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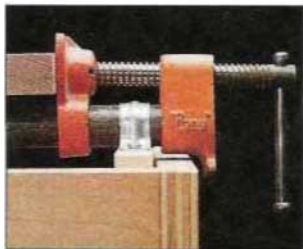
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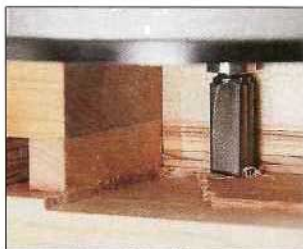


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Sanding thin wood so it's smooth and uniform in thickness is easy with this jig for your drill press.



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Tool Handles _____ 10

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Tool Handles page 10

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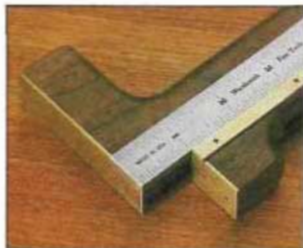
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The secret to this strong and simple joint is to glue a man-made panel into the grooves of a frame.

Adjustable Set-Up Gauge _____ 24

This shop-built precision gauge ensures accurate height, depth, and distance measurements.



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Five shop-tested tips: Drilling Tip, Scroll Saw Blade Organizer, A Tip for Turning, Squaring a Miter Gauge, and Pads for C-clamps.

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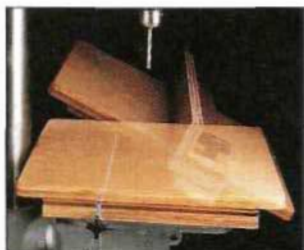
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A tilting table, an adjustable fence, and a replaceable insert make it easy to drill straight or angled holes.



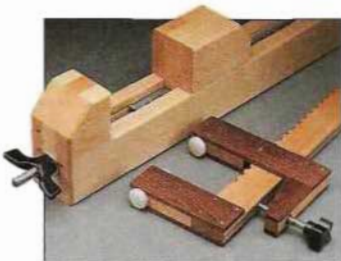
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This stop block is ideal for making stopped cuts on a router table, band saw, or drill press. It's "micro-adjustable" so you can fine tune the position for an exact cut.

Forstner Bits _____ 10

Guided by its rim instead of a centerpoint, a Forstner bit cuts near perfect flat-bottomed holes at any angle.



Shop-Built Clamps page 12

Shop-Built Clamps _____ 12

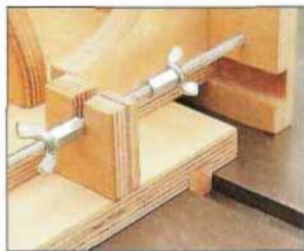
Two clamps you can build at a fraction of the cost of store-bought clamps. One for gluing up panels and the other for quick clamping jobs.

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Precision tenons are easy with this shop-made jig for your table saw. It features a unique double-stop so you can cut both sides of a tenon without flipping the workpiece.

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From stock preparation and layout, to cutting the cheeks and shoulders, these helpful tips will show you how to cut a tenon that fits perfectly.



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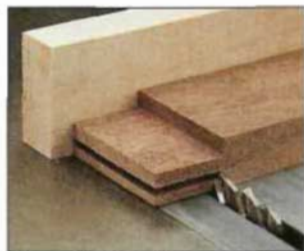
Five shop-tested tips: Zero Clearance Insert, Depth Gauge, Cut-off Jig for a Circular Saw, Squaring a Mitered Corner, and a Tip for Mortising Hinges.

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Keyless Chucks _____ 14

Changing drill bits without a chuck key is quick and easy with this handy accessory for your portable drill.

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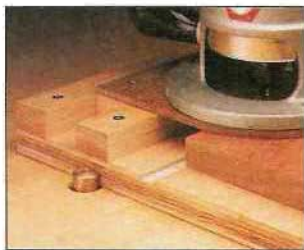
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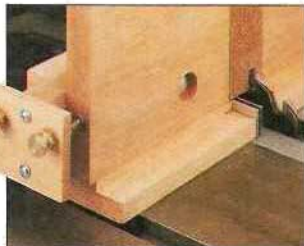
All it takes to get a perfectly straight edge on a workpiece is a hand-held router and this shop-made jig.



Router Jointer page 4

Box Joint Jig _____ 6

This precision-made jig produces tight-fitting box joints. The secret is a micro-adjustment system that lets you sneak up on the perfect fit.



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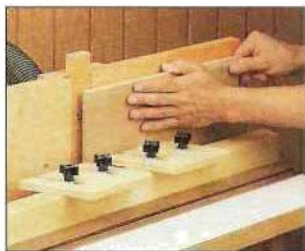
Five Shop-Tested Tips: Router Bit Depth Gauge, An Adjustment Block for your Router Table, Installing Threaded Inserts, Squaring-Up Large Panels, and a Cork-Bottom Sanding Block.

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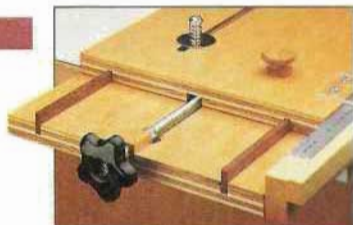
Six Shop-Tested Tips: Pipe Clamp Edge Vise, Supports for Cutting Plywood, Auxiliary Band Saw Fence, a Tip for Rust Removal, Glue Brush Tip, and a Shop-Made Cord Tie.

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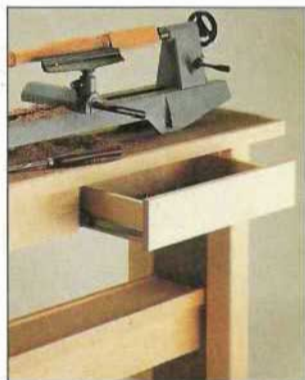
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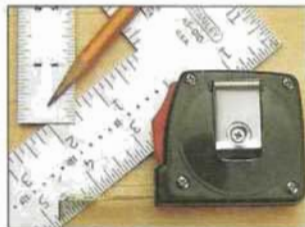
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A look at random-orbit sanders. What makes them different, how they work, and techniques for sanding.

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Portable Miter Saw Station _____ 16

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Six Shop-Tested Tips: Knock-Down Sawhorse, Alternate Bench Vise, Clamp Pad, Allen Wrench Organizer, Tip for Cutting Metal Threads, and a Leather Strop Tip.

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Make quick and accurate cuts on the table saw with this shop-built fence for your miter gauge.



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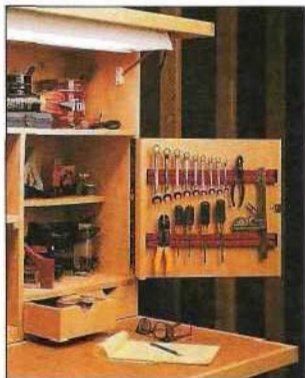
An in-depth look at how anti-kickback router bits work. Also, a comparison of the different bits available.



Chisel Plane page 8

Chisel Plane _____ 8

Cleaning up hard to reach places (like the corners of a drawer or panel) is easy with a chisel plane. All it takes to make your own is some simple hardware, a blade, and a scrap of wood.



Work Center page 16

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The foundation of a quality project can be traced back to how carefully the stock is prepared before the actual building begins.

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This wall-mounted work center offers plenty of built-in storage to keep your tools right at hand. It also features a bench that folds down to provide a solid work surface. And a flip-up door holds an optional shop light.

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The thicker consistency of gel stains offers a number of advantages over liquid stains:

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Cutting perfect circles is easy with this shop-made jig for your band saw. A built-in tape and indicator let you quickly set up to cut almost any size circle.



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Belt Sander Maintenance _____ 8

All it takes to keep your belt sander running smooth and trouble-free is a routine cleaning and inspection.

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A unique design provides a handle for each tray of this handy tote. Then the two halves combine to form one grip to carry parts, tools, or hardware wherever you need them.



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If you've ever tried to crosscut a large panel on a table saw, you'll appreciate this shop-built sliding table. It features a built-in fence that slips on and off for quick and accurate set-ups.



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Making a controlled cut with a chisel depends on using the right grip and a few simple techniques.

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This shop-built accessory allows you to use your portable circular saw to make perfectly straight or angled cuts with dead-on accuracy.



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A close-up look at the different types of flexible veneer. Also, step-by-step instructions for applying and finishing flexible veneer to produce professional-looking results.



Flexible Veneer

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Drill Bit Cabinet _____ 12

Organize your drill bits and accessories with this compact cabinet. It features storage trays that tilt out for easy access to your bits, and an optional drawer for accessories.



Drill Bit Cabinet

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Radial Arm Saw Stand _____ 16

This modular system is more than just a stand for your radial arm saw. By taking advantage of the unused space under your saw, it makes it easy to organize cutoffs, sheet goods, and scrap pieces of wood.



Radial Arm Saw Stand

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Reducing Tool Noise _____ 24

The noise your tools generate doesn't have to drive your family (or neighbors) out of the house. Here are some simple tips for putting a damper on the worst offenders.

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Six Shop-Tested Tips: Band Saw Fence, Adjustable Runner for Miter Gauge Slot, Putty Shield, "Window" for your Dust Collector, plus two Quick Tips.

Medium-Density Fiberboard _____ 30

Because it's flat, smooth, and dimensionally stable, medium-density fiberboard (MDF) is an ideal material for many projects.

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This unique tool combines a marking gauge to lay out joinery, and a beam compass to draw large arcs and circles.

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A versatile sawhorse that raises up and down to handle almost any job. Then knocks down for compact storage.

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A step-by-step approach to treating ceilings and walls so noise from the shop won't slip through.

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Working on a project with lots of drawers? This shop-made jig turns your router table into a production tool.

Drill Press Table & Fence _____ 16

Make quick, accurate setups on your drill press with this table. It features a large work area and a built-in fence.

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There are plenty of drawers in this compact storage bin to help organize small parts and loose hardware.

Dovetailed Bookcase _____ 26

Strength and good looks. Two reasons why dovetail joints are a perfect choice for this wall-hung bookcase.

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Simple tips, jigs, and techniques you can use to make thin stock out of thick boards.

Hand-Cut Dovetails _____ 22

You'll be cutting dovetails by hand in no time with our step-by-step approach and a few basic tools.

Wood Filler _____ 30

Two types of wood fillers — each with a place in your shop. Here are the reasons why.

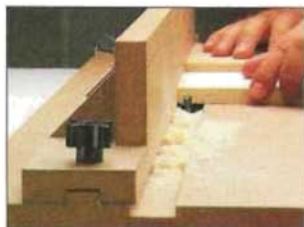
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This shop-built jig produces a straight, square edge on a workpiece by converting your hand plane into a jointer.

Built-up Moldings _____ 12

A router and some ordinary bits. That's all it takes to build up your own detailed moldings.

Wall Mirror _____ 14

Use our simple built-up molding technique to make this handsome wall mirror in just a few hours.

Cutting Guide _____ 16

A unique tracking system on this cutting guide lets you use your circular saw or router to produce straight, accurate cuts.

Routing Profiles _____ 22

Create decorative profiles that are smooth and consistent with a hand-held router and our step-by-step approach.

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Buying a circular saw? Our team tests eleven popular saws and offers practical suggestions on what to look for.

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Pipe Clamp Tips _____ 20

From gluing up flat panels to keeping clamps from marring the work, here's a collection of our best pipe clamp tips.

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Clamp Storage System _____ 24

This convenient storage system organizes all of your clamps so they're right at hand where you need them.

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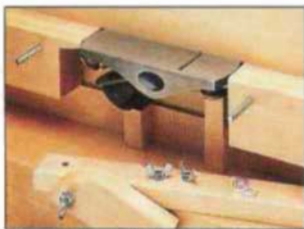
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There's more to lumber grain than appearance. It also affects the stability and cost of a project.

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A natural-looking finish that's easy to apply. And you can repair it too. All this makes Danish oil worth a closer look.



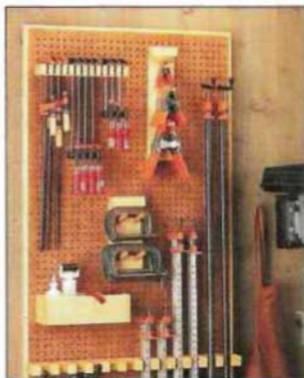
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This shop-built jig offers a quick setup and guarantees a perfect fit when routing dadoes (or rabbets).

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Build this strong, sturdy stool in just a few hours with the help of our adjustable dado jig.

Cutting Tenons on a Band Saw _____ 10

Accurate cuts. And a quick, easy setup. Two reasons why a band saw is an ideal tool for cutting tenons.

Outfeed Table _____ 16

This outfeed table makes it easy to cut large workpieces on the table saw. And it folds away for compact storage.

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Careful preparation is the secret to a perfect finish.



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Avoiding Kickback _____ 4

Safety is no accident. Here's a close-up look at some of the causes of kickback and what you can do to prevent it.

Featherboard _____ 6

A unique design lets you adjust this shop-made featherboard to use on many of the tools in your shop.

Tongue & Groove _____ 8

Cutting a tight-fitting tongue and groove joint is easy when you follow our simple step-by-step approach.

Lap Desk _____ 11

This compact lap desk provides space inside to organize pencils and paper and a large stable surface to write on.

Thickening Jig _____ 16

You don't need a planer to thickness stock accurately. All it takes is a hand-held router and this easy to build jig.

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The Small Shop Power Tools _____ 14

Which power tools are best for the small shop? Full-size, benchtop, or combination tools?

Great Tips Glue-Up Tips _____ 20

A collection of our best tips that includes everything from choosing the right glue to the best way to apply it.

Selecting Tools Table Saws _____ 22

Our team tests six popular table saws and offers practical suggestions on selecting a saw that will suit your needs.

Readers' Tips Shop Solutions _____ 28

Shop-tested solutions from our readers on their most common woodworking problems. Plus two quick tips.

Lumberyard Softwood Grades _____ 30

Building a project out of softwood? Understanding the different lumber grades can affect its cost and appearance.

Finish Room Water-Based Top Coats _____ 31

A durable finish that's easy to use. And no messy cleanup. All this makes water-based top coats worth a close look.



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Table Saws page 22

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Drill Press Hold-Down _____ 4

It's easy to drill precision holes on the drill press when you use this hold-down to "lock" your workpiece in position.

Sanding Table _____ 10

Eliminate the cloud of dust produced every time you sand with this benchtop sanding table.

Box Joints: Router Table _____ 12

Perfect box joints. That's what you'll get when you cut them on the router table using our simple step-by-step approach.

Wall-Mounted Tool Cabinet _____ 16

This wall-mounted cabinet provides a home for all your tools. It not only protects them — but organizes them as well.

Tool Holders _____ 20

One of the simplest ways to protect a tool is to make a holder for it. We'll look at customizing holders for nine different tools.

Solid Wood Edging _____ 26

You can give a plywood project the appearance of solid wood by trimming the edges with hardwood. Here's how.

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Jointer Tips _____ 8

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Tape Measures _____ 22

Which of the eight popular tape measures that we tested is best for you? Our two-man team offers suggestions.

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Roll-Around Tool Base _____ 24

Moving heavy tools in the shop is no longer a wrestling match when you use this simple roll-around base.

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Particleboard _____ 30

A look at different grades of particleboard and their uses.

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Oil Stains _____ 31

True colors that don't fade. Oil stains offer this and more.



Drill Press Hold-Down page 4



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Saw Blade Storage _____ 4

Protect and organize your valuable saw blades with this handy storage cabinet.

Turning with a Spindle Gouge _____ 6

This versatile turning tool can do it all — from roughing out spindles to shaping decorative coves and beads.

Shop-Made Mallets _____ 8

Two traditionally designed shop mallets that can be turned with just a spindle gouge and a parting tool.

Sabre Saw Table _____ 16

A simple table and a unique adjustable arm convert your hand-held sabre saw into a precision cutting tool.

Dowel Joinery _____ 22

It's easy to make strong, accurate dowel joints with just an electric drill and one of our simple shop-made jigs.

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Selecting Hand Tools _____ 10

What are the most practical hand and portable electric tools for the small shop? Here's a look at our top picks.

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Our three-man testing team offers suggestions on which palm-grip random-orbit sander is best for you.

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A hard, durable finish for your special projects.

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Tape Mate, Veritas Brass Insert Knobs, and Nobex Squares.

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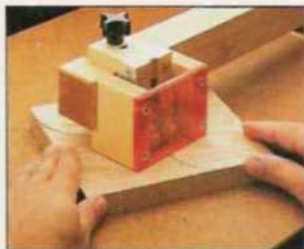
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Sabre Saw Table page 16

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Sanding Table & Air Filter System _____ 4

Solve two problems at once with this mobile sanding table. It collects the dust produced when sanding. And it filters fine dust particles out of the air.

Pattern Cutting on a Band Saw _____ 8

You can cut identical curved pieces quickly and accurately on the band saw by using this simple technique.

Arched-Top Clock _____ 10

It's hard to stop after making just one of these arched-top clocks. We offer several tricks to get "production" rolling.

Heavy-Duty Workbench _____ 16

You won't spend a lot of time or money building this sturdy workbench. Made from ordinary construction materials, its large work surface provides several clamping options.

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The Small Shop Sawdust in the Small Shop _____ 12

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Great Tips Layout Tips _____ 14

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Our readers offer their own shop-tested solutions to some of the most common woodworking problems.

Lumberyard Softwood Plywood _____ 30

Knowing the different grades of softwood plywood will help you select the best material for the project at hand.

Finish Room Specialty Finishes _____ 31

Two special finishes with a twist. One creates the look and feel of granite. The other gives the appearance of marble.



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Table Saw Knee Switch _____ 4

With this knee-operated switch, you'll never again have to grope blindly for the power switch on your saw.

Table Saw Tune-up _____ 6

A finely-tuned table saw not only does a better job of cutting wood. It's safer and more enjoyable to use too.

Utility Ladder _____ 10

Here's a folding step ladder that won't wobble, is strong enough for two people, and has a tray for holding tools.

Angled Dadoes _____ 12

Cut perfectly-aligned angled dadoes on the table saw using our simple technique and a shop-made jig.

Table Saw Cabinet _____ 16

Extra Storage. A bin to collect dust. And an outfeed support. Three reasons to build this sturdy saw cabinet.

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Lighting in the Shop _____ 22

Practical solutions for shedding light in your shop.

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Hardware Tips _____ 14

A collection of five trouble-free tips to make your next hardware installation go quickly and easily.

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Combination Blades _____ 24

Looking for the best saw blade? Our three-man team tests six combination blades and two general-purpose blades.

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Five of our readers offer their own shop-tested solutions to everyday woodworking problems.

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Rubbing out a Finish _____ 30

The secret to a perfect finish isn't how you apply it. It's what you do after the finish dries.

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Specialty Plywoods _____ 31

Three unique plywood products for special projects.



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Utility Ladder

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Tips on selecting, using, and storing waterstones.

Sharpening Station _____ 6

Special holders for your sharpening stones are just one of the unique features of this wall-mounted station.

Sharpening a Chisel _____ 8

A simple step-by-step approach to a razor-sharp chisel.

Shop-Made Knobs _____ 10

Inexpensive and easy to make, these shop-made knobs can be customized to fit your tools, jigs, and fixtures.

Tapping Threads _____ 13

A simple tap is all it takes to make a threaded part.

Finish Storage Cabinet _____ 16

A drop-down work table and a lazy Susan make this cabinet a convenient place to store and apply your finishes.

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Great Tips

Miter Gauge Tips _____ 14

Add precision to your miter gauge with these special tips.

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Cordless Driver/Drills _____ 20

Our three-man team tests twelve cordless driver/drills and offers suggestions on what to look for.

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Benchtop Tool Stand _____ 24

Build this "quick-change" stand for your benchtop tools.

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Alternate Hardwoods _____ 26

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Adjustable Featherboard, MiterMatic, Tru-Fit Miter Bar.

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Six of our readers offer their own shop-tested solutions.

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Pore Fillers _____ 30

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Designed to hold an ordinary steel scrapper, this shop-built plane makes it easy to get a smooth, uniform surface.

Splined Miters _____ 8

Here's a simple technique that adds lots of strength to your miter joints. Just rout a slot and glue in a spline.

Picnic Table _____ 10

With splined miters and a "shortcut" version of a mortise and tenon, this good-looking picnic table is built to last.

Sliding Cutoff Table _____ 16

Cut wide glued-up panels or pieces of plywood safely and accurately with this sliding cutoff table. And an adjustable fence allows you to make angled cuts as well.

Drilling Holes for Screws _____ 22

There's more to drilling holes for screws than meets the eye. The key is the size and sequence you drill the holes.

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Great Tips Plywood Tips _____ 14

A collection of our best tips for working with plywood.

The Small Shop Pegboard Storage _____ 24

Lots of storage in a compact space. That's the idea behind the unique design of this pegboard storage system.

Selecting Tools Quick Clamps _____ 26

We test three different "quick clamps" and offer practical suggestions on which one to choose.

Readers' Tips Shop Solutions _____ 28

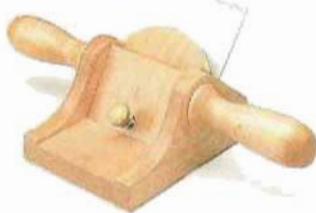
Our readers offer their own shop-tested solutions to some of the most common woodworking problems.

Lumberyard Redwood _____ 30

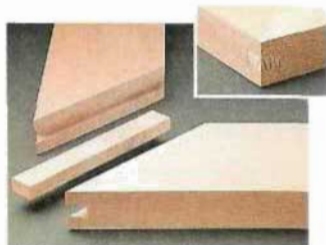
Building a project out of redwood? Understanding the different grades can affect both its cost and durability.

Finish Room Outdoor Finishes _____ 31

A look at three finishes that resist the extremes of weather.



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Splined Miters page 8



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Pegboard Storage page 24

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Vertical Glue-Up Station _____ 4

Gluing up solid wood panels is easy with this shop-built jig. And it doubles as a storage rack for your pipe clamps.

Shop Stool _____ 8

Comfort and strength. Two reasons why this may be the only stool you'll ever build for your shop.

Routing Tenons on Dowels _____ 11

A core-box bit and a simple jig. That's all you need to rout tenons on the dowels used for the legs of the stool.

Gluing Up Panels _____ 12

Tips and techniques for gluing up an attractive solid wood panel that's perfectly flat — and stays flat.

Drilling Guide _____ 16

Building a cabinet with adjustable shelves? A unique indexing system on this drilling guide lets you drill identically-spaced holes for both rows of shelf pins.

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Sharpening Tips _____ 14

A roundup of our best sharpening tips that will keep your chisels and plane irons in top shape.

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Small Shop Layout _____ 20

Make a small shop work "big" by planning for work flow, tool groups, and infeed/outfeed requirements.

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Portable Thickness Planers _____ 22

Our team tests six popular, portable thickness planers and offers practical suggestions on the best one to buy.

Readers' Tips

Shop Solutions _____ 28

ShopNotes' readers offer their own solutions to some of the most common woodworking problems.

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Crotchwood _____ 30

The dramatic grain patterns in crotchwood can turn an ordinary project into something special.



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Revolving Parts Bin _____ 4

Besides storing and organizing small parts and pieces of hardware, this shop-built bin revolves on a lazy Susan. To find the part you need, just give it a spin.

Locking Rabbet Joints _____ 14

Looking for a strong, simple drawer joint? We show you how to make two types of locking rabbet joints.

Rolling Tool Cabinet _____ 16

Park this rolling tool cabinet right next to your bench. Then enjoy the easy access to your tools provided by the three drawers and large storage area underneath.

Craftsman Tool Chest _____ 23

Whether you build this craftsman tool chest to put on top of the rolling tool cabinet, or as a stand-alone project, it provides a special home for your hand tools.

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Selecting Tools

Belt Sanders _____ 8

Our three-man team tests seven popular belt sanders to see which one is best. Also, practical suggestions on what to look for when buying a belt sander.

Great Tips

Planer Tips _____ 12

A collection of our best tips to get the most from your planer. Everything from thickening short pieces, to trimming pieces to width by planing an edge.

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Shop Solutions _____ 28

ShopNotes' readers offer their own solutions to some of the most common woodworking problems.

At the Store

New Products _____ 30

Here's a quick look at three new products that have earned a well-deserved place in our shop.

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Coloring Finishes _____ 31

It's easy to color a finish to get just the shade you want. Use our special recipes. Or mix your own.



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Belt Sanders page 8



Locking Rabbets page 14



Rolling Tool Cabinet page 16

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Projects

Assembly Table _____ 4

No matter what size project you're building, this assembly table makes it easy to put it together. Raise or lower the table to hold projects at a comfortable working height. And flip up two wings to expand the work surface.



Assembly Table page 4

Small Workbench _____ 16

Don't let its small size fool you. This sturdy workbench features two shop-made vises that provide more clamping options than many benches twice its size. There's even an optional cabinet for storing tools and supplies.



Plunge Routers page 10

Drop-Down Tool Tray _____ 24

You can take advantage of the unused space under your bench with this handy tool tray. The lid drops down to provide quick access to your tools. And a set of unique tool holders keeps everything safely in place.

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Selecting Tools

Plunge Routers _____ 10

ShopNotes puts eight heavy-duty plunge routers to the test. Which one is best? And what are the key things to look for when you're buying a plunge router?



Small Workbench page 16

Readers' Tips

Shop Solutions _____ 28

Our readers offer their own shop-tested tips: Locking Tool Base, Band Saw Shelf, Box Joint Tip, a Shop-Vacuum Handle, plus three quick tips.

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Wood Moisture _____ 30

Using wood with the right moisture content can make or break a project. That's because the amount of moisture affects everything from the fit of the joints to the finish.



Tool Tray page 24

Finish Room

Spray Painting a Finish _____ 31

There's more to applying a spray-painted finish than just shaking up a can of paint. Especially if you want to produce a durable finish that looks good too.

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Miter Saw Station _____ 6

This miter saw station will spoil you. When you raise the folding wings, two extension tables provide all the support you need for cutting long workpieces. And with a flip-up stop block that slides along a fence, you can make precision cuts without measuring and marking.

Miter Saw Tune-Up _____ 14

It's easy to keep your power miter saw running smoothly and accurately. All it takes is some routine maintenance and a few basic adjustments.

Low-Speed Grinding Jig _____ 16

You can get razor sharp edges on your plane irons and jointer knives with this shop-built grinding jig. Along with a grinding wheel that's chucked in the drill press and spinning at low speed, it gives you complete control over every step of the grinding process.

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Tips & Techniques

Readers' Tips _____ 4

Our readers offer their own shop-tested tips: Magnetic Resaw Fence, Leg Leveler, String Clamp, Speed Control, and a tip for Hanging Full-Overlay Doors.

Selecting Tools

Compound Miter Saws _____ 24

Thinking about buying a compound miter saw? Our three-man team tests four popular models and offers practical suggestions on the best one to buy.

Finish Room

Shellac _____ 28

Shellac has been around for years — and there's a good reason for it. Besides providing plenty of protection, it's extremely easy to apply. This "old timer" also provides solutions to many modern finishing problems.

Tips From Our Shop

Shop Solutions _____ 30

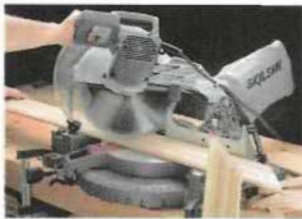
Whether you're building the projects in this issue or another one altogether, this collection of tips from the guys in our shop is sure to come in handy.



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Miter Saws page 24



Shellac page 28

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Clipboard Box _____ 4

It's a clipboard...and it's a box. Together, they provide a handy way to plan your projects. In addition to serving as a writing surface, the clipboard doubles as the top of the box to organize your writing materials and supplies.



Clipboard Box page 4

Parquetry _____ 8

Thin pieces of veneer cut in basic geometric shapes. That's the idea behind parquetry. And that's all it takes to create a striking wood pattern. Our step-by-step article shows you how to get professional-looking results.



Parquetry page 8

Oscillating Drum Sander _____ 16

This simple, shop-built accessory converts your drill press into an oscillating drum sander. With a small, gearmotor and a unique drive system, the sanding drum spins around and goes up and down at the same time.



Oscillating Sander page 16

Sandpaper Storage _____ 24

Keep your sanding supplies organized with these two storage projects. One presses sheets of sandpaper flat to prevent the edges from curling. The other holds a roll of sandpaper and makes it easy to cut strips to exact length.

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Selecting Tools Block Planes _____ 12

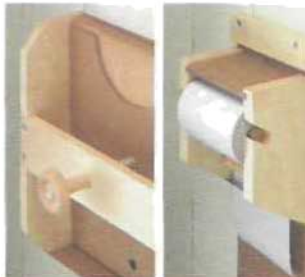
A block plane that's used every day is like an old friend. We visit with four woodworkers about their block planes and find out what makes each one a "favorite."

Tips & Techniques Readers' Tips _____ 28

Our readers offer their own shop-tested tips: Retractable Chuck Key, Wedged Sanding Block, Plastic Knobs, Pocket Holes, and a Pencil Cushion.

Tips From Our Shop Shop Solutions _____ 30

We've also included a variety of tips from the guys in our own shop to help build the projects in this issue.



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Readers' Tips _____ 4

Our readers offer their own shop-tested tips to common woodworking problems. Plus three quick tips.

Shop Solutions _____ 30

A collection of four great tips from the guys in our shop that will come in handy for the projects in this issue.

Projects

Adjustable Taper Jig _____ 6

Three jigs in one. That's what you get when you build this adjustable taper jig for your table saw. Use it to make long, angled cuts on a workpiece, cut perfectly consistent tapers, or rip a straight edge on rough-sawn lumber.

Folding Table _____ 10

The legs of this table fold up for storage. And the plastic laminate top is durable and easy to clean. Combine all that with the warm look of cherry, and this folding table is as good-looking as it is practical.

Plate Joiner Table _____ 16

This shop-built table converts your hand-held plate joiner into a benchtop tool. Adjusting a sliding table up or down makes it easy to locate the slot for the biscuit. And a unique, foot-operated plunge mechanism lets you cut the slot without having to clamp the workpiece.

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In the Shop

Tool Talk _____ 14

Our mailbox is overflowing with questions about buying and maintaining tools. We answer six of them here.

Selecting Tools

Plate Joiners _____ 26

ShopNotes tests five popular plate joiners and offers practical suggestions on the best one to buy.

At the Store

New Products _____ 31

Here's a quick look at three new products that we've been using in our own shop.



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Folding Table page 10



Plate Joiner Table page 16



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Readers' Tips _____ 4

Our readers offer their own shop-tested tips for solving some of the most common woodworking problems.

Shop Solutions _____ 30

These tips from the guys in our shop make it easy to get professional-looking results on the projects in this issue.

Tips & Techniques

Ripping Thin Strips _____ 15

Two different methods for ripping thin strips of wood to a uniform thickness — just what you need to ensure success when making a bent lamination project.

Bent Lamination _____ 20

What's the secret to bending wood into a graceful, flowing curve? It's the details. We show you how to "read" the grain of the wood strips used to make a bent lamination, design the bending jigs, and glue up the strips.



Flush Trim Jig _____ page 16

Projects

Serving Tray _____ 6

The curved sides and the bent wood handles of this serving tray are both made by gluing up thin strips of wood. But they provide two different bending challenges.

Table Saw Insert _____ 15

This shop-made insert for your table saw has a "zero-clearance" opening for the blade that provides a safe way to rip thin strips. And it reduces chipout as well.

Flush Trim Jig _____ 16

Trimming solid wood edging flush with the surface of a workpiece is easy with this flush trim jig. All you need is a hand-held router and a straight bit. There's also an optional edge guide for routing rabbets.

Fishing Net _____ 24

The bent wood frame of this fishing net is accented by a walnut strip and handle that are sandwiched between four maple strips. Just string the net on the frame and head off to your favorite fishin' hole.



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Tools & Techniques

Building Raised Panel Doors _____ 12

Building a number of raised panel doors? You can use a special set of router bits to make the frame and the raised panel quickly and easily.

Stile & Rail Bits _____ 24

A matched set of stile and rail bits and a router table. That's all it takes to cut the joinery and create the decorative profile on the frame of a raised panel door.

Projects

Torpedo Level _____ 6

Made of highly figured walnut and brass, this torpedo level has the look and feel of a traditional hand tool. With a unique, built-in adjustment system, you can calibrate the level quickly and accurately.

Revolving Tool Station _____ 16

Just give the circular platform on top of this station a spin to position the tool you want to use right in front of you. A rotating turntable in the base provides easy access to your portable power tools as well.

Frame & Panel Jig _____ 28

This shop-built jig solves the biggest problem of gluing up a frame and panel door — keeping the door perfectly flat. The secret is a pair of cams that apply clamping pressure directly in line with the frame.

Departments

Readers' Tips _____ 4

Our readers offer their own shop-tested tips for solving some of the most common woodworking problems.

Shop Solutions _____ 26

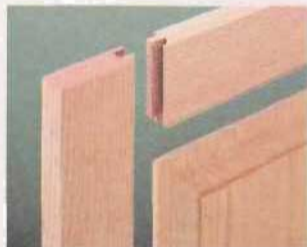
Use these tips from the guys in our shop to get professional-looking results on the projects in this issue.

Sources _____ 31

Hardware, supplies, and mail order sources for the projects in this issue. Also, a selected guide to past projects from ShopNotes that's sure to come in handy.



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Tuning Up a Block Plane _____ 8

All it takes to turn your block plane into a precision tool is a simple tune-up. Here's our step-by-step approach.

Sabre Saws _____ 12

Our team of woodworkers tests six popular sabre saws and offers practical suggestions on the best one to buy.

Strengthening Miter Joints _____ 26

Three shop-tested techniques to strengthen the end grain to end grain glue surface of a miter joint. Also, three fasteners for making a strong mechanical connection.

Projects

Picture Frame Clamping Jig _____ 6

This simple clamping jig uses an ordinary band clamp to keep the mitered corners of a picture frame from slipping out of alignment during glue-up.

Miter Trimmer _____ 16

It's easy to get a perfect-fitting miter joint with this shop-made miter trimmer. With a built-in clamp holding the workpiece at a 45° angle, just take a thin shaving with a block plane to "true up" the mitered end.

Desktop Picture Frames _____ 22

You can build both of these desktop picture frames in a weekend. But with their intricate looking profiles and contrasting strips of wood, no one would ever guess.

Departments

Readers' Tips _____ 4

Our readers offer their own shop-tested tips for solving some of the most common woodworking problems.

Shop Solutions _____ 28

Use these tips from the guys in our shop to get professional-looking results on the projects in this issue.

New Products _____ 30

Here's a quick look at three new woodworking products that have earned a well-deserved place in our shop.



Picture Frame Clamp page 6



Sabre Saws page 12



Miter Trimmer page 16



Picture Frames page 22

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Dovetail Keys _____ 12

Small wood "keys" create the traditional look of a dovetail joint — without all the work. Plus, they add strength to the mitered corners of a box.

Cutting Wood Plugs _____ 30

What's the secret to making a wood plug blend invisibly with the area around it? And which plug cutters are best? We take a look at the answers to both questions.

Projects

Chisel Case _____ 6

Made of quartersawn white oak and mahogany, this chisel case is as attractive as it is practical. Whether the case is hanging on a wall or sitting on a bench, a unique tilting rack provides easy access to your chisels.

Edge Sander _____ 16

This shop-built edge sander makes quick work of tough sanding jobs. It's made of common materials and hardware. Yet it offers a precision tracking system for the sanding belt, two adjustable sanding tables, and a convenient dust hook-up for your shop vacuum.

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Readers' Tips _____ 4

A small parts cabinet with a special drop-down sorting tray is just one of the shop-tested tips provided by our readers.

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Use these tips from the guys in our shop to get professional looking results on the projects in this issue.

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Here's a list of hardware, supplies, and mail order sources for the projects in this issue.



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Techniques

Lathe Scrapers _____ 10

A simple burr. That's the secret to getting crisp, clean cuts with a scraper when turning a project on the lathe.

Logs to Lumber _____ 24

There may be a great source of inexpensive lumber in your own backyard. Here's one woodworker's story.

Finishing on a Lathe _____ 28

The best time to apply a finish to a turning project is before you take it off the lathe. We show you how.

Making a Jam Chuck _____ 29

You don't need a special chuck to mount a project to the lathe. Just fit it onto a "jam" chuck that you turn from scrap.



Adjustable Planer Jig page 6



Ring Boxes page 12

Projects

Adjustable Planer Jig _____ 6

A unique tilting table lets you bevel a workpiece safely and accurately using a portable thickness planer.

Turned Ring Boxes _____ 12

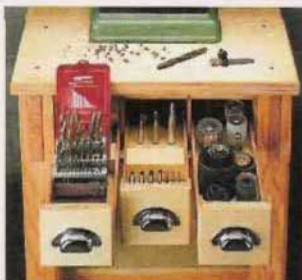
Three simple ring boxes that can be turned from start to finish with just a scraper and a parting tool.

Drill Press Stand _____ 16

This roll-around stand for your benchtop drill press features three pull-out trays to help organize all your drill bits and accessories.

Drill Press Table & Fence _____ 22

Turn your drill press into a real woodworking tool with this simple table and adjustable fence.



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Handy tips and techniques from our own shop.

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Lathe Tool Rack _____ 6

This wall-mounted rack holds your lathe tools securely in place. Yet it only takes a second to grab the one you need and start turning. We feature two versions of the tool rack — each one using a different type of joinery.

Tool Test: Lathes _____ 10

Thinking about buying a lathe? We've rounded up a team of woodturners to test four popular models and offer practical suggestions on which one to choose.

Marking Knife _____ 14

It's hard to get accurate results when cutting to a "fuzzy" pencil line. But this shop-made marking knife scores a fine line so you know exactly where to cut.

Modular Wall Storage _____ 16

Organize all your tools and supplies with this handy wall storage system. The individual modules hang on a grid that's attached to the wall, so you can quickly rearrange the entire system if your storage needs change.

Portable Power Tool Storage _____ 26

Four custom storage units designed to hold your portable power tools and accessories. Each unit hangs conveniently on the wall-mounted grid.

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These two tricks from the guys in our shop will help you build the projects in this issue quickly and safely.

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Router Tenoning Jig _____ 6

This shop-made tenoning jig makes it easy to cut perfect, square-shouldered tenons. All you need is a hand-held router and a straight bit.



Tenoning Jig page 6

Files & Rasps _____ 12

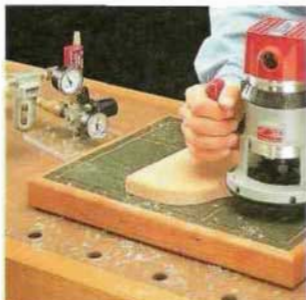
Whether you're sharpening a scraper, roughing a workpiece to shape, or smoothing a surface, a basic set of files and rasps is sure to come in handy.



Files & Rasps page 12

Vacuum Clamping System _____ 16

A simple valve and an air compressor. That's the key to the extraordinary clamping pressure provided by this vacuum system. It features five simple accessories that use a vacuum to hold small (or difficult to clamp) workpieces securely in place.



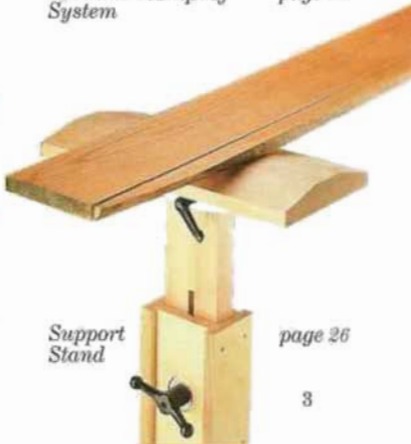
Vacuum Clamping System page 16

Vacuum Veneer Press _____ 24

Setting up a vacuum system is just a start. By hooking it up to a vacuum bag, you can make a press that applies perfectly uniform pressure — just what you need to veneer flat panels or tricky curved surfaces.

Roll-Around Support Stand _____ 26

A telescoping post lets you raise and lower the head of this support stand to match the height of your tools. And a rock solid base keeps it from tipping.



Support Stand page 26

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Our readers offer their own shop-tested tips to some of the most common woodworking problems.

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Portable Hose Reel _____ 6

Build this shop-made hose reel and you'll never waste time untangling the hose on your air compressor. Just give the hose a pull, then wind it up when you're done.

Drafting Tools _____ 12

Whether you're making a detailed drawing or a simple cutting diagram, it pays to have a basic set of drafting tools. Here's a look at the tools we recommend.

Fold-Down Drafting Table _____ 16

This wall-hung drafting table folds down to provide a large drawing surface. With its built-in T-square and a compartment to hold your drafting tools, it has everything you need to make detailed shop drawings.

Scratch Stock _____ 24

Looking for a way to add a subtle detail that will set your next project apart? Try cutting a decorative profile with this scratch stock. With a metal cutter filed to the desired profile, just pull the scratch stock across the workpiece.

Bird's-Eye Maple _____ 30

It's a mystery how the tiny "eyes" in bird's-eye maple are formed. But they're certain to attract a lot of attention. We offer tips on working with this highly-figured wood.

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Shop-tested tips from our readers to solve their most common woodworking problems. Plus two quick tips.

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Edge Clamps _____ 6

These shop-made edge clamps are bound to come in handy when gluing hardwood edging on plywood.

Cutting Plywood _____ 10

Tips and techniques for cutting a full sheet of plywood down to size. Also, tricks on preventing chipout.

Tool Test: Miter Gauges _____ 12

Is it worth buying an "after-market" miter gauge for your table saw? We test four popular models to find out.

Pocket Hole Jig _____ 16

Make pocket hole joints quickly and easily with this simple jig. It features a tilting carriage to rout the pocket. And a built-in guide lets you drill the pilot hole accurately.

Stacking Sawhorses _____ 24

Practical and inexpensive — two reasons to build this set of stacking sawhorses. You can make four complete sawhorses using just a single sheet of plywood.

Spiral Upcut Bits _____ 30

It cuts sideways like a router bit. And it has the plunge cutting ability of a drill bit. That's what makes these router bits ideal for cutting deep mortises.

Departments

Readers' Tips _____ 4

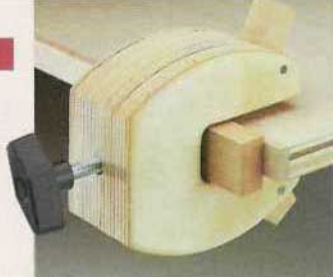
Our readers offer their own shop-tested tips to some of the most common woodworking problems.

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Dovetailed Toolbox _____ 6

With its solid wood construction and strong dovetail joints, this sturdy pine toolbox is built to last. It also features two removable bins for organizing small tools.



Toolbox

page 6

Dovetail Jig _____ 16

This shop-made dovetail jig provides an easy way to rout perfect-fitting dovetail joints. The secret is a set of finger-shaped templates that establish the basic size and shape of the dovetails.



Working with Plastics page 14

Steady Rest _____ 26

If you're turning a long, thin spindle on the lathe, this steady rest provides all the support that's needed to keep it from flexing. A simple wood wedge ensures continuous contact as the spindle gets smaller in diameter.



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page 16

In the Shop

Plastics in the Woodshop _____ 12

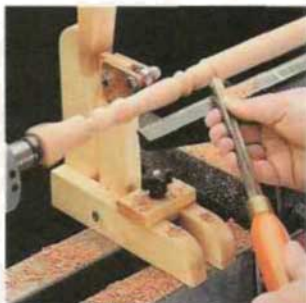
Four different types of plastic that are sure to improve the performance of your woodworking jigs and fixtures.

Working with Plastics _____ 14

Here are some handy tips that will help you get good results when working with plastics.

Buying Pine _____ 30

Building a project out of pine? You can save money by knowing the different grades. Also, avoid problems by working around defects in the lumber.



Steady Rest

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Our readers offer their own shop-tested tips to some of their most common woodworking problems.

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Dowel Storage Rack _____ 6

With four "stairstep" compartments, this shop-made storage rack makes it easy to organize dowels by length. Also, a set of drawers provides storage for all your doweling supplies.



Dowel Storage _____ page 6

Using a Skew Chisel _____ 10

This versatile turning tool does it all — from making a glass smooth planing cut, to turning a bead. Here are some simple tips and techniques to show you how.



Skew Chisel _____ page 10

Selecting Grinding Wheels _____ 14

The secret to sharpening a tool on a bench grinder is using the correct grinding wheel. Check out these handy guidelines for choosing the right one.

Grinding Station _____ 16

A sturdy mounting platform, a clean, well-lit sharpening area, and plenty of storage. That's what you get when you build this wall-mounted station for your benchtop grinder.

Benchtop Drill Presses _____ 22

Our editors test four benchtop drill presses — and the results are in. Find out which one is best. Also, a close-up look at a drill press designed especially for woodworkers.



Drill Presses _____ page 22

Scratch Awl _____ 26

Each of these scratch awls has the look and feel of a finely crafted tool. Yet it only takes an hour or two to complete. Our step-by-step plans make it easy.

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Our readers offer their own shop-tested tips dealing with some of the most common woodworking problems.

New Products _____ 31

Three new products that are sure to come in handy in your shop. Plus, information on where to get them.



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Socket Set Storage Boxes _____ 6

Keep the tools in your socket sets organized with these handy storage boxes. You can customize each box to suit your needs. There's even a case to hold the boxes.



Socket Set Boxes page 6

Custom Fit Dadoes _____ 10

Two simple methods to cut an accurate, tight-fitting dado joint — without using a dado blade.



Custom Fit Dadoes page 10

Lumber Cart _____ 12

This shop-built cart provides plenty of storage for scrap pieces of wood and sheet materials. Plus, the top of the cart doubles as a convenient worksurface.



Lumber Cart page 12

Benchtop Router Table _____ 16

Take a close look at this space-saving router table. It features a large table, an adjustable fence, and three different accessories. Yet it folds up into a compact box.



Router Table page 16

Mounting Plates _____ 28

Building a router table? To make it easy to change bits, attach your router to a removable mounting plate. We offer some practical suggestions on which one to buy.

Dovetail Jigs _____ 30

You can rout professional-looking dovetail joints every time with these two commercial dovetail jigs.

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Adjustable Shop Stool _____ 6

It's easy to adjust this shop stool to a comfortable working height — just give the seat a spin. The secret is a shop-made wood "screw" that threads into the base of the stool.



Shop Stool

page 6

Cutting Threads in Wood _____ 12

There's nothing mysterious about cutting threads in wood. We show you how to cut threads by hand. Or you can rout the threads instead.



Cutting Threads

page 12

Utility Workbench _____ 16

This utility workbench is ideal for those tough, dirty jobs around the house. It has a durable metal top that cleans up quickly. And a solid base provides plenty of storage.



Utility Workbench

page 16

Roll-Around Clamp Cart _____ 24

Keep clamps and glue-up supplies handy with this roll-around cart. Custom-made hangers hold different types of clamps securely yet still provide quick, easy access.



Clamp Cart

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Our readers offer their own shop-tested tips dealing with some of the most common woodworking problems.

Shop Solutions _____ 28

Useful tips for building projects in this issue — how to rabbet long pieces, drill angled holes, and cut perfectly round disks.

Tool Talk _____ 30

Tips and talk about the tools of our trade. In this issue, we take a look at saw blade stabilizers and extension cords.

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Dado Blade Storage Case _____ 6

The "hanging files" in this storage case hold the chippers and blades of a stacked dado set. This provides easy access to the individual pieces and protects them from damage.

Restoring a Bench Plane _____ 10

Turn an old rusty bench plane into a hard-working tool that looks great too. Also, we include step-by-step instructions on making a new handle or front knob.

Tuning Up a Bench Plane _____ 14

A bench plane is a precision tool — when it's tuned up properly. Here are some simple tips and techniques to help you get the most out of your bench plane.

Mortising Machine _____ 16

This shop-built mortising machine lets you rout perfect mortises every time. With a router carriage that moves up and down and a table that slides in two directions, you can set up the machine and cut a mortise in less than a minute.

Brush Basics _____ 26

One of the secrets to getting a smooth, even finish is the quality of the brush. We offer practical suggestions on selecting brushes, applying a finish, and some clean-up tips.

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Tool Talk _____ 30

In this issue, we take a look at an innovative new router collet that doesn't require a wrench to tighten the bit.

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Bench Plane Tune Up page 14



Mortising Machine page 16



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Panel Cutting Guide _____ 6

This wall-mounted panel cutting guide makes it easy to break sheet goods down to manageable size. And a simple fence ensures accurate cuts.



Panel Cutting Guide page 6

Tool Review: Jointers _____ 12

Here's an in-depth look at four different types of six-inch jointers. We offer practical suggestions on selecting a jointer that's best suited to the kind of woodworking you do.

Modular Storage Bins _____ 16

Organize all your small pieces of hardware with these tilt-out bins. The bins are part of a unique modular storage system that can be customized to suit your needs.



Modular Storage Bins page 16

Tuning Up a Jointer _____ 20

Flat, straight, and square stock. That's what you get when you use our simple technique to tune up a jointer.

Jointer Extension Tables _____ 24

Jointing a long workpiece is a snap when you add these shop-made extension tables to your benchtop jointer.



Jointer Tune-Up page 20

Benchtop Jointer Stand _____ 26

This sturdy stand turns your benchtop jointer into a stationary tool. Plus it offers a handy way to collect chips.

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Our readers offer their own shop-tested tips dealing with some of the most common woodworking problems.

Tool Talk _____ 30

Tips and talk about tools of our trade. In this issue, we look at a unique turning tool and roller guides for a band saw.

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Extension Tables page 24

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Lathe Disk Sander _____ 6

It's easy to convert your lathe into a disk sander. This shop-made tool features a large sanding disk that removes stock quickly and a tilting table to support the workpiece.



Lathe Disk Sander page 6

Veneering Small Panels _____ 12

From making crisp, clean cuts in veneer to gluing and clamping it in place, these helpful tips show you how to apply veneer to small, hardboard panels.



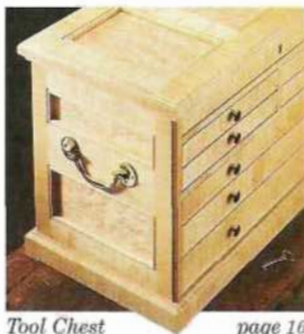
Veneering Panels page 12

Full-Mortise Lock _____ 14

There's no mystery to installing a full-mortise lock. All you need is a little patience, a careful layout, and our step-by-step instructions.

Cabinetmaker's Tool Chest _____ 16

This figured maple tool chest is constructed of simple frame and panel assemblies. With seven drawers and storage under the lid, it's designed to hold your favorite hand tools.



Tool Chest page 16

Table Saw Dust Collection _____ 28

Get the most out of your dust collector. Together with a few scrap pieces of material, you can quickly create an efficient dust collection system for your table saw.



Dust Collection page 28

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Tool Talk _____ 30

Tips and talk about tools of our trade. In this issue, we look at a micro-adjustable edge guide that attaches to a router.

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Table Saw Workstation _____ 6

A table saw is one of the most versatile tools in a shop. Now you can make it even better. Here's a quick overview of three great projects we're featuring in this issue that will convert your table saw into a complete workstation.

Router Table Extension _____ 8

This router table replaces the extension wing on your table saw. Besides saving space, a lift-out insert plate, miter gauge slot, and adjustable fence make it extremely versatile as well.

Table Saw Cabinets _____ 16

Add weight and stability to your table saw by mounting it to these roll-around cabinets. Then enjoy the storage, mobility, and built-in dust collection they provide.

Tongue & Groove Joinery _____ 24

A tongue and groove joint is an ideal solution when it comes to joining solid wood and plywood. We show you a few simple tricks to cut these joints quickly and accurately.

Fold-Up Outfeed Table _____ 26

If you're ripping long boards, it only takes a second to hook this outfeed table onto the table saw. Plus, its unique design lets you fold the table for storage.

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Our readers offer their own shop-tested tips dealing with some of the most common woodworking problems.

Router Table Tips _____ 14

Five great tips to get the most out of your router table.

Tool Talk _____ 30

Tips and talk about tools of our trade. In this issue, we take a look at a precision, T-square rip fence for your table saw.

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Fold-Up Outfeed Table page 26

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Jig Storage Rack _____ 6

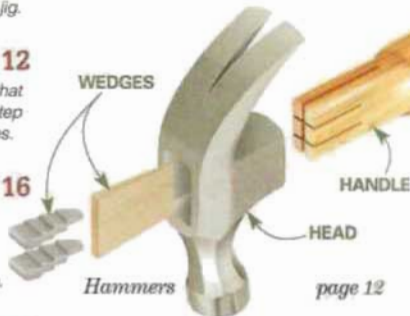
This ceiling-mounted rack provides the perfect solution for storing large or odd-sized jigs and fixtures. They're suspended from wire hangers that are bent to shape using a simple jig.



Jig Storage Rack page 6

Four "Must-Have" Hammers _____ 12

Here's a close look at four different types of hammers that are useful to have in your shop. Also, step-by-step instructions for repairing or replacing damaged handles.



Hammers page 12

Band Saw Upgrade _____ 16

Two shop-made accessories to help you get the most out of your band saw. An auxiliary table provides rock-solid support for large workpieces. And an adjustable fence makes it easy to produce accurate cuts every time.

Resawing on a Band Saw _____ 24

Learn how to cut thick wood into thin stock on the band saw. Here are some simple tips, jigs, and techniques that will have you resawing lumber to uniform thickness in no time.



Band Saw Upgrade page 16

Fold-Out Magazine Rack _____ 28

Do the plans in your woodworking magazines get covered up with clutter as you work? This shop-made rack holds them up off the bench and folds out for easy viewing.



Magazine Rack page 28

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Our readers offer their own shop-tested tips dealing with some of the most common woodworking problems.

Assembly Tips _____ 10

These five great tips ensure a squared-up assembly when you're gluing up a project.

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Adjustable Miter Jig _____ 6

This shop-made jig makes it easy to cut perfect 45° miters on a radial arm saw. It features a short and a long pair of fences for different length workpieces, an adjustable stop for consistent results, and a hold-down to make cuts safely.



Adjustable Miter Jig page 6

Radial Arm Saw Tune-Up _____ 12

All it takes to improve the performance of your radial arm saw is a simple tune-up. We show you seven quick steps to producing smooth, accurate cuts.



Knock-Down Workbench page 16

Knock-Down Workbench _____ 16

Whether you use this plywood bench to build a woodworking project or a deck in the back yard, its three different clamping options are sure to come in handy. Once you complete a job, it only takes a minute to "knock down" the bench for storage.

Cherry Saw Handle _____ 24

The graceful curves and the carved wheat pattern of this cherry saw handle resemble a traditional design. But to simplify the construction, we've taken a unique approach to fitting the saw blade into the handle.



Saw Handle page 24

Chip Carving _____ 28

You can add an old-fashioned accent to your saw handle by using a chip carving knife to make stems of wheat. With a little bit of practice and a few helpful hints, you'll be chip carving like a pro in no time.



Chip Carving page 28

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Edge Sanding Jig _____ 6

Convert your portable belt sander into a handy edge-sanding tool with this simple, shop-made jig.

Bowl Gouge Basics _____ 10

Whether you're shaping the outside of a bowl or scooping out the inside, knowing how to use a bowl gouge is the key to success. We'll show you the basics.

Turning a Bowl _____ 12

You don't have to be a master to turn a bowl on the lathe. With our simple, step-by-step approach, you can turn a bowl from start to finish in an afternoon.

Miter Gauge Fence _____ 16

Quick, accurate setups. That's what you get when you build this adjustable miter gauge fence. It features a sliding fence and two stops that guarantee precise cuts every time.

Drill Bit Storage _____ 24

Organize your drill bits with a set of custom hangers. Then hook them on a wall-mounted cleat next to your drill press or take them with you when working away from the shop.

Power Sanding Systems _____ 28

Sanding a bowl that's been turned on the lathe doesn't have to be a chore. These two power sanding systems remove material fast and produce a smooth, consistent surface.

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Our readers offer their own shop-tested tips dealing with some of the most common woodworking problems.

New Products _____ 30

Get a handle on the problem of rust with Rust Blocker.

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Turning a Bowl page 12



Miter Gauge Fence page 16



Drill Bit Storage page 24

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Marking Gauge _____ 6

A traditional marking gauge — with a twist. Made of maple and brass, it features two ways to make precision layouts.

Power Tool Tune-Up _____ 12

If your portable power tools are running rough — or not running at all — there's usually an easy fix. Here are some practical tune-up tips for top notch performance.

Roll-Around Tool Cart _____ 16

Keep all your portable power tools right at hand with this roll-around cart. Adjustable trays help organize tools and accessories. Plus they can be customized to fit your tools.

5 Quick Circular Saw Jigs _____ 22

Who says a circular saw is only for rough carpentry work? These five great jigs will turn it into a precision tool.

Power Cord Caddies _____ 26

Untangling a power cord is a hassle. Here's a one-hour solution — a shop-made caddy that keeps it coiled. Also, plans for a simple cabinet that holds three caddies.

Heirlooms from a Basement Shop _____ 28

Extraordinary furniture from an ordinary shop. See how one woodworker creates classic heirlooms — in spite of the challenges of working in a basement shop.

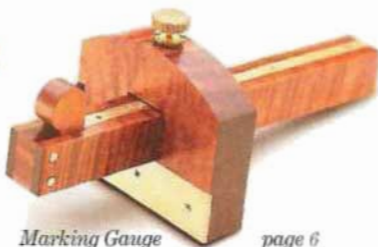
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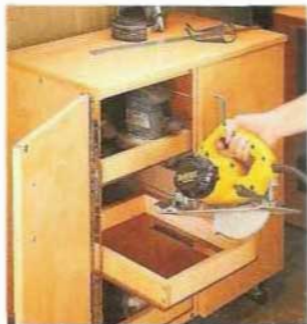
Mail-order sources and supplies to help you build the projects featured in this issue.



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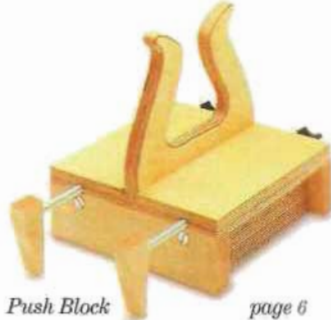
Power Cord Caddy page 26

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Features

Two-Handled Push Block _____ 6

Two handles, two clamps, and two replaceable backer boards — together they make a handy push block for the router table that eliminates end-grain chipout.



Push Block page 6

HVLP Spray Systems _____ 10

A high-volume, low-pressure (HVLP) system makes it quick and easy to spray on a glass-smooth finish. Is it right for you? To find out, we take a look at two types of HVLP systems.



Spray Finishing page 12

Spraying a Flawless Finish _____ 12

There's more to spraying a perfect finish than squeezing the trigger on a spray gun. We show you practical tips and techniques to ensure a professional-looking finish.

Dust Collector Upgrade _____ 16

Take a good thing and make it better. That's the idea behind these two shop-built projects designed to improve the performance of a portable dust collector.



Dust Collector Upgrade page 16

In-Line Chip Separator _____ 18

Don't get caught holding the bag — on your dust collector that is. This separator captures the large chips produced by your tools and deposits them in a trash can.

3-Tool Dust Control Box _____ 21

Tired of switching a dust hose from one tool to another? Build a control box and connect three tools at once.

Roll-Around Store-All _____ 24

It's like having a lumber yard in your shop. Storage for long boards, short cutoffs, and sheet material. Also, an optional guide for cutting large panels into manageable-sized pieces.



Roll-Around Store-All page 24

Departments

Readers' Tips _____ 4

Shop-tested tips to solve common woodworking problems.

Tool Talk _____ 30

Twist bits dull? Get them sharper than new with Drill Doctor.

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Top Five Router Jigs _____ 8

Trim edging perfectly flush, cut smooth mortises, rout custom dados, and more—these five great jigs will turn your hand-held router into a shop workhorse.

Cordless Tool Batteries _____ 14

Prevent a power outage—learn how cordless tool batteries work along with some quick and simple steps you can follow to keep your cordless tools running at full power.

Circular Saw Miter Station _____ 16

Lock in perfect miters and crosscuts from your circular saw with this miter station. A foolproof indexing system and a custom-fit saw guide guarantee a precise angle every time.

Drilling Large Holes _____ 22

Need to drill a large hole? Here are some options and a few handy techniques you may want to consider.

Drop-In Drawer Organizers _____ 26

What's the best way to deal with the jumbled mess inside a drawer? Divide and conquer, with an adjustable drawer insert and a pair of removable totes.

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Tool Talk _____ 6

Tired of kneeling on the floor to adjust the bit in your router table? Here are two innovative products that get you back on your feet.

New Products _____ 30

Two problems, two solutions. The Woodworker's Guide makes locating a past article in your old woodworking magazines a snap. Plus, the Blade-Loc turns the job of table saw blade removal into a simpler and safer task.

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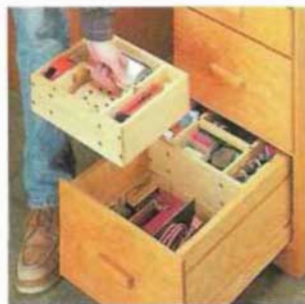
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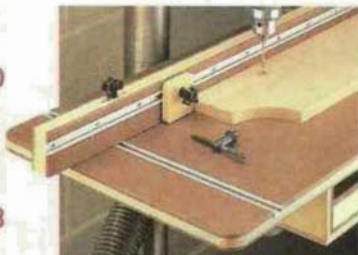
Plastic parts bins are great for storing hardware and other items. But how do you keep the dust out? The answer is a shop-made storage cabinet with a see-through, flip-up lid.



Parts Bin Cabinet page 6

Drill Press Table _____ 10

With a large worksurface, an adjustable fence and stop, and storage space, this will be the last drill press table you'll ever need. Plus it doubles as a drum sanding station with replaceable inserts and a built-in shop vacuum hookup.



Drill Press Table page 10

Pin Router _____ 18

With a hand-held router and this handy jig, you can rout a wide variety of decorative designs in your projects. A metal pin and a shop-made template guide the workpiece while you rout the design.



Pin Router page 18

Building a Custom-Fitted Case _____ 24

Fine tools, collectibles, and valued keepsakes deserve special storage. And a custom-fitted case is the answer. We show you step-by-step how to build one—working from the inside out.

Water-Based Finishes _____ 28

Water-based finishes have a lot going for them. They're easy to use, there's no messy cleanup, and they're tough and long-lasting. We share what we've learned in our shop about buying and using water-based finishes.



Water-Based Finishes page 28

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Tool Talk _____ 16

Tuned up your plane and still aren't getting the results you expect? A new blade may be just what your plane needs.

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Cordless Tool Storage Cabinet _____ 6

Here's a project to help you keep it all together. It's the perfect solution for keeping your cordless tools, chargers, and accessories organized and ready to go.



Cordless Tool Storage page 6

Polyurethane Glue _____ 10

If you think that wood and water don't mix, you're in for a surprise. In this article, we give you a few tips and techniques we've learned in our shop about working with polyurethane glue.

Country Shop _____ 12

Take a tour of a country dream shop. It has plenty of wide open space, an impressive collection of power tools, and ideas you can put to use in your own shop.



Miter Saw Station page 16

Miter Saw Station _____ 16

Whether you're working in the shop or on site, this miter saw station offers both accuracy and portability. Plus, it has a movable fence system that quickly adjusts to match the length of your stock.

Molding Heads _____ 24

Your table saw is already a workhorse in the shop. Adding a molding head makes it even more versatile. Here's how to get the most out of a molding head and a set of cutters.



Molding Heads page 24

Molding Head Fence _____ 28

Attach this auxiliary fence and guard to your rip fence to make smoother, safer cuts with a molding head.



Molding Head Fence page 28

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Modular Shop Cabinets _____ 6

These cabinets are the ideal storage solution for any shop. Constructed with framing lumber, the modular design allows you to configure them to match the space in your shop.



Shop Cabinets page 6

Two Favorite Pull Saws _____ 16

If you've never used a pull saw, you're in for a treat. They cut quickly and cleanly, with little effort. Here's a look at a couple of our favorite types of pull saws.



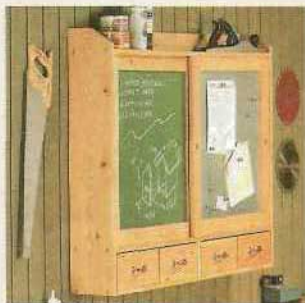
Pull Saws page 16

Pull Saw Miter Box _____ 18

If you're tired of splintering delicate moldings and small pieces with your power miter saw, take a look at this solution. This shop-made miter box allows you to make quick, clean cuts using a hand saw.

Sliding-Door Wall Cabinet _____ 22

Make better use of your wall space with this clever cabinet. Sure it has lots of storage. But the sliding doors also double as a handy chalkboard and a spot for hanging up plans or notes.



Wall Cabinet page 22

Pegboard Tool Holders _____ 28

Pegboard can be found in just about every shop. But these tool holders make your pegboard work harder by organizing the wall space into versatile, customized tool storage.

Cutting Perfect Half Laps _____ 30

Half laps offer an ideal combination of strength and speed. Here are some step-by-step instructions to help ensure your success the next time you use this joint on a project.

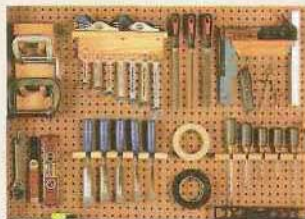
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Air Compressor Caddy _____ 6

Lugging around a "portable" air compressor can get to be a real chore. This caddy is the ideal solution for easily moving your air compressor and its accessories.

Buying a Portable Air Compressor _____ 10

Oil or oil-less? Single tank or twin? Learn what to look for when buying a portable air compressor. Plus, find out which handy accessories you need to have.

Adjustable-Height Assembly Table _____ 14

Whether you need an extra assembly area or an outfeed support for a stationary tool, this adjustable-height assembly table is the answer. Our unique adjustment system makes raising (or lowering) the top a smooth task.

Six Solutions for Successful Ripping _____ 22

Having problems ripping stock cleanly? Our six solutions will make the whole process a lot easier. They'll come in handy whether you're a seasoned pro or just a beginner.

Auxiliary Fence _____ 26

Adding a featherboard, a stop block, or a scrap face for "burying" a dado blade to a typical rip fence can be a real hassle. Not any more. With this auxiliary fence, adding any of these five must-have accessories is quick and easy.

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Air Compressor Caddy page 6



Assembly Table page 14



Auxiliary Fence page 26

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5-in-1 Router Base Plate System _____ 6

A unique router base plate system makes it easy to use a number of shop-built accessories—mortising jig, circle cutter, flush trim jig, edge guide, and benchtop fence and table.



5-in-1 Router System page 6

Brad Nailers _____ 14

A brad nailer can now be standard equipment for every workshop. We'll give you the reasons why and the features to look for when selecting one for your shop.



Brad Nailers page 14

Drill Press Sharpening Wheel _____ 18

Use the low speed of your drill press to sharpen a plane iron or chisel in minutes. Plus, this sharpening wheel features a leather top for honing a razor sharp edge.

Tapping Threads _____ 25

A jig, fixture, or tool will often work better and more accurately by tapping the metal parts to accept threaded fasteners. Here's what you need to know about tapping threads.

Adjustable Hand Plane _____ 26

The look and feel of a traditional wood plane with some of the easy-to-use features you find on a metal plane: an adjustable throat opening and a secure blade-mounting system.



Sharpening Wheel page 18

Departments

Readers' Tips _____ 4

Shop-tested tips to solve common woodworking problems.

NEW Shop Talk _____ 32

We take on the left or right tilt debate. When it comes to table saws, is one really better than the other?

NEW Tool Chest _____ 34

In this new department, we take a look at tools we use day in and day out. First up—Sandvik scrapers.

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Box Joint Jig _____ 6

Unlike most box joint jigs, this one uses runners in both miter slots to make an extremely smooth-working jig. And replaceable fences allow you to make different size box joints without having to "retune" the fit.

Making Box Joints _____ 10

You can't help but appreciate the craftsmanship of precision box joints. Learn how easy it is to make them with our simple step-by-step approach.

Carpenter's Toolbox _____ 14

With its classic lines, solid wood construction, and strong box joints, this carpenter's toolbox will be around to use (and admire) for generations to come. It also features a removable tray for organizing small tools and hardware.

Great Glue-Ups _____ 20

There's more to creating a wide, solid-wood panel than just gluing a bunch of boards together. Learn the step-by-step process we use to glue up panels that look great and stay flat.

Clamping Station _____ 24

Glue up a panel without taking up valuable bench space? And without pipe clamps? This shop-built station makes it possible.

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Shop-tested tips to solve common woodworking problems.

Shop Talk _____ 32

We share the "secrets" used in our shop for creating a smooth, even profile with a router bit and a hand-held router.

Tool Chest _____ 34

Unconventional design, great results. Find out about an unusual bit that cuts perfect countersinks in wood or metal.

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Box Joint Jig _____ page 6



Carpenter's Toolbox _____ page 14



Clamping Station _____ page 24

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Chisel Rack _____ 6

Our new chisel rack makes use of a unique design (and a secret method) to keep chisels easily accessible and on display.

Sharpening with Diamond Paste _____ 9

Put a razor-sharp cutting edge on any plane iron or chisel in minutes with this new sharpening method.

Table Saw Accessory Shelf _____ 12

Keeping table saw accessories organized and close at hand has always been a problem — until now.

Crosscut Sled _____ 16

A lightweight crosscut sled that's dead-on accurate? You bet. Plus, a couple optional accessories to make it even more useful.

Crosscutting Tips _____ 21

Get better crosscuts in minutes. We offer a few tips from our own shop for smooth, accurate crosscuts time after time.

Router Storage System _____ 24

Besides keeping your router bits organized and accessible, this storage system expands as your needs grow.

Spade Bit Tote _____ 30

Keep your spade bits stored and ready to go with this handy tote that you can make in an afternoon.

Departments

Readers' Tips _____ 4

Shop-tested tips to solve common woodworking problems.

Shop Talk _____ 32

Want to know the "in's and out's" of table saws? We cover the basics from benchtops to cabinet saws.

Tool Chest _____ 34

This issue's tool is the perfect example of getting what you pay for. When it comes to the "details," this tool has it all.

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Wall-Mounted Drill Press Shelf _____ 6

Open up space on your workbench by moving your drill press to this handy, wall-mounted shelf. Then add an optional storage rack that keeps all your drilling accessories close at hand.

Painting a Hammered Finish _____ 12

One of the best ways to finish MDF is with paint. Learn how to spray or roll on a "hammered" finish in an afternoon and give your shop projects a professional-quality look.

Plunge Router Mortising Jig _____ 14

This shop-made mortising table lets you rout perfect mortises with a hand-held plunge router. You can set up the table and make identical mortises time after time in less than a minute.

Hardware Storage Cabinet _____ 22

All your hardware stored and organized in one spot? With this hardware storage cabinet and a set of plastic storage bins, you'll never have to hunt for hardware again.

Shop-Built Drawer Dividers _____ 29

Eliminate cluttered drawers forever with a set of custom dividers you can make in your own shop.

Cabinet Clamping Tips _____ 30

Clamping large cabinet projects can be a daunting task — especially if you don't have a lot of clamps. We show you how to clamp a large assembly with just a few clamps.

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When it comes to joining pieces of MDF together, a few tips and techniques will ensure quality results and solid assemblies.

Tool Chest _____ 34

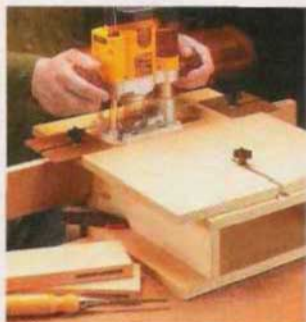
There's an old saying that good things come in small packages. And our featured tool is a perfect example.

Sources _____ 35

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Router Mortising Jig page 14



Storage Cabinet page 22

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Adjustable V-Block System _____ 6

You've never seen a jig that looks — or works — like this one. This is more than just a V-block. It's a whole drill press system. With it, you'll be able to drill accurate holes in anything from simple dowels to irregular-shaped objects.



Adjustable V-Block page 6

Shooting Board _____ 12

Need to "bweek" a mitered joint or plane the end of a workpiece perfectly square? With this shop-made shooting board, you can slice razor-thin shavings for a perfect fit.



Shooting Board page 12

Using a Shooting Board _____ 16

Using the shooting board starts with setting it up for your hand plane. Then get the most out of it with a few handy tips and techniques that will work with any shooting board.

Heavy-Duty Workbench _____ 18

This heavy-duty workbench incorporates easy-to-build features with up-to-date materials and hardware. With its rock-solid construction and two handy vises, this bench can handle just about anything you can throw at it.



Workbench page 18

Edge-Sanding Block _____ 30

There's no doubt sanding is a hassle — especially when it comes to plywood edging. Our adjustable, edge-sanding block makes sanding less of a chore and more accurate.



Edge-Sanding Block page 30

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Readers' Tips _____ 4

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Shop Talk _____ 32

When it comes to hand planes, it's hard to know exactly what you need. In this issue, learn about some basic planes and what they are used for.

Tool Chest _____ 34

Here's a look at a couple products that are designed to make your woodworking safer and more enjoyable.

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Thin-Stock Hold-Down _____ 6

Need to cut thin veneer or laminate on the table saw? You'll get chip-free results safely with our shop-made hold-down, whether you're cutting narrow strips or wide ones.

Convertible Shop Storage Cabinets _____ 10

It's easy to see how much storage you can pack into these handy cabinets. What you can't see is how versatile they are. You can stack them, like you see in the photo at right, or set them side-by-side under a bench.

Tongue & Groove Joinery _____ 18

Solid, dependable, and easy to make — tongue and groove joinery gets high marks for all three. We show you how to cut this basic joint on the table saw, providing tips and techniques for getting great results every time.

Table Saw Workstation _____ 20

Any shop can benefit by combining tools in a central location. Our two-cabinet workstation features a portable table saw, table-mounted router and fence, and a shop vacuum — along with a pair of drawers for storing all your accessories.

6-Step Router Plate Installation _____ 30

Fitting a router plate into the top of a table doesn't have to be a hassle. We'll show you step-by-step how to do this successfully using a hand-held router and a set of shop-made guides.

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Shop-tested tips to solve common woodworking problems.

Tool Chest _____ 32

Sometimes the smallest tool packs the biggest punch. This issue's tool slips easily in the pocket of your apron so it's always close at hand when you need it.

Shop Talk _____ 34

See how something as simple as the grain of a workpiece can dramatically affect the look of a project.

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Table Saw Workstation page 20

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Miter Saw Table & Fence _____ 6

Finally, a better way to cut small pieces on a miter saw. This shop-made accessory fits over the saw and makes cutting small, hard-to-hold pieces easy, accurate, and safe.

10 "Must Have" Router Bits _____ 12

You don't need a drawer full of router bits to build great woodworking projects. We "profile" ten bits that will allow you to accomplish just about any routing task you'll face.

Mini-Lathe Stand _____ 14

Turn your mini-lathe into a full-fledged turning center. This stand has everything you need — it's rock solid, easy to build, and provides storage for all your turning tools and accessories. Plus, you can easily move it anywhere in the shop.

Miter Saw Quick Tips & Simple Jigs _____ 22

It's often the little things that help you get the most out of a tool. With a few tips and jigs, you'll be turning to your miter saw more often for more of your woodworking needs.

Rotary Tool Storage Case _____ 26

A rotary tool is a handy item to have, but it can be a real challenge to keep track of its accessories. This wall-mounted storage case organizes and stores it all — yet its convenient size makes it easy to carry to right where you need it, whether it's in the shop or around the house.

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Shop Talk _____ 32

Learn what's new in construction materials. In this issue, we talk about the changing world of pressure-treated lumber.

Tool Chest _____ 34

The final look of a project "hinges" on adding the hardware. We feature a set of special bits that will make installing hinges easy by drilling perfectly centered screw holes.

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Mini-Lathe Stand page 14



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Benchtop Tool Organizer _____ 6

Does a cluttered workbench keep you from doing your best work? Not anymore. With our tool organizer you'll have all your tools within easy reach — and a cleaner benchtop too.

Jig Saw Blades _____ 10

Don't give jig saw blades a lot of thought? Well, maybe you should. We'll show you how to pick the right blade for the job.

Horizontal Mortising Machine _____ 12

Our all-new, shop-built mortising machine lets you rout perfect mortises every time. A table that moves in two directions and a carriage that slides in and out allow you to set up and cut a mortise in less than a minute.

Materials & Hardware for Shop Jigs _____ 22

A shop-made jig can make your woodworking easier, faster, and more precise. Learn what materials and hardware we use day in and day out when we build our jigs.

Roll-Around Shop Cart _____ 26

Moving a pile of workpieces around the shop can be a hassle. Or if you're working at one tool, it's nice to have an extra worksurface to help keep everything organized. With our roll-around shop cart, both problems are solved.

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Shop Talk _____ 32

For only \$20 you can dramatically improve the accuracy of your shop tools. Here's what you need to know about dial indicators.

Tool Chest _____ 34

Porter Cable's 690 router has been a workhorse in our shop for years. Find out what makes their updated model an even better choice for your workshop.

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Small Parts Storage _____ 6

Bits and pieces. Odds and ends. This shop-built storage system solves the problem of how to organize them.

Japanese Chisels _____ 12

If you're looking for a chisel with the ultimate edge, you owe it to yourself to take a look at these chisels.

Router Table Fence & Accessories _____ 16

An all-new, shop-built router table fence that never needs aligning. Plus, some handy accessories to go along with it.

Scroll-Bending Jig _____ 22

This simple jig allows you to bend metal rods and bars into decorative shapes and useful objects with ease.

Bending Press _____ 26

With this easy-to-use bending press, you don't have to be a blacksmith or ironworker to create angled bends in metal.

Set-Up Gauge _____ 30

You'll find many uses around your shop for this simple set-up gauge. And you can build it in an evening or afternoon.

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Shop-tested tips to solve common woodworking problems.

Shop Talk _____ 32

Learn why cast iron is the material of choice when it comes to power tools. Plus some tips for keeping it in shape.

Tool Chest _____ 34

A dial caliper can be one of the most useful tools in the shop. Here's a look at our favorite one.

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15 Hold-Down Solutions _____ 6

Hold it! That's the whole idea with each of these items.

Drill Press Hold-Down _____ 10

Get a grip on practically anything with this accessory.

Workbench Board Jack _____ 12

This adjustable support is an extra hand when working with long stock at your workbench.

Six Solutions for Drilling and Driving _____ 14

Simple tips and tools for getting the best results with screws.

Shop-Built Gear Box _____ 16

Rugged construction and heavy-duty hardware make this a versatile storage box that you won't have to baby.

Table Saw Storage Drawer _____ 24

Clear the top of your table saw once and for all with this quick project that fits in unused space.

Trim Routers _____ 26

Big results in a small package. Trim routers can handle a lot more than just plastic laminate.

Working with Plastic Laminate _____ 30

Find out how to put this versatile material to use in your shop.

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Get sharp edges fast with these new ceramic stones.

Shop Talk _____ 34

Learn what drives the cost of milled hardwood lumber.

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Stow-Away Router Table _____ 6

This space-saving shop essential has features some bigger router tables only dream about. It stows away when you don't need it and mounts to your workbench in less than a minute.

Super-Strong Box Joints _____ 12

Cutting small box joints is one thing, but cutting them with fingers 2" long requires a little different technique. We show you how to do it with our step-by-step instructions.

Shop-Made Benchtop Vise _____ 14

Round stock, carvings, odd shapes — this benchtop vise can handle it all. We've designed it with a variety of jaw faces and updated a classic design to meet today's needs.

Working with Plywood _____ 22

Do you dread the thought of moving, storing, or cutting a large, heavy sheet of plywood? Learn a few of the techniques we use to make working with plywood hassle-free.

5 Plywood Shop Projects _____ 26

It won't take a lot of time, effort, or material to outfit your shop with storage, worksurfaces, and several handy accessories. Each project can be built from a single sheet of plywood.

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Tool Chest _____ 32

Block planes have been around for a long time. But we've found one that incorporates some new features and accessories that are sure to make it one of your favorite tools.

Shop Talk _____ 34

Glue doesn't keep forever. Here's what you need to know to determine if it's "too old to hold" on your next project.

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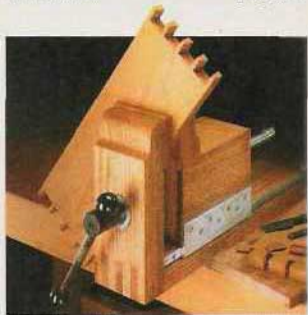
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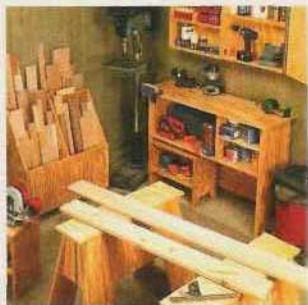
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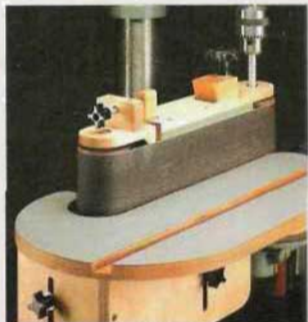
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Drill Press Belt Sander _____ 6

Get more out of your drill press by making it work harder. This shop-made accessory turns your drill press into a belt sander that works every bit as well as a floor model.



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Removing Rust with Electrolysis _____ 14

Removing rust from tools can be a big hassle. With a little "power" you can make quick work of it. We'll show you how to do it with ease using our step-by-step instructions.



Rust Removal page 14

Modular Outfeed System _____ 16

Make it easier to handle large or long stock safely on the table saw. This handy outfeed system can be configured in a number of ways to support long stock, large sheet goods, or anything in between.

Building a Laminated Benchtop _____ 20

Nothing says solid and heavy duty like a laminated benchtop. But making one without spending a lot of time getting it flat and smooth seems almost impossible. Check out the procedure we use that results in a perfectly flat top in no time at all.



Outfeed System page 16

Fold-Down Workstation _____ 22

A heavy-duty woodworking bench that takes up a little over four square feet of floor space when it's stored? You bet. Add some storage — an easy-access tool rack and a wall-mounted cabinet — and turn it into a full-fledged workstation.

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Shop-tested tips to solve common woodworking problems.

Tool Chest _____ 32

Most sharpening systems can't do it all. But the one we use every day comes as close as you can get.

Shop Talk _____ 34

Have a great woodworking invention and want to protect it? Here's what you need to know about patents.

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Lathe Tool Cabinet _____ 6

Keeping your lathe tools and accessories within easy reach can be a hassle. This storage center can be placed right next to your lathe to keep your tools and supplies close at hand. When you're done, just fold up the top and roll it out of the way.



Lathe Tool Cabinet page 6

Router Circle-Cutting Jig _____ 12

This all-new circle-cutting jig makes it a snap to cut circles and arcs quickly and accurately with your hand-held router.



Circle-Cutting Jig page 12

Benchtop Mini-Lathe _____ 16

Build your own lathe? Absolutely! With this shop-built mini-lathe you can try your hand at turning without spending a lot of money. The optional accessories make it easy to turn small bowls or outfit your lathe as a disk sander.



Shop-Built Mini-Lathe page 16

7 Must-Have Turning Tools _____ 26

You don't need a shopful of turning tools to turn a table leg or a bowl. As a matter of fact, we'll show you the seven tools that will allow you to turn just about anything.

Clamp Storage System _____ 28

When you have a wide assortment of clamps, finding a convenient way to store them can be a challenge—until now. Our adjustable clamp storage system can be changed or expanded over time to suit your needs.



Clamp Storage System page 28

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Shop-tested tips to solve common woodworking problems.

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Square up your assemblies automatically during glue up with parallel jaw clamps. We take a look at three top models.

Shop Talk _____ 34

Looking for the perfect material for building shop jigs, fixtures, and storage projects? Baltic birch plywood is the answer.

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Cutting a perfect mortise for a hinge on a project can be a challenge. Our new jig makes it automatic by using the hinge to set up the jig. Then a trim router does the work.

Using the Hinge Mortising Jig _____ 11

Using the hinge mortising jig couldn't be easier. Once the jig is set to match your hinge, routing a mortise will take only minutes — whether you're routing a couple or a dozen.

Hardware Storage Cabinet _____ 12

Keep hardware stored out of the way, yet easy to find, with this versatile storage cabinet. It features two different-size drawers, an adjustable partitioning system, and a unique drawer front that combines the pull and labeling system in a single unit.

3-in-1 Cut-Off Sled _____ 18

Cut-off sleds have been around a long time. What makes this one different is the reversible fences can handle 90° cuts as well as 45° miters — with precision.

Add-On Tenoning Jig _____ 24

To make the cut-off sled even more useful, you can add an easy-to-build tenoning jig. With it you can cut smooth-faced tenon cheeks quickly and accurately.

Extendable Drill Press Table _____ 26

Solve the hassle of supporting your workpiece with this drill press table. Wings extend out to provide solid support when you need it — and store out of the way when you don't.

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Shop-tested tips to solve common woodworking problems.

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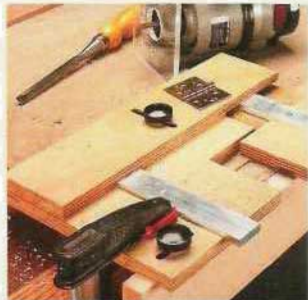
What would you do if you lost all your shop equipment? Here's what you need to know about shop insurance.

Tool Chest _____ 34

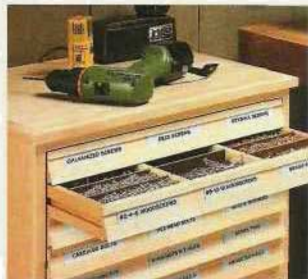
Quiet and powerful. Two words you don't expect in the same sentence describing a shop vacuum. But the vacuum reviewed in this issue is both — and it features automatic operation.

Sources _____ 35

Mail-order sources and supplies to help you complete the projects featured in this issue.



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Sharpening Supplies Box _____ 6

The inside of this stacking storage box features multiple compartments on two different layers — plenty of space for all your sharpening supplies.

Making Box Joints _____ 12

Here's a simple table saw technique that allows you to cut the time spent making box joints in half. But don't worry, you won't have to sacrifice accuracy to do it.

Plank-Top Workbench _____ 16

This heavy-duty workbench is equally at home in the shop or the garage. And while it only takes a weekend to build, it's guaranteed to give you a lifetime of use.

Machinist's Vises _____ 22

Discover what a machinist's vise can do for you and what to look for when selecting one for your shop. Plus, learn about some handy vise accessories.

Dual Tool Station _____ 24

This tool station pulls double duty by serving as a planer stand as well as a miter saw station — complete with extension wings and fences.

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Looking for just the right part or hardware item for your next project? Here's a peek at some of our "secret" supply sources.

Tool Chest _____ 34

Take the hassle out of fine-tuning the width of your dados with this innovative stack dado blade.

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Router Dado Jig _____ 6

With this shop-made jig, you'll be routing dados and grooves that fit perfectly. Plus, this router jig features a built-in clamp that makes setup a snap.

Band Saw Tune-Up _____ 12

Think a band saw is only good for rough cuts? Think again. With just a handful of tools, a few simple steps, and a few hours, you can have your band saw working at peak performance.

Band Saw Table & Fence _____ 16

Take your band saw to the next level with a new table and fence. This extra-large table provides rock-solid support for just about any size workpiece. And the adjustable fence and accessories make it easy to produce accurate cuts every time.

Get More Out of Your Grinder _____ 22

With just six accessories, you can turn your bench grinder into a shop workhorse. Here's what you need to grind, sharpen, buff, and clean just about anything with ease.

Sharpening System _____ 24

This sharpening system for your bench grinder features an adjustable platform with sliding tool sleds. You'll be able to grind perfect bevels at almost any angle on your chisels and plane irons in no time at all.

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How many table saw blades do you really need? We take a look at two that will handle just about anything.

Tool Chest _____ 34

Here's a splitter for your table saw you'll actually use. Why? Because you can install and remove it in seconds.

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Sliding-Door Shop Cabinet _____ 6

You'll be amazed at all the tools and supplies you can store inside (and outside) this slim cabinet.

Table Saw Tune-Up _____ 12

Now's a good time to take a look "under the hood" and get your table saw in top shape. Our step-by-step process will have it running at peak performance in no time.

Hi-Tech Tune-Up Tools _____ 17

Want to add a new dimension to your table saw tune-up? We take a look at a few hi-tech products to handle the task.

Fold-Away Tool Stand _____ 18

Now you see it, now you don't. Build a rock-solid tool stand that folds out of the way in seconds.

Making Tools Move _____ 22

Mounting your power tools on mobile bases can be a great solution for small shops. We'll tell you what to look for and give you the rundown on a number of popular models.

Under-Stair Storage _____ 26

Make the most of the space beneath your stairs with this easy-to-build, adjustable storage system.

Router Bit Rack _____ 30

Organize your router bits and accessories in an afternoon with this simple wall rack.

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Readers' Tips _____ 4

Shop-tested tips to solve common woodworking problems.

Shop Talk _____ 32

These three simple knots will get your next lumber purchase home safely, without a lot of fuss.

Tool Chest _____ 34

Tired of pegboard hooks that won't stay put? Learn more about hooks that keep tools in their place.

Sources _____ 35

Mail-order sources and supplies to help you complete the projects featured in this issue.



Shop Cabinet page 6

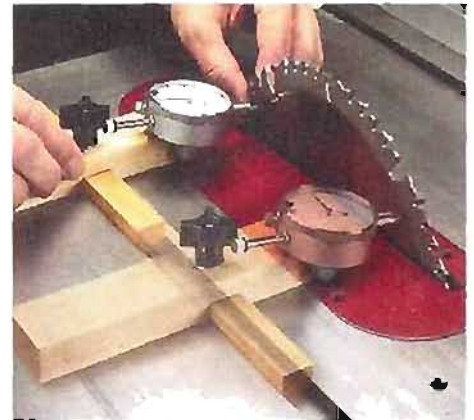
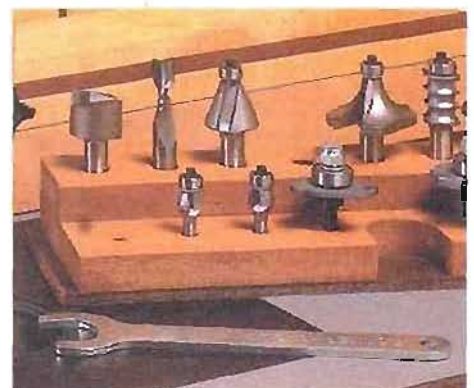


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Tenon Cutting Jig

This tenon cutting jig is built to slide on and off the rip fence on your table saw. A vertical stop block keeps your workpiece aligned as it passes through the saw blade. **page 3**



Slip-On Auxiliary Fence

To bury the blade when cutting rabbets, just slip this auxiliary fence over the rip fence. Or turn the fence around to cut a tall workpiece. **page 4**



Miter Gauge Fence

This adjustable miter gauge fence provides plenty of support for a workpiece. And a flip-up stop block makes it easy to square up and cut multiple pieces to identical size. **page 6**



Crosscut Sled

Crosscutting wide panels on the table saw is often a tricky task. But not with the help of this crosscut sled. Its wide base carries the panel smoothly through the blade. **page 8**



Band Saw Fence

Making a straight cut on a band saw is easy with this fence. A built-in adjustment allows you to compensate for blade "drift." And a toggle clamp locks the fence securely in place. **page 9**



Flush Trim Jig

This jig eliminates the hassle of trimming solid wood edging flush with the surface of a plywood panel. A built-in guide keeps your flush trim bit perfectly aligned. **page 10**



Edge Guide

Sometimes the best way to crosscut a wide panel is to use a circular saw. This jig will help you do just that. Plus, you also can use it to crosscut a workpiece using a router. **page 12**



Drill Press Table

Get the most out of your drill press by building an auxiliary table. With the help of the attached fence, you can position a workpiece quickly and accurately. **page 13**



Router Trammel

Rout perfectly-shaped circles up to eight feet in diameter with this handy trammel. It has a Plexiglas indicator for measuring the exact radius of the circle. **page 14**



T-Square Router Guide

This guide helps you crosscut a wide panel with a router. It has an alignment notch for accurate cutting. And it's also a great jig for routing a dado in a workpiece. **page 15**

A good jig can make a woodworker's life a lot easier. Whether you're cutting tenons on the table saw or dados with a router, a jig can transform tricky jobs into safe and easy ones. All it takes is a little ingenuity and a few scraps of wood. In this spirit, we've compiled ten of our favorite jigs for this booklet. All of these can be made in just a few simple steps, and they're guaranteed to relieve a few headaches around the shop.

Donald B. Peschke, Publisher

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Upgrade Your Dust Collector _____ 6

Looking to super-charge your single-stage dust collector? We'll show you a few handy add-ons that will help you keep your shop cleaner and save you time.

A New Angle on Framing Squares _____ 10

There's more to this handy tool than meets the eye. Take a look at some unique "skills" in your framing square.

Ultimate Layout Square _____ 12

With just a few simple changes, you can turn your framing square into a tool you'll be reaching for more often.

Jointer Tune-Up _____ 14

Our straightforward techniques will have your jointer running better than new, so you can create perfectly flat, straight, and square stock with ease.

Router Miter Trimmer _____ 18

Don't settle for poor-fitting miter joints. With this easy-to-build jig and a hand-held router, you can dial-in accuracy for miter joints that fit perfectly.

5 Plywood Shop Projects _____ 22

You can build each of these essential shop projects in just a few hours from one or two sheets of plywood.

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Shop-tested tips to solve common woodworking problems.

Shop Talk _____ 32

Every shop needs a precision straightedge (or two) to keep tools tuned and to build projects that are flat and square.

Tool Chest _____ 34

The perfect finish? It just might be. We'll show you the one we turn to almost every day for fast, consistent, high-quality results for all our shop projects — and furniture projects too.

Sources _____ 35

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18

Keep all your tools and supplies close at hand with this roll-around tool cart. There's even a matching tool chest you can build.

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30

With just a couple hours of work, you can make a handy storage case to protect your stack dado set when it's not being used.

fine tools

Brass-Body Hand Plane

ONLINE
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32

Nothing quite beats the feel of using a hand plane you've made yourself. And this brass-body model works just as good as it looks.

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Working with Brass

37

Working with brass doesn't have to be a challenge. Here you'll learn how to cut, shape, solder, and polish brass to a fine finish.

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8

NEW!

We give you the straight scoop on straight bits. You'll be surprised at all there is to know.

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4 Favorite Fasteners

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NEW!

Keeping a good supply of hardware on hand is a must. Here are four fasteners to keep in stock.

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12

NEW!

The ultimate dovetail jig? Considering what you can do with this dovetail jig, you bet.

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16

NEW!

Shop-tested tips and techniques to solve common woodworking problems.

hands-on technique

Edging with T-Molding

28

NEW!

Cover and protect the edge of plywood and MDF. T-molding makes it quick and easy.



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Working With Brass page 37

Brass-Body Hand Plane
page 32



Cutoffs

More. When I ask readers about how to make *ShopNotes* better, the word I usually hear is — more. Well I'm happy to say, starting with this issue, *ShopNotes* readers will be getting more than ever before.

For starters, *ShopNotes* has grown — we've added 16 more pages. But what's really exciting is what we're doing with those extra pages. If you take a look at the contents pages at left, you can see we've added several new departments.

Now with every issue you'll get more information on working with your router, mastering the table saw, setting up shop, hands-on techniques, and more. If you add it all up, you'll find 10 new departments.

Of course, we're still featuring great projects you can build for your shop. In this issue there's a slant-front tool cart, a dado blade storage case, and a brass-body hand plane.

In addition, we're offering plans for a bonus project — a brass-body block plane. These plans are currently available online at www.ShopNotes.com and they're free.

Along with the additional pages we wanted to make *ShopNotes* easier to read and use. So we've made some changes to the headlines, typefaces, and page layouts.

As you can probably tell, I'm very excited about all of these changes to *ShopNotes* and I hope you will be as well.

Tom

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Rotary Tools _____ 40

NEW!

What's new in rotary power tools? Take a peek at a few must-have accessories for your rotary tool.

setting up shop

Best Place For a Table Saw _____ 42

NEW!

Locating your table saw is the key to efficient work. We show you the best place to put it.

mastering the table saw

3 Ways to Cut a Rabbet _____ 44

NEW!

A table saw is the perfect choice for cutting rabbets. Learn three sure-fire ways to do it right.

great gear

Space-Saving Storage _____ 46

NEW!

Here's a product that will allow you to reclaim storage space between the studs in your walls.

ultimate garage

Roll-Out Shop Flooring _____ 48

NEW!

Make your floor look new again. All you have to do is roll a "new" one in place and cut it to fit.

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Heirloom Tool Cabinet

GO ONLINE EXTRAS

16

With solid frame and panel construction, this heirloom tool cabinet will be a welcome addition to any workshop.

technique

Fitting Inset Doors

26

Fitting inset doors can be a challenge. But with these handy tips and tricks, sure-fire success is only a few steps away.

weekend workshop

Knock-Down Wall Shelf

28

This knock-down wall shelf is an easy-to-build project for the shop. Or you can use it in the house to display just about anything.

best-built jigs & fixtures

Router Jointer

32

Turn your router into a precision jointer that will give you an edge that's smooth, straight, and perfectly square.

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8

NEW!

With only a single bit, you can create dozens of profiles just by adjusting the router bit and fence.

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Working with Epoxy

10

NEW!

Here's what you need to know about working with a versatile adhesive — two-part epoxy.

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Dowelmax

12

NEW!

Doweling joints don't get much easier or more accurate than with the Dowelmax system.

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NEW!

Shop-tested tips and techniques to solve your woodworking problems.

hands-on technique

Wedged Mortise & Tenon

30

NEW!

Create a perfect-fitting mortise and tenon on the table saw — and then secure it with a wedge.



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Fitting Inset Doors page 26



Dowelmax page 12



Heirloom Tool Cabinet

page 16

Cutoffs

Storage. Sooner or later, it's a problem almost every woodworker has to face. But fortunately, there are a number of different approaches to the problem. In this issue we've put together a collection of projects and articles to help you address your shop storage needs.

The heirloom tool cabinet on page 16 and the knock-down wall shelf on page 28 both take a traditional approach to tool storage. But for a more modern solution, be sure to check out the article on slat-wall storage systems that begins on page 48.

And finally, on page 42, we've put together some practical ideas for lumber storage.

New Face. In the last issue of *ShopNotes*, I told you about some of the changes we made to the magazine. More pages and new departments. In my excitement, I forgot to mention one thing — we've added a new face as well. Mitch Holmes has joined us as an assistant editor.

Help Wanted. While I'm on the subject of new faces, we're looking for a project designer to join our team. If you have an in-depth understanding of project design, woodworking and home-improvement skills, and the ability to turn ideas into computer-generated drawings, we'd like to hear from you. Send a resume detailing your experience to: HR, August Home Publishing, 2200 Grand Ave., Des Moines, IA 50312. Or check out our website at www.AugustHome.com for more information.

Terry

in the shop

High-Tech Rasps _____ 38

NEW!

Rasps have been around for years. But there's a new breed of rasps every shop should have.

setting up shop

Lumber Storage _____ 42

NEW!

Storing lumber doesn't have to be frustrating. We'll show you how to get it under control.

mastering the table saw

7 Solutions for Perfect Dadoes _____ 44

NEW!

In search of tearout-free dados? These seven proven techniques ensure the best results.

GO ONLINE EXTRAS

great gear

Preventing Rust _____ 46

NEW!

The best way to deal with rust is to prevent it in the first place. Here's how we do it in our shop.

ultimate garage

Slat-Wall Systems _____ 48

NEW!

No matter how serious your storage problem is, a slat-wall system can get you organized.

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This sharpening station features a sliding top, ample storage, and a basin for water. Everything you'll need to keep your tools in top shape.

weekend workshop

Sharpening Stone Holder 24

This stone holder is a great sharpening accessory. It's adjustable and the wedge clamp that holds the stone in place is simple and fast.

fine tools

Japanese Saw Handle Upgrade 28

We'll show you how to cut and fit a new handle for your Japanese saw that not only looks good, but feels good as well.

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Great Results With a Circle Cutter 30

Cut a perfect hole or disk — once you know how to put this tool to work for you.

best-built jigs & fixtures

Adjustable Spindle Sander 32

Sanding curved edges was never so easy. This spindle sander uses common sanding sleeves that slip over shop-made drums.

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Get a Grip on Collets 8

NEW!

Small size, big job. Learn all you need to know about router collets.

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Going Mobile with Casters 10

NEW!

Want to make your shop "mobile"? Learn the key to buying and using casters.

jigs & accessories

All About Twist Bits 12

NEW!

Confused by the wide variety of twist bits? We'll help you sort out the differences.

Shop Short Cuts 14

NEW!

Shop-tested tips and techniques to solve your woodworking problems.



Spindle Sander

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Laser Guides

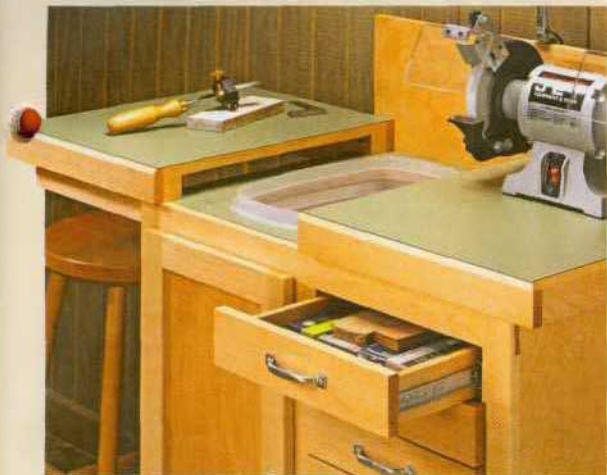
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Stone Holder

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Perfect Half Laps on the Table Saw _____ 26

NEW!

Half-lap joints are easy to make, incredibly strong, great for face frames, and much more.

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Getting Connected with Air _____ 38

NEW!

The key to getting the most from your air compressor is choosing the right hoses and fittings.

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Breathe Right for Safe Finishing _____ 42

NEW!

Protecting your health is important. Here's what you need to know about respirators.

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Table Saw Pattern Cutting _____ 44

NEW!

Need help making hard-to-cut, identical parts? The secret is pattern cutting on the table saw.

great gear

Miter Saw Upgrade — Laser Guides _____ 46

NEW!

For accurately lining up a cut on your miter saw, you can't beat a laser.

ultimate garage

Precision Parking Systems _____ 48

NEW!

Stop your car at the same spot — every time. All you need is a high-tech parking system.

Q&A _____ 50

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In this issue, we have several projects that can make a big improvement in the way you work. First off, there's the sharpening station that appears on page 16. It features plenty of storage and an easy-to-clean work surface. But what really sets this project apart is the sliding top. Just pull it to the side to access an inset tub for storing and cleaning waterstones.

The shop-built spindle sander on page 32 is another great addition to your shop. It fits onto your drill press and uses extra-long, 5½" sleeves. And the adjustable work surface allows you to get the most out of each sleeve.

But it doesn't take a big project to make a big difference in the way you work. If you're looking for a couple of quick projects, be sure to check out the article on upgrading a Japanese hand saw on page 28. And the sharpening stone holder on page 24 makes it easier to get a sharp edge on all your tools.

HELP WANTED

We're looking for someone to join our editorial team. This is a full-time, staff position here in Des Moines, Iowa. So if you're an experienced woodworker, interested in writing, and would like to share your knowledge with others, I would like to hear from you.

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This mobile stand provides plenty of extra storage space and its outfeed support makes working with long stock a breeze. Best of all, it stores in a compact space.

hands-on technique

Tips & Techniques for Power Sanding 26

Follow our simple, foolproof steps for great results with your random-orbit sander. You'll get a super-smooth surface in less time.

weekend workshop

Tab-and-Slot Tool Tote 28

You'll be amazed at just how much this lightweight tote can hold. What's even more impressive is how easy it is to build.

fine tools

Aluminum Squares 36

Build your own precision layout tool. All it takes are a few pieces of aluminum and a little time at the table saw and drill press.

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Great Results with Profile Bits 8

Here are a few tried-and-true tips for getting top-notch results from your router bits.

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Metal Drawer Slides 10

Metal drawer slides can handle a lot of weight and are easy to install. Here's what you need to know before choosing and using them.


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Featherboards 14

These inexpensive accessories will make working with your table saw, band saw, and router table safer and more accurate.

Shop Short Cuts 16

Shop-tested tips and techniques to solve your woodworking problems.



Tab-and-Slot Tool Tote
page 28



Working with Aluminum page 34



Featherboards page 14

Cutoffs

From thick to thin. When you think about it, that's really all a planer does. It takes thick boards and makes them thinner.

But what a difference it can make when it comes to building projects. With a planer, you can accurately thickness your workpieces to suit the project. This means you can cut tighter-fitting joints, create glued-up tops a consistent thickness, and turn rough stock into glass-smooth workpieces with little effort.

The thing is, over time a planer can get out of adjustment and when that happens it can cause more problems than it solves.

That's exactly what had happened to Bryan Nelson's planer. (Bryan is the Managing Editor). After years of service, his planer just wasn't cutting it any more (pun intended). What it needed was a full-scale tune-up. With a handful of supplies and just a few simple tools, his planer was back to peak performance in just an afternoon. You can find out exactly what you'll need to do to get your planer running smoothly by checking out the article starting on page 40.

Speaking of planers, be sure to take a look at the mobile planer stand on page 18. It's another great way to improve the performance of your planer. It features handy storage along with a solid outfeed support system that folds out of the way when you don't need it.

Tony



Mobile Planer Stand

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project technique

Working with Aluminum _____ 34

Aluminum can really dress up a project. And you won't need any special tools to work with it.

in the shop

Planer Tune-Up _____ 40

This step-by-step approach will have your planer creating perfect boards in a short time.

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Turn Down the Noise _____ 44

Take a look at a few low-cost ways to turn down the volume on your power tools.

mastering the table saw

Setting up for Dead-On Dadoes _____ 46

We'll show you the secrets to cutting clean, crisp dadoes in any material.

great gear

Yankee-Style Screwdrivers _____ 48

These "old-fashioned" tools can make driving screws nearly effortless.

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A "shop-in-a-box" perfectly describes this roll-around work cart. With eight drawers and open shelves with easy access, everything is right where you need it. Plus, the large worksurface comes in handy for all kinds of shop tasks.

weekend workshop

3-in-1 Multi-Tool 28

This router table packs a lot of big-time features into a compact package. Using an ordinary palm router, you can accurately rout, mortise, and joint both small and large workpieces.

fine tools

All-Purpose Layout Tool 34

Featuring a set of replaceable keys, this layout tool serves a wide range of uses — whether you're laying out dovetails or mortises, or checking the thickness of freshly planed stock.

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Putting Air Power to Use in the Shop 38

Tired of tangled and in-the-way air hoses? Make using your compressor more efficient by piping your shop for air. Here's what you need to know to set up a compressed air system.

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Using a Plunge Router 8

A plunge router is a versatile tool. Learn what you need to know to get the most out of it.

materials & hardware

Tool Steel _____ 12

Does the type of steel in your chisels or plane irons really make a difference? Here's the answer.

jigs & accessories

"Ultimate" Drilling Guide _____ 14

Accurately installed hardware or perfectly spaced shelf pin holes — it's a snap with this precision drilling guide.



Roll-Around Work Cart

page 18

Cutoffs

When I bought my first router, it was a very basic tool. Not much more than a small motor with a couple handles attached. So, I was always looking for ways to make that router do more and work harder.

Now it seems like an endless array of routers are available, from heavy-duty plunge models to tiny powerhouses you can hold in the palm of your hand. Even though routers have improved, I still look for ways to make them work harder.

In this issue, we're featuring a couple articles that do just that. Beginning on page 8, we'll show you tips on choosing and using a plunge router. And we've included a simple jig to help you get more out of this versatile tool.

If small routers are more your style, be sure to check out the article on page 28. We'll show you how to turn a palm router into a 3-in-1 multi-tool.

Temy

Shop Short Cuts _____ 16

Shop-tested tips and techniques to solve your woodworking problems.

hands-on technique

Gluing Up a Panel _____ 26

Take the hassle and worry out of gluing up a flat panel with our simple, five-step process.

setting up shop

5 Space-Saving Worksurfaces _____ 42

Need an extra workspace? We feature five ideas that will work in any size shop.

mastering the table saw

Tough Cuts Made Easy _____ 44



Cutting small parts on the table saw can be quite a challenge. These tips and techniques provide solutions for doing it easily and safely.

great gear

20 Cool Tools for Under \$50 _____ 48

You're sure to find the perfect gift in this collection of stocking-stuffers.

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It's no secret. When it comes to making shop projects, I like using MDF (medium-density fiberboard). It's flat, durable, and best of all — inexpensive. Right now, a full-size sheet goes for about \$20 (or less) at the local home centers. In this issue, we're featuring two projects that take advantage of this versatile material.

For starters, check out the workbench in the photo at left. Here the idea was to design an easy-to-build bench that used a minimum of materials and hardware. Now, with just three sheets of MDF, some 2x6's, and a handful of hardware, you can build a rock-solid workbench in a weekend — all for less than \$100 in materials.

The other project in this issue that makes use of MDF is the Table Saw Workcenter on page 16. In this case, we took advantage of another property of MDF — its smooth surface. This makes it great for painting or for use as a substrate for plastic laminate. On page 10, we've even included some tips for applying laminate.

Speaking of tips, if you haven't already signed up for our free woodworking E-tips, I invite you to do so. Not only will you receive a woodworking tip by email each week, but you'll also have the

opportunity to give us your input on what kind of projects and articles you'd like to see. Plus, from time to time, you'll get updates and sneak previews on what's appearing in future issues of *ShopNotes*.

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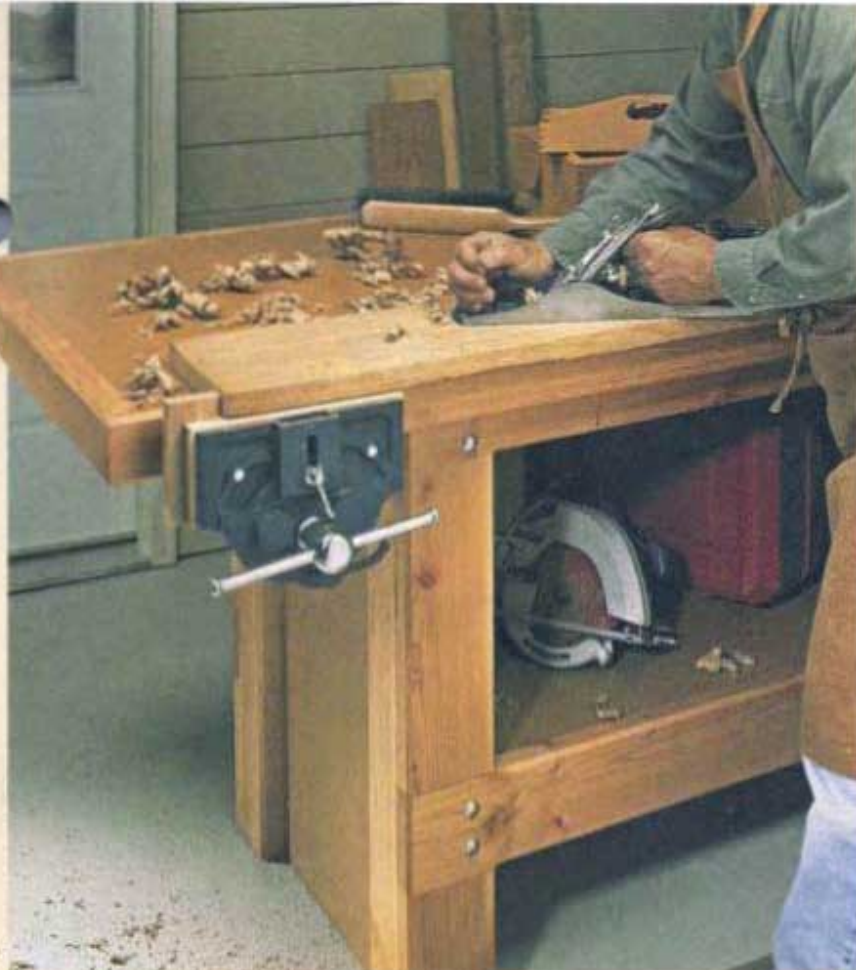
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Terry

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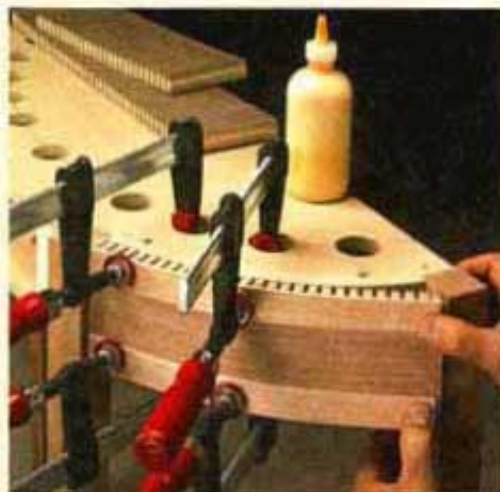
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Let's face it, maneuvering and breaking down full sheets of plywood on the table saw can be a real pain. The sheets are heavy, awkward, and difficult to control. Production shops solve the problem by using a panel saw to cut sheets down to size.

Commercial panel saws use a metal frame to hold a plywood sheet upright. Then a circular saw mounted to a carriage in the center of the frame is used to crosscut or rip the sheet. It's a slick set-up, but there are a couple of problems.

First, panel saws are expensive. A new one can set you back several thousand dollars. Second, you need a lot of wall space to accommodate one. (To rip a full sheet, you need a minimum of eight feet in front of the carriage and another eight feet behind it.)

In this issue, our feature project solves both of these problems. For starters, instead of a fixed, center-mounted carriage, our shop-built panel saw features a carriage that moves side-to-side. This way, all you have to do to make a rip cut is slide the carriage over the sheet. And since the plywood doesn't have to be pushed through the saw, you don't need as much wall space. In fact, all you need is ten feet — about half as much as a traditional panel saw.

Not only does this new design save space in your shop, but you can save money too. If you already have a circular saw, you can build the panel saw for about \$350 in materials. A real bargain compared to buying one.

Tomy



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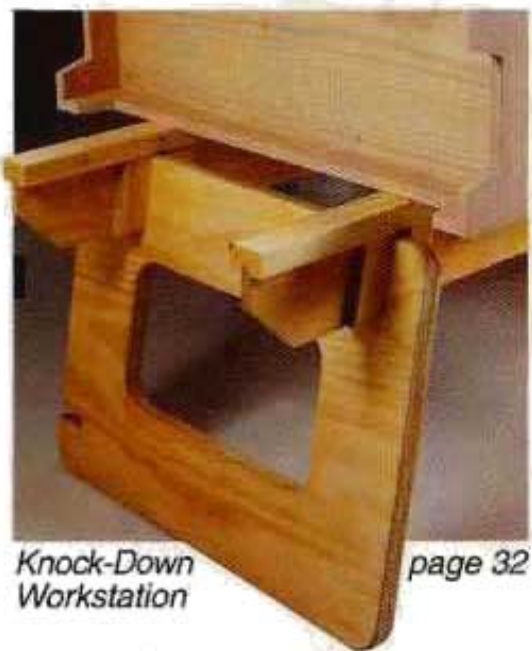
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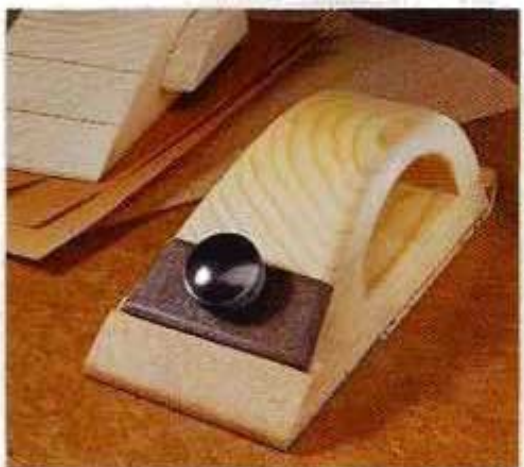
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In this issue, we have a couple of projects that prove, when it comes to woodworking, you can take it with you.

For starters, check out the Knock-Down Workstation featured on page 32. This entire dual-height workstation is easy to build and inexpensive. All you need is one sheet of plywood and some two-by material. Then, once the basic project is complete, you can add up to six different accessories. Each one is portable, practical, and will help you get the most out of your tools no matter where you need to work.

While I'm on the subject of portable, be sure and take a look at the Portable Hobby Chest that begins on page 26. It's part workbench, part toolbox, all rolled into one.

Router Table Upgrades. It's no secret — I think a router table is a "must-have" tool for any shop. But we're always looking for ways to make it better. So we've put together three upgrades to make this tool work harder.

The first is the Router Sled shown on the front cover. This shop-built jig allows you to make safe, precise cuts every time.

Second, if you've ever wanted an easy, accurate method for raising and lowering your router, be sure to read the article on page 38. There you'll find the inside story on router lifts.

Finally, on page 8, we'll show you how to turn your router into a jointer. All you need is a strip of brass and a carbide straight bit.

Terry

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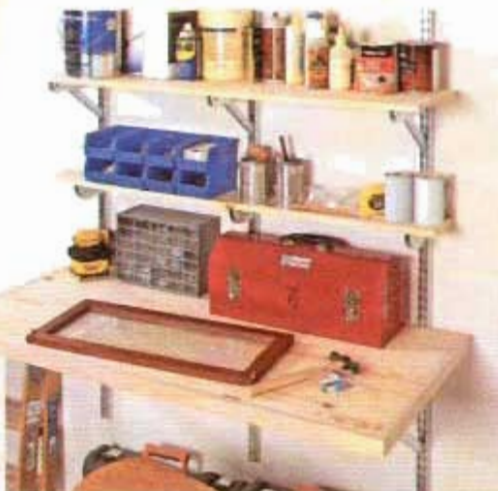
With just a few simple tips and techniques, you can turn your jig saw into a precision cutting tool.



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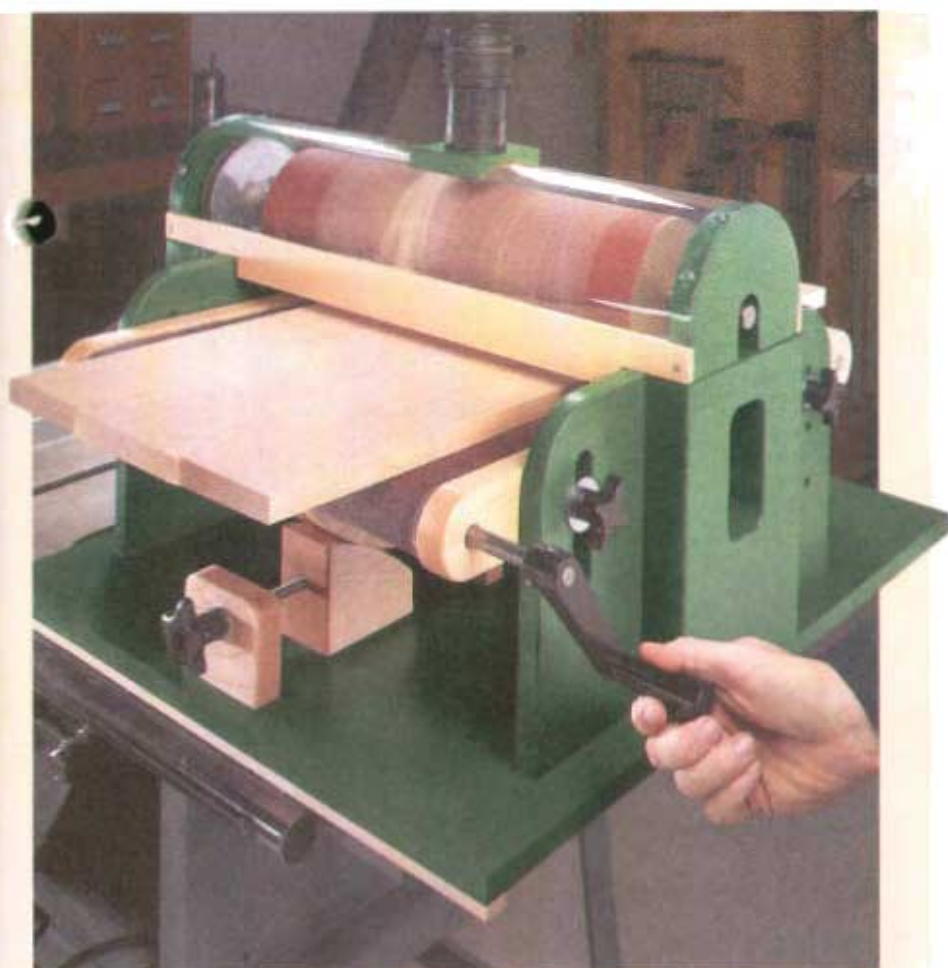


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Most woodworkers I know really don't enjoy doing any kind of sanding, (myself included). Especially when it comes to leveling out large panels. Let's face it, it can be time-consuming, messy, and a bit tedious. That's why I've always been envious of woodworking shops that have a thickness sander.

The idea behind a thickness sander (also called a drum sander) is pretty simple. Sandpaper is wrapped around a large drum, and as the drum spins the workpiece passes under it and is sanded smooth. The result is a perfectly flat panel with a minimum of fuss. Of course, all this convenience comes at a rather hefty price. A sander that can handle a 16"-wide panel can cost up to seven hundred dollars. So I didn't have any immediate plans for putting a thickness sander in my shop — until now.

In this issue, we're featuring a thickness sander you can build yourself for less than two hundred dollars in materials. You don't even need to purchase a motor — the drum is powered by your table saw. Not only does this help keep the cost down, but it makes the sander easier to store when it's not being used. For the complete story, check out the article on page 28.

New Face. I'm happy to announce, Dennis Perkins has joined us as an assistant editor. Dennis is an accomplished woodworker with a shop full of very nice tools. (He even has his own thickness sander.)

Terry

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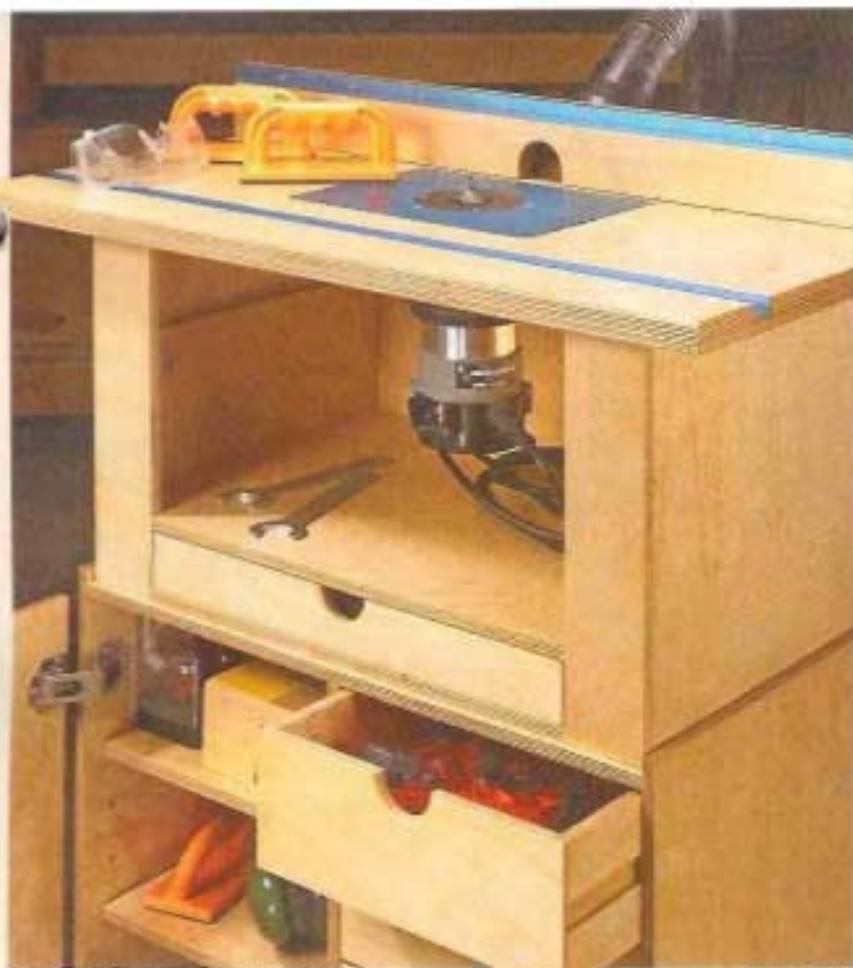


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A table-mounted router is at the top of my list of “must-have” shop tools. A router table allows you to work more safely, efficiently, and accurately. In fact, it’s such an important tool in my shop, I just can’t imagine working without one. So we decided to dedicate this issue of *ShopNotes* to one of our favorite tools — the router table.

For starters, we’re featuring an all-new router table design. The idea behind this project was to start out with a simple, practical design that could be built quickly and inexpensively. So we decided to limit ourselves to a single sheet of Baltic birch plywood — a \$50 investment.

The final design features a full-size table top that flips up to provide easy access to the router, an easy-to-adjust fence, and a handy storage drawer. All in all, a lot of router table for a small amount of money.

But the part of this project I like the best is how versatile it is. Start with the basic router table, then you can add a simple base cabinet. From there you can upgrade the cabinet even further by adding doors and drawers.

Finally, if you want to take this router table (or any other router table) to the next level, be sure and check out our Top 10 Router Table Accessories starting on page 8.

For me, this router table project is what *ShopNotes* is all about — helping you get the most out of your shop.

Terry

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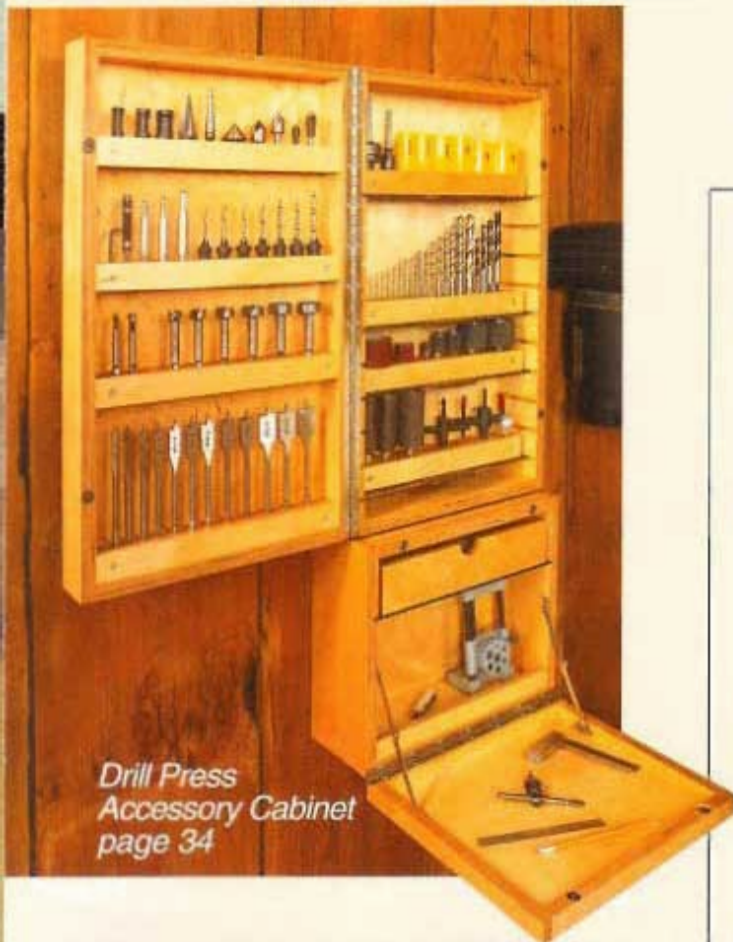
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Several years ago, I was down in my shop cleaning some rust off an old hand plane. As I went along, I tossed the used pieces of steel wool into a pile on the end of my bench. Suddenly, as if by magic, the pile of steel wool burst into a ball of fire.

The "magic" turned out to be a seemingly harmless, cordless drill battery lying on the bench. Some of the steel wool had touched the battery contacts. The electric charge instantly ignited the steel wool like tinder. Fortunately, after a moment of stunned shock, I was able to smother the smoldering steel wool before anything else caught on fire.

The next morning, I went out and purchased what's now the most important tool in my shop — a fire extinguisher. To find out more, check out the article that begins on page 42.

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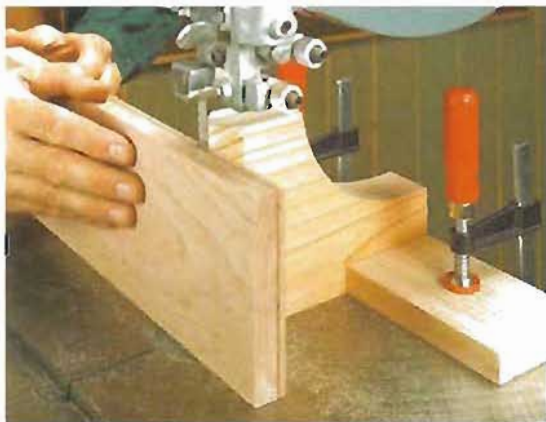
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Take a good tool and make it better. That's really the key to many of the projects in *ShopNotes*. And often, this involves taking a good bit of time to build a jig or an accessory to make a power tool work harder, more accurately, or more safely.

But sometimes it's nice to be able to go into the shop and complete a project in an afternoon. That's part of the reason I enjoyed the marking knife project that begins on page 24 so much. We started with a simple, Japanese-style marking knife. The razor-sharp edge allows you to strike a clean, precise layout line. But the delicate blade can be a bit difficult to hold onto. So what's the solution? We designed a custom handle — one made out of scrap wood and some copper bushings — that looks good and feels great in your hand.

This transformation from a good tool to a great one is hard to describe. But I noticed that once the handle was added, everyone who picked the marking knife up had a hard time putting it back down again.

Another project that'll make a handy addition to your shop is the all-new router circle jig shown on page 32. What makes this jig unique is that it uses a lazy Susan in the design. So you just "spin" your way to a cleanly routed hole or circle. But seeing is believing. So be sure to check out the online video we put together showing the jig in action.

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Rules. As woodworker's we learn early on to follow the rules. Especially when it comes to working with power tools. And for good reason — power tools can be dangerous. So we develop a general set of rules for using them to get good results safely.

Take the router for example. One of the first rules you learn is which direction to rout — always move the router so you're pushing the bit into the workpiece. This way, as the bit digs into the wood, the router is pulled tight to the edge of the workpiece.

Routing in the opposite direction (back-routing) goes against the rule. So it must be wrong — right?

Well, not always. There are a few times when routing the "wrong" way can give you better results. When you backrout, the bit and the router are moving in the same direction, which can help eliminate chipout. However, the router may seem hard to control because the bit wants to skip along the edge of the workpiece.

Now this may sound a bit awkward and a little risky, but the fact is, you can backrout safely — if you follow a few simple rules. (It seems that even when you break the rules there are still rules to follow.)

To get the complete story on when to backrout and the techniques for doing it safely, check out the article that begins on page 8.

Terry



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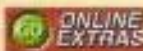
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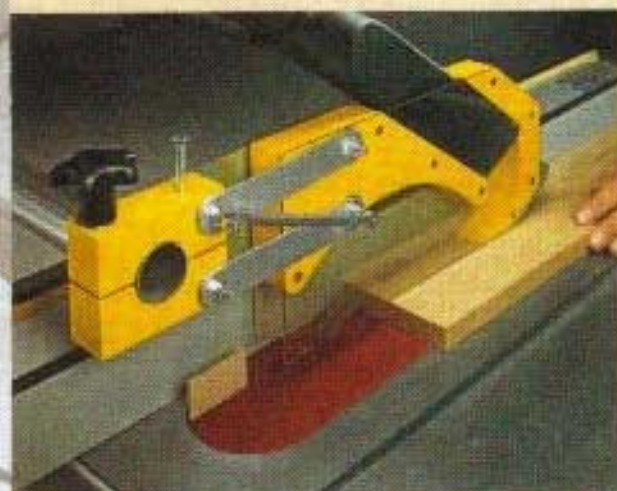
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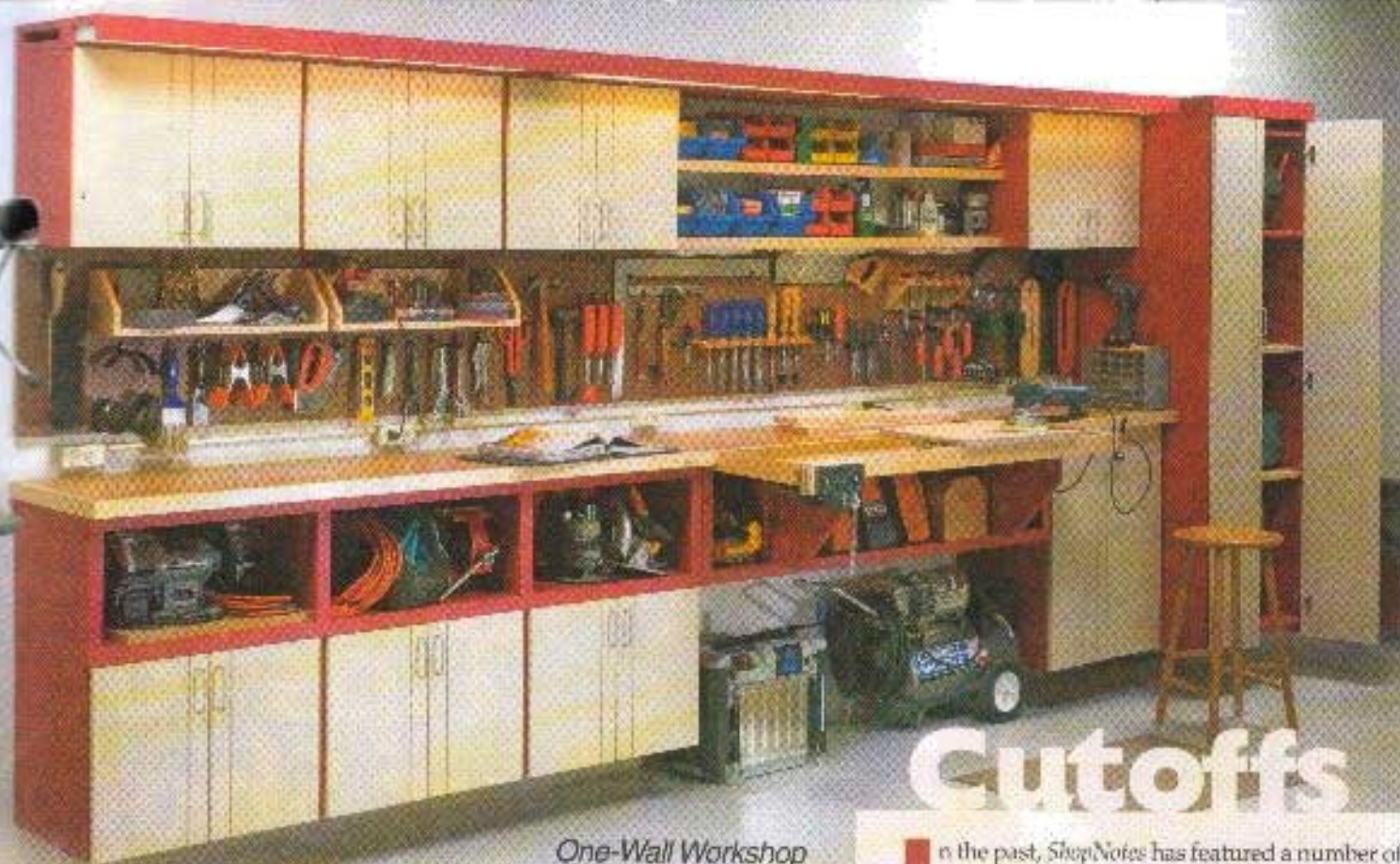
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In the past, *ShopNotes* has featured a number of different ways to help make your shop better organized. Typically, this involved some sort of shop-built cabinet system. The only downside to making a complete set of your own cabinets is it can be a bit time-consuming.

So this time we took a different approach by starting with easy-to-assemble, manufactured storage cabinets. Then we designed a few custom options to make the cabinets work even better. For starters, we built easy-access, under-counter tool cubbies, a space-saving flip-up workbench, and overhead lighting. Finally, we applied a sharp-looking, two-tone paint finish for protection.

The best thing about this project is you have lots of options, so you can easily make it fit your shop space and your needs. For more on creating your own one-wall workshop, be sure to check out the article beginning on page 16.

Terry

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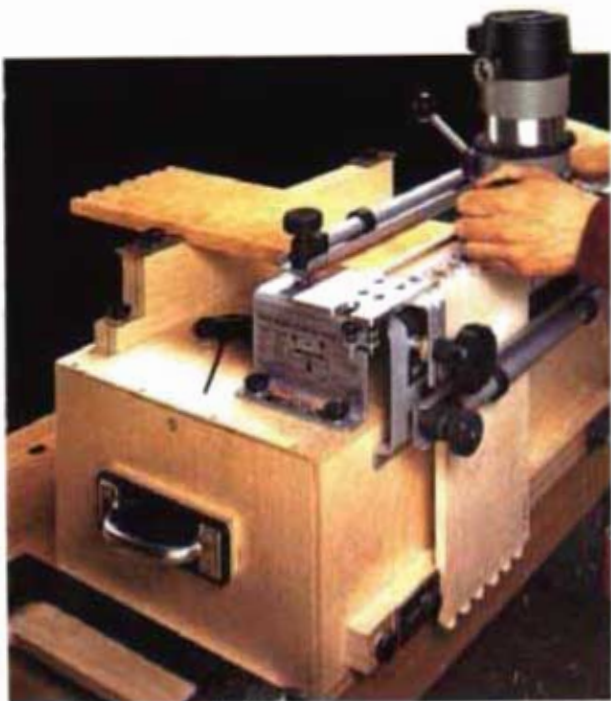
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Cutoffs

The weather is getting warmer and the days are getting longer. It's the time of year when many people start thinking about home improvement projects — I know I am. But in my case, I'm really thinking — shop improvement.

And I can't think of a better way to upgrade the shop than with a few easy-to-build projects. For starters, take a look at the plywood projects featured on page 16.

You'll find five projects in all: a lumber rack, a folding assembly table, a roll-around cart, a pair of stacking storage units, and a versatile sawhorse system. Any one of these projects would be a welcome addition to any workshop. But the best part is, each one can be built quickly and easily using just a single sheet of plywood. So you don't have to invest a lot of time or money to improve your shop.

Of course, improvement projects aren't the only things on people's minds this time of year. Spring cleaning and clearing the clutter are high on the priority list.

With that in mind, be sure and check out the article starting on page 44. There you'll find six simple ideas to help keep your clamp clutter under control.

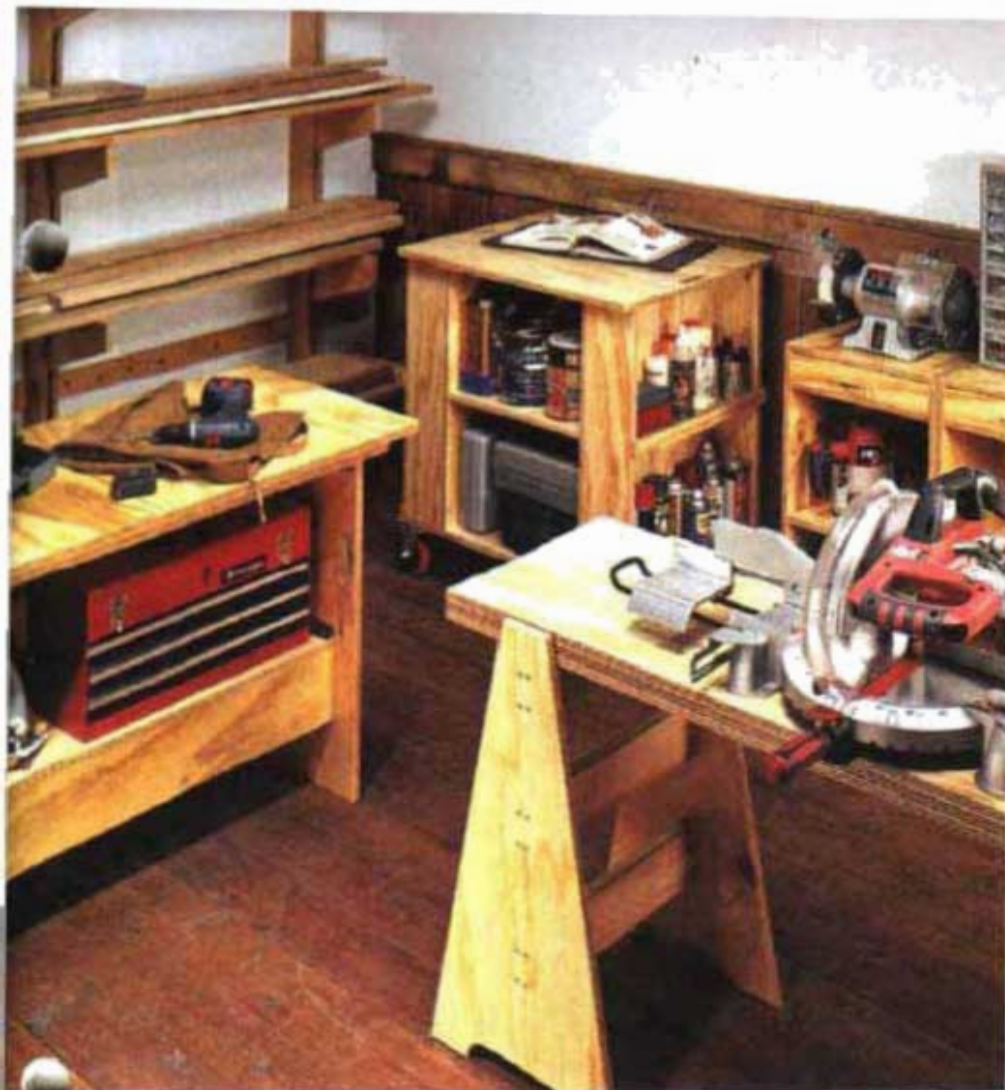
And to satisfy the urge to clean, take a look at page 42. You'll find an easy way to get more life from your table saw blades.

Tom

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Cutoffs

What's your favorite

woodworking tool? For

many woodworkers, either

the table saw or router would come to mind first.

And I wouldn't disagree. But right near the top of my list is the drill press. For such a basic-looking tool, it can do so much: like drilling, sanding, and mortising.

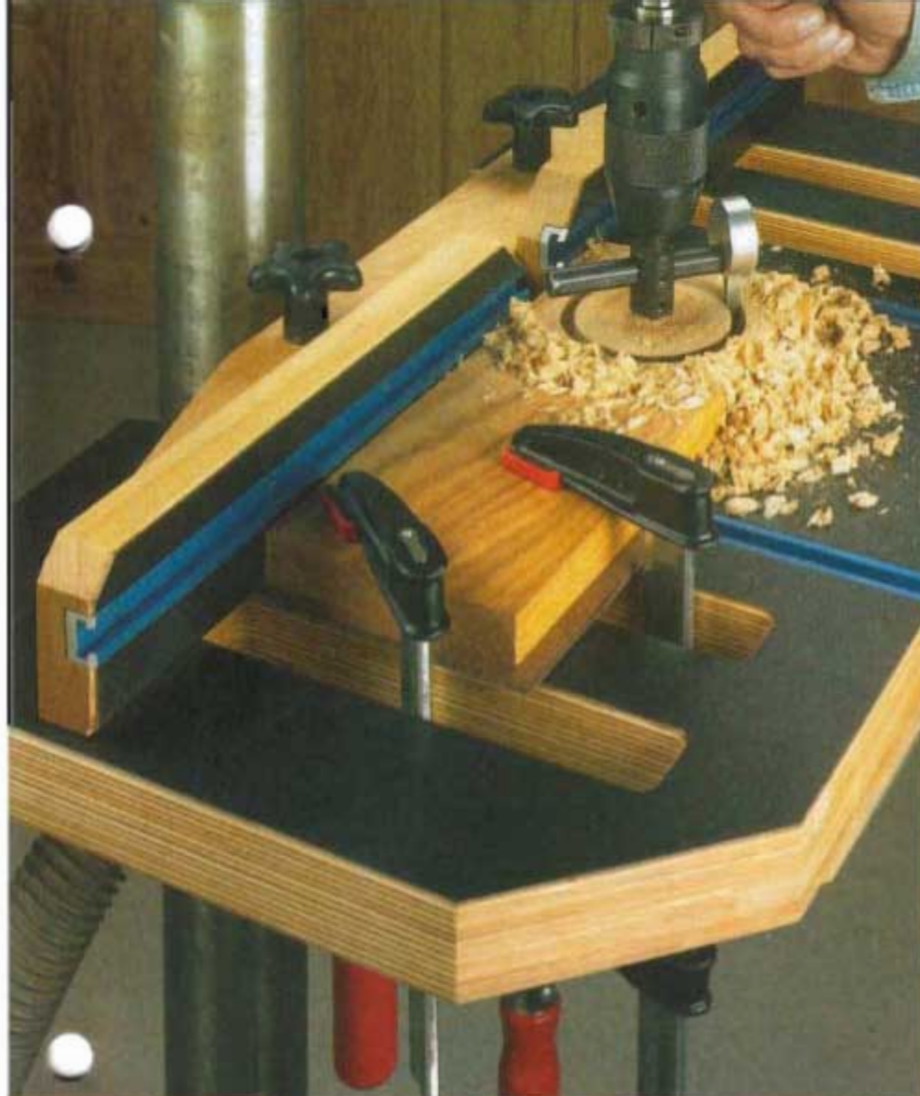
But to get the most out of a drill press, you need to transform it into a precision woodworking tool. The table and fence system you see at left is the perfect upgrade.

For starters, the table offers plenty of worksurface — it's over two feet wide. That's big enough to support just about any size workpiece you'll run across.

Then, to give you more control and more accurate drilling, we designed a built-in, two-part clamping system. For small pieces, a couple sections of T-track in the top allow you to position a toggle clamp right up close to the bit. For larger pieces that need extra holding power, you can slip a couple of bar clamps through the slots in the top.

The table also includes a couple of not-so-obvious features. A full-extension drawer keeps small tools and accessories within easy reach. And underneath the table you'll find a port for dust collection.

Tomy



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It isn't unusual to find myself working on a project that takes me out of the shop. Whether it's working around the house, helping out friends and family, or just enjoying a nice day outside, I need a way to bring my tools along with me. So in this issue, we have a couple of projects that make it easier to get what you need right where you need it.

High-Tech Tool Chest. Woodworkers have been building tool chests for hundreds of years. But a box that's strong enough to house a lot of tools is usually going to be heavy and difficult to move. So the challenge was to come up with a *lightweight, sturdy design* for our tool chest.

To keep the weight down, we started with $\frac{1}{4}$ " plywood panels. Then the panels were riveted to pieces of aluminum angle. Now I know this sounds a bit unusual, but it really works quite well. The aluminum angle provides a rock-solid joinery method and protects the corners of the case as well. For more on building your own high-tech tool chest, check out the article on page 16.

Multi-Purpose Table. Another project you'll want to take a look at is the table on page 36. Here we've packed a small but surprisingly stable worktable in a compact package that's easy to carry outside or throw in the car (or RV) when you travel. Who says you can't take it with you?

Terry



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Cutoffs

Every issue of *ShopNotes* is packed with articles and projects that will make you a better woodworker, and this issue is no exception. But I want to tell you about an exciting, new project we've been working on — a TV show.

For the past several months, we've been working overtime in our shop to create an all-new woodworking television show. It's called *The Woodsmith Shop*.

Each episode focuses on the techniques and tips you can use to get more out of the time you spend in your shop. Our hope is public television stations across the country will decide to air the show. If they do, you could start seeing it on your local public television station sometime in 2008.

To find out more about the show, go online to www.WoodsmithShop.com.

Terry



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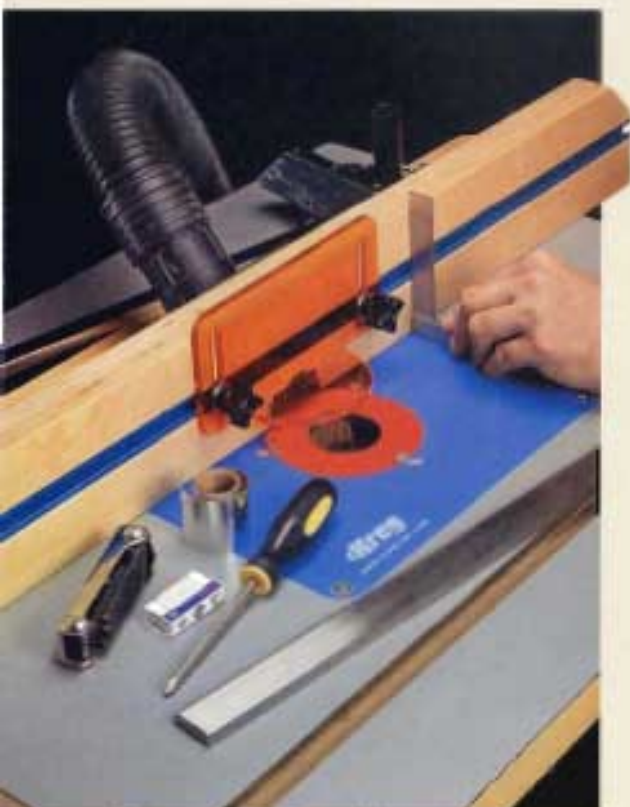
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About a year ago, we featured a one-wall workshop on the cover of *ShopNotes*. And judging from your reaction, it was a very popular project. It seems that almost everyone is looking for a way to make their shop a better place to work.

So in this issue, we've come up with a totally new way to transform your shop space. Last time, we used ready-to-assemble cabinets. But for the makeover shown on the cover, we started from scratch and made our own.

Now I'm not talking about building complicated or time-consuming cabinets. The idea here is to use basic, inexpensive materials (2x4s, MDF, and construction-grade plywood). Then you build the different components using a single, straightforward joinery technique.

Each component starts with four posts cut from 2x4s, then horizontal plywood platforms are bolted between them. Once the framework is complete, the MDF "skins" are simply screwed in place. Finally, to dress things up a bit, we painted some of the MDF panels.

It's really a simple, rock-solid solution for getting the most out of your shop space. And you can customize it to suit your shop. Be sure to check out the article that begins on page 16 for all the details.

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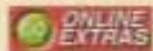


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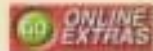


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Lightweight or sturdy. When it comes to building projects for the shop, you usually get one or the other but not both. But that's exactly what we wanted for the Worktable featured on page 36. A large, sturdy work surface that was light enough to be easily carried anywhere.

To keep the weight down, we started with lightweight materials — $\frac{3}{4}$ " birch plywood and some pine. Nothing fancy. In fact, everything came from a local home center. Then to make it even lighter, Chris Fitch (Senior Project Designer) started routing away any excess material. His challenge was to remove enough material to make it lighter, without making it flimsy.

Well, we ended up with a compact, folding table supported by four lightweight plywood "I-beams." The entire project weighs in a bit over 15 lbs.

Certainly lightweight, but is it sturdy? To find out we carried out a little unscientific test. We put four average-sized woodworkers on top of the table (photo above). Now I'm not going to recommend that you use this project as a scaffold or an engine stand, but as you can see it's plenty sturdy for a portable work surface.

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Wow! That was the first word out of my mouth when I saw one of the shop-made awls we're featuring in this issue (photo at left). Now, you're probably wondering what could be so exciting about an awl. It's really one of the most basic layout tools in woodworking. And it's nothing more than a pointed piece of steel with a handle.

Well, the awl looked like nothing I had seen before — two sections of the steel shaft were twisted like an old-fashioned barber pole. This turned a plain piece of steel into a one-of-a-kind design. Add in a comfortable handle and you can see how easy it is to create a handy layout tool you'll find yourself reaching for every time you're in the shop.

Creating the projects and articles you find in *ShopNotes* takes a group of skilled and hardworking individuals. And to help us out, we're looking for a talented person to join our editorial team. This is a full-time position here in Des Moines, Iowa. If you're an experienced writer, have a strong interest in woodworking, and a desire to share your skills and knowledge with other woodworkers, I'd like to hear from you.

Just send a short resume highlighting your experience to: HR, August Home Publishing, 2200 Grand Avenue, Des Moines, IA 50312. You can also visit our website at www.AugustHome.com for more information about this position.

Terry

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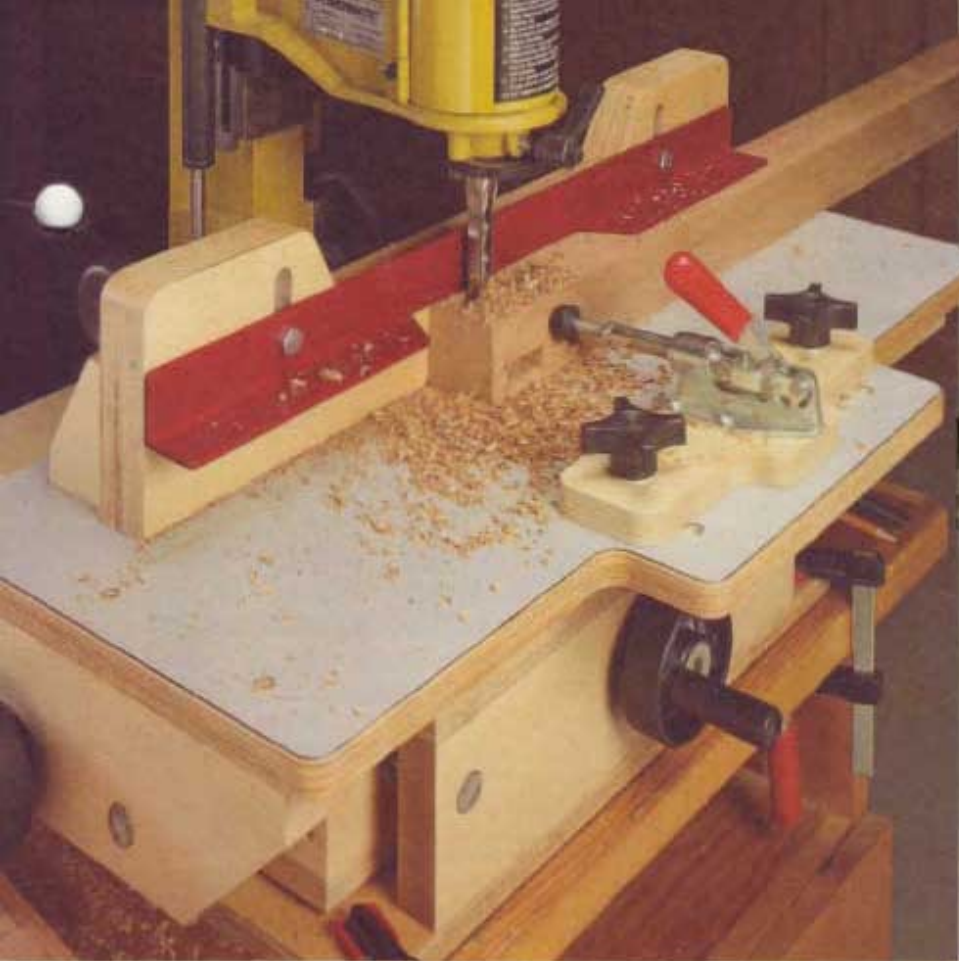


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Cutoffs

One hundred issues. There was a time when some people around here wondered whether we'd make it past ten. Well, we all know woodworkers are a creative bunch. As a result, there are always new tools, techniques, and tips for getting more out of your shop. So I don't think we'll have a problem filling another hundred issues.

Our first issue featured a great router table. You can see it in the cover photo below. In fact, it still sees daily use in our shop. And since then, we've built at least a dozen more. With all that experience in hand, I think our latest version is the best yet. It has built-in casters, a top-notch dust collection system, and more than ample storage. But what really raises the bar is the fence. Need to replace the fence face? No problem. Add on a featherboard? Easy. And the handy micro-adjust and built-in guide system make tweaking the fence position a snap. All in all, it's a one-of-a-kind table.

But this issue has a lot more to offer. You'll also find a shop-built table for your mortising machine that makes creating a precise mortise a sure thing. And to keep a handle on your cordless tools, there's a

wall-mounted station you can build in a weekend. So take a look and stick around for the next hundred issues.

Terry

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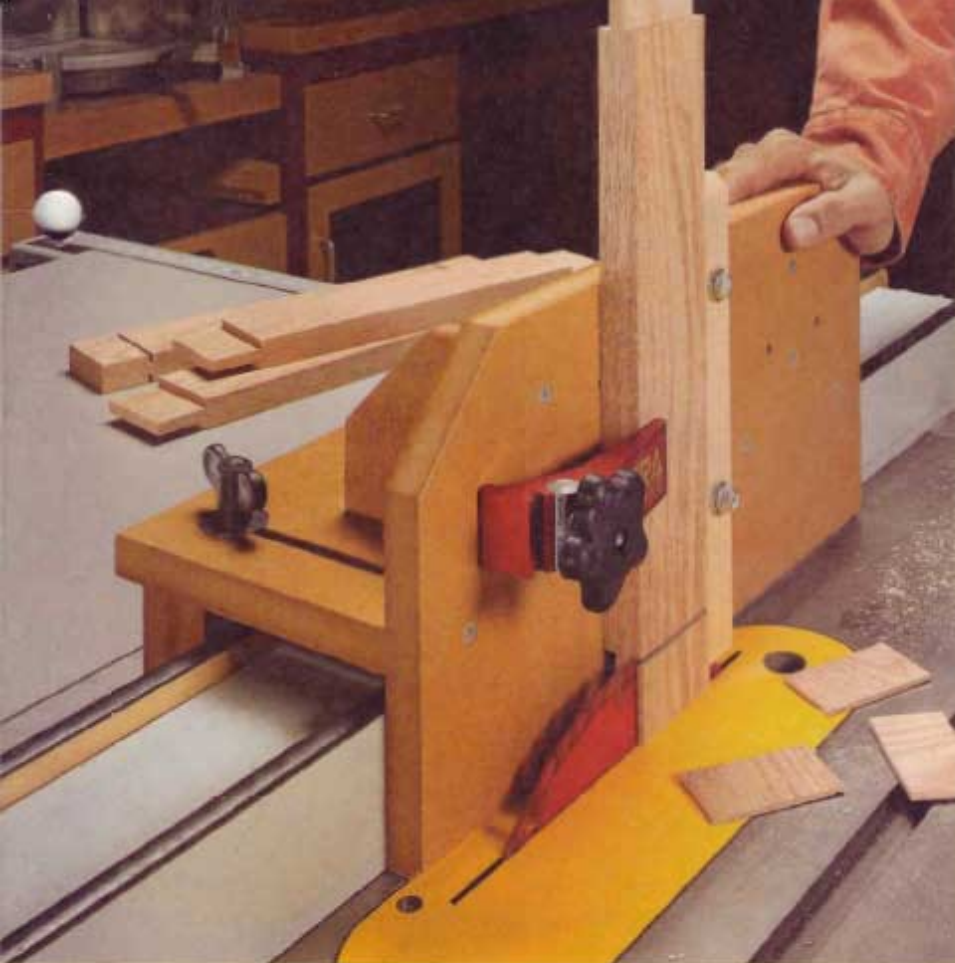
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Sometimes solving a small problem can lead to bigger and better things — especially when it comes to designing and building projects for your shop.

Take for example, a table saw tenon jig. The problem with many jigs that straddle a table saw fence is the fit. To be accurate, the jig needs to fit snug, but loose enough to slide smoothly over the fence. So you spend time getting the fit just right. Then the next time you use the jig, the humidity has changed. Now the jig is either a bit too tight, or too loose. Not a big problem, but certainly an annoying one that can lead to poor results.

The solution is simple — build a tenon jig that allows you to adjust the fit. Now you can easily get a perfect fit on the fence every time you use the jig. As an added bonus, the jig can be adjusted to fit virtually any size rip fence. A good example of a small problem leading to a big improvement. For more, check out the article beginning on page 38.

Speaking of improvements, our readers are very important to us. So we've made improvements to our online customer service page. It's been updated to make it easier and faster to change your home and e-mail addresses, renew your subscription, or pay a bill. Plus, you can contact a representative about a problem, submit a readers' tip, or send us a question you'd like an answer to. Check out ShopNotesCustomerService.com and let us know what you think.

Tom



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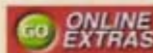
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The old-fashioned, traditional look of the workbench at left sure attracted a lot of attention in our shop. It seemed to remind everyone of a bench they used to work on, or wished they had, when they started wood-working years ago. It's sturdy, features a pair of handy vises, and has loads of storage. It's the perfect addition to any shop, old or new.

Speaking of new, we're offering a way to make it easier for you to build the bench for *your* shop. If you go to *ShopNotes.com*, you'll find a 3-D *SketchUp* model of the workbench you can download, complete with all the joinery. Besides helping you better understand how it all goes together, you can modify the model to suit your needs. You'll also find a complete set of bonus plans for building the storage drawers. Take a look and let us know what you think.



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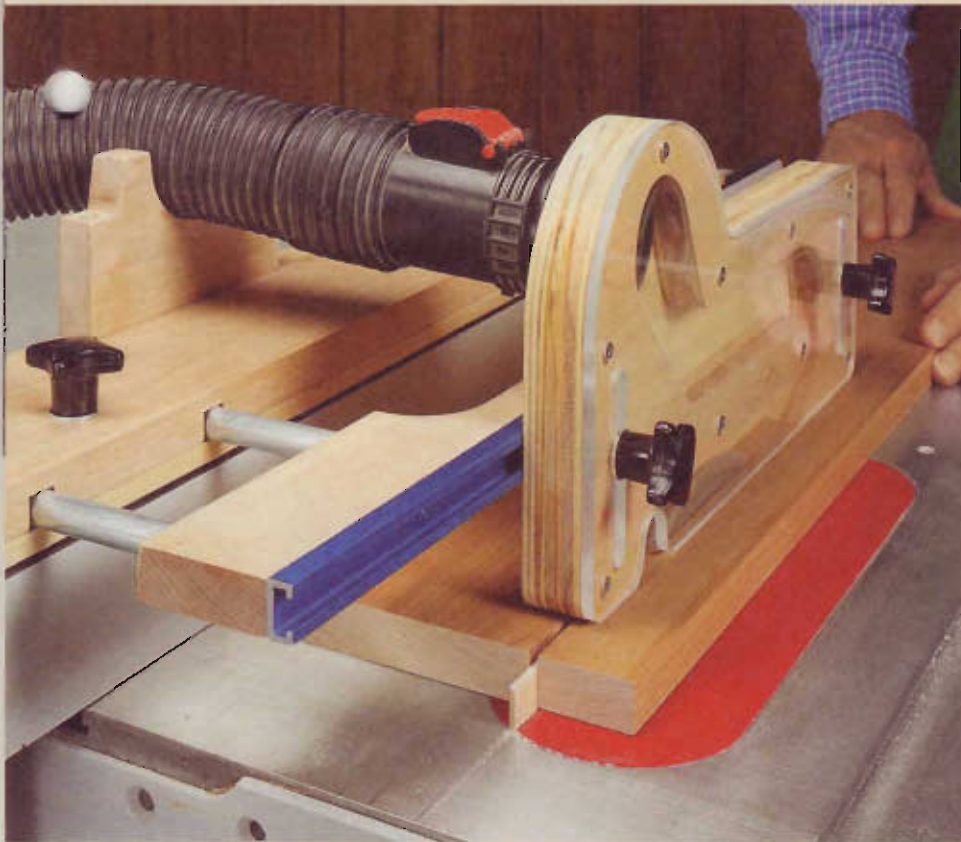
Cutoffs

Part of the enjoyment I get out of working in the shop is trying out new ideas. And those ideas usually involve some jig or technique to make building a project easier, safer, and more accurate. This issue is filled with articles that meet all those requirements — and then some.

Inside, you'll find several projects that will make the time you spend in the shop more relaxing and enjoyable. It starts with the space-saving sharpening center with its drop-front door. Then, take a look at the mobile sanding station. It's a great way to keep your shop and lungs free from all that sanding dust. And for your table saw, you'll find some handy accessories for your rip fence. They make working at your table saw more accurate and safer.

Speaking of safety, in issue No. 102 we showed a shop-made jig used for bending brass bar stock while heating it with a propane torch. To build our jig, we used galvanized pipe. A concerned reader wrote in to warn us that heating galvanized materials to a high temperature can result in the release of dangerous fumes. While we didn't heat the pipe to a high enough temperature or for long enough to cause a problem, the concern is valid. The simple solution is to use black iron pipe when you build the jig or just make sure you have plenty of ventilation as you heat and bend the brass.

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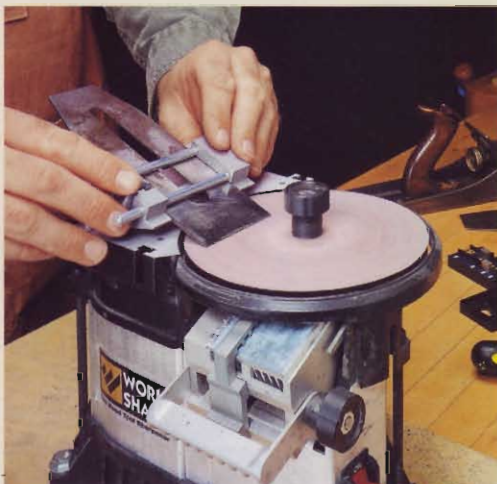
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Increase the accuracy and take the challenge out of this common woodworking task.



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If there's one lesson I've learned in the shop, it's that it pays to get back to basics every once in a while. The projects and techniques you'll find inside this issue allow you to step back and take a fresh look at the basics of woodworking.

To start off, you'll find some fundamental techniques you can use on any project — like tapering a workpiece on the jointer or getting more out of your router and table saw. You're sure to find something you can put to use right away. You'll also learn about some simple accessories you can use at the workbench to help you along with your everyday woodworking tasks.

The projects inside are sure to get your attention, too. The table saw workstation provides an extra-large worksurface for making a small benchtop saw work big. But it folds up for easy storage. The project workcenter is a heavy-duty small bench with a clamping top. So clamping workpieces or assembling a project is a breeze. Finally, the easy-to-build wall rack makes the most of wall space near your workbench. You can keep the tools you use most often within easy reach.

As you can see, there's a lot of great stuff packed inside. And you can find much more online at ShopNotes.com.

Terry



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