

# POPULAR Woodworking MAGAZINE

JUNE 2026 | #289

## FINGER JOINT TRINKET BOX

Doug Stowe's Unique Design  
Gives This Box Personality

## MAHOGANY ENTRY TABLE

Frame and Panel Construction  
Makes This Versatile Table A  
Quick Project To Build

## COLORING & TEXTURING

A Splash of Color and a Bit of  
Texture Can Help Make Your  
Project Stand Out on the Shelf

# Colonial Williamsburg

STEP INTO THE LIFE OF AN 18TH CENTURY JOINER

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60899 // ONLY \$1895



### 14" ¾ HP Bandsaw

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- 6¼" Resaw capacity
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### 1 HP Shaper

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60510Z // ONLY \$750



### ¼ HP Benchtop Oscillating Sander

Compact sanding for perfect curves

- 6 Sanding sleeves from ½" to 3"
- 5 Sanding drums from ¾" to 3"
- 5 Table inserts
- Built-in storage for sleeves, drums, & inserts
- 18" Cast-iron table
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- Shipping weight: ≈ 56 lbs.



60723 // ONLY \$345



### 13" 2 HP Benchtop Planer

Dimension lumber with precision

- Spiral-type cutterhead with 26 indexable carbide inserts
- Stainless steel table
- Stock thickness scale
- Stepped depth-of-cut gauge
- Enclosed tool storage
- Footprint: 22" x 13½"
- Shipping weight: ≈ 88 lbs.



W1877 // ONLY \$679



### 13¼" Oscillating Floor Drill Press

The drill press that doubles as a sander

- ¾"-5/8" JT33 keyed drill chuck
- 250-3050 RPM 12-speed spindle
- ¾" Oscillating stroke length
- 1", 1½" and 2" Sanding drums
- 2½" Table dust port
- Footprint: 11" x 17½"
- Shipping weight: ≈ 138 lbs.



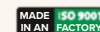
W1848 // ONLY \$320



### 1½ HP Dust Collector

Powerful suction for a cleaner shop

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- 1280 CFM air suction capacity
- 40-Gallon collection capacity
- 12" Steel impeller
- Steel base with casters for mobility
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W1685 // ONLY \$569



# NEW 18" // VARIABLE-SPEED SCROLL SAW

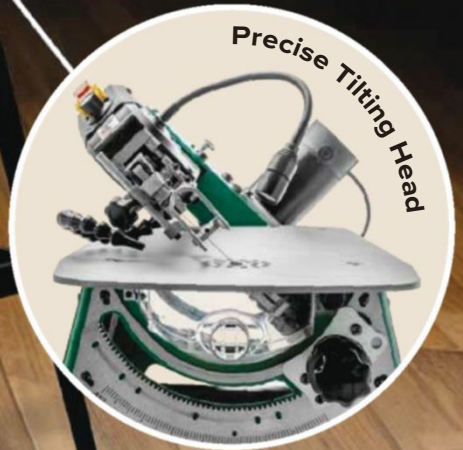


Flexible  
Air Nozzle &  
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22½" x 12"  
Table Supports  
Large Projects



Tool-Free  
Blade Holder



Precise Tilting  
Head

Convenient  
Solid Steel  
Stand



See the Grizzly  
scroll saw in action!

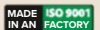
## THE SAW TILTS, NOT THE TABLE

The tilting head design keeps workpieces level, eliminating the frustration of sliding materials or losing accuracy on a tilted table. Featuring an 18" throat, variable-speed control, and tool-free blade changes, this saw provides effortless precision. A vibration-reducing stand, integrated air nozzle, and LED light ensure a stable, visible cut line.

### Specifications:

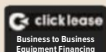
- Required power: 120V, single-phase, 1.3A
- Maximum cutting height: 2"
- Blade speed: Variable, 550–1550 SPM
- Table size: 22½" x 12"
- Saw tilt: 30° Left / 45° Right
- Dust port size: 1½"
- Footprint: 26½" x 23½"
- Dimensions: 23½" W x 30" D x 47" H
- Approximate shipping weight: 76 lbs.

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Store all your found oddities and objects, and sharpen your woodworking skills with this oak and walnut box.

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In this second installment of this project, we'll finish the spice chest with hand-shaped moldings, a door, and drawers to match.

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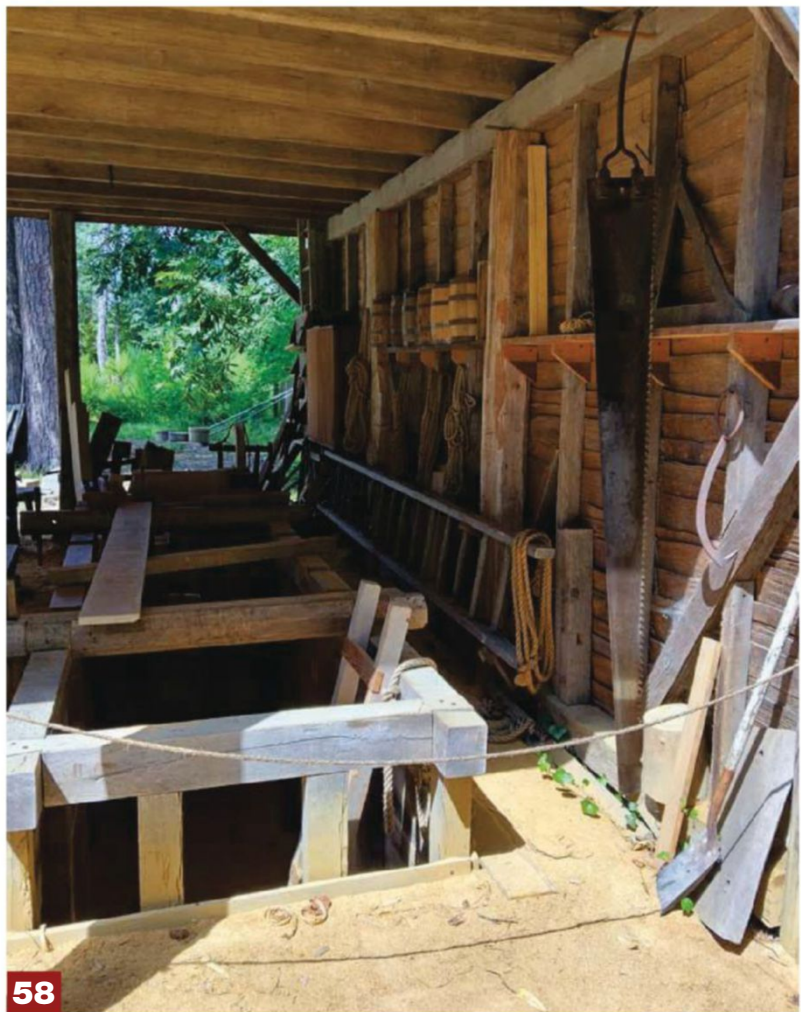
Incorporating texture and color into your project is an effective way to bring energy and visual interest to an otherwise plain surface.

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### 58 Living History

At Colonial Williamsburg the past is brought vividly to life. Visiting the joiner's and cabinetmaker's shops provides a firsthand look at 18th-century craftsmanship and offers insight into the daily work that shaped colonial life.

BY YOAV LIBERMAN



FROM THE EDITOR

## Eat An Elephant One Bite at a Time

By Logan Wittmer

Over the last few months, I've been digging through back issues of Popular Woodworking Magazine. As some of you may have noticed, we're making a few subtle changes to the look of the magazine — a bit of a throw-back to the old-school charm that gave this title so much of its character. (You may have already spotted the return of our “old” logo on the cover.)

While flipping through those older issues, I came across something I had forgotten about: a “bucket list” of projects I shared with all of you a few years back. Looking it over, I realized that I had actually checked a few of those projects off the list.

That got me reflecting on the last several years. The shop where we shoot our in-house Popular Woodworking content is slowly taking shape. Only now am I starting to see it becoming what I originally envisioned. It's been a bit slower than I had hoped, but I've learned to cut myself some slack along the way. Building a shop from the ground up is no small undertaking.

One of my favorite quotes asks the question: “How do you eat an elephant?” The answer: one bite at a time. That idea applies to a lot of things in the shop — and, at the risk of sounding a little philosophical, in life as well. Start by identifying the end goal. Break it down into the simplest possible steps. Then start chewing away at it, piece by piece. Before long, you'll glance in the rearview mirror and realize you've arrived.

Cheers!




### ABOUT THE AUTHORS



#### ELIZABETH WEBER: *Carving & Coloring* – pg. 16

Elizabeth is a woodturning and spoon carving instructor who lives in Seattle, WA. She began woodworking in 2015, starting with several pieces of furniture in the Arts & Crafts style. She turned to smaller objects and now specializes in bowls, spoons, and boxes. Her skills range from natural finish and simple forms to highly carved and painted forms that emulate natural motifs. Elizabeth serves as club president for the Seattle Woodturners, and she helps run the local spoon club chapter, the Seattle Spoon Club. She was awarded the American Association of Woodturner's 2023 Professional Outreach Program's Artist Showcase.



#### DOUG STOWE: *Trinket Box* – pg. 28

Doug Stowe started his career in woodworking in 1976. Since then, he's published over a dozen books, and teaches across the United States, including the Marc Adams School of Woodworking. Doug has often been referred to as the Master of Boxes, but his work expands far beyond these little beauties he makes. Doug resides in Eureka Springs, Arkansas with his wife Jean and golden-doodle Rosie.



#### BRIAN DEJONG: *Harlem Spice Chest* – pg. 38

Based in Harlem, Georgia, Brian DeJong has spent a lifetime shaping ideas into form through wood. His passion began in early childhood while growing up in Kenya, Africa, and has since evolved into a full-fledged custom furniture business (DeJong Wood Creations). When he's not in the workshop, Brian shares his craft by demonstrating 18th-century woodworking techniques at a historic village near his hometown.



#### YOAV LIBERMAN: *Colonial Williamsburg* – pg. 58

Yoav S. Liberman is a studio furniture artist, architect, and educator. Yoav's training in the art of woodworking and design began shortly after he received an architecture degree from the Israel Institute of Technology, when he was invited to two distinguished residency programs, first at the Worcester Center for Crafts in Massachusetts and then as a Windgate Foundation Fellow at Purchase College in New York. While in Boston, he was a mentee of Mitch Ryerson and John Everdell. Between 2003 and 2011, Yoav headed the woodworking program at Harvard University's Eliot House.

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**For over a century**, Powermatic has set the gold standard in woodworking machinery. Since 1921, the name Powermatic has represented precision, durability and pride in craftsmanship. In workshops and at industry gatherings across the country, woodworkers speak to what it means to own a Powermatic machine—pride that’s earned, not given. Today, the company is building on that legacy with a renewed focus on deepening its connection to the woodworking community and redefining what ownership truly means.

At the center of this evolution is the initiative known as “The Powermatic Difference.” Years in the making, this strategy reflects a realignment with the company’s roots: producing premium machines while delivering an exceptional user experience. Rather than chasing short-term change, Powermatic is taking a holistic approach—supporting woodworkers before, during, and long after a machine enters the shop. This goes from large commercial shops with dozens of tools, to small shops at home.

**Behind the scenes**, product innovation remains core to the brand. Powermatic is rolling out updated machines, starting with lathes and planers. Larger digital readouts, improved dust collection, and durability-focused design updates reflect a continued commitment to thoughtful engineering. At the same time, Powermatic is refining its most trusted machines to ensure the tools woodworkers rely on continue to perform at the highest level.

An expanded commitment to service and support is equally important as the machine itself. Powermatic has streamlined their five-year warranty across the board with coverage to protect you, your investment and day-to-day operations. This includes an option to extend protection out to 10 full years and provide preventative maintenance plans further supporting long-term ownership.

**With this commitment**, Powermatic is redefining the customer journey. An updated website will offer a more seamless experience. This new website will include features such as extensive educational content, mentor profiles, and a customer service chat agent powered by AI that will allow order tracking, case creation, returns, and product assistance help. For the first time, customers will be able to purchase new machines directly from Powermatic.com, in addition to your local dealers.

Beyond products and policies, Powermatic is deepening its connection to the woodworking community. Collaborations with respected makers, educators, and craftsmen, like you, highlight the real-life impact of quality tools. From professionals to hobbyists, these voices underscore woodworking as more than a trade—it’s a craft, a passion, and often a source of purpose.

This renewed direction isn’t a single campaign. It represents an ongoing commitment to innovation, partnership, and user-focused design—reinforcing what has always set Powermatic apart: machines built with intention, supported with integrity, and trusted by generations proud to bring gold into their shops.



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## NEW TOOLS

### Grizzly Extreme Series Saw Blades

Grizzly recently released a new generation of their *Extreme Series* saw blades. The new design is an upgrade on the old one in many ways, while maintaining the same high level of performance as before.

The first notable change is that the new blades are made from Extreme Series™ BearTooth C9 carbide. According to Grizzly, that means 6X the durability of standard blades, and it can be sharpened up to 3 times. The carbide is engineered to reduce the possibility of chipping, and the teeth are CNC heat brazed to the blade.

Another key upgrade is the inclusion of laser cut stabilization vents in the body of the blade itself, in addition to the previously existing ones on the outside. The vents are designed to reduce noise and vibration. On the new Extreme Series blades, these vents are filled with resin; this ensures that they won't fill with pitch and cause the blade to become unbalanced. Filling the vents allows them to be moved closer to the outside of the blade, which in



■ **EXTREME SERIES BLADES**  
Grizzly Industrial  
Grizzly.com  
Price: \$59.95+

theory should be more effective than vents located near the arbor. All of my existing table saw blades have similar features, so I was unable to get a feel for how much of an impact it really has.

The best part is that the price of the new blades is the same or lower than the previous generation, all part of Grizzly's goal to lower prices for customers in 2026.— *Collin Knoff*



■ **POLYCARBONATE MALLET**  
Blue Spruce Toolworks  
BlueSpruceToolworks.com  
Price: \$139.99+

### Blue Spruce Polycarbonate Mallets

As a woodworker with an affinity for traditional hand tools, I was admittedly skeptical when I first saw the polycarbonate mallets that *Blue Spruce Toolworks* was developing. But after getting my hands on a couple and putting them to work over the past few months, I understand the appeal.

The polycarbonate heads provide a noticeable amount of “bounce” during use. In my experience, that rebound offers real advantages—especially during repetitive tasks like chopping dovetails or carving panels. As you work, the mallet's rebound naturally resets it for the next blow. In other words, the force you put into the strike helps lift and position the mallet for the following one, which can make the process feel smoother and more efficient over time.

The polycarbonate mallets from Blue Spruce are available in several combinations. The heads come in either clear or black, while the handles are offered in Bolivian rosewood or cherry. The example shown here features a clear head paired with a cherry handle.— *Logan Wittmer*



1) Read and understand tool labels and manual. Ignoring follow warnings will result in DEATH or SERIOUS INJURY. 2) Operators and others in work area MUST wear safety glasses with side shields. 3) Keep fingers AWAY from trigger when not pulling trigger to avoid accidental discharge. 4) Know and understand what trigger system you are using. Check manual for triggering options. 5) NEVER point tool at yourself or others in work area. 6) NEVER use trigger if not locked gases. Explosion may occur.

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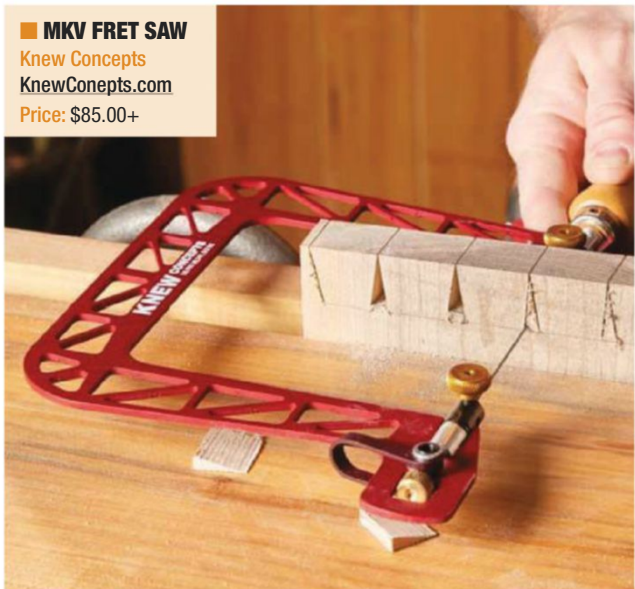


## NEW TOOLS

### Knew Concepts MKV Fret Saw

One of the very first “nice” tools I bought myself was a *Knew Concepts* fret saw. Over the years, *Knew Concepts* has continuously made design updates to their various saws to improve function and ease of use. *Knew Concepts* recently released their newest version of their beloved fret saw, the MKV.

The updated design of the MKV features a few updates that I think make this saw (even more) user friendly. The biggest is the blade clamp mechanism has been redesigned. The new clamp feature witness holes (so you can see the blade fully seated), and it also allows sawdust and debris to fall through the clamp block. The MKV also features the triangular gussets in the frame for an extra-rigid spine, allowing you to tension the blade to a high degree. The MKV is available in a few configurations, including a deluxe version with swivel blade holders, as well as the lever tensioning system. The saw is also available in two depths —3” and 5” (of which, the 5” is my favorite). — *Greg Kopp*



■ MKV FRET SAW  
Knew Concepts  
KnewConcepts.com  
Price: \$85.00+

### Cottrill Texturing Punches

I am a sucker for a well-made tool. I’m an even bigger sucker when that tool comes from a small maker who clearly cares about what they’re putting into the hands of other craftsmen. There’s something special about tools that aren’t churned out by the thousands, but are thoughtfully designed and produced by someone who actually uses them.

Recently, I ran into Matt Cottrill at *Cottrill Tool and Woodworks*. Matt told me about a new set of texturing punches he has started to produce. Over the years, I’ve used everything from shop-made punches to inexpensive commercial (leatherworking) versions, and while some of them got the job done, none of them ever felt quite right. There was always something lacking—fit, finish, balance, or consistency in the pattern.

These punches are in a completely different league. They are, without



■ TEXTURE PUNCH  
Cottrill Tool & Woodworks  
Cottrillworks.com  
Price: \$450.00 (Set)

question, the nicest set I’ve used. Matt’s large set includes 16 punches housed in a well-made tool roll. The patterns range from square to round to triangular, each one crisp, clean, and thoughtfully sized. The machining and finish are excellent, and they strike cleanly and consistently, which makes a real difference when you’re trying to create an even background texture. If you’re doing any form of carving and need to stipple a background—or if you simply want to add texture and visual interest to a workpiece—I don’t think you could find a better set available. They’re the kind of tools that make you look forward to the next project just so you can use them again. — *Logan Wittmer*

## ■ WORKSHOP TIPS

### Banding Mitered Edges

When you're finishing a plywood tabletop or cabinet door with mitered edging, cut four short pieces with a 45-degree angle on one end. The short pieces work great to help size and locate the edging. Tape and clamp the short pieces in place on two of the opposite faces, then glue on the first two edging strips. Remove the short blocks so they don't get glued on.



### Color Matching On Glass



Replacing missing color usually involves color matching, which most people find difficult. To make it easier, do the color matching on a small piece of glass or rigid, clear plastic placed on a part of the surface you're matching. Use an artist's brush to mix several colors until the blend matches the color underneath the glass or plastic. Brush the colorant onto the damage and protect it by applying a finish.

For the colorant, you can use concentrated oil, acrylic, universal or Japan colors, available from woodworking suppliers and paint and hobby stores. Or you can blend ready-made stains.

# STRONGER



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## NEW TOOLS

### VYPER SHOP CHAIRS

Over the past few years, I've noticed advertisements on social media for shop chairs made by a company called *Vyper Industrial*. All the reviews were consistently glowing. After one particularly rough weekend hunched over my workbench cutting dovetails, I finally decided it was time to invest in one for my shop.

If you're not familiar with these chairs, here's the short version: they're made in the USA from heavy-duty steel (everything except the padding), and they are rock-solid.

A few features make these perfect for a shop environment. For starters, the casters are large and roll easily over extension cords, offcuts, and the inevitable debris that collects on a shop floor. I also like that the chairs come in several heights. I opted for the Elevated Steel Max (the blue version shown here), which sits higher and works well for bench-height tasks. The black-base model, called the Robust, is their standard height option.

One thing you'll quickly notice about *Vyper* chairs is that customization is a big part of their appeal. There's a wide range of accessories available, including cup holders,



■ SHOP CHAIRS  
Vyper Industrial  
VyperIndustrial.com  
Price: \$475+

widened seats, and even special-edition color schemes. It's easy to tailor the chair to the way you work.

In the end, the chair was an investment in comfort—and after spending long hours in the shop, it's one I'd happily make again. — *Chris Harris*

### AXIOM 2x2 CNC

Back at *Woodworking in America 2025*, *Axiom Precision* was showing off their newest CNC machine: the *Axiom 2x2* CNC. Over the past six months, I've had one in my shop, and I've been consistently impressed—not just with the build quality of the machine, but also with how easy it was to get up and running.

The *Axiom 2x2* is legitimately a production-quality CNC in a footprint that will fit in almost any shop. One of the standout features is its steel frame, which makes this small machine incredibly rigid. It also comes standard with a 1 H.P. air-cooled spindle, something that is often an upgrade on many competing machines.

Above all, the machine is extremely precise. *Axiom* claims accuracy within  $\pm 0.006''$ . While I don't have a way to measure that level of precision directly, I can say that everything I've cut and carved on the machine has been spot-on.

To drive the *Axiom 2x2*, *Axiom* includes a copy of VCarve for setting up files and generating G-code, along with instructions for their controller software, UCCNC. For many new users, the most intimidating part of CNC work is setting up and programming the files. The good news is



■ 2X2 CNC  
Axiom Precision  
AxiomPrecision.com  
Price: \$3999.99

that it's not nearly as difficult as it might seem. The documentation included with the *Axiom* is excellent, and there are thousands of helpful *YouTube* videos that walk through the process—even if they're demonstrating a different machine. Overall, it's fit into my workflow, and I think you may end up seeing a bit more CNC content coming out of the *Popular Woodworking* shop. — *Logan Wittmer*

## WORKSHOP TIPS

### Perfect Angle Every Time

Chisels and planes have bevel angles from 25 to 35 degrees depending on their intended use. You can buy a jig for grinding these angles, or make your own angle blocks at no cost!

Make one block for each angle. Glue up a block 2-1/2 in. deep by 4-in. wide by 10-in. tall. Mark the desired angle on the top of one side. Drill a 1-in. hole through the side of the block at the halfway point of your angle mark. Then cut the angle on your tablesaw. The remaining groove makes an excellent guide for your fingers. Cut the block to length so the top is equal to the center height of your wheel. To secure the block, drill a 1-1/4-in. hole near the bottom of the block for a bar clamp.



### Shave-A-Shelf

I'm always trying to eke out more space in my shop, and I found some hidden under my tablesaw behind the bevel crank. There's just enough space back there to hang a blade rack. My saw is on a mobile base. So, I made the rack with an angled bottom shelf so the blades stay in their slots when I'm rolling the saw around.



# FASTER



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# Connect

## NEW TOOLS

### Harvey Big Eye B-70

Several years ago, I invested in a *Harvey* Big Eye fence for my table saw—and to this day, it remains the single best upgrade I've ever made to any tool in my shop. So when *Harvey* introduced the new A15 bandsaw equipped with the B-70 Big Eye fence, I immediately hoped they would offer the fence as a standalone accessory. I knew it would earn a spot in my shop the moment it became available.

What makes the Big Eye system—on both the table saw and bandsaw—so exceptional is its bearing-guided design. The fence rides on a set of precision bearings along the front rail, allowing for incredibly smooth operation. With just one finger, you can effortlessly glide the fence exactly where it needs to go. It's that refined.

Beyond the smooth movement, several thoughtful features set it apart. A built-in micro-adjust wheel lets you dial in your setting with absolute precision. The crystal-clear lenses make the scale easy to read at a glance, removing any guesswork. And the high/low



■ **BIG EYE B70**  
Harvey  
HarveyWoodworking.com  
Price: \$899.00

fence face adds even more versatility. With a couple of knobs on the back, you can rotate the fence 90 degrees—running it in the standard high position or flipping it down into a low profile mode that allows positioning closer to the blade and beneath the bearing guides.

The B-70 Big Eye rip fence is marketed as a universal fit. On my *Harvey* Alpha saw, installation was a direct bolt-on process. If you're running a different brand, you may need to drill a few mounting holes—but once it's in place, I'm confident you'll feel the same way I do. This isn't just another accessory. It's one of the best upgrades you can make to your shop.— *Logan Wittmer*



■ **BURTOK**  
Burtok  
Amazon.com  
Price: \$21.59

### **BURTOK Countersink Drillbit Set**

Sometimes it pays to take a gamble. Over the holiday season I had some time off work and was able to spend some quality hours in the shop. While building cabinets for my office, I realized I needed a good countersink that would allow me to predrill and countersink in one go.

A quick Amazon search turned up a brand called Burtok. The price was extremely low—about one-quarter the cost of most name-brand sets—so I decided to take a chance and see how it performed.

After using the set for several weeks, I have to say it's been a fantastic value for the money. The kit includes a stop collar (shown on the bench) along with several sizes of pilot bits and countersinks that slide into the hex shank. Only time will tell if it holds up as long as some of the more expensive options, but so far the early results are promising.— *Greg Kopp*

## WORKSHOP TIPS

### Blocks Center Clamp Pressure

Applying a clamp to a surface has a tendency to make parts want to shift. I found that I can avoid a lot of this by applying a clamping block between my workpiece and the clamp, as you see above. Without a block, uneven clamping pressure could easily draw this table leg joint out of square. As a result, assembling the remaining leg-and-apron joints becomes more difficult.



### Easy Resawing

I'm stuck with a wimpy 1/2-hp bandsaw that stalled whenever I tried to resaw anything tall. Then my neighbor turned me on to a technique that solved my problem. I precut a 1-1/2-in.-deep kerf in each edge of the board with my tablesaw and do the final cutting on my bandsaw. Now I can take advantage of the full 6-in. capacity of my bandsaw and it only has to do half the work. No more stalling out while trying to resaw workpieces. — *Chip Harding*

### No-Fuss Flush Trim

My flush-trimming setup allows trimming veneer and solid wood edging up to 7/8-in. thick. It consists of a router with a 1/2-in. straight bit, a table and a perpendicular fence. A 1-in.-thick spacer separates the fence and table. The router mounts to the fence so the bit is flush with the tabletop. I attach my shop vacuum's hose to a hole drilled through the cleat, under the bit. I size the edging so it overhangs by 1/16-in. or less. — *Richard Helgeson*



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## NEW TOOLS

### Men's Kenton Work Shoe by Keen Utility

When most of us think about shop tools, we usually picture power tools or hand tools. Those are the items that tend to get the spotlight in articles, shows, and YouTube videos. However, there are plenty of other things in the shop that can make—or break—the time you spend there. In my opinion, footwear is one of them.

If you've ever spent a few hours on your feet milling parts or working through a project, you quickly learn whether your shoes are up to the task. Comfort matters, and so does traction.

There are a lot of work shoes on the market, but for most of what we do in the shop, the requirements are pretty simple: something rugged, comfortable, and grippy. Most of us don't necessarily need steel toes, and heavy work boots can sometimes be overkill.

Recently, I picked up a pair of the new men's Kenton soft-toe work shoes from *Keen Utility*, and I've been really impressed with them. As you can see in the photo, the Kenton has a bit of a retro vibe. The upper is soft and flexible, and while this version doesn't have toe protection, Keen does offer several variations in the line that do.



■ **KENTON**  
Keen Footwear  
Keenfootwear.com  
Price: \$115.00+

One of the things I appreciate most about these shoes is the sole. They're genuinely anti-slip, and comfortable. Whether the floor is wet, oily, or covered in sawdust, they've provided solid traction every time. I can honestly say I haven't had them slip once.— *Chris Harris*

### ■ NEXUS™ 6 GAL VAC W/ PACKOUT & VACLINK D1900

Milwaukee  
MilwaukeeTool.com  
Price: \$349.00+



### Milwaukee Wet/Dry Vac

Milwaukee has given their Nexus line of modular vacuums a huge upgrade with the addition of *Packout compatibility*, *Vaclink* remote activation, and new accessories. Benefiting a modular system, these upgrades add expanded functionality while still working with previously existing components.

I think my favorite touch is the *Vaclink* remote activation. Unlike some systems, the remote is included in the base package. There's a handy spot to affix it near the end of the hose, meaning that you power the vacuum on and off from the working end. It's a feature you didn't know you wanted until you get a chance to use it.

The vacuum features a stout 3.5hp motor and has 44 minutes of runtime when paired with an *M18 REDLITHIUM FORGE HD12.0* battery pack. You can also purchase a dual battery version, new debris separator and filter cleaner attachments, and three different sizes of container. The AC-powered version is still available as well, but without the fancy new upgrades.— *Collin Knoff*

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■ Beyond The Surface

# Decorating Wood

Elevate and brighten your projects with the addition of texture and a splash of color.

By Elizabeth Weber



I have always been drawn to ways that challenge conventionally accepted norms. My journey into carving began with spoons in January 2018. Most of my initial pieces were very much what you would expect a wooden utensil to look like – brown, unadorned, and very pragmatic. Don't get me wrong — they were still functional and looked good. But, there was something missing.

During those first several years of carving, I was fortunate enough to take more than one spoon carving class so I could hone in on my technique. One of my first spoon carving instructors, Tom

Henschel, creates pieces that are out of the ordinary. I was immediately drawn to his ability to add textures and colors to his pieces, but I found the process too intimidating to do on my own.

Fast forward to the pandemic in 2020. I was carving spoons in my basement when I saw a video of a woodturner named Merryll Saylan. A lot of what she was saying about finishing and colors resonated with me, so I decided to look into her work. I found out she was one of the early pioneers of coloring wood in the 1980s, and just loved her combination of colors and textures on her wood turned pieces.

I immediately started to transfer those ideas to spoons and bowls, using a combination of hand tools and power tools. The fun thing about these carving techniques is that you can apply them to almost any wood surface. Imagine these colors and textures being used on something like the panel of a jewelry cabinet, or the lid of a box. The possibilities are endless if you're willing to take a risk and experiment. This article will focus on a few basic textures (with more advanced techniques in a later issue) applied to spoons, but experiment with texture and colors on your own projects!

PHOTOS BY LOGAN WITTMER

### Texture with Hand Tools

For smaller surfaces like a spoon, I like to use a set of palm gouges. *Flexcut* makes a great 9-piece starter set. Larger projects will require larger gouges, so plan accordingly. For this particular texture, I'm using a *Flexcut* #5 x 9/16" Gouge (FR401). The first number in the gouge number system indicates the sweep, i.e. the curvature of the gouge. The higher the number, the more curved the gouge is. The second number, the 9/16", indicates the width of the gouge.

Make sure that the piece is held securely. I'm using a pattern maker's vise for this because it works well for holding a lot of different shapes securely. Put your dominant hand on the handle of the carving gouge and use your non-dominant hand to guide the direction of the cut. Never put your hands in the line of the gouge, in case the gouge slips (thus your hand becomes the gouge's next carving project).

Begin by establishing where you want the texture to start. This is done by putting down a few facets. Try to follow the grain along your surface as this will give the cleanest cut. Continue the pattern down the surface, making sure that the facets are close to each other. The best way to accomplish this is by trying to find an area between two existing facets to start the next facet. The goal is to end up with no flat spots. I like my carving to be crisp like my bacon. Take your pattern all the way up the handle of the spoon. You can do this same process using different shapes and sizes of gouges on other woodworking projects.

**1** Identify where you want your pattern to start, and make a few light, experimental cuts to test how the surface carves.

**2-3** Continue working with the grain, making little "flick" motions to create the textured surface.



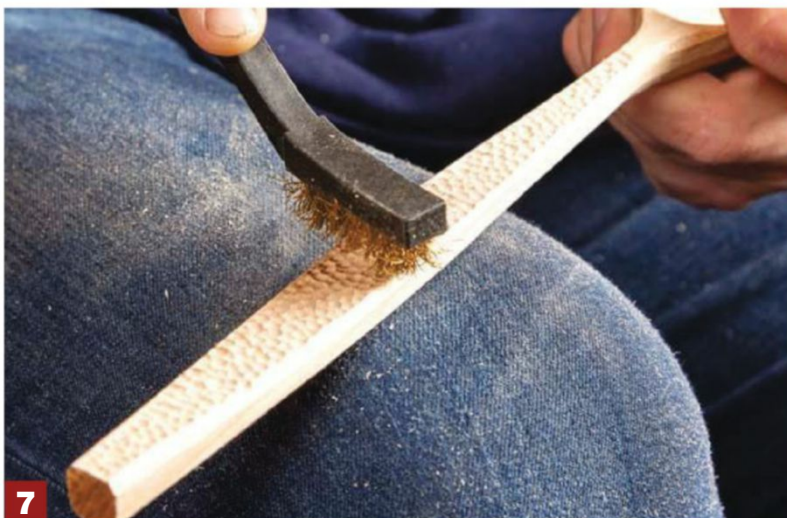


4

5



6



7

### Rotary Tool Stippled Texture

Rotary tools are what I use for a majority of my carving projects. The stippled look can be achieved using a double cut carbide ball burr. The double cut nature of the burr allows more operator control over the carving and also removes wood chips more efficiently. The surface left behind should be fairly clean.

I'm using a *MasterCarver* Micro-Pro rotary carver, but any rotary carver will do, such as *Foredom*, *Dremel*, or *Marathon* to name a few. The *MasterCarver* can run up to speeds of 46,000 RPM, but most burrs are rated for a top speed.

When you purchase a burr, it will usually indicate what that speed is. For this carbide burr, it can run up to 35,000 RPM. I turn the rotary carver up to 35,000 RPM so that I can utilize the speed of the carver to cut more cleanly and efficiently. If you notice that the burr you are using is burning your wood, turn the speed down. A lower speed should help minimize or eliminate that from happening.

Lightly touch the burr to the wood. It will create a small dimple. Put another dimple immediately next to it, making sure to fill in any spaces. I like to keep my stippling as close together as I can. You don't need to apply a lot of pressure for the burr to work properly.

Cover the entire surface with the dimple texture. If you notice that there are fuzzy bits leftover on the edges of the dimples, use a soft brass brush to brush over the surface of the spoon. The brass brush will help to remove those.

**4-5** This carbide burr is designed for 1/8" shank rotary tools. Rotate the tool so the rotation of the burr is inline with the grain.

**6** Cover your entire surface with texture, chasing any flat spots.

**7** A brass brush is a good way to burnish the surface without softening the texture.

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**8-10** The powdered milk paint is measured with a measuring spoon and mixed with water. Mix for several minutes until the paint is smooth.

**11-12** Now, brush on the paint, pushing it into all nooks, crannies, and texture. A total of two coats of each color gives me the coverage I want.

### Coloring With Paint

One of my favorite ways to add color to a piece is through milk paint. Milk paint has been around for centuries and has a rich history for its durability and use as decoration. There is evidence that milk paint was used by the Egyptians inside their burial chambers. Given that the recipe for milk paint is incredibly simple – milk protein (casein), lime, and pigments – it's easy to see how it was used for various projects.

My preferred brand is *Old Fashioned Milk Paint*. They have a great selection of colors and the paint mixes together quickly and easily. Other brands like *The Real Milk Paint Company* are a good option too. In order to create the milk paint, I use a 1:1 ratio of water to milk paint powder. For smaller projects like spoons, measure out 1 teaspoon of the milk paint powder and dump it in a mixing container. Then measure out 1 teaspoon of water (lukewarm water generally works best in this case), and pour the water onto the milk paint powder. Mix it all together. You want the paint to have the consistency of heavy cream. If the milk paint is too thin, you will have to add more layers of paint. If it is too thick, there is the risk it might crack, so getting the consistency right is important.

Stir the milk paint for a couple of minutes to make sure it has all come together. If you notice that it is especially lumpy, strain it through a tea strainer or cheesecloth. Otherwise, you are ready to



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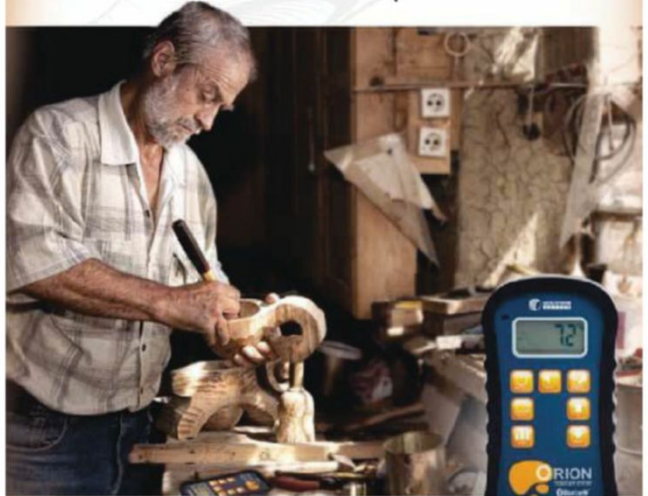
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13



14



15

**13** Choose a contrasting top-coat color. You'll notice the first layer doesn't cover all the way, but the second coat will provide nice coverage.

**14-16** The two-color paint will age elegantly, but you can help that process along with sandpaper. Concentrate on the facets, as the edges will highlight with the base color. You can see this on the back of the spoon, below.



16

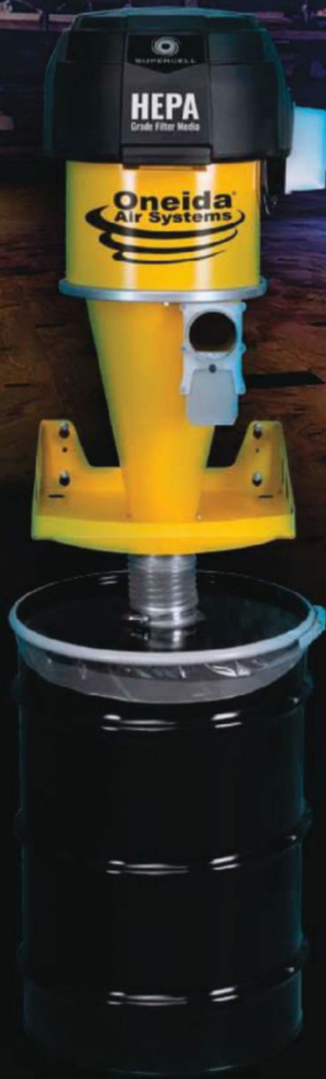
begin painting. Tape off the areas with painter's tape that you don't want the paint to touch. Brush on the milk paint, making sure to push the milk paint around so that you do not to fill in any texture that you may have carved. Milk Paint dries fairly quickly, so give it 30 minutes before adding another coat. If you're going for an ultra-smooth finish, light sanding can help achieve that — just a bit of sanding between coats is all that's needed. Usually, I apply a total of two coats of each color. I find that this is enough to give good coverage.

You could leave one solid color if you'd like. However, if you want to the effort to add texture, let's accentuate it. To do this, I like to paint two different colors on top of each other so that I can make the carving pop. I generally pick a darker color as my base, and a lighter color as my topcoat, but feel free to experiment with color combinations.

For this spoon (photos 11- 16), I'm using red milk paint as my base (2 coats), and blue milk paint as the top color (2 coats). Now you have a choice to make — leave it as is, and let natural age to show through as the colors naturally wear away, or speed that up. I usually will grab 320 grit sandpaper to lightly remove the blue top layer of paint. This will leave a layer of red on the high points of my facets. Milk paint can take any finish, but since this is a spoon, I finish the piece with a food safe oil, like walnut oil.



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13



14



15

**13** After applying a base of acrylic paint and allowing it to dry, top coat it with milk paint.

**14-15** After applying the paint, quickly start to wipe it off with a damp cloth, leaving color within the texture

### Working with Acrylics and Milk Paints

The combination of acrylics and milk paints is another fun way to play around with color. Acrylics are a relatively new painting product, being first developed in 1934. Acrylics are very fast drying and versatile. They differ from milk paints in that they are a synthetic material, pigment suspended in an acrylic polymer emulsion, and the color options are brighter, bolder, and endless.

This particular technique brings together acrylic paint as a base and the milk paint as a top coat. Since this is a spoon, I am using a non-toxic acrylic as my base. Tape off the areas you don't want to paint. Paint two layers of acrylic, being careful to distribute that paint evenly across the surface. Wait 30 minutes between coats to add additional coverage. Once the two coats of acrylic are on and dry, come back and add a milk paint color of your choice over the top of the acrylic. Add 2 additional layers of paint to the spoon.

As the last layer of milk paint is drying, grab a cloth rag (preferably white to avoid color transfer). Soak it in water and then wring it out until the rag is damp. Take the damp cloth and rub it over the surface of your carving. Be gentle here — you are only removing paint from the highest points of the carving and work across the whole piece. You're left with a beautiful, inverse-color surface. Adding color and texture to a project is a fine-line between just enough and too much. Finding where that line in takes a bit of practice — so get in the shop and start to experiment. **PW** - Elizabeth Weber

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# Trinket Box



PHOTOS BY COLLIN KNOFF & LOGAN WITTMER

This box offers great box-building basics, but offers a fun twist with its whimsical legs, beveled top, and unique lift.

**By Doug Stowe**



This white oak and walnut box features finger joints and a floating walnut lid. My wife likes to imagine it as belonging in the Disney classic *Beauty and the Beast*—its slender legs give it a sense of animation that's charming, if admittedly impractical for a traditional box. The lively stance sets it apart from more conventional forms. The contrast between white oak and walnut adds contemporary elegance, while the lift tab at the front makes it unmistakably clear where to place your fingers to open it.

The surface-mounted hinges include a built-in 95° stop and are simple to install using the method described below. The glued-on legs are equally straightforward to make. Though the form appears playful, the construction is solid and dependable. The structure is grounded in careful joinery, thoughtful grain selection, and attention to proportion—qualities that elevate a simple box into something expressive.

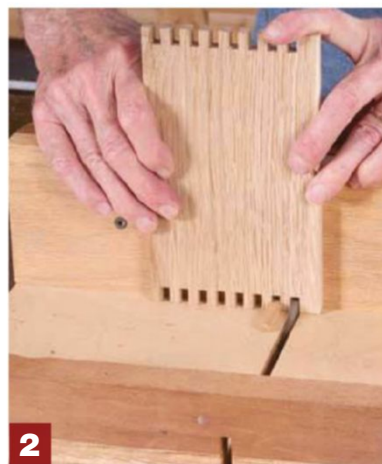
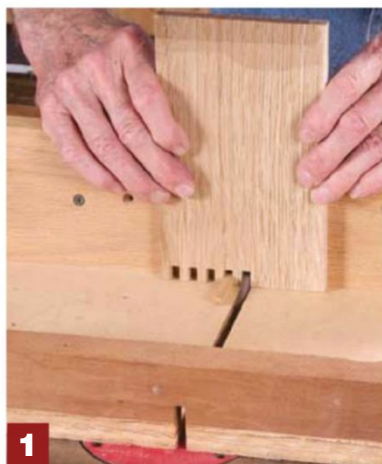
Boxes are among the most honest forms in woodworking. They require accuracy in layout, care in joinery, and sensitivity in proportion. Even minor deviations in squareness or alignment are quickly revealed. For that reason, I find them to be excellent exercises in craftsmanship. The techniques involved here—resawing, finger joints, miters, floating panels, hinge installation—offer opportunities to refine fundamental skills that apply to larger and more complex projects.

What makes this box distinctive is the combination of structural joinery and visual lightness. The finger joints emphasize strength and geometry, while the faceted lid and raised stance soften the overall effect. The result is a small piece that carries both presence and personality. It invites touch, and in doing so, fulfills the essential purpose of a box: to protect and present something valued.

### Preparing the Stock

I begin by resawing 1¼-inch white oak down the middle and planing it to slightly more than 3/8 inch thick. The exact thickness is not critical, but since the hinge screws are 3/8 inch long, keeping the stock at or slightly above that thickness prevents the screws from penetrating through the sides.

Resawing offers another advantage beyond material efficiency: it allows the grain to mirror from one board to the next. When the parts are arranged in sequence around the box, this continuity brings quiet harmony to the piece. Even in a finger-jointed box where the pattern interrupts the grain, subtle alignment contributes to an overall sense of intentional design.



**1-2** Start the joinery by cutting the finger joints on the end of one of the front/back panels. Flip the workpiece end-for-end, starting on the same edge as the first side.

**3** Start to work on the sides, using the front as a spacer.





**4** Transfer the depth of the finger joint on the mitered end of the workpiece. Use a marking gauge to score a line.



**5** Using a miter gauge with a stop block, set the proper angle (45°) and line up the blade with the scored mark that you just made.



**6** Flip the mitergauge to the opposite 45° angle. Repeat the process to cut the miter on the other end of all of the workpieces.



**7** Now, set the rip fence. You're going to cut a groove for the lid to lock into. Do this with a flat-topped grooving blade if you have one.

**8** After the groove is cut, you can run a chamfer around the workpieces if you like. I like a chamfer on most boxes, as it softens the edge and the look of the finished box.

After planing, rip the stock to width. Joint one edge, then use the table saw to bring the boards to uniform width. I draw a squiggle line across adjacent pieces to help with grain matching. While grain continuity is less noticeable in a finger-jointed box—where the joint pattern disrupts the flow—I've grown accustomed to attending to details others might overlook. Such habits, once formed, strengthen all subsequent work.

Care in milling cannot be overstated. Flat, square, and consistent stock simplifies every operation that follows. Finger joints depend upon repeatability and precision; miters demand consistent thickness; grooves require uniform alignment. Time spent preparing stock pays dividends throughout the project.

### Cutting the Finger Joints

To form the finger joints (also known as box joints), begin with the bottom edge of the longer stock against the indexing pin. I use a table saw equipped with a dedicated finger joint blade from Forrest. This 8-inch blade requires a dado cartridge and cuts either 1/4



# Trinket Box



## Cutlist

No.	Items	Dimensions (inches)		
		T	W	L
2	A Front/Back	3/8	4 1/4	5 1/2
2	B Sides	3/8	4 1/4	7 1/2
1	C Bottom	1/4	5	7
1	D Top	5/8	5	7
4	E Feet	3/4	3/4	3 1/4
4	F Riser Block	1/4	1/4	1 1/2
1	G Lift	1/8	5/8	3 1/2

inch or 3/8 inch fingers depending on configuration.

Because the top edges will later be mitered, stop short of cutting the full height of the joint. Cut the first piece, then the opposite end, and proceed to the mating pieces—again stopping short at the top.

To cut the matching parts, use one of the first pieces as a spacer block. Flip the stock and position one finger over the guide pin to establish alignment. As you work, don't worry if the parts don't fit perfectly yet—the final fit comes after the miters are cut.

Fit can be fine-tuned during setup: moving the indexing pin slightly away from the blade tightens the joint; moving it closer loosens it. It is worth taking a few moments with scrap stock to dial in the spacing. A properly fitted finger joint should slide together with firm hand pressure—not require force, and not rattle loosely.

Finger joints provide exceptional mechanical strength because they increase glue surface area and interlock the corners. Beyond strength, they create rhythm along the box edges. The repetition of fingers becomes a decorative element, reinforcing the geometry of the form.

### Mitering the Finger Joints

Mitering the finger joints completes the box corners. Use a miter gauge set to 45° with a stop block attached. I set a marking gauge to the same depth as the finger joint cuts and scribe a line across each piece to guide stop block placement.

Set the blade height even with the depth of the shorter finger. Clamp the stop block to the miter gauge and make the cuts on each side. Then reverse the miter gauge to cut the opposing corners. This process creates half-fingers on one side and full cuts on the other, allowing the joints to close neatly.

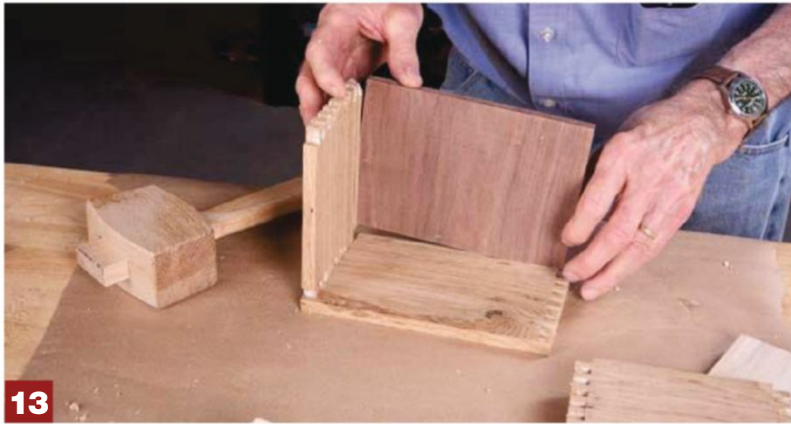


**9** Identify the stock you'd like to use for the top. Box lids are a great place to use a special piece of stock that was unfit for other projects.

**10-11** Use a wider flat-top grooving blade (or dado blade) to cut a groove around the top of the box insert. The position of this cut is critical — you want it to fit in the groove cut in the box body parts.

**12** Tilt the blade 15°. You're going to use a tall auxiliary fence that slides over the fence to bevel the entire top of the box lid insert.

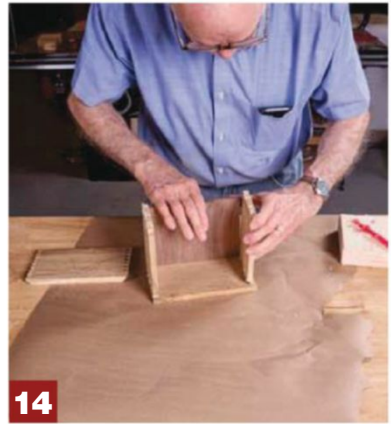




**13**

**13** Start by getting one corner of the joint started with glue. Slip the lid insert into the groove.

**14** Wrap the remaining sides along the insert, applying glue to the inside of one side of the fingers.



**14**



**15**



**16**

Careful alignment is essential. A misaligned cut can leave gaps or prevent the joint from fully closing. Take light passes if necessary and verify the setup with test pieces before committing to your box sides.

This hybrid of finger joint and miter softens the top edge of the box, allowing the walnut lid panel to sit within a crisp frame. It also introduces a subtle refinement at the corners—an unexpected transition from exposed joinery to clean miter.

### Fitting the Floating Lid Panel

With a successful dry fit of the box sides, measure the opening for the floating top panel. Add  $\frac{3}{8}$  inch to both length and width to allow for  $\frac{3}{16}$ -inch-deep grooves on all sides.

Cut the walnut panel to size, subtracting approximately  $\frac{1}{64}$  inch in length and  $\frac{1}{32}$  inch in width to accommodate seasonal movement and ease assembly.

Set the blade to cut  $\frac{3}{16}$  inch deep and position the fence  $\frac{1}{8}$



**17**



**18**

**15-16** As soon as you start to apply glue, the joints will start to swell and get tight. You may need to use a mallet to tap the joints together, but use a scrap to avoid denting the box parts.

**17-18** After the glue has dried, cut the lid of the box free. Use a sharp blade, and pass the box along the fence, rotating it a quarter-turn after each pass. On the last couple of passes, use a spacer to hold the kerf open so that it doesn't pinch on the blade.



inch from the blade. With the box sides flat on the table saw, cut grooves along the inside top edges. Then, with the panel held vertically against the fence, cut matching tongues along its edges.

Allowing the panel to float is important. Solid wood expands and contracts with changes in humidity. By leaving room within the grooves and avoiding glue along the panel edges, the lid can move freely without splitting or distorting the box.

### Faceting and Final Shaping

To facet the lid, tilt the table saw blade to 15° and bevel each edge of the top panel. These facets catch light differently across the surface, adding visual energy to what might otherwise be a flat plane.

Before assembly, sand the parts thoroughly. I use a sign maker's router bit that allows the bottom to be added later. I also run a small chamfer along the top edges of the sides at the router table. Small details such as chamfers ease sharpness and make the box more inviting to the hand.

### Separating the Lid

After glue-up, cut the lid free from the box body using a thin-kerf rip blade. Spacer blocks prevent the lid from binding against the blade during the final cut. These are easily made by cutting



a kerf into scrap and fitting thin stock into it.

Cut one side at a time, inserting spacer blocks as needed. Lightly sand the fresh cut surfaces between the lid and base for a smooth fit. The moment of separation is always satisfying—the transformation from closed form to functional container.

### Adding the Lift Tab

Install the lift tab using a 1/8-inch

**19** The final pass is made with the spacer in place and a rubber band holding it together.

**20** Sand the cut side of the box and lid flat using sandpaper.

**21-22** The slot for the lid lift is routed. A pair of stop blocks on the fence limit the distance that you can route this groove.

**23** Lay out the position of the lid lift.



**24**

**24** Round over the ends of the lid lift. You're looking to create the same radius on the end of the lift as the router bit makes on the front of the box lid.



**25**

**25** Use double-sided tape to hold the lift on a scrap piece. Sand the lid lift to shape using a disc sander.

**26** Rout a rabbet around the inside of the box for the bottom.



**26**

spiral upcut bit in the router table, raised about 3/16 inch. Stop blocks on the fence allow for a centered blind cut. Lower the lid onto the bit between the stops and lift it out cleanly.

Rip 1/8-inch-thick stock for the pull. Cut it to length, round the ends to fit the groove, and shape as desired on a disc sander. Double-stick tape attaching the small part to a larger scrap keeps fingers safely away from the sanding disc.

The lift tab should feel comfortable and intuitive. Its placement and proportion matter as much as its appearance. It becomes the point of interaction—the invitation to discover what rests inside.

### Installing the Bottom

A Baltic birch plywood bottom is installed using a small rabbeting bit that cuts a narrow rabbet along the inside bottom edge. Raise the bit to match the thickness of the bottom stock and rout the interior edges. The small bearing fits tightly into the corners.

Square the corners with a chisel or round the plywood corners to fit. Cut the bottom panel to size and glue it in place. This approach



27



28

allows the bottom to be installed cleanly after the box is assembled and the lid separated.

### Making and Attaching the Legs

The legs are simple assemblies. Cut stock with a miter along one edge, then cut into segments and glue pairs together using masking tape to hold the miters while drying. Reinforce with additional blocks that provide a resting surface for the box.

Before attaching, rout a 45° chamfer along the outer edges. Glue the completed legs in place. Though small, the legs dramatically change the character of the box. By lifting it slightly off the surface, they give it presence and, as my wife suggests, a hint of animation.

### Installing the Hinges

The surface-mounted hinges from Craft, Inc. include a built-in stop. To install, use a spacer equal to half the hinge barrel thickness to raise the lid off the bench. Clamp the lid in position and pre-drill screw holes with a Vix bit.

With the hinges attached to the



29



30

lid, insert a couple of business cards between lid and base to create slight clearance. Clamp both sections securely and fasten the hinges to the base.

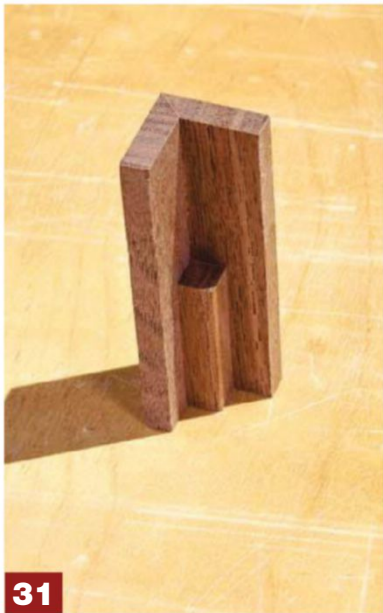
Proper hinge installation determines how the box operates. A lid that opens smoothly and stops confidently feels of quality.

### Finishing

After final sanding, apply Danish oil for a warm, durable finish that

**27-28** The rabbeting bit leaves a rabbet with rounded corners, even with a small bearing on the bit. Either round the corners of the bottom, or chisel the rabbet corners square.

**29-30** Tilt the blade to bevel the edge of the leg stock. Glue the mitered joint together, using tape as a hinge to hold the joint tight while the glue dries.



31



32



33

**31** After the miter is dried, glue a small block on the inside of the leg. This will allow the box to sit on top of it when it's glued in place.

**32-33** Pre-drill the hinge locations on the box lid. Use a drill with appropriately set clutch settings to drive the screws in without breaking them off.

**34** Business cards make a great spacer to give the lid a bit of room so it doesn't bind when its closed.



34

enhances the contrast between white oak and walnut. The thing that I like about Danish oil is that it adds color and protection. The oil deepens the walnut's richness and brings a gentle glow to the oak. After applying the oil, let it soak in for several minutes, before wiping any excess away.

As the finish cures, the piece settles into its final character—structured yet lively, precise yet expressive. It is a small project, but one that rewards patience and attention. In the end, it is not simply a container, but a crafted object that carries both skill and imagination.

In the end, a box like this serves as a reminder that small projects carry great opportunity. Within its modest scale lies the full vocabulary of fine woodworking—careful milling, precise joinery, thoughtful design, and attention to detail. Whether it holds letters, keepsakes, or small treasures, its greater value rests in the skill practiced and the satisfaction gained in its making. A well-made box endures not only because it is useful, but because it reflects the quiet discipline and joy of the craft itself. — **PW** Doug Stowe

PHOTOS BY LOGAN WITTMER



# ■ Harlem Spice Chest

## Part II: Corbels, Molding & Drawers

This piece is inspired by period spice chests and offers a great way to practice traditional hand tool techniques.

By Brian DeJong



In the last issue of Popular Woodworking, we started building this spice chest. It is a great small project with lots of details. Historically, there are a lot of examples of spice chests that were built in the past. These would have been used to house spices (obviously) as well as other expensive commodities. Previously, we built the case. With its dovetailed construction and dadoed dividers, it's a complex little piece, but isn't so large that it's intimidating. Now, we'll switch over into creating some of the finer details on this piece, starting with the corbels.

If you read the first installation of this tea chest, you may remember that I like to use as many handtools on my projects as I can. (Of course, I'm a custom furniture builder by trade, so I often use power tools for some of the heavy lifting). These corbels are no different. I start the corbels with an extra-long blank — sized so that I can create a corbel on each end and cut them apart when I'm done. The heavy stock removal is done at the bandsaw. After sketching out the rough shape on the end, I nibble away as much of the waste as possible, but leaving me with enough to carve.

At the bench, the first thing to do is to smooth out all of the facets that you probably created at the band saw. The easiest way to do this, in my opinion, is to find a carving gouge that matches the radius that you're working to clean up. In Photo 2, you see that I'm working on the "barrel" of this corbel. These get carved into "beads", but first they need to be smoothed out. An appropriate sweep carving gouge will help bring the shape into a smooth curve. I like to work cross-grain here. I've found that is the easiest way to get a good curve, even though the cross-grain cutting may cause a little bit of tearout. No worries about that, however...we'll take care of the

edges in a bit.

Now, I throw the corbel onto one of my bench hooks. Using a small V-tool (or veining tool), I start to distinguish between the three knuckles of the corbels. This is just the starting point to separate them — as you work to larger and larger tools to create the curve, you'll cut deeper and deeper, distinguishing each from its neighbor.

Carving is one of those things that is best taught "hands on". The more you do it, the better you get. But, I can at least offer some helpful tips that will get you started. As I mentioned before, choose carving tools that closely match the radius of the curve you're

working on (of course, this is why carving tools are sold by sweeps). You're best off to make one long, continuous cut (that's light) to get the best surface. Little short cuts tend to lead to a faceted surface.

Another good tip is to utilize stop cuts. Stop cuts act like a depth stop — creating a cut that breaks up the long-continuous fibers of the wood gives you an "ending point" as you're carving. Often, if you get a heavy cut, you'll lever out a large chip of wood. Stop cuts will limit that "damage" by breaking it up before it lifts fully.

Finally, don't be afraid to use a sharp chip carving knife. You see in Photo 4 that carving the outside



1



2



3



4



5

- 1 Rough in the shape of the corbels with a bandsaw.
- 2 Clean up the facets using a variety of carving tools. Select the sweep to match your profile.
- 3 A V-tool starts to divide the corbel into its parts.
- 4-5 Carve the corbel into smooth shapes.



6



7

**6** Use a rabet plane to clean up the planes of the carvings.

**7** Glue and a pin nailer affix the carvings to the case.

of the bead is easy to do with a chip carving knife.

After you've smoothed the corbels out, it's time to prep them for attaching to the case. A rabet plane cleans up the top of the corbels. This will be where some trim will be attached in a bit. It's important that this surface is smooth and parallel to the back (to make a true 90° corner when it's attached to the case). Cut the corbels apart and attach them onto the case using glue and a few pin nails.

Carve decorative corbels. To do this, cut the board long enough so you can carve on each end with extra in the middle so you can clamp it. Use the table saw to cut out waste in the middle and make stop cuts as a guide while carving. Use V groove to divide into three sections. Use carving chisels to round over, sand it smooth, and cut to size. Finally attach to the top corners using glue and pin nails.

### TOP MOLDING

The top of the spice chest is wrapped in a decorative molding. When compared to the molding



8



9

**8** Start the curved molding by wacking away the waste using a chisel. A curved gouge will help start the shape.

**9-10** A piece of scratch stock isn't a fast way to create the profile, but with a sharp piece of stock, it's a good way to make a complex profile in a variety of stock shapes.



10



**11-12** Applying the molding to the case is done with carefully cut miters.

**13-14** Where the moldings wrap around the carvings, a coped joint is a clean look. Gaps can be filled with hide glue and sawdust.

**15** Glue one end of the molding to the case and use nails along the rest.

we cut to make the feet of the chest, this one is simple. A bead and a cove create this elegant profile. The trick here is to create the curved shape to follow the top of the case, and to wrap (and cope) the molding around the top.

Start by cutting two blanks — one with a curve to match the top of the case, and another straight-grained piece for the straight molding. For the curved piece,

you'll want a piece with very little figure (bonus points if you find a blank with curving grain that follows the curve).

The actual molding profile is cut using a scratch stock. Make the scratch stock out of an old hand saw plate — file the appropriate profile onto the plate and cut the blade out. The blade is held in an "L" shaped holder with a crew to pinch the blade (Photo 9). I make two separate blades for this profile — one cove blade and one bead blade (shown in Photos 9 and 10). Now, it's time to pick a carving tool back up and whack out a lot of the waste. In Photo 8, I'm removing a lot of the waste from the coved section. Peel this waste away, leaving enough room to smooth the shape in with the scratch stock. Work on the curved molding section, and then create several feet of straight molding — we'll use that for the remainder of

the case.

The cuts for the molding are a bit complex, but not too crazy. The curved section of molding gets a return piece of molding to terminate at the edges of the corbels. I'm marking the angle at the end of the curved molding in Photos 11 and 12. These angles are cut with a hand saw and fit in place.

The remainder of the molding is simple. Straight sections along the sides wraps around the front of the corbels with simple 45° miters. The molding wraps from the corbels into the return piece. The joint here is a coped joint, rather than an inside 45° miter. Coping produces a tight joint that won't open up as the wood expands and contracts. You can see the process of coping and the final fit in photos 13 and 14. After you've cut all of the molding pieces, apply them to the case with glue along the front



16

**16-17** The drawer fronts are attached with half-blind dovetails. The back is a through dovetail joint. Test fit the joint together and slide it into the case, adjusting as necessary.



17

edge and a series of pin nail along the remainder (this allows the sides to expand and contract).

### Make the Drawers

With the outside of the case wrapped up, it's time to start filling out the inside with a set of drawers. There are a total of 6 drawers — three wider lower drawers, and three smaller drawers up top (with one of those being a large square drawer). All of the drawers share a commonality — the fronts are thicker pieces of curly maple and the sides are poplar. This extra thickness for the front is important — it needs to be thick enough to create the recess for the drawer pulls in a bit.

Constructing the drawers is maybe one of my favorite parts — I love cutting half-blind dovetails. We covered dovetailing in the first part of this article, the only difference here is that the pins are a half-blind pin. It requires a bit of work with a chisel to clean the



18



19

**18-19** After inserting the drawer, transfer the divider shape to the drawer fronts. Then, cut it out at the bandsaw and rasp it smooth.

**20-21** The bottoms are a solid piece cut with a drawer bottom molding plane. Nail the bottom in place along the back edge.



20



21

pockets out (Photo 16).

After test fitting everything (Photo 17), the drawers can be slid into place. Transfer the profile of the dividers onto the drawer fronts (Photo 18). Bandsaw this profile out and smooth it with some rasps. Finally, create the bottoms. I used a piece of walnut for the bottoms of each drawer. The edges are thinned down with a moving fillister plane to make a "raised panel" style bottom. These are inserted from the back and nailed from the bottom into the back.

The only other tasks on the drawers is are to attach knobs (you can either turn them out of ebony, like I did or buy some) and do any carving you'd like. The top center drawer is a great spot for some form of traditional carving. You can see in the inset photo on the first page that I created a traditional shell carving with a flower in the center. Really, this is just a great canvas to have fun with and try out a new style of carving.

### Building the Door

Building doors is a foundation of many case-work type projects. This one has a few hiccups however. First, the joinery is a traditional haunched tenon. It's a simple joint, but you'll want to be diligent on how you cut this. (Don't worry, all your doing is cutting to lines). Next, your door needs to match the curve of the top face frame that's on the case. That's where we'll start.

The top rail starts as a wide piece of stock. Lay out the arch using the same radius you used on the face frame. You'll want to shrink down the radius to create the inside radius. The overall shape you're going for on this door rail can be seen in Photo 24. Don't cut the inside of the radius yet — we'll do that in a little while.

After you have the top rail shaped, go ahead and lay out the tenon location. You'll want to use

a marking gauge for this — mark both sides of the tenon (Photo 22). Now, saw down the shoulder lines to the marking knife mark.

At this point, go ahead and grab the rest of the door parts. You're going to plow grooves on the inside of all of the parts (this is why we left the inside of the radius uncut). A plow plane makes quick work of this — use the appropriate sized cutter to create a 1/4" wide groove.

Now, you can cut the cheeks of the tenon. Use a pocket knife to notch the corner a bit to give the handsaw blade a location to start. Saw down to the shoulder line

that you've already cut. Any fine tuning that needs to happen to the tenon can be done several ways. I like to use a router plane on both faces — referencing off of the face of the door frame parts allows the tenon to remain centered. Though, tackling any clean up with a rabbet plane or shoulder plane is perfectly fine too. Finally, cut away a "haunch" in the tenon. This will form a tenon, shaped as you see in Photo 26. This traditional style tenon is a solid joint, and provides a clean look when everything is put together.

Now, let's tackle the mortise. The mortise is chopped centered



**22-23** The tenon is laid out. Scribe the cheek locations with a marking gauge. Score the shoulders with a knife before cutting them with a back saw.

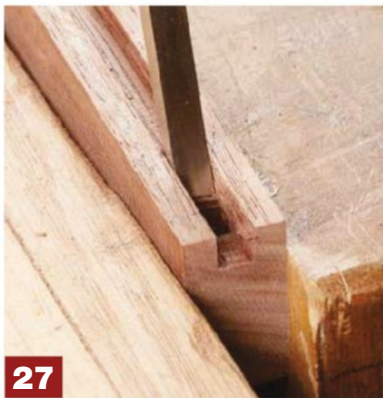
**24** Plow grooves in the drawer parts for the door panel.



25



26



27



28



29

**25-26** Cut away the cheeks of the tenon. The tenon gets a haunch which is cut with a back saw.

**27-28** The haunched tenon fits into a mortise chopped within the groove of the door parts. A chisel cuts this easily.

**29** After shaping the door panel and pre-finishing it, glue up the door.

on the groove. This makes the layout pretty easy — we already have a groove in all of the door parts. Slip the mortise chisel into the groove and start hacking out the waste. You're looking to get a mortise that is deep enough for the tenon to seat fully into, and allow the shoulders of the joint to close. Test fit the joint, and if you need to chop the mortise any deeper, just go back in and remove a bit more waste.

After you have the door frame together, do two things. First, test fit it in the case. Make sure that it fits well in the opening. If it does, great. Proceed. If it doesn't, make adjustments. Worse case scenario, build another frame and condemn this into BTU recycling protocol.

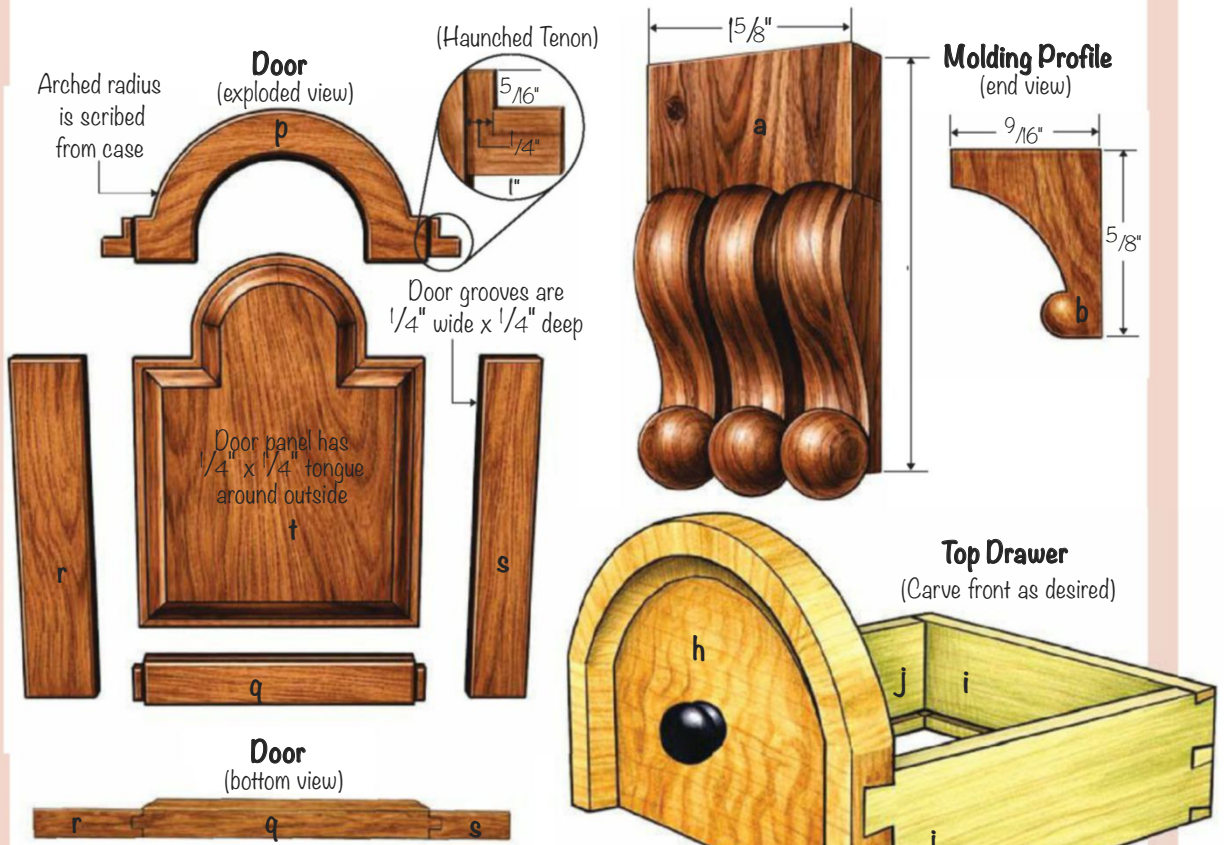
Fitting the panel is the final task of door "construction". Transfer the measurements of the square part of the panel and cut it to size. Now, we have to create the curved portion to fit the door frame. This can be done by transferring the shape of the frame to the panel, then offsetting that line by the same depth as your groove.

When selecting your door stock, look through your lumber stash. I'm sure you, like me, have a small stash of offcuts that we've saved because they're just pretty. The panel I used here is a nice piece of crotch walnut that had great figure. Use that horded piece for the door on this special project. The front door panel is, I think the ideal place to showcase it. The door becomes the focal point when the chest is closed and sitting on the shelf.

Now the panel needs to become raised, and a tongue needs to be sized to fit within the groove. The straight runs (the bottom and sides) is a pretty straight forward thing with a panel raising plane. The curved top is a bit trickier. To cut this, I found the best way it to chisel away as much of the waste as you can. Then, start to tackle the small radius using a carving

# Harlem Spice Chest

NOTE: Templates, Additional Illustrations and SketchUp File are at [PopularWoodworking.com/OnlineExtras](http://PopularWoodworking.com/OnlineExtras)

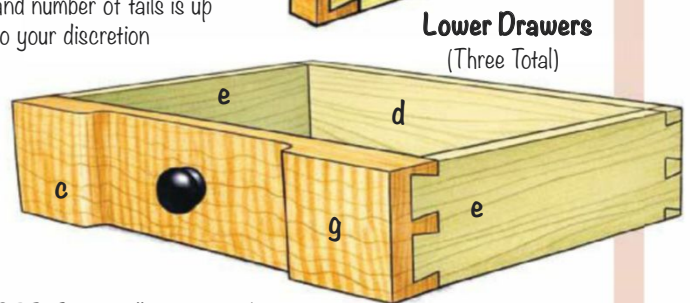


## Cutlist

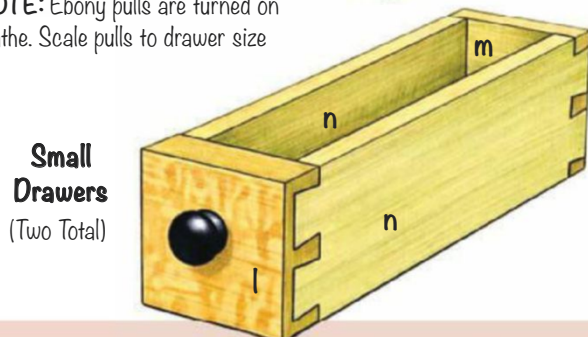
No.	Items	Dimensions (inches)		
		T	W	L
2	A Corbels	5/8	15/8	2 <sup>13</sup> / <sub>16</sub>
1	B Trim	9/16	5/8	38"
3	C Lower Dwr Frnt*	1	1 <sup>7</sup> / <sub>8</sub>	9 <sup>7</sup> / <sub>8</sub>
3	D Lower Dwr Bck*	3/8	1 <sup>7</sup> / <sub>8</sub>	9 <sup>7</sup> / <sub>8</sub>
6	E Lower Dwr Side*	3/8	1 <sup>7</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>
3	F Lower Dwr Bttm	1/4	6 <sup>1</sup> / <sub>4</sub>	9 <sup>5</sup> / <sub>8</sub>
6	G Drawer Pulls	3/4	3/4	1
1	H Top Drawer Frnt	1	6 <sup>1</sup> / <sub>4</sub>	4 <sup>13</sup> / <sub>16</sub>
1	I Top Drawer Bck	3/8	6 <sup>1</sup> / <sub>4</sub>	1 <sup>15</sup> / <sub>16</sub>
1	J Top Dwr Sides	3/8	6 <sup>5</sup> / <sub>8</sub>	1 <sup>15</sup> / <sub>16</sub>
1	K Top Drawer Bttm	1/4	6 1/4	6
1	L Small Drawer Frt	3/4	1 <sup>15</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>
1	M Small Dwr Backs	1/4	1 <sup>15</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>
1	N Small Dwr Sides	1/4	1 <sup>15</sup> / <sub>16</sub>	6 <sup>5</sup> / <sub>8</sub>
1	O Small Dwr Btm	1/4	1 <sup>1</sup> / <sub>4</sub>	6
1	P Door Top Rail	5/8	3 <sup>15</sup> / <sub>16</sub>	8 <sup>9</sup> / <sub>16</sub>
1	Q Door Btm Rail	5/8	1 <sup>3</sup> / <sub>16</sub>	7 <sup>9</sup> / <sub>16</sub>
1	R Large Stile	5/8	2 <sup>1</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>2</sub>
1	S Small Stile	5/8	1 <sup>3</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>2</sub>
1	T Door Panel	3/4	7 <sup>9</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>2</sub>

\*Sizes listed are for the largest lower drawer. Trim smaller drawers to fit.

NOTE: Dovetail layout and number of tails is up to your discretion



NOTE: Ebony pulls are turned on lathe. Scale pulls to drawer size





30



31



32



33

**30-31** The mortise for the is made in two passes. Make the deep one first, then transfer the shallow mortise with a marking knife.

**32** Drill out the key hole location.

**33** The frame of the chest gets a mortise for the lock's hook.

gouge. I find a gentle sweep helps scoop the panel from the raised "plane" of the door down to the tongue. After you've got it as close as you can with chisels, you are able to use a bit of scratch stock (once again) to finish shaping it all

up. The panel can be pre-finished and glued inside of the door.

### Adding Hardware

Now, the final leg of this marathon of a project is to add hardware to the door before installing it. As I mentioned in the previous article, the idea behind these spice chests are that they were a safe place to store your valuable spices. So, it stands to reason that you'd want to be able to lock up your spice chest when you weren't actively using it. The first piece of hardware that we're going to install is the lock. This lock is a mortised-in version. From the front of the door, all you see is a keyhole. The mechanism is recessed on the edge of the door, and a small latch flicks down to hold the door closed.

This style of hinge requires a two part mortise. The first mortise is narrower and deeper than the other — this houses the locking mechanism. The other mortise is larger, but shallow. This one holds the strike plate of the lock mechanism and is where the lock will be screwed into the door.

The approach you take to create these mortises is your choice. The most straight-forward is to just chop out the entire mortise location with a chisel. Start with the deepest mortise. Chop it to full depth as well as width. You should be able to slip the lock in place, and then scribe the wider plate's location using a marking knife. (You can see me doing this in Photo 31). Then, small short chops will remove that waste.

Personally, I chose to create these mortises the traditional way — with a Felder slot mortiser. All jokes aside, the reality is that a modern tool like this is just a straight-forward and simple way to do this. If you don't have a slot mortiser, you can use a router with an edge guide. Simply rout it in a couple of passes, cutting the deeper and wider mortises in several passes. You can see the finished mortise in Photo 32.

After completing the mortise, We'll need to make the key hole. Most modern retailers of locks such as these will provide a schematic of where to drill the key slot. Use that to lay out the location



**34** A router plane is a great way to mark the depth of the mortise and to clean it up when chopped.

**35** Chop out the hinge mortise.

**36** Pre-drill the hinge screws.

**37-38** Transfer the hinge location to the case and cut it out. Use the same router plane set up to clean up the mortises on the side of the case.

and drill the hole in the front. A keyhole saw (obviously) is an easy way to make the small slot for the key's blade. A narrow chisel will work as well.

Finally, the case of the spice chest needs to be mortised for the hook to flick into. Some locks will

come with strike plates, and that's an easy option. If not, you will need to use a narrow chisel to hollow out a notch for the hook to slip into.

With the lock in place, now it's time to tackle the hinges. These are standard mortised hinges, but you want to be diligent to make the install neat and tidy. I start by installing the hinges in the door frame first. A router plane is a great way to score the edge of the door with the hinge thickness. Leave the router plane set, and after chopping out the mortise with a chisel, use a router plane to smooth out the mortise location.

Install the hinges into the doors. I like an egg beater drill to pre-drill the screw holes. A piece of painter's tape on the drill bit makes it less likely to accidentally punch a hole through the front of

the door. After driving the screws, lay the door in place on the case. I like to flick the lock open to make sure everything will line up when it's all said and done.

Use a marking knife to transfer the hinge locations to the side of the case. Now, it's a simple matter of transferring the hinge size to the frame of the case and chiseling it away again. After installing the screws into the case, test the operation of the door and make sure it opens, closes, and locks smoothly.

Now, it's time to apply a finish. I prefer, especially on a piece like this, to apply a period correct finish. Shellac is my potion of choice here. It dries nice and quick, colors the wood nicely, and offers a good layer of protection. Spraying it on is a great way to wrap up this beautiful project. **PW** - *Brain DeJong*



# ■ Mahogany Entry Table

Solid mahogany, frame and panel assemblies, and simple construction are the foundations of this versatile table.

**By Logan Wittmer**



**Often**, pieces of furniture are designed with one simple function (or use) in mind — a dining table, a chair, or a bench. But sometimes, furniture use can be fairly ambiguous. Take this entry table shown above. When I started sketching up this project, it's function was to be a candle table for a church. However, I quickly realized that this piece could easily fit into various places in the home. An entry way, for example. It would also be at home as a media table under a TV. Heck, plop a large fish tank on it, and you'd have a great aquarium stand.

The construction of this table is made up of frame and panels. Pretty much every side is frame and panel construction, save for the top. The joinery is a mixture of stub tenon and grooves, and loose tenons (Dominoes). In reality, the construction of this table only takes a few afternoons in the shop. Cut all the parts to rough size, then once you've set up the joinery, you're just cutting the same joint a few dozen times. It goes together very quickly.

I think that my favorite detail on this table is the tapered corner

caps that add visual bulk to this table. These took a bit of thought to figure out how I wanted to approach them, but I quickly realized that applying them after constructing the case allowed me to use screws to attach the entire case together, which also helps to speed up the assembly.

I kept the inside of this cabinet a large opening — designed to allow you to fill it out how you'd like. A couple of shelves on shelf pins would work well for organizing AV equipment. Or, leave it as wide-open storage space.



1

**1** The frame and panels start with a centered groove. Here, I use a wide-kerf grooving blade.

**2** The tenon is formed next, cut with a dado blade.

**3** Cut the plywood panels to size at this point too.



2



3

## Frame & Panel Foundation

As I mentioned before, the entire case of this table is made of frame and panel construction. So, we'll start off by really going through the nitty-gritty on that. Once you've mastered it for the side panels, the front, back, and doors are a copy-and-paste application.

The first thing I like to do when making frame and panel assemblies is to cut a centered groove on all of the inside edges of the parts. You can see this in Photo 1, above. A dado blade takes care of this easily, but I've found that I have gotten more than my money's worth out

of a 1/4" flat top grooving blade. No matter how careful you are with your setup, more than likely the groove will be slightly off center. So, for each part, I flip it end-for-end and make the groove in two passes — this results in a groove that is perfectly centered on the part (though, it may be a bit wider than the blade you're using; no worries, we'll deal with that next).

After grooving all of your parts, it's time to cut the stub tenons that fit in the grooves. Here, I switch

to a dado blade, and bury it in an auxiliary fence. This makes it easy to fine-tune the length of the tenon by adjusting the fence. Take your time here and dial in the thickness. You want the tenon to fit into the groove snugly. Don't make it too tight however — trying to force together a tight joint can result in a broken groove part. Make a pass over both faces to form the centered tenon (Photo 2). After cutting the joinery, measure for each individual plywood panel and cut them to size.

**4** Lay out the curves for the lower rails. Cut as close to your layout line as possible.

**5-6** Use double-sided tape to stick the template to the surface. Use a flush trim it to the template. You'll need to change directions (and flip the piece/template) over halfway through the rout.

**7** Glue up the side assemblies, keeping the rails flush with the tops and bottoms of the stiles.



## The Side Assemblies

The previous page pretty much sums up all of the joinery in this project. However, individual parts (and assemblies) are each slightly different. The first assemblies that I put together are the end panels. These feature a small arch on the lower rail.

When approaching an arched part like this, I take two different approaches. If it's a one-off, I'll just cut it out at the bandsaw and smooth it with rasps or a spindle sander. However, when I have two or more parts that I want to match, I'll make a template. The template doesn't need to be fancy. It just needs to be thick enough to get a router bearing onto. MDF (of any thickness) is a great, cheap option. I often keep scraps from the CNC to use for things like this.

I make the template first, fine-tuning the curve. Then, I use that to trace out my shape on my part. Cut the waste away carefully at the bandsaw, leaving *just* the pencil line. The template now becomes the guide to rout the part to the final shape. A couple of strips of double-sided tape mounts it in place for this task. Pay attention to grain direction — you'll want to flip the part/template over for this second half of the curve to avoid tearout. With the lower rail shaped, you can glue together the two side assemblies.





8



9

**8** Apply clamps across the panels. I find three clamps give plenty of pressure.

**9** Shaping the longer curve on the lower rails can be done a number of ways. For me, it's a chance to use this vintage Stanley 113, which has a flexible sole, allowing it to conform to curves and smooth them out.

**10** Lay out the stiles and rails for the front and back panels. Mark domino locations across each joint.



10

My strategy here is to usually glue the rails into one stile first. Then, you can slip the plywood panel in place before applying glue to the other tenons. A few clamps hold everything together while the glue dries.

### Front & Back Assemblies

With the sides drying, you can shift your focus to the front and the back assemblies. In reality, you could make this table as wide as you'd like, just by adjusting the length of these panels. Keep in mind, if you shrink them a bunch, you may want to remove one panel from the back.

The back panel really isn't anything special. You can see the rendering of it on page 55. A couple of rails are captured by some longer stiles. The space between

is broken up with a few additional (shorter) stiles and plywood panels. The lower long rail also has an arch cut in it. Because of the length, it's much more gentle than the sides.

The length of these rails makes it a bit awkward to make a template and rout it, though you could. Instead, my approach for these long curves is to cut and smooth them by hand. To do this, I stick the front and back lower rails together with double-sided tape. Then, after laying out the curve, I cut away the waste at the bandsaw. A wider blade makes steering this cut a bit easier. If your cuts are smooth, you may be able to just sand out the saw marks.

However, as a natural collector of tools (I usually call it "acquir-

ing", but I feel like this is my safe space), I happen to have a Stanley No 113 circular plane (Photo 9).

This specialty plane has a flexible sole that allows you to conform it to your workpiece. It can plane both convex and concave shapes. As with routing, you need to plane from two directions, making sure to plane with the grain as you're going along. I don't use the 113 all of the time, but when it's sharp and set up correctly, it does a great job. (You're now allowed to say that I told you it's a necessary plane and are allowed to buy one).

With the long curve smoothed out, the joinery for the back is straight forward. The same tenon and grooves that you used on the sides work here too. You will need some long clamps to get the pan-



11

els together, but you can also get by with a couple of ratchet straps in a pinch.

The front panel is only slightly more complex than the back. As you can see in the main photo of this article and the drawings on the next page, The front panel has two openings for the pair of doors. Within these door openings, we want to avoid any grooves (like you cut for the other stub tenons and grooves). So, the option here would be traditional mortises, stopped grooves, or another connector. I chose to use dominos — it's quick, easy, and strong. Dowels would work well too.

Now, there is indeed a pair of plywood panels in the center of the front. These reside in stopped grooves. Routing these are pretty easy. Mark the location of the grooves in the top and bottom rails. With a straight bit in the router table, drop the workpiece over the running bit, and rout right to left. When you approach your stop mark, lift the tail end of the workpiece to remove it from the bit. This will leave you with a groove on the center of the rails, and the ends (door openings) groove free.

Now, the front assembly can be glued up. The biggest thing here is to double check the squareness of the door openings. Tapping the rails into square is much easier than trying to fit doors in an un-square opening, later.



12



13

**11** A domino cuts a slot in each work piece.

**12-13** Routing the stopped groove in the top and bottom rails is easily done by dropping the rail over the spinning bit, routing to your stopping mark, then lifting it off.

**14** Dominoes are glued into their respective mortises.

**15** The front panel has three stiles with two plywood panels captured in-between.

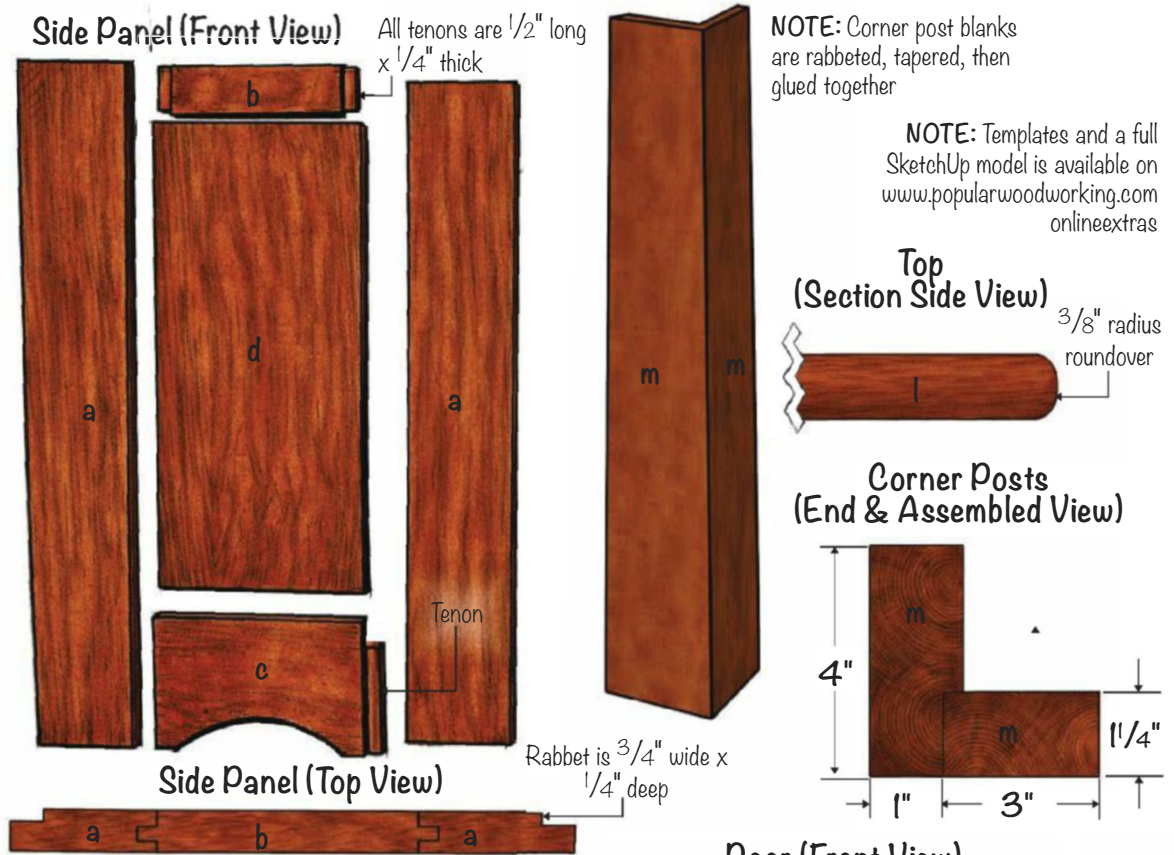


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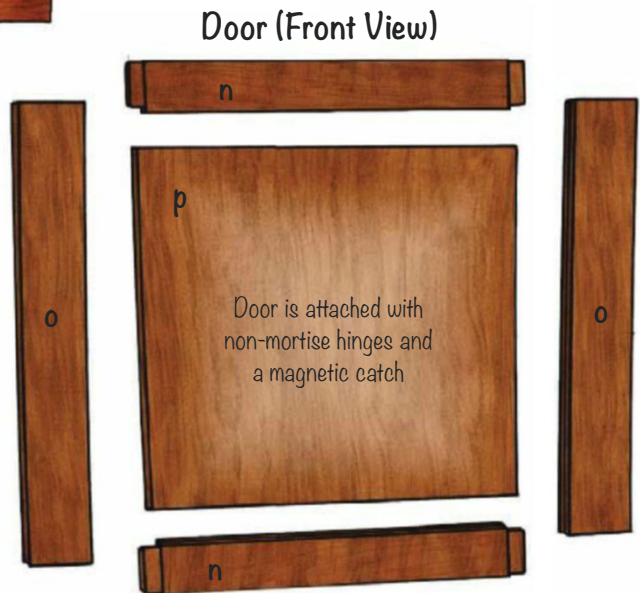
15

# Mahogany Entry Table

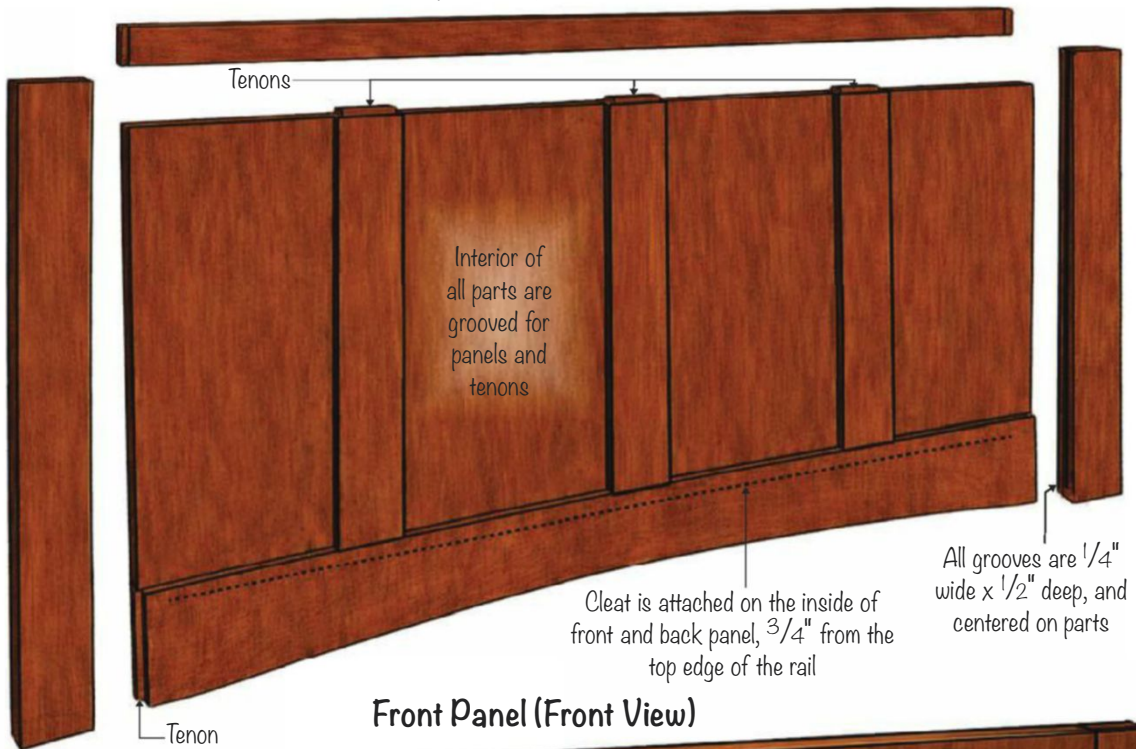


## Cutlist

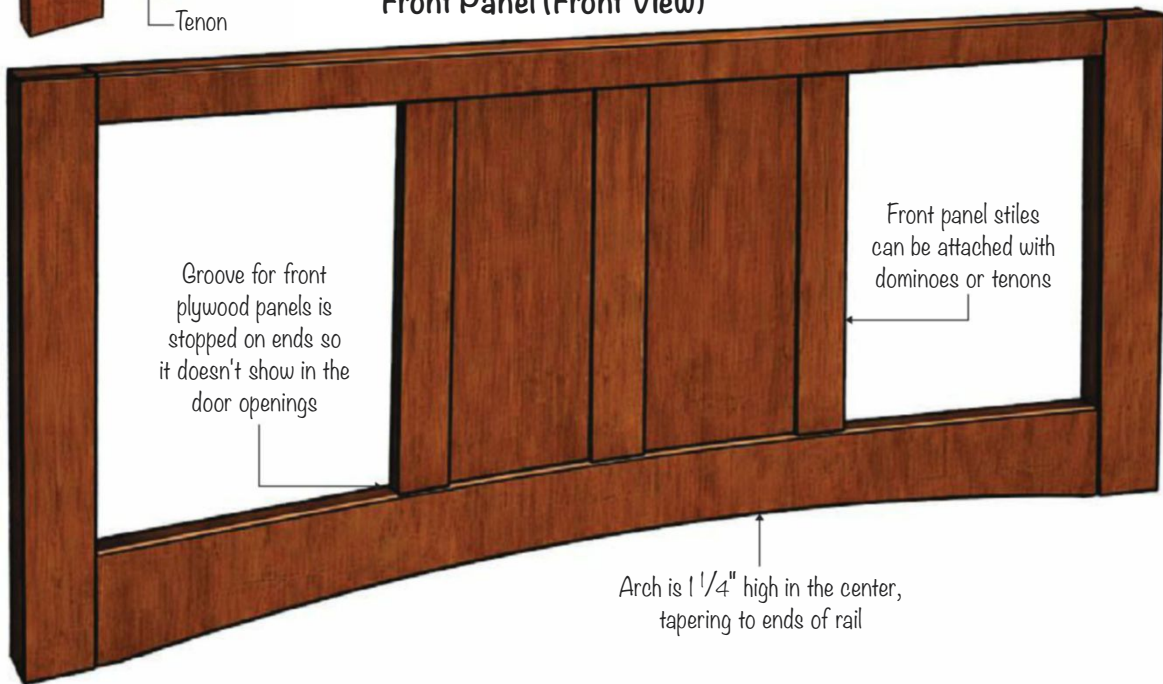
No.	Items	Dimensions (inches)		
		T	W	L
4	A Side Stiles	3/4	4	24
2	B Side Top Rail	3/4	2	8
2	C Side Bottom Rail	3/4	5	8
2	D Side Panels	1/4	8	18
4	E Front/Back Stiles	3/4	3 1/2	24
2	F Front/Back Top Rail	3/4	2	60
2	G Front/Back Btm Rail	3/4	5	60
6	H Front/Back Mid Stile	3/4	10	18
2	I Front Panels	1/4	10	18
4	J Back Panels	1/4	13	18
1	K Bottom	3/4	13 15/16	65 1/2
1	L Top	7/8	17	69
8	M Corner Post Blanks	1 1/4	4	24
4	N Door Rail	3/4	24 9/16	27/8
4	O Door Stile	3/4	24 9/16	27/8
2	P Door Panel	1/4	24 9/16	27/8

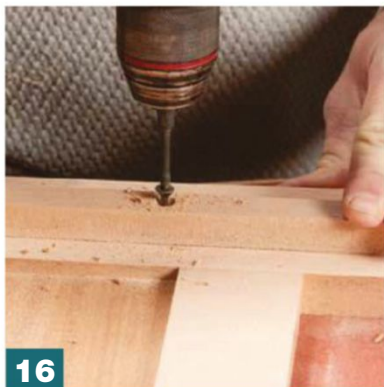


### Back Panel (Front View)



### Front Panel (Front View)





16



17



18



19



20



21

**16** Cleats are attached to the inside of the front/back for the bottom.

**17-18** Prestaining the inside of the panels will save a lot of work (and stained clothes).

**19** A rabbet is cut along the front and back edge of the sides for final assembly.

**20** Screw the sides to the front/back.

**21** Round over the top.

## Assembly & Finishing

Most times in my life, my lack of foresight has led to me being a good problem solver, fixing something I hadn't thought about. However, with this cabinet, I decided it was prudent to pre-stain the inside of the cabinet, as I didn't want to be crawling inside of it trying to get an even, wiped color. But first, we need a way to hold a bottom in place.

The bottom of the cabinet is a plywood panel, cut to fit within the cabinet case. The actual bottom gets cut later (after assembly, so you can make precise measurements). Cleats attached to the front and the back frames support the bottom. These are just screwed to the inside of the case. I use a pair of combinations squares to set the distance from the bottom and drive the screws to attach them (Photo 16).

Now, pre-stain the inside of the case parts. I prefer to use the "Penetrating Oil Stain" from *Old Masters*. The "rich mahogany" color truly looks great on mahogany. Brush it on, let it soak for about 5 minutes, then wipe all the excess off. Easy peasy (but wear old clothes).

Connecting the sides to the front and back panels is the next task. Here's where the case really takes shape. The side panels, after a bit of pre-sanding, get a rabbet cut along the front and back edge. This is to capture the front and back assem-

blies. As you see in Photo 19, I cut this with a dado blade buried in an auxiliary fence. With the panels fitting in these rabbets, you can assemble the cabinet. Spread a bit of glue in the rabbet, and position the front and back panels in place. Drive screws through the side into the front/back panel (Photo 20). These screws will get covered up with the corner blocking in a bit.

The top of this table is glued up from strips of mahogany. Usually, I like to break down my glue ups into even-width strips. For this top, I settled on four strips at 4" each. After trimming it to size, all edges get a slight roundover. This will be installed onto the case a bit later with figure-8 fasteners.

## Corner Blocks

As I mentioned at the beginning of this article, I think one of the stand-out features of this table are the corner blocks. They wrap from the front/back to the sides, and taper in

thickness — they're fatter at the bottom than they are at the top. (The inside corner is square and plumb, while the two outside faces taper).

These blocks start off as a piece of 8/4 stock, with a rabbet cut along one edge (Photo 22). Now, the task is to re-saw the blank at a bias — tapering it to get the two halves of the corner block. I did this with a taper jig at the bandsaw, but if you have a good blade, you could free-hand it. What you'll be left with are two pieces that taper from bottom to top — one with a rabbet on the inside face. The non-rabbeted piece gets ripped slightly narrower at the table saw, then the two halves are glued together. You'll notice in photo 24 that the (wider) rabbeted piece overhangs the other slightly — this gets trimmed down with the bandsaw then flush-trimmed at the router table. Doing so will complete a corner block that's a bit over an inch in thickness at the bottom, and about 3/8" at the top.

Once all four corner blocks are dried, they can be glued in place. Clamping these in place can be a bit tricky, but with some deep clamps and a caul, it's not an impossible task. With the corner blocks drying, take measurements for the doors. These again are a frame and panel assembly. Stub tenons and grooves — you know the drill by now. I like to cut doors like these *exactly* the size of my opening. I know they'll be tight, and that's OK. After test fitting with the hinges, and measuring the hinge gap, I'll trim the door down for that exact reveal all the way around.

Once the doors are finished up and fit, the entire thing can be stained and finished. I used a new finish from Old Masters called APEX. (Not sponsored, but I've been super impressed with it, plus it's water-based). I know we crammed a lot of info into this article. In case you're interested in more photos of this project and a full SketchUp model of it, go to [www.popularwoodworking.com](http://www.popularwoodworking.com). PW — Logan Wittmer



22



23



24



25



26

**22** The corner post is rabbeted.

**23** Split the blank at an angle.

**24** Glue the corner post together.

**25** The corner posts are glued onto the case.

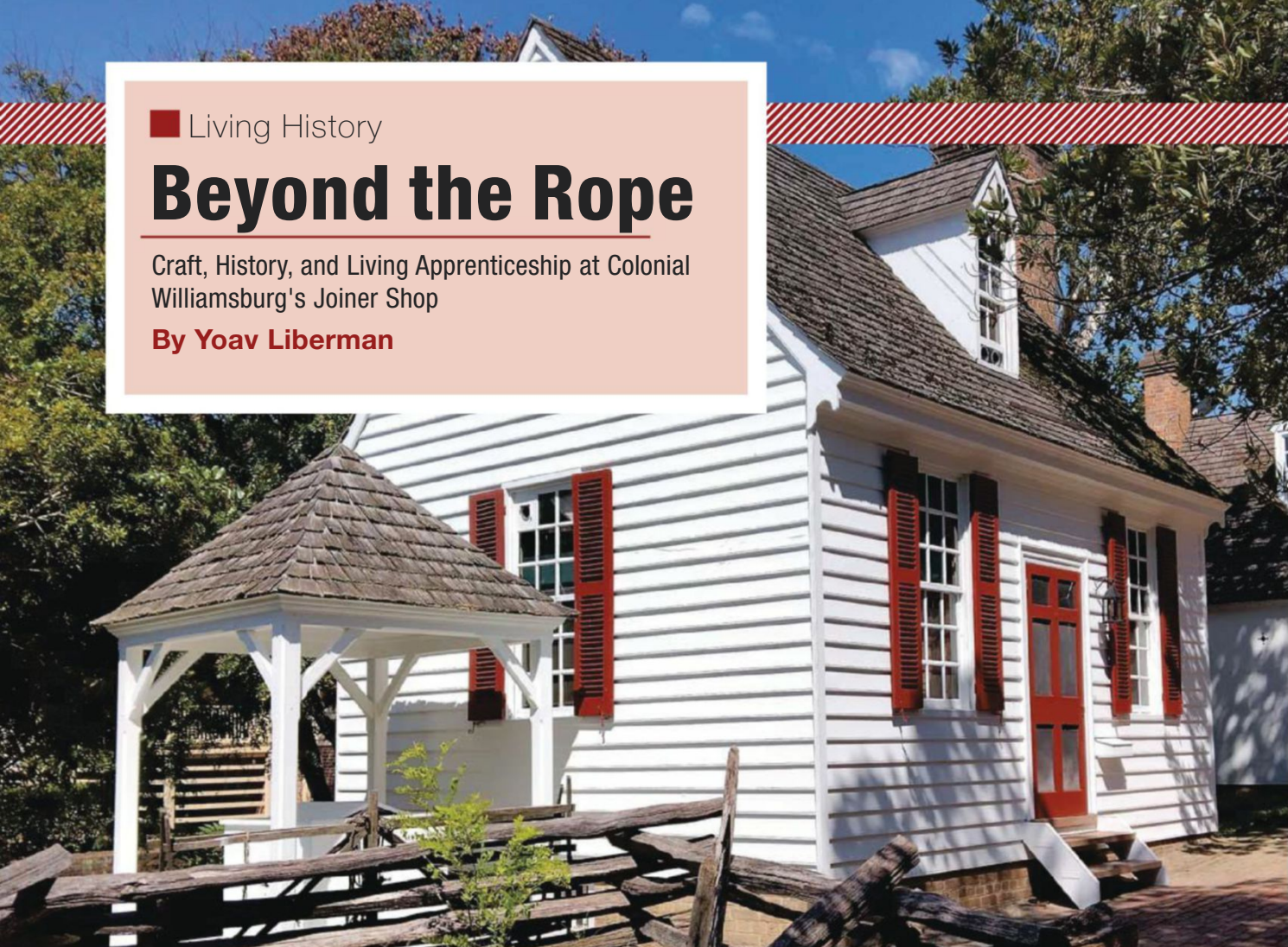
**26** The door is a simple frame and panel assembly.

■ Living History

# Beyond the Rope

Craft, History, and Living Apprenticeship at Colonial Williamsburg's Joiner Shop

By Yoav Liberman



I just returned from a visit to The Colonial Williamsburg Foundation in Williamsburg, Virginia, and it struck me how rare it is to find a place where history, craft, and education converge so seamlessly. More than a restored town, Colonial Williamsburg is a living experiment in preservation—an 18th-century city re-created on its original ground. Its historic campus includes 89 original buildings and more than 500 re-creations of structures that stood when Williamsburg was the colonial capital of Virginia, just a few miles from the first permanent English settlement in North America, Jamestown.

Walk its streets and you pass taverns, markets, apothecary, the Governor's Palace, and a powder magazine. Horses clatter down Duke of Gloucester Street, and in workshops up and down the town,

the sounds of mallets, planes, and forges carry across the air. For anyone who loves making things with their hands, Williamsburg is not just a history lesson—it's an immersion. Woodworking, blacksmithing, bookbinding, engraving, tailoring, wig making, printing, clay work, and even brickmaking are all practiced here using traditional tools and techniques. Lumber is pit-sawn by hand, bricks are fired in on-site kilns, and tradesmen work by sunlight, candles, or fireplace light when the sun goes down, just as their predecessors did. This small city—though by today's standards it feels like a village—offers a glimpse into the rhythms, skills, and daily life of 18th-century craftsmen.

This is the first installment in a series on the trades of Colonial Williamsburg; future posts will

explore the Cabinetmaker's and Blacksmith's establishments.

## A Day in the 18th Century

Beyond the individual shops, the entire historic city operates according to 18th-century principles. No electricity hums in the background, no sinks or modern plumbing are tucked into corners. Inhabitants, including all the artisans, wear period clothing, and lighting comes only from sunlight, candles, or fireplaces. The rhythm of the day follows the sun: brighter hours are reserved for tasks requiring precision, while dimmer hours are used for rough work, cleaning, or tool maintenance.

Even eye protection is true to the period—Benjamin Franklin-style spectacles are worn for close focus. The schedule adapts to the season: winter workdays

PHOTOS BY LOGAN WITTMER

are shorter due to limited light, while summer days are longer to maximize sunlight for detailed projects. Every aspect of the environment—tools, workspace, and routine—immerses both workers and visitors in the lived reality of the 18th century.

### The Joiner Shop

Nestled on the bustling Duke of Gloucester Street, the Joiner Shop isn't merely a static exhibit. As you ascend the stairs from street level, you step into a vibrant, re-sounding space where the echoes of late 17th- and 18th-century craftsmanship are not just heard, but actively recreated. This is a place where every board planed, every joint cut, and every chair assembled is a direct conversation with the past, undertaken with traditional tools and techniques.

The workshop itself is a feast for the eyes and the mind. Its walls are adorned not just with hand tools that look straight out of a bygone era, but also with reprints of period books and illustrations of furniture and tools of the trade, showcasing intricate contraptions and patterns. Templates for iconic pieces like ladder-back chairs hang ready for use. Benches, laden with ongoing projects, invite a closer look, hinting at the meticulous work underway. Down a set of internal stairs, in the lower level, younger hands are deep in the daily rhythm of the trade.

### The Joiner vs. The Cabinetmaker

To truly understand the Joiner Shop's purpose, it helps to distinguish between a joiner and a cabinetmaker in the 18th century.

A Joiner's Shop handled work that was both architectural and utilitarian. This is what we might call a woodworker's shop or an architectural millwork shop today. Their work included interior trim, exterior elements like window



**1** The walls of the joiners' and cabinetmakers' shops are adorned with templates, tools, and curious odds and ends—details so abundant it's easy to lose yourself studying them.

**2** Every bench in the shop is covered with projects in various stages of completion, each telling a story of work in progress.

**3** Young apprentices take on hands-on tasks that build essential skills. Often, their projects—like this mallet—become useful tools while preparing them for more advanced work.



4

**4-6** The production floor of *Harvey* has a variety of things going on. Some workers are assembling electrical components. Others, are installing band-saw wheels and making sure they're coplanar.

**7-8** The *Bridge City* division has racks full of tools that have been assembled, and are ready for



5



6

sashes, and basic, timeless furniture. Joiners focused on using local timbers such as pine and oak, prioritizing practicality and durability.

In contrast, the Cabinetmaker's Shop catered to a more affluent clientele. This is where higher-end, more intricate furniture was crafted—think highboys, Queen Anne-style chairs, and ornate pieces in the Chippendale style. These often required more exquisite and expensive woods, such as imported mahogany, rosewood, and fine black walnut. A cabinetmaker's work was about artistry and high fashion, while a joiner's work was rooted in function and a more rudimentary elegance.

### More Than a Museum: A Living Workshop

One of the most profound takeaways from a visit to the Joiner Shop is its clear mission: this is not a museum shop, and the artisans are not actors creating props. As I learned from Senior Journeyman Ayinde Martin, the individuals working here are dedicated craftspeople—men and women striving to master and perpetuate historical woodworking. Their daily tasks involve rigorous research into period techniques, documenting their findings, and ultimately producing authentic items crucial for the restoration and ongoing authenticity of Colonial Williamsburg itself.

Ayinde explained this distinction during our conversation: "No one in the trade shop is pushed to where it's life or death. We couldn't show you how fast this stuff can be accomplished because none of us are forced to do it... We're never in character."

This highlights a fundamental truth: while they engage with visitors, their primary role is not theatrical. It's an academic setting for discovery, where contemporary makers endeavor to learn from historical books and the collective knowledge of past artisans,

**9** Each and every component is installed by hand and inspected.

**10-12** Before parts hit the assembly floor, the quality team pulls samples and verifies quality standards using a variety of high-tech measuring devices. Certain products, like squares, get probed with feeler gauges.

translating that understanding into tangible objects.

Consider the ongoing work for the First Baptist Church, a significant structure that once served both enslaved and free Black people in Colonial Williamsburg. This reconstruction project is a powerful example of the collaborative, functional role the trade shops play. The Joiner Shop, for instance, recently completed six simple yet elegant ladder-back chairs for the building, with seats woven from local cattail reeds harvested and processed on-site. This effort is supported by other shops, with the blacksmiths creating an astounding 8,000 hand-forged nails for the project. These efforts underscore the vital role these “living history” shops play. They are not just showcasing how things were made; they are making them, right here, right now, for real purposes.

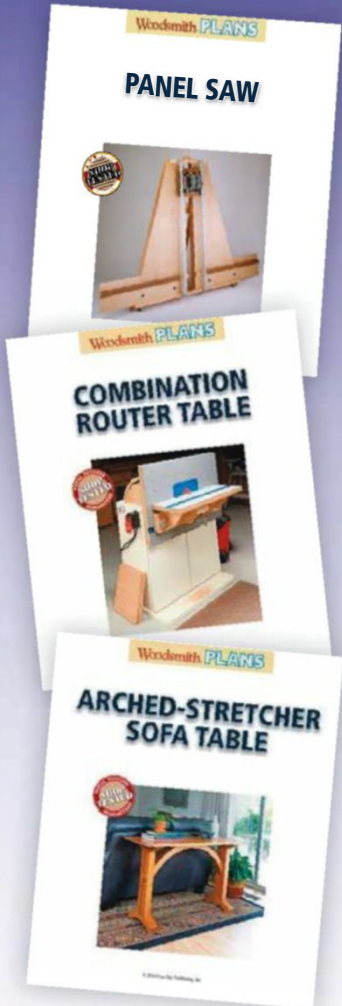
### The Path of the Artisan

My visit offered a glimpse into the hierarchical yet supportive structure of this living trade tradition. These artisan roles often require a long period of dedication; in the 18th century, many apprenticeships lasted a full seven years.

Ayinde Martin, a Senior Journeyman, has dedicated nearly three decades to this craft. “Going on 28 years,” he shared, reflecting on his journey, which began as a Junior Interpreter at the age of 12. His early experiences, “skinning poles to make a fence for a chicken coop at Carter’s Grove plantation” with a drawknife, laid the groundwork



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11 All assembled tools get checked for setup before leaving.

12 Final signatures go with each piece of equipment before being packed in a shipping container and put on a boat.

for a lifelong passion. For Ayinde, the work transcends mere carpentry; it's about giving voice to the past. "The trades give us the chance to tell the story of the people who were doing the work," he emphasized. "That's what's important to me: making sure that these unheard voices have the opportunity to speak."

Downstairs, the hum of hand tools introduced me to the next generation. William Kester, a high school senior, represents the dedication of a Junior Interpreter—a volunteer position akin to an internship. His hands were busy with a piece of heart pine, first straightening and planing the block before mortising its center to shape the head of a mallet. "I've been here for about three years," William explained, describing a commitment of "about 15 hours

a week" learning from his colleagues. His passion extends beyond the workshop: he's won woodworking competitions and hopes to pursue art history or archaeology in college—a testament to how these historical trades can inspire future academic and artistic pursuits.

Working alongside William is Laura Hollowood, a paid Apprentice who is senior to him in the shop's hierarchy. Laura represents the crucial middle stage of training, bridging the gap between volunteer and journeyman. Also part of the team is Emmalee Morgan, another Apprentice, whose absence during my visit was noted by her colleagues. Together, these roles—Junior Interpreter, Apprentice, and Journeyman—form the backbone of Colonial Williamsburg's commitment to preserving

and practicing ancient crafts. The ultimate rank, the Shopmaster, Brian L. Weldy, oversees the entire operation, guiding and teaching everyone from the newest volunteer to the most experienced journeyman.

The Joiner Shop is not just a stop on a tourist map; it is a living continuum of craft, history, and education. Here, the past is not merely displayed but actively shaped, planed, and joined by dedicated hands. To watch these artisans work is to glimpse the resilience and creativity that built early America, and to understand that authenticity is not a static display, but a living, breathing endeavor. **PW** - *Yoav Liberman*

A black Harvey Alpha A-15 bandsaw with a digital control panel on the left side. The machine has a vertical column with a motor and a horizontal table. The text 'INTELLIGENT' is written vertically on the left side of the column, and 'ALPHA A-15' is written vertically on the right side. The Harvey logo is on the front of the base.

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