.

No new developments to date with our grant program, we will keep you posted. Rich Macrae is the grant committee chairman. Steve Delaney will again be taking orders for LIWC apparel. We hope to have some of our ordered items available at the Feb. meeting.

**JANUARY 25TH SCROLLSAW WORKSHOP** - hands on: We hope to have several scrollsaws available. Bring a saw with you. We would like one saw for each two participants if possible. Alain Tiercy will moderate. Cost will be \$25 and will include lunch and all materials. If you remember last year's lathe workshop, this will be a similar event. See Brian Hayward to sign up.

**FEB 5TH MEETING:** Speaker is Ernie Conover. Topic: The balance between hand and power tools. Ernie operates Conover Workshops in Ohio, has authored several woodworking books and is a frequent contributor to Fine Woodworking and other magazines. The Conover Lathe bearing his name is his development. For more information check out <http://www.conoverworkshops.com>

Ernie will be available to LIWC members through Sunday Feb. 9th at various workshops. Thursday and Friday workshops will be at members' shops and space will be limited. Sat and Sun. workshops will be at the barn and should be able to accommodate all interested. All workshops are \$35 for members and \$50 for non members, including lunch and supplies. Workshops at members' shops are limited to members only. I urge all members to take full advantage of these unique opportunities.

The Ernie Conover workshops are as follows:

**Thursday: Feb 6th** Turning workshop @ Bob Urso's shop in Smithtown.

Day session 9.30 to 3.30 pm

Evening 7 to 10 pm

**Friday: Feb. 7th** Bandsaw workshop @ the barn. It was originally intended for Steve

Costello's shop. Times to be determined. More information at the Feb. meeting.

**Sat. Feb 8th.** Turning at the barn. Topic will be turning and completing a reproduction of a colonial floor lamp as featured in a recent edition of Fine Woodworking magazine. The finished lamp (value \$300+) will be raffled off to those members attending this seminar.

**Sun Feb. 9th.** Topic will be router and router jigs. The use and selection of routers and router bits will be covered. Special operations using tables, jigs and short cuts will be covered. The use and evaluation of commercial jigs such as the Leigh jig will be covered.

**March 5th Meeting:** Norm Roberts of Roberts Plywood is a tentative speaker but conflicts may cause us to reschedule. We will keep you informed.

**March 8th** Traditional Finishing workshop at the Barn. Presenter will be Joanne Campisi. Joanne was the speaker at our October meeting and several members requested this workshop. This will be a hands on workshop. Attendees will have the opportunity to use various finishing materials including oils, polishes, dyes, waxes and glazes. Wood sample panels and finishing materials will be provided as will lunch. Please try to sign up as soon as possible as materials and sample workpieces need to be secured. Cost is \$35. Contact Bob Reimertz at the Feb meeting to sign up.

**March 22nd** Bus trip to the Woodworkers show in Saratoga Springs, NY. This is a club run show much like our own and a fun day for all. See Steve Costello to sign up.

Additionally this year we have been offered the opportunity to exhibit our pieces at the Saratoga Springs show. I will be going up on Friday and returning on Sunday and will bring and return any items members wish to exhibit. Naturally I will be limited in the size of the project. Small furniture or table displayed pieces only. Please take advantage of this opportunity if you can. It is a plus for both organizations. Please contact Bob Urso ASAP if interested as arrangements need to be confirmed.

**April 2nd** Monthly meeting. Due to the close proximity of this meeting to our show we will present a panel discussion at this meeting. We have been toying with this concept for some time and this will be a good opportunity to explore this concept. Approximately 5-6 members proficient in various areas will form a panel and field questions and hopefully create a dialogue among our members. More information on this as it develops.

continued on page 11



## A Local Source for Fine Tools

*Daryl Rosenblatt*

"You buy your first old tool because you need something that works. Then you realize you've bought the wrong tool, so you get another one, and another, and another... Then you're a tool collector."

Joel Moskowitz

Joel Moskowitz, the owner of Tools for Working Wood (the store of The Museum of Woodworking Tools), was willing to spend quite a lot of time with me. Bob Urso had arranged for a number of the store's catalogs to be made available at the December meeting. I took one, and was immediately fascinated. A few emails later, and I arranged to see the store, and meet its founder and owner. The store itself is on West 20th Street in Manhattan, and is easy to get to, but hours are by appointment. Most of the store's business is by telephone and internet.

Joel Moskowitz is a tool collector and woodworker who turned his hobby into a thriving business. As he explains it, "The supply of antique tools has dried up. We need new ones."

Over the last 20 years, we have begun to see a rebirth of fine hand tools being made. Lie-Nielsen Toolworks is the best known example, but they are certainly not the only. Joel has built contacts for such equipment all over the world, from Europe to Japan to Australia. As a result, he carries some of the finest hand tools I have ever seen and used.

**HOW THE WORLD MEASURES (OR SHOULD):** About a year ago, I wrote in *The Woodrack* that my favorite tool was my Starrett adjustable square. It just felt right. *Fine Woodworking* magazine just wrote an article on such squares, also giving them the highest rating. Now I know why. Starrett makes just about any type of measuring device needed in industry today. To provide the accuracy they are justly famous for, they use every trick and device they can: lasers, acoustics, light variations, and just about anything else you can think of, and some you wouldn't have. When you get a Starrett tool, you know it's accurate, and built to stay that way. How do other manufacturers test their equipment? They use a Starrett. The Museum Store (As I'll call it here) carries a large selection of Starrett tools, and he can get almost any other Starrett tool he doesn't carry. I think we spend a lot of time getting tools



Joel Moskowitz  
and the  
Ray Isles  
Infill Smoother

to cut wood, and do not devote enough time, effort or money in measuring and calibrating what we do cut. We all know the dictum: Measure twice and cut once. But how often have we thought about how and with what it is we measure?

**SPEAKING OF CUTTING:** When we think of hand tools, it includes chisels, mallets, and carving tools, but the one tool that truly symbolizes what we mean and think of (just look at our logo) is the hand plane. Many of the tools The Museum Store carries is unique to the U.S. market, and some are difficult to find elsewhere. Among the plane lines The Museum Store carries is the Ray Isles Infill plane, and the Clark & Williams set of wood planes. To understand how and why they work so well, I would like to share a little woodworking history Joel Moskowitz (who has a beautiful collection of antique planes) taught me.

Wooden hand planes go back to antiquity; metal planes to at least Roman times. By 1730, English cabinetmakers were fabricating wood planes based on French and German designs. Moskowitz feels that the mid-18th century was the peak of all-wood plane construction. By 1790, with the advent of the Industrial Revolution, new designs in planes (beginning with miter planes) came into being, led by three early British planemakers: Gabriel (the most well known), Green, and Moon. The purpose: to wed metal with wood to produce a more stable plane.

Robert Towell made the first infill planes. If you've never heard of him, you are not alone. However, this new way of making planes did inspire a Scottish cabinetmaker, Stewart Spiers (pronounced Spears). He was a cabinetmaker making some of these new infill planes in 1840. By 1860, he became exclusively a planemaker. To this day, his planes command a huge price.

The most well known planemaker, possibly of all time, is Thomas Norris. Although he made many infill planes, they were not acknowledged to the level they are now

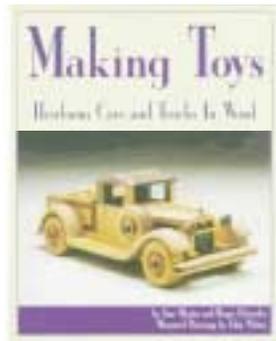
## Book Review

*Richard Weil*

### MAKING TOYS – HEIRLOOM CARS AND TRUCKS IN WOOD

By Sam Martin and Roger Schroeder

Measured drawings by John Nelson



The designer/toy maker is Sam Martin, who has put together a collection of good looking, no... make that GREAT looking cars, trucks, and earth moving equipment. Roger Schroeder is the writer/photographer and if his name sounds familiar it is because he is a LIWC member from Amityville who has written a number of woodworking related books and articles.

The featured project is a Peterbilt styled truck with a van trailer, an 18 wheeler. The book provides dimensioned drawings, parts lists, and 155 step-by step procedural photos each with instructions and arranged in a logical sequence that directs you through the process of making and assembling each part. Additional drawings and a parts list are provided for a flatbed trailer that can be substituted for the van trailer. Plans for a 1932 Buick sedan and a Ford Model A pickup are also featured.

All of the vehicles have excellent proportions and are constructed using red oak or cherry and highlighted with walnut for contrast and detail, resulting in some very cool looking wheels. Roger states, "Sam now calls them collectibles". In my opinion, these are clearly "big kid toys" and would suffer from rough play.

Although I did not construct a truck/trailer, a number of misleading dimensional /pictorial errors were found. Proceeding with caution is advised. Then go on to make a very handsome and treasured toy. After looking at the photo gallery of additional vehicles in Mr. Martin's fleet, I can only wish for a second book – Roger?



until 1914, when he invented the screw adjuster. His A5 and A17 smoothing planes are among the most prized by collectors and users alike (the A17 is the same design, but is cast bronze, and is very heavy).

This brings us to the present day. Leonard Bailey popularized the solid cast-iron plane made by Stanley Toolworks, much cheaper than the more labor intensive infill, and became the standard. Although much cheaper and therefore more popular, they were simply not as good. Tom Lie-Nielsen has resurrected the art of making top quality cast metal planes, and they are certainly better than the standard Record planes. Clifton also makes a superb product. Yet, none of them can truly compete with a well-made infill plane.

What makes the difference between a superb plane, a good one and a poor plane? As Moskowitz says, "Any plane with a sharp blade will cut most wood. The true tests are how long will the blade cut before it needs to be resharpened, and how well will a plane cut with a dull blade?" The primary purpose of a plane is to hold the blade properly against the bed, resist chatter, and prevent tearout.

The planes sold in The Museum Store are built to do just that. His "flagship" plane is the Ray Iles infill smoothing plane. It's derived from the design of the Norris A5 smoother, and now that I have tried it, I can see it is extraordinary. The best hand planes in the world (maybe ever) are made by Karl Holtey in England. However, they cost ten times as much as the Ray Iles smoother. So, for a small fraction you can own the second best. It is a wonderful tool to lift and use. Expensive as it is (soon to be \$595) it is evident that this tool will become as much a collector's item as any Norris plane. One cut, and I became a believer.

Good wood planes are also still available. The firm of Clark-Williams is the supplier of hand tools for Colonial Williamsburg. Their planes are all made of quartersawn beech. Although quite light, they are easy to hold square, have a very tight mouth, and cut through cocobolo like butter. Somehow, just using it lets you know the blade sits perfectly against its bed.

This is the difference I've found between this store and other high end stores. Joel did not set things up for my interview. He always has a bench set up for any customer who wants to give the tools a road test before laying out a large sum of money.

Other tools available were sets of western and Japanese chisels and saws. The quality of these tools are as high as

his planes. His highest quality western chisels are the Ashley Iles tools. Ashley Iles was Ray Iles' father. Ray took his family tradition with him when he went into the plane-making business.

I also saw a varied grouping of sharpening stones. I remember Strother Purdy recommending that you stay with whatever system you are comfortable with. The Museum Store seems to agree with that philosophy: he carries a full line of oil and water stones (he is an authorized Shapton dealer). I use the Scary Sharp method (a granite plate or glass) with sandpaper. I usually hone up to 1000 grit, perhaps 2000 grit if I can find the paper. Joel stocks sandpapers made by 3M (not available through our standard catalog sources) that measures grit in the microns. This paper is used for things like polishing computer discs, and would make any auto finisher green with envy.

Joel Moskowitz's interest in hand tools and their origins prompted this other suggestion: don't just learn techniques, but go and look at period furniture. Learn how they were put together and why. Of the three best places to see such cabinetry, two are local: The Metropolitan Museum, and the Brooklyn Museum of Art. The third is the Winterthur Collection in Delaware. For more information about the Metropolitan Museum of Art's collection, please see this month's article on page 3.

Joel Moskowitz also gave me some inside information on some exclusive products he will soon have: One is the complete sets of plans for period furniture by Carlyle Lynch. I remember when they were still available. They were considered the greatest guides for people wanting to build American period furniture. They are almost unmatched in scope and detail; having them is like a trip to the museum. The second is a set (or two) of drawbores. These are ingenious tools that look like an awl on steroids. In fact, they are clever, slightly asymmetrical tools that allow someone to check the fit of mortise and tenon joints that are held by a hole (the bore) that is slightly off from each other. The only way to test fit them before this device was to insert the pin, and then try to get it out without destroying it. This will check the holes with a quick twist of the wrist.

The catalog is a lot of fun to go through. The website is not just another listing of tools, but has whole sections on sharpening, old tools from around the world, and is a wonderful source for woodworking lore. The store is located at 27 West 20th Street, suite 507 (by appointment), by telephone: (212) 604-9535, or through his website: <http://www.toolsforworkingwood.com> If you check our

## SHOW INFORMATION

### April 4th Show setup

### APRIL 5&6TH LIWC 8TH ANNUAL SHOW AND EXHIBITION

Our show planning is coming along well. We are still a bit concerned about the members' exhibits. The numbers signed up for exhibiting is not what we would like but there is still plenty of time. Last year was great. Keep the momentum up. The vendor area is over 80% full with a good variety of quality products. Please make every effort to support these vendors. It is important. If you do, they will return. If not they will be unable to, and we will not be able to maintain the quality of speakers at both the show and our monthly meetings.

The success of our past shows is beginning to show improvement in all aspects of club activities. The organization is well respected and well known.

### Future events

Garrett Hack will host a workshop on October 4&5 along with an evening event on Friday the 3rd. Garrett has authored several books on hand planes and related subjects. Details as they develop.

online magazine, .woodrack, you will find links to more pictures I took at the store.

**FOR MORE PICTURES AS WELL AS LINKS TO THE SOURCES LISTED, CLICK AT THE LINKS:**

<http://www.woodworkers.org/woodack/magazine/Woodworkingtools.pdf>

Recommended readings and sources

Through Much Tribulation: Stewart Speirs and the Planemakers of Ayr

Nigel Lampert  
Quarto Press

The Handplane Book

Garrett Hack  
Taunton Press

The Metropolitan Museum of Art  
83rd Street and 5th Ave.  
New York, NY

<http://www.metmuseum.org>

**The Brooklyn Museum of Art**

200 Eastern Parkway  
Brooklyn, NY

<http://www.brooklynart.org>

**Winterthur Country Estate**  
Winterthur, DE

<http://www.winterthur.org>



### The Pencil Hardness Test

Mac Simmons

After doing some testing on various coatings for their “pencil hardness,” I was surprised at the results I got. I thought I would share this information with those who may have their own opinions about what they consider to be hard and durable coatings. I would like you to know right from the beginning that the pencil hardness test is one only one of many tests uses to evaluate coatings. There is obviously more than the hardness of any coating to be considered, so do not judge a finish entirely on the basis of this test.

The test is very simple to do, will give uniform results, and is dependable because the pencils are graded. The grade of the pencil is determined by the amount of baked graphite and clay in its composition.

Grading pencils come in an assortment of both hard and soft, and can be found in most art and office supply stores. The set I have consists of twelve pencils, ranging in hardness from 4H to 6B. The H stands for hardness, the B stands for blackness, and HB is for hard and black pencils. The hardest is a 9H, followed in descending order by: 8H, 7H, 6H, 5H, 4H, 3H, 2H, and H. F is the middle of the hardness scale; then comes HB, B, 2B, 3B, 4B, 5B, 6B, 7B, 8B, and 9B, which is the softest.

Type of Coating Hardness	Pencil
Catalyzed polyester	9H
Catalyzed polyurethane	9H
Catalyzed modified acrylic polyurethane	4H
Catalyzed acrylic polyurethane	2H
Water-based polyurethane	3H
Water based urethane/Isocyanate Catalyst	2H
Conversion varnish	4H
Low VOC catalyzed lacquer (24 hours)	2H
Low VOC lacquer	3H
Urethane/Nitrocellulose lacquer (24 hours)	F
Water reducible lacquer	2H
Tung oil/ polyurethane wipe on finish	2H
Water-based polyurethane wipe-on finish	HB-F
Aerosol precat	3B
Aerosol water clear acrylic	3B
Aerosol clear shellac	3B
Aerosol nitrocellulose/polyurethane	HB
Aerosol nitrocellulose	3B

Another grading method uses numbers; the equivalents would be #1=B grade, #2=HB, # 2 ½=F, #3=H, and #4=2H. The most commonly used writing pencil is the #2 (HB grade), which is fairly soft, contains more graphite, and leaves a dark mark.

To do your own pencil hardness testing, always start with a dry, clean, well sanded piece of wood.

Usually the coating thickness being tested is 1.0-1.5 mils (a mil is one-millionth of an inch) and has been allowed to dry for 7 days. In some cases, a different drying schedule is used, and the chart indicated these in brackets. The ambient temperature during the test can also be a factor in the drying times and can have an effect on the coating’s hardness.

Select a pencil from your set and make a line about ½” long. If the pencil you start with scratches the surface of the coating, then go down the pencil grades until you come to the first pencil that doesn’t scratch the coating. Redo the test and, if you get the same results, you have determined the “Pencil Hardness” of the coating you are testing. It’s that simple. There are some coatings that the 9H pencil will not scratch them—all of these coatings get a 9H rating to designate their hardness.

Use this chart only as a guide. It is also important to understand that the degree of hardness of any generic coating may not always be the same; in other words, if one company has a polyurethane with a 3H pencil hardness, do not assume that every other polyurethane will have a 9H hardness. They won’t; they will vary from manufacturer to manufacturer, and from product to product.

As I mentioned previously, the pencil hardness test is only one of many tests that are done to evaluate a coating’s performance. Other tests are abrasion, reverse impact resistance, direct impact resistance, cross-hatch adhesion, oxidation, gloss retention, UV resistance, yellowing, blistering, drying times, chemical/solvent resistance (using both the rubbing and the spot/time tests), slat spray resistance, humidity resistance, acid and caustic resistance, the VOC and HAP contents, and so on.

All this information is helpful in choosing or evaluating a finish. But regardless of a finish’s rating, the best advice is always: “handle with care.”

*The preceding article has been contributed by Mac Simmons. Mac is a Long Islander, who contributes finishing articles to several woodworking magazines. It originally appeared in the April 2000 issue of Woodwork Magazin, page 76, and is printed here with Mac’s and their permission. Photos by Mac Simmons.*

## The Marketplace



**Daryl Rosenblatt**  
**DarylRos@AOL.com or at the club meetings**

**Inca 10" Jointer/Thickness Planer 220V**  
Complete with base cabinet, mobile base and power feeder (Grizzly Baby Feeder).

The Inca is a Swiss/French made machine with Tersa 3 knife cutterhead. A Tersa Cutterhead means the blades can be changed in under 1 minute (additional blades are available from Garrett Wade.

\$2,000



Jet 610 CFM dust collector with fine mesh filter bags.

\$100



Six 24" x 72" infrared ceiling panels. Although made for a lay-in type of hung ceiling, I have had them mounted on a plaster ceiling, simply screwing them into the ceiling. They are very light, but generate a lot of direct heat. Complete with thermostat. They require 220V.

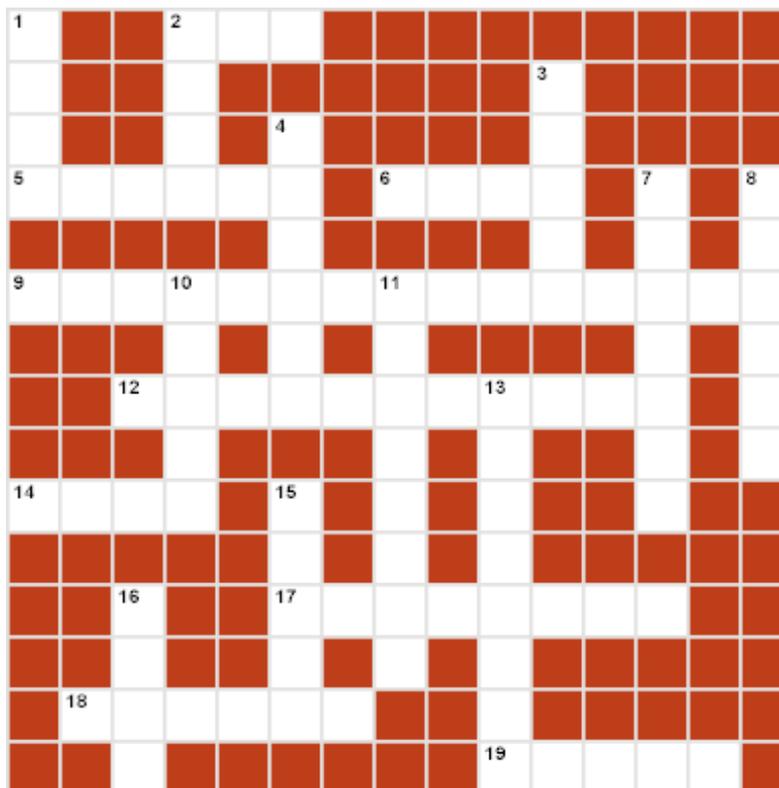
**Bob Urso (631) 724-6425 or through the club website**

Performax 25 x 2 Dual Drum Sander with Power Feed; 5 HP 220 V Leeson Motor. Machine has "low mileage" Asking \$2,000 firm.

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D W O O D W O R K E R S C L U B B



CROSSWORD  
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ACROSS

- 2. devise used to sharpen hand saws
- 5. more powerful version of a router
- 6. what most of our shops lack in winter
- 9. magazine that recently features our show ads (2 words)
- 12. what our newsletter has become in cyberspace
- 14. yellow and white are two examples
- 17. the Rolls Royce of squares
- 18. \_\_\_\_\_ rectangle, ratio of 1:1.618

19. Conover \_\_\_\_\_

DOWN

- 1. Ashley \_\_\_\_\_, planemaker
- 2. bandsaw tooth type; best for resawing
- 3. \_\_\_\_\_ pond, used with Japanese sharpening stones
- 4. tongue and \_\_\_\_\_
- 7. biscuit and dovetails are examples of this
- 8. birdseye, curly, and flame are considered highly prized \_\_\_\_\_ in wood
- 10. in 19. across, this man, to his friends
- 11. measuring method to check

square

- 13. good place for chisels (2 words)
- 15. the beveled edge of a chisel faces the \_\_\_\_\_ side of a mortise cut
- 16. to "hunk" out wood