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The Journal

of the Guild of New Hampshire Woodworkers

Twentieth Year Anniversary

Roger Amsden
Dave Anderson
Bruce Hamilton
David Lamb
Roger Myers
Bob Oswald
Audi Pauliukonis
Jon Siegel

David Lamb

Lamovich 3
The Deland Sideboard

PHOTO BY BILL TRUSLOW

The Journal

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Jon Siegel of Big Tree Turnings in Wilmot, helped found the Guild of NH Woodworkers and the NH Furniture Masters Association

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BY ROGER AMSDEN

The Granite State Gets Its Groove Back

New Hampshire has been a center of cabinetmaking ever since the first settlers arrived in the Portsmouth area in 1620 and found what appeared to be a virtually endless supply of wood waiting there for them.

State architectural historian James Garvin says that by the early eighteenth century, cabinetmakers had begun to appreciate the virtues of native woods.

“By 1714 Portsmouth cabinetmaker John Roberts had begun to use walnut and maple veneers. In 1716 the versatile joiner, painter and master builder, John Drew, arrived in Portsmouth from the London area and immediately began to take advantage of the wealth of New Hampshire’s forests. He had used mostly elm in his furniture making in England; in New Hampshire, he fashioned tables, desks, chests of drawers and other pieces from curly maple and black walnut,” Garvin writes.

“By the 1770s, Portsmouth merchant George Boyd was shipping New Hampshire black birch, regarded as “almost equal to Mahogany,” to England “on trial for the Cabinet Makers there.”

Garvin says that after years of borrowing from English designs, a unique but short-lived school of regional cabinetwork grew out of the work of Major John Dunlap and his brother Samuel on the lower Merrimack River. That was swept aside by the arrival of the Federal style around 1800 and over the years the Granite State was more of a follower of styles than an innovator and much of the creativity shown by the makers of fine, individual pieces gave way to the standardization which came with mass manufacture.

Today, New Hampshire is enjoying a rebirth of its fine cabinetmaking heritage and the state’s furnituremakers are bullish on their future.

Terry Moore of Wilmot, one of the founders of the New Hampshire Furniture Masters Association, says that he believes a “New Hampshire School” of furniture design and construction is taking place and that will leave its mark on future generations.

“One hundred years from now, they’ll be looking at a piece of furniture

and saying that its detailing has New Hampshire roots and was a common style of this era," says Moore.

A native of Wales, Terry Moore left school at fifteen with only a year of formal craft training. He joined a London rock musical production which, in 1973, toured in the United States before disbanding. Moore stayed, settling in Newport, NH.

Since 1977 he has had his own shop doing cabinetwork, architectural woodwork, acoustic guitar construction and making one-of-a-kind furniture pieces. Moore is a member of the Guild of New Hampshire Woodworkers and the League of New Hampshire Craftsmen. Over the years at the League's annual crafts fair at Sunapee State Park, he has been awarded Best in Show, the Designer's Award, Best in Wood and Best Contemporary Work.

He says that the style incorporates details such as string inlay and edge binding, indented curved center drawer, hand dovetails and fluted legs that are found in one of his favorite creations, a Brazilian Rosewood writing desk.

He's also taken on large tasks, such as an 11-foot long oval dining table, which expands to 15 feet, a commissioned piece which took nearly four months to complete.

"I only work on one project at a time. It keeps my work focused," says Moore, who after nearly 30 years of working out of his Newport shop relocated to Wilmot, NH.

Moore was present nearly 20 years ago when a group of New Hampshire woodworkers got together at John McAlevey's shop in Warner to form a new organization.

He and Paul Tuller organized the April 28, 1990 meeting which was attended by fourteen woodworkers, including among others David Lamb, Roy Noyes, Steve Cunliffe, Jon Siegel, Jere Osgood, John Skewes and David Emerson. *They formed the Guild of New Hampshire Woodworkers.*

Siegel, who had come to New Hampshire from Chicago in 1978 as head of industrial arts at Proctor Academy, where he taught wood and metalworking, had set up his own shop in Franklin to produce wood

turnings for furniture and architectural applications in 1988.

"I hardly knew anyone in the room. But we all agreed that while the League of New Hampshire Craftsmen was a fine organization with an excellent reputation for bringing juried work to the public's attention, it was time for a new organization dedicated solely to woodworkers," he recalled.

Siegel recalls that goal around which everyone crystallized and which became the cornerstone of the organization was the idea of woodworkers helping to educate each other by working as a community, tying it together with periodic meetings and a communication letter.

Guild activities soon expanded to include: Wood Days at Canterbury Shaker Village, starting in 1991; demonstrations at the League of NH Craftsmen's Sunapee Fair; summer field trips and small meetings for various subgroups which would be formed.

Siegel says that when Jack Grube of Pinkerton Academy took over as president of the guild in 2000, his organizational skills helped bring the organization to a



David Lamb of Canterbury has a large collection of antique woodworking machinery at his Canterbury shop



Terry Moore came to America from Wales as a member of a rock band and enjoys playing music and creating musical instruments

new level, so that today it has grown to over 500 members.

"There's an amazing scene of fine woodworkers in New Hampshire. In a Fine Woodworking design book, 10 percent of the authors are from New Hampshire," says Siegel.

He says that when Jim Seroskie took over editorship of *The Old Saw* in 2004, he was able to transform the publication and create a new 40-page, full color magazine which rivals *Fine Woodworking* for the quality of its presentations.

"It's really a tribute to New Hampshire culture and the way people step up to get the job done. There's a great group of professionals who are willing to share their knowledge and skills with other people and advance the whole woodworking field," says Siegel.

In 1996, Siegel and other gifted furniture makers like David Lamb, Terry Moore, Wayne Marcoux, Ted Blachly and Garrett Hack formed the New Hampshire Furniture Masters Association, with the goal of reviving the state's furniture legacy and starting a new tradition of excellence.

"The organization helps market New Hampshire furniture all over the country and is helping make New Hampshire synonymous with high quality custom

made furniture. It's really an exciting time for New Hampshire woodworkers," says Siegel.

One of New England's most accomplished artisans is David Lamb of Canterbury, who got his start as a teenage apprentice to noted Spanish furnituremaker Alejandro de la Cruz in the 1960s.

Lamb says he prefers old tools to new ones and his workroom includes a circa 1880 lathe. Lamb forages in abandoned factories for antiquated machine tools, repairs the broken parts and uses the tools to make period furniture for the likes of actor Harrison Ford and tennis star Ivan Lendl. Lamb disassembled a mill building in Belmont and then reassembled it at the rear of his studio, making more room for his machine collection.

He has won numerous design awards and his work has been featured in *The Wall Street Journal*, *The New York Times* and *Art and Antiques*.

Another Canterbury furniture maker who is making his mark is Tom McLaughlin, who as a teen always liked working with wood but earned a math degree and then a master



David Emerson of Canterbury was one of the founders of the Guild of NH Woodworkers and hosts Wood Days events at his Old Ways Traditions on Shaker Road



Tom McLaughlin of Canterbury earned degrees in math and divinity before becoming a furnituremaker

of divinity degree at Gordon-Conwell Theological Seminary in South Hamilton, MA, and went on to become a youth minister in Foxborough, MA.

But in his late 20s he was still searching, trying to find the thing that he felt like he was made to do, something that would make him feel a real sense of purpose in his own life.

It was something of a leap of faith for him when he decided to return to woodworking, uprooting his wife, Kristy, and family of three in 1990 to travel to Rocky Mount, North Carolina, for a three-year apprenticeship in reproduction furnituremaking with 73-year-old P.A. "Pug" Moore.

It was under Moore's tutelage that he learned not only the techniques of making fine furniture but also the key elements of material selection and design and proportion—those things that enable a craftsman to translate a vision of a piece of furniture into its solid embodiment.

McLaughlin opened his own shop in 1993 in Wilson, North Carolina, and four years later, feeling the tug of family ties in New England, moved back to the area, settling in Canterbury where he was able to rent mountain top space for a workshop from stoneworker Chance Anderson.



Founded 1990

The Guild of NH Woodworkers

President Bob LaCivita

Vice President Bob Couch

Secretary Claude Dupuis

Treasurer Peter James

Journal Editor Jim Seroskie

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"The Journal" is published three times per year. Membership also includes "The Old Saw" newsletter published four times each year & weekly "TouchUps" email.

WHAT WE DO

General Meetings • Small Meetings

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SPECIAL INTEREST SUBGROUPS

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Granite State Woodturners

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In 1998 he was accepted as a member of the New Hampshire Furniture Masters Association, and now works out of a 30' x 60' workshop known as McLaughlin Woods where he also offers classes which attract students from all parts of the country and all walks of life.

"The classes are really enjoyable. We get bankers, lawyers, just about every kind of person," says McLaughlin, noting that some of his repeat students come from as far away as California and even Ireland.

Other master furnituremakers like Garrett Hack of Vermont and wood turner Jon Siegel of Wilmot teach some of the three-day long classes, which run from late May into September. ■

twenty years of education, community and growth

What a Success Story!

Two years ago, I wrote a short history of the Guild for the website, and I remember that when I wrote it, I came to the end and thought it needed a conclusion of some kind. I couldn't decide what to write. I realized that because the Guild history was ongoing, it had no conclusion. Searching for some final sentence, I simply wrote from the heart, "What a success story!"

I don't pretend to know all of the things that happened within the Guild to attain this success. So many people put their oars in the water to move the ship forward, and no one knows the whole history. *The Old Saw*, *The Journal*, and the video library have provided documentation and a tremendous showcase of public Guild activities over the years. But here I will attempt to pull back the curtain to see what has made the Guild work so well.

At the founding meeting we crafted a mission statement that even today has changed very little. It is about bringing together the woodworking community and sharing our experiences to expand everyone's woodworking knowledge and skills.

We found our groove early, and stuck to it. Saturday meetings consisted of a demonstration followed by a business meeting. It has never been a problem finding experts to demonstrate for the Guild, because we have sustained a level of activity and excitement that is attractive to demonstrators.

John Skews showed us how he made Windsor chairs at the first regular meeting. The second meeting was on the Japanese style with Paul Tuller. A few months later I did a demonstration of woodturning at my shop, which was in Franklin at the time, and Peter Bloch made the first video. Nearly every major meeting from that time forward has been made into a video. It is amazing to see where this has led—seven videos in one day at the Furniture Design Symposium last month.

Because we are not trying to sell the products made by our members,

we are free to pursue our one simple mission—EDUCATION. Experts willing to demonstrate, professionals willing to govern, rank-and-file willing to volunteer, the video library, scholarships and grants, *The Old Saw* and *The Journal* have proven to be a powerful force in woodworking education emanating from our little state where the Artist Laureate is a cabinetmaker. There is an immense hunger for woodworking education, and insofar as we are filling that need, the Guild thrives.

These events occurred because people made them happen—sometimes behind the scenes. I will mention a few people who come to mind who helped make the Guild what it is.

First are the founders, who include John Skews, the first President, and Paul Tuller, who with John McAlevey

**"THE MAIN THING IS TO KEEP THE
MAIN THING THE MAIN THING."**

—told to me by Scott Larson

conceived the idea of the Guild and called the founding meeting—especially John McAlevey who held that meeting at his shop in Warner in 1990. All three helped kick-start the Guild, then moved on to other things.

In the early years, Peter Bloch started the first and still the largest sub-group, the Granite State Woodturners. He also conceived of the New England Woodturning Symposia, which every three years draws about 400 attendees. Peter started the video library, that began at the third meeting, and to this day he is still involved in many aspects of the video productions.

Although he was never president, no one was more influential in the first decade than Roy Noyes. Roy was not only a founder, but edited *The Old Saw* for ten years and carried it through its

adolescence. He seemed to know what we needed to do to make the Guild take root and establish itself. Through his connection to Pinkerton Academy, Roy brought in Jack Grube, whose incredible organizational skills took the Guild to the next level. With a set of bylaws, job descriptions for officers, and 501(c)3 tax status (executed by Ed Epremian), the Guild suddenly had the look and feel of an official organization.

DJ Delorie, with his tremendous computer skills, put the Guild on the web and kept all the membership data in a comprehensive way for the first time.

The final big leap was made when Jim Seroskie became editor of *The Old Saw*. Jim knew how to take advantage of new printing technology that allowed us to get high quality color even though we were only printing 500 copies. Jim has applied his technical knowledge and his incredible energy to totally transform the Guild's communication media—both in print and on the web—that allows us to present a new and impressive face to the outside world.

I want to thank everyone in the New Hampshire Furniture Masters Association who helped the Guild. Many of them had to shift their energy into the new organization when it formed in 1995, yet managed to continue to give their time to further our mission as well. I am thinking of David Lamb (the new Artist Laureate of NH), Garrett Hack, Terry Moore, Jere Osgood, Wayne Marcoux, Ted Blachly and Tom McLaughlin.

Almost from the beginning we have had a mutually beneficial relationship with the oldest craft organization in the State, the League of New Hampshire Craftsmen. Our activities at the annual Craftsmen's Fair, in Sunapee, help us share our woodworking skills with the general public.

David Emerson keeps us in touch with the old ways—and we need that.



Alan Mitchel's Homestead Woodworking School has been a home on so many occasions. John Whiteside thinks outside the box, and challenges us to see the next level. The constant injection of new blood, such as Allan Saffron, Al Hansen, or the dynamic duo of Bob Couch and Claude Dupuis, exemplify the new people who have joined the Steering Committee and taken on important jobs. It is after all, the Steering Committee that governs the Guild, but most of the meetings are planned and carried out by the sub-groups—nearly 35 per year! Every sub-

group leader contributes tremendously to the Guild, even if they are not on the Steering Committee.

In twenty years we have had a string of outstanding presidents and officers. Besides Jack whom I mentioned earlier, C. Peter James has been one of the officers (treasurer) working behind the scenes with impeccable precision, and making a hard job look easy. After his term as president, Peter Breu took on difficult jobs organizing many of the symposia and heading up the Scholarship & Grants Committee. Dave Anderson and Roger Myers both served

as president, then maintained a strong influence as sub-group heads and Steering Committee members throughout the entire second decade. Bob LaCivita, the once reluctant leader, has proven to be the perfect president for the current time.

If I have forgotten to mention others, which I'm sure I have, I am sorry. Thanks to everyone for doing what you did to get the Guild where it is today.

As for myself, I just want to be remembered as the only person to use the words "THE OLD SAW" in *The Old Saw*, without referring to *The Old Saw*. ■

More...

I remember going to Warner, driving with Dave Emerson, to check out the first meeting at John McAlevey's shop. I remember the instant comradery developed between all of us and the energy as we all talked about, what we did, about our shops and learned of what others did.

It was at John's that I met Jon Siegel. We struck up an instant friendship over craftsmanship and old machinery. This led to many auctions and field trips—the search for restorable old iron.

It was also where the seeds of the Furniture Masters may have started to sprout. At least to the point of getting to know those who had like interests in marketing sophisticated and expensive work—the FM's started meeting in '92.

David Lamb

Sharing...to me, the Guild has always been about sharing. People with a common interest, woodworking, sharing freely what they know with others who share that interest. The best and most accomplished professionals and masters sharing their knowledge with people just beginning. Sharing

through our meetings and our publications. Sharing through our symposia and archived media. Sharing by supporting education via scholarships, awards and grants. Sharing by outreach at events like the Craftsmen's Fair. And through sharing, I have made friendships which will last a lifetime. **Roger Myers**

I joined the Guild back in late 1998 as a result of a booth set up at a woodworking tool show in Manchester. If my memory serves me correctly, the booth was manned by Roy Noyes and Bill Hart. They had a beautiful chest of drawers on display and when I stopped to see what they were all about, they signed me up.

I like many people got the Guild confused with the League of New Hampshire Craftsmen and thought I was not qualified. After they got that issue corrected, I was eager to join and to meet other woodworkers and share knowledge. It has been a wonderful experience to learn from some of the best that there are in the woodworking field. As I have grown in my skill levels,

I have tried to pass on what I have learned to others. That is what the guild is all about, sharing knowledge.

C. Peter James

Being editor of *The Old Saw* was one of the most rewarding times of my life. It gave me the chance to work with and learn from some of the most talented furniture makers in the country—people like Jere Osgood, Jon Siegel, Terry Moore, David Lamb, Peter Bloch, Garrett Hack and numerous others less well known.

Five times a year, we put together an eight page issue of how-to articles and Guild news that I printed on a Xerox color printer that the Guild purchased for me. And then Dave Anderson, Jack Grube, and my wife and I would sit down at the dining room table and fold, sticker, stamp and sort the copies by ZIP code for mailing.

This was certainly a far cry from the slick publication that has evolved since Jim Seroskie became editor. He has achieved what I dreamed of doing and more! **Roy Noyes**

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Beginner & Intermediate Group

April 10, 2010 & June 5, 2010
at McLaughlin Woods in Canterbury, NH



Making a Traditional Chest of Drawers

BY AUDI PAULIUKONIS

Tom McLaughlin's year long project — Parts 4 & 5

April 10, 2010

The fourth installment of the BIG series *Making a Traditional Chest of Drawers* is not looking like it's the fourth of five sessions anymore—there appears to be just too much ground to cover!

The session began with a quick *show-and-tell* by several participants of the seven session Woodworking 101 class which took place between the last BIG meeting and this one. We all got a chance to see and check out the fruits of that class's labor, a series of beautiful cherry shaker end tables lined up on one of the work benches in the shop. No doubt many of

the skills learned in crafting these tables will be put to good use in building their own chest of drawers at home. The quality and care that went into these tables was great to see, and made me wish I didn't work Saturdays so I could have enrolled in the class.

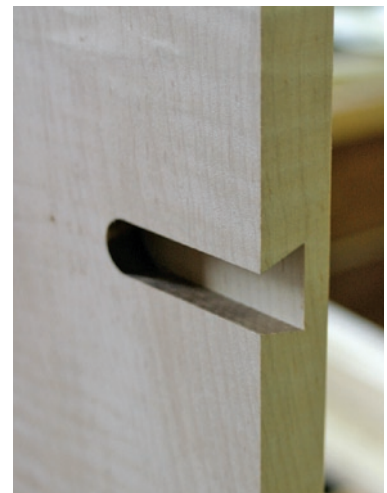
Following the shaker table presentation, Tom gave a quick review of the different types of drawer dividers we went over last meeting, but this time showed us a home-made jig you can use to rout the slots for dovetail dividers.

Using a router to accurately cut the dovetail slot requires the use of a collar (or guide bushing) protruding below

the baseplate of the router. The jig Tom described was a piece of plywood with a series of stopped dado cuts corresponding to the locations of the dovetail "grooves" in the case side. The outer diameter of the router collar is slightly less than the dado cut in the plywood jig. The dado cuts on the jig will guide the router as it travels across the workpiece. A stop block appropriately placed on one end of the jig indexes the cuts precisely from a common reference point. It is easier on the router if you make the first pass with a straight bit followed with the appropriate dovetail bit. This is a simple yet effective jig so long as you rout the dovetail grooves before assembling the case.

There is a fundamental difference between machine-made and hand-cut sliding dovetail joinery. When cutting by hand, you cut the dovetail on the divider first, then make the groove in the case side to match. Waste material on the case side by machine or by hand to form an undersized dado, then final shape with hand chisels to match the divider.

In our project, you cut the socket with a router, then the dovetail to fit. With a router, the best way to get a nice tight fit is to gradually sneak up on the dovetail tenon. On the router table, sometimes all you need to do is apply a little more pressure to the work as it passes over the bit just taking off those extra few thousandths of an inch. Or if it's a little snug, you can sand a little towards the rear of the divider's dovetail leaving the front alone to ensure a clean-looking joint. The key is to go slow, checking the fit with each adjustment.





Tom then brought up the subject of rear dividers, saying that they are not absolutely necessary unless you plan on installing dust partitions between each drawer. Secondary woods may be used for these dividers, as they won't be visible. It's a good idea to not glue them in place. It will be much easier to replace the *drawer runners* if the rear divider isn't permanently fixed in place.

Finally, Tom suggested using ash for making the drawer runners. These "run" between the front and rear dividers. The length of the runner is determined by measuring the actual distance between the front and rear dividers but leaving a $\frac{1}{16}$ " shoulder on each end to allow for expansion and contraction of the case, then adding a $\frac{3}{8}$ " tenon to each end of the runner. A typical runner is about $1\frac{1}{8}$ " wide. Fit the tenons into the receiving grooves on the inboard edges of the front and rear dividers. Then use two screws centered on the runner 4" to 5" apart through the runner into the case side. A similar runner may be run vertically between the two upper drawers of the case as well. By installing the runners without glue, and leaving a $\frac{1}{16}$ " shoulder between the runner and the divider, the case may move seasonally without affecting the

runners, which run across the grain of the case.

With the runners done, Tom began discussing the moldings. To achieve the molding profiles, we will construct a frame that sits on top of the case upon which the actual top of the piece will be placed. The upper frame has a cove molding profile, which when combined with the edge treatment of the top gives us our complete upper profile. The lower molding also works the same, but the case will instead be sitting on this frame with the ogee bracket feet attached below it.

There are two ways to create the molding frames—create lengths of molding then miter and assemble the frame, or build the frame first then cut the cove molding profile. We will be using the latter method.

First, we need to prepare the stock needed to make the frames. Rather than use wider pieces of our primary wood, Tom suggested taking appropriate lengths of primary wood, about three or four inches wide, and edge gluing a 2" wide piece of *secondary wood* on both sides of the primary wood. For the top frame, you'll need material about one inch thick, while you'll want heavier stock for the lower frame, about $1\frac{3}{16}$ " thick. Then rip the glued-up piece down the center to get

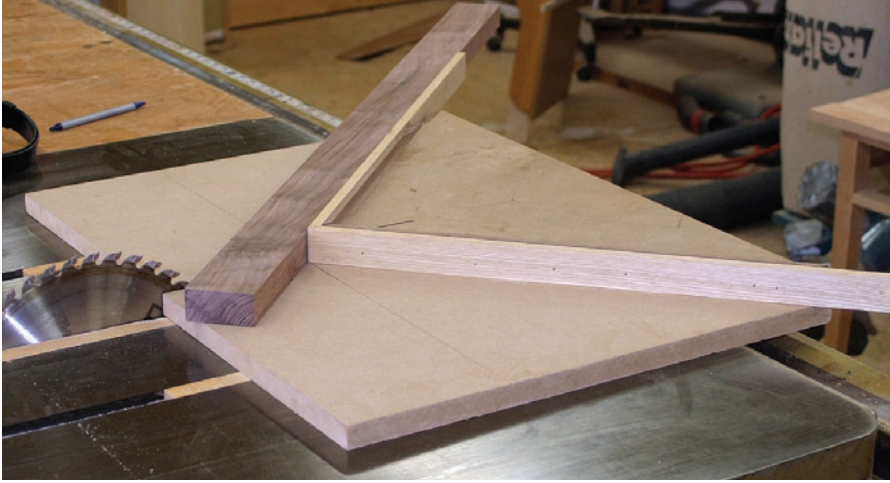
two lengths of molding stock. The primary wood grain will now match perfectly.

The molding profile will be cut into the primary wood, and no one will see the secondary wood as it will be sandwiched between the case and the top or hidden beneath the case. For this reason, the rear molding as well as any intermediate frame pieces may be of secondary wood.

Next we cut the molding stock to length beginning with the front piece; then the sides; then the back. To get the length, first measure the length off the case where the piece will be going, then add the depth of the molding (twice), then add $\frac{1}{8}$ " in order to achieve a $\frac{1}{16}$ " overhang on each side. It's important to leave a little extra for an overhang so that once the molding profile is cut, it stands a little proud of the case sides. This results in a much more pleasing appearance than flush molding profiles.

When assembling the frames, the front corners of the molding stock will be mitered, while the rear piece will be butt-jointed between the two side pieces. In order to achieve a perfect miter for the front two corners of the frame, Tom suggested building a dedicated miter sled for the table saw. He spent several minutes describing his and walking the group through building a sled of their own. He





used two pieces of MDF or plywood—one 24" to 30" square and another smaller piece with a perfect 90° square corner. You also need runner material to fit the slots on the saw table and some thin $\frac{1}{8}$ " ply or similar material to use as a fence. The runners are mounted to the bottom of the larger board, spaced by the miter slots on the table saw, and located so that the saw kerf runs up the center of the board.

The smaller right angled piece is mounted on the larger base with the 90° corner pointing to the front and the saw kerf bisecting the base board as well as the right angle of the upper piece. By attaching the thinner ply fence material to the edge and proud of the upper right angle piece, you now have the perfect rig for cutting both inside and outside 45° miter cuts.

Measure and cut the front piece of molding stock first. Clamp it in place on the front top of the case, then cut the two side pieces or "returns." Leaving the front piece clamped in place allows you to work on one side at a time, carefully sneaking up on the correct fit for the returns without having to reposition the front piece every time.

An excellent tool for trimming the miter cuts of the returns is a shooting board. This is basically a jig used to hold

a workpiece at a consistent angle while using a block plane to gradually shave off a few thousandths as necessary to achieve a perfect fitting joint. The miter angle can be adjusted with shims if needed.

Once the front miter joints are fitting well, the rear piece may be cut to the actual length needed. The frame may be biscuit-joined paying careful attention to set the biscuits back from where the molding will be cut.

Tom finished this meeting with advice to always run a sample piece of molding first before committing the assembled frame to the molding bit. Also, cut the molding profile in several small passes rather than all at once.

June 5, 2010

The following BIG meeting on June 5 was a direct extension of the previous session. We began by going over glue-up technique for the molding frame and a few more bits of wisdom on cutting the molding profile.

By using masking tape on the case beneath the molding frame's joints (to avoid getting any glue squeeze-out on the case), it is possible to glue the frame together in place on top of the case. This

ensures that the glued-up frame will fit perfectly in its final position.

In addition, Tom mentioned the best order in which to cut the molding profile is to rout the sides first, then rout across the front. This allows the routing of the profile across the front to clean up any tear out resulting from cutting the sides, leaving the frame with neat, clean corners.

The process of attaching the front and bottom molding frames to the case is similar, though with a few differences. In both instances, we have to deal with the cross-grain seasonal expansion and contraction of the case sides, so in attaching the molding frames we must make provisions for this. If we simply glued or screwed the frames directly to the case, seasonal movement would eventually crack the case sides. Fortunately, it's easy to work around this. At the bottom of the case, we may glue the frame directly to the case across the front and for a distance of 6" or 7" down the sides from the front. Rather than let the rear be left un-joined to the case however, we will attach the rear of the frame with screws set in elongated, recessed slots. By using slots roughly $\frac{3}{8}$ " long oriented in the direction of the wood movement, the screws will hold the base frame securely to the case while





still allowing for seasonal movement. Recessing the slots will keep the screw heads hidden from view. Tom suggested using two screws in each of the returns, and three across the rear molding.

The process of attaching the upper molding frame is similar but we will attach the frame to the *underside* of the top this way. Then the whole top, including the molding frame, will be attached to the case with screws from inside the case. Attaching the top this way makes it easier to access the top later on should any repairs be required.

Another thing to keep in mind. Before attaching the top, be sure that both the upper surface and underside of the top are finished in the same fashion. Leaving the hidden underside unfinished changes the rate at which the top will absorb and release moisture which could lead to warping later on.

Before attaching the lower frame to the case, it's best to first do the final surface prep on the lower several inches of the case sides. Once the lower molding frame is attached, sanding the case sides adjacent to the frame will be difficult to do well. Tom suggested lightly raising the grain first with a damp rag, then when dry, lightly sand off the raised grain with super-fine sandpaper. On the other hand,

if you've hand-planed your final finish, you need not worry about this step as hand planing leaves a smooth finish with no raise-able grain.

Now on to the next step in the process, creating the bracket feet! There are two types of feet we will be making for this project—front feet and rear feet. The front ogee bracket feet are built from two pieces of $\frac{3}{4}$ primary wood about 4" tall. These meet in a mitered joint. Ideally the front and side of the front feet, are cut from a single piece of stock such that the grain wraps continuously from one visible face to the other. While there are several ways to create the mitered joint at the corner of the front feet, including blind dovetails, biscuits, dominoes, etc., Tom suggested using the basic splined miter joint. It's simple to cut, strong and self-indexing when it comes to gluing up the joint at a 90° angle.

Tom stressed the importance of making sure that your saw is cutting accurately when the blade is tilted to 45°. Once the pieces are cut and keeping the blade at the same angle, withdraw the blade back into the table enough to make the spline groove across the face of the joint. Make sure you keep the spline located towards the inner corner of the joint as you do not want this to be visible once the foot

is shaped! As for the actual spline, any appropriate hardwood will work. Most important is that it is accurately shaped and thickened so that you don't have to fight it when gluing. Also, keep the grain of the spline running parallel with the grain of the foot to ensure a strong joint. Tom then proceeded to glue up the foot.

The rear foot is a bit different. While it is also composed of two pieces, only the sides need be of primary wood. This visible piece is joined to a piece of $\frac{3}{4}$ secondary wood using basic dovetail joinery. The dovetails joining the two parts of the rear legs should face to the rear of the case.

At this point, Tom had passed around several ogee bracket foot templates for the group to examine. The templates are used to mark the final molded shape of the foot as well as the shape of the foot when seen from the front and side. Tom also explained a bit about how molding shapes are exaggerated when the mitered joint is viewed at an angle. He encouraged us to use caution when selecting a template.

Once the side profile was traced onto the end grain of the completed blank, Tom explained the process of cutting the cove shapes on the table saw. This is accomplished by gradually running the stock over the blade at a skewed angle and *taking small passes* at a time. He





explained that while care must be taken, the cut looks more dangerous than it is. By keeping the skewed fence in front of the spinning blade, the blade keeps the stock pushed against the fence.

The setup is accomplished by eye and test cut. Sight diagonally across the curve of the blade to see how the cut will compare to the profile marked into the end grain of the foot, then do a test cut. Only raise the blade in $\frac{1}{16}$ " to $\frac{1}{8}$ " increments to gradually sneak up on the finished profile. It is important to exert minimal side force on the blade. The basic process was this—sight across the blade to the workpiece and adjust the fence angle or blade height as necessary and test cut. If this is satisfactory, perform this cut on all the feet. Be sure to be consistent with the orientation of the bottom of the foot! Raise the blade a little, re-sight along the curve of the blade, test cut as necessary, and repeat the cut on all the pieces.

For the front feet, you want to run the cut from the end to the miter with each pass over the blade, turn the piece 90° , then start the next cut at the miter and finish at the other end. By not finishing both cuts at the miter, you can avoid highly visible tear-out at that location. Using this table saw technique, you can hog out a lot of the waste from the foot profile. Keep in mind you may need to use a taller sacrificial fence to adequately support the stock while working through a few areas.

Once the cove is cut, use a tall sacrificial fence and a tilted saw blade to cut the final shape at the bottom of the feet. You will have a bit of a “faceted” appearance due to the overlapping cuts which need to be smoothed out. From the profile traced onto the end grain, transfer lines marking the top and bottom of the profile across

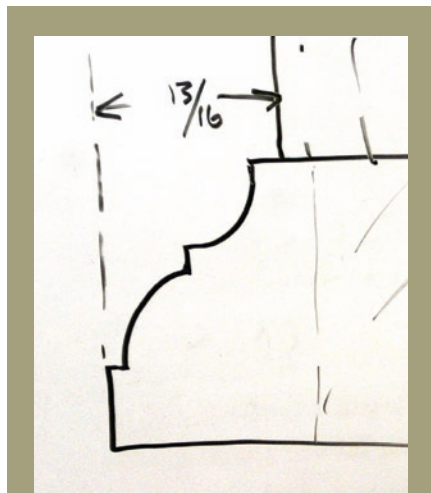
the top and bottom of the piece. Carefully transfer the profile to the mitered ends. Then, using full strokes, use a block plane to knock down the facets and ridges left over from the saw. Follow up by scraping and sanding as necessary to achieve the final shape. A French curve scraper comes in handy for this part. While you want to do a neat job, remember you will be cutting away a significant portion of the foot in the next step—it is, after all, an ogee bracket foot.

Using the template, draw the foot profile along the inner faces of the foot. Some in the group wondered if it wouldn't just be easier to cut the ogee profile before cutting the coves on the face, but Tom replied that it makes it a lot easier to smooth out the coves when you have an intact workpiece and don't have to work around the ogee shape.

Once the profiles are traced, apply masking tape to the outside face opposite your lines to back up the cut and help minimize tear-out as the ogee shape is cut. Tom recommended using a band saw with $\frac{1}{4}$ " 6 tpi blade to cut out the ogee shape. The small demo bandsaw's size made it difficult to complete the cut on that tool. Tom fired up his 36" John A. White bandsaw to complete the cuts on the foot. I admit to having an acute case of tool envy.

Once the ogee shape had been cut out, it was time to cleanup the cut. This is best done using a Nicholson #50 rasp and a spindle sander, dowels and sandpaper, or whatever gets the job done for you.

And that's about it for the summer! Of course, there's still work left to do, especially for those of us that need to catch up on our chests that we're building at home. Hopefully we'll be all caught up by the time the next meeting rolls around, sometime this fall. While everyone wants summer to stick around longer than it does, those of us in this BIG group take some consolation in that the autumn chill means a return to the next installment of this great series! ■





Block Planes



Relatively small, simple and inexpensive block planes are an often underrated hand tool. Most of us think of them as tools for chamfering an edge, cleaning up a bit of end grain, or for trimming in a variety of carpentry applications. Today the block plane, or a set of several different types of block planes can offer versatility and the ability to perform a variety of applications in both the hand and power tool shop. At a minimum, one block plane should be in every woodworker's tool kit and those of us who use hand tools regularly will want several for different uses.

The variety available was staggering seventy five to ninety years ago. Every tool manufacturer including Stanley, Sargent, Millers Falls, Ohio Tool and a host of others made a range of block planes in different styles, sizes, bed angles and had accessories available. Slowly over the years as the hand tool market shrunk, manufacturers went out of business and affordable power tools took over the market. The makers reduced their lines or stopped making hand tools altogether. By the late 1970s, the available offerings were meager and of dubious quality. Fortunately for us today, the pendulum has swung in the opposite direction and there are now more choices and better quality available. We are the beneficiaries of the new golden age of hand tools.

Getting Started—The most common of the block planes are the standard angle and the low angle block planes. These are available from a variety of manufacturers and range in price from \$30 to as much as \$250. At the top end of the price range, you can get a fancy art deco style plane in stainless steel from Lee Valley, and at the bottom end you'll find the big box store planes of questionable quality. In the price range around \$80 to \$130 you will find very good quality from makers like Lee Valley, Lie-Nielsen and the new and recently released upgraded Stanley. While it is possible to spend less and make a good purchase in the \$40 to \$80 range, more care is required. The Footprint, Groz, and the less expensive Stanley offerings mean that you must carefully and personally check out and test each individual

example in a store or you will run afoul of looser tolerances and inspection criteria from the maker. Choose this route only if you have a limited budget.

Generally speaking I prefer the low angle block plane with its 37° cutting angle to the standard angle of 45°. The low angle does a better job on end grain and there are plenty of other planes around for use at the 45° common pitch. I recommend that only those block planes with an adjustable mouth be considered since this will give you the ability to take thick shavings for rapid stock removal with the mouth open wide and take really fine cuts with the mouth narrowed until it will barely pass a shaving. I suggest that if you buy only one block, it should be an adjustable mouth low angle plane.

Rabbeting Block Planes—If you want to carry your use of hand tools further, there is another block plane style which is quite useful and will open up a series of new opportunities. These are rabbeting block planes and they come in two styles. The simpler and less expensive of these is the open mouth version made by Lie-Nielsen as an improvement on the long ago discontinued Sargent #507. It works well in rabbets parallel to the long grain of a board and with the optional nicker on either side deployed, it will make cross grain rabbets without tearout. Do not be fooled. The \$10 you can save by omitting the knickers will come back to bite you some day if you try to save money. This plane will work well as a normal block plane, but the relatively wide fixed width of the mouth limits its usefulness on highly figured woods or those with reversing grain.

Skew Rabbet Plane—The second style of block plane for making rabbets is the skew rabbet plane. This is one of my personal favorites because of its versatility and would be my choice for your second block plane. They are available from both Lie-Nielsen and Lee Valley and come in both left and right handed versions. These too have a fixed width mouth but it is finer than found on

the regular rabbeting block and as a result of the fine mouth and the skewed blade, it normally will work well with figured wood. The ability to remove a side plate allows you not only to produce rabbets, but it will allow you to plane right up to the edge of a vertically oriented board. These planes come with an adjustable fence which gives them the ability to be used to raise panels for a frame and panel door and they will also work end grain very well. I consider them a very cost effective alternative to a dedicated panel raising plane.

Small Block Planes—We now have that category known as the smaller block planes. Lee Valley calls their plane the “Apron Plane” and Lie-Nielsen refer to their planes as the #102 and #103. These are ideal for the occasional user and the person who wants to keep a plane in their apron, tool belt or a pocket for both trim carpentry jobs and the occasional finishing swipe along the edge of a board. The only drawback of these tools is their fixed width mouth though the mouths are narrow enough to allow for some very fine work. Smaller still are the Squirrel Tail planes, so called because of the upraised heel which is shaped somewhat like a raised squirrel tail and functions as a palm rest when holding the tool. Only about 3” long, they excel at getting into small places and come in both a flat and convex soled version. Of all of my block planes, my absolute favorite is my flat soled squirrel tail which almost always lives in my trouser pocket while I’m in the shop. It is convenient, unobtrusive and has not yet met a board it couldn’t handle.

At the smallest end of the group are the miniature or instrument maker’s planes. Most of these are less than an inch and a half long and are an absolute necessity for the modelmaker and luthiers in addition to others who work extremely small parts. They will plane a piece as small as a quarter or half an inch wide with ease. Some of these tools are works of art made from brass or bronze castings and they too come in both flat soled version and in styles with an assortment of sole radii for use in hollowing.

Infill Planes—You will very rarely run across other block plane styles like the chariot plane which is a block plane size patterned after the British infill planes. E.C. Emmerich in Germany makes a wooden block plane which performs mostly like a small smoother since it has the common 45° blade pitch and a fixed mouth. There are even accessories available for block planes such as the chamfer attachment Lee Valley makes as a guide for achieving a consistent 45° chamfer on the corner of a board. Lee Valley also makes a kit which attaches to their full sized block planes consisting of a front knob and an attachment which acts as a rear hand hold and turns the plane into an easy to hold smoother.

Recommendations—As many of you know, I’m a bit of a hand tool junkie so what I have in the way of block planes would be a bit of overkill for most folks. To gain versatility and allow yourself to work on all but the smallest parts, three planes would allow you to trim edges, chamfer, clean up end grain, smooth the edge of a board, rabbet, do the occasional bit of shooting and raise panels. My choices would be an adjustable mouth low angle block plane, a skew rabbet plane with fence and a flat soled squirrel plane. You could add a fourth, a curved sole plane to hollow concave surfaces. With this selection and a bit of time to learn technique, you should be nicely set. ■





Lamovich 3

BY DAVID LAMB

The Deland Sideboard



This sideboard represents many departures from a “period” piece of furniture. It does, indeed, represent that same traditional aesthetic yet introduces a number of new thought processes and techniques. It would be easy to take any one of these aspects and develop an article on each of these, yet to give an overview on the entire project as a general “aesthetic vision” makes the most sense.

This sideboard is the third in a series of collaborations with our most recent NH Artist Laureate, James Aponovich. Soon after the completion of this piece I was notified of my nomination and the

affirmative vote by Governor and Council to be the next NH Artist Laureate. What an honor! And what great recognition for an art-form that we all appreciate for not only its demanding technical and mechanical skills but for its artistic merits and challenges. Furnituremaking at this level is art in three dimensions. It needs to look good and it needs to function well.

With design, I think in terms of language. Post-modern is a different language than Shaker, which is different from Art Deco, and is different from Rococo etc., etc. There are common threads between all of these, yet they

are clearly distinct from one another. To speak any of these languages demands a thorough knowledge. Being a professional furnituremaker for 30 years and in the trade for 37 years, I have developed such a knowledge, and I know the limits.

This sideboard is a case of using the language of neo-classical form. I am speaking the language, yet have developed a distinct dialect without breaking the rules of that language. I find this process challenging yet very exciting.

The main theme to this piece was to develop a visual design that reflects the lives of the patrons. These folks live in the

New York City area and vacation and have other roots in New Hampshire. Early on in the design development, it was decided that the painting and its framework would incorporate the NH theme. The Lake Sunapee/Mt. Kearsarge landscape is flanked by carved panels of NH wild flowers—trillium, lady slipper, jack-in-the-pulpit and ferns. The immediate frame is carved in a woodbine motif to play off the morning glories in the painting.

The piece has two personalities. When closed it is a sideboard where the observer would have no idea what's within. This position represents the formal, urban, high-style of NYC. The hint that there is something more is in the small gilt and painted ellipse in the gallery. When raised the NH side of their lives comes to the fore, representing the informal, bucolic, natural aspect of their lives.

The daylily is predominant in the painting as a favorite garden flower of the owners. The daylily is also carved in two small tablets in the gallery. This flower is also utilized in an unusual way decorating the legs. The leaves and stems simulate the reeding and fluting on the legs. It is my understanding that historically reeding and fluting are decorative elements derived by the ancients from the technique of actually using river reeds to construct dwellings. This was later formalized in stone structures in architecture and then in formal furniture. I thought it would be fun to reverse the clock and use the plant form that was more representational of the plant itself. Yet where these stems and leaves emerge from the brass feet, they are reminiscent of the formal interpretation. Notable is that each leg is different from each other in its layout of flowers, leaves and stems, thus maintaining the natural representation.



Congratulations to David Lamb...Recently Chosen as New Hampshire's Fifth Artist Laureate

The New Hampshire State Council on the Arts recommends several artists' names to the Governor every two years. He then selects one to honor as Artist Laureate. David is New Hampshire's fifth Artist Laureate. He will serve in this position through March 2012.

Born in New Hampshire, Lamb grew up at Canterbury Shaker Village, where he was apprenticed to Master European cabinetmaker Alejandro de la Cruz, who taught him that being a craftsman is a lifelong commitment. Throughout the years he has developed his craft, incorporating various period forms, Shaker sensibilities, classic re-interpretation and contemporary styles into his work.

Lamb hopes to use his position as Artist Laureate to promote New Hampshire's fine arts and crafts industry, our legacy of craftsmanship and the supportive environment for self-employed artists in the state. "People talk about 'the New Hampshire Advantage,'" says Lamb. "The arts and crafts in New Hampshire are a huge part of that. New Hampshire is tradition; we hold on to what's important. The U.S. looks to New England, and then to New Hampshire, for what's important when it comes to traditional crafts."

"David Lamb is a talented artist whose contributions have enriched the New Hampshire arts community," commented Governor Lynch. "We are fortunate to have David serve as artist laureate where he will have the opportunity to enrich the lives of others both through his art and also as a mentor to our state's emerging artists."

—New Hampshire State Council on the Arts

David is a long time member and supporter of the Guild [ed].



of years as a carved or inlaid element. In this case it is an overlay of crotch birch and mahogany. Complete credit for the cutting, fitting and gluing of all these parts goes to my wife, Janet, who has a keen eye and patience for doing such demanding work. Patterns are used to cut out each part, yet to get a fit without a glue-line required a dedicated approach. The molding stock itself required curved moldings to be made to fit the convex and concave shapes of the serpentine front. Special shaper jigs to hold these laminations allowed for pattern shaping to be done. Once shaped, the overlay work could be completed. Layout was critical. Because the legs appear to pierce the top molding, the moldings were cope-fit to tightly fit around the legs. This required absolute control in the overlay pattern work. It also demanded precise control in the coping work. Proper fitting allowed no room for error. Once overlaid and coped, the molding could be glued to the case.

Special efforts went to the painting raising mechanism. This was not a catalog item! The client was clear they did want to be actively involved with the raising process. They did not want a motorized or pneumatic system. This clarification narrowed it down but still left several



choices as to how the painting got raised. Because this was such a significant aspect to the piece, its design work was an early priority. It quickly got my friend Jon Siegel involved. Jon is an engineer by nature and can quickly see forth-coming issues and drawbacks.

Together we developed a cable system that involved a crank and chain drive to a shaft. The shaft has two winding drums that control the cable. Cables are used to raise the painting unit (16 lbs), to pull down the unit and to integrate a counterweight system so the unit can maintain any position it is placed into during the raising or lowering process.

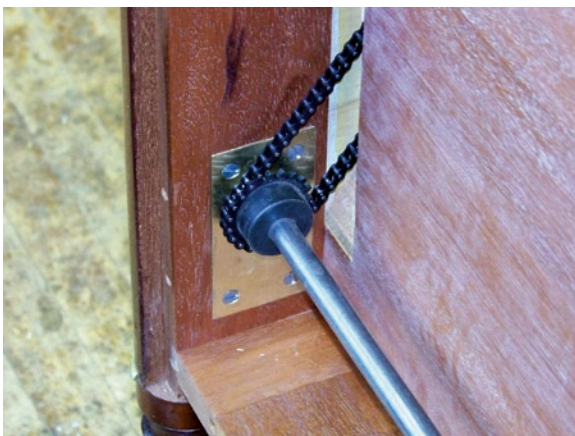
The special nature of this project meant many parts needed to be custom machined and made to pattern. In addition to the painting itself, all of this operates within a 2¾" deep space behind the false interior walls of the sideboard. In other words, there is no clue of what's contained even when opening the cupboard doors. Needless to say, it was extremely challenging to fit all of this into such a tight space and a challenge to make everything operate cleanly and effectively. This is prototype engineering at its finest!

Once everything was worked out, the operation was quite satisfying and certainly a joy to reflect on—viewing the vision of the piece as a reality. ■



Other significant design elements include the brass beading in the base and the overlaid molding at the top. Brass work like this is seldom seen yet appeared in classical designs occasionally in very formal applications. My use of brass detail utilizes a 3/16" rod. This was annealed with a torch so it could wrap around the legs (in a groove) and around the perimeter of the apron. Each corner was either mitered or coped using a hacksaw and files. This beading was secured to the piece through the front by drilling and countersinking holes and installing flat-head screws. The heads were then filed off—totally invisible, totally secure. Note that old pieces used brads that often worked loose. Glues are messy and often fail.

Another significant element is the top molded edge. This Gothic arch pattern is one I have been developing for a number





BY ROGER MYERS



Colonial Williamsburg Symposium

A Trip Back in Time

Kaare Loftheim works on frame of Jefferson's pedestal writing table

There are a few things that happen on a pretty regular basis for me every year. In April I pay my taxes to Uncle Sam, in October I realize I haven't completed all the outdoor projects I had in mind for the year, and in January I head to Williamsburg, Virginia for a woodworking "trip back in time." Colonial Williamsburg, an outstanding destination spot in its own right, is the host each January of *Working Wood in the 18th Century*. The conference spans four days and is a wonderful mix of history, demonstrations and camaraderie. Each year the conference organizers plan a series of presentations around a particular theme and in 2010 the focus was on Thomas Jefferson and Monticello.

Colonial Williamsburg holds the conference in two back-to-back sessions which provides some flexibility to people trying to plan their annual pilgrimage to Virginia. I always plan my trip around the SAPFM (Society of American Period Furniture Makers) annual meeting and banquet which is held during one of the

sessions. If you have a love for American period furniture, they are certainly an organization worth belonging to—www.sapfm.org. While Williamsburg in January is certainly warmer than New Hampshire, it has not been uncommon to see light snow or flurries during these sessions. Only a few years back, a significant snowfall on the last day made travel difficult, so plan accordingly. A nice benefit of visiting Colonial Williamsburg in January is that it is off-season and while that means some of the taverns in the historic district are closed, it also means that crowds are smaller and hotels are less expensive.

This most recent conference with a focus on Jefferson and Monticello was one of my favorites. Our third president was not only a political visionary but also a prolific inventor and talented architect, as well as an amateur woodworker. The conference focused on the furniture associated with Jefferson, as well as the architecture of Monticello. An optional trip to Monticello provided a wonderful

private guided tour of his home with a particular focus on the architecture and furnishings.

A piece of furniture that is most often associated with Jefferson is the Campeachy Chair, so named for a region of Mexico where the chair's form was developed. Said to be a favorite chair of Jefferson, its design and construction was demonstrated by one of Colonial Williamsburg's apprentice cabinetmakers, Bill Pavlak. A seemingly simple piece of furniture consisting of two connected X-frames, covered in leather for upholstery, the reality is that there is a lot more to the design and construction than first meets the eye. Pavlak's analysis of the design as well as his historical research of the layout and method of construction provides insight that can be applied to many pieces of furniture design and construction. While the Campeachy Chair doesn't look to be too comfortable, several conference attendees who sat in a reproduction indicated that Jefferson may have been

right and the chair was in fact pleasant to relax in.

Of course, as with all of the demonstrations, all construction is accomplished using period appropriate tools and methods. The only modern technology is in the cameras used to project the demonstrations onto a large screen.

Brian Weldy, another apprentice at Colonial Williamsburg who may be known to some GNHW members, focused on the design and construction of Thomas Jefferson's Stand-up Reading and Drawing Desk. What at first glance might seem to be a rather simple form, its hidden complexity is revealed with a set of front legs that pull forward revealing a writing surface, and a tilting top arrangement that is both clever and practical.

As with most of the work that they are reproducing, the originals are on stage for us to look at and examine (with appropriate care) and the demonstrators have fully examined the originals to understand how they were designed and produced. Faint layout marks on the originals tell a story about the methods of construction and many a secret can be revealed with their careful examination. During the workshops, the presenters tackle some of the more interesting or complex joinery details and their experience makes the complicated look painfully simple. One thing that becomes very clear each year is that we do not need thousands of dollars in the latest tools to produce some beautiful pieces of furniture.

A familiar face to those who visit Colonial Williamsburg is Kaare Loftheim. Kaare is a journeyman cabinetmaker at the Anthony Hay Shop in Colonial Williamsburg. Kaare's demonstration is focused on Jefferson's pedestal writing desk. Once again, this is a fairly simple looking piece with a lot more going on than you might think. Kaare's demonstrations include the carving of the foot, the layout and construction of the single drawer, and the turning of the pedestal, accomplished on the great wheel lathe. Kaare also demonstrated a rather useful fixture for holding the leg while shaping the leg and foot. This is basically a piece of stock with a dovetail slot in it to receive the leg (much as the column is



Brian Weldy describes lift mechanism on period desk

dovetailed). It has a saw kerf in it to allow you to slide the leg into the dovetail and then using a clamp, secure it in place. This stock can then be firmly clamped in your vice and positioned at a suitable angle for working.

The architecture of Monticello as well as the joinery at Monticello is also explored, with a fascinating and insightful talk by Monticello's conservator of architecture and furniture, Robert Self. Demonstrations include the construction of a beautiful fireplace mantle in Jefferson's

bedchamber by Ted Boscana and Garland Wood, carpenters at Colonial Williamsburg. All of the construction details of this complex mantle are explored with cut-away sections showing the construction details. Ted and Garland demonstrated the production of the various mouldings as well as the method to produce the acorn ornamentation on the mantle. You can see one of the planes used in the fabrication of the moldings for the fireplace mantle. At the front of the plane, you will see a handle on either side.



Kaare Loftheim (l) and Brian Weldy (r) working on Jefferson's stand-up desk



Ted Boscana "riding" the moulding plane



Plane used on Jefferson's fireplace mantle

A long rope is fastened around these two handles and with the assistance of several men, the joiner literally "rides" the plane along the length of stock as both he and the plane are pulled. In order to maintain proper contact with the work, the joiner is placing his full weight on the plane and his feet are in the air as the apprentices pull with all their might. A solid work surface the length of the intended stock is necessary for this operation and might be as simple as several posts sunk into the ground with a flat and level work surface attached to these posts. Ted Boscana, who is pictured "riding" the plane, showed a video of them making moldings for one of the historic buildings at Colonial Williamsburg, and the setup of such a bench outside and in front of the joinery. It is quite a sight to see a large man riding a molding plane!

Another architectural detail explored was the construction of the baseboard utilized in the Dome Room in Monticello. To be able to see how this massive baseboard was produced, and then a few days later to observe it in place in the Dome Room was a real treat. The same is also true for the parquet floor which covers the parlor floor. We were able to see first-hand how this parquet floor was constructed (it is not as simple as you might think) and then see the original in Jefferson's home.

An opening lecture by Susan Stein who is Senior Curator at Monticello and perhaps the leading expert on Monticello let us know that we were in for a full, informative and historically accurate conference. Mack Headley, Master of

The Anthony Hay cabinet Shop, and Jane Rees, a noted author and historian, had a fascinating presentation and demonstration on the making and use of "compo" or Composition Ornament. During the presentation, Jane actually produced a batch of compo which she and Mack then proceeded to press with reverse carved molds, yielding elaborate ornamentation which was used extensively in Monticello and other houses of the period. It is difficult enough to think about such complex carving in normal relief, let alone having to produce it in "reverse-relief" as Mack Headley demonstrated.

Another decorative accessory often associated with Jefferson is his "revolving bookstand." This was once demonstrated on television by Roy Underhill on *The Woodwrights Shop*, so who better to demonstrate it in person than the "dean" of hand tool users, Roy Underhill. With his usual mix of humor and history, Roy entertained the audience with not just the construction details of the revolving bookcase, but also a hinged folding bookstand constructed from a single board, with an integral wooden hinge.

Top off several days of woodworking demonstrations, history and exhibits with a dinner or two with woodworking friends, and you can see why I attend the conference year after year. While on the topic of the dinner I should mention that the editors from *Fine Woodworking* magazine (who help sponsor the conference) spoke during the dinner session on the state of woodworking publications. Our Guild's publications were cited as one of the

leading woodworking publications as they discussed trends in woodworking media.

For those of you interested in attending, I encourage you to visit Colonial Williamsburg's website (www.colonialwilliamsburg.com) beginning in the fall. The session is known to sell out fairly quickly, especially the session held in conjunction with SAPFM's annual meeting and banquet. ■

Colonial Williamsburg graciously allows photography during the conference but does not generally allow reproduction of those images. The pictures in this article were taken by the author and are used with the express permission of Colonial Williamsburg, and I thank them for that. **Roger Myers**



Kari Loftheim (l) and Mack Headley (r) examine an original table from Jefferson's Monticello

Sanding Finishes



The smoother a finished wood surface is the more concentrated the light it reflects to our eyes. The greater the light concentrations coming off the wood surface, the more details we can see. We can see details like a unique figure in the grain, an unusual color in the wood and perhaps additional elements like fine inlaid veneers and marquetry. Our eyes are attracted to objects that give off a lot of reflected light. A good finish can help make a piece of furniture the center of attention.

Wood being porous and textured can only be sanded so far with finer and finer grits of sandpaper until a point of diminishing returns is eventually reached. It reflects very little if any at this point. The light is bouncing off the wood fibers and going in many different directions. By applying finishes to wood, we begin to exercise some control over where the reflected light goes.

All newly applied finishes need to be sanded to a certain degree of smoothness. Sanding is necessary to level raised wood fibers and brush marks and reduce or eliminate contaminants like dust, grit and brush hairs that may find their way into a wet finish. Sanding also promotes better adhesion between coats. This article shares the various methods, tools and techniques I use to achieve smooth, finished surfaces.

Tools

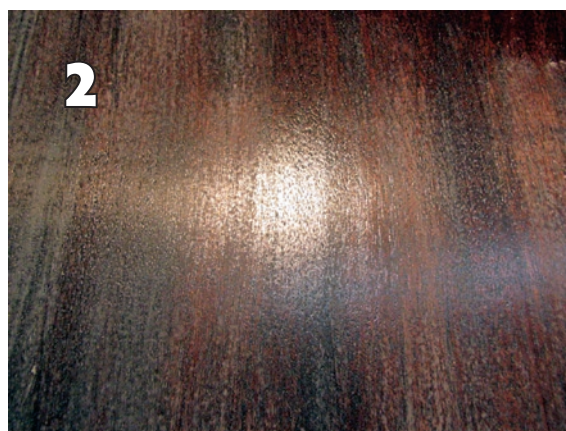
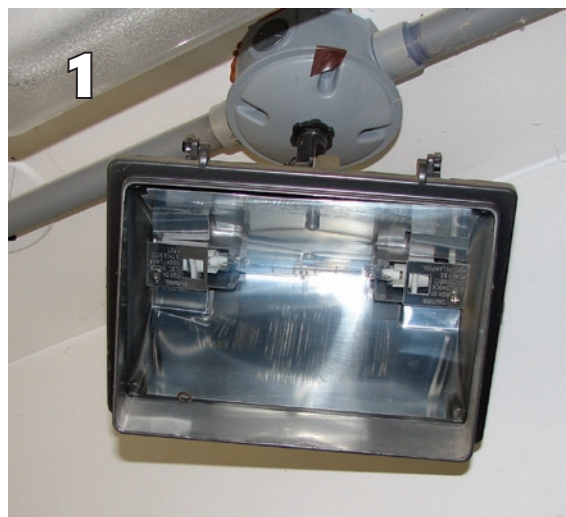
Figure 1—A good light source with is a must. It is an important tool. I use several sealed halogen flood lamps big enough to handle a 500 watt bulb mounted on the walls of my finishing room wall.

Figure 2—Without a good light source, you can't see the scratch patterns on the surface or see the places you may have missed. A strong light source will quickly show you whether or not you have sanded too much, cutting through the finish and possibility the color. You will see changes in the surface sheen or even see color on the sandpaper. When creating a full finish—one with a glass-like reflection—on an open grained wood, light will help you see the decreasing size of the concave shiny spots in the pores as you grind down the finish and fill up the pores.

Notice the larger and more numerous shiny pores on the right. This area of finish needs more sanding.

Figure 3—Another useful tool is called a story board. The story board is a piece wood of the same species and grain figure as the one you used on your project.

It must be brought to the same level of surface preparation as your project before you apply a test finish. Practicing your finishing methods on the story board will confirm that the methods you are going to use will give the results you are looking for and it will save you time. This is also good insurance against



mistakes especially when some steps in finishing, like staining, are not reversible. Prepare several story boards so you don't have to start all over again if you are not happy with your first attempts.

Figure 4—The right sandpapers are essential when smoothing a finished surface. There are special types of sandpapers used for sanding finishes that have unique characteristics that make sanding easier and more efficient. There are dry sandpapers and water proof sandpapers. The usual dry paper grits start at 220 and go upward to 320, 400, 600 and 800.

The dry papers are on the left and waterproof is on the right. The dry papers are designed to resist clogging and last longer. Cleaning the paper of dust in most cases requires only wiping it on my apron. The most popular brand is 3M Gold Paper (216u 3M Production RH free-cut gold) but there are other brands to choose from. Stick with the same manufacturer for all your grits otherwise you may discover grit inconsistencies between brands.

The waterproof papers start with numbers like 1000, 1200, 1500, 2000, 2500 and 3200 grit (401Q 3M Imperial wet or dry). These must be used with a lubricant to reduce friction and prevent clogging.

Figure 5—Lubricants like soapy water, mineral spirits, and naphtha or paraffin oil can be used. I use water as it cuts faster and is easier to clean up. *The lubricating liquid is made by mixing two tablespoons or more of dish washing liquid to a quart of water* and can be conveniently applied with a spray bottle. A window wiper's rubber squeegee can be used to quickly clear the slurry and check on your progress when working on flat surfaces.

Other materials can be used to abrade surfaces between coats as well as create various sheens in the final coat. I use 3M nylon scuffies (usually the gray pads), steel wool (numbers 00, 000 and 0000) as well as 4F pumice and rottenstone. Paper of the type used for grocery shopping bags can be used to remove over spray but only after the finish has cured to its maximum hardness. In some circumstances steel wool and 3M gray pads are used to scratch shiny surface areas that can't be reached with sandpaper to smooth and promote good adhesion between coats.

Figure 6—With sandpapers you will need a good sanding block. I use rubber ones so they can be used with water.

This style fits well in my hand. It has the added bonus of enabling the sandpaper to be mounted on the curved surface which makes sanding with very fine grits of waterproof sandpapers and lubricants easier. Avoid the newest 3M rubber sanding blocks because they now have an embossed logo proud on the curved surface.

The best of these rubber sanding blocks have a slot with nails that pierce the paper and hold it in place. A standard 9"x11" sandpaper sheet can be cut into four equal 2¾" strips by folding it in half and then half again. Cut the paper by slitting along the creases with a long bladed knife.

Figure 7—Wooden blocks with a piece of rubber or cork can be used as well but you will have to hold the paper on the block as well as hold the block. Wooden blocks can be shaped to



sand specific contours like this one for the bevel on raised panel doors.

Figure 8—There are several additional types of handy sandpaper holders to have. I have a set of three cast aluminum shapes that can be purchased wherever automotive painting supplies are sold.

Figure 9 & 10—These holders are light weight, compact and make it easy to hold the sandpaper in place. Their unique shapes help to deal with certain blemishes that may occur during the application of finishes like a sag on a vertical—Figure 9.

The block in Figure 10 with the convex base is very useful because of the relatively small contact area. Care is needed when you flatten this type of blemish. You need a tool that will help you concentrate the abrading just at the high spot and not the surrounding finish. If your sandpaper holder rocks over the bump like a see-saw, you will sand through the thinner surrounding area before the bump is flattened.

Figure 11—A razor blade is also helpful in these types of situations. Use a new blade and carefully scrap the high spot as if you were using a card scraper. I scrape from several different directions.

When using a razor blade, it is very important that the finish be given at least overnight drying for lacquer and shellac and even longer times are required for varnishes and water base finishes. The finish is often twice or three times as thick where the sag is. If not allowed to dry sufficiently, the scrapping may pull off the finish rather than smooth it, so take your time.

Figure 12—Sandpaper can be held in your fingers in numerous ways. This is especially important if you are working on a surface that is uneven. Carvings, turnings or moldings are abraded with sandpaper, nylon scuffies or steel wool.

Moldings present a challenge because it is easy to cut through the edges. Here I will fold the paper to fit the shape and lightly drag the paper over the surface in one direction.

Figure 13—I sand around turnings first against the grain and then with the grain.

Figure 14—When hand holding sandpaper, I generally fold it two times on to its self like the thin strips in Figure 4. Place three fingers on top, and thumb and pinkie on the bottom. Sand only with the folded edges of the paper. A sharp edge on the sandpaper can cause a scratch deeper than the grit you are using.

Figure 15—I wear white cotton inspection gloves when I sand. Most safety equipment suppliers carry them. I need to wipe the dust off frequently to inspect my sanding progress. The gloves free my hands from having to hold a rag. They reduce abrasion to my skin and prevent the possibility of contaminating the surface. Blow the dust off the gloves with compressed air in front of an exhaust fan. Good quality gloves can be washed many times.



Figure 16—Besides tools used for hand sanding there are electric and pneumatic sanders. Straight line sanders, both single pad and dual pad pictured on the left, are designed specifically for finish sanding. They are the best choice. The sanding scratches remain parallel. Vibrating and random orbital are faster but require more care to prevent sanding through. These sanders need final top coats thick enough to fill in the irregular squiggle marks that they leave in the finish.

I prefer to sand using hand tools because powered sanders can cut through a surface quickly. Powered sanders are also heavy and bulky and have the potential to slip out of your hands. However, production work lends itself to using these machines. One key in their use is not to put too much pressure on the machine. Let it glide over the surface under its own weight. Too much pressure will create heat, clog the paper and vary the uniformity of the scratch pattern.

When do you know it is time to change the sandpaper? The answer is when it stops cutting at a rate that is considerably slower than when you started. The length of time the paper lasts depends on a number of variables—the quality of the paper, the kind of material you are sanding and how much the finish has cured.

Soft finishes clog sandpaper quickly. After you have been sanding a particular finish for a while, you will soon notice when the paper is no longer cutting like it should. Sandpaper is always cheaper than your time so when in doubt, change the paper.

Wear a dust mask when sanding. If you are sanding with a machine, it is prudent to use one that has an attachment for collecting dust with a vacuum cleaner.

SHELLAC

Acquired basic skills become the foundation for more complex and rewarding finishes. So let us begin with a simple shellac finish of two coats.

Start by thinning a two pound cut shellac with one part shellac to two parts alcohol. After it is applied it will dry in approximately 20 to 30 minutes. The loose wood fibers will now be raised and frozen in place. To smooth the roughness, take a piece of 320 grit sandpaper, fold it in your hand twice and lightly sand the thin shellac coat. Sand the surface slightly askew of the grain direction so the protruding fibers are cut off and not just pushed down. Check your progress with enough light so you can see your scratch pattern. If you have exposed raw wood, you need to recoat those spots and repeat the process. Dust off your work; use your bare hand to double check for roughness or grit.

If you are satisfied, apply your final coat. You can leave your final coat as is or abrade the surface with nylon scuffies or steel wool to reduce the sheen. You can apply additional coats of shellac if you want more light reflection. It will take longer for the solvents to evaporate and the finish to harden when more coats are applied, so allow more time between sandings. Use your story board to check for dryness of the finish. When the shellac sands to a powder, it is dry. This is true of all finishing materials.



LACQUER

The most common type of finish for furniture is nitro-cellulose lacquer. This material is very much like shellac but more durable. It is sprayed on with a spray gun or from aerosol cans. Lacquer is only about 25% solids. The rest of the liquids are solvents that evaporate quickly. You can use a vinyl sealer as a first coat but I simply use a thinned coat of lacquer for this. Sand the surface smooth and dust off.

Apply two or three more coats allowing several hours between them. You can apply one coat first thing in the morning, another after lunch and one just before leaving the shop for the day. This schedule is ideal in warm temperatures. If it is cool, apply only two coats. Before every coat I will rub the surface with my bare hands to insure there aren't any gross contaminants in the finish. *I don't use tack rags.* Treat the problem areas by either sanding the surface lightly or use a razor blade to slice any nebs flat.

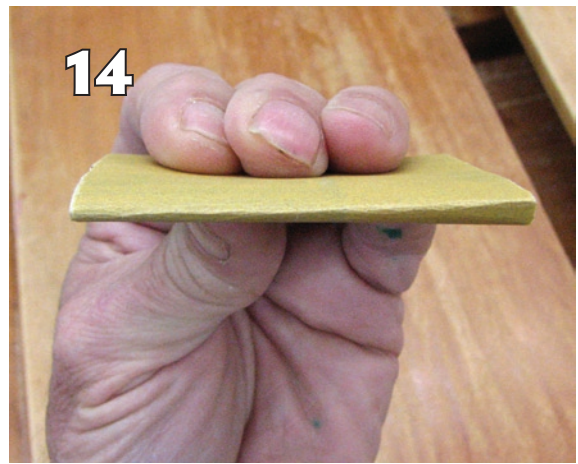
Figure 17—On the next day I will test the surface with a moderate sanding. If the paper readily clogs, the finish is still too soft. I will wait until the afternoon or the following day before sanding further. Figure 17 shows sanding nebs on the finish and the sand paper. They form when sanding dust clots together.

Figure 18—Your initial sanding using a block will show just how rough the surface really is. The thicker your finish film is the more you can continue sanding with the block. However if you haven't applied many coats as yet, the low shiny areas will have to be sanded lightly with hand held sandpaper.

Figure 19—The edges of any finished surface are the most vulnerable. I sand around the edges of flat surfaces first using my finger as a fence to keep the paper from going over the edge. I don't worry about sanding across the grain. These scratches will be filled with subsequent coats of finish. I also always sand toward an edge from the finished side being careful not to roll the sandpaper over the edge.

Three coats of lacquer may be all that is needed for a good finish with close grained woods. When working on an open grained wood like mahogany, many more coats and sanding will be necessary. When using nitro-cellulose lacquer, I sand after every third coat. I sand as aggressively as I dare without cutting through the finish. This sanding is done with the rubber sanding block and hand held sandpaper depending upon how many coats I have laid down. I rely on the reflected light to see the progress of the sanding. I do small areas and frequently wipe the dust off with my gloves checking the surface to verify that I haven't sanded through the finish or the color work. Then I move on to the next area. The sandpaper in my fingers usually extends about half inch beyond my finger tips. I focus stopping my finger tips that distance from the edge. I can go closer but only by first changing my pace, slowing down and taking more care.

Gradually the pores of an open grained wood will fill up with repeated re-coating and grinding down the surrounding finish. *When you achieve a uniform dullness without shiny spots, it is time for the second-to-last coat.*



After this coat the finish has to cure for about a week depending on the temperature of the shop. There may be shrink back as the solvents continue to evaporate. If the texture of the pores reappears, one last sanding and re-coat is necessary.

VARNISH & WATER-BASED FINISHES

Varnishes and water-based finishes follow the same finishing schedule and use the same tools and techniques as shellac and lacquer. These finishes do contain more solids—approximately 50% for varnish and 35% for water-based. The coat thickness builds more quickly giving them an advantage. They are also tougher when it comes to daily use.

Water-based finishes dry fairly rapidly as long as the environment is not overly moist or cold. A good practice to follow with water-based finishes is to warm them in a pail of hot water before use.

Varnishes take longer to cure, particularly spar varnish which remains flexible so it can stand up to the rigors of being used outdoors. When they do dry sufficiently for sanding, you can be more aggressive with your sanding and use courser grits of sandpaper because of the thicker finish film.

Every woodworking project deserves a good finish. Don't be discouraged by mistakes. Feel free to ask me questions about finishing when you see me at our various gatherings. ■



WHAT A SUCCESS STORY CONTINUED

The Guild has given me education, friendship, and a place to focus on what I love to do, woodworking. I am fascinated by all sorts of woodworking from high end furniture to basic utilitarian implements. The Guild provides the theater for me to explore this vast and diverse world of woodworking. I am always learning something new.

As for friendship, put out a call to move your shop and see how many members will help, it will be touching. **Bob LaCivita**

My first guild meeting was in the basement shop of Mike Fonner in Manchester in 1991 soon after I moved to NH from the west coast. I saw an ad for the meeting in the Union Leader. Wow, that was different! It was a nice group of people, but it didn't seem too well organized. We were all ducking under low hanging plumbing trying to get a view of his lathe.

I believe the next meeting I attended was at Jere Osgood's shop and then I was hooked. Seeing Jere's work and watching him share all his techniques was a real eye opener. I also opened my mouth and inquired about buying books at a discount. Peter Bloch came over after the meeting and encouraged me to take on the job of making a group purchase.

His friendly advice and the general warmth of the group really made me feel like a member. I took on the book order not knowing that it would eventually lead to being President. Funny how small things grow! But in retrospect it makes perfect sense as the nature of the guild has always been open and encouraging.

Over and again I have been encouraged both in my woodworking and in my responsibilities in the guild by folks like Peter Bloch, Jack Grube, Roy Noyes and countless others. Some meetings over these 19 years stand out, others have faded, but I go to meetings now knowing I will greet friends and still be encouraged.

Clearly other members feel the same way. They come to be encouraged in a group of friends. I hope the guild will continue to thrive for another 20 years and at our 40th anniversary I can look around the room and see good friends who share my love of woodworking. When I joined I imagine there were less than 50 members and now there are 10 times that, so the guild has prospered. I hope new members will jump in and help as their talents allow so that the guild will continue as a great organization! **Peter Breu** ■

Bob Oswald is President and newsletter editor of the Guild of Oregon Woodworkers. He teaches woodworking at the Rockler store in Beaverton and at Portland Community College



BY BOB OSWALD

Faired Curves Made Easy

How often do you need to create a fair curve, for example, the arch on the underside of a table apron? Probably not too often. When you do have the need, you grab a thin strip of stable wood, bend it to fit and look around for one more hand to draw a pencil line? There's *never* an extra hand around when I need it. On a recent project, I wrestled with a string and a strip of wood with slits in the end. It drove me crazy getting it to the right shape and getting the string tied off.

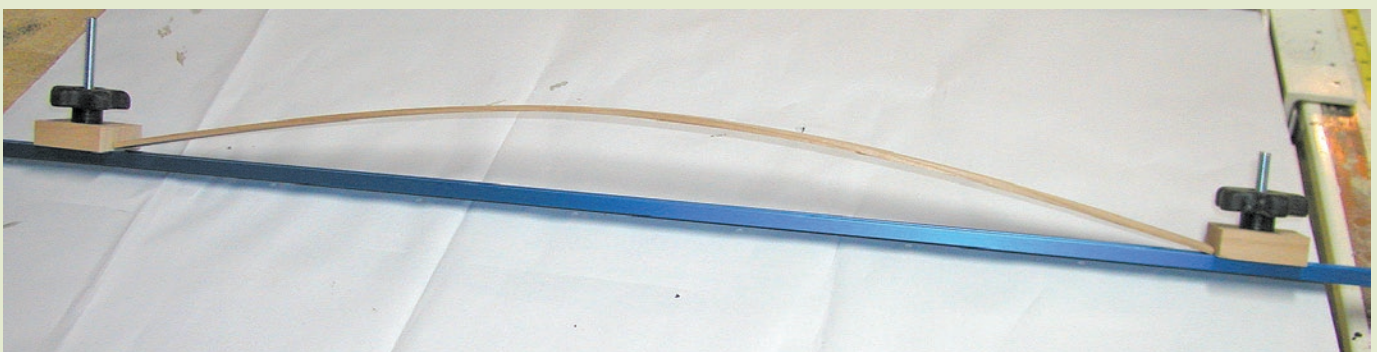
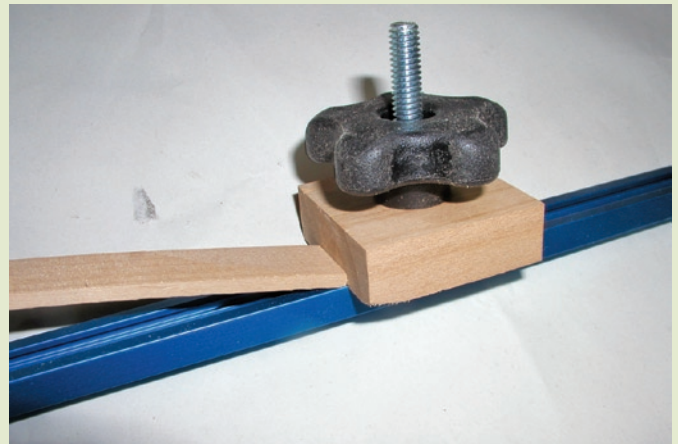
A recent magazine article inspired me to use some of the jig hardware in my shop—a piece of T-track and a couple of sliding blocks locked in place with a T-bolt. It lacks the ability to micro-tune but for the number of times you use it, the following method will likely serve you well.

Rip a 1/8" strip of stable clear 3/4" stock and 30" long. Birch and cherry are a good choices. For shorter arcs, you may need a thinner strip.

Place this between the blocks. Lock one block in place and slide the other one up lifting the strip to start the arc. It is really quite easy to tune the arch, pushing the loosened block inward or outward with a thumb while gripping the rail with that hand.

When adjusting the arc, if you observe how much you moved the block and how much the bend changed, like

an artillery officer, you can probably bracket the need in a couple of adjustments. Then one hand holds the jig and the other grabs the pencil. When you are finished, you can return the track and parts to some other use. It's easy to rebuild it when you need it. ■



Members Gallery



Bruce Wedlock North Reading, MA

Bow Front Federal Table—Primary wood is cherry, inlay is cocobolo and the stringing is holly. The top is marble. The finish is Hydrocote water-based pre-catalyzed lacquer. When I put on a coat of 1 lb. super-blond shellac on a rear leg, the cocobolo bled all over the holly! That's when I decided to try the water-based finish. The holly is pure white, which is what I wanted. It went on easily.



Kevin Ainsworth Manchester, NH

Queen Anne Cherry Display Cabinet—28" h x 17" w x 10-1/4" d. The case was made from one board so the grain is continuous. The top and bottom are joined to the sides with half lapped dovetails. It has Ogee bracket feet which are also half lapped dovetails on the back. The back of the cabinet is shipped lapped but with a beaded edge on the inside. The overlay door is mortised and tenoned. The door was assembled with offset shoulders to accommodate the traditional glass barred door. The cabinet is finished with super blond shellac and wax.



PHOTO BY LANCE PATTERSON



Geoffery Ames Strafford, NH

Newport Block Front Chest—Wide board mahogany finished with orange shellac and wax. Sixteen weeks to build. The carved front feet were the major challenge.

The procedure followed this sequence:

- Carcase construction with beading and drawer dados dovetailed and mitered sockets.
- Blocked drawer divider blades—beaded with mitered dovetailed tenons.
- Four block front drawers, top drawer with two convex carved shells and center concave shell.
- Compound carved ogee feet with volutes and ogee molded base.
- One board top—no glue ups throughout.